

Validation Report
August 2020

Republic of Azerbaijan: Road Network Development Program (Project 1)

Reference Number: PVR-719
Project Number: 39176-023
MFF Number: 0014
Loan Number: 2354 and 2355



Raising development impact through evaluation

ABBREVIATIONS

ADB	–	Asian Development Bank
ARS	–	Azer Road Service Open Joint-Stock Company
DMF	–	design and monitoring framework
EIRR	–	economic internal rate of return
IRI	–	international roughness index
km	–	kilometer
MFF	–	multitranche financing facility
MOT	–	Ministry of Transport
PCR	–	project completion report
PFR	–	periodic financing request
PIU	–	project implementation unit
PSC	–	project steering committee
RNDP	–	Road Network Development Program
WB	–	World Bank

NOTE

In this report, “\$” refers to United States dollars.

Director General	Marvin Taylor-Dormond, Independent Evaluation Department (IED)
Deputy Director General	Veronique Salze-Lozac’h, IED
Director	Nathan Subramaniam, Sector and Project Division (IESP)
Team Leader	Mitzirose Legal, Senior Evaluation Officer, IESP

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PROJECT BASIC DATA

Project number	39176-023	PCR circulation date	16 June 2020	
Loan numbers	2354 and 2355	PCR validation date	Aug 2020	
Project name	Road Network Development Program (Project 1)			
Sector and subsector	Transport	Road transport (nonurban)		
Strategic agenda	Inclusive economic growth Regional integration			
Safeguard categories	Environment		A	
	Involuntary resettlement		A	
	Indigenous peoples		C	
Country	Republic of Azerbaijan		Approved (\$ million)	Actual (\$ million)
ADB financing (\$ million)	ADF: 10.00	Total project costs	249.00	216.27
	OCR:190.00	Loans		
		L2354	10.00	9.79
		L2355	190.00	173.08
		Borrower	49.00	33.40
Approval date	4 Oct 2007	Effectiveness date	15 Mar 2008	3 Mar 2008
Signing date	15 Jan 2008	Closing dates		
		L2354	30 Jun 2010	12 Jan 2018
		L2355	30 Jun 2010	30 Apr 2018
Project officers	H. Wang D. S. Pyo B. R. Bathula F. Huseynbeyov	Location ADB headquarters ADB headquarters ADB headquarters AZRM	From Oct 2007 Apr 2008 Jan 2011 Feb 2014	To Mar 2008 Dec 2010 Jan 2014 Apr 2018
IED review				
Director	N. Subramaniam, IESP			
Team leader	M. Legal, Senior Evaluation Officer, IESP*			

ADB = Asian Development Bank, ADF = Asian Development Fund, AZRM = Azerbaijan Resident Mission, IED= Independent Evaluation Department, IESP = Sector and Project Division, OCR = ordinary capital resources, PCR = project completion report.

*Team members: H. Hettige (quality reviewer), F. De Guzman (Senior Evaluation Officer), P. Choynowski and C. Mason (consultants).

I. PROJECT DESCRIPTION

A. Rationale

1. Roads in Azerbaijan played a dominant role in passenger transport and a secondary role in freight transport. Its road network comprised 7,016 kilometers (km) of state roads and 17,997 km of municipal roads. There are two major highways—the east–west highway linking the capital city Baku to the Georgian border, and the north–south highway running from the Russian Federation to Iran through Baku.¹ These highways are part of the Asian highway network connecting Georgia, Iran, Russian Federation, and Turkey to Central Asia. Despite their importance, there were only 191 km of four-lane highways, about 70% of which required rehabilitation. Poor roads stemmed from inadequate funding for maintenance, vehicle axle overloading, and weak enforcement of axle load regulation, resulting in high transport costs, long delivery times, and traffic accidents, impeding poverty reduction and economic growth in the non-oil sector.

¹ ADB. 2007. *Report and Recommendation of the President to the Board of Directors: Proposed Multitranchise Financing Facility to the Republic of Azerbaijan for the Road Network Development Program*. Manila.

2. The road sector also faced road safety, cross-border and transit transport, as well as institutional capacity issues. The number of road traffic accidents, deaths, and injuries started to rise in 2002 with a sharp increase in 2005.² Azerbaijan's location in the southern Caucasus makes its road network crucial to regional transport. However, its cross-border road transit delays were 1–3 days due to inadequate border facilities and non-harmonized border procedures. Institutional capacity was limited with weak legal and regulatory framework and enforcement. It also suffered from weak financial management, a lack of private sector participation in maintenance, and limited experience in managing road projects.

3. Recognizing these challenges, the government prioritized road infrastructure development in its two state programs—the State Program on Poverty Reduction and Economic Development for 2003–2005³ and the State Program on Socioeconomic Development of Regions for 2004–2008.⁴ At the sector level, the Road Network Development Program (RNDP) for 2006–2015 was developed by the Ministry of Transport (MOT) in July 2006.⁵ The program had both infrastructure and non-infrastructure components amounting to \$3.4 billion over the 10-year period. The government had sought external financing for the program, mainly from the Asian Development Bank (ADB) and the World Bank (WB).

4. In September 2007, ADB approved the multitranche financing facility (MFF) for \$500 million to support the government's RNDP, subject to periodic financing requests (PFRs). At approval, the MFF presented scopes for projects 1 and 2. Project 1 was to improve the southern road corridor and enhance the management capacity in Azer Road Service Open Joint–Stock Company (ARS). Project 2 had three tentative components: upgrading a two-lane road between Ganja and Qazakh on the east–west corridor, development of cross-border infrastructure and facilities in Astara, and project support and capacity building for road network management. This validation discusses the project completion report (PCR) of MFF's project 1.⁶

B. Expected Impact, Outcome, and Outputs

5. At appraisal, both the MFF and project 1 had the same design and monitoring framework (DMF). At the impact level, it envisioned a sustained economic development in Azerbaijan and cooperation with neighboring countries. The expected outcome was an adequate, efficient, safe, and sustainable road network, linking Azerbaijan domestically and internationally. These result statements for project 1 were later revised in 2011. The expected impact was changed to greater economic development in Azerbaijan and expanded trade with the neighboring countries, and the revised expected outcome was efficient, safe, and sustained southern road corridor from Baku.⁷

² Footnote 1, Appendix 2.

³ Government of Azerbaijan. 2003. *State Program on Poverty Reduction and Economic Development, 2003–2005*. Baku. With its public finance policy, the government aimed to rebuild essential transport infrastructure such as roads, including the Trans Caucasus Highways to improve the quality of transport services for the low income rural population living in the vicinity and the tertiary road network connected to it.

⁴ Government of Azerbaijan. 2004. *State Program on Socioeconomic Development of Regions for 2004–2008*. Baku. The government recognized that transport system plays an important role in the complex development of the Lankaran economic region, with Baku–Astara high road and Baku–Astara railroad playing an important role in cargo and passenger transportation. These aim to support the economic relations between Azerbaijan and Iran.

⁵ ADB. 2006. *Transport Sector Development Strategy*. Consultant's Report. Manila. Annex 5. Road No. M1 (Baku–Kuba state boarder with Russia), Road No. M2 (Baku–Alyat–Gazakh state border with Georgia), and Road No. M3 (Alyat–Astara state border with Iran), among others, were identified as state programs for Road Development and Reconstruction in Azerbaijan (2006–2015).

⁶ ADB. 2020. *Completion Report: Road Network Development Program (Project 1) in Azerbaijan*. Manila.

⁷ ADB. 2011. *Facility Administration Manual for the Multitranche Financing Facility for the Road Network Development Program in Azerbaijan*. Manila. Appendix 1: Design and Monitoring Framework for Project 1.

6. As its PFR indicates, project 1 had four expected outputs. The first pertained to around 59 km of a new four-lane expressway between Masalli and Astara on the southern corridor constructed, comprising three sections: (i) section A was to have a core subproject covering km 0–km 22.1 of the Masalli–Astara expressway, (ii) section B with km 22.1–km 45.1; and (iii) section C with km 45.1–km 58.6. Other expected outputs were (i) local roads in the project area rehabilitated, (ii) vehicle weighing station along the Masalli–Astara expressway installed and road maintenance equipment procured, and (iii) project support and capacity building for road network management provided.⁸ These were revised in 2011 to section A being a four-lane expressway between Masalli and Astara on the southern corridor built, with access roads rehabilitated; and road network management capacity strengthened.

C. Provision of Inputs

7. Project 1 was approved in October 2007 and became effective in March 2008, 12 days earlier than planned. The original loan closing date was extended five times, resulting in actual financial closing date of April 2018 or almost 8 years later. Three factors contributed to the delay in closing. First, the executing agency lacked experience on ADB's safeguard policies. Being the first ADB-financed project with involuntary resettlement and significant land acquisition in Azerbaijan, there was little experience and institutional capacity to handle these issues (PCR, para. 17 and footnote 17). Second, the project faced a cost overrun requiring a change in scope and an amendment to the loan agreement. The initial cost estimates completed in 2006 did not factor in the final road alignment, which was not fully finalized as many sources of materials were not identified at that time (PCR, para. 7). Third, heavy winter rains and the contractor's poor performance subsequently required further extensions.

8. At appraisal, the total cost of project 1 was estimated at \$249 million, of which 80.3% was to be financed by ADB and the balance by the government. ADB financing comprised a loan of \$190 million from ordinary capital resources for civil works and equipment, and a loan of \$10 million equivalent from the Asian Development Fund for consulting services. The project cost at completion totaled \$216.3 million.

9. The PCR noted that the main reason for the cost changes was the inappropriate design of the Masalli–Astara highway. The base cost of the highway, which was estimated at \$146.2 million at appraisal and at inception, was increased by an additional \$160 million. Consequently, sections B and C were removed from the project scope. Nevertheless, the final cost of section A was 26% higher than the estimated cost of the entire Masalli–Astara highway. To cover the increased cost of civil works, equipment, and consulting services, loan funds were reallocated between spending categories, including contingencies. The removal of sections B and C resulted in an unused balance under physical and price contingencies, which were subsequently cancelled. This validation notes that to complete the Masalli–Astara highway, the MFF's project 3 was processed as an additional financing for sections B and C.⁹

10. At appraisal, project 1 was to engage 860 person-months of services (182 international and 678 national) from consulting firms. Of this, 766 person-months (146 international and 620 national) was for construction supervision, project monitoring, and evaluation, and

⁸ Government of Azerbaijan, Ministry of Transport. 2007. Periodic Financing Request to ADB: Road Network Development Program (Project 1). 23 August (internal).

⁹ ADB (Central and West Asia Department). 2009. Loan Review Missions to Azerbaijan: Road Network Development Program (Project 1). Back-to-office reports. 2 March, 6 August, and 30 October (internal); and ADB (Central and West Asia Department). 2011. Loan Review Mission to Azerbaijan: Road Network Development Program (Project 1). Back-to-office report. 30 June (internal).

preparation of project 2. Estimates to strengthen the database for secondary roads at 70 person-months (30 international and 40 national) and for developing legal and regulatory frameworks and operational procedures for toll roads at 24 person-months (6 international and 18 national) were planned. Project 1 employed two consulting firms: a design and supervision consultant and a tolling study consultant. It also engaged two audit firms and four individual social safeguards consultants. The PCR did not provide details on the actual duration of the consulting services.

11. Project 1 was classified category A for environment and involuntary resettlement, and category C for indigenous peoples. The alignment of the project roads did not pass through any protected areas, but the project had to account any major impact to the protected areas in the north–south corridor. The construction of the new expressway entailed significant land acquisition. The project was going to affect the Azeri people and some scattered members of other ethnic groups—particularly the Talysh, who had the same rights as other Azerbaijan groups but were not classified as indigenous peoples.¹⁰ Project 1 was categorized with some gender elements. Civil works contracts were to include provisions to encourage employment of women during implementation and to encourage their participation in activities for monitoring program impacts. The project implementation unit (PIU) was to develop and implement a gender action plan with the assistance of the supervision consultants.

D. Implementation Arrangements

12. The MOT was the executing agency and ARS was the implementing agency as envisaged at appraisal until the reorganization of the MOT in January 2016. From February 2016, ARS became the executing agency.¹¹ A project steering committee (PSC) with representatives from the Cabinet of Ministers, Ministry of Economic Development, Ministry of Finance, MOT, ARS, and PIU among others, was not established as planned, since the government felt the PSC would duplicate the coordination and reporting arrangements of the Cabinet of Ministers for externally financed projects. This resulted in less effective oversight and problem-solving under the project.

13. The PIU was to handle day-to-day implementation activities, prepare PFRs, engage and supervise consultants and contractors, prepare reports, and obtain approvals from ADB and the government. It was to be headed by the project director reporting to the chairman of ARS. It was to consist of the ARS staff and a team of externally contracted technical, safeguards, financial, and support staff. The PCR noted that the PIU handled the project implementation efficiently. It was headed by a project director and composed of financial, environmental, social, and procurement specialists and highway engineers. From January 2014, a program management consulting firm assisted the PIU in project management, procurement, and capacity development. The design and supervision consultant assisted the PIU in contract administration and on-site supervision, contractor quality control and assurance, project monitoring and evaluation, and safeguard compliance.

14. Out of the 45 loan covenants, three were not complied with, and six were partially complied with.¹² The project did not comply with loan covenants on the establishment of a PSC

¹⁰ Talysh are an ethnic group indigenous to a region shared between Azerbaijan and Iran which spans the South Caucasus and the southwestern shore of the Caspian Sea.

¹¹ The name of ARS and its legal status changed in 2016 to Azeravtoyol State Agency and in December 2017, Azeravtoyol State Agency was restructured as the State Agency of Azerbaijan Automobile Roads.

¹² Four of the six partially complied with covenants dealt with the submission and discussion of audited project financial statements. Azeravtoyol State Agency only partly implemented the gender action plan due to the lack of

(para. 12), installation of vehicle weighing stations within the project road, and maintenance concessions with private sector for at least 20 km of local roads. Project 1 did not install vehicle weighing stations along the project road due to poor coordination between the PIU and the executing agency's road maintenance department.¹³ The concession for the maintenance of local roads was not implemented, since the executing agency did not see the need to engage an outside party and felt that the private sector had no road maintenance capacity.

II. EVALUATION OF PERFORMANCE AND RATINGS

A. Relevance of Design and Formulation

15. The PCR rated project 1 relevant mainly since the project design was less than relevant at appraisal due to unrealistic cost estimates but became relevant at completion due to corrective action taken to adjust the project scope in line with the revised cost estimate. It also considered the MFF modality less appropriate since the 2006 Country Strategy and Program Update included a project loan to upgrade the southern road corridor.¹⁴ According to the PCR, although the project design did not have innovative features or demonstration values, it provided a transformational effect noting the integration of section A of the Masalli–Astara highway into the newly constructed 200-km long Alyat–Astara highway connecting the country both domestically and internationally through the north–south corridor. Although project 1 had its DMF similar to the entire MFF at approval in 2007, the PCR also viewed that most of its outcome and output indicators were linked to the countrywide road network development. Nevertheless, the DMF was revised in 2011 to reduce the outcome targets, narrow the project scope, and remove the database for secondary roads under component 4 to avoid duplicating the WB's work. It further acknowledged that baselines at the outcome level were retained as these were the best available statistics. This validation notes, however, that the WB's project document on the proposed Alyat–Masalli road of the Baku–Iran highway presented actual traffic statistics in 2004 from the Road Transport Services Department.¹⁵ With the narrowing of the project to southern road corridor, available statistics at the department could have been the more appropriate baselines at the outcome level.

16. This validation finds project 1 aligned with the country's programs (para. 3) and remained relevant to the country's State Program on Poverty Reduction and Sustainable Development for 2008–2015.¹⁶ It also remained relevant to the State Program on

sex-disaggregated data and cultural restrictions preventing the involvement of women in the construction works. Following the government's decision in 2018 to prioritize the introduction of tolling on the new Baku–Russian Federation border highway, whose construction is expected to be completed by end-2020, the establishment of tolls on expressway roads was absorbed by the second MFF on RNDP, which covered the Masalli–Shorsulu section. See PCR, Appendix 7, and ADB. 2012. *Report and Recommendation of the President to the Board of Directors: Proposed Multitranchise Financing Facility to the Republic of Azerbaijan for the Second Road Network Development Program*. Manila.

¹³ ADB. 2020. *Completion Report: Road Network Development Program (Project 1) in Azerbaijan*. Manila. Footnote 34. The PCR noted that the Decree of the Cabinet of Ministers No. 214s, dated 16 July 2015, provided for 32 weighbridge stations to be installed. These included three stations to be installed on the project road at the final stage of road works. However, to date, no vehicle weighing station was installed on the project road.

¹⁴ ADB. 2006. *Country Strategy and Program Update: Azerbaijan, 2006*. Manila.

¹⁵ The World Bank. 2005. *Project Appraisal Document on a Proposed Loan in the Amount of US\$200 million to the Republic of Azerbaijan for a Highway 2 Project*. Washington D.C. <http://documents1.worldbank.org/curated/en/969041468010270401/pdf/34016.pdf>

¹⁶ Government of Azerbaijan. 2008. *State Program on Poverty Reduction and Sustainable Development, 2008–2015*. Baku. The government recognized the reconstruction of the Great Silk Way (TRACECA), and implementation of north–south transport projects and the Baku–Tbilisi–Kars railway projects as important investments to increase the regional importance of the country, improve domestic connectivity and create opportunity for economic activities.

Socioeconomic Development of Regions for 2009–2013.¹⁷ It was consistent with the priority areas of ADB assistance identified in its country strategy and program update.¹⁸ This validation notes that MFF was an appropriate modality to support the country's 10-year road map (para. 3). The technical assistance completed in 2006 covered the Alyat–Astara road of the southern road corridor and formed the basis of the MFF to which project 1 belonged.¹⁹ Given the financing needed for the two major highways, the MFF provided flexibility to finance road sections that were deemed construction-ready and can result in greater impact within the RNDP. During implementation, it financed the unfinished local roads and installed weighing stations within the east–west highway around the Ganja and Gazakh regions (PCR, footnote 14 and para. 10). This validation notes, however, that these changes in the scope of components 2 (local roads) and 3 (weighing stations), which were implemented in early 2011, were not reflected in the revised DMF. These adjustments, which were considered within the overall objective of the MFF, could have been reflected in the project's facility administration manual updated in September 2011, where the revised DMF was attached.

17. This validation observes that even the WB's road project covering Masalli–Alyat roads experienced significant cost overrun resulting in the dropping of the Masalli–Shorsulu road section, which was later on financed by ADB.²⁰ The Alyat–Astara highway is a major strategic highway and the shortest route from Europe to the Persian Gulf. However, the demand for the services of this road was grossly overestimated, which had a substantial impact on the design of the project.²¹ Also, since project 1 was the first ADB-financed project with involuntary resettlement and significant land acquisition in Azerbaijan (PCR, footnote 17), its design could have incorporated a more dedicated support to the executing agency in handling these issues.

18. On the whole, the project was aligned with the country's development priorities. The use of MFF was appropriate and the project scope was timely adjusted, although a more appropriate set of outcome and output baselines and targets could have been identified. This validation assesses project 1 relevant.

B. Effectiveness in Achieving Project Outcome and Outputs

19. The PCR rated the project less than effective due to the nearly 8-year implementation delay and large cost overrun. Access roads were not rehabilitated in the project area, the vehicle weighing station was not installed, and the road maintenance equipment was not supplied as envisaged. The project's main output was the construction of section A of the four-lane expressway between Masalli and Astara, which was eventually completed. The expected connectivity gains from the project had not materialized as traffic volumes on the project road turned out to be significantly lower than estimated. The lack of adequate access to the project road limited the gains for the nearby villages, which continued using the old Baku–Iran highway

¹⁷ Government of Azerbaijan. 2009. *State Program on Socioeconomic Development of Regions of the Republic of Azerbaijan, 2009–2013*. Baku. The state program identified the Lankaran economic region (Astara, Jelilabad, Lerik, Masalli, Yardimli, Lenkeran districts) as one of the measures to which the action plan of reconstructing and building motor-roads of national importance in the economic region was based on.

¹⁸ ADB. 2006. *Country Strategy and Program Update (2006)*. Manila.

¹⁹ ADB. 2005. *Technical Assistance to the Republic of Azerbaijan for Preparing the Southern Road Corridor/Improvement Project (Alyat–Astara Road)*. Manila.

²⁰ ADB. 2012. *Report and Recommendation of the President to the Board of Directors: Proposed Multitranchise Financing Facility to the Republic of Azerbaijan for the Second Road Network Development Investment Program*. Manila.

²¹ On hindsight, a two-lane new road or two-lane upgrade of the existing road may have been the better option. Nevertheless, the four-lane expressway design was consistent with the WB road project being implemented along the Alyat–Masalli section.

(M3) road. The targeted international roughness index (IRI) of two of the completed project roads was achieved in the first year of operation.

20. The PCR stated that the project's target outcome of an efficient, safe, and sustainable southern road corridor from Baku was achieved. It reported that all the four indicators were achieved in 2017. First, freight traffic increased by 116% from the 10% target. Second, passenger traffic increased by 128% from the 5% target. Third, budget allocation for road maintenance grew to \$151 million from the target of at least \$100 million. And fourth, traffic accidents decreased by 30% as opposed to the target decrease by 2%. This validation notes that section A was completed in July 2017 but only opened in September 2018 as the government decided to wait for the entire Alyat–Astara highway to be completed (PCR, para. 9). This raises a question on the validity of the outcome achievements attributed to project 1. The PCR also reported 2018 data for each outcome indicators, but it was unlikely that significant achievements could be attributed to project 1 with only 3 months after the road was opened for traffic. The PCR's claim that the budget allocation for road maintenance reached \$151 million stemmed from the delivered outputs under the road network management capacity is also unclear.

21. As the revised DMF indicates, the project's target outputs were section A of the four-lane expressway between Masalli and Astara on the southern corridor built with access roads rehabilitated, and road network management capacity strengthened. These were to be measured using three indicators. Although section A (22.15km) of the Masalli–Astara expressway was to be completed by 2013, a four-lane expressway between Masalli and Astara was completed with a delay of nearly 8 years. The IRI value for section A of the expressway maintained was estimated at two in 2018 compared to the target of below five (against 11 in 2006) within 5 years after project completion. The legal and regulatory frameworks and operational procedures for toll roads was expected to be developed by 2013, but the final report on Legal and Regulatory Framework for Toll Roads was submitted 2 years earlier than expected. The build–operate–transfer law was adopted in March 2016, the rules to implement this law were adopted in April 2016, and the Law on Roads was amended in November 2017 to enable tolling of roads (PCR, Appendix 1). This validation notes that the revised output included the construction of local roads in the project area. However, the revised DMF did not provide any indicators to measure it. Also, the revised DMF dropped any reference to the weighing station in the project area. Hence, out of the four output indicators, including the local roads in the southern corridor, three were achieved.²²

22. During implementation, the project safeguard performance on environment was considered less than satisfactory. The adverse environmental impacts of the project's subprojects were expected to be limited and could of be effectively mitigated. There was effective public consultation with affected persons and other stakeholders in August 2005. Further consultation was conducted in 2006 and then public consultations were held on a monthly basis in villages surrounding the project. The midterm review in 2012 indicated that initial environmental compliance was poor. The contractor commenced civil works without finalizing the site-specific environmental management plan, and noncompliance with environment safeguard measures were observed at the construction site and the contractor's camp. Through supervision, the contractor's safeguard performance gradually improved. During

²² Bidding for the local roads along the project road was cancelled through a mutual agreement between the borrower and ADB. Instead of 120 km of local roads, 39.5 km of rural roads were rehabilitated in the Yevlakh–Ganja–Qazakhregion, which was outside of the project area.

implementation, 29 grievances were reported but subsequently resolved. At completion, there were no outstanding grievances.

23. At completion, the project performance in meeting ADB's safeguards on involuntary resettlement was considered satisfactory. The project involved an alignment that traversed mostly pastures or wasteland, affecting 605 households and four structures or commercial enterprises. Beyond the control of the project, the passing of a new regulation on land prices in the middle of the land acquisition and resettlement process significantly affected the timeline of the project. As a result, it took 3 years to address safeguard-related issues. Land acquisition and resettlement plans were completed by the end of 2015 without any outstanding issues or physical resettlement at project closing. There were no grievances filed by the community residents related to the construction of section A, although there were some delays due to disputes over the valuation of affected trees. In total, there were eight complaints, which were resolved by the land acquisition and resettlement commission. A gender action plan was developed covering projects 1 and 3 (funded sections B and C of Masalli–Astara expressway).²³ It was only partly implemented due to lack of sex-disaggregated data and cultural restrictions preventing the involvement of women in the construction works (PCR, para. 36).

24. Although three of the four output indicators were completed, all outcome achievements were not directly attributable to the project. Project 1 also experienced safeguard issues that significantly delayed the start of major road works. For these reasons, this validation assesses project 1 less than effective.

C. Efficiency of Resource Use

25. The PCR rated the project inefficient since the economic internal rate of return (EIRR) calculated for the Masalli–Astara road (representing a newly constructed 58.6 km long section of the M3 highway) was estimated at 3.8% at completion, lower than 12.8% at appraisal.²⁴ It identified two reasons for the low EIRR: (i) the actual cost was about 60% higher than expected at appraisal, and (ii) traffic was significantly lower than expected. The average traffic on the new M3 highway was estimated at 4,800 vehicles per day, lower than the expected 9,200 vehicles per day at appraisal.

26. This validation notes that project readiness and a lack of experience in safeguards management (para. 7) became a major issue, which caused significant delays in the project process. During the first 3 years of implementing project 1, there were no major road works done. Since the cost estimates at appraisal were developed before the final road alignment was completed, the actual cost increased significantly. The completed part of project 1 resulted in an under-expenditure of \$32.7 million (para. 6) with about \$17 million of the ADB loans cancelled.²⁵

27. The EIRR calculation of 3.8% was appropriate as it was based on a sound methodology and assumptions. Given that there was little or no growth in traffic on the project road, the economic benefits of the project valued in terms of resource cost savings and time savings were

²³ Gender-related activities included gender-sensitive road safety awareness training for communities along the project road, employment of women from project communities, and employment of women by the construction supervision consultant as engineers and administrative support.

²⁴ The EIRR at appraisal considered the entire M3 motorway (sections A, B, and C).

²⁵ ADB. 2020. *Completion Report: Road Network Development Program (Project 1) in Azerbaijan*. Manila. Para. 35 and footnote 13. The construction of local roads was dependent on the construction of section A. Weighing stations were not installed along the project road due to poor coordination. The PCR did not discuss the reasons why the unused funds or the ADB cancelled amount were not spent on the provision of road maintenance equipment.

likely non-incremental. The project also experienced significant delays and left significant amount of unused funds. Therefore, this validation assesses project 1 inefficient.

D. Preliminary Assessment of Sustainability

28. The PCR rated the project likely sustainable. Tolling was not introduced on the Masalli–Astara highway as planned (footnote 11). However, the road’s sustainability was assured by the government’s commitment to maintain the newly created road network and enforce road safety and axle load regulations. Routine and periodic maintenance was being carried out by the Azeravtoyol State as the executing agency (footnote 10) through its regional units and was being financed from the State Road Maintenance Fund established in December 2006. The government allocates sufficient funds and resources annually for road maintenance. Seven new specialized regional road maintenance units were established under the executing agency with assistance from the WB. These units have the sole responsibility for highway maintenance, and one is responsible exclusively for maintaining the new Alyat–Astara highway. In addition, with support from the WB, performance-based contracts may be introduced as part of strengthening road maintenance (PCR, para. 44). This validation assesses the project likely sustainable.

III. OTHER PERFORMANCE ASSESSMENTS

A. Preliminary Assessment of Development Impact

29. The PCR rated the project’s development impact satisfactory. The project’s expected impact was greater economic development in Azerbaijan and expanded trade with the neighboring countries. This was to be measured by the increase in trade with neighboring countries to \$2.5 billion by 2020 from \$2.2 billion in 2006. The PCR reported that trade turnover with neighboring countries reached \$3.6 billion in 2018. As part of the Asian highway network (para. 1), the project provided opportunities for economic, industrial, and commercial development and increased opportunities for business and employment. The rehabilitated local roads in the Ganja–Gazakh region are in an agriculturally productive area and will improve rural communities’ access to markets along the east–west highway. Substantial positive development results along the east–west highway, such as among others new business activities creating job opportunities and stimulating local economy, have been identified.²⁶ This validation assesses the development impact of the project satisfactory.

B. Performance of the Borrower and Executing Agency

30. The PCR rated the performance of the borrower and executing agency satisfactory. Although the PSC was not established as planned at appraisal, the government provided counterpart funds and necessary support without delay. The executing agency closely coordinated and regularly monitored construction progress and the quality of physical works. The PIU monitored implementation and prepared progress reports. The borrower and executing agency supported ADB’s review missions during implementation and at completion. External auditors audited project accounts and financial statements and submitted their reports to ADB as required under the loan agreement. However, the quality of audit reports was below standards, resulting in multiple revisions and resubmissions. The reports kept ineffective records of the Asian Development Fund loan advance account and the implementation of a specialized accounting system was delayed despite numerous audits that found poor financial

²⁶ Independent Evaluation Department. 2017. *Performance Evaluation Report for East–West Highway Improvement Project in Azerbaijan*. Manila: ADB.

management of the loan advance account. The government PCR for projects 1 and 3 was generally well prepared. This validation finds the performance of the borrower and executing agency satisfactory.

C. Performance of the Asian Development Bank

31. The PCR rated ADB's performance satisfactory. ADB headquarters administered the project until February 2014, and then delegated the project administration to Azerbaijan Resident Mission. ADB identified and resolved issues through regular fielding of project review missions. ADB conducted 25 loan review missions, a midterm review mission, and a project completion review mission. ADB headquarters continued to provide sector-specific technical and procurement guidance during project implementation and the resident mission helped resolve emerging issues and coordinated with government agencies. ADB's approval of documents during processing and implementation were timely and payment of claims was prompt.

32. While ADB conducted regular monitoring and follow-up on the deliverables of the executing agency, this validation notes that review missions could have better documented the changes in project areas and reflected them in the revised DMF, with appropriate baselines and targets. Also, it could have considered the executing agency's capacity to handle safeguard issues when designing project 1. The unexpected change in regulation on land prices significantly affected the project implementation. Although it was beyond the control of ADB, it closely worked with the executing agency, deployed experts to support them, and ensured that the project remained relevant and compliant with ADB's safeguard policy. This validation assesses ADB's performance satisfactory.

IV. OVERALL ASSESSMENT, LESSONS, AND RECOMMENDATIONS

A. Overall Assessment and Ratings

33. The PCR rated the project less than successful with ratings of relevant, less than effective, inefficient, and likely sustainable. This validation assesses the project relevant, less than effective, inefficient, and likely sustainable. Overall, this validation assess project 1 less than successful.

Overall Ratings

Validation Criteria	PCR	IED Review	Reason for Disagreement and/or Comments
Relevance	Relevant	Relevant	
Effectiveness	Less than effective	Less than effective	
Efficiency	Inefficient	Inefficient	
Sustainability	Likely sustainable	Likely sustainable	
Overall Assessment	Less than successful	Less than successful	
Preliminary assessment of impact	Satisfactory	Satisfactory	
Borrower and executing agency	Satisfactory	Satisfactory	
Performance of ADB	Satisfactory	Satisfactory	
Quality of PCR		Satisfactory	Para. 38.

ADB = Asian Development Bank, IED = Independent Evaluation Department, PCR = project completion report.
Source: ADB (IED).

B. Lessons

34. The PCR identified five lessons. First, a developed and institutionalized project readiness checklist, including information on subcontractors and contractor performance, at the time of loan approval can minimize the risk of delay. Second, highly inaccurate cost estimates during preparation can undermine the relevance and impact of the MFF modality. Third, having an interagency coordination framework established at the outset of implementation can ensure smooth implementation and coordination of project outputs, as well as better identification of performance baselines and targets. Fourth, the introduction of tolling on the M1 (Baku–Russian border) highway can be an important step towards introducing demand-based, user-pays provision of public infrastructure, and strengthening the financial sustainability of road maintenance. Lastly, synchronized planning and implementation of local road works can increase the benefits to local communities and better promote connectivity.

35. This validation has additional lessons to offer.

(i) **Sector-level lesson.** Sector road map recognized both by the country and ADB as an important element to support country and regional economic development can strategically enhance coordination among development partners. Given that the project formed part of the Asian highway network, there were strong buy-ins from various development partners. Guided by the RNDP 2006–2015, multiple financing partners through various loans were able to support the two major highways.

(ii) **Project-level lessons.** Projects designed with certain level of flexibility allow for unexpected developments to be timely considered in project redesigning. Designed as an MFF, it provided flexibility to adjust its scope based on the readiness of the project areas. Additional support to handle safeguard issues embedded in the project design can help mitigate the risks of project delays. Another lesson is the use of reliable arbitrary income elasticities of demand and forecasts of gross domestic product can help improve traffic forecasting and avoid overestimating traffic volumes and expensive project designs.

(iii) **Results framework and methodology-level lesson.** Proper and timely documentation of changes during the MFF implementation can improve the quality and relevance of performance baselines and targets. The use of MFF as a modality offers flexibility within the investment program, which can affect the baselines and targets estimated at appraisal. If the DMF is not adjusted in a timely manner, assessing achievements and results will be difficult. In the case of this project, the scope was revised; hence, it was imperative to revise the project's performance baselines and targets to make them relevant to project 1.

C. Recommendations for Follow-Up

36. The PCR suggested five recommendations. First, improve due diligence during project preparation and commence activities on time by (i) engaging an independent engineer to validate cost estimates and contingency fund adequacy and assess the contractors' capacity to work with subcontractors, (ii) advising the executing agency on a realistic construction schedule factoring in local weather conditions, and (iii) establishing a coordination framework at the project's outset. Second, strengthen effective coordination and accountability platform for government stakeholders to guide the executing agency and help align the loans with the rest of public spending in the road sector. Third, pay greater attention to road safety. Fourth, promote

efficient utilization of road maintenance funds by improving funding transparency and accountability. Lastly, improve sector performance by making tolling an integral part of sector planning and transferring road operation and maintenance to the private sector. This validation has no other recommendation to offer.

V. OTHER CONSIDERATIONS AND FOLLOW-UP

A. Monitoring and Reporting

37. According to the PCR, the project's monitoring and reporting arrangements were satisfactory and monthly progress reports prepared by the supervision consultants were provided to ADB. The PIU established a project performance monitoring system; however, the PCR did not assess its design or effectiveness. The design and supervision consultant closely supervised the contractors' work, monitoring contractors' conformity with environmental and social impact controls, supervising implementation by the contractor, and monitoring contractors' conformity with the traffic control and road safety action plan during construction.

B. Comments on Project Completion Report Quality

38. This validation assesses the PCR quality satisfactory. Its assessment on outcome achievements was weak and discussed the lower traffic volumes in the effectiveness section instead of in the efficiency section. Nevertheless, the PCR provided candid opinion on the shortcomings of the project and was able to translate them into lessons and recommendations.

C. Data Sources for Validation

39. Data sources used for this validation included the report and recommendation of the President, PCR, mission reports, ADB and country strategies as well as country laws and rules. This validation also referred to related ADB and WB project documents on east–west highway investment program and the second MFF on road network development program.

D. Recommendation for Independent Evaluation Department Follow-Up

40. The PCR suggested that project benefits will likely become apparent by the end of 2021, one year after the government completes and opens the M1 highway to traffic. Hence, a project performance evaluation should be undertaken during 2022–2023. This validation suggests performing the evaluation in 2025, five years after the completion of the second MFF for RNDP. This would be appropriate as not only project 1 benefits would be measurable, but also the development impact of the major sections of the new M2 (Baku–Georgia border) and M3 roads along the two major highways. This can be jointly conducted with the WB since it implemented the Gazakh–Ganja sections along the east–west highway and Alyat–Shorsulu along the southern road corridor, and with Islamic Development Bank, which funded the Yevlakh–Ganja section of the east–west highway.