SECTOR ASSESSMENT (SUMMARY): WATER AND OTHER URBAN INFRASTRUCTURE AND SERVICES

Sector Road Map

1. Sector Performance, Problems, and Opportunities

1. Context and performance. The People’s Republic of China (PRC) has experienced rapid urbanization and significant economic progress as a result of the economic reforms initiated in 1978. The urban population grew from about 160 million in 1975 to 780 million in 2016 (56% of the total population). The government's agenda for economic reform and social development aims to accelerate urbanization and the development of towns and cities. The growing urban population and rising standard of living are increasing demand for services in urban areas. Population growth, urbanization, industrialization, and economic development are straining an already chronically overloaded infrastructure, not only in mega cities and major economic hubs, but also in small and medium urban centers in distant border locations.

2. The economic reforms initiated in 1978, including the PRC’s “open door” policy, resulted in the PRC assuming a more important role in the world economy, with fast-growing trade with other countries. The PRC’s overall trade volume has grown from $20.54 billion in 1978 to $3.68 trillion in 2016, much of it (53% in 2016) within Asia, making the PRC a driving force for economic growth in neighboring countries and regions. Furthermore, the PRC has more than 22,800 kilometers of land borders with nine neighboring countries, and trade across land borders accounts for a significant share of the total trade volume. The PRC has signed numerous border trade agreements with neighboring countries, and established border economic cooperation zones and resident trade markets in border port towns and cities.

3. Trade along the southwest border of the PRC is undertaken mainly through Yunnan Province, along the borders with the Lao People’s Democratic Republic (Lao PDR), Myanmar, Thailand, and Viet Nam. Trade has grown rapidly in Yunnan Province, reaching a volume of $2.95 billion in 2016, with average annual growth rate of about 46% since 2000. The bulk of Yunnan's trade passes through its three main land crossings, at (i) Hekou, Honghe Prefecture, on the border with Viet Nam; (ii) Ruili, Dehong Prefecture, on the border with Myanmar; (iii) and Mohan, Xishuangbanna Prefecture, on the border the Lao PDR. Yunnan's location can help it emerge as an important trade gateway for western inland PRC, but it is constrained by the low urbanization rate and the poor competitiveness of its second- and third-tier cities. Despite rapid development in the capital city of Kunming, many of the province’s small- and medium-sized cities suffer from inadequate basic infrastructure and limited connectivity.

4. The PRC and Myanmar have a long history of political, economic, and cultural cooperation. With the significant political changes experienced in Myanmar since 2012, and the PRC’s Belt and Road open regionalism policy adopted in 2014, both countries have taken steps to increase their cooperation. On 14 November 2014, the PRC and Myanmar governments issued a joint statement to further strengthen cooperation on economic and trade development, namely by constructing comprehensive economic corridors, which include development of trading and manufacturing hubs, transport links, and border transits. The bulk of the trade between the two

---

1 This summary is based on the detailed sector assessment. Available on request.
countries takes place through the Ruili–Muse border crossing in Yunnan Province, but with the high growth in trade volumes the provincial authorities have begun developing alternative corridors, including one in Lincang Prefecture.

5. Lincang Prefecture is situated in the southwest of Yunnan Province and shares a 290 kilometer border with Myanmar that includes three main border ports (Qingshuihe National Port, Nansan Port, and Yonghe Border Port). Lincang Prefecture’s location—along the shortest route from Kunming to Kyaukpyu Port on the Bay of Bengal in Myanmar—provides it with a comparative advantage. In its economic and social development strategies, Yunnan has highlighted the vast potential for the border areas of Lincang Prefecture to become an important manufacturing and logistical hub along a new PRC–Myanmar corridor, which is currently being developed through major investment projects such as the Kunming–Mandalay highway and the freight railway linking Kunming to the seaport of Kyaukpyu.

6. As a first step to facilitate regional cooperation and promote economic and social development in Lincang Prefecture, on 23 September 2013 the PRC’s State Council approved the establishment of a national-level border economic cooperation zone, which aims to (i) eliminate bottlenecks created by inadequate infrastructure, (ii) promote cross-border trade and investment to improve living conditions of residents, (iii) promote sustainable regional economic and social development, and (iv) strengthen cooperation with Myanmar. The Lincang Border Economic Cooperation Zone (LBECZ) is comprised of several core industrial zones covering an area of 3.47 square kilometers and located in three different counties: Cangyuan Wa County, Gengma Dai and Wa County, and Zhenkang County (including a Tier 1 National Port in Qingshuihe). To increase the socioeconomic benefits, the LBECZ Management Committee is planning to develop 200 square kilometers of adjacent land in State Council-approved core industrial zones to provide complementary commercial and residential development areas; and additional industrial, logistics, and trading capacity.

7. Mengding’s trade volume has grown rapidly since the establishment of the LBECZ, reaching CNY4.27 billion in 2016, with average annual growth rate of 36%. By 2016, the total vehicle volume passing through the LBECZ ports reached 751,000, an average annual growth rate of about 38%. The number of people traversing the ports is also increasing steadily, and reached a high of 3.37 million in 2016, with an average annual growth rate of about 22%. These developments have led LBECZ authorities to begin constructing new border gates and customs facilities using domestic funding. The LBECZ and Shan State authorities, in conjunction with the Myanmar Government, are planning construction of similar facilities in Myanmar, just across the LBECZ border. LBECZ’s potential was reaffirmed in May 2017 when the governments of the PRC and Myanmar signed a memorandum of understanding for the joint development of border economic cooperation zones.

8. In addition to the formal development and cooperation strategies, close ties exist between local residents in Myanmar and the PRC. Many border residents belong to the same regional ethnic groups, and share similar languages, cultural lifestyles, and traditions. Rapid economic development in the PRC and the close economic ties between Myanmar and the PRC residents have resulted in many Myanmar nationals living and working in the PRC, and many PRC nationals undertaking commercial activities in Myanmar. The growing local border economy has pushed demand to expand the border resident trade market and facilities essential for commercial activities of local farmers, artisanal manufacturers, and traders on both sides of the border.

9. **Problems.** Lincang Prefecture’s poor infrastructure and the lack of competitiveness of its second- and third-tier cities are constraints to enhancing cross-border trade and achieving
sustainable economic and social development. This is evident in Qingshuihe, the town supporting the prefecture’s main land port. Qingshuihe’s urban road network is inadequate for current residential and commercial needs, and the lack of road capacity is increasingly making urban areas difficult to access, and causing economic losses and safety concerns for road users and pedestrians. Access to basic utilities and services such as water supply, wastewater and municipal solid waste is also poor, resulting in considerable environmental pollution. Qingshuihe is crossed by the Nanting River, which lacks flood alleviation infrastructure, and some areas experience seasonal flooding, causing significant economic losses. Limited customs and logistical facilities in the city and its land port also inhibit the activity of local enterprises and traders, slowing the flow of goods across the border. In addition, the prefecture’s border counties of Cangyuan Wa, Gengma Dai and Wa, and Zhenkang have outdated social services, (e.g., schools and hospitals) and are unable to serve growing populations of local urban–rural residents and of Myanmar migrants.

10. Lincang Prefecture is also characterized by significant urban and rural poverty. Per capita gross domestic product in Lincang Prefecture reached CNY18,439 in 2015, up 11.4% over 2014, however annual disposable income of urban residents was CNY19,893 per capita, well below the PRC average. The counties of Cangyuan Wa and Zhenkang are officially designated as national poverty counties, and are home to a large share of the prefecture’s urban poor. Many Myanmar nationals live and work in these counties, which are located on the PRC–Myanmar border. Most are seasonal workers who increasingly secure manual jobs in factories near the land ports and border cities of Lincang Prefecture. Many people from Myanmar use hospitals and schools in the three project counties in preference to the poor municipal services available in Myanmar.

11. **Opportunities.** LBECZ has a key role in promoting regional cooperation and integration (RCI). The PRC national and Yunnan provincial governments are strongly supporting the LBECZ by investing in the construction of a highway from Lincang to Qingshuihe, new border gates and custom facilities, and an industrial park for production and manufacturing for trade. The participation of the Asian Development Bank (ADB) in LBECZ development could provide opportunities to introduce international and national best practices to strengthen RCI, particularly in identifying and implementing measures to maximize beneficial spillover effects of LBECZ development for Myanmar nationals. Through ADB involvement, the project will also benefit from good practices related to urban planning, infrastructure design, construction, and operation and maintenance that will enhance green, inclusive, and competitive urban development in the LBECZ.

2. **Government’s Sector Strategy**

12. Recent policies of the PRC promote a paradigm shift from gross domestic product growth-oriented development to development centered on quality. Both the Thirteenth Five-Year Plan for National Economic and Social Development, 2016–2020 and the PRC’s National New-Type Urbanization Plan, 2014–2020 call for the development of small and medium urban centers on key strategic border areas of the PRC, and establishment of border economic cooperation zones. Similarly, from the PRC perspective, RCI is an important means for the country to achieve greater integration with the regional and global economy, and is highlighted as a priority in the Thirteenth Five-Year Plan. Through this plan, the PRC is placing emphasis on the development of border areas and enhancement of cross-border cooperation. In 2016, the State Council approved a list of key border areas and trade ports and identified actions for their development to achieve this

---

Yunnan Province has mainstreamed RCI into its own Thirteenth Five-Year Plan, with emphasis on (i) strengthening cooperation with the Greater Mekong Subregion (GMS) countries and Lancang–Mekong Cooperation countries; (ii) participating in major international economic corridors, linking Yunnan and the GMS; and (iii) serving as the gateway for the PRC’s southeast region. Through the GMS, Yunnan has been prioritizing the development of economic corridors and improvement of cross-border connectivity, while highlighting the importance of cross-border cooperation to enhance the benefits for neighboring countries, especially Myanmar. Yunnan’s action plan for the Belt and Road Initiative includes a list of priority investments for the development of the Lincang economic and transport corridor intended for financing by various sources, including the PRC and Yunnan governments, multilateral development banks, and the private sector. The development of LBECZ is firmly set in the national and provincial strategic frameworks for both RCI and urban development. Since 2014, the PRC and Myanmar governments also started an ambitious cooperation program intended to develop a PRC–Myanmar corridor in which the LBECZ plays a key role. The corridor includes highway and railway links, as well as, key urban and logistic centers. While many sections of the corridor are already under construction, others are still under the planning and design stage.

3. **ADB Sector Experience and Assistance Program**

ADB assistance to the PRC’s urban development has been effective in addressing a range of urban environmental, social, and competitiveness problems. It focuses on promoting sustainable development in small- and medium-sized cities in less-developed and remote regions, and mainly supports infrastructure and capacity development related to water supply, wastewater management, solid waste management, urban transport, river rehabilitation and flood risk management, and open space protection. It also contributes to knowledge and policies on urban poverty reduction; urbanization strategies; industrial relocation; small city and town development; land use efficiency; urban–rural environmental protection; urban environment indicators; water, wastewater, and sludge treatment; and municipal solid waste. RCI is a core operational area under ADB’s Strategy 2030; accordingly, ADB is increasing its RCI support, the volume of its RCI operations, and the share of RCI in total operations. Furthermore, the 2006 Regional Cooperation and Integration Strategy mandates several avenues for ADB’s RCI support, including development of regional and subregional programs on cross-border infrastructure, and the enhancement of cooperation and integration to promote intraregional trade and investment.

15. The project is part of ADB’s ongoing engagement to assist Yunnan in achieving green and sustainable urban development, and support the PRC in enhancing RCI and cross-border cooperation. Its design incorporates lessons learned from previous ADB-financed urban development projects in Yunnan, and small- and medium-sized cities in the PRC. It will build on ADB’s experience from urban development and RCI projects in border areas of the PRC.

---

5 Government of Yunnan Province, State Council. 2016. *The Thirteenth Five-Year Plan for Economic and Social Development of the Province of Yunnan, People's Republic of China, 2016–2020.* Beijing. Established in 2016, the Lancang–Mekong Cooperation is a regional cooperation initiative involving Cambodia, the PRC, the Lao PDR, Myanmar, Thailand, and Viet Nam. It aims to promote cooperation among the participating countries with emphasis on sustainable economic development and focus on communication and connection, trade and production, financial cooperation, environmental protection, and poverty reduction. Due to its location, the project in Lincang is also part of the frontline of the Lancang–Mekong Cooperation Zone, further enhancing its critical role in the promotion of regional cooperation.


Problem Tree for Water and other Urban Infrastructure and Services

Effects

Under-realized economic growth potential for the LBECZ and border areas of Myanmar

Uncaptured benefits of RCI in the LBECZ and border areas of Myanmar

Unchanged living conditions and public health of residents of the LBECZ and border areas of Myanmar

Core problem

Continued low competitiveness of urban centers, logistics and industrial parks, and land ports in the LBECZ

Causes (direct)

Slow flow and limited volume of goods passing through cross-border points of LBECZ

Slow growth of traders and SMEs registering in the LBECZ

Slow growth in the number of people moving into cities of the LBECZ for residential and professional purposes

Limited border port infrastructure and services

Inadequate access to logistics and industrial infrastructure and services

TVET programs and teaching skills not accurately matching demands of labor market

Slow flow and limited volume of goods passing through cross-border points of LBECZ

Poor cross-border connectivity

Poor conditions at bazaars and trading market in border areas

Slow growth of traders and SMEs registering in the LBECZ

Slow growth in the number of people moving into cities of the LBECZ for residential and professional purposes

Poor cross-border connectivity

Inadequate access to logistics and industrial infrastructure and services

TVET programs and teaching skills not accurately matching demands of labor market

Slow flow and limited volume of goods passing through cross-border points of LBECZ

Causes (root)

Limited border port infrastructure and services

Poor cross-border connectivity

Inadequate access to logistics and industrial infrastructure and services

TVET programs and teaching skills not accurately matching demands of labor market

Poor water supply, wastewater, and solid waste infrastructure and systems in urban centers

Inadequate river embankment and flood control mechanisms

Substandard healthcare and educational infrastructure and services in urban centers

LBECZ = Lincang Border Economic Cooperation Zone, RCI = regional cooperation and integration, SME = small- and medium-sized enterprises, TVET = technical and vocational education and training.