SECTOR ASSESSMENT (SUMMARY): MULTISECTOR

Sector Road Map

1. Sector Performance, Problems, and Opportunities

1. The economy of the People's Republic of China (PRC) has developed rapidly since implementation of the "opening up" reform policy began in 1979, achieving an annual average growth rate of 9.8% over three decades. With its gross domestic product reaching $4.92 trillion in 2009, the PRC has become the second-largest economy in the world after the United States. The PRC is undergoing rapid urbanization—its urban population more than tripled from 190 million in 1980 to 622 million in 2009, accounting for 46.6% of the national population, and is expected to reach 56% by 2020. The number of cities increased from 176 in 1978 to more than 660 in 2009. This urbanization has taken place along with sustained high growth and continued economic transformation throughout the PRC. Rapid economic development has impacted the environment and municipal services, and requires implementation of coherent and comprehensive urban planning and management. It is important to improve the institutional capacity of local government agencies to undertake urban planning and management to ensure the sustainability of urban infrastructure.

2. Despite high levels of growth and urbanization in the PRC, there are wide regional disparities in both economic development and physical infrastructure provision, including roads, railways, power, water supply, and sanitation. The western region, which is home to many of the PRC's poor, has not benefited from the economic growth and reforms as much as the eastern (coastal) region.[1] Most of the western region lacks access to safe potable water supplies, or proper wastewater and solid waste treatment. This has imposed a great challenge on the central government to create balanced and equitable development within the PRC.

3. In 1999, the Government of the PRC launched the West China Development Strategy (WCDS), aiming to promote balanced and pro-poor economic growth, stimulate economic development, and raise the living standards of the population in the western region. Major foci of the WCDS are on improving border port facilities, strengthening economic cooperation and trade with neighboring countries, improving infrastructure development, and protecting the environment. By 2009, the government had invested CNY2.2 trillion ($320 billion) in development projects in the western region under WCDS. These include massive investment to build and/or upgrade the infrastructure to improve their connectivity and productivity, to deploy and relocate strategic industries in the less-developed areas to advance economic transformation and create employment opportunities, and to promote urban development to improve the urban environment and living conditions. Although growth has accelerated, the western region still lags the eastern region. In 2009, the per capita gross domestic product of the eastern region was 2.2 times that of the western region; the average income per capita in the eastern region was CNY38,587 ($5,675), that in the western region was CNY18,090 ($2,660).

4. The Xinjiang Uygur Autonomous Region (XUAR), an autonomous region in the northwest of the PRC, is part of the western region and the gateway between the PRC and Central Asian republics (CARs). A major transport corridor on the historic Silk Road, it shares borders with eight neighboring countries. Since ancient times, many ethnic groups have populated Xinjiang. The region's ethnic minority population now accounts for about 51% of the total population. Its environment is harsh. Its territory is made up predominantly of deserts surrounded by mountain ranges. Around 97% of XUAR's population lives in an oasis belt that covers just 8% of its total

[1] The PRC's western region covers six provinces (Sichuan, Yunnan, Guizhou, Qinghai, Shaanxi, and Gansu); five autonomous regions (Inner Mongolia, Guangxi, Ningxia, Xinjiang, and Xizang); and one municipality (Chongqing).

land area. In summer, there are strong winds and a high evaporation rate. In winter, except in some of the southern parts of the region, there is heavy snow.

5. XUAR is among the poorest of the western region's provinces. In 2008, it was 30th out of the 31 autonomous regions or provinces in terms of per capita annual disposable income of urban households (CNY11,432 compared with a national average of CNY15,781), and 25th in terms of per capita annual disposable income of rural households (CNY3,502.9 compared with a national average of CNY4,760.6). About 8% of XUAR's urban population and 10% of its rural population were below the official poverty line, compared with the national average poverty incidence of 4% and 4.7%. At the same time, XUAR has one of the highest population growth rates in the PRC. As a consequence, unemployment and urbanization and land degradation in rural areas compound the impact of its overall poverty on the local standard of living. Twenty-seven of the 101 cities and counties are designated as national poverty counties.

6. Although economic growth is ongoing, the full potential of the different sectors has not yet been realized. Realization of this development potential is important not only for continued poverty reduction in the region, but to ensure the environmentally sustainable economic growth that will improve urban living conditions over the long term.

2. Government Strategy and ADB Assistance in Xinjiang

7. The XUAR Government (XUARG), in accordance with its Eleventh Five-Year Plan (2006–2010), placed a high priority on sustainable economic development—particularly in the northern border areas with tourism potential. XUARG's development strategy focuses on the region's potential role in the Central Asia Regional Economic Cooperation (CAREC)[2] program. Accordingly, its emphasis is on improving border port facilities, strengthening economic cooperation and trade with neighboring countries, improving infrastructure development, and encouraging non-state-owned investment—while at the same time protecting the natural environment. It has also been making use of the favorable environment resulting from the increase in the state's infrastructure investment in the western region. Based on the principles of "unified planning, rational layout, and appropriately ahead", it is expediting the construction of infrastructure such as water supply, wastewater treatment, grey water reuse, disposal of municipal domestic waste and medical waste, etc. to resolve the bottlenecks that are constraining socioeconomic development.

8. ADB has been actively supporting the PRC development initiative and the WCDS, focusing on the provision of infrastructure and environmental management to lay a foundation for development, stronger cooperation with the CARs and sustainable socioeconomic development.[3] It has also been supporting the promotion of regional trade through the CAREC program since the late 1990s[4] and is working with other development partners to advance cross-border cooperation between the CARs. The ADB loan projects for XUAR fully support XUARG's development objectives and the CAREC transport and cross-border trade strategy.

9. Altay Prefecture, which is in the northern border area of XUAR, possesses some unique

[2] ADB initiated the CAREC program in 2007. Its goal is to improve living standards and to reduce poverty in CAREC countries through more efficient and effective regional economic cooperation. To date, the program has focused on financing infrastructure projects and improving the region's policy environment in priority areas of transport, energy, and trade policy and facilitation.

[3] ADB. 2005. *Technical Assistance to the People's Republic of China for Provincial Development Strategy of Selected Provinces in Northwestern Region*. Manila (TA 4727-PRC). More than 85% of the loans already received or to be received by the PRC from ADB during the period 2007–2012 have been or will be allocated to the central and western regions, the top three priorities being transport, municipal infrastructure, and environmental protection.

[4] ADB. 2006. *Technical Assistance to the People's Republic of China for Logistics Development and Capacity Building in Xinjiang Uygur Autonomous Region*. Manila (TA 4873-PRC).

tourism resources and geographical advantages that are significant in XUARG's development strategy as well as WCDS. However, it suffers from a very harsh climate, with subzero temperatures between November and March, and low annual precipitation but high annual evaporation. About 18% of the population lives below the official poverty line. To maximize strong growth potential and raise the living standard of the people, the XUAR and Altay governments have accorded high priority to physical infrastructure improvements that support economic development, which, along with growth in tourism and cross-border trade, has increased pressure on urbanization. A development target of Altay Prefecture in the Eleventh Five-Year Plan is for urbanization to reach 45%; construction of urban infrastructure facilities will be strengthened and the towns' functions will be elevated.

10. In May 2010, the government outlined a series of policies and measures to aid XUAR, also setting new requirements on the urban infrastructure. Expediting the infrastructure construction in the various counties of Altay Prefecture will be consistent with the new requirements on XUAR's development.

11. Upon completion and operation of this ADB-financed project, comprehensive utility services will be provided to five county seats and one land port in Altay Prefecture. The implementation of the project will help the project counties achieve the sector development targets and promote the local socioeconomic development. The procurement of instrumentation and personnel training included in the project will noticeably enhance the operation and maintenance (O&M) capability of the project counties, which will further raise the sector management capability and serve as catalysts for further sector development.

3. Sector Experience, Lessons, and Project Design

12. In the rapid urbanization process, many cities in the PRC tend to concentrate their public investment on construction of physical urban infrastructure. Based on previous experiences in the PRC and XUAR, ADB and the government have conducted continuous and extensive dialogue on advocating people-centered principles, developing livable and environment-friendly cities in the context of sustainable development, and giving due consideration to system operation and provision of municipal service, in their application to the project.

13. The experiences gained from similar investment projects in medium and small urban centers, especially from the two former ADB-financed infrastructure and environment improvement projects in XUAR, and the knowledge generated from various policy-oriented studies, have been incorporated in the design of the project. Lessons learned that are applicable to this project include: (i) strategic master plans play an important role in providing a comprehensive framework for urban development and environmental management; (ii) increased public awareness and education are important ways to improve the environment and should be provided for; (iii) the establishment of an effective internal and external monitoring mechanism for resettlement implementation will ensure effective coordination and timely implementation of land approval, compensation, and rehabilitation; (iv) a participatory approach is important for project preparation; (v) attention is paid to public transport, traffic management, road safety, and road maintenance, to complement investment in roads; (vi) fulfillment of the basic needs of the local communities, supporting the implementation of approved local development master plans, and consistency with ADB's development strategies and policies are considered key project selection criteria; (vii) effective coordination between the project management offices and relevant departments at various levels of government and adequate staffing of project management offices are necessary; (viii) commitment to water source protection and planning of wastewater treatment is stressed for every water supply subcomponent; (ix) ethnic minorities are given the opportunity to be involved in the whole of the project cycle; (x) there is focus on the sensitivity and respect for religious practices, customs and

culture of the minorities, e.g., avoidance of encroachment and/or disturbances at places and times of worship, requiring contractors to observe local protocol concerning acceptable behavior toward the local population, etc.; and (xi) public consultation mechanisms involve local governments and community and religious groups.

14. The project will highlight the experiences and lessons learned from the country assistance program evaluation in 2007, which suggested (i) employing a broader urban approach that will bring together more components in urban operation, such as transport, pollution control, and urban energy needs; (ii) providing sewage treatment facilities with adequate attention to sludge treatment or disposal; and (iii) providing water supply facilities with adequate assessment of how future raw water demand can be met.

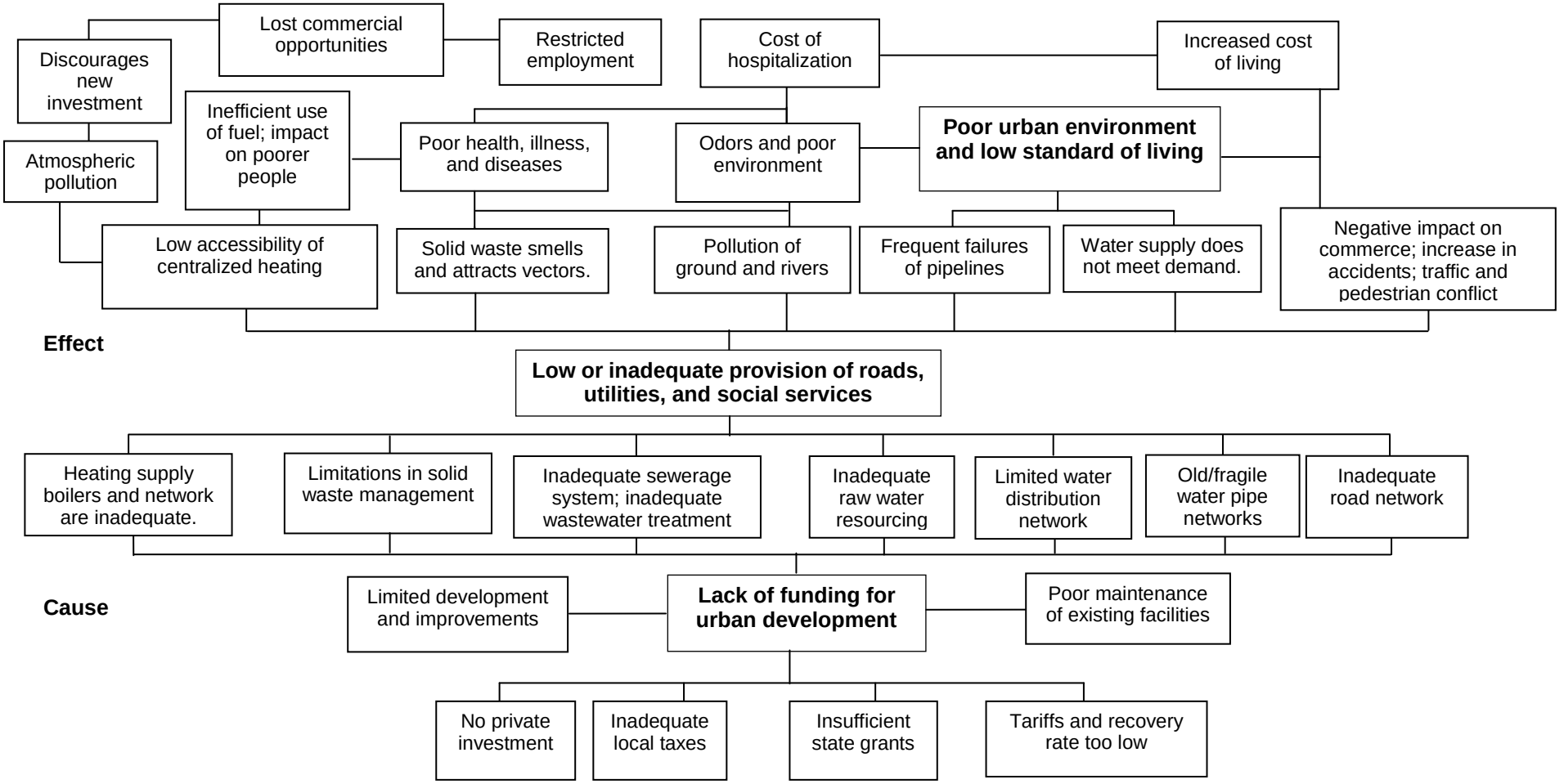
15. ADB-financed urban development and urban environmental improvement projects in the PRC generally perform well. Urban development requires an integrated and multisector approach. In any urban area (i.e., a city or town) in the PRC, a comprehensive urban development master plan prepared for a time frame of 15–20 years, updated from time to time, guides the urban development activities there. Guided by such an urban master plan, holistic urban planning and integrated public investment may be effective instruments in strengthening urban sustainability, advancing human settlement, and improving urban environment. However, continued investment in physical infrastructure for urban development requires stronger capacity of the urban government to design, develop, and manage the associated operation or service delivery system.

16. Land acquisition and resettlement is a challenge to many urban development projects that may affect loan processing and implementation. Lessons from urban development projects in the PRC indicate that ADB's resettlement safeguard policy and operational requirements should be introduced as an example of international good practice to help the local government concerned improve its own resettlement safeguard system, rather than as a unilaterally imposed operational requirement. This approach has ensured full cooperation from the local governments in preparing the resettlement plans for projects in line with the "people-centered" principle advocated by the government and in conformity with ADB's Involuntary Resettlement Policy (1995).

17. Experience in the PRC water supply sector indicates that projects are well planned and implemented, and water tariffs are increased as required. Willingness-to-pay analysis indicates that consumers are willing to pay substantially higher prices for safe, reliable water supplies. Issues related to tariff levels, cost recovery, and the commercial orientation of water utilities have been carefully assessed during project preparation. Lessons learned from previous projects are reflected in the project design, such as (i) sufficient focus on institutional strengthening measures to improve corporate governance, (ii) greater coordination among various levels of government, and (iii) financial and institutional arrangements for more effective O&M.

18. ADB's evaluation studies have highlighted relevant lessons like the need to (i) encourage broad reforms, (ii) ensure counterpart funding for O&M, (iii) consult the public and the concerned community in project design, (iv) solve resettlement issues at the early stage of processing, and (v) avoid start-up delays. These lessons have been incorporated in the design of the project.

Problem Tree for Multisector



Sector Results Framework (Urban Development and Social Sector 2011–2015)

Country Sector Outcome		Country Sector Outputs		ADB Sector Operations	
Outcomes with ADB Contributions	**Indicators with Targets and Baselines**	**Outputs with ADB Contributions**	**Indicators with Incremental Targets (Baselines Zero)**	**Planned and Ongoing ADB Interventions**	**Main Outputs Expected from ADB Contributions**
A clean, clustered, and balanced process of urban development Twelfth Five-Year Plan (2011–2015) Targets: Unit domestic energy consumption reduced by 16% CO_2 emission per unit of domestic consumption reduced by 17% SO_2 emissions reduced by 8% Nitrogen oxides and ammonia nitrogen reduced by 10% Chemical oxygen demand reduced by 8% 100% coverage of social welfare and old age insurance 357 million urban population participating in old age insurance scheme Basic urban medical insurance increases by 3% 36 million units of safe urban housing built	Urban population ratio increased by 4% from 47 % to 51% by 2015 Average per capita income of urban residents increases by 7% annually - Urban population with sustainable access to improved water source increased Urban population with access to improved sanitation increased Municipal wastewater treatment ratio increases from 71% in 2010 to 85% by 2015 Solid waste treatment ratio increased from 75% (2010) to 85% Urban population with access to district heating increased Network of urban roads increased City and town registered unemployed is maintained at 5% or less	Improved water supply, wastewater and solid waste management, and other municipal infrastructure and services Improved capacity of municipal and town governments in planning, project preparation, administration and procurement, financial management, and institutional reform (e.g., corporatization and strengthened governance of wastewater management companies) Improved financing capacity of municipal and town governments through efforts to bolster private sector participation and improve local government revenues for investment	Number of additional urban households with sustainable access to improved water sources by 2015 Municipal wastewater treatment ratio increases 14% by 2015 Municipal solid waste treatment ratio increases 10% by 2015 Number of additional households having access to district heating Reductions in SO_2 emissions by 2015 Increased urban road networks by 2015 Increased spending on TVET by 2015 Municipal and town governments' institutional and financing capacity improved	**Planned** - Lending operations with a total investment of $1.6–2 billion. - Non-lending programs in tariff reforms, eco-city design, vocational education, and urban planning - Knowledge products based on technical assistance study findings and policy notes **Ongoing projects** - Jilin Water Supply and Sewerage Development - Fuzhou Environmental Improvement - Guangxi Nanning Urban Environmental Upgrading - Nanjing Qinhuai River Environmental Improvement - Anhui Hefei Urban Environment Improvement -Songhua River Basin Water Pollution Control and Management - Guangxi Wuzhou Urban Development - Xinjiang Urban Transport and Environmental Improvement - Liaoning Small Cities and Towns Development Demonstration Sector - Shanxi Small Cities and Towns Development Demonstration Sector - Wuhan Urban Environmental Improvement - Guangxi Southwestern Cities Development	**Pipeline projects** - Additional water supply capacity operational (million m^3/day) - Additional wastewater treatment operational (million m^3/day) -Additional solid waste treatment operational (million tpd) -Additional installed energy generation capacity (MW) -Additional urban roads built or upgraded (km) -Additional TVET students trained - Additional water bodies rehabilitated **Ongoing projects** - Additional water supply capacity operational (million m^3/day) - Additional wastewater treatment operational (million m^3/day) - Additional solid waste treatment operational (million tpd) - Additional installed energy generation capacity (MW) - Additional urban roads built or upgraded (km) - Additional TVET students trained - Additional water bodies rehabilitated

Note: This draft sector results framework is being prepared as part of ADB's new country partnership strategy (2011–2015) that is currently under preparation and will be available from www.adb.org once completed and approved.

ADB = Asian Development Bank, CO_2 = carbon dioxide, km = kilometer, m^3/day = cubic meter per day, MW = megawatt, SO_2 = sulfur dioxide, tpd = tons per day, TVET = technical and vocational education and training.

Source: ADB.