

Early Warning System

ADB-48105-001

Construction and Demolition Waste Management and Recycling

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Quick Facts

Countries	China
Financial Institutions	Asian Development Bank (ADB)
Status	Active
Bank Risk Rating	B
Voting Date	2015-06-09
Borrower	Government of People's Republic of China
Sectors	Technical Cooperation, Water and Sanitation
Investment Type(s)	Grant
Investment Amount (USD)	$ 0.40 million
Project Cost (USD)	$ 0.40 million

Project Description

The Technical Assistance aims to enhance the PRC''s policies and practices related to the management and recycling of construction and demolition waste (CDW). The impact of the TA will be improved CDW management policies and practices in the PRC; and the outcome will be an agreed set of policy recommendations to regulate CDW management and promote CDW recycling. The TA will have four major outputs to contribute toward the achievement of the outcome and impact: (i) an assessment report on CDW management in the PRC, (ii) a review of international good practice in CDW management and recycling, (iii) policy lessons and recommendations, and (iv) a TA synthesis report.

DW recycling market to be established, experience shows that various instruments must be established, including (i) technical regulations (i.e., guaranteeing steady supply of CDW of high quality through establishment of standards and norms for deconstruction works and CDW products); (ii) waste treatment regulations controlling or banning CDW landfilling, creation of mono landfill for CDW as reservoirs for future recovery of inert materials, and enforcement of regulations related to illegal dumping; and (iii) market-based instruments enabling the creation of a robust CDW recycling market that can withstand various risks in the waste market (such as a tax on landfills or raw construction materials, a subsidy for recycling center establishment and operation, or tax incentives for the utilization of recycled materials). Advanced concepts that promote the polluter pays principle have been successfully introduced in the construction industry of some of these economies, including extended producer responsibility or stewardship programs, which encourage construction material manufacturers to redesign products and systems to reduce wastage, facilitate recovery and recyclability after usage, and ensure compatibility with post-recovery applications.

The government has demonstrated continuous commitment to tackling the problem of CDW management and promoting a circular economy and resource efficiency. In 2006, MOHURD issued the Regulations on Management of Urban Construction Waste to standardize the methods for handling construction wastes. Technical regulations for CDW management and recycling followed, mainly through the Ministry of Science and Technology, including standards and norms for recycled materials and treatment regulations (i.e., landfill ban for unsorted CDW). CDW recycling targets are also (implicitly) defined in the Twelfth Five-Year Plan for the Building Material Industry, which established strict goals for emission reduction, requiring construction and building materials producers to cut their annual energy consumption and carbon dioxide emissions per unit of industrial value added by 18% 20% during the 5-year period.

Despite its great potential and the government's effort to promote it, CDW recycling rates do not exceed 5% 10%. Actual demand for recycled materials is relatively low in the absence of incentives to buy recycled materials (as compared to natural aggregates), and concerns over the quality assurance of recycled materials. CDW recycling centers have been established in several cities in the PRC, but these often struggle to make a profit. The low quality of raw CDW (resulting from the absence of clear technical regulations on CDW segregation at source), low costs of natural aggregates, low CDW disposal fees (often fully subsidized) at municipal solid waste and CDW landfills, and illegal CDW disposal are understood to be key limitations to the promotion of CDW recycling in the PRC.

The TA is a timely response to the government's request for ADB assistance to identify suitable policies and mechanisms to regulate CDW management and promote CDW recycling in the PRC. The TA is closely aligned with ADB's strategic priorities of the Midterm Review of Strategy 2020 and the strategic pillar of environmentally sustainable growth in the country partnership strategy, 2011 2015 for the PRC. By supporting the PRC's efforts to promote resource conservation, emission reduction, and environmental protection, this TA is fully aligned with ADB's Environment Operational Directions, 2013 2020, and the Urban Operational Plan, 2012 2020. The TA is also consistent with the priorities of the government's Twelfth Five-Year Plan, 2011 2015; the PRC's emphasis on the realization of ecological civilization and commitment to curb costs associated with resource depletion and environmental damage (as announced at the Third Plenum); and the recently proclaimed concept of greenization of production, economy, and lifestyle.

Investment Description

- Asian Development Bank (ADB)

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Bank Documents

- Construction and Demolition Waste Management and Recycling: Technical Assistance Report [Original Source]
- Project Disclosure PDF