

CASE STUDY

The Mechanics of a Large-Scale, Two-Country, Cross-Border Road Project



Transborder infrastructure projects often involve broad and complex issues that can be difficult to resolve and requires adequate time. Photo credit: ADB.

The Almaty-Bishkek Regional Road Rehabilitation Project enhanced cross-country connections between Almaty and Bishkek to support regional connectivity and trade in Central Asia.

Overview

The road that connects Almaty in Kazakhstan and Bishkek in the Kyrgyz Republic was seriously degraded, hampering trade and tourism between the two cities. Almaty and Bishkek are separated by fewer than 250 km and have strong commercial, cultural, and historical ties. Both cities have the highest per capita income within their respective countries and are among the largest economic centers in Central Asia. Completed 20-25 years ago, the Almaty-Bishkek Road required rehabilitation to prevent further deterioration.

Almaty is the commercial capital of Kazakhstan. With a population of more than 1.5 million people, the city is a destination for migrant labor from neighboring countries and a stopover for many travelers. It is a regional gateway, serving as a distribution center for goods and as a hub for international organizations and companies. Bishkek, with a population close to 1 million, is the capital of the Kyrgyz

Republic. The city sits near the border with Kazakhstan and serves as the country's primary economic and trade center, where imports and exports are consolidated and distributed.

In 2000, ADB approved the Almaty-Bishkek Regional Road Rehabilitation Project, which was completed in 2007. The project aimed to improve road transport infrastructure, safety, and efficiency between the two economic centers and bring about development across Central Asia through regional cooperation. The Almaty-Bishkek Road is the crucial link of the transport corridor being developed under the Central Asia Regional Economic Cooperation (CAREC) program, which is a partnership of 11 countries (Afghanistan, Azerbaijan, Georgia, the People's Republic of China, Kazakhstan, Kyrgyz Republic, Mongolia, Pakistan, Tajikistan, Turkmenistan, and Uzbekistan), that is supported by six multilateral institutions. CAREC helps Central Asia and its neighbors realize their significant potential by promoting regional cooperation in four priority areas: transport, trade facilitation, energy, and trade policy. CAREC links Europe to West, East, and South Asia and traverses from the border of the Russian Federation to the PRC. It also links two north-south roads within the region, Almaty-Astana and Bishkek-Osh. It is part of the East-West Corridor passing through the PRC and several commercial centers in the region including Almaty, Ashgabat, Bishkek, Dushanbe, Samarkand, Shymkent, and Tashkent.

Project snapshot

Dates	<ul style="list-style-type: none"> • October 2000: Approval date • August 2007: Completion date (Kazakhstan) • December 2007: Completion date (Kyrgyz Republic)
Cost	<ul style="list-style-type: none"> • US\$ 52 million loan : ADB loan (Kazakhstan) • SDR 3,832,000 (US\$ 5 million equivalent): ADB loan (Kyrgyz Republic) • US\$ 25 million: European Bank for Reconstruction and Development loan • US\$ 400,000: European Union grant (Kazakhstan) • US\$ 400,000: European Union grant (Kyrgyz Republic)
Institutions and Stakeholders	<p>Executing agency</p> <ul style="list-style-type: none"> • Ministries of Transport and Communications, Kazakhstan and the Kyrgyz Republic <p>Financing</p> <ul style="list-style-type: none"> • Asian Development Bank • European Bank for Reconstruction and Development • European Union

Solutions

ADB's Almaty-Bishkek Regional Road Rehabilitation Project enhanced cross-city connections between Almaty and Bishkek to support regional connectivity and trade in Central Asia.

Cross-border agreement

The project's defining feature is a cross-border agreement between the Government of Kazakhstan and the Government of the Kyrgyz Republic that would regulate and ease the movement of people, goods, and vehicles across the common border. The agreement was set as a precondition for loan effectiveness, with the understanding that, unless effective border crossing procedures were instituted and implemented, the investment component of the project might not bring the intended project benefits to road users and the economies of the countries.

Both governments required the agreement and loans to be ratified through their parliaments.

To resolve differences in the legal, judiciary, and regulatory systems of the two countries, a series of discussions and bilateral talks on the agreement were held before it was presented to the countries' parliaments, resulting in significant delay in loan effectiveness. The governments finally signed and ratified the agreement in 2002. The initiatives under the agreement made border crossing procedures much easier and more transparent. Vehicle weights and dimensions and customs documentation were harmonized.

Cross-country road rehabilitation

The project rehabilitated about 225.7 km of road infrastructure: 206.4 km in Kazakhstan and 19.3 km in the Kyrgyz Republic. The original plan was to rehabilitate about 245 km of the Almaty-Bishkek road, with about 204 km in Kazakhstan and 41 km in the Kyrgyz Republic.

While rehabilitation of the entire length of the road in Kazakhstan was completed as planned, the length of the rehabilitated road in the Kyrgyz Republic was reduced from 40.8 km to 19.2 km. Funds had to be reallocated to rehabilitate major bridges and main road sections whose pavements were in very poor condition. Further degradation of road pavements and bridges occurred during the lapse of about 4-5 years between the road assessment and the start of construction, which eventually led to subsequent changes in project scope and cost overruns. Another reason was procurement delay related to replacement of a local contractor with an international contractor.

The rehabilitation of the Almaty-Bishkek Road followed varying road design standards for different sections depending on traffic level forecast, condition of existing road and structures, and selected design speeds. Hazardous and substandard sections, where trucks and buses travel very slowly, were corrected or eliminated. Among the most dangerous was the Kurdai mountain pass, whose steep gradients and sharp curves often cause the overturning of vehicles going downhill. The pass was often impassable during winter when the road becomes slippery because of snow. The project realigned and substantially improved the mountain pass, with gentler gradients, softer curvatures, and dedicated

climbing lanes for heavy commercial vehicles.

Delays in road construction, apart from the 2 years it took for the cross-border agreement to be effective, were mainly due to the inexperience of the ministries of transport and communications of both countries in ADB procedures. Both governments and their ministries were relatively new to internationally funded projects, and had little experience in ADB-financed projects.

Improved road maintenance

To avoid further road deterioration, the project introduced a road maintenance system and improved the coordination and management of road safety. Road maintenance equipment for Kazakhstan was procured, including multifunctional trucks, crack repair equipment, road marking machines, road rollers, and radio communication systems. The project did not cover any similar equipment for the Kyrgyz Republic; however, it was provided over consequent projects. While the project aimed to introduce a system for road maintenance by contract and establish an equipment pool in Kazakhstan, the rapid development of the private sector during project implementation increased opportunities in the domestic market for direct sourcing such equipment and services.

Both governments substantially increased financing for road maintenance to preserve road assets, while Kazakhstan introduced road maintenance by contract through outsourcing periodic maintenance activities to the private sector. They were also willing to introduce international best practices in managing the road assets. These included supervision of maintenance activities by private sector consultants, implementation of pavement management and road asset management systems, implementation of performance-based road maintenance contracts, and international tendering procedures.

Customs facilities upgrade

The project also improved customs facilities at the Akjol-Korday border crossing point. An automated customs clearance system was introduced to support customs operations, especially given the rapid increase in traffic volume throughout project implementation. The equipment required for system and related training for the customs officials was financed under the European Union's Transport Corridor Europe Caucasus Asia Program grant. Six customs personnel were trained on the new system. Computerized cargo registration was also introduced to improve transparency and deter unauthorized payments at the border crossing. Other customs control equipment such as metal detectors, x-ray equipment, computers, and electronic tagging equipment were installed on both the Kazakhstan and the Kyrgyz Republic sides.

Results

Increase in cross-country road traffic

By 2011, the volume of traffic on the road had risen by 25% over the 1998 level. Better road alignment and improved pavements have allowed the average travel speed to increase from 40 km per hour to 80

km per hour, which significantly reduced the travel time between the two major cities. Lower freight rates and public transport fares were also expected, which can provide more convenient and faster access to market for the people in Almaty and Bishkek as well as the rural communities in between.

However, road accidents have increased due to the increased travel speeds and vehicle overtaking opportunities, with the number of fatalities increasing threefold in 2006. Although the project road was designed and rehabilitated to international road safety standards, the problem appears to stem from driver behavior and cultural aspects. Moreover, enforcement of traffic rules has been lacking in Central Asian countries and, for most drivers, it is relatively easy to obtain a driving license without going through a proper driver education program.

Both governments are currently undertaking initiatives to improve road safety

Kazakhstan has passed several road legislations, including the most recent Law on Road Traffic in 2014. The Kyrgyz Republic has established a National Road Safety Council to assist in preparing road safety strategies and action plans, improving collection and processing of road accident data, and coordinating and implementing road safety initiatives and campaigns.

Increase in trade and commerce between Almaty and Bishkek

Trade in goods between Kazakhstan and the Kyrgyz Republic via the Akjol-Korday border crossing point increased by an average annual rate of 38% from 2000 to 2007. New livelihoods emerged in the form of retail shops, taxis, car washes, roadside cafes, hair salons, exchange offices, and other enterprises. Between 1998 and 2011, exports from the Kyrgyz Republic to Kazakhstan had increased by 160% (footnote 5). During project implementation, some 3,000 jobs were made available for the local population directly on the road rehabilitation activities. About 50% of these workers were unskilled and 10% were women. Commercial outlets along the road have also mushroomed.

Kazakhstan is one of the major trading partners of the Kyrgyz Republic. Trade between the two countries has increased by 4-5 times since the beginning of the project, mainly because the rehabilitated road provided a stronger link between two major markets in Central Asia, one on the outskirts of Bishkek and the other near Almaty. As most of the goods are transported along the project road between these two markets, the project has also positively contributed to those whose employment and livelihood rely on these markets.

As members of the Eurasian Economic Union with a common customs border, the two countries plan further expansion of the border facilities, as well as further streamlining of border crossing procedures to allow for speedy and smooth movement of vehicles, passengers, and goods.

Under the CAREC program, ADB is supporting the development of an economic corridor between Almaty and Bishkek, including their surroundings, which is building on the rehabilitated road as a transport spine of the corridor. The Almaty-Bishkek Economic Corridor (ABEC) follows a multi-sector approach to create one economic space without barriers. ABEC will allow businesses to specialize more, operate at a larger scale and achieve greater diversification and competitiveness with the purpose of exporting goods and services outside the region.

The implementation of the corridor enjoys strong political support. The two governments created the ABEC subcommittee—chaired by vice-ministers of economy—under the Kazakhstan-Kyrgyz Republic Intergovernmental Council, which is headed by the two Prime Ministers. The technical assistance from ADB builds on analytical and conceptual work completed under previous assistance which facilitated the preparation of economic corridor development reports covering agricultural value chains and branding, tourism, education, health, disaster-risk management, information and communications technology (ICT) applications, and connectivity. This work was performed by a joint working group of the two governments with support from consultants and informed by study tours. A steering committee approved an Investment Framework in September 2016 to mark the end of the analytical phase and start the implementation phase.

Lessons

The Almaty-Bishkek Regional Road Rehabilitation Project was a very challenging, large-scale, two-country, cross-border road project. Such transborder infrastructure projects often involve broad and complex issues that can be difficult to resolve and requires adequate time.

Ensure commitment of borrower countries

The project was among ADB's first interventions in the transport sector in the two countries, and both were at the early stages of transition to market economies. The requirement of the cross-border agreement as a precondition for loan effectiveness, while it caused delay, ensured the commitment of the Government of Kazakhstan and the Government of the Kyrgyz Republic in seeing through the project's implementation. The agreement was instrumental in making the two countries work together. Through the agreement, the governments worked on not only making border crossing procedures easier, but also on road maintenance and road safety initiatives.

Prioritize orientation and training of executing agencies

The capacity of the ministries of transport and communications of both countries as executing agencies was limited as was their understanding of international bidding, contracting practices, and ADB procedures. The lack of careful consideration of the limited capacity and inexperience of the executing agencies in managing ADB projects impeded the transition from project planning to implementation. During the significant amount of time that had elapsed until before project implementation, the Almaty-Bishkek Road sustained further deterioration, requiring more improvement works. Road redesign with a reduced project scope resulted in further delays and additional costs. Such limitation of the executing

agency should be considered in project preparation and planning.

Develop economic corridors to maximize the benefits of transport corridors

Improved transport corridors are reducing time and costs of transporting goods and people. This can create spillover and agglomeration effects. Through economic corridor development, these benefits can be maximized, transit time can be further reduced through soft infrastructure, and a reduction in non-tariff barriers can be achieved.

Resources

Asian Development Bank (ADB). Kazakhstan: Almaty-Bishkek Regional Road Rehabilitation Project.

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Narendra Singru

Principal Portfolio Management Specialist, Central and West Asia Department, Asian Development Bank

Narendra Singru is the team leader for the transport sector of the Kyrgyz Republic and is processing a project for introducing performance-based road maintenance in Kazakhstan. He carried out a post evaluation of the Almaty-Bishkek Regional Road Rehabilitation Project, jointly with the European Bank for Reconstruction & Development (EBRD). He has more than 20 years of international experience in infrastructure development and financing.



Thomas Herz

Transport Specialist, Central and West Asia Department, Asian Development Bank

Thomas Herz is the team leader for the transport sector of the Republic of Kazakhstan. He has more than 20 years of experience in the transport planning and engineering sector in Germany, the United States, eastern Europe and Caucasus. Earlier in his career, he worked as transport planner/project manager for URS Corporation, Lima and Associates, and Maricopa County, all based in Arizona, United

States.

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