

1. Project Data:		Date Posted : 04/19/2010	
PROJ ID : P040716		Appraisal	Actual
Project Name : Highway Project	Project Costs (US\$M):	48	65.51
Country: Azerbaijan	Loan/Credit (US\$M):	40	46.97
Sector Board : TR	Cofinancing (US\$M):	1.5	1.5
Sector(s): Roads and highways (94%) Central government administration (6%)			
Theme(s): Rural services and infrastructure (40% - P) Infrastructure services for private sector development (40% - P) Access to urban services and housing (20% - S)			
L/C Number: C3517			
	Board Approval Date :		06/12/2001
Partners involved : European Commission	Closing Date :	06/30/2005	01/31/2009
Evaluator :	Panel Reviewer :	Group Manager :	Group :
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2. Project Objectives and Components:

a. Objectives:

The Credit Agreement states the objectives were :

1. to promote trade and economic growth by improving access and lowering transport costs for goods and passenger traffic moving along the Borrower's East-West Highway;
2. to improve the organization, management, efficiency, and maintenance practices of Azyol; and
3. to improve the quality of transport services available to trade and commerce, the road users, and the low income rural population living in the vicinity and served by the East-West Highway and the tertiary road network connected to it.

The PAD has a similar statement of objectives but put a greater emphasis on serving the poor in objective 3:

1. to promote trade and economic growth by improving access and lowering transport costs for goods and passenger traffic moving along the East-West Highway from Baku to Georgia, between Ganja and the town of Gazakh;
2. to improve the organization, management, efficiency, and maintenance practices of Azerbaijan's national road administration Azeravtoyol (Azyol); and
3. to improve the quality of transport services available to the low income rural population served by the East-West Highway and the tertiary road network connected to it.

This review evaluates achievements against the PAD's statement of objectives .

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

No

c. Components (or Key Conditions in the case of DPLs, as appropriate):

Part A: Road Rehabilitation (\$38.15 million at appraisal; \$57.12 million actual).

- **Reconstruction and upgrading of selected sections of the existing East -West Highway** . This included:
 - (a) reconstruction, resurfacing and leveling of the selected sections to achieve a high quality road;
 - (b) widening the shoulders of the roadway;
 - (c) replacement, widening or strengthening of bridges in need of repair;
 - (d) improvement of drainage; and
 - (e) installation of road markings and road signs .
- **Pilot programs for rural roads maintenance** .

Part B: Institutional Strengthening (\$3.58 million at appraisal; \$6.06 million actual)

- Institutional strengthening of the national road organization (Azyol) included development of a corporate plan for Azyol, technical support, training, and other elements necessary for Azyol's restructuring and modernization over a three-year period, including assistance in the preparation of a road safety plan .
- Technical support for a road user charges study provided for the monitoring of the poverty impact of the project, including both short and longer term employment effects and the impact on investment in the area served by the improved road sections, and the cost of audits of Azyol and the project accounts .
- Office equipment, 4 vehicles to facilitate field surveys and oversight supervision, and laboratory equipment needed to improve the quality of road works were also included .
- The European Commission provided funding for qualified consultants to supervise the road works, and provision of technical assistance, training, audit services and goods to strengthen the institutional capacity and assist in the restructuring and modernization of Azyol .

Part C: Project Management (\$0.58 million at appraisal; \$2.33 million actual)

- This provided administrative support for the Project Implementation Unit in the form of salaries and payroll costs, office equipment, supplies, vehicles, and incremental operating costs .

Revised components :

- In March 2005 the project was formally restructured (on a non-objection basis) to reallocate project savings to the construction of a by-pass around the city of Tovuz . This additional work was estimated to cost about US\$ 10 million, but the actual cost was US\$ 14.5 million. The difference was covered by the borrower .
- Later in the project funds were diverted towards the preparation and supervision of a follow -on project. This decision halted implementation of the study to assess the poverty alleviation impact of the project financed rural roads work .

d. Comments on Project Cost, Financing, Borrower Contribution, and Dates:

- **Project cost and finance** . The total project cost was \$48 million at appraisal and \$65.51 million at closure. Depreciation of the US Dollar with respect to the Special Drawing Rights (SDR) increased loan funds disbursed in dollar terms from the original US\$40 million to US\$46.97 million.
- **Borrower contribution** . The borrower planned to contribute \$6.5 million at appraisal but by project closure they contributed \$17.04 million, or 162% more than planned.
- **Dates** . The project was extended twice for a total of 43 months. The first extension of 28 months was to allow for tendering and execution of the additional works . However, protracted and ineffective land acquisition required a further extension of 15 months to complete the Tovuz bypass works .

3. Relevance of Objectives & Design:

Relevance of project objectives is rated Substantial .

- The project objectives were consistent with the Bank's 1999 CAS and Azerbaijan's strategy for sustainable growth and poverty alleviation. The 2003 and 2006 CASs also mention the importance of sustainable non-oil growth; the project's main component, the East-West road corridor, is the lifeline of Azerbaijan's non-oil trade. Additionally, the 2003 CAS called for improving the quality and capacity of Azerbaijan's transportation infrastructure. Specifically, it focuses on the rehabilitation of the East West Highway and improvement of rural roads. The 2006 CAS says that "Improved transport links, including transit corridors, are also critical ."

Relevance of Design is rated Modest .

- The project design included some of the best practices for road projects : developing adequate sector

governance and committing the government to adequate funding of road maintenance . But there were shortcomings in the design of the rural roads component .

- It was the first road project in Azerbaijan, and appraisal identified a host of issues that needed to be addressed . Instead of prioritizing these issues and addressing the top priorities, the project tried to address all of them . As such, the client was induced to make efforts even on those components for there was little buy -in. The TTL commented that the project would have been better served had it chosen a few key issues that had a high probability of success . For example, there was insufficient budget to apply the project's Pavement Management System that was successfully installed utilizing TA .
- The large number of studies for the institutional building component took little account of local implementation capacity and the amount of work involved overwhelmed the implementing agency .
- The pilot rural roads component was poorly prepared and had little buy -in from the Borrower and "and its pilot objective faded away during implementation, when priority reverted to infrastructure development "(ICR page 6 and 7).
- While the third objective specifically mentions targeting the poor, and the PAD mentions updating the social assessment done during appraisal, there were no arrangements to monitor social impacts .

4. Achievement of Objectives (Efficacy):

Objective 1 to promote trade and economic growth by improving access and lowering transport costs for goods and passenger traffic was sustainably achieved with few shortcomings . Efficacy is rated high .

- The Ganja-Shemkir and Shemkir-Gazakh road sections were improved as planned . Travel times have been reduced by 33%. Travel times were used as a proxy for transport costs . The number of vehicles using the roads also increased. Traffic volumes at appraisal varied across the road sections over a range 1,654 to 2,854 annual average daily traffic (AADT). In 2008 traffic volumes were in the range 3,961 to 6,836 AADT.
- The Tovuz by-pass was incomplete at project closure but the last bridge was expected to be commissioned in October 2009 using additional government financing .
- The economic rate of return to the economy from improved roads was higher than expected (35% vs 23%). Returns could have been higher but the Borrower preferred to build more robust bridges (4 lanes with stronger foundations, ICR page 21) than currently required (2 lanes) with a view to future road upgrading as the economy expands.

Objective 2 to improve the organization, management, efficiency, and maintenance practices of Azerbaijan's national road administration was substantially achieved with some shortcomings . Efficacy is rated modest .

- An increased role for the private sector in road construction (by introducing maintenance-by-contract rather than forced account for road maintenance) was partially achieved during the life of the project using donor financing, but some maintenance work is still being done under force account .
- There are still some problems organizationally including unclear responsibilities for the investment department and maintenance department (ICR page 13).
- The project raised the government's awareness of the need for a new functional classification for all public roads - but switching to a new system did not occur .
- A Pavement Management System was established but it was not used . According to the Borrower: "[there was not] adequate funding to establish institutional arrangements and train staff for an annual program of data collection over the full network . Without this annual updating of data, any attempt to use the PMS to plan annual rehabilitation and periodic maintenance activities will not be successful " (ICR page 28).
- While special studies made recommendations on design and maintenance standards to meet international practice, the implementing agency continues to use the old Soviet standards .
- There was much greater success in completing the studies on : improved cost accounting; road user charges; defining performance indicators for the road network and the implementing agency; a five year rolling road management plan; and a National Road Safety Plan .
- As the Borrower notes: "Good progress has been made in the institutional reform process and there is high level support within MoT and ARS to continuing this process . Despite the good progress already achieved, the achievement of lasting and meaningful institutional reform should be viewed in a mid -term perspective, measured in a time-scale of years, not months"...[and]... "there is full agreement about the cultural and generational difficulties that have to be overcome " (ICR page 27).
- In addition, financing for the implementing agency has been increased steadily each year well beyond the original plan: from AZN 8.4 million in 2002 to AZN 145 million in 2009.

Objective 3 to improve the quality of transport services available to the low income rural population served by the East-West Highway and the tertiary road network connected to it was only substantially achieved with some shortcomings . Efficacy is rated substantial .

- Five rural roads were improved following fairly intensive local participation in selection and design by beneficiaries in the first two .and the Borrower notes that "the initial budget of US\$3,000 per km for local road improvement was inadequate" (ICR page 26). The Borrower also notes " in any future similar projects, an increase in the relative value of local roads component would be welcome ."
- The ICR claims that the improvement of five rural roads serving a population of over 14,000 people means that there was a positive impact on low-income rural populations while also stating "this improvement in the life of the

rural population has not been formally assessed" (ICR page 12).

Overall efficacy is rated Modest . This is because the difficulties encountered in bringing about institutional reform that is essential for the good management of the project's investments in road infrastructure offset substantial achievement of physical objectives ..

5. Efficiency (not applicable to DPLs):

The ex-post economic evaluation of the four road sections rehabilitated under the project used the same Highway Development and Management Model (HDM-4) as the PAD. This model simulates life cycle conditions and costs and provides economic decision criteria for road construction and maintenance activities . The project yields a Net Present Value (NPV) of US\$47.0 million and an Economic Rate of Return (ERR) of 35 percent. These results exceed the appraisal expectations of a NPV of US\$9.0 million and an ERR of 23 percent. The efficiency of institutional improvements was not measured.

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

	Rate Available?	Point Value	Coverage/Scope*
Appraisal	Yes	23.1%	90%
ICR estimate	Yes	35%	87%

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

6. Outcome:

Based on a high relevance of objectives, modest relevance of design, modest efficacy, and substantial efficiency, the outcome is rated moderately satisfactory .

a. Outcome Rating : Moderately Satisfactory

7. Rationale for Risk to Development Outcome Rating:

- Progress in the road sector of Azerbaijan requires a long-term approach. There is a proposed follow up project that will address issues such as planning and the full adoption of EU country standards in road design which will help ensure sustainability .
- The future sustainability of the investments is supported by adequate funding for road maintenance, one of the main legal commitments of the government under the credit agreement .
- An upcoming Public Investment Capacity Development Project will address not only the training needs of the implementing agency but also strengthen academia and the private sector . Targeting the new generation of professionals for the dissemination of modern asset management principles should eventually lead to the change in culture that the Highway Project sought .

a. Risk to Development Outcome Rating : Negligible to Low

8. Assessment of Bank Performance:

Quality at Entry . Moderately satisfactory .

- Project preparation was reasonably thorough and effective but the aims and proposed targets of the project were not in tune with the actual intentions and capabilities of the borrower . According to the ICR, "much of this optimism can be attributed more to a problem of report writing (i.e. with a tendency to inflate possible impacts) rather than of project design." Project design was thus over-ambitious. QAG did not assess quality at entry. During preparation, Bank funding switched from IBRD to IDA . This led to an increased emphasis on rural poverty and rural infrastructure in the PAD presentation . However, the ICR reports that "it was clear from the outset that rural roads was not a major objective of the project and the PAD 's discourse was not accompanied by a solid rural roads component ."

Quality of Supervision . Satisfactory .

- IDA's missions visited Azerbaijan regularly two to three times a year to assess progress in project implementation and prepare the follow-on project. The ICR finds that a more balanced consideration of the civil works and institutional aspects of the project in evaluating progress and achievements would have enhanced the quality of the supervision . On the other hand, missions paid close attention to financial management and procurement and took corrective actions to provide for learning and to ensure that IDA 's safeguards were diligently observed .The project started with serious procurement problems, which resulted

in a brief rating of the project as unsatisfactory . Once the Bank’s procurement policies were fully understood by the government the project implementation became smoother . A Procurement Review carried out in 2004 identified the need for further training and identified problems that eventually led to a tightening of the procurement supervision . The team successfully implemented the addition of a new component to the project (the Tovuz by-pass), but also dropped the piloting aspect of the rural roads component, which, according to the ICR “should probably have been redefined during project implementation .” IEG views that if the piloting aspects were dropped, the project objective should have been changed to reflect this .

a. Ensuring Quality -at-Entry: Moderately Satisfactory

b. Quality of Supervision : Satisfactory

c. Overall Bank Performance : Moderately Satisfactory

9. Assessment of Borrower Performance:

Government performance : satisfactory

- Government ownership was high. The central government agencies provided satisfactory support for the project, and worked cooperatively with IDA to fix problems to achieve results agreed in the CA . This is particular true of the cooperation necessary for complying with the substantive environmental requirements of the Tovuz by-pass. The government implemented the “letter” of the project with diligence and was open to exchange ideas on many issues for which solutions are not always obvious and for which consultants, IDA staff and local authorities offered differing views .
- Funding for road sector maintenance increased well beyond the levels agreed during preparation . (Road maintenance funding allocations have been well above the agreed amounts . They grew from AZN 8.4 million in 2002 to AZN 145 million in 2009.)
- Transforming Azyol into a modern road agency was one of the main objectives of the government and is slowly being achieved . Despite the advice of the Bank and other donors, Azyol lost its autonomy when it became the Road Transport Service Department in the newly established MOT . Subsequently, however, the Department became a joint stock company: Azer Yol Servis (AYS).

Implementing agency performance . Moderately satisfactory

- The implementing agency (Azyol and its PIU) had a steep learning curve on issues of procurement and project management. For most of the initial implementation period there was only one Procurement Specialist with limited knowledge of English. Initial delays in staffing the PIU with professionals acceptable to IDA, inordinate time in processing bid evaluations, and proposing contract awards to other than the lowest evaluated bidder, were part of the problems that brought for a very short period of time an unsatisfactory rating to project implementation. However, once the initial difficulties were overcome, Ayszol successfully implemented the civil works and technical assistance contracts .
- Ayzol has been slow to change its culture towards greater efficiency and transparency and was reluctant to shed certain ideas inherited from the old Soviet system (e.g., standards). Conversely it was willing to try new technologies and accept new ways of doing things when the benefits were self-evident. As a result recommendations of studies were only partially adopted .

a. Government Performance : Satisfactory

b. Implementing Agency Performance : Moderately Satisfactory

c. Overall Borrower Performance : Moderately Satisfactory

10. M&E Design, Implementation, & Utilization:

- **M&E Design is rated modest** . Most indicators were output-oriented and many consisted of establishment of a system or program. There is not always a direct link between the indicators and the project development objectives (i.e., there are no indicators on freight rates or passenger costs or accessibility for Objective 1). Time savings are used as a rough (but unsatisfactory) proxy of costs. There were no social indicators to measure the impact on the poor.
- **M&E Implementation is rated modest** . Midway through project implementation, at the suggestion of OPCS, the indicators were strengthened to include : (i) reducing travel time on the project road from 60 to 40 minutes (as a proxy for reduced costs); and (ii) establishing as 14,000 the number of low-income population expected to benefit from the project. These changes sought to strengthen the relationship of outputs and outcomes . IEG notes that the funds set aside for the empirical study of the benefit of rural roads on beneficiaries were diverted

towards the preparation of the road rehabilitation project .

- **M&E Utilization is rated modest** . Although there is little evidence in the ICR that indicator data were used, the ISRs regularly reported progress in inputs and outputs to inform decision -making and resource allocation . However, there was too little attention to monitoring outcomes

a. **M&E Quality Rating** : Modest

11. Other Issues (Safeguards, Fiduciary, Unintended Positive and Negative Impacts):

- **Safeguards** . The project was a Category B at appraisal and became a Category A with the inclusion of the Tovuz by-pass, a component that required land acquisition . The process of completing the land acquisition was much slower than anticipated . After two survey were conducted, the Land Acquisition Department of Ayzol went back to get the landowners' signature to certify the transfer of titles, only to find the majority of them refusing to sign at the price agreed upon initially . After receiving a higher compensation offer, the land owners agreed .
- The delay led to Ayzol requesting the Bank to assist them in reviewing legal and administrative procedures in Azerbaijan with regard to property acquisition, assessing international practice and proposing suggestions for streamlining the process . Consultants hired under the Highway II Project eventually prepared a draft Expropriation Law . Bank legal advisors reviewing the draft considered it one of the best laws in the former Soviet Union with regard to property acquisition . The draft Law is now under discussion in Parliament . It is considered that the adoption of the new law would help ensure the fair and expedient property expropriation that is needed for large-scale infrastructure development . The project team indicated to IEG that as of summer 2009, the law was under the second reading by the parliament . There must be three readings before a law can be signed by the president .
- **Fiduciary** . The project started with serious procurement problems, which resulted in a brief rating of the project as unsatisfactory . Once the Bank's procurement policies were fully understood by the government the project implementation became smoother .
- **Unintended consequences** . There were no other unintended outcomes or impacts .

12. Ratings:	ICR	IEG Review	Reason for Disagreement /Comments
Outcome:	Satisfactory	Moderately Satisfactory	The project design had notable shortcomings; one component should have been restructured .
Risk to Development Outcome:	Negligible to Low	Negligible to Low	
Bank Performance :	Satisfactory	Moderately Satisfactory	Proposed targets of the project were not in tune with the capabilities of the borrower; project indicators were not well aligned with objectives .
Borrower Performance :	Satisfactory	Moderately Satisfactory	Initial problems with procurement (providing limited staff, awarding contracts not in alignment with Bank policy), implementing agency's reluctance to shed Soviet-era standards, and to accept some reforms for further modernization contribute to the downgraded rating .
Quality of ICR :		Satisfactory	

NOTES:

- When insufficient information is provided by the Bank for IEG to arrive at a clear rating, IEG will downgrade the relevant ratings as warranted beginning July 1, 2006.
- The "Reason for Disagreement/Comments" column could cross-reference other sections of the ICR Review, as appropriate .

13. Lessons:

- **There should be greater focus on capacity building for planning and programming in the road sector** . The design and implementation of projects in the road sector should give equal or more weight to the issues of improving the effectiveness of the government 's investment program than to the issue of quantity of expenditures. There appears to be a marked emphasis during project implementation on funding issues, disbursement rates and contract execution of the civil works under the project as reflected in supervision reports and letters to the Borrower .
- **A strategic methodology is necessary to tackle the different problems retarding a shift towards modern road management** . Problems with institutional capacity require a long -term program of staffing, training and career development with clearly stated short, medium and long -term targets.
- **The subject of the cultural and generational gaps affecting the pace of reform requires an integral partnership of the public and private sectors and academia** . Future road engineers and practitioners should be exposed to new ideas, develop problem -solving capacity and decision making abilities . The Bank should promote best practices in these types of partnerships and should consider incorporating the support for these activities in future operations.
- **Flexibility in project implementation may provide unforeseen provide benefits** . The decision to include the construction of the Tovuz by-pass involved greater risk in terms of the complexity of the civil works financed under the project. The result was not only a substantial improvement to the country 's road network but also to the legal and regulatory framework of land acquisition .

14. Assessment Recommended? Yes No

Why? To follow up on the impacts of the rural roads component on the rural poor; and to check on the progress of institutional reform.

15. Comments on Quality of ICR:

In general, the ICR is clear and well-written, providing a useful discussion of the project . The team provided a number of robust, thoughtful lessons . There is a discrepancy between the text and Annex 1 in respect of the explanation of costs of the Tovuz bypass . The Borrower's annex is very useful .

a.Quality of ICR Rating : Satisfactory