

DEVELOPMENT COORDINATION

A. Major Development Partners: Strategic Foci and Key Activities

1. The greater Beijing–Tianjin–Hebei (BTH) region is one of the most important economic regions in the People’s Republic of China (PRC), generating more than a third of the country’s gross domestic product (GDP).¹ It is also a region with consistently poor air quality a result of its rapid economic growth. In 2013, the Government of the PRC promulgated its first Comprehensive Action Plan for Air Pollution Prevention and Control, 2013–2017 to help improve air quality in the core BTH region.² The plan has led to a suite of policies that are driving efforts to reduce pollution and improve air quality. However, despite significant progress, air quality is still far below national and World Health Organization standards.³ Given the multisectoral and transboundary nature of the air pollution problem, a concerted and comprehensive approach is needed to address the underlying causes and make sustainable improvements in air quality in the BTH region. The approach requires (i) advanced and effective pollution control technologies, (ii) measures that cut across sectors, (iii) efficient coordination in the BTH region, (iv) stricter environmental policy and regulation, (v) a robust results monitoring and verification system, (vi) innovative and dedicated financing mechanisms, and (vii) suitable social protection measures to safeguard vulnerable sections of the population.

2. Consumption of coal and petroleum must decrease through the expansion of cleaner energy, upgrading of industrial process, increase in the energy-efficiency of buildings, use of renewable energy for urban heating services, deployment of alternative-energy vehicles, promotion of public transportation, and better transportation management. Uncontrolled burning of agricultural waste must also decline. The Asian Development Bank (ADB) is well positioned to support such cross-sector operations. Since its assistance to the PRC began in 1986, the core sectors for operational support have been energy, transport, urban development, and agriculture. ADB has provided more than \$5.92 billion for energy sector operations, more than 50% of which was for projects in energy conservation, energy efficiency, environment improvement, and emissions reduction. ADB has also provided more than \$17.70 billion to the transport sector, \$5.18 billion to urban development, and \$4.99 billion to agriculture.

3. Other bilateral and multilateral financial institutions have been providing financial assistance to the BTH region to help address the air quality problem. They include Agence Française de Développement, the European Investment Bank, the International Finance Corporation, KfW, and the World Bank, as shown in the table. ADB and the World Bank are the major multilateral development banks working with municipal and provincial governments on air pollution control in the greater BTH region.

¹ The BTH region includes Beijing and Tianjin municipalities; Hebei, Henan, Liaoning, Shandong, and Shanxi provinces; and Inner Mongolia Autonomous Region. While the core BTH region of Beijing and Tianjin municipalities and Hebei Province together account for nearly 10% of national GDP, the greater BTH region accounts for more than 34% of national GDP (CNY22 trillion in 2014).

² The plan aims to cut the level of fine particulate matter in the BTH region by 25%. Annual average concentration of particulate matter less than 2.5 micrometers in diameter (PM_{2.5}) in the BTH region declined by 9.8% in 2014 and 11.3% in 2015 respectively, compared to the 2013 level.

³ The annual average concentration of PM_{2.5} declined from 73 micrograms per cubic meter (µg/m³) to 43 µg/m³ by end 2015. The air quality standard for PM_{2.5} (ambient air quality standard GB 3095-2012) in the PRC is 35 µg/m³, compared to 10 µg/m³ for the World Health Organization.

Major Development Partners

Partner	Project Name	Duration	Amount (million)
ADB	Beijing–Tianjin–Hebei Air Quality Improvement–Hebei Policy Reforms Program	2015–2016	\$300
	Air Quality Improvement of the Greater Beijing–Tianjin–Hebei Region—China National Investment and Guaranty Corporation’s Green Financing Platform	2016–2022	€458
	Qingdao Smart Low-Carbon District Energy Project	2016–2020	\$130
	Air Quality Improvement in the Greater Beijing–Tianjin–Hebei Region—Regional Emission-Reduction and Pollution-Control Facility	2017–2023	€428
	Shandong Spring City Green Modern Trolley Bus Demonstration Project	2018–2022	\$150
	AFD	Green Credit Line	2007–2012
EIB	China Climate Change Framework Loan II	2010–2016	\$500
IFC	China Utility-Based Energy Efficiency Finance Program	2006–2010	\$50
KfW	Green Finance Program	2008–2012	€75
	Beijing–Tianjin–Hebei Air Quality Improvement–Hebei Policy Reforms Program	2015–2016	€150
World Bank	Hebei Air Pollution Prevention and Control Program	2016–2020	\$500
	Air Pollution Control in Jing-Jin-Ji China	2016–2020	\$500
	Hydrochlorofluorocarbons Phase-Out Project (Stage I)	2012–2017	\$73 ^a
	Energy Efficiency Financing Program	2011–2016	\$300

ADB = Asian Development Bank, AFD = Agence Française de Développement, EIB = European Investment Bank, IFC = International Finance Corporation.

^a Grant from the Multilateral Fund for the implementation of the Montreal Protocol.

Source: Asian Development Bank estimates.

4. Under the government’s Thirteenth Five-Year Plan, the Government of the PRC introduced new financing initiatives for air quality improvements in the BTH region beginning in 2015.⁴ In 2015, ADB approved the first policy-based loan with cofinancing from KfW for the Beijing–Tianjin–Hebei Air Quality Improvement—Hebei Policy Reforms Program.⁵ The program supported policy actions in Hebei Province, including (i) adjustment of the energy mix; (ii) promotion of public transportation; (iii) reduction of seasonal biomass burning and promotion of clean energy in rural areas; (iv) capacity development in environmental monitoring, administration, and supervision; and (v) employment promotion for inclusive industrial transformation. The World Bank approved the Innovative Financing for Air Pollution Control in Jing-Jin-Ji Project in March 2016 to decrease coal consumption in the power industry and reduce air pollutants and carbon emissions through increasing energy efficiency and clean energy. In June 2016, the World Bank approved the Hebei Air Pollution Prevention and Control Program to curb emissions from coal used in energy-efficient power plants through end-of-pipe measures and the enforcement of emission standards. In 2016, ADB approved the second loan in its multiyear, multisector support program for air quality improvement in the BTH region, targeting better access to finance, especially for small and medium-sized enterprises, to scale up investments in pollution reduction projects in the region.⁶ The third loan, approved in 2017, will

⁴ Government of the PRC. 2015. *The Thirteenth Five-Year Plan for Economic and Social Development of the People’s Republic of China, 2016–2020*. Beijing.

⁵ ADB. 2015. *Report and Recommendation of the President to the Board of Directors: Proposed Loan to the People’s Republic of China for the Beijing–Tianjin–Hebei Air Quality Improvement—Hebei Policy Reforms Program*. Manila.

⁶ ADB. 2016. *Report and Recommendation of the President to the Board of Directors: Proposed Loan for the Air Quality Improvement in the Greater Beijing–Tianjin–Hebei Region—China National Investment and Guaranty Corporation’s Green Financing Platform Project*. Manila.

establish a dedicated financing facility to deploy high-level technologies for air quality improvement in key sectors, targeting major emitters in some of the most polluted cities and provinces in the greater BTH region.⁷

B. Institutional Arrangements and Processes for Development Coordination

5. ADB has established working relationships with the EIB, KfW, the World Bank, and other multilateral and bilateral agencies to address policy issues and coordinate lending and technical assistance operations. Both ADB and the World Bank emphasize the importance of air quality improvement, environmentally sustainable growth, and climate change mitigation and adaptation. Cooperation between development partners occurs mainly through informal meetings and information exchange.

C. Achievement and Issues

6. Despite substantial efforts to improve energy efficiency, the PRC still has one of the largest unrealized energy efficiency potentials worldwide.⁸ Accelerated and sustained improvement in air quality in the BTH region, which includes some of the PRC's most energy-intensive and urban-transport-intensive provinces, requires multipronged, long-term efforts for improving demand-side energy efficiency and switching to cleaner fuels. Multilateral development banks and bilateral development partners—including ADB, Agence Française de Développement, the European Investment Bank, KfW, and the World Bank—have mobilized financing for several projects contributing to air quality improvements. However, the BTH region still needs substantial support to meet its air quality objectives, which will require more than \$30 billion of new investment in the near future. Coal-based heating is the major cause of rising levels of outdoor and indoor air pollution during winter. The development of cleaner, innovative heating and cooling systems is stymied by their high upfront capital costs. It is the natural next step in the BTH program to demonstrate and support clean heating and cooling investments not only in urban areas, but also in semi-urban and rural areas.

D. Summary and Recommendations

7. The proposed project is an integral part of ADB's multiyear support for the BTH air quality improvement program. It builds on the policy actions initiated in ADB and KfW's policy-based loan (approved in 2015) and expands on the ADB and World Bank investment operations (approved in 2016 and 2017) for the BTH region. This combined support will make a direct contribution to improving air quality, promoting inclusive and environmentally sustainable growth, developing the private sector, and mitigating climate change in the region. The proposed loan will provide investment in clean heating and cooling systems for residences to accelerate air pollution abatement in Shandong Province and address the increasing residential emissions in highly polluted areas during the heating season. Shandong Province was chosen because it is home to one-third of the population of the greater BTH region. The proposed project will target urban, semi-urban, and rural residences by installing clean heating and cooling systems and strengthening the capacity to install and maintain these technologies.

⁷ ADB. 2017. *Report and Recommendation of the President to the Board of Directors: Proposed Loan to the People's Republic of China for the Air Quality Improvement in the Greater Beijing–Tianjin–Hebei Region—Regional Emission-Reduction and Pollution-Control Facility*. Manila.

⁸ The International Energy Agency estimates that the average cost of conserved energy in the PRC is less than \$220 per ton of oil equivalent and therefore far lower than, for example, in the Republic of Korea or Europe, where the average cost of conserved energy is more than \$350 per ton of oil equivalent. International Energy Agency. 2015. *World Energy Outlook 2015*. Paris.