

Intelligent transport – China

Climate-conscious urban development

China has experienced rapid development in the last few years, which will continue in the decades ahead. This includes the country's enormous economic growth and rapid urbanisation of the world's largest population. Both of these trends pose new challenges, but also allow new opportunities. This is especially the case for the urban transport sector, which functions as the backbone of economic development and at the same time has to meet the needs of a further increasing population. KfW Development Bank is financing an intelligent, technology-based transportation system in the city of Huainan, which aims to improve the traffic flow and energy efficiency.

Context

With 2.4 million residents, Huainan can be considered one of China's smaller cities. But like nearly all parts of the country, Huainan is also experiencing extremely high economic growth and a rapid rise in population. These trends will continue in the next few years. The city is therefore facing new challenges with a correspondingly high need for investment. This applies especially to the urban transport sector, which is a prerequisite for positive economic performance, but also has a strong influence on the quality of life in the city.

Traffic jams, noise, air pollution and accidents are burdens, increase costs for the public authorities and make the place less attractive. Although the number of private car owners in Huainan is lower than in other Chinese cities, its share of drivers is growing heavily and very quickly. By 2020, this number will be roughly as high as in industrialised countries, which is a clear indication of the considerable need to act.

Corresponding measures must be applied in full and directed towards both individual and public transport within the city. Only by addressing both, the transport situation can be improved. This will, in turn, lower the risks to people's health, reduce climate-damaging emissions and bring about an overall improvement in the quality of life in the city.

Project approach

On behalf of the German federal government, KfW Development Bank is contributing EUR 15 million to a transport project in Huainan with the aim of improving the city's transportation on a sustainable basis and thus reducing pollution while increasing the quality of life for

Project name	Intelligent Transportation System in Huainan
Commissioned by	Federal Ministry for Economic Cooperation and Development (BMZ)
Country/Region	China
Lead executing agency	City administration of Huainan, Huainan Public Security Bureau





Traffic in Huainan: soon complemented by an Intelligent Transport System. Source: KfW Group, photographer: Dave Tacon

the people. The project's innovative nature has the characteristics of a pilot project and is expected to be adopted in other cities in China if possible.

KfW Development Bank finances measures for better traffic management using traffic lights and other guidance systems. To this end, the project will utilise new technologies as, for example, GPS data to record traffic flows and, based on this data, guide traffic. In this manner, the signal and traffic control can be automated and made more efficiently. One result will be greater capacities of traffic junctions in order to keep more cars flowing faster and minimise local bottlenecks. A parking guidance system will further improve traffic flow. At a later stage, extra lanes will be added for buses. Public transport will thus be given greater priority and will become more attractive for users. Analogously to buses, project coordinators would also like to expand urban rail transport in the future.

The undertaking is referred to as an Intelligent Transportation System (ITS) project. Thanks to a scientific cooperation with the German national aeronautics and space research centre (DLR e.V.), an efficient and sensible introduction of new technologies within the project is ensured.

Impact

KfW Development Bank's project will tangibly improve the city's transport system. Once it is concluded, the system will cover almost the entire scope of urban transport. The technology-based guidance system will improve the flow of traffic in Huainan and prevent traffic jams. The simultaneous promotion of public transport will offer further relief for road traffic. This will come with

the added benefit of fewer accidents and, with that, a decrease in the number of people injured or killed in traffic.

Traffic police can also use the intelligent system for recording and managing traffic, which allows them to act more effectively, respond more quickly to accidents, better tend to those affected or injured, and break up traffic jams. The better flow of traffic will ultimately also reduce climate-damaging emissions from street traffic and result in better air quality. Finally, the project will not only support the efforts to combat climate change, but will also decrease the hazards to the urban population's health and thus improve the quality of life within the city in general.

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