

CASE STUDY

Promoting Green Public Transport through Innovative Financing



The Government of the People's Republic of China is promoting a shift from the use of private cars to public transport to alleviate road congestion and air pollution. Photo credit: ADB.

In the People's Republic of China, a leasing program is helping reduce pollution by putting more low-cost, efficient, and clean buses on the road.

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Overview

Greater prosperity in rapidly growing urban areas in the People's Republic of China (PRC) has led to increased demand for private vehicles. More cars on the road caused extreme traffic and dangerous levels of air pollution in many cities across the country.

In response, the government has been encouraging commuters to shift from private to public transport while promoting low-cost, efficient, clean, and sustainable bus transport to address air pollution.

To support the government's efforts in reducing the climate impact of urbanization, the Asian Development Bank (ADB) launched a leasing program to help public transport operators to transition to buses that run on clean fuel.

Project snapshot

Dates	<ul style="list-style-type: none">• January 2013 : Approval Date
Cost	<ul style="list-style-type: none">• \$277.3 million: Total Project Cost
Institutions and Stakeholders	<p>Financing</p> <ul style="list-style-type: none">• Asian Development Bank• Global Environmental Facility <p>Executing agency</p> <ul style="list-style-type: none">• Far East Horizon Limited• Industrial Bank Financial Leasing Company Limited• Everbright Finance Leasing Company Limited

Context

In recent years, the PRC has become the largest producer and consumer of automobiles in the world. The extensive use of private cars has caused congestion, air and noise pollution, and road accidents. In metropolitan areas, the transport sector is estimated to account for at least one-third of greenhouse gas (GHG) emissions, including carbon dioxide, methane, and nitrous oxide.

The government is looking to develop and promote more sustainable public transport options, which will not only reduce road congestion and pollution but also benefit lower income people, groups with reduced mobility, such as the elderly and persons with disabilities, and women.

Challenges

High capital costs and financing constraints have limited the expansion of public transport in the country, particularly green bus transport. Local bus operators typically face financing challenges and would operate at a loss without government subsidies as fares are kept low to ensure affordability.

Financial leasing can be an effective option to supplement bank financing since banks usually do not accept buses as collateral. Leasing allows bus operators to tap additional financing that has longer tenors and potentially more competitive rates than bank loans. Supported by the government's policies and regulations, the leasing industry grew in recent years. However, financial leasing companies need access to long-term funding to reduce the risk of an asset–liability mismatch. They are constrained by their limited access to the capital markets and to long-term bank loans. They rely mostly on short-term borrowings. With long-term funds, leasing companies can operate sustainably.

Solutions

In 2013, ADB implemented a \$275 million loan program that aimed to support financial leasing companies in the funding of clean buses in the PRC. The program offered loans with tenors of up to 8 years to support the leasing of buses running on cleaner fuel, hybrid buses with fuel-saving rates of more than 10%, and electric buses. The eligibility criteria for use of loan proceeds were gradually tightened during the implementation of the program with the last participating leasing companies only financing pure electric buses with zero road emission.

The accredited financial leasing companies under the loan program are Far East Horizon Limited (FEH), which received \$100 million; Industrial Bank Financial Leasing Company Limited (IBFL), \$100 million; and Everbright Finance Leasing Company Limited (EFL), \$75 million—together fully utilizing the approved program amount.

A \$2.3 million technical assistance project, financed by the Global Environmental Facility, was implemented in parallel to the ADB loan program. It aimed to improve capacities in the selection, management, and operation of clean buses. It also provided bus operators and transport authorities with the tools for measuring GHG emissions. Based on a review of international technologies and a survey of the performance of clean bus companies, the project recommended improvements to expand clean bus usage and advised on maintenance and management reporting using IT systems.

ADB also supported two follow-up projects. It approved a \$200 million loan to Minsheng Financial Leasing Co. Ltd in 2017 to finance the leasing or purchasing of green buses, including electric bus batteries, with geographical focus on the less developed central and western regions of the PRC. It also approved a \$100 million loan to the Bank of Communications Financial Leasing Co. Ltd. in 2019 to fund the lease or purchase of new-energy buses which, as defined by the Government, include hybrid buses, battery-only electric buses, fuel-cell electric buses, and ultracapacitor buses.

Results

Increased public transport services and reduced greenhouse gas emissions.

The first loan program, through the three participating financial leasing companies, added 6,504 clean buses as of 2018, exceeding the target of 5,000. FEH financed 2,769 buses; IBFL covered 2,745 buses; and EFL funded 99 buses, all of which were electric buses. The number of bus operators supported by

this program increased to 39, far exceeding the target of 15, with about 38% located in less-developed central and western provinces. The deployment of clean buses resulted in 546 million vehicle-kilometers of green bus transportation services, avoiding around 1.71 million tons of GHG emissions annually.

By 2019, 59% of all buses in the PRC were already green or new energy buses.

Better access to finance for leasing companies and bus operators.

The five financial leasing companies were able to access long-term funds, which increased their ability to offer long-term leases to bus operators, meeting the dual objectives of assisting the development of green public transport and the growth of the leasing industry in the PRC.

Lessons

Leasing is an effective financing modality to facilitate access to long-term funding. The leasing industry must be developed through direct financing and by demonstrating the viability of leasing for clean bus deployment. Likewise, mobilizing commercial finance can contribute to the success of a government's green initiatives, including subsidies.

Resources

ADB. 2012. *Report and Recommendation of the President to the Board of Directors: Proposed Loan Program for Clean Bus Leasing in the People's Republic of China*. Manila.

ADB. 2016. *Extended Annual Review Report: Senior Loan Clean Bus Leasing in the People's Republic of China*. Manila.

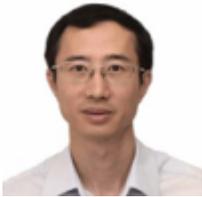
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ADB. 2017. *Report and Recommendation of the President to the Board of Directors: Proposed Loan Minsheng Financial Leasing Co. Ltd. Green Transport Finance in the People's Republic of China*. Manila

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ADB. 2019. *Report and Recommendation of the President to the Board of Directors: Proposed Loan to the Bank of Communications Financial Leasing Co. Ltd. New Energy Bus Leasing in the People's Republic of China*. Manila.

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Asian Development Bank (ADB)

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