



Report and Recommendation of the President to the Board of Directors

Project Number: 46049-002
June 2015

Proposed Loan People's Republic of China: Xinjiang Akesu Integrated Urban Development and Environment Improvement Project

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Asian Development Bank

CURRENCY EQUIVALENTS

(as of 6 May 2015)

Currency unit	–	yuan (CNY)
CNY1.00	=	\$6.2078
\$1.00	=	0.1610

ABBREVIATIONS

3R	–	reduce, reuse, recycle
ADB	–	Asian Development Bank
AMG	–	Akesu Municipal Government
ha	–	hectare
km	–	kilometer
km ²	–	square kilometer
PAM	–	project administration manual
PRC	–	People's Republic of China
XUAR	–	Xinjiang Uygur Autonomous Region

NOTE

In this report, "\$" refers to US dollars

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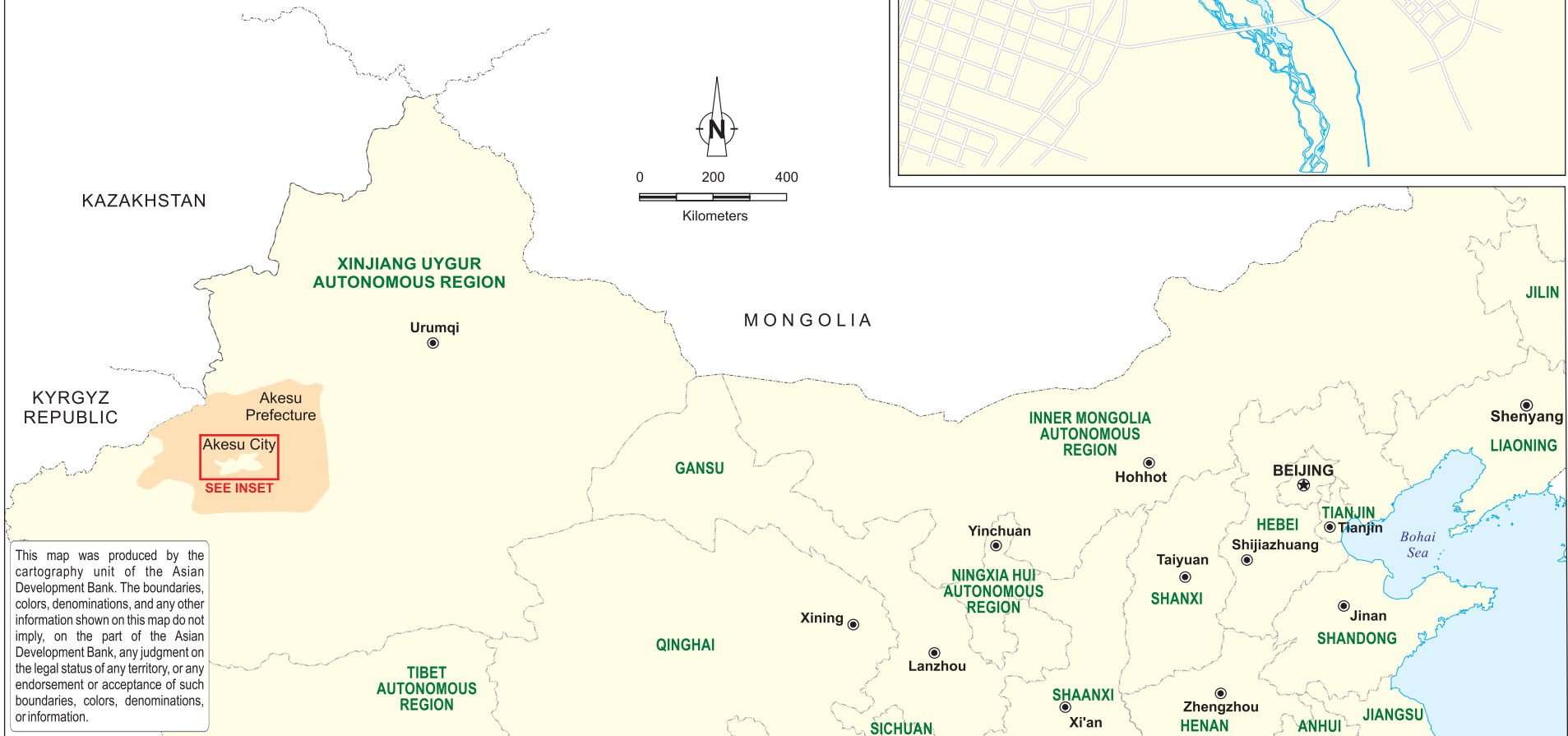
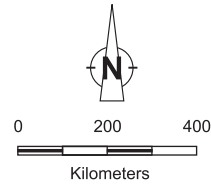
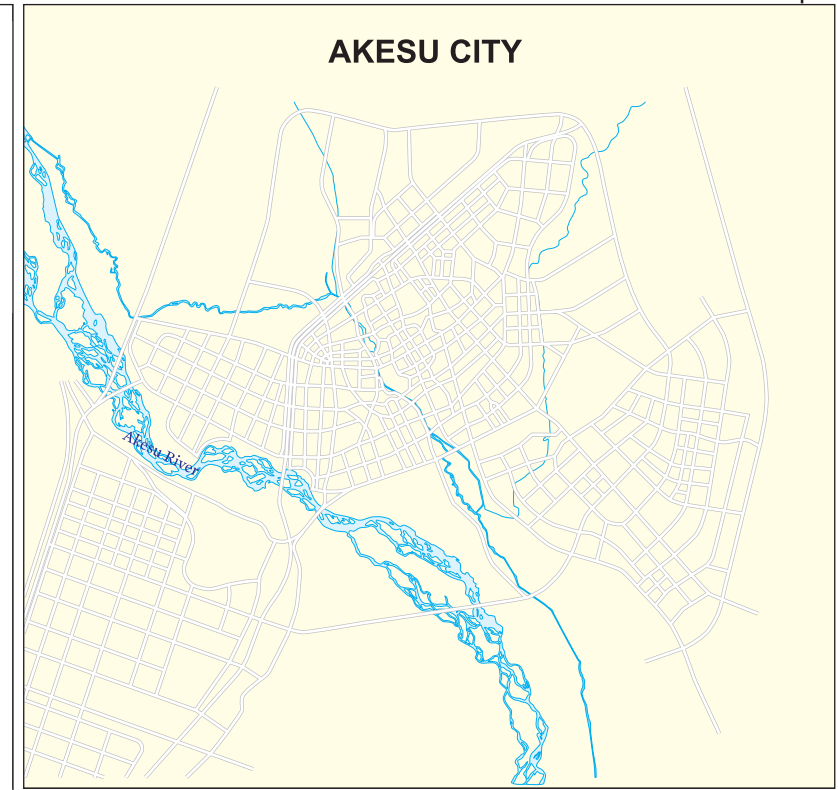
PROJECT AT A GLANCE

1. Basic Data		Project Number: 46049-002	
Project Name	Xinjiang Akesu Integrated Urban Development and Environment Improvement Project	Department /Division	EARD/EASS
Country Borrower	China, People's Republic of People's Republic of China	Executing Agency	Government of Xinjiang Uygur Autonomous Region
2. Sector	Subsector(s)	ADB Financing (\$ million)	
✓ Agriculture, natural resources and rural development	Water-based natural resources management		27.00
Transport	Urban roads and traffic management		93.20
Water and other urban infrastructure and services	Other urban services		20.50
	Urban solid waste management		9.30
		Total	150.00
3. Strategic Agenda	Subcomponents	Climate Change Information	
Inclusive economic growth (IEG) Environmentally sustainable growth (ESG)	Pillar 2: Access to economic opportunities, including jobs, made more inclusive Urban environmental improvement	Climate Change impact on the Project	Medium
4. Drivers of Change	Components	Gender Equity and Mainstreaming	
Governance and capacity development (GCD) Knowledge solutions (KNS) Private sector development (PSD)	Organizational development Application and use of new knowledge solutions in key operational areas Conducive policy and institutional environment	Effective gender mainstreaming (EGM)	✓
5. Poverty Targeting		Location Impact	
Project directly targets poverty MDG-targeting (TI-M)	Yes MDG7	Urban Regional	High Medium
6. Risk Categorization:	Complex		
7. Safeguard Categorization	Environment: B Involuntary Resettlement: A Indigenous Peoples: B		
8. Financing			
Modality and Sources		Amount (\$ million)	
ADB		150.00	
Sovereign Project loan: Ordinary capital resources		150.00	
Cofinancing		0.00	
None		0.00	
Counterpart		100.99	
Government		100.99	
Total		250.99	
9. Effective Development Cooperation			
Use of country procurement systems		No	
Use of country public financial management systems		Yes	

XINJIANG AKESU INTEGRATED URBAN DEVELOPMENT AND ENVIRONMENT IMPROVEMENT PROJECT IN THE PEOPLE'S REPUBLIC OF CHINA

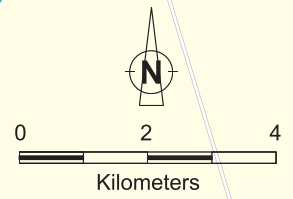
-  National Capital
-  Provincial Capital
-  City/Town
-  Rivers and Lakes
-  Provincial Boundary
-  International Boundary

Boundaries are not necessarily authoritative.



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XINJIANG AKESU INTEGRATED URBAN DEVELOPMENT AND ENVIRONMENT IMPROVEMENT PROJECT IN THE PEOPLE'S REPUBLIC OF CHINA



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I. THE PROPOSAL

1. I submit for your approval the following report and recommendation on a proposed loan to the People's Republic of China (PRC) for the Xinjiang Akesu Integrated Urban Development and Environment Improvement Project.¹

2. The project will improve much-needed urban infrastructure facilities and the environment in Akesu City, Xinjiang Uygur Autonomous Region (XUAR). As the first proposed Asian Development Bank (ADB) urban sector loan in southern XUAR, the project will contribute to sustainable economic growth and improve the quality of life for about 509,200 urban residents in Akesu, with a specific focus on the rehabilitation and upgrading of existing urban areas with high ethnic minority populations.

II. THE PROJECT

A. Rationale

3. Located in the northwest of the PRC, XUAR is a remote region linking the PRC to Central Asia. Despite recent economic development due to the expansion of agriculture and extractive industries, XUAR remains one of the poorest and least-developed regions in the PRC. In 2013, XUAR's average urban per capita disposable income was the second lowest in the PRC, at CNY19,874.² XUAR is one of the less-developed western regions targeted for accelerated socioeconomic development and poverty reduction by the preferential policies under the National Strategy for Development of the West. XUAR has a large ethnic minority population: the Uygur account for 45.73% of the total population and other ethnic minority groups for 14.77%. The regional capital, Urumqi, with a population of 3.1 million, and the populated urban centers in the northern part of the region are the main industrial hubs. They are also the primary points of public infrastructure investment and private sector activities. On the other hand, investments in the southern part of XUAR, mainly constituted of mountains and desert areas, lag behind. The development of an arc-shaped urban and transport corridor between the southern piedmont of Tianshan Mountain and the northern rim of Taklamakan Desert is an opportunity to achieve a more balanced level of development across the region.

4. Five oases cities exist along highway A314 and the national railway, each with an urban population between 300,000 and 700,000. Over time, agricultural expansion, poorly managed urbanization, and extractive industries have degraded the local environment, decreasing the sustainability of these cities. These cities are the only urban centers capable of clustering economic activities in the southern part of the region.

5. Akesu is a medium-sized city in southern XUAR established as an oasis town on the historic Silk Road. In 2013, its poverty incidence was 5.45% for the urban population, and 12.3% for the rural population. Akesu has a higher poverty rate than regional and national averages. The city has expanded in recent years following (i) economic growth in agricultural production, (ii) exploration and processing of oil and gas, and (iii) regional and intercity transport improvements. The urban population grew from 422,470 in 2005 to 509,200 in 2013, reaching an urbanization rate of 61.2%, while the built-up area expanded from 27 square kilometers (km²) to 46.5 km² over the same period. Although the burgeoning city benefits from a good economic outlook, inadequate infrastructure investment in existing areas and environmental degradation are contributing to a poorer quality of life.

¹ The design and monitoring framework is in Appendix 1.

² 2013 statistical bulletins of socioeconomic development in the PRC and XUAR.

6. Akesu's long-term sustainable development requires socially and environmentally responsible management of its urbanization. It urgently needs to tackle its significant deficiencies in urban infrastructure and services;³ as current access to water, sanitation, and heating in Akesu is low and variable. Meanwhile, poor land use and waste management practices threaten environmental conditions in Akesu's rivers and wetlands. While improved services will reduce the negative impact of urbanization on the environment in Akesu, additional measures are needed to rehabilitate and preserve the water resources for the city and the larger watershed. The Akesu Duolang wetlands, located within the ecological conservation zone of the pilot Xinjiang Akesu Duolang River National Wetland Park, provide important ecosystem services. These include groundwater replenishment, flood retention, sediment and nutrient removal, micro-climate regulation, cultural services, and biodiversity conservation.⁴ The rehabilitation of these wetlands will enhance the National Wetland Park network in the PRC, provide a demonstration of wise wetland use as promoted by the Ramsar Convention, and contribute to improved water resources management within the Tarim River Basin.⁵

7. The proposed project aims to improve municipal services in the project area significantly: (i) the households with connection to piped urban water supply would increase from 52.6% to 88.6%, (ii) the households with sewerage connections would increase from 8.0% to 66.6%, (iii) the area with access to central heating would increase from 12.7% to 87.0%, and (iv) the households covered by solid waste management would increase from 18.7% to 100%. The urban road component is aligned with the Comprehensive Transportation Planning of the Urban Center Area of Akesu (2013–2030) to improve conditions and connectivity of the urban road network in Akesu for all users on arterial, secondary, collector, and lane-scale roads.⁶ The peri-urban communities targeted for improvement under the residential alley component are inhabited mostly by ethnic minorities. The improvement of services will have large environmental impacts, including interception of some 21,600 cubic meters of currently uncollected wastewater, reducing contamination of the Akesu water resources.⁷

8. **Strategic fit.** The project is consistent with the PRC's Twelfth Five-Year Plan (2010–2015), and these urbanization policies, priorities, and agendas will continue into the Thirteenth Five-Year Plan. The project supports environmentally sustainable and inclusive economic growth, which is a key priority of ADB's Strategy 2020 as well as the Midterm Review of Strategy 2020.⁸ It is in line with ADB's PRC country partnership strategy, 2011–2015 for inclusive and environmentally sustainable growth.⁹ It also conforms to (i) ADB's Water Operational Plan, as the project encourages water and wastewater management, and wetland and biodiversity protection; (ii) ADB's Urban Operational Plan, which fosters competitive, green, and inclusive cities by promoting connectivity, road safety, waste management, and urban sanitation; and (iii) ADB's Sustainable Transport Initiative Operational Plan by supporting road

³ The direct project areas cover 31 km² in central Akesu.

⁴ The wetlands provide a critical link for migratory birds in the Central Asian flyway.

⁵ Ramsar Convention on Wetlands (1971). Ramsar, Iran. <http://www.ramsar.org/>

⁶ While there are no current plans to create new mass transit networks in Akesu, the urban road component supports existing bus networks and maintains adequate space for future development of rapid transit.

⁷ This will result in an estimated reduction of 9,280 tons per year of chemical oxygen demand, 39 tons per year of total phosphorus, and 32 tons per year of total nitrogen.

⁸ ADB. 2008. *Strategy 2020: The Long-Term Strategic Framework of the Asian Development Bank, 2008–2020*. Manila; and ADB. 2014. *Midterm Review of Strategy 2020: Meeting the Challenges of a Transforming Asia and Pacific*. Manila.

⁹ ADB. 2012. *Country Partnership Strategy: People's Republic of China, 2011–2015*. Manila.

safety and social sustainability.¹⁰ The project also supports the PRC's new urbanization plan by supporting environmentally sustainable urban development. That plan aims to (i) improve the urban services of small towns and (ii) establish harmonious and pleasant living conditions in cities with improved infrastructure, public services, and environment.¹¹ Finally, the project will also support the PRC's National Wetland Conservation Program (2004–2030).¹²

9. This is the fifth project of the strategic urban sector partnership between XUAR and ADB. ADB's value addition can be seen in the optimization of project design, reduction of resettlement impacts and costs, as well as the incorporation of lessons and special features.

10. **Incorporation of lessons.** The project design incorporates lessons from previous ADB-financed urban development projects, emphasizing holistic urban development approaches to support the development of livable cities with universal access.¹³ The project focuses on improving access to urban water supply, sewerage, and heating services in existing urban areas rather than the establishment of new districts. The project has been informed by the lessons from ADB's water and wastewater tariff studies, which developed the National Guidelines on Water Tariffs.¹⁴ Akesu, being in an ethnic minority and poverty area, is currently exempted from the 1998 National Regulation for Urban Water Tariff Management. The project will, however, promote cost-recovery and progressive tariffs in line with national standards through institutional strengthening and capacity building.¹⁵ The project will follow the reduce, reuse, recycle (3R) principles adopted in previous ADB projects in XUAR.¹⁶

11. **Special features.** In line with the integrated nature of the project, several special features have been developed and are supported by capacity building. First, two "living street" pilots will be designed in low-income, ethnic minority communities of Akesu, aiming to create social and shared spaces where people can meet and children can play safely by reducing the speed and dominance of motorized transport in these areas. The pilot locations will be selected in a participatory process with affected communities. Second, the road component will be supported by urban traffic planning with an emphasis on nonmotorized traffic, including the preparation of a human-centered urban transport master plan for the city of Akesu, and the design and implementation of a public education program on traffic safety. Third, the project will contribute to the development of a citywide solid waste management road map, with defined short-, medium-, and long-term targets, including support to the development of a 3R-oriented integrated solid waste management plan. Finally, the wetland rehabilitation component will

¹⁰ ADB. 2012. *Water Operational Plan (2011–2020)*. Manila; ADB. 2013. *Urban Operational Plan (2012–2020)*. Manila; and ADB. 2010. *Sustainable Transport Initiative Operational Plan*. Manila.

¹¹ Central Committee of the Communist Party of China and State Council. 2014. *National New-Type Urbanization Plan (2014–2020)*. Beijing.

¹² Ministry of Environmental Protection. 2008. *China's Fourth National Report on Implementation of the Convention on Biological Diversity*. www.cbd.int/doc/world/cn/cn-nr-04-zh.doc.

¹³ Universal access is the ability of all citizens to reach every destination served by the public road system.

¹⁴ ADB. 1997. *Technical Assistance to the People's Republic of China for a Water Supply Tariff Study*. Manila; ADB. 1999. *Technical Assistance to the People's Republic of China for a Water Tariff Study II*. Manila; and ADB. 2001. *Technical Assistance to the People's Republic of China for National Guidelines on Urban Wastewater Tariffs and a Management Study*. Manila.

¹⁵ The 2004 water tariffs are as follows: domestic water use is CNY1.11, public use CNY2.14, industrial use CNY1.25, special sectors CNY7.05 and green space sprinkling use CNY0.54. The planned 2015 water tariff adjustment is proposed to be: domestic use is CNY1.96, public use CNY2.46, industrial use CNY3.06, and special sectors CNY8.56.

¹⁶ ADB. 2011. *Report and Recommendation of the President to the Board of Directors: Proposed Loan to the People's Republic of China for the Xinjiang Altay Urban Infrastructure and Environment Improvement Project*. Manila; and ADB. 2013. *Report and Recommendation of the President to the Board of Directors: Proposed Loan to the People's Republic of China for the Xinjiang Integrated Urban Development Project*. Manila.

include guidance on preparing and implementing a detailed wetland management plan, including biodiversity monitoring plan, water source protection survey and protection plan, and public education for biodiversity protection. Knowledge sharing on these initiatives will be promoted through the production and dissemination of related knowledge products.

B. Impact and Outcome

12. The project impact will be socially inclusive and environmentally sustainable urbanization in Akesu. The project outcome will be the improvement of municipal services and environment quality.

C. Outputs

13. The project will take a strategic and holistic approach to urban development where the inadequate and outdated urban services and degraded ecosystems have constrained the opportunities for the city to develop in an environmentally sustainable and socially inclusive manner. The project interventions are expected to produce three primary outputs.

14. **Output 1: Urban infrastructure and services improved.** This comprises of six components with inclusive employment opportunities: (i) about 75 kilometers (km) of urban roads constructed or upgraded—19 roads upgraded, two new roads built, alleys upgraded in four ethnically concentrated, peri-urban communities, and two pilot “living streets” developed; about 162 bus stops, 19 km of separated motorized and nonmotorized lanes, one pedestrian overpass, and two new bridges constructed; associated traffic signals, street lights, and utility pipelines built or upgraded, plus landscaping; (ii) public park and green spaces upgraded, and a tree nursery established; (iii) about 38 km of urban water supply pipes laid; (iv) about 78 km of urban sewerage infrastructure constructed; (v) about 44 km of central heating pipelines and associated heat exchange stations built; and (vi) street cleaning, waste collection, transportation equipment and vehicles procured, and one waste transfer station constructed.

15. **Output 2: Akesu Duolang wetland rehabilitated and protected.** Interventions toward this output will be within the ecological conservation and restoration zone of the Akesu Duolang River National Wetland Park, and involve (i) rehabilitating about 95 hectares (ha) of degraded wetland; (ii) establishing about 4 ha of forest shelter belts; (iii) constructing wetland protection infrastructure; (iv) improving wildlife protection through wetland monitoring facilities; and (v) establishing a wildlife rescue and disease control center, and public wetland education facilities.

16. **Output 3: Project and urban environmental management and inclusive capacity enhanced.** The capacity of local project partners for the successful implementation, operation, and management of project facilities will be enhanced by (i) preparing and updating a project performance management system; (ii) undertaking tendering, procurement, contract management, and financial management; (iii) carrying out construction supervision; (iv) conducting stakeholder consultations; (v) ensuring environmental and social safeguards; (vi) undertaking regular monitoring and evaluation; (vii) meeting reporting requirements; (viii) providing about 2,000 person-times of public training, including 50% women and ethnic minorities; and (ix) providing technical guidance on environmentally sustainable and socially inclusive urban infrastructure.¹⁷

D. Investment and Financing Plans

17. The project’s estimated cost is \$250.99 million (Table 1), of which 67.1% of the base

¹⁷ While the public training target is 50% female participation, the staff training target is 30%.

cost will finance civil works, 29.7% for mechanical and equipment, and 1.1% for capacity development. The total cost includes physical and price contingencies and interest during construction.

Table 1: Project Investment Plan
(\$ million)

Item	Amount ^a	Share of Total (%)
A. Base Cost^b		
1. Urban infrastructure and services improved	178.34	71.06
2. Akesu Duolang wetland rehabilitated and protected	43.24	17.23
3. Project and urban environmental management and inclusive capacity enhanced	1.75	0.69
Subtotal (A)	223.33	88.98
B. Contingencies^c	21.81	8.69
C. Financing Charges during Construction^d	5.85	2.33
Total (A+B+C)	250.99	100.00

^a Includes taxes and duties estimated at \$11.95 million, to be financed from government resources and Asian Development Bank (ADB) loan resources. The amount of taxes and duties to be financed by ADB is based on the principles that (i) the amount of taxes and duties financed by the ADB loan does not represent an excessive share of the project, (ii) the taxes and duties apply only to ADB-financed expenditures, and (iii) the financing of taxes and duties is relevant to the project success.

^b In July 2014 prices and an exchange rate of \$1 = CNY6.15.

^c Physical contingencies computed using 4.7% on base cost. Price contingencies computed using foreign cost escalation factors of 1.25% for 2015, 2.52% for 2016, and 3.95% for 2017; and local currency escalation factors of 2.80% for 2015, 5.88% for 2016, and 9.09% for 2017.

^d Includes interest and commitment charges. Interest during construction for ordinary capital resources loan(s) has been computed at the 5-year US dollar fixed swap rate plus an effective contractual spread of 0.5% and maturity premium of 0.1%. Commitment charges for an ordinary capital resources loan are 0.15% per year to be charged on the undisbursed loan amount.

Source: Asian Development Bank estimates.

18. The government has requested a loan of \$150 million from ADB's ordinary capital resources to help finance the project. The loan will have (i) a 26-year term, including a grace period of 5 years; will follow the straight-line repayment method; (ii) an annual interest rate determined in accordance with ADB's London interbank offered rate (LIBOR)-based lending facility;¹⁸ (iii) a commitment charge of 0.15% per year on undisbursed funds; and (iv) such other terms and conditions as are set forth in the draft loan and project agreements. The ADB loan will cover civil works, equipment, engineering installation, project management and capacity building, and financing charges during construction. The ADB loan will also finance taxes and duties included in the base cost. The financing charges during construction are estimated at \$5.85 million; of which \$3 million will be financed through ADB loan as capitalized interest and charges. The loan will finance 59.76% of the total project cost and the Akesu Municipal Government (AMG) will finance the remaining 40.24% (Table 2).

Table 2: Financing Plan

Source	Amount (\$ million)	Share of Total (%)
Asian Development Bank	150.00	59.76
Akesu Municipal Government	100.99	40.24
Total	250.99	100.00

Source: Asian Development Bank estimates.

19. The PRC is the borrower of the loan and will make the loan available through XUAR Government and Akesu Prefecture Government to AMG, on the same terms and conditions as those of the ADB loan. As the end-borrower, AMG will assume foreign exchange and interest rate variation risks for the ADB loan. The PRC, XUAR, Prefecture, and

¹⁸ The interest includes a maturity premium of 0.10% per annum. This is based on the above loan terms and the government's choice of repayment option and dates.

AMG have assured ADB that counterpart funding will be provided in a timely manner, including any additional counterpart funding required for any shortfall of funds or cost overruns. The indicative flow of funds and the lending arrangements are provided in the project administration manual (PAM).¹⁹

E. Implementation Arrangements

20. Implementation arrangements are summarized in Table 3 and detailed in the PAM.

Table 3: Implementation Arrangements

Aspects	Arrangements		
Implementation period	May 2015–April 2020 (with retroactive financing)		
Estimated completion date	31 October 2020 (loan closing date: 30 April 2021)		
Management			
(i) Oversight body	Xinjiang PLG XUARG vice-governor (chair) Senior officials from XDRC, XFD, XHURDD, and other regional agencies (members)		
(ii) Executing agency	XUARG (with day-to-day coordination delegated to the XPMO). The XPMO will work under the direction of Xinjiang Project Leading Group and include staff from XDRC, XFD, and XHURDD, with others seconded as necessary.		
(iii) Implementing agency	AMG. The AMG has set up the APLG and the APMO to coordinate and resolve interdepartmental issues. The APMO will work under the direction of the APLG.		
Procurement	Procurement Method	No. of Contracts	Value (\$)
	ICB for goods	1	12,399,600
	NCB for civil works	16	142,896,800
	NCB for goods	14	32,254,800
	Shopping for goods	2	105,700
Consulting services	QCBS 80:20	1	1,490,000
	ICS	1	60,000
	Total	34	189,206,900
Advance contracting and retroactive financing	Advance contracting will apply to four civil works contracts, six goods contracts, and two consulting services contracts, with a total value of \$46.39 million (30.9% of the loan). The amount to be retroactively financed does not exceed 20% of the loan amount and is incurred prior to loan effectiveness but not earlier than 12 months before the date of signing of the related legal agreement.		
Disbursement	Loan proceeds will be disbursed in accordance with ADB's <i>Loan Disbursement Handbook</i> (2015, as amended from time to time) and detailed arrangements agreed upon between the government and ADB.		

ADB = Asian Development Bank, AMG = Akesu Municipal Government, APLG = Akesu Project Leading Group, APMO = Akesu Project Management Office, ICB = international competitive bidding, ICS = individual consultant selection, NCB = national competitive bidding, QCBS = quality- and cost-based selection, XDRC = Xinjiang Development and Reform Commission, XFD = Xinjiang Finance Department, XHURDD = Xinjiang Housing and Urban–Rural Development Department, XPMO = Xinjiang Project Management Office, XUARG = Xinjiang Uygur Autonomous Region Government.

Source: Asian Development Bank estimates.

III. DUE DILIGENCE

A. Technical

21. A comprehensive analysis of the feasibility of the seven engineering elements within the output components was undertaken. The technical designs are suitable for local circumstances, topography, and climate (arid desert conditions with long, harsh winters), consistent with strategic and sector priorities, and PRC design guidelines and local regulations. The demand projections for the urban infrastructure services were assessed to be appropriate. Design options were compared and appropriate technologies and alternatives with the least costs and

¹⁹ Project Administration Manual (accessible from the list of linked documents in Appendix 2).

least environmental and social impacts were selected. The design of the Akesu Duolang wetland rehabilitation component incorporates state-of-the-art scientific principles and international and national good practices, and takes into account local climatic and hydrological conditions. A detailed final design will be undertaken by a class A design institute, and start-up consultants will provide procurement support during the advance action period. The capacity-building component was formulated on the basis of a comprehensive assessment of the local needs for successfully implementing and operating project facilities, and incorporates innovative features with respect to environment-friendly and socially inclusive urban infrastructure planning, awareness building for road safety, public education and demonstration for road-sharing and waste 3Rs, and public education for wetland and biodiversity protection.

B. Economic and Financial

22. **Economic analysis.** An economic analysis, with a cost–benefit analysis, sensitivity analysis, and distributional analysis, was conducted for all physical components.²⁰ The least-cost analysis confirms the selection of technologies and alternatives for individual components. The cost–benefit analysis considered direct impacts on beneficiaries. The analysis confirmed that the project outputs and the overall project are economically viable, with an economic internal rate of return for the overall project of 23.6%, which exceeds the economic opportunity cost of capital of 12%. The economic internal rate of return for the urban development component is 26.0%, and for the Akesu Duolang wetland component it is 13.3%. The sensitivity analysis shows that the project remains economically viable in the event of a 10% increase in cost and 10% decrease in benefit.

23. **Financial analysis.** The financial analysis includes (i) the project's fiscal impact on the finances of the AMG as the ultimate borrower of the loan, and (ii) the financial viability of the cost-recovery element of the central heating component.²¹ The fiscal impact was assessed by comparing the annual revenues from the AMG's identified financing sources with the annual counterpart funds required for (i) capital expenditures during project implementation and (ii) recurrent costs for operation and maintenance and debt service during operations. The analysis indicates that the AMG is able to finance counterpart funds, service debts, and recurrent operation and maintenance costs. The fiscal risk assumed by the AMG in financing the component parts is assessed to be acceptable. The financial viability analysis for the central heating component shows that the financial internal rate of return, estimated at 8.03%, is higher than the estimated weighted average cost of capital of 1.78%. The financial analysis and related sensitivity analysis find the project components financially viable.

C. Governance

24. ADB's Anticorruption Policy (1998, as amended to date) and its Accountability Mechanism Policy²² were explained to and discussed with the XUAR government and the AMG. The procurement capacity assessment of the AMG concluded that the procedural arrangements are adequate to ensure full compliance with ADB procurement guidelines considering the support that will be provided by the Akesu Public Resources Trading Center, the international tendering company, and the loan implementation consultant.²³ The financial management risk has been assessed as moderate. The project financial management arrangements are adequate. The specific policy requirements and supplementary measures are described in the PAM.

²⁰ Economic Analysis (accessible from the list of linked documents in Appendix 2).

²¹ Financial Analysis (accessible from the list of linked documents in Appendix 2).

²² ADB. 2012. *Accountability Mechanism Policy*. Manila.

²³ Procurement Capacity Assessment (accessible from the list of linked documents in Appendix 2).

D. Poverty and Social

25. The project is expected to improve the mobility and accessibility, sanitation and public health, and livelihoods for the people of Akesu. The project will directly benefit 263,830 people, of which 122,420 or 46.4% are ethnic minorities, and 44,320 people or 16.8% are poor. It will generate 12,130 person-years of direct employment during the construction phase and 2,761 person-years of direct employment during the operational phase.²⁴ The XUAR government and the AMG have committed to prioritizing the employment of vulnerable groups, including women, the poor, and ethnic minorities. Project implementation units will ensure that all PRC labor laws and core labor standards are respected. Details on specific measures will ensure that poverty and social benefits are in the social and gender action plan in the PAM and ethnic minority development plan. Social and gender indicators will be included in the project performance management system, and appropriate consultant inputs for implementation and monitoring of both plans are included in the supervision consultant package.²⁵

26. **Gender benefits.** The project is categorized as effective gender mainstreaming. It will have significant benefits for women by reducing the energy, time, and effort spent on their routine household activities as well as allowing them greater participation in income-generating activities. Women strongly support the project across all components, and perceive that it will improve their quality of life and create employment and income for them. A gender action plan was prepared, including specific targets for women's employment and participation.²⁶ The plan will help ensure (i) women's participation in the project, including a target for at least 45% employment for women (including ethnic minorities); (ii) participation and gender-sensitive public training on public road safety, solid waste management, and wetland protection, with up to 50% female participation (and staff training participation up to 30% female); (iii) participation in capacity-building activities; and (iv) appropriate gender targets, indicators, and sex-disaggregated data for project monitoring and evaluation.

E. Safeguards

27. **Environment (category B).** The AMG prepared an initial environmental examination that complies with ADB's Safeguard Policy Statement (2009), and was disclosed on the ADB website on 25 February 2015.²⁷ The anticipated impacts will be localized, short-term, reversible, and effectively mitigated by applying good construction practices as defined in the environmental management plan. During construction, dust, noise, and temporary traffic disturbance generated by road rehabilitation activities will be a nuisance to nearby residents. All roads will be developed with safe and adequately wide footpaths, fully segregated nonmotorized lanes, and public transport facilities. The rehabilitation of the Duolang wetlands will require significant construction activities with temporary impact on existing wetland functions. However, the project is expected to greatly boost these functions by significantly increasing the value of the wetland's ecosystem services.²⁸ The project will also have substantial pollution-abatement benefits.²⁹ The climate risk to the project is medium.³⁰ Akesu River runoff will significantly

²⁴ These targets are disaggregated by component in the design and monitoring Framework (Appendix 1).

²⁵ Summary Poverty Reduction and Social Strategy (accessible from the list of linked documents in Appendix 2).

²⁶ The two-page gender action plan was prepared based on the combined social and gender action plan included in the PAM and assurances. Gender Action Plan (accessible from the list of linked documents in Appendix 2).

²⁷ Initial Environmental Examination (accessible from the list of linked documents in Appendix 2).

²⁸ The wetland biotope will provide regulating services (e.g., water storage, supply and treatment, and micro-climate regulation), supporting services (biodiversity maintenance by providing resting, feeding, and breeding habitats for wildlife such as migratory water birds), and cultural services (including tourism, research, and recreation).

²⁹ 29.3 million liters of fuel can be saved per year from improved road conditions and connectivity, resulting in the reduction of carbon dioxide emissions by 215,000 tons per year. The use of waste heat from a combined heat and power plant will result in the closure of 28 small, low-efficiency boilers, which will reduce coal use by 25,900 tons

increase due to increased snow and glacier melt in the Tianshan Mountains. All project roads will include high-capacity culverts and separate storm- and wastewater-collection systems. The rehabilitation and protection of the Duolang wetlands is an important measure to enhance climate resilience by increasing number and diversity of habitats on the Central Asian flyway.

28. Involuntary resettlement (category A). A resettlement plan was prepared following ADB's Safeguard Policy Statement and posted on the ADB website on 27 February 2015.³¹ Based on the resettlement impact survey, the urban road component and the wetland output will have land acquisition and resettlement impacts. A total of 184 households and 790 persons will be affected by the project. In total, 1,502.93 *mu* (100.2 ha) of land will be permanently acquired; including 825.13 *mu* (55 ha) state-owned land and 677.8 *mu* (45.19 ha) of collective-owned land, which will affect 176 households with 740 persons.³² Of the collectively owned land acquired, 66.5% (450.6 *mu* or 30 ha) is cultivated land. Along with land acquisition, 5,655 square meters of residential structures will be demolished, affecting 21 households with 120 persons. About 13 households and 70 persons will be affected by both land acquisition and resettlement. The resettlement plan was disclosed to affected persons, and resettlement information booklets were distributed in January 2015. Appropriate livelihood-restoration measures associated with resettlement are incorporated in the resettlement plan. The project will also establish a transparent grievance redress mechanism that will provide meaningful consultation and ensure that remedial action is taken as necessary during project implementation. An external resettlement monitor or a firm will be engaged to conduct semiannual monitoring and evaluation of resettlement implementation and submit reports to the AMG and ADB. The AMG's capacity for resettlement will be strengthened. Xinjiang Uygur Autonomous Region Government has assured ADB that adequate funds for resettlement will be made available on a timely basis during project implementation.

29. Indigenous peoples (category B). Ethnic minorities constitute 46.4% of the population in the direct project area and 53.6% in the indirect area in Akesu. Although urban communities are ethnically mixed, some aspects such as cultural, religious, and linguistic differences are maintained. All households in the urban areas will benefit from the new and upgraded infrastructure services and rehabilitated wetlands. Ethnic minorities will not be adversely affected, except for 172 Uygur minority households (land acquisition) and 18 other households (residential house demolition). An ethnic minority development plan has been prepared and endorsed by the AMG.³³ The plan focuses on measures to facilitate the inclusion of ethnic minorities in all project activities, and ensure that their customs and beliefs will be respected throughout project implementation. The ethnic minority development plan was disclosed on 23 January 2015 to ethnic minorities in the areas targeted by the project. Monitoring and reporting arrangements are included in the PAM and in the project agreement.

F. Risks and Mitigating Measures

30. Major risks and mitigating measures are summarized in Table 4 and described in detail in the risk assessment and risk management plan.³⁴ The integrated benefits and impacts are

per year, resulting in significant emission reductions—sulfur dioxide: 173 tons, nitrogen oxides: 1,559 tons, and carbon dioxide: 64,000 tons.

³⁰ Annual mean temperatures are projected to increase significantly in the project area, while precipitation is projected to slightly decrease.

³¹ Resettlement Plan (accessible from the list of linked documents in Appendix 2).

³² A *mu* is a Chinese unit of measurement (1 *mu* = 666.7 square meters).

³³ Indigenous Peoples Plan: Ethnic Minority Development Plan (accessible from the list of linked documents in Appendix 2).

³⁴ Risk Assessment and Risk Management Plan (accessible from the list of linked documents in Appendix 2).

expected to outweigh costs and risks.

Table 4: Summary of Risks and Mitigation Measures

Risks	Mitigating Measures
Weak capacity of the AMG as the implementing agency to effectively withdraw ADB loan proceeds, resulting in disbursement and construction delays	AMG and APMO will set up clear institutional arrangements, recruit qualified staff, and build capacity through training provided by the loan implementation consultant and the PRC Resident Mission. Xinjiang Project Management Office will ensure that the APMO and implementing agencies with experience from other ADB projects in Xinjiang Uygur Autonomous Region share their knowledge.
Lack of procurement capacity for ADB or other foreign-funded projects, resulting in poor preparation of the procurement plan and bidding documents; poor management of the procurement process, and significant delay of the process	Engage start-up consultant to support preparation of bidding documents, including technical specifications, and the actual bidding process before loan implementation consultants are mobilized. Provide implementation consulting support for technical specifications in the bidding documents.
Delay of land acquisition and resettlement due to a shortage of counterpart funding or unforeseen problems arising during LAR negotiation	AMG assures the availability of counterpart funding with detailed financing plan. Update the resettlement plan based on the final design and survey. Institutional strengthening and training for carrying out LAR tasks.

ADB = Asian Development Bank, AMG = Akesu Municipal Government, APMO = Akesu Project Management Office, LAR = land acquisition and resettlement.
Source: Asian Development Bank.

IV. ASSURANCES

31. The governments of the PRC and XUAR have assured ADB that implementation of the project shall conform to all applicable ADB policies, including those concerning anticorruption measures, safeguards, gender, procurement, consulting services, and disbursement as described in detail in the PAM and loan documents. The governments of the PRC and XUAR have agreed with ADB on certain covenants for the project, which are set forth in the loan and project agreements.

V. RECOMMENDATION

32. I am satisfied that the proposed loan would comply with the Articles of Agreement of the Asian Development Bank (ADB) and recommend that the Board approve the loan of \$150,000,000 to the People's Republic of China for the Xinjiang Akesu Integrated Urban Development and Environment Improvement Project, from ADB's ordinary capital resources, with interest to be determined in accordance with ADB's London interbank offered rate (LIBOR)-based lending facility; for a term of 26 years, including a grace period of 5 years; and such other terms and conditions as are substantially in accordance with those set forth in the draft loan and project agreements presented to the Board.

Takehiko Nakao
President

4 June 2015

DESIGN AND MONITORING FRAMEWORK

Design Summary	Performance Targets and Indicators with Baselines	Data Sources and Reporting Mechanisms	Assumptions and Risks
<p>Impact Socially inclusive and environmentally sustainable urbanization in Akesu</p>	<p>By 2030 (2013 baseline) Akesu will be named National Civilization City by 2030^a</p>	<p>Government reports</p> <p>Akesu statistical yearbooks</p>	<p>Assumptions Akesu urban master plan and five-year plans are effectively implemented.</p> <p>Socioeconomic development of Xinjiang Uygur Autonomous Region and Akesu is steady and in accordance with the Twelfth and Thirteenth Five-Year Plans.</p>
<p>Outcome Quality of municipal services and environment improved</p>	<p>By 2020 (2013 baseline) Number of traffic accidents involving personal injury reduced from baseline (286)</p> <p>88.6% of people in the project area have improved access to sewerage (compared to 8.0%)</p> <p>87.0% of people in the project area have improved access to district heating (compared to 12.7%)</p> <p>100.0% of people in the project area have their solid waste collected (compared with 18.7%)</p> <p>The value of ecosystem services (flood retention, irrigation, sediment and nutrient removal, biodiversity habitat, and groundwater replenishment) in Akesu Duolang wetlands increased above baseline (\$1.12 million)</p> <p>Number of days meeting class II national ambient air quality standards increased above baseline (232)</p>	<p>Annual reports of relevant government agencies and urban service companies</p> <p>Progress reports</p> <p>Social and environmental monitoring reports</p>	<p>Assumptions Other urban infrastructure is constructed on time and is operational.</p> <p>Project facilities are properly operated and maintained.</p> <p>Systematic implementation of plans to separate motorized and non-motorized traffic.</p> <p>Risks Effective stakeholder participation and ownership are not developed.</p> <p>Other environmental pollution sources increase.</p>
<p>Outputs 1. Urban infrastructure and services improved</p>	<p>By 2019 (2013 baseline: 0) 75 km of roads and residential alleys built or rehabilitated</p> <p>One public and five green spaces upgraded with plantings</p> <p>38 km of urban water supply pipes laid</p> <p>78 km of urban sewerage pipes built</p> <p>44 km of central heating network built</p> <p>One waste transfer station built</p> <p>10,730 person-years of direct employment</p>	<p>Project completion and periodic progress reports</p> <p>Social and environmental monitoring reports</p> <p>Inspection reports</p> <p>Audit reports</p>	<p>Assumptions Financing is provided on time.</p> <p>Required approvals are obtained on time.</p> <p>Risks Capacity-building program fails to create adequate capacity.</p> <p>Unexpected price increases occur in key materials and resources.</p>

Design Summary	Performance Targets and Indicators with Baselines	Data Sources and Reporting Mechanisms	Assumptions and Risks
<p>2. Akesu Duolang wetland rehabilitated and protected</p> <p>3. Project and urban environmental management and inclusive capacity enhanced</p>	<p>during construction and 2,446 person-years during operation created (45% for women, including ethnic minorities)^b</p> <p>95 hectares of wetland protected</p> <p>4 ha of forest shelter belts established</p> <p>Wildlife rescue and disease control center established</p> <p>Public wetland education facilities established</p> <p>1,400 person-years of direct employment during construction and 315 person-years during operation created (45% for women, including ethnic minorities) (footnote b)</p> <p>Environmental and social safeguard programs implemented according to schedules listed in the EMP, resettlement plan, EMDP, and SGAP</p> <p>Staff training, with 30%^c female participation (including ethnic minorities), conducted on (i) project management; (ii) solid waste management, planning, and training; and (iii) and road safety and transport planning assessment and training</p>		<p>Relevant agencies lack coordination in implementation and monitoring.</p> <p>Resettlement implementation suffers unexpected delays.</p>
Activities with Milestones			Inputs
<p>1. Urban infrastructure and services improved</p> <p>1.1 Design and tender documentation by Q2/2015</p> <p>1.2 First stage of land acquisition and resettlement completed by Q4/2015</p> <p>1.3 Preparation for construction by Q4/2015</p> <p>1.4 Tendering, evaluation, and contract awards by Q4/2015</p> <p>1.5 Civil works construction and equipment installation by Q4/2017</p> <p>1.6 Acceptance inspection and commissioning by Q2/2018</p> <p>2. Akesu Duolang wetland rehabilitated and protected</p> <p>2.1 Design and tender documentation by Q4/2015</p> <p>2.2 Land acquisition and resettlement completed by Q4/2016</p> <p>2.3 Preparation for construction by Q2/2016</p> <p>2.4 Tendering, evaluation, and contract awards by Q2/2016</p> <p>2.5 Civil works construction and equipment installation by Q2/2019</p> <p>2.6 Acceptance inspection and commissioning by Q2/2019</p> <p>3. Project and urban environmental management and inclusive capacity enhanced</p> <p>3.1 Design and tender documentation by Q2/2015</p> <p>3.2 Tendering, evaluation, and contract awards by Q3/2015</p> <p>3.3 Project management activities (Q1/2015–Q2/2020)</p> <p>3.4 Capacity-building activities (Q2/2015–Q1/2020)</p> <p>3.5 Implementation and supervision of EMP, resettlement plan, EMDP, and SGAP (Q2/2015–Q1/2020)</p>			<p>ADB: \$150 million</p> <p>Government: \$100.99 million</p> <p>Staff from ADB, Akesu Municipal Government, and the Government of Xinjiang Uygur Autonomous Region</p>

ADB = Asian Development Bank, EMP = environmental monitoring plan, EMDP = ethnic minority development plan, km = kilometer, Q = quarter, SGAP = social and gender action plan.

^a The criteria for becoming a national civilization city involve (i) strong and effective organizational leadership, (ii) ideological education, (iii) broad public participation in community activities, (iv) progressive party and

government social values, (v) steady progress in sciences and education, (vi) public safety, (vii) improved infrastructure and environmental quality, and (viii) sustained improvements in the local economy and living standards.

^b Outputs 1 and 2 combines will generate 12,730 person-years of direct employment during the construction phase and 2,761 person-years of direct employment during the operational phase.

^c While the staff training target is 30% female participation, the public training target is 50%.

Source: Asian Development Bank.

LIST OF LINKED DOCUMENTS

<http://adb.org/Documents/RRPs/?id=46049-002-3>

1. Loan Agreement
2. Project Agreement
3. Sector Assessment (Summary): Urban Development¹
4. Project Administration Manual
5. Contribution to the ADB Results Framework
6. Development Coordination
7. Financial Analysis
8. Economic Analysis
9. Country Economic Indicators
10. Summary Poverty Reduction and Social Strategy
11. Gender Action Plan
12. Initial Environmental Examination
13. Resettlement Plan
14. Indigenous Peoples Plan: Ethnic Minority Development Plan
15. Risk Assessment and Risk Management Plan

Supplementary Documents

16. Poverty and Social Impact Statement
17. Financing Management Assessment
18. Extended Economic Analysis
19. Procurement Capacity Assessment

¹ ADB. 2010. *People's Republic of China: Country Partnership Strategy (2011–2015)*. Manila. This covers the following sectors: Transport; Water and Other Urban Infrastructure and Services; and Agriculture, Natural Resources, and Rural Development.