Validation Report

Reference Number: PVR-483
Project Number: 39153
Loan Number: 2481
December 2016

People’s Republic of China: Chongqing–Lichuan Railway Development Project

Independent Evaluation Department

Asian Development Bank
ABBREVIATIONS

ADB – Asian Development Bank
CCB – China Construction Bank
CLR – Chongqing–Lichuan Railway
CLRC – Chongqing–Lichuan Railway Company
CMG – Chongqing municipal government
CRC – China Railway Corporation
EIRR – economic internal rate of return
GDP – gross domestic product
km – kilometer
MOR – Ministry of Railways
PCR – project completion report
PRC – People’s Republic of China

NOTE

In this report, “$” refers to US dollars.

Key Words
adb, asian development bank, lessons, people’s republic of china, performance evaluation, project completion report, railway, validation

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I. PROJECT DESCRIPTION

A. Rationale

1. The railway system in the People's Republic of China (PRC) has the highest freight transport density and locomotive turnover in the world. From 1978 to 2007, railway freight increased by 5.28% annually or from 535 billion ton-kilometer (ton-km) to 2,380 billion ton-km, and passenger traffic by 6.74%, from 109 billion passenger-km to 722 billion passenger-km. However, railway capacity continued to lag behind demand because of system constraints. By 2007, the PRC’s railway system of 78,000 km comprised 63,600 km of national railways and 14,400 km of joint-venture and local railways. At the time of project approval, the Ministry of Railways (MOR) was the operating entity of the state-owned national railway. According to the report and recommendation of the President (RRP) for this project, the joint-venture and local...
railways, consisting of regional lines within provincial boundaries, that were to be constructed were either under provincial governments or the MOR and were intended to serve local needs and provide connections to the national railway network. In 2013, the China Railway Corporation (CRC) took over operation of the national railway system from the MOR.

2. The project was part of the shortest east–west corridor linking Shanghai, Qingdao, Wuhan, Yichang, and other major cities and ports in the east to Chongqing and Chengdu in the west. Its proposed alignment was 369 km shorter than the existing route between Shanghai and Chengdu. The project was to traverse Hubei province and Chongqing municipality and to connect with the Shanghai–Wuhan–Yichang–Lichuan line in the east, the Chongqing–Huaihua line in the center, the proposed Lanzhou–Chongqing and Xi’an–Chongqing main lines in the north, the Chongqing–Chengdu line in the west, and the Chongqing–Kunming line in the south.

3. The project area was largely mountainous, with rich natural reserves of coal, gas, nonferrous materials, and tourist sites. Despite the abundant natural resources, inhabitants in the project area were poor and economic growth had failed to materialize due to inadequate and expensive transport services. The project and related developments were expected to stimulate industrial and extractive industries development, promote tourism and related industries, generate employment, increase living standards, and help reduce poverty.

B. Expected Impact, Outcome and Outputs

4. The project’s envisaged impact was an improved transport system in the Shanghai–Chengdu corridor that would support socioeconomic development and the government’s Western Development Strategy. Its anticipated outcome was an efficient, safe, reliable, affordable, and environment-friendly railway transport system in the region. The project had four targeted outputs. The first was improvements to railway infrastructure and associated facilities along the Chongqing–Lichuan corridor. The second was the generation of employment opportunities for poor and vulnerable groups in order to raise their incomes and living standards and reduce poverty. The third was to promote corporate governance through the establishment of the project company and marketing program. Lastly, was to strengthen institutional capacity through business development, including marketing.

C. Provision of Inputs

5. The project was approved on 8 December 2008 and became effective on 23 November 2009, a day before its scheduled date of effectivity. The loan was scheduled to be closed on 30 June 2015, but was actually closed on 3 March 2015. The project was to be implemented over 6 years. The project completion report (PCR) indicated that it was implemented smoothly and completed ahead of the original schedule (PCR, para. 18). The estimated project cost at appraisal was $3,071.11 million, for which the government requested a loan of $150 million (4.9% of the total project cost) from the Asian Development Bank (ADB) to help finance the project. ADB financing was intended to be used for selected contract packages for railway track work; electric power and traction; signaling, communication, and other equipment; and international consulting services. The China Construction Bank (CCB) and the

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2 The MOR has subsequently been dissolved and its duties taken up by the Ministry of Transport (safety and regulation), State Railways Administration (inspection), and China Railway Corporation (railway operations).

MOR were to finance the remaining foreign exchange cost. The local currency cost was to be funded by the MOR and the Chongqing municipal government (CMG) with cofinancing through a loan from the CCB. CMG was to finance the land acquisition and resettlement costs through an equity investment of $1,536 million.

6. At completion, the project cost was $4,553.66 million, 48.3% higher than the appraisal estimate. ADB financed $145.15 million (3.1%) of the project cost, while counterpart funding included an equity investment of $2,531 million from the CRC and the CMG. Domestic banks provided $1,878 million. The PCR attributed the cost increase to: (i) an 8.3% yuan appreciation against the US dollar during implementation; (ii) the low cost estimate at appraisal; (iii) an increase in the length and height of bridges and the treatment of geotechnical difficulties during tunneling; (iv) the larger size and capacity of passenger stations, including more passenger handling facilities; (v) increased land acquisition and resettlement; (vi) increased application of state-of-the-art safety and operation equipment and facilities; and (vii) greater environmental protection measures such as noise abatement. The cost of consulting services, administration, and training also increased. The cost increase was financed by additional equity contributions and loans from domestic banks (para. 5). The project had loan savings of $4.85 million, which were canceled on 3 March 2015.

7. At appraisal, about 8 person-months of international consulting services were envisaged to strengthen the institutional, marketing, and business development functions of the project company. Five domestic supervision companies and four institutes were engaged for design and surveys, supervision of civil works contracts, and independent monitoring of environment safeguards and resettlement implementation. In addition, 60 consulting service assignments were outsourced to national design institutes, consultants, and institutes during project implementation (PCR, para. 24). There was no advisory technical assistance associated with this project.

8. The project was classified category A for environment. The PCR indicated that the project complied adequately with the environmental management plan. Likewise, environmental impacts during project construction were adequately mitigated and remedied. The PCR noted that adverse impacts of land acquisition and mitigation measures for members of ethnic minorities were mitigated, as indicated in the resettlement and social development action plans.

9. The total land acquisition was projected to be 711.2 hectares (ha) or 10,669 mu⁶, including land required for constructing the railway line and railway stations. It was anticipated that permanent land acquisition would have at least a partial effect on the livelihoods of 34,968 persons across 84 villages. It was estimated that a total of 395,513 square meters (m²) of buildings would be demolished, relocating about 5,314 people. In addition, for construction purposes, the project would temporarily occupy about 674.2 ha (10,113 mu) of land. In total, 11,154 mu of land was permanently acquired, 5% more than the plan estimate, and 21,818 persons were affected by land acquisition, 38% fewer than the plan estimate, although the degree of impact on households was greater than anticipated. A total of 602,024 m² of buildings was demolished, 52% more than the plan estimate, and the number of displaced persons was 5,982, 13% more than the plan estimate. In addition, 9,958 mu of land was used temporarily during the Chongqing–Lichuan Railway (CLR) construction, 2% less than the plan estimate.

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⁴ These were lower than the approved feasibility study cost estimate and the approved engineer’s cost estimate at preliminary design.

⁵ Attributed to the engagement of more consulting services for construction quality control, improved construction safety, and the resolving of key technical difficulties.

⁶ The mu is a Chinese unit of measurement (1 mu = 666.67 square meters).
D. Implementation Arrangements

10. At appraisal, it was envisaged that the MOR would be the executing agency. A project company with headquarters at Chongqing was to be set up to implement the project. However, during project implementation, the CRC became the executing agency (para. 1 and footnote 2). Its material department was responsible for project management, procurement, and reporting to ADB. The Chongqing–Lichuan Railway Company (CLRC) was set up to manage the construction of the project railway, operate it after construction, and develop and implement adequate business development mechanisms and accounting and reporting systems (PCR, para. 19). The CLRC was also responsible for environmental management and supervision during implementation. Although the CLRC is an independent company, operation of the CLRC has not been separated from that of the CRC as anticipated at appraisal. Nonetheless, this validation agrees with the PCR that the project’s implementation arrangements were appropriate.

11. The PCR indicated that all covenants were complied with, except the financial covenants, which were partially complied with. It indicated that the CLRC’s operating ratio was higher than the target of 75% for 2014–2015, in view of the high fixed costs and low traffic volumes. The PCR also indicated that the CLRC’s initial debt-equity ratio of 46:54 was already better than the target. However, the debt-service coverage ratio was expected to remain below 1.2 until 2020. This would require the restructuring of the CLRC’s debt by extending the terms of interest and adjusting the repayment schedule to comply with the covenant condition (PCR, para. 22).

II. EVALUATION OF PERFORMANCE AND RATINGS

A. Relevance of Design and Formulation

12. The PCR rated the project highly relevant to the government’s Western Development Strategy and the Railway Development Plan, which were both aimed at narrowing development disparities between the western and coastal regions and scaling up investment in railway network expansion in the western regions. It indicated that the project was consistent with ADB’s country and sector strategies, which focused on expanding the railway system by constructing new lines in unserved and less-developed areas, and in commercializing railway operations to improve efficiency. The validation assesses that the project was consistent with the government’s 11th and 12th Five-Year Plans, which prioritized making transport more sustainable. It was also in line with ADB’s country partnership strategy, 2011–2015 for the PRC.

13. This validation agrees that the project was consistent with both the PRC’s development needs and ADB’s country and sector strategies. It notes that the project’s design was built on the experience of other railway projects in the PRC, especially in the technical design for tunnels and bridges and treatment of geotechnical difficulties and capacity of passenger

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7 The exact date of the CLRC’s establishment was not clear. The PCR indicated two dates: 19 February 2008 (para. 13) and 26 December 2008 (para. 19).
stations. This resulted in smooth project implementation and completion of the project ahead of schedule.

14. However, the validation notes that the design was based on an optimistic demand forecast for freight (PCR, para. 52), which led to project components being structured for both passenger and freight operations. As it turned out, the mixed traffic arrangements for passenger and freight operations had not materialized by project completion (para. 17). This led to the underutilization of the project’s facilities for freight (PCR, para. 52). Because of this shortcoming in the design, this validation finds a highly relevant rating not justified. The validation, therefore, considers the project relevant.

B. Effectiveness in Achieving Project Outcomes and Outputs

15. The PCR rated the project effective. The outcome indicators were: (i) an expansion of the corridor’s transport capacity by 7 million ton-km and 13 billion passenger-km by 2014; (ii) a reduction in travel time from Chongqing to Lichuan from 6 hours to 3 hours and from Shanghai to Chengdu from 32 hours to 18 hours; (iii) a reduction in travel cost from CNY0.35 per km in 2007 to CNY0.15 per km by 2014; (iv) a reduction in the number of accidents by 10% by 2014 over 2010; (v) generation of fuel savings of 0.3 million tons of oil equivalent and CNY204 million achieved by 2014; (vi) a reduction in CO₂ emissions by 136,000 tons by 2014, and 424,000 tons by 2033;¹⁰ (vii) a 20% increase in employment in the project area over 2006 levels; and (viii) provision of road access, drinking water, and telephone access to all poor villages by 2014.

16. The PCR noted that, upon project completion, transport capacity in the corridor had expanded by 12 million tons per year for freight and 120 passenger train pairs per day. The reduction in travel time was from 6 hours to 2 hours from Chongqing to Lichuan and from 32 hours to 15 hours from Shanghai to Chengdu. Travel cost decreased from CNY0.42 per km for bus in 2007 to CNY0.30 per km for train in 2016. Traffic accidents in Chongqing decreased by 12.1% from 2012 to 2014. The 2015 statistics of the Ministry of Transport (MOT) indicated that the railway’s carbon dioxide emissions for the whole route network of 121,000 km decreased by 9.2% from 2014 to 2015. Based on the Chongqing municipal government’s 2014 communiqué, 650,000 jobs were generated in Chongqing in 2008–2012 compared with 200,000 jobs in 2003–2007. All poor villages along the alignment were provided with road access, drinking water, and telephone access by 2014.

17. The validation notes that the project did not achieve the projected increase in freight ton-km as the freight transportation operation was not launched until, as the PCR noted, strict safety and efficiency issues had been fully addressed for the operation of mixed traffic (PCR, para. 11). Although the project could accommodate up to 12 million tons of freight per year, the PCR indicated that freight traffic was significantly overestimated and, contrary to the anticipation at appraisal, freight operation on the CLR had not yet begun at the time of completion report preparation. This was because: (i) the Shanghai–Wuhan–Chengdu corridor, which the CLR forms a section of, has become a major east–west high-speed passenger transport corridor; (ii) the joint operation of passenger and freight transportation poses an operational safety risk; (iii) the remaining capacity for freight transportation is limited due to the intensive operation of passenger trains; and (iv) current demand for freight transport is insufficient. The PCR noted that it was not clear whether the freight service was to be introduced in the project (PCR, Appendix 9, para. 9).

¹⁰About 5.1 million tons total reduction for 2014–2033.
18. This validation notes that both outcome indicators for reductions in travel time and in travel cost for trains were achieved. However, there was a slight shortfall in the targeted reduction in the number of accidents. On fuel savings and reduction in CO₂ emissions, the PCR noted that the railway’s CO₂ emissions were reduced (para. 16), but did not provide any estimate of actual fuel savings. Likewise, the reduction in CO₂ emissions resulting from the project’s operation was not estimated.

19. The design and monitoring frameworks for both the RRP and the PCR contained the following output indicators: (i) construction of 259 km of railway line and eight stations, including installation of ancillary equipment; (ii) increases in freight traffic volume from 31 million tons in 2014 to 85 million tons by 2033; (iii) generation of 119,000 person-years construction-related employment, with 50% of unskilled labor jobs targeted from the poor, including women; (iv) establishment of a project company; (v) development of an effective marketing program by 2013 to attract passengers and tourists along the CLR section; and (vi) provision of 8 person-months of international consulting services for capacity development, business development and marketing, and institutional strengthening.

20. This validation notes that all of the project’s major outputs were delivered, some even exceeded, but some minor outputs were underachieved. There was an increase in the length of the railway line from the planned 259 km to 264 km and in the number of railway stations from the planned eight to 10. The target number of person-years of construction-related employment generated was underachieved, as only 93,118 person-years were generated compared with the expected 119,000. The project did not utilize the 8 person-months of international consulting services as envisioned, and national consultants were mobilized for the same scope of work. Nevertheless, overall, this validation considers that major outcome indicators and physical outputs were achieved, and on this basis, assesses the project effective.

C. Efficiency of Resource Use in Achieving Outcomes and Outputs

21. The PCR rated the project efficient. The recalculated economic internal rate of return (EIRR) was 14.4%, compared with the 16.7% estimated at appraisal. The PCR indicated that the main reasons for the lower EIRR were the higher capital cost; the absence of economic benefits related to freight operations because freight transportation had not yet been launched at project completion (PCR, para. 11); lower initial passenger traffic; and other unverifiable benefits that were lower than appraisal estimates. It also indicated that the higher unit value of time, based on the latest average wage of residents, contributed positively to the recalculated EIRR.

22. This validation notes that the project was completed slightly ahead of schedule and all of the physical facilities were produced either as envisaged or with more capacity than intended, such as the passenger stations. However, there were a few methodological issues in the EIRR estimation. First, the RRP provided unrealistic estimates of passenger traffic. The PCR’s updated passenger traffic forecasts were lower than the appraisal forecast, which was based on lower overall growth rates but at a significantly higher level of initial traffic (PCR, Appendix 9, para. 9). Second, the assumptions used for future passenger traffic increases may need to be re-assessed. These assume a huge jump in the expected growth of passenger traffic from

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11 ADB project missions had emphasized the need for the project to identify the areas for strengthening the institutional, marketing, and business development functions of the company. By December 2015, the project opted to carry out the required consulting services by using domestic funds to comply with recent government regulations on business operations.

12 The RRP estimated passenger traffic at 8.38 billion passenger-km for 2014. The PCR did not provide a figure for 2014 but noted that passenger traffic was expected to reach 4.48 billion passenger-km in 2016.
4.48 billion passenger-km in 2016 to 12.39 billion passenger-km in 2021. This rapid increase, estimated to average more than 24% per annum during 2017–2021 (PCR, Appendix 9, para. 7), would depend on the completion of other connecting lines for the future railway network during the same period.

23. Third, the PCR’s passenger benefits valuation was not clear and needed justification. The PCR did not explicitly show how the passenger benefits were computed and the brief description of user costs and value of time was insufficient to re-compute passenger benefits. Comparing passenger benefit estimates in the RRP (RRP, Table A14.3) and in the PCR (PCR, Table A9.2), the PCR estimates are 10–57 times higher than those in the RRP, despite the fact that passenger traffic forecasts were lower in the PCR (para. 22).

24. Lastly and most importantly, this validation notes that, despite the absence of freight benefits, the recalculated EIRR (14.4%) was only marginally lower than at appraisal (16.7%) based on both passenger and freight benefits. In addition, both capital costs and operation and maintenance (O&M) costs at completion were significantly higher than appraisal estimates. Given the early completion of the project, and despite the methodological shortcomings noted above, this validation assesses the project efficient.

D. Preliminary Assessment of Sustainability

25. The PCR rated the project likely sustainable. It indicated that the CLRC, as a joint venture railway company, enjoys a special freight tariff that is higher than the national level (PCR, para. 36). The PCR also indicated that Chongqing’s robust economic growth over the past decade will trigger demand for more inter-provincial transportation, further enhancing the project’s sustainability. It stated that, to ensure long-term cost recovery, the CLRC will maintain an adequate tariff level; exercise broader marketing initiatives; and ensure sound corporate governance. The PCR noted that in early 2013 the government announced institutional reform measures in the railway sector to separate government functions from business operations, improve transport planning and railway safety, diversify investment channels, speed up railway construction, and advance modern logistics development.

26. This validation notes that the PCR recalculated after-tax FIRR at 3.03%, lower than the 5.48% estimated at appraisal. The PCR attributed the difference to the absence of freight operations, the lower than expected initial passenger traffic, and higher capital and operating cost than at appraisal, although the tariff exceeded the appraisal estimate. The calculated after-tax weighted average cost of capital (WACC) in real terms was 3.01%, close to the appraisal estimate of 2.80%. Compared with the recalculated WACC, the project is marginally financially viable.

27. This validation observes that 2015 project revenues were to cover only working expenditures, not depreciation and interest payments. This will continue until 2018, if the tariff remains unchanged. The operating ratio was higher than the target of 75% during 2014–2015 due to the high fixed capital cost, low levels of passenger traffic and absence of freight traffic. By 2018, this operating ratio is expected to fall below 75% if revenues are increased and operating costs controlled effectively. The National Development and Reform Commission issued a notification in December 2015 granting the CRC autonomy to set the tariff for high-speed trains based on the market situation. The PCR noted that, alongside tariff adjustments,

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13 In the EIRR calculation in the RRP, freight benefits were to contribute approximately 55% of the total benefits and passenger benefits to contribute about 3.3% (RRP, Appendix 14, para. 10).

14 This was computed by dividing total operating expenses by total operating revenues.
an increase in passenger traffic is expected to improve CLRC’s future profitability. Given this prospect and since railway operation in the PRC is a public service, this validation is of the view that it is likely that the government would step in to improve CRC’s financial viability or raise appropriate tariff levels, as needed. On this basis, this validation assesses the project likely sustainable.

E. Impact

29. The PCR did not provide an explicit rating for the project’s impact. However, it indicated that the project has had a significant impact on the region’s socioeconomic development. The project’s impact performance targets were: (i) an increase in the route-network length in the western region from 24,000 km in 2005 to 40,000 km by 2020; (ii) an increase in gross domestic product by 6% yearly in 2010–2020 for Chongqing and Hubei provinces and 7%–8% yearly for the project area; (iii) higher per capita rural income in the project area from CNY3,291 in 2005 to CNY4,281 by 2012 and CNY4,654 by 2020; (iv) a reduction in poverty incidence in the project area from 10.7% in 2007 to 5% by 2015; and (v) a 50% increase in the number of shops, tourist centers, hotels, and small businesses established in the vicinity of station areas by 2015 compared with 2008.

30. The PCR noted that, from 2007 to 2014, GDP growth rates in the project area ranged from 157% to 355%, while government fiscal revenue growth rates ranged from 163% to 733%. Also, annual per capita rural income in the project area from 2007 to 2014 increased from CNY2,205 to CNY7,091 in Lichuan and from CNY3,002 to CNY8,828 in Shizhu (PCR, Appendix 11, Table A11.4). By 2015, poverty incidence had been reduced to 0.32%–3.90% in five counties and districts in the project area, and to 7.40%–26.50% in two other counties based on the new poverty line level, which was raised by 180% in 2011. Route-network length in the western regions had increased to 48,000 km by the end of 2015. The PCR indicated that, from 2008 to 2015, the number of new shops, tourist centers, hotels, and small businesses established in 10 stations, nearby towns, and tourist sites had increased by more than 100%. Tourism revenues had likewise increased in the project area by 26% to CNY27.8 billion in 2014 from 2013 and 49% to CNY32.9 billion in 2015 (PCR, Appendix 1). Based on these observations, this validation views the project impact satisfactory.\(^{15}\)

III. OTHER PERFORMANCE ASSESSMENTS

A. Performance of the Borrower and Executing Agency

31. The PCR rated the performance of the borrower and the executing agency satisfactory. It noted that the CRC provided guidance throughout the process, assisted with project implementation, and cooperated closely with ADB and government agencies. Established in accordance with the loan agreement, the CLRC became operational upon project implementation. The validation notes that the executing agency provided additional funds to fill the significant increase in the resettlement cost of the project. The project was completed and became operational ahead of schedule. However, the CLR operated as a high-speed passenger railway line and could not provide the envisaged freight services. Container terminals and container handling facilities were constructed to the design capacity, but these could not be utilized until CLR freight operations are started.

32. This validation also notes that the project’s implementation performance gained

\(^{15}\) Since May 2016, IED has used the ratings terminology of the April 2016 Guidelines for the Evaluation of Public Sector Operations on development impacts. In this terminology, a satisfactory rating coincides with the significant rating that was used before.
international recognition, specifically for the executing agency. The International Federation of Consulting Engineers (FIDIC) named the project one of the “FIDIC Outstanding Projects of the Year 2015,” highlighting its innovative components such as: (i) the route selection scheme for disaster alleviation in the Karst area, (ii) a railway bridge with a high pier and long span in a dangerous mountain area, and (iii) backfill reclamation work in the Xienanxi valley in Fengdu county. The project also won a national consulting achievement prize, created seven world records, and registered 26 national patents.

33. The validation notes that the executing agency held in abeyance the recruitment and mobilization of 8 man-months of international consulting services (para. 20), and instead contracted local consultants and used its own funds for the contracts. Based on these affirmations of project achievements, the validation assesses the performance of the borrower and executing agency satisfactory.

B. Performance of the Asian Development Bank

34. The PCR rated ADB’s performance satisfactory. The PCR indicated that ADB showed strong commitment to the project and cooperated with the executing agency in facilitating project implementation. It noted that ADB processed procurements efficiently and that loan proceeds were disbursed in a timely manner. The project was administered and supervised by the PRC resident mission beginning in 2010. Aside from the project completion review mission, a total of eight loan review missions (including a midterm review) were fielded during implementation, with cumulative total inputs of 111 person-days. The ADB missions and its frequent communication with the CRC and CLRC resolved problems encountered during implementation. The CRC and CLRC were satisfied with ADB’s performance. Based on the above findings, the validation assesses the ADB’s performance satisfactory.

IV. OVERALL ASSESSMENT, LESSONS, AND RECOMMENDATIONS

A. Overall Assessment and Ratings

35. The PCR rated the project successful. This validation also rates it successful. It rates the project relevant, one rung lower than the PCR rating. The validation agrees that the project was in line with both the ADB and country strategies, but notes that the original project design was geared toward combined passenger and freight operations. This combination failed to materialize, which led to an underutilization of project facilities for freight. The project is rated effective since key outcome targets and physical outputs were achieved. This validation rates the project efficient due to its early completion, despite a few methodological issues in the computation of the project’s economic viability. The project is likely sustainable because of the CLRC’s mandate to undertake tariff adjustments and improvements in adjacent railway lines and stations.

Overall Ratings

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<th>Criteria</th>
<th>PCR</th>
<th>IED Review</th>
<th>Reason for Disagreement and/or Comments</th>
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<tbody>
<tr>
<td>Relevance</td>
<td>Highly relevant</td>
<td>Relevant</td>
<td>Freight traffic forecasts were overoptimistic at project design stage, which led to underutilization of the project facilities for freight. This weakness undermined feasibility of original project design (paras. 12–14).</td>
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<td>Effectiveness in achieving</td>
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<td>Efficiency in achieving outcome and outputs</td>
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<td>Quality of PCR</td>
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<td>Less than satisfactory</td>
<td>Please refer to para. 40.</td>
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ADB = Asian Development Bank, IED = Independent Evaluation Department, PCR = project completion report.

Note: This report uses the ratings terminology of the April 2016 Guidelines for the Evaluation of Public Sector Operations.
Source: ADB Independent Evaluation Department.

B. Lessons

36. The PCR identified key lessons from the project. Cost estimates should be updated in line with the approved feasibility study and preliminary design. Also, sufficient consultation and participation with stakeholders help promote ownership, responsibility, and the dissemination of project benefits. The PCR also indicated that, in view of the optimistic traffic forecast at appraisal, particularly for freight transport, mixed traffic arrangements for both passenger and freight transportation should be reviewed carefully for their efficiency and safety to avoid underutilizing capacity in future projects. Land acquisition and resettlement costs should be estimated more accurately and should be adequately budgeted.

37. The validation notes that freight transportation was initially the major benefit envisaged under this project. Since decisions to change railway corridor priorities, e.g., the balance between a high-speed passenger railway versus freight railway services, are usually the basis of a railway services plan, the modification in project design should have been known even at the appraisal stage since the CLR was to be a section of the Shanghai-Wuhan-Chengdu corridor high-speed passenger railway.

C. Recommendations for Follow-Up

38. The PCR recommended that the CRC and CLRC needed to expedite the scheduling of freight transportation, particularly container services, once safety and efficiency factors have been fully addressed. It also recommended that CLRC’s compliance with the loan conditions on financial performance needed to be monitored. This validation finds these recommendations appropriate and has no additional recommendation to offer.

V. OTHER CONSIDERATIONS AND FOLLOW-UP

A. Monitoring and Evaluation Design, Implementation, and Utilization

39. The PCR noted that the executing agency complied with the loan conditions on the project performance management system. However, the PCR did not indicate the extent to which data and information were utilized. These should have been regularly collected beginning from the baseline up to project completion. The discussion on socioeconomic impact, for example, did not
compare improvements in performance indicators such as GDP growth, per capita rural income, poverty incidence, and tourism to any baseline data. The validation also notes that the executing agency raised concerns to an ADB project loan mission on some of the performance targets in the DMF for their lack of relevance to the project, redundancy, and the absence of means of measurement for certain indicators. There were only minimal revisions made to the DMF.

**B. Comments on Project Completion Report Quality**

40. The validation rates PCR quality *less than satisfactory*. The PCR provided a substantial amount of information on project implementation. However, the evaluation of performance and ratings lacked in-depth analysis and corresponding data. The assumptions used in the re-calculation of the EIRR were not clear. Likewise, the PCR’s methodology in the EIRR’s re-computation was not adequately explained, particularly the assumptions used for benefit valuation. On project impact, a comparison to baseline data would have provided a stronger justification for the assessment.

**C. Data Sources for Validation**

41. Data sources for the validation include the (i) PCR; (ii) RRP; (ii) Country Partnership Strategy, 2008–2010, 2011–2015, and 2016–2020, including the transport sector assessment; (iii) loan review mission reports; and (iv) minutes of ADB management review meeting.

**D. Recommendation for Independent Evaluation Department Follow-Up**

42. The PCR recommended that a project performance evaluation be prepared in 2019, when the project would have been operating for at least 5 years and a thorough assessment of the project’s operational performance could be done. The validation is of the view that before such an evaluation is considered, there should be confirmation that freight railway operations have already commenced and have been in operation for a reasonable time, e.g., at least 3 years.