



1. Project Data

Project ID P148071	Project Name Guizhou Tongren Rural Transport Project	
Country China	Practice Area(Lead) Transport	
L/C/TF Number(s) IBRD-85340	Closing Date (Original) 30-Jun-2021	Total Project Cost (USD) 149,872,601.67
Bank Approval Date 25-Sep-2015	Closing Date (Actual) 30-Jun-2021	
	IBRD/IDA (USD)	Grants (USD)
Original Commitment	150,000,000.00	0.00
Revised Commitment	149,872,601.67	0.00
Actual	149,872,601.67	0.00

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2. Project Objectives and Components

a. Objectives

According to the Project Appraisal Document (PAD) (p. iii) and the Financing Agreement of October 29, 2015 (p. 5) the objective of the project was “to improve rural transport connectivity in Dejiang and Sinan Counties”.

b. Were the project objectives/key associated outcome targets revised during implementation?

No



c. Will a split evaluation be undertaken?

No

d. Components

The project included three components:

Component A: Dejiang Rural Transport (appraisal estimate US\$104.5 million, actual US\$107.57): This component was to finance the upgrading of 59 existing rural roads to the national Class IV standard and building 18 bridges in Dejiang County. The total length of project roads was to be 415.7 km and the total length of bridges was to be 539.5 meters.

Component B. Sinan Rural Transport (appraisal estimate US\$44.5 million, actual US\$41.65): This component was to finance the upgrading of 27 roads to the national Class IV standard, as well as building 12 bridges in Sinan County. The total length of project roads was to be 230.7 km and the total length of bridges was to be 298 meters.

Component C. Technical Assistance (appraisal estimate US\$1.0 million, actual US\$790,000): This component was to finance: a) technical assistance support and training activities, including the carrying out of project related studies in areas related to rural road network planning, road safety and road maintenance; and b) project implementation support, carrying out of monitoring and evaluation activities, as well as project management-related training, capacity building, and study tours.

According to the PAD (p. 12) the main selection criteria applied to project roads were: a) inclusion in the 12th Five-Year Plan; b) surface and subgrade condition; c) number of beneficiaries; d) land acquisition requirements and potential environmental impacts; e) current and projected traffic volume; and f) strategic importance in improving overall network connectivity and local economic development. The main criteria for bridges were: a) inclusion in the 12th Five-Year Plan; b) existing condition; c) number of beneficiaries; and d) strategic importance in improving overall network connectivity.

e. Comments on Project Cost, Financing, Borrower Contribution, and Dates

Project Cost: The project was estimated to cost US\$231,79 million. Actual cost was US\$173,13 million.

Financing: The project was to be financed by a US\$150.0 million loan by the Bank (of which US\$149.87 million was disbursed) and US\$81.79 million counterpart financing.

Borrower Contribution: The Borrower was to provide US\$81.79 million counterpart financing. According to the Bank team (February 18, 2022) actual financing was US\$23.26 million due to the lower actual contract values compared to engineering estimates. As a result of the competitive tendering process, the actual costs of civil works were lower than initially estimated, resulting in cost savings.

Dates: The project was not restructured and closed on its original closing date of June 30, 2021.

However, some modifications were made to the project's design: i) two technical assistance activities were combined; ii) 15 road sections (102.5 km) were financed by the government due to their urgency. Also, four bridges (85 meters) were financed by a different government project; iii) in addition to the original three



batches of roads/bridges, a further batch of roads were added to utilize cost savings that were experienced during implementation. The Bank financed an additional 11 roads (42.9 km), eight bridges (204 meters), and road safety enhancement (282.12 kilometers) in Dejiang as well as road safety enhancement (73.8 km) in Sinan; and iv) The 13th Five-Year-Plan upgraded the design standard for all rural roads to 5.5 meters subgrade width. However, some project roads with existing subgrades of 4.5 meters were pragmatically widened instead with vehicle passing bays and road shoulders to minimize additional land acquisition and resettlement (ICR, p. 4).

3. Relevance of Objectives

Rationale

According to the PAD (p. 1) at the time of project appraisal China had been experiencing a high rate of economic growth of nine percent per year. However, this growth had not been spread evenly throughout the country, and China was facing growing wealth disparities between coastal and inland regions, as well as between urban and rural areas. In support of shared prosperity for the entire population, the government prioritized economic development in the lagging western and central regions and provided financial support to transport infrastructure development in rural areas. According to the China Systematic Country Diagnostic (2017), although the government aimed to eliminate poverty by 2020, many poor remain dispersed in more remote and inaccessible areas. President Xi has indicated that eliminating poverty is China's top priority.

One of these prioritized areas for transport infrastructure development was Guizhou province, the poorest province in China. Located within Guizhou was Tongren Municipality with a Gross Domestic Product (GDP) per capita of less than USD 2,000 in 2012. Also, 25 percent of residents had incomes below the national poverty line. Furthermore, 96 percent of Tongren's terrain consisted of hills and mountains resulting in a highly dispersed and isolated population. In order to lift the rural population above the national poverty line, Guizhou provincial government and Tongren municipal government emphasized the improvement of the rural roads network with a particular focus on areas with the most need and most economic development potential. These areas included Dejiang and Sinan counties, where, at the time of appraisal, the urbanization rate was less than 35 percent and only 21 percent of villages had access to classified, all-weather roads.

The objective of the project supported the government's policy including; i) China's 2018 Rural Revitalization Program, which supports rural population to have equal access to basic public services by 2035 and reduces the inequality between urban and rural areas as well as between the eastern and western parts of the country; ii) the government's "common prosperity" campaign, which aims to decrease the widening income and wealth gaps between urban and rural populations.

Furthermore, the project supported Tongren's 13th Five-Year-Plan (2016-2020) which aims to: i) connect all inhabited villages with paved roads; ii) establish a basic rural logistic system and improve the efficiency of passenger and freight transport; and iii) enhance technical capacity for disaster risk management, road safety, and emergency response.

At appraisal, the objective of the project was in line with the Bank's Country Partnership Strategy (CPS) (FY2013-2016) and its outcomes on "enhancing opportunities in rural areas and small towns" and



“improving transport connectivity for more balanced regional development”. The objective was in line with one of its focus areas in the most recent CPS (FY2020-2025), which aims to share benefits of growth with rural and previously isolated communities to both economic opportunities and social services (ICR p. 4).

However, the project's objective was simple and did not focus on outcomes and development challenges it was trying to address. Also, key outcome indicators were closer to the output than the outcome level. Therefore, this review assesses the relevance of the PDO as Substantial.

Rating

Substantial

4. Achievement of Objectives (Efficacy)

OBJECTIVE 1

Objective

To improve rural transport connectivity in Dejiang and Sinan Counties

Rationale

Theory of Change: The project's Theory of Change envisioned that project activities such as constructing/upgrading critical rural roads to national class IV standard and constructing critical bridges in Dejiang and Sinan as well as building capacity in rural road planning and road safety were to result in the outcome of safer, more reliable rural connectivity that supports economic growth and poverty reduction in a sustainable and inclusive manner.

The project made the following assumptions: i) the government provides timely and sufficient counterpart funds; ii) the government and the PMO properly implement the Resettlement Action Plan (RAP); iii) the institutional capacity for implementing the project will be strengthened; iv) improved infrastructure is being utilized/maintained.

Outputs:

- 670.6 kilometers of roads were rehabilitated, surpassing the target of 646 kilometers. All the upgraded roads under the project are of Class IV standard, with asphalt or cement concrete pavements and provide all-weather access for the local population.
- 35 bridges were improved, surpassing the target of 30 bridges.
- 163 villages received new road safety measures, surpassing the target of 147 villages.
- Project consultations were undertaken with beneficiaries, achieving the target of conducting these consultations.
- 472 trainees attended training and study tours, surpassing the target of 300 trainees. The study tours and training programs focused on safeguard compliance, procurement, financial and project management, as well as rural road maintenance and management.



- A framework for rural road construction, management, maintenance and operation in Tongren was developed. This framework included: i) conducting two surveys of road conditions and traffic; ii) developing a five-year construction plan (2021-2025); iii) optimizing construction management and maintenance; iv) developing a passenger transport service improvement plan; and v) improving the sustainability of rural road construction management.
- Technical Assistance was developed to improve rural road safety capacity, which included: i) a rural road safety risk assessment before the project; ii) a rural road safety risk assessment after the project on demonstration sections; iii) the implementation of Tongren rural road school zone safety measures and road safety education program for pupils; and iv) the development of a safety facility design manual.
- The project also produced two studies: i) developing a framework for rural road construction, management, maintenance and operation in Tongren; and ii) improving rural road safety capacity, achieving the target for studies and plans completed.

Outcomes:

- The project benefitted a total of 298,976 beneficiaries, surpassing the target of 262,000 beneficiaries. According to a social survey, conducted under the project, 51 percent of these beneficiaries were female, surpassing the target of 48 percent. The beneficiaries lived up to two kilometers away from a project road or bridge.
- Upon completion, the Tongre Project Management Office (TPMO), with assistance from consultants, conducted a vehicle speed survey on a sample of project roads. The survey results demonstrated that the average vehicle speeds on the project roads was 30.9 km/hour. When comparing this speed with the speed before project implementation, the travel time was reduced by at least 50 percent, surpassing the target of 30 percent.
- It was estimated that the total passenger time cost savings will be about RMB3,802 million (approx. US\$600,000) between 2016 and 2040.
- Farmers in Shangping village benefitted from the upgrading of the road. Reduced transportation cost for their agriculture products were about RMB 0.2 per kg.

Before the project some villages were isolated due to poor connectivity with the main road network. Some travelers had to traverse river beds or take longer routes in the rainy season. Women, in particular, were able to travel to market, schools, healthcare facilities and participate in additional social activities, while tourism and roadside businesses have developed (ICR p. 6). The survey revealed new investments that included a tree nursery, expansion of a tea factory and additional planting of agricultural produce including grapefruit, oranges, peppers and mushrooms.

Rating
High

OVERALL EFFICACY



Rationale

The project surpassed all its targets. As a result, efficacy is rated High.

Overall Efficacy Rating

High

5. Efficiency

Economic efficiency:

Both, the PAD and the ICR included a traditional economic analysis.

The PAD (p. 6) defined the project's primary economic benefits as improved connectivity through reduced travel times along upgraded corridors, increased reliability of travel, and safer infrastructure. The economic analysis applied a discount rate of 12 percent resulting in an Economic Internal Rate of Return (EIRR) of 16.49 percent (calculated over a period of 25 years, including a five-year construction period and a 20-year operating period).

The EIRRs for the Dejiang component and the Sinan component were 16.80 percent and 16.00 percent respectively.

The ICR (p. 8) updated the PAD's economic analysis by using actual projects and traffic volumes and speeds from the survey on the sample of project roads which was conducted by the Tongren Municipal Transport Bureau (TMTB). The EIRR was 14.4 percent for the whole project and 13.0 percent for the Dejiang and 17.9 for the Sinan components. The ICR stated that due to the lower traffic levels resulted from Covid-19 related travel restrictions, the EIRR at project closing was lower than at appraisal. However, these analyses indicate that the project was a worthwhile investment.

Operational Efficiency:

The project closed on its original closing date and did not require any extensions. During the first year of project implementation the project experienced delays due to weak capacity in the Project Management Offices (PMOs) and during the last year due to the addition of batch 4 and Covid-19 related travel restrictions. Also, according the ICR (p. 12), the project experienced implementation issues due to delayed submission of financial statements, and slow compensation for Land Acquisition and Resettlement (LAR).

Taking everything together, the project's overall efficiency rating is Substantial.

Efficiency Rating

Substantial



a. If available, enter the Economic Rate of Return (ERR) and/or Financial Rate of Return (FRR) at appraisal and the re-estimated value at evaluation:

	Rate Available?	Point value (%)	*Coverage/Scope (%)
Appraisal	✓	16.49	100.00 <input type="checkbox"/> Not Applicable
ICR Estimate	✓	14.40	100.00 <input type="checkbox"/> Not Applicable

* Refers to percent of total project cost for which ERR/FRR was calculated.

6. Outcome

Relevance of the objective was Substantial due to the narrow, output-oriented PDO. Efficacy was High and Efficiency was Substantial. Taking everything together, the project’s overall outcome rating is Satisfactory.

a. **Outcome Rating**
Satisfactory

7. Risk to Development Outcome

The risk to the development outcome can be classified into the following category:

Institutional: The ICR (p. 18) stated that the project was able to build capacity within various technical departments. While the technical assistance (TA) recommendations were endorsed by these departments, they need to be fully adopted and institutionalized to ensure their effectiveness and sustainability. For example, in regard to road safety, it is critical for training to continue and include communities beyond the project scope. Furthermore, the road safety assessments need to be institutionalized and expanded to include additional road sections. Finally, the proposed road safety measures need to be incorporated into the road design and construction appropriately.

8. Assessment of Bank Performance

a. **Quality-at-Entry**

The project was the third Bank financed road project in Guizhou province and reasonably straightforward. As a result, the project design was built on key lessons from previous projects, These lessons were: i)



importance of establishing and empowering county PMOs as the leading implementing agencies given their ability to coordinate with village-level administrations and communities; ii) ensuring that counterpart funding requirements do not exceed one to two percent of the expected local fiscal revenue in a given construction year; iii) ensuring a higher proportion of domestic training and study tours as part of the capacity-building program, while taking into account strict local regulations for international travel by government officials.

According to the PAD (p. 7) the Bank identified relevant risks including: i) uncertain level of capacity at the county level PMOs to manage such a large project; ii) proposed implementation of a new compensation policy for affected peoples (social risk), and; iii) a new role for the Tongren PMO to coordinate the activities of the sub-PMOs. The Bank tried to mitigate these risks by providing training in critical areas such as financial management, procurement, environmental and social safeguards as well as technical topics. However, mitigation measures were not sufficient and the project experienced some delays at the beginning of implementation. Also, the Bank team did not identify the risk of a high turnover of leadership and staff at the Dejiang Project Management Office (DPMO), Sian Project Management Office (SPMO) and TPMO resulting in implementation delays.

The project's Results Framework was adequate (see section 9a for more details).

Quality-at-Entry Rating Satisfactory

b. Quality of supervision

According to the ICR (p. 17) the Bank conducted regular bi-annual supervision missions and routine or spontaneous site visits when necessary. Also, the Bank team regularly reviewed the semi-annual progress reports, annual audit financial reports, and safeguards external monitoring reports. The results framework was monitored on a biannual basis.

The Bank team provided training in critical areas such as financial management and procurement and assisted the counterpart to address implementation bottlenecks when necessary. When the project encountered delays related to financial management, the Bank team addressed these delays by: i) preparing and distributing a financial management manual to standardize the project's financial management procedure; ii) providing financial management training; iii) reviewing disbursement applications by Guizhou Provincial Finance Bureau (GPFB) to ensure proper usage of loan proceeds.

In order to ensure that the construction was delivered in a timely manner and of adequate quality, the Bank team, together with PMO contractors and supervision engineers, conducted regular inspections of the project sites. Safeguards were supervised adequately (see section 10a for more details).

The project was completed on time and fully disbursed.

Quality of Supervision Rating



Satisfactory

Overall Bank Performance Rating

Satisfactory

9. M&E Design, Implementation, & Utilization

a. M&E Design

The project's objective was clearly specified, albeit at an output-level, and the project's theory of change and how key activities were to lead to the intended results was soundly reflected in the project's Results Framework. The selected indicators encompassed all outcomes of the project's objective and were adequate to capture the contribution of the project's activities toward achieving the objective. Furthermore, while most indicators were sufficiently specific and measurable, intermediate outcome indicator 5 "studies and plans completed" did not sufficiently specify which and how many studies it was referring to. Also, PDO indicator 2 "travel time savings on upgraded/improved roads" lacked a baseline making the assessment of an improvement in travel time challenging.

According to the PAD (p. 7), the PMOs were to be responsible for collecting the required data and were to report the results as part of project progress reports while the TOMO was responsible for the implementation of the M&E programs. The proposed data collection methods and analysis were appropriate.

The Results Framework would have benefitted from measuring rural road maintenance since it was identified as a weakness during project appraisal and critical for ensuring the sustainability of project outcomes.

b. M&E Implementation

According to the ICR (p. 14) the project used a commercial computer software (Mapillary) to monitor road condition and implementation progress and collected data on a quarterly basis. PDO indicators were measured on an annual basis. The TPMO prepared and submitted semi-annual project progress reports, semi-annual interim unaudited financial reports, annual financial audit reports, and social and environmental monitoring reports as required in the project's legal documents.

The Bank team stated (February 18, 2022) that M&E data was reliable and of good quality. Since a lot of the data in the M&E system are part of the government's own monitoring system, it is very likely that most of the M&E functions will be sustained.

c. M&E Utilization

According to the ICR (p. 14) the project used the M&E data to measure implementation progress towards the PDO and identify implementation bottlenecks such as slow disbursement.



M&E Quality Rating

Substantial

10. Other Issues

a. Safeguards

The project was classified as category B and triggered the Bank's safeguard policies OP/BP 4.01 (Environmental Assessment), OP/BP 4.04 (Natural Habitats), OP/BP 4.11 (Physical and Cultural Resources), OP/BP 4.12 (Involuntary Resettlement).

According to the ICR (p. 15) the project prepared an environmental impact assessment (EIA) and a stand-alone environmental management plan (EMP). The EMP was included into the bidding documents for the civil works contracts and the implementation of the EMP was monitored by construction supervision consultants. In addition, an external environmental consultant was recruited to be responsible for conducting periodic field supervisions, providing environmental training, and assistance to the TPMO in preparing the bi-annual environmental report. Several cases of non-compliance with the EMP were reported. To address these instances a remedial action plan was prepared and implemented in a timely manner.

Furthermore, the project prepared a resettlement action plan (RAP), which included the compensation policy and detailed land acquisition requirements. While the project implemented the LAR activities in accordance with the RAP, there were some delays at the beginning. Furthermore, the project applied a uniform compensation policy to all project roads. According to the Bank team (February 18, 2022) compensations for land were paid to the affected villages, instead of individuals, as the collective sum of the compensations at village level were more beneficial to residents than small cash dispensed to individuals. Also, the project provided training to all relevant stakeholders on the RAP implementation.

According to the ICR (p. 16) the acquisition of 53 hectares of land physically displaced in total three households and 3,741 economically displaced people (meaning they did not have to relocate their housing but some of their income-generating activities), which all received compensation before July 2020.

The monitoring reports for the RAP implementation, which were prepared by an external monitor, concluded that the project legally completed the land acquisition and resettlement.

b. Fiduciary Compliance

Financial Management:

According to the ICR (p. 16) at appraisal, a financial management assessment found that the project met the Bank's financial management requirements. Guizhou Provincial Finance Bureau (GPFB) was responsible for managing the loan proceeds and overseeing the designated account. The TPMO was



responsible for managing and supervising overall project implementation and preparing consolidated project financial statements.

In 2016, during a Bank supervision mission the Bank team identified several shortcomings in regards to the project's financial management: i) even though civil works had started, no withdrawal requests had been made due to changes in PMO staff and new staff not having received training on the Bank's financial management procedures; ii) no financial records of land acquisition activities were available; iii) no advance payments to contractors were made; and iv) establishment of the project's bank accounts was delayed. The Bank addressed these issues through: i) preparing and distributing a financial management manual to standardize the project's financial management procedure; ii) providing financial management training; iii) reviewing disbursement applications by GPFB to ensure proper usage of loan proceeds.

According to the ICR (p. 16) these measures resulted in the improvement of the project's financial management and the provision of accurate and timely information on the use of the loan proceeds.

Finally, the project's external auditor's opinion was unqualified.

Procurement:

According to the ICR (p. 16) the Bank team assessed the procurement capacity of the implementation agency during appraisal and developed a procurement plan for the first 18 months of project implementation. The TPMO was responsible for the project's procurement management supervision as well as for the procurement of the activities under component C. The Dejiang Project Management Office (DPMO) and Sinan Project Management Office (SPMO) were responsible for the procurement of component A and B respectively. To mitigate any procurement related risks, the project also developed a procurement management manual, hired a qualified procurement specialist, and the Bank team provided training on procurement policies and requirements to PMO staff.

The ICR (p. 16) stated that the project complied with the Bank's procurement guidelines. Also, the project conducted procurement post reviews on a regular basis, which identified cost variations across most of the contracts as result of design changes, the slow progress of contractors, and increasing prices for construction materials. Also, according the ICR (p. 12), the project experienced implementation issues due to delayed submission of financial statements, and slow compensation for LAR. According to the ICR (p. 16) the project addressed all variations in accordance with the conditions of the contract. Furthermore, the other issues were addressed by: i) placing new PMO directors, recruiting more qualified staff, and providing training; ii) providing required counterpart funding and making the pending payments to the contractors, iii) preparing and submitting required financial statements, and iv) accelerating the compensation for LAR. These measures were effective in addressing the above stated delays.

c. Unintended impacts (Positive or Negative)

NA

d. Other



11. Ratings

Ratings	ICR	IEG	Reason for Disagreements/Comment
Outcome	Highly Satisfactory	Satisfactory	Substantial Relevance of Objective due to the narrow, output-oriented PDO. High Efficacy and Substantial Efficiency.
Bank Performance	Satisfactory	Satisfactory	
Quality of M&E	Substantial	Substantial	
Quality of ICR	---	Substantial	

12. Lessons

The ICR (p. 18-19) provided several lessons learned, which were adapted by IEG:

- **Adequate and targeted training in critical areas such as Bank procurement, financial management, and safeguards compliance is critical especially for first time clients during the early stage of project implementation.** In this project, it was the first time for the municipal and county governments in Tongren to implement a Bank project. While the Bank provided some training to government staff during project preparation, lack of knowledge of Bank procurement and financial management policies resulted in implementation delays.
- **Identifying adequate levels of co-financing during project preparation is important for avoiding delays in counterpart funding.** In this project, a detailed fiscal analysis was conducted during project preparation which showed that the debt levels for both counties were very high. In order to avoid a shortage of counterpart funding, the Bank team ensured that the counterpart funding requirements did not exceed one to two percent of the projected local government's fiscal revenue.
- **Designing a simple project with a straightforward Results Framework that allows for flexibility is beneficial when the counterpart is new to Bank projects and has limited capacity.** In this project, the objective and Results Framework were clear and simple, resulting in an achievable project objective reflecting the available funding resources and capacity.

13. Assessment Recommended?

No

14. Comments on Quality of ICR



The ICR provided an adequate overview of project preparation and implementation. Also, the ICR included a traditional economic analysis, was sufficiently outcome driven, internally consistent and concise. The lessons learned were useful for future Bank projects and the photos included were useful for seeing the outcomes. The ICR would have benefitted from stating which environmental safeguards the project triggered and how it mitigated them. Also, the ICR did not state if the project complied with the environmental safeguards. While the ICR provided additional outcome data, it did not state whether these outcomes can be solely attributed to the project. Finally, the ICR would have benefitted from providing examples how M&E data were used to inform decision making. Overall, the quality of the ICR was Substantial.

a. Quality of ICR Rating
Substantial