

SUMMARY POVERTY REDUCTION AND SOCIAL STRATEGY

Country:	People's Republic of China	Project Title:	Air Quality Improvement in the Greater Beijing–Tianjin–Hebei Region—Shandong Clean Heating and Cooling Project
Lending/Financing Modality:	Project Loan	Department/Division:	East Asia Department/Sustainable Infrastructure Division

I. POVERTY AND SOCIAL ANALYSIS AND STRATEGY

Poverty targeting: general intervention

A. Links to the National Poverty Reduction and Inclusive Growth Strategy and Country Partnership Strategy

The project responds directly to the urgent national, provincial, and municipal government priorities to reduce raw coal burning and thereby improve air quality. It is well aligned with the priorities on managing climate change and the environment in ADB's country partnership strategy for the PRC, 2016–2020, and will support the government's priorities in realizing an ecological civilization, articulated during its Thirteenth Five-Year Plan and at 19th Party Congress for the Central Committee of the Communist Party.^a The project also supports the Development-oriented Poverty Reduction for China's Rural Areas, 2011–2020, which promotes poverty reduction through environmentally friendly urbanization and balanced resource allocation to avoid disproportional impacts on the poor. It will also support key operational priorities of Asian Development Bank's (ADB) Strategy 2030 of tackling climate change, accelerating progress in gender equality, and making cities more livable.^b

B. Results from the Poverty and Social Analysis during Project Preparation or Due Diligence

1. Key poverty and social issues.

Coal-based heating is a major cause of worsening winter air pollution in Shandong Province. In 2016, Jinan city, the provincial capital, had the highest concentration of particulate matter of less than 2.5 micrometers in diameter (PM_{2.5}) attributable to coal use among 74 major cities in the People's Republic of China (PRC), and it ranked ninth in the province for the poorest air quality. Poor and vulnerable people, most of whom use coal-burning stoves for heating and cooking, face risks including (i) poor indoor air quality causing respiratory diseases, (ii) death due to carbon monoxide poisoning, (iii) fire accidents, (iv) likelihood of catching colds because of imbalanced room temperatures, and (v) high fuel expenditure for coal.

2. Beneficiaries.

The project will directly benefit 646,815 households or 1,988,011 people in the project area (31.4% of total population in Jinan city). In addition, the project will supply clean heating to 29 schools and kindergartens (35,860 children), 9 hospitals (440 patients and medical staff), and 8 elderly care centers (729 elderly people and caregivers) in the project area.

3. Impact channels.

The project will (i) reduce cases of respiratory diseases through improved indoor and outdoor air quality, (ii) reduce the incidence of carbon monoxide poisoning by providing safer heating and cooking fuel, (iii) provide a better medical environment by providing cleaner and more reliable heating services, (iv) improve living conditions through adequate and reliable heating services, (v) reduce fuel expenditure on heating and cooking by switching from individual household coal-based stoves for heating and cooking to natural-gas-based heating and biomass cooking fuel, (vi) provide a better school environment in winter by providing cleaner and more reliable heating services, and (vii) increase income through job opportunities created during construction.

4. Other social and poverty issues.

Other concerns raised by rural people are access to (i) better and more affordable housing, (ii) employment opportunities, and (iii) education and medical services. The local government is committed to supporting low-income households by (i) providing new apartment units for low-income households, (ii) providing a series of skills training programs and a job vacancy referral system, and (iii) upgrading the education and medical services and providing subsidies to make these affordable for the poor.

5. Design features.

The project is designed to provide cleaner, more reliable, safer, and more affordable heating services to the semi-urban and rural people, who depend on coal and unprocessed biomass-based stoves for heating and cooking.

II. PARTICIPATION AND EMPOWERING THE POOR

1. Participatory approaches and project activities.

The project conducted 24 focus group discussions with stakeholders (local residents, schools, hospitals, elderly care centers, and government officials) and a household survey covering 769 interviewees (of which 49.5% were women) in the project area. There is a high level of support among the beneficiary communities and the general public for heating service improvements, including the installation of clean heating systems.

<p>2. Civil society organizations. Civil society organizations have no specific role in the project. Implementing agencies have direct communication with the beneficiaries. However, the project will seek support from civil society organizations for the effective implementation of the awareness campaign and the Gender Action Plan (GAP).</p> <p>3. The following forms of civil society organization participation are envisaged during project implementation, rated as high (H), medium (M), low (L), or not applicable (NA): <input checked="" type="checkbox"/> Information gathering and sharing (M) <input checked="" type="checkbox"/> Consultation (M) <input type="checkbox"/> Collaboration <input type="checkbox"/> Partnership</p> <p>4. Participation plan. <input type="checkbox"/> Yes. <input checked="" type="checkbox"/> No.</p>
III. GENDER AND DEVELOPMENT
Gender mainstreaming category: effective gender mainstreaming
<p>A. Key issues. The project will improve access to a cleaner, safer, and more affordable heating service to about 996,119 women (50.1% of the total beneficiaries) including 2,091 households headed by poor women in scattered rural areas in Shanghe County. Based on the results of the social survey, women are more sensitive to heating supply facilities and have more decision-making power. First, women do most of the housework (72.7% in Shanghe County and 62.2% in Jinan city in the sample households). Many of the tasks relate to the use of energy, especially heating facilities, which are mainly coal stoves in semi-urban and rural areas. People spend an average of 2.75 hours a day preparing household energy for heating. Second, except for decisions made jointly by couples (54.9%), women make 24.8% of the family decisions—especially for recurrent expenditure such as monthly payments for fuel, water supply, and electricity—compared with 13.8% for men. Third, women are also more keenly aware of clean energy and more sensitive to air quality than men: 39.6% of the women respondents were not satisfied with recent air quality compared with 30.5% of men respondents.</p> <p>The project will improve local women's access to clean heating supply through (i) changing the energy source used for cooking and heating; (ii) providing reliable source of heating, which would reduce the likelihood of becoming sick and improve quality of life; and (iii) relieving women from housework related to using, maintaining, and cleaning coal stoves, allowing more time to be spent on production, training, and self-development, which will result in increased income. Calculated based on the minimum wage standard of Shanghe County in 2018,^c the time savings could generate CNY45 per day of income, which is about three times the daily average expenditure on heating fuel.^d The project will also create jobs during the construction and operation periods.</p>
<p>B. Key actions. The key GAP activities include (i) ensuring the design of services is gender sensitive, (ii) ensuring wide consultation of and participation by women (at least 40% of participants are women), (iii) raising awareness of the environmental and health benefits of clean energy through a campaign (at least 40% participants are women), (iv) improving the technical level of women Jinan Heating Group (JHG) and Jinan Thermal Power Co., Ltd. (JTPO) staff in the operation and maintenance of the new facilities through training (at least 40% are women), (v) reducing the time spent by women on unpaid household care activities related to the preparation of household energy for heating from an average of 2.75 hours to less than 1 hour, and (vi) ensuring skilled and unskilled jobs are available to women during the construction and operation period.</p> <p><input checked="" type="checkbox"/> Gender action plan <input type="checkbox"/> Other actions or measures <input type="checkbox"/> No action or measure</p>
IV. ADDRESSING SOCIAL SAFEGUARD ISSUES
<p>A. Involuntary Resettlement Safeguard Category: <input type="checkbox"/> A <input type="checkbox"/> B <input checked="" type="checkbox"/> C <input type="checkbox"/> FI</p> <p>1. Key impacts. The project does not entail permanent or temporary physical displacement or economic displacement as (i) heat exchange stations will use existing space in residential communities and buildings that is reserved for the construction of public facilities; (ii) heating and cooling pipelines will be laid underground within the existing right of way or along roadways; (iii) the biomass-based combined heat and power plant will be built on existing state-owned land that has already been acquired; (iv) geothermal and natural gas energy stations will be constructed in the existing vacant and reserved space inside government buildings, residential communities, and schools; and (v) clean heating facilities, such as air source heat pumps and distributed natural gas boilers, will be constructed on the vacant state-owned land or in the spaces reserved for the construction of public facilities in existing buildings to provide centralized heating services. ADB carried out due diligence for the associated facilities and for components where land acquisition had already been completed, and there are no outstanding issues.</p> <p>2. Strategy to address the impacts. Not applicable</p> <p>3. Plan or other Actions. <input type="checkbox"/> Resettlement plan <input type="checkbox"/> Combined resettlement and indigenous peoples plan <input type="checkbox"/> Resettlement framework <input type="checkbox"/> Combined resettlement framework and indigenous people <input type="checkbox"/> Environmental and social management planning framework system arrangement <input type="checkbox"/> Social impact matrix <input checked="" type="checkbox"/> No action</p>

B. Indigenous Peoples	Safeguard Category: <input type="checkbox"/> A <input type="checkbox"/> B <input checked="" type="checkbox"/> C <input type="checkbox"/> FI										
<p>1. Key impacts. The project will be implemented in the area where the vast majority of people are from the Han (majority) ethnic group and there is no significant difference in lifestyle and socioeconomic status between individuals of ethnic majority and minorities.</p> <p>Is broad community support triggered? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>2. Strategy to address the impacts. Not applicable.</p> <p>3. Plan or other actions.</p> <table border="0"> <tr> <td><input type="checkbox"/> Indigenous peoples plan</td> <td><input type="checkbox"/> Combined resettlement plan and indigenous peoples plan</td> </tr> <tr> <td><input type="checkbox"/> Indigenous peoples planning framework</td> <td><input type="checkbox"/> Combined resettlement framework and indigenous peoples planning framework</td> </tr> <tr> <td><input type="checkbox"/> Environmental and social management system arrangement</td> <td><input type="checkbox"/> Indigenous peoples plan elements integrated in project with a summary</td> </tr> <tr> <td><input type="checkbox"/> Social impact matrix</td> <td></td> </tr> <tr> <td><input checked="" type="checkbox"/> No action</td> <td></td> </tr> </table>		<input type="checkbox"/> Indigenous peoples plan	<input type="checkbox"/> Combined resettlement plan and indigenous peoples plan	<input type="checkbox"/> Indigenous peoples planning framework	<input type="checkbox"/> Combined resettlement framework and indigenous peoples planning framework	<input type="checkbox"/> Environmental and social management system arrangement	<input type="checkbox"/> Indigenous peoples plan elements integrated in project with a summary	<input type="checkbox"/> Social impact matrix		<input checked="" type="checkbox"/> No action	
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V. ADDRESSING OTHER SOCIAL RISKS											
A. Risks in the Labor Market											
<p>1. Relevance of the project for the country's or region's or sector's labor market, indicated as high (H), medium (M), and low or not significant (L).</p> <p><input type="checkbox"/> unemployment <input type="checkbox"/> underemployment <input type="checkbox"/> retrenchment <input checked="" type="checkbox"/> core labor standards (L)</p> <p>2. Labor market impact.</p> <p>A lack of adherence to labor standards is expected to be a low risk. The project agreement includes the standard assurance on labor standards. There will be no labor retrenchment. The project will generate a total 3,959 jobs for local people—3,078 during construction and 881 during operation.</p>											
B. Affordability											
<p>Local government policy includes an annual reduction in the heating service charge and a discounted heating tariff to ensure the heating supply is affordable to the poor.^e Government subsidies under the project will provide clean energy heating systems free of charge to poor households. The social survey found that the cost of heating is about 4.25% of the annual income of poor households for those using coal-fired stoves. This is expected to decrease to 3.0% upon project completion. For these reasons, affordability will not be an issue for the project.</p>											
C. Communicable Diseases and Other Social Risks											
<p>1. The impact of the following risks are rated as high (H), medium (M), low (L), or not applicable (NA):</p> <p><input checked="" type="checkbox"/> Communicable diseases: L <input type="checkbox"/> Human trafficking <input type="checkbox"/> Others (please specify) _____</p> <p>2. Risks to people in project area.</p> <p>The standard assurance on the spread of communicable diseases is included in the project agreement and bidding documents.</p>											
VI. MONITORING AND EVALUATION											
<p>1. Targets and indicators.</p> <p>Monitoring indicators include the following: (i) at least 40% of local women participate in consultation meetings and awareness raising activities of environmental and health benefits of clean heating; (ii) preparation time of household energy for heating reduced to less than 1 hour; and (iii) 30% women for unskilled and skilled laborers during construction, 50% women for unskilled and 30% women for skilled jobs generated by the project within JHG and JTPC during the operation of the project.</p> <p>2. Required human resources.</p> <p>One social and gender development specialist (9 person-months) is allocated to support the implementing agencies in conducting awareness campaigns of environmental and health benefits of clean energy and energy conservation and monitor the progress of gender-related activities.</p> <p>Information in the Project Administration Manual.</p> <p>Compliance with social safeguard requirements will be documented in the monitoring reports.</p> <p>3. Monitoring tools.</p> <p>Monitoring tools such as collection of secondary data, participant surveys, and key informant interviews will be used.</p>											

ADB = Asian Development Bank; GAP = gender action plan; JHG = Jinan Heating Group; JTPC = Jinan Thermal Power Co., Ltd.; PM_{2.5} = particulate matter less than 2.5 microns in diameter; PRC = People's Republic of China.

^a Government of the PRC, State Council. 2015. *National Economy and Social Development Thirteenth Five-Year Plan, 2016–2020*. Beijing.

^b ADB. 2016. *Country Partnership Strategy: People's Republic of China and Asian Development Bank, 2016–2020—Transforming Partnership*. Manila; ADB. 2018. *Strategy 2030: Achieving a Prosperous, Inclusive, Resilient, and Sustainable Asia and the Pacific*. Manila; and ADB. 2015. *Operational Plan for Health, 2015–2020*. Manila.

^c According to the standard, minimum wage of Shanghe County is CNY16.4 per hour for year 2018.

^d Average fuel cost for heating in Shanghe County is CNY15 per day according to the social survey.

^e The district heating supply price is CNY20/m² in Shanghe County and CNY26.7/square meter (m²) in Jinan city, while for poor families the heating tariff is CNY17.5/m² in Shanghe County and CNY19.5/m² in Jinan city.

Source: Asian Development Bank.