



Draft Design and Monitoring Framework

Project Number: 36455
May 2007

PRC: Central Yunnan Roads Development Project

A design and monitoring framework is an active document, progressively updated and revised as necessary, particularly following any changes in project design and implementation. In accordance with ADB's public communications policy (2005), it is disclosed before appraisal of the project or program. This draft framework may change during processing of the project or program, and the revised version will be disclosed as an appendix to the report and recommendation of the President.

Asian Development Bank

DESIGN AND MONITORING FRAMEWORK

Design Summary	Performance Targets/Indicators	Data Sources/Reporting Mechanisms	Assumptions (A) and Risks (R)
<p>Impact An integrated road transport systems of Yunnan Province and the rest of the Greater Mekong Subregion (GMS) function well.</p>	<p>The time and cost of moving goods and people between major cities, including logistic centers, in Yunnan Province and the rest of the GMS are reduced.</p> <p>Road density in Yunnan Province will increase from 28.4 km of roads per 100 km² of land in 2005 to 32.0 km of roads per 100 km² of land by 2015.</p>	<p>Transport statistics reports published by the Ministries of Transport of the GMS countries and Yunnan Provincial Communications Department (YPCD).</p> <p>Transport statistics reports published by YPCD.</p>	<p>A: Priorities accorded with the transport development by Yunnan Province and the rest of the GMS remain unchanged.</p> <p>A: YPCD's and local government's investment plans in the road sector are implemented as planned.</p>
<p>Outcome The YPCD provides an efficient, safe, and environmentally sustainable road transport system in the project area.</p>	<p>Traffic volume for the expressway increases from 9,563 passenger car units (pcu) per day in 2011 to 37,861 pcu per day in 2031.</p> <p>Travel time for the expressway is reduced by one hour, and travel distance by 20 km.</p> <p>Bus fare and freight charges are reduced from the 2006 level by 5% by 2015.</p> <p>Road accidents and fatalities in the project area are reduced from the 2006 level by 20% by 2015.</p> <p>Proportion of villages with paved road access increases to 100% by 2015.</p> <p>Bus service availability in townships increases to 100% by 2015.</p> <p>An economic internal rate of return is maintained at 17.1%.</p> <p>Vehicle emissions (carbon dioxide) in the project corridor are reduced by about 30% relative to the without project case.</p>	<p>Traffic volume data collected at the expressway toll booth by the expressway company</p> <p>Travel time survey for the expressway by YPCD</p> <p>YPCD and bus companies</p> <p>Accident statistics from the Public Security Bureau</p> <p>Monitoring of accessibility by local communications bureaus</p> <p>YPCD and bus companies</p> <p>Reevaluation of the economic internal rate of return at a midterm review report and a project completion report (PCR)</p> <p>Yunnan Provincial Environmental Protection Bureau.</p>	<p>A: Assumed economic growth rates materialize.</p> <p>A: Transport operators and drivers realize the benefit of using expressways.</p> <p>R: Transport cost reduction may not be passed onto passengers and freight shippers through reduction in bus fare and freight charges.</p> <p>A: An effective traffic enforcement and public awareness campaign promote road safety.</p> <p>R: Local communications bureaus may not have sufficient budget to implement the government road development plan.</p> <p>A: Rural road infrastructure is improved according to the government's plan.</p> <p>A: Assumed economic growth rates materialize.</p> <p>A: Vehicles on the existing roads are diverted to the Project expressway as anticipated.</p>
<p>Outputs 1. Expressway infrastructure and associated equipment and facilities between Wuding and Kunming are provided.</p>	<p>The Project expressway (65 km) is completed and open to traffic by October 2011.</p> <p>Road capacity increases to 33,900-38,800 pcu per day at opening in 2011.</p>	<p>YPCD and PCR</p> <p>YPCD and PCR</p>	<p>A: The government priority accorded with the Project remains unchanged.</p>

Design Summary	Performance Targets/Indicators	Data Sources/Reporting Mechanisms	Assumptions (A) and Risks (R)
2. Local road infrastructure is upgraded.	<p>Safety audits are implemented during project design and construction.</p> <p>Timely procurement and installation of equipment for road safety, toll collection, communications, traffic management, and vehicle-weighing stations.</p> <p>Project local roads (194 km in total) are upgraded and open to traffic in October 2011.</p>	<p>YPCD and PCR</p> <p>YPCD and PCR</p> <p>YPCD and PCR</p>	<p>R: YPCD may not implement the safety audit recommendations.</p> <p>A: Imported equipment is cleared at customs without delays.</p> <p>A: Adequate transport services are available in rural areas.</p>
3. Passenger transport centers are provided.	<p>Road capacity is increased to 400–2,000 pcu per day for class IV roads.</p> <p>Four passenger transport centers are upgraded to class IV or V with capacity of 300-1,200 passengers per day by April 2010.</p>	<p>YPCD and PCR</p> <p>YPCD, local communications bureau, and PCR</p>	<p>A: Rural roads are in good condition to cater to the transport services.</p>
4. Corporate governance is promoted in expressway construction and operations	<p>Expressway construction and operations are separated from provincial government functions. The concession framework agreement is signed by 31 December 2008, and a corporate development plan prepared by 31 December 2008.</p>	<p>Midterm review mission and PCR</p>	<p>R: YPCD may interfere in the management and operations of the Project expressway.</p>
5. Public-private partnership in toll roads development is facilitated	<p>Private sector funds (\$ xx millions) are raised by issuing asset-backed securities based on future toll revenue of existing toll roads with possible backing of ADB's partial credit guarantee.</p>	<p>YPCD and PCR</p>	<p>R: Legal and regulatory framework may not be in place to allow this form of public-private partnership.</p> <p>R: There may be less than anticipated appetite among private investors for toll roads investment.</p>
6. YPCD and domestic consultant capacity strengthened in project management, quality control, road safety, and monitoring and evaluation	<p>100 person-months of international training will be provided for YPCD staff by September 2011. Survey techniques are adopted to assess changes in work practices and behavior to measure the effectiveness of the capacity-building component.</p> <p>Ethnic minorities have the opportunities to participate in and benefit from the Project based on the agreed Ethnic Minority Development Plan in compliance with ADB's policy on indigenous people.</p> <p>HIV/AIDS and health risks for construction workers and service providers are controlled. Indicators include number of clinics, number of patients, number of posters, and number of tests.</p> <p>The small business development plan is implemented by the local government to benefit from road improvement in the project area.</p>	<p>A report by international consultants on the capacity-building component, including information on the participants, subject areas, feedback from participants, and new skills applied by trainees</p> <p>Regular monitoring as part of the Ethnic Minority Development Plan and PCR.</p> <p>Monitoring by the Health Bureau and PCR</p> <p>Local government and PCR.</p>	<p>R: Trainees may leave YPCD soon after the training program is over to join private companies.</p> <p>A: The affected ethnic minorities are aware of the impact of the Project.</p> <p>R: The capacity and resources of the Health Bureau may not be sufficient to implement mitigation measures.</p> <p>A: The economic development potential along the Project expressway remains strong.</p>

Activities with Milestones		Inputs
1. Expressway civil works	Civil works contracts awarded by March 2008 and completed by September 2011.	Asian Development Bank: \$200 million, of which: \$163.4 million for civil works \$8.6 million for equipment \$2.0 million for consultants \$26.0 million for interest and other charges Ministry of Communications: \$83 million YPCD: \$182 million China Construction Bank: \$233 million
2. Equipment	Equipment procured by September 2011.	
3. Consulting and training services	Consultants recruited by March 2008 and their work completed by September 2011.	
4. Local roads	Civil works contracts awarded by May 2008, and completed by September 2011.	
5. Passenger transport centers	The work will be completed by May 2010.	
6. Environmental mitigation	Environmental mitigation measures are implemented during project implementation and operation according to the environmental impact assessment.	
7. Resettlement	Resettlement plan updated prior to commencement of land acquisition. Resettlement completed by December 2008.	
8. Ethnic minorities	Mitigation and enhancement measures are implemented during project implementation according to the ethnic minorities development plan.	