

ASIAN DEVELOPMENT BANK

TPA: REG 2002-16

TECHNICAL ASSISTANCE PERFORMANCE AUDIT REPORT

ON

INSTITUTIONAL STRENGTHENING AND POLICY SUPPORT

TO THE ROAD SECTOR

IN

KAZAKHSTAN, KYRGYZ REPUBLIC, AND MONGOLIA

October 2002

CURRENCY EQUIVALENTS

	At TA Approval	At TA Completion	At Operations Evaluation
Kazakhstan			
Currency Unit – tenge (T)			
TA 2631-KAZ	(August 1996)	(November 1997)	(June 2002)
T1.00 =	\$0.0148	\$0.0132	\$0.0065
\$1.00 =	T67.35	T75.55	T153.12

Kyrgyz Republic			
Currency Unit – som (Som)			
TA 2587-KGZ	(June 1996)	(August 1997)	(June 2002)
Som1.00 =	\$0.0800	\$0.0579	\$0.0210
\$1.00 =	Som12.50	Som17.28	Som47.63
TA 3065-KGZ	(September 1998)	(September 2000)	(June 2002)
Som1.00 =	\$0.0498	\$0.0210	\$0.0210
\$1.00 =	Som20.07	Som47.60	Som47.63

Mongolia			
Currency Unit – togrog (MNT)			
TA 2380-MON	(August 1995)	(August 1997)	(June 2002)
MNT1.00 =	\$0.0022	\$0.0012	\$0.0009
\$1.00 =	MNT460.18	MNT804.36	MNT1,103.00
TA 3268-MON	(September 1999)	(September 2000)	(June 2002)
MNT1.00 =	\$0.0010	\$0.0009	\$0.0009
\$1.00 =	MNT1,050.62	MNT1,084.00	MNT1,103.00

ABBREVIATIONS

ADB	–	Asian Development Bank
AASHTO	–	American Association of State Highway and Transportation Officials
DGRMBOR	–	Directorate General for Rehabilitation and Maintenance of the Bishkek-Osh Road
DMC	–	developing member country
DOR	–	Department of Roads
IMF	–	International Monetary Fund
km	–	kilometer
MOTC	–	Ministry of Transport and Communications
OEM	–	Operations Evaluation Mission
PIU	–	project implementation unit
RETA	–	regional technical assistance
TA	–	technical assistance

NOTES

- (i) Fiscal years (FY) of the governments end on 31 December.
- (ii) In this report, "\$" refers to US dollars.

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BASIC TECHNICAL ASSISTANCE DATA

TA 2631-KAZ: Institutional Strengthening of the Road Sector¹

Cost (\$'000)²	Estimated	Actual
Foreign Exchange	645	644
Local Currency	105	105 ³
Total	750	749
Number of Person-Months (consultants)	53	41
Executing Agency Department of Roads		
Milestones		Date
President's/Board Approval		27 Aug 1996
Signing of TA Agreement		5 Sep 1996
Fielding of Consultants		21 Oct 1996
TA Completion:	Expected	end Jun 1997
	Actual	28 Nov 1997
TCR Circulation		not required
Mission Type	Number	Date
Fact-Finding	1	21 Feb–6 Mar 1996
Review	2	5–9 Dec 1996 ⁴
		7–9 Oct 1997 ⁵
Operations Evaluation ⁶	1	3–12 Jun 2002

TA 5733-REG: A Review of Road Design and Construction Standards

Cost (\$'000)⁷	Estimated	Actual
Foreign Exchange	600	595
Local Currency	0	0
Total	600	595
Number of Person-Months (consultants)	53	51
Executing Agency Asian Development Bank		
Milestones		Date
President's/Board Approval		3 Apr 1997
Signing of TA Agreement		not required
Fielding of Consultants		3 Oct 1997
TA Completion:	Expected	30 Sep 1998
	Actual	1 Jul 1998
TCR Circulation		9 Apr 1999
Mission Type	Number	Date
Fact-Finding	1	10–19 Dec 1996
Review	1	11–22 May 1998
Operations Evaluation ⁶	1	3–28 Jun 2002

TA = technical assistance, TCR = technical assistance completion report.
 Note: Footnotes on page v.

TA 2587-KGZ: Institutional Strengthening of the Road Sector⁸

Cost (\$'000)²	Estimated	Actual
Foreign Exchange	800	572
Local Currency	0 ⁹	83 ³
Total	800	655

Number of Person-Months (consultants) 43 47

Executing Agency Ministry of Transport and Communications

Milestones	Date
President's/Board Approval	13 Jun 1996
Signing of TA Agreement	17 Jul 1996
Fielding of Consultants	13 Jan 1997
TA Completion: Expected	mid Jul 1997
Actual	1 Aug 1997
TCR Circulation	not required

Mission Type	Number	Date
Fact-Finding	1	22 Nov–4 Dec 1995
Review	1	23–29 Jul 1997
Operations Evaluation ⁶	1	13–19 Jun 2002

TA 3065-KGZ: Policy Support in the Transport Sector¹⁰

Cost (\$'000)²	Estimated	Actual
Foreign Exchange	550	531
Local Currency	50	53
Total	600	584

Number of Person-Months (consultants) 28 31

Executing Agency Ministry of Transport and Communications

Milestones	Date
President's/Board Approval	10 Sep 1998
Signing of TA Agreement	11 Dec 1998
Fielding of Consultants	2 Apr 1999
TA Completion: Expected	end Sep 2000
Actual	1 Sep 2000
TCR Circulation	not required

Mission Type	Number	Date
Fact-Finding	1	23 Sep–7 Oct 1997
Review	5	9–13 Nov 1998 ⁴
		15–22 Oct 1999 ⁵
		29 Nov–2 Dec 1999
		6–14 Jun 2000
		30 Nov–9 Dec 2000 ⁵
Operations Evaluation ⁶	1	13–19 Jun 2002

TA 2380-MON: Institutional Strengthening of the Road Sector¹¹

Cost (\$'000)²	Estimated	Actual
Foreign Exchange	890	729
Local Currency	30	54 ³
Total	920	783
Number of Person-Months (consultants)	33	35
Executing Agency Department of Roads		
Milestones		Date
President's/Board Approval		22 Aug 1995
Signing of TA Agreement		4 Dec 1995
Fielding of Consultants		27 May 1996
TA Completion:	Expected	end Sep 1997
	Actual	end Aug 1997
TCR Circulation		not required ¹²
Mission Type	Number	Date
Fact-Finding	1	13–28 Feb 1995
Review	3	14–18 Dec 1995 ⁴
		11–17 Feb 1997 ⁵
		18–21 Nov 1997 ⁵
Operations Evaluation ⁶	1	24–28 Jun 2002

TA 3268-MON: Policy Support in the Road Sector¹³

Cost (\$'000)²	Estimated	Actual
Foreign Exchange	600	552
Local Currency	70	112
Total	670	664
Number of Person-Months (consultants)	28	30
Executing Agency Department of Roads		
Milestones		Date
President's/Board Approval		30 Sep 1999
Signing of TA Agreement		14 Oct 1999
Fielding of Consultants		18 Mar 2000
TA Completion:	Expected	31 Oct 2000
	Actual	21 Sep 2000
TCR Circulation		28 Aug 2002
Mission Type	Number	Date
Fact-Finding	1	10–25 Mar 1999
Review	1	7–8 Sep 2000
Operations Evaluation ⁶	1	24–28 Jun 2002

Footnotes

- ¹ Attached to Loan 1455-KAZ: *Road Rehabilitation Project*.
- ² Financed by the Asian Development Bank (ADB) from the Japan Special Fund.
- ³ Operations Evaluation Mission estimate.
- ⁴ Project inception (multiproject mission).
- ⁵ Multiproject mission.
- ⁶ The OEM comprised A. Ibrahim, Evaluation Specialist; and R. Thurlow, Staff Consultant/Road Transport Specialist.
- ⁷ Financed by ADB.
- ⁸ Attached to Loan 1444-KGZ(SF): *Road Rehabilitation Project*.
- ⁹ In January 1997, ADB reallocated \$107,000 to local currency to cover domestic consultant remuneration and out-of-pocket expenses including vehicle hire and translation.
- ¹⁰ Attached to Loan 1630-KGZ(SF): *Second Road Rehabilitation Project*.
- ¹¹ Attached to Loan 1364-MON(SF): *Roads Development Project*.
- ¹² Evaluated in the project completion report of Loan 1364-MON(SF), circulated in December 2001.
- ¹³ Attached to Loan 1700-MON(SF): *Second Roads Development Project*.

EXECUTIVE SUMMARY

The Asian Development Bank was requested by the governments of Kazakhstan, Kyrgyz Republic, and Mongolia to assist with the rehabilitation of parts of their road networks. The rationale of attaching technical assistance (TA) grants to the first road projects in the three developing member countries (DMCs) was to strengthen institutional capacity and establish a mechanism to generate adequate funding for the road sector. The rationale of the TAs attached to the second road projects in the Kyrgyz Republic and Mongolia was to build on the first-generation TAs and to provide policy support. The objective of all five TAs was to ensure that the governments had the absorptive capacity and ability to implement road projects. In addition, a regional technical assistance (RETA) study was carried out to update road design and construction standards in these three DMCs, plus Uzbekistan, by incorporating international concepts in the existing standards, which had been developed in the former Soviet Union. This report covers the five advisory TAs and the RETA. Uzbekistan is not covered by the evaluation as its participation in the RETA was limited.

The first-generation TAs aimed at institutional strengthening of the road sector in each of the three DMCs and were carried out in 1996–1997. The general scope was to (i) assist in developing a legal framework for the road sector; (ii) refine the organizational structure and roles of the road departments; (iii) broaden the approach to cost recovery by developing a user-pay principle of road funding; (iv) strengthen the financial and planning capabilities of the road departments and the privatized road construction companies; and (v) develop human resources for the road sector.

The two second-generation TAs, carried out in 1999–2001, provided policy support in the Kyrgyz Republic and Mongolia to strengthen sector reforms initiated by the earlier TAs. The scope of these two TAs was more varied than for the earlier TAs. In the Kyrgyz Republic, the TA focused on (i) institutional development of the transport ministry to carry out its new functions in a market-oriented environment, (ii) strengthening the financial management capability of the transport ministry, and (iii) capacity building through training of ministry staff and private contractors. In Mongolia, the TA focused on (i) introducing financial management in the road department; (ii) improving road fund management by establishing a road board; and (iii) privatizing road sector companies, including establishment of an equipment leasing company.

The scope of the RETA, carried out in 1997–1999, was to (i) review the existing road design and construction standards; (ii) revise and update them; (iii) conduct a seminar to assist the officials of all three DMCs to understand and adopt the revised standards; and (iv) publish the final road design and road construction standards in English and Russian to be ready for adoption and implementation.

None of the five TAs or RETA had any major problems with implementation schedules. The five advisory TAs were highly relevant and consistent with the governments' sector goals and priorities. The contents of the final reports were of adequate quality and provided the governments with sound policy advice with many of the recommendations implemented.

The RETA was not relevant in terms of its design as it failed to take account of local conditions and produced only general design and construction standards. The supporting specific road construction standards of the American Association of State Highway and Transportation Officials (AASHTO) were not translated. For Kazakhstan and the Kyrgyz Republic, the issue was further complicated by their preference for standards that would be

consistent throughout the Commonwealth of Independent States. Work was already taking place to revise these standards by the Interstate Council of Roads in the Russian Federation at the time of the RETA, and it may have been more effective to explore cooperative arrangements rather than work independently.

The broad recommendations with regard to organizational changes made in the five attached TAs have been largely followed. In particular, the road departments have been restructured and strengthened where necessary. Also, there has been significant progress toward the concept of the road departments being the managers of the road network and acting as the client to maintenance and construction contractors, which had been separated from direct control by the road departments through corporatization or privatization.

Strengthening of the road funds was envisaged as a means of generating adequate resources for meeting the needs of the road sector, including ensuring adequate outlays for road maintenance in all three DMCs; recommendations to do this were included in all the advisory TAs. However, Kazakhstan has abolished the road fund, and in the Kyrgyz Republic and Mongolia, the road fund is not primarily used for maintenance. The recommendation in the TAs that the majority of the revenue for road funds should be from road-user charges, set at levels reflecting the costs vehicles impose on the road system, has not been implemented. The International Monetary Fund is opposed to such earmarking of funds. There is a need for greater clarity as to the purpose and prospective use of road funds. Present uncertainty in this regard has led to confusion in the Kyrgyz Republic and Mongolia. Overall, the impact of the TAs on the road funds and their sources of revenue has been minimal.

Allocations for road maintenance have remained inadequate in all three DMCs, despite some improvement in the funding of maintenance in recent years. In Kazakhstan, significantly increased allocation is envisaged for 2003. The poor condition of much of the road network in the three DMCs reflects the low level of maintenance provided.

The training components of the TAs to develop human resources were carried out satisfactorily but their effectiveness has been reduced by the high staff turnover in Kazakhstan and the Kyrgyz Republic, which is largely a function of low civil service salaries.

In the Kyrgyz Republic and Mongolia, the road departments have no capacity for carrying out effective planning and feasibility studies. Insufficient data on the condition of the road network is collected and staff numbers are inadequate.

The three institutional strengthening TAs in the three DMCs are rated successful as their objectives of restructuring and strengthening the road departments were met and laws recommended in the TAs were enacted.

The two subsequent policy support TAs are rated partly successful, a reflection of the governments' failure to follow some politically sensitive recommendations, such as the establishment of a road board in Mongolia and handing over the control of the road fund from the finance ministry to the road department in the Kyrgyz Republic.

The RETA did not have much impact in Kazakhstan and the Kyrgyz Republic where the revised standards are not in use. In Mongolia, the revised standards adapted to local climatic conditions are in use, but with a large number of AASHTO standards and specifications still to be translated. Overall, the RETA is rated unsuccessful.

Several lessons have been learned from the evaluation. First, it may be appropriate in the future for such TAs not to focus only on workshops and training on procurement processes as part of a human resource development program but to also provide for job classifications and descriptions. Second, a road fund by itself is not a guarantee that sufficient funds will be provided to meet the needs of the road network. Third, greater clarity is required on the issue of road funds within the aid community. A lesson learned from the RETA is that such regional efforts should take note of government priorities and relevant ongoing activities.

The evaluation has identified several follow-up actions: (i) a capacity building TA in the Division of Investment Projects in Kazakhstan by 2003 and a TA to strengthen the traffic monitoring capabilities in the Kyrgyz Republic and Mongolia by 2004, (ii) development of a consensus among external aid agencies and the governments on the issue of the road fund, (iii) establishment of a pavement management system in Kazakhstan and the Kyrgyz Republic by 2004, (iv) examination of the need to maintain and improve the existing road networks in Kazakhstan and Mongolia in areas with very low population densities.

I. INTRODUCTION

A. Background

1. Moves toward a market-oriented system by the landlocked transition economies of Kazakhstan, Kyrgyz Republic, and Mongolia led to the realization that efficient transport networks, particularly roads, were essential to support the development of domestic and international trade. In transition since the breakup of the Soviet Union, the economies experienced two major problems: (i) low priority given to the road network, especially maintenance, leading to large rehabilitation requirements; and (ii) weak institutional capacity in the transport sector. In addition, road design standards needed to be based on ride comfort and serviceability, employing cost-effective construction techniques. These features were not prevalent during the previous era because of relative isolation from rapid mainstream developments in road engineering.

2. This technical assistance performance audit report evaluates five advisory technical assistance (TA) grants,¹ all attached to project loans in the road sector in the three developing member countries (DMCs), and one regional technical assistance (RETA)² that also covered Uzbekistan. However, as Uzbekistan's participation in the RETA was limited, it has been excluded from the evaluation. The five TAs dealt with issues relating to institutional strengthening and policy support, while the RETA aimed to modernize road design and construction standards.

B. Rationale, Objectives, and Scope

3. The governments of the three DMCs covered in this report requested assistance from the Asian Development Bank (ADB) to rehabilitate parts of their road networks. The rationale of the TAs that were prepared in response to the request was to address weak institutional capacity at the government level and inadequate funding of the road sector. Their objective was to ensure that the governments had the absorptive capacity and the ability to implement projects and maintain their respective road networks.

4. The scope of TA 2380-MON attached to ADB's first road project in Mongolia³ was to (i) assist in developing a legal framework for the road sector; (ii) assist in improving the operation and management of selected state-owned road transport enterprises; (iii) develop a broader approach to cost recovery from different categories of road users; (iv) refine the organization structure, define the roles of the Department of Roads (DOR), and establish an initial operational system for it; (v) strengthen the financial and planning capabilities of DOR and the privatized road construction companies; and (vi) develop human resources for the road sector.

¹ TA 2380-MON: *Institutional Strengthening of the Road Sector*, for \$920,000, approved on 22 August 1995; TA 2587-KGZ: *Institutional Strengthening of the Road Sector*, for \$800,000, approved on 13 June 1996; TA 2631-KAZ: *Institutional Strengthening of the Road Sector*, for \$750,000, approved on 27 August 1996; TA 3065-KGZ: *Policy Support in the Transport Sector*, for \$600,000, approved on 10 September 1998; and TA 3268-MON: *Policy Support in the Road Sector*, for \$670,000, approved on 30 September 1999.

² TA 5733-REG: *A Review of Road Design and Construction Standards*, for \$600,000, approved on 3 April 1997.

³ Loan 1364-MON(SF): *Roads Development Project*, for \$25 million, approved on 22 August 1995 and completed on 27 June 2000.

5. TA 3268-MON was attached to ADB's second road project in Mongolia.⁴ The Government requested it to strengthen policy and institutional reforms initiated under the first ADB-financed road project. The scope of the TA included (i) introducing financial management in DOR; (ii) improving road fund management by setting up a road board; and (iii) privatizing road sector companies, including the establishment of an equipment leasing company.

6. TA 2587-KGZ was attached to ADB's first road project in the Kyrgyz Republic.⁵ The TA was to assist the Government in (i) developing an appropriate policy and legal framework for the road sector to ensure it had suitable provisions for a market economy; (ii) restructuring the Ministry of Transport (later renamed to Ministry of Transport and Communications [MOTC]) and the Directorate General for Rehabilitation and Maintenance of the Bishkek-Osh Road (DGRMBOR),⁶ institutional strengthening of DOR in MOTC, and preparing a human resources development plan so that the entities could carry out their new functions efficiently in a market economy; (iii) preparing a road maintenance system to enable DOR to carry out routine maintenance of the road network and to improve road safety; and (iv) broadening the approach to road sector revenues by developing a user-pay principle of road funding, assisting the Government in revising the road fund act, and recommending appropriate measures for effective implementation.

7. TA 3065-KGZ was attached to ADB's second road project in the Kyrgyz Republic⁷ to support the implementation of the policy reforms formulated under TA 2587-KGZ. It focused on (i) institutional development of MOTC to carry out its new functions in a market-oriented environment, (ii) strengthening the financial management capability of MOTC, and (iii) capacity building through training of MOTC staff and private contractors.

8. TA 2631-KAZ was attached to ADB's first road project in Kazakhstan⁸ to help (i) refine the organizational structure and role of DOR in MOTC, particularly of the State Road Authority and provincial road authorities; (ii) build capacity to plan and implement road works; (iii) develop human resources; (iv) develop a legal framework for the road sector; and (v) broaden the approach to cost recovery from various classes of road users.

9. The objective of TA 5733-REG was to update road design and construction standards by incorporating international concepts, thus making the standards responsive to the needs of a market-oriented economy, enabling the introduction of performance-based specifications, and encouraging the transfer of productivity-enhancing technology. The RETA scope was to (i) review the existing road design and construction standards; (ii) establish new standards taking into account the more competitive road transport systems, existing local conditions and practices, and institutional and staff capabilities with an emphasis on using local materials and improving construction quality, cost-effectiveness, and road safety; (iii) conduct a seminar and prepare a draft final report to assist the officials of all three DMCs to understand and adopt the revised standards; and (iv) publish the standards in English and Russian to make them ready for adoption and implementation.

⁴ Loan 1700-MON(SF): *Second Roads Development Project*, for \$25 million, approved on 30 September 1999. It is still ongoing.

⁵ Loan 1444-KGZ(SF): *Road Rehabilitation Project*, for \$50 million, approved on 13 June 1996, with cofinancing of about \$28 million from the Japan Bank for International Cooperation, and closed on 18 December 2001.

⁶ The Bishkek-Osh Road is the most important transport corridor providing not only an internal surface connection between the two most important commercial and political centers in the Kyrgyz Republic, but is also part of an important regional corridor.

⁷ Loan 1630-KGZ(SF): *Second Road Rehabilitation Project*, for \$50 million, approved on 10 September 1998, with cofinancing of \$41 million from the Japan Bank for International Cooperation. It is still ongoing.

⁸ Loan 1455-KAZ: *Road Rehabilitation Project*, for \$50 million, approved on 27 August 1996. It is still ongoing.

C. Completion and Self Evaluation

10. The project completion report for the Roads Development Project (footnote 3), circulated in December 2001, rated the attached TA 2380-MON successful because all its objectives were met. The road act was approved by the Parliament on 2 January 1998 and became effective 1 month later. The training component was carried out successfully and the financial and planning capabilities of DOR had been strengthened. In line with the *State and Local Property Act of 1996* and the *Government Resolution on Privatization 160 of 1997*, DOR also implemented a program to privatize and restructure 39 road sector companies. As a consequence, government ownership was gradually diluted. However, a sustainable mechanism to meet road sector funding requirements was not established. The project completion report noted that implementation of the TA recommendations in this regard would be discussed as part of ADB's dialogue with the Government under the Second Roads Development Project (footnote 4). The completion report for TA 3268-MON rated it partly successful as the implementation of the recommendations was only partial.

11. The completion report for TA 5733-REG, circulated in April 1999, rated it generally successful⁹ as all its objectives were considered to be met. A seminar was held and attended by representatives from the three DMCs. A manual on design standards and construction specifications for public roads was prepared in two languages and distributed.¹⁰

12. The remaining three TAs have not yet been self-evaluated because implementation of the associated projects is still ongoing. However, the output, as stipulated in the objectives and scope of the TAs, is available and can be evaluated in this report.

D. Operations Evaluation

13. The Operations Evaluation Mission (OEM) visited the three DMCs from 3 to 29 June 2002 to evaluate the performance of the five TAs and the RETA.¹¹ The OEM held extensive discussions with representatives of the three governments' agencies involved with the road sector, design companies, private sector contractors, transport operators, and funding agencies.

14. The OEM assessed institutional strengthening of the concerned ministry/department in the three DMCs in terms of operational, financial, and planning abilities.

15. The OEM also reviewed the appropriateness of having a loan covenant for road fund establishment. The ADB-financed study "Road Funds and Road Maintenance: An Asian Perspective"¹² highlights the desirability of a road fund supporting road maintenance activities, while the International Monetary Fund (IMF) has been against such earmarking of revenues.

E. External Assistance

16. During the Soviet Union era, no external assistance was provided to the road sector, and road networks were built by mobilizing resources with few cost-recovery considerations. Since

⁹ Using the previous three-category rating system (generally successful, partly successful, and unsuccessful).

¹⁰ The manual was also distributed to Armenia, Azerbaijan, Georgia, Russian Federation, Tajikistan, and Turkmenistan.

¹¹ Uzbekistan was not included in the mission as there has been no progress on Loan 1657-UZB: *Road Rehabilitation Project*, and its attached TA 3118-UZB: *Institutional Strengthening and Policy Support to the Road Sector*, both approved on 15 December 1998. Uzbekistan did participate in TA 5733-REG and received copies of the report though no representative from that country attended the final seminar.

¹² Prepared under TA 5871-REG: *Road Funds Strategy*, for \$350,000, approved on 2 December 1999.

1991, the three DMCs have actively mobilized external assistance for regional and country-specific projects. ADB has provided several RETAs¹³ and a number of country-specific TAs in the three DMCs.

17. The World Bank, Islamic Development Bank, European Bank for Reconstruction and Development, and the European Union have also been active in rehabilitation of certain sections of the road networks in the three DMCs.¹⁴ Bilateral agencies including the Japan Bank for International Cooperation; Japan International Cooperation Agency; and the development funds of the Republic of Korea, Kuwait, Kingdom of Saudi Arabia, and United Arab Emirates have been involved as well. Aid coordination is effective.¹⁵ So far, external funding and the greater part of the three governments' annual allocations to the road sector have concentrated on rehabilitation, upgrading, and maintenance of sections of major roads and urban roads, rather than new road construction or maintenance of local roads.

II. ASSESSMENT OF IMPLEMENTATION PERFORMANCE

A. Design of the Technical Assistance

18. The OEM confirmed that all five attached TAs were highly relevant and consistent with the governments' four-fold sector goals and priorities, namely (i) to ensure the provision and maintenance of adequate road infrastructure to support the transition to a market-based economy, (ii) to rationalize road rehabilitation and maintenance, (iii) to privatize road transport operations, and (iv) to increase road sector revenues. These goals have also been consistent with ADB's country operational strategies for the three DMCs.

19. However, a design weakness was that the terms of reference of the TAs for Mongolia and Kazakhstan did not take account of low road density—29 and 32 kilometers (km) per thousand square kilometers of land area, respectively—and low population per km of road—only 54 in Mongolia and 169 in Kazakhstan—to determine whether the maintenance of entire road networks in Kazakhstan and Mongolia was economically justified (Appendix 1).

20. The RETA failed to take account of local conditions in the three DMCs with regard to temperature extremes and produced only general design and construction standards in Russian. The supporting specific road construction standards of the American Association of State Highway and Transportation Officials (AASHTO) were not translated, as recommended in the final report. In addition, no provision was made for translation of the general standards into Mongolian.¹⁶ For Kazakhstan and the Kyrgyz Republic, the issue of acceptance of the standards was further complicated by their preference for standards that would be consistent throughout the entire Commonwealth of Independent States. At the time of the RETA, work was ongoing in the Russian Federation to revise these standards by the Interstate Council of Roads. Thus, it may have been more appropriate to explore cooperative arrangements instead of working independently. The design of the RETA was relevant for Mongolia, which had already

¹³ TA 5620-REG: *Regional Initiatives in Road Safety*, for \$660,000, approved on 4 January 1995 and 12 September 1997 (Supplementary); TA 5707-REG: *Regional Economic Cooperation in Central Asia*, for \$1,150,000, approved on 8 November 1996; TA 5733-REG (footnote 2); and TA 5818-REG: *Regional Economic Cooperation in Central Asia (Phase II)*, for \$1,350,000, approved on 11 December 1998.

¹⁴ However, the World Bank is no longer involved in the road sector in Kazakhstan because adequate funding is provided by other agencies.

¹⁵ However, differences of opinion remain over the road fund.

¹⁶ The Ministry of Infrastructure in Mongolia has allocated money from the road fund to translate 8 of the 214 detailed standards recommended for adoption by the RETA report. Another 22 are expected to be translated this year. Translations of these standards into Russian are envisaged under Loan 1853-KGZ(SF): *Third Road Rehabilitation Project*, for \$40 million, approved on 31 October 2001.

abandoned Soviet standards. International standards are, however, followed in externally assisted road projects in all three DMCs.

21. Although the TA reports claimed that the request for assistance originated with the governments, the OEM noted that the idea for developing a broader approach to cost recovery by following the user-pay principle for road funding was not indigenous. Consequently, none of the TA recommendations on cost recovery were adopted by any of the three governments. The OEM also noted that the overall implementation process was target oriented, with an emphasis on reports and tasks. The level of stakeholder participation did not go beyond information sharing to collaboration, joint learning, or empowering road institutions to take independent decisions on revenue sources and allocations.

B. Engagement of Consultants

22. The OEM confirmed that consultants for all the TAs were engaged in accordance with ADB's *Guidelines on the Use of Consultants*. There was no allocation for domestic consultants in the second-generation TAs whose mandate was to support implementation of the policy reforms formulated by the first-generation TAs. The RETA included 33.5 person-months of domestic consultants relative to 17.6 person-months of international consultants.

C. Organization and Management

23. The DORs in Mongolia and Kazakhstan were the executing agencies for the TAs in those countries, while MOTC was the executing agency in the Kyrgyz Republic. For the RETA, the implementing agencies were the respective DORs in Kazakhstan and Mongolia, DGRMBOR in the Kyrgyz Republic, and Uzavtoyul in Uzbekistan. The OEM found that these arrangements were appropriate.

D. Implementation Schedule and Financing Arrangements

24. The completion of TA 2631-KAZ was delayed by 5 months. This was due largely to frequent changes in the Government. All other TAs were substantially completed as scheduled. ADB significantly overestimated the cost of two first-generation TAs: TA 2587-KGZ by \$145,000 and TA 2380-MON by \$137,000. There was no change in the scope of these two TAs. The governments' contribution to the cost of the TAs was mostly in kind.

E. Supervision

25. The OEM noted that the overall monitoring of the five TAs and the RETA was task oriented in terms of submission of reports. Even when the TA reports included a logical framework, the monitoring indicators were largely reports and tasks to be carried out with virtually no monitoring of impacts. The counterparts assigned by the governments of the three DMCs assessed interaction with consultants as adequate.

III. EVALUATION OF OUTPUTS AND IMPACT

A. Adequacy and Quality of Reports and/or Services Provided

26. The OEM confirmed that the contents of the final reports were of high quality and provided the governments with sound policy advice with many of the recommendations implemented. However, the OEM noted that the final report of TA 3065-KGZ was poorly

structured in terms of layout. The final report of the RETA was adequate as it met its terms of reference.

B. Training and Technology Transfer

27. TA 2380-MON implemented an initial training program to strengthen DOR's planning and financial management capability and prepared the human resources development plan. The consultants provided opportunities for technology transfer to the Mongolian road sector by means of informal on-the-job training for counterpart staff and DOR officers and more formal workshops and seminars on a wide range of subjects. TA 3268-MON successfully held 13 seminars in 6 months. Furthermore, DOR staff were sent on study tours to countries with successfully functioning road boards as recommended by the TA. Given the low staff turnover in Mongolia, the training component was successful.

28. By contrast, the training components of TA 2631-KAZ (training on prequalification, bidding, and contract management); TA 2587-KGZ (training of financial managers to develop proper costing procedures and cost control); and TA 3065-KGZ (limited training in the form of workshops on financial expertise)¹⁷ were ineffective as staff turnover was, and continues to be, considerable in the two DMCs. This situation is particularly acute in Kazakhstan. The final report for TA 2631-KAZ noted a need for strengthening the project implementation unit (PIU) through training.¹⁸ However, the Government of Kazakhstan abolished PIUs in January 2002 and replaced them with the Division of Investment Projects, Committee of Roads. The rationale was to increase government ownership; however, capacity to effectively replace the PIUs was not first built up in the new division.¹⁹ The final report of TA 2587-KGZ recommended further training as it was determined that the training component was insufficient. This was successfully provided under TA 3065-KGZ.

C. Institution Building and Reform

29. The broad recommendations with regard to organizational changes made in the five TAs to the three DMCs have been largely followed. In particular, the road departments have been restructured and strengthened where necessary. There has also been significant progress toward the concept of the road departments being the managers of the road network and acting as the client to maintenance and construction contractors, which have been separated from direct government control through corporatization or privatization. In Mongolia, and to a lesser degree in the Kyrgyz Republic, there is clear linkage between the TA recommendations and the subsequent changes. In Kazakhstan, no such linkage was apparent even though the changes broadly followed the recommendations of TA 2631-KAZ. This may have been due to frequent changes in government with resulting extensive staff and structural changes in ministries and departments. Planning activities proposed in TA 2380-MON and TA 2587-KGZ have been ineffective because of lack of adequate financial resources to staff the relevant sections within the departments and failure to collect road network data.

30. In Mongolia, two divisions within DOR have been disbanded. The State Representation Administration that dealt with all state-owned enterprises involved in the road sector ceased

¹⁷ Recommendations regarding financial planning and organization in the final report of TA 3065-KGZ have been covenanted under the Third Road Rehabilitation Project (footnote 16).

¹⁸ The establishment of the PIU was a condition of the Loan Agreement for the Road Rehabilitation Project (footnote 8).

¹⁹ ADB and the World Bank have expressed reservations about the abolition of PIUs for their ongoing projects, and indicated that the operation of the PIUs was a loan covenant. The Islamic Development Bank is increasing supervision of its own road projects as a consequence of this change.

operations, while the Finance Division dealing with accounts of these state-owned enterprises was merged with the renamed Administration and Finance Division. The Planning and Research Division was reestablished and a new position was created for traffic volume count with the purpose of providing support for sector analysis and planning. The recommendation of TA 2380-MON to separate the financial and accounting procedures of DOR and the road fund has been carried out. The Maintenance Management Division and the Construction Management Division have also been separated in line with TA recommendations. Privatization in road institutions has been undertaken in two phases. A voucher system was used in the first phase, with the state retaining 51% of the shares. This has now been replaced with a tender system for the second phase of the privatization process to sell the remaining state-owned shares. Design companies have already been privatized. Four of the remaining five construction companies are targeted to be privatized in 2002.²⁰ The final reports of the two TAs cautioned against early privatization of maintenance units. The OEM agrees with this as low public funding for maintenance provides little or no incentive for private sector entry at present. Currently, DOR utilizes services of maintenance units (13 principal units), which are managed by the State Property Committee. Since 2001, small sections of road (5–10 km) have been maintained by local people on a pilot basis as part of the Government's strategy to increase employment opportunities. Fees of the leasing equipment company, recommended in the final report of TA 3268-MON, are too high and have generated little demand for such equipment in the road sector. The OEM found that the mining industry rather than the road sector was the principal source of the limited demand for leasing equipment.

31. In the Kyrgyz Republic, the number of subsidiary departments within MOTC was reduced from 17 to 12. This included transforming DGRMBOR into a subsidiary department and abolishing the Department of Communications. A government resolution was passed in March 2001 for the abolishment of another department. Local maintenance units for state roads, responsible for carrying out the road works and reporting to the eight regional maintenance agencies, have also been reduced in number from 78 in 1997 to 58 at the time of the OEM and now service an average of 325 km each instead of the previous 250–325 km. This is considered the first phase of the process leading to commercialization of the state maintenance units, which is still to take effect 5 years after the completion of TA 2587-KGZ. MOTC's regional road maintenance agencies, reporting to headquarters, have been transformed into government client organizations, and staff has been trained to prepare bidding documents and supervise bidding. The quality control departments within the regional road maintenance agencies monitor work carried out by private road rehabilitation companies. This activity requires strengthening. DOR in MOTC has been strengthened from 6 to 18 persons. The recommendation of TA 2587-KGZ regarding the transfer of the functions of the Road Inspection Department of the Ministry of Internal Affairs to MOTC has not been implemented.²¹ In spite of these significant institutional changes, capacity remains weak largely due to high turnover of staff as a result of the very low civil service salaries. The objective of TA 3065-KGZ to develop the transport policy department and the planning design and construction department in MOTC was not met because they were not fully established at the time of the submission of the final report. The OEM found that these two departments exist today, but only nominally.

32. In Kazakhstan, DOR has been replaced by a larger and more autonomous Committee of Roads, which has 14 provincial branches that act as the clients for Kazakhavtador, a state enterprise established in 1998 to carry out mainly maintenance functions for the national

²⁰ To retain a construction company as state-owned enterprise is a conditionality of a Japan Bank for International Cooperation loan.

²¹ The Ministry of Internal Affairs and MOTC agreed in 1999 to establish uniform information systems for road safety. This was a loan covenant for the Second Road Rehabilitation Project (footnote 7).

highways as determined by the Committee of Roads.²² In addition, Kazakhavtador has replaced Engineeringautodor, which at the time of the TA, was mainly responsible for planning and implementation. Kazakhavtador conducts maintenance on provincial roads through competitive bidding among private contractors. However, frequent changes in ministers and senior staff have led to unstable organizational arrangements. The move of MOTC to Astana, large budget cuts, and the downsizing of MOTC staff have weakened capacity. Low civil service salary structure has made it increasingly difficult for the Government to recruit or retain staff.

D. Performance of Consultants

33. The performance of consultants in the five TAs and the RETA was generally satisfactory. The consultants completed their assignments and delivered the outputs in accordance with the respective terms of reference. The RETA consultants reviewed the existing design standards and concluded that they were adequate but needed to incorporate different vehicle types being introduced into the three DMCs.²³ Construction standards, however, were considered inadequate by the consultants who recommended replacement with new standards based on those used by AASHTO (para. 20). The OEM confirmed the satisfactory performance of all consultants based on responses from the executing agencies and ADB resident missions in the three DMCs.

E. Road Funds

34. Inability to allocate adequate funding for routine maintenance by the governments since the early 1990s has led to a steadily worsening road network requiring major investment outlay for rehabilitation and upgrading. The sustainability of the five projects to which the five TAs were attached also depends heavily on adequate maintenance outlays. Road funds were deemed the most appropriate revenue source to meet the sector needs for maintenance, rehabilitation, and upgrading in the three DMCs; therefore, such funds were proposed in all five TAs, and their establishment or strengthening was covenanted. However, with IMF opposed to earmarking revenues, there is general confusion in the Kyrgyz Republic and Mongolia in particular as to how to deal with this particular ADB covenant. Consequently, the impact of the TAs on the road funds and their sources of revenue has been minimal. The OEM noted that while the finance ministries were opposed to road fund management by the road departments, there was support for such funds within the road departments.

35. In Mongolia, a road fund has been in existence since 1991. A methodology for setting road user charges for different vehicle types commensurate with the costs they impose on the road network was developed under TA 2380-MON. However, this methodology has not yet been accepted because of the poor quality of roads and low-income levels, factors that argue against raising charges. On the other hand, heavy trucks continue to impose high costs on the road network and some form of resolution of this issue is necessary. Changes were made as to sources of revenue in 1995 with an additional fuel tax introduced. Since then, there have been major increases in the overall funding of the road sector from other sources. Allocations from the government budget, through an account separate from the road fund but considered part of the road fund by DOR, have increased significantly in recent years. In addition, foreign loans and grants have been provided to Mongolia for capital works. As a result, fuel taxes accounted

²² TA 3530-KAZ: *Improvement of the Road Sector Efficiency*, for \$750,000, and attached to Loan 1774-KAZ: *Almaty-Bishkek Regional Road Rehabilitation Project (Kazakhstan Component)*, for \$52 million, both approved in October 2000 provides assistance and policy advice on streamlining organizational responsibilities and functions in the Committee of Roads and Kazakhavtador.

²³ Soviet-manufactured vehicles are slowly being replaced with second hand western vehicles that have different axle weight.

for only 27% of total revenue to the road sector in 2001, while the government budget contributed a further 35%. Loans and grants accounted for the remaining 38% (Appendix 2). The amount allocated for maintenance fluctuated greatly in the early 1990s: from MNT72 million in 1992 to MNT387 million the following year. In 1998, it had risen to approximately MNT1.2 billion and, on average, remained at a similar level in the subsequent years. Since 1998, the allocation for maintenance averaged 16% of the total budget of the road sector. Both in absolute and relative terms, this is still considered inadequate to meet the needs of the sector. The OEM confirmed that the road network continues to require extensive repairs plus preventive maintenance. Provincial governments have their own road funds for local roads administered by them, with a major reliance on annual vehicle registration fees. Currently, there are 21 provincial road funds with a combined revenue of MNT3.9 billion. Ulaanbaatar, with 45% of all vehicles in the country, accounts for about half of it. TA 3268-MON recommended that a road board be established with representation from public and private stakeholders tasked to supervise the road fund. The board was established on 7 May 2002. However, it is still a temporary board working on a charter for a more permanent board. A similar road board has also been established for Ulaanbaatar.

36. In the Kyrgyz Republic, only 25% of the entire road network is in a satisfactory condition according to MOTC. During 1998–2001, about 90% of the total expenditure on public roads of Som5.8 billion was spent on the rehabilitation of the Bishkek-Osh Road (Appendix 3, Table A3.1). Maintenance needs for 2002 are estimated at Som1 billion, while only about Som80 million–Som200 million was allocated in the past 4 years. Within the maintenance budget, MOTC allocates about 50% to international roads,²⁴ followed by 35% for national roads. This leaves only 15% for the local roads, which account for almost half of the 18,828 km of public roads in the Kyrgyz Republic. As a consequence, there has been a significant deterioration in the condition of the road network, which was confirmed by the OEM. As regards revenue source, the regulations for the road fund had been drafted prior to TA 2587-KGZ. However, they did not contain a structure of charges or a clear idea of how the fund would operate. The road fund was formally established in January 1999 but, in effect, remains part of the overall government budget. On average, MOTC is allocated around 55% of total revenue collected for the road fund (Appendix 3, Table A3.2) and the rest is utilized for general expenditure, a percentage that is expected to continue. As covenanted under the Third Road Rehabilitation Project (footnote 16), the Ministry of Finance intends to set up a special account for the road fund but no major change in the allocation is anticipated.

37. The road fund in Kazakhstan, established in 1991, was abolished in 1999 in response to concerns that it was mismanaged and was a burden on the taxpayers, specifically the 1% turnover tax on all enterprises. However, this in no way represented a decline in allocations to the road sector, with the exception of 1999 when the Kazakhstan economy was reeling from a financial crisis in the Commonwealth of Independent States and the effects of an oil price decline. From a high of T9.6 billion allocated to the road sector from the road fund in 1998, the allocation dipped to T3.2 billion in 1999. By 2000, it had risen to T13.6 billion and in 2001, the year of roads as declared by the President of the country, to T23.9 billion. In 2002, the amount allocated to the road sector has been T42.1 billion (Appendix 4, Table A4.1). In spite of this substantial increase, the allocation for maintenance in the road sector, both routine and the backlog that has accumulated over the years, has not kept pace with the requirements. The OEM confirmed that the condition of the roads was deteriorating.²⁵ In May 2002, the decision was taken to increase maintenance allocation from the current year's total of T1.9 billion to

²⁴ International roads in the Kyrgyz Republic are termed national (republican) roads in Kazakhstan.

²⁵ This includes the condition of the 20,000 km of roads, out of a total of about 23,000 km, which were identified by Government Resolution 557 dated 25 April 1995 as crucial for international trade.

T7.4 billion in 2003, considered the minimum requirement for maintenance expenditure by the Committee of Roads.

IV. CONCLUSION

A. Key Issues

1. Maintenance

38. Road funds in the Kyrgyz Republic and Mongolia are not prioritizing maintenance in the disbursement of funds and are not using road user charges as the primary source of revenue. The road departments in both DMCs receive revenue after the finance ministries have determined the amount for each category of expenditure. There is little flexibility for the road departments to change priorities during the year without reference to the finance ministries which, in turn, have to get approval for changes from parliament where such requests can suffer from delays.²⁶ The governments of the Kyrgyz Republic and Mongolia continue to concentrate available resources on rehabilitation and upgrading of their road networks.

39. The Kyrgyz Republic's and Mongolia's inability to meet the financial requirements of the road sector must be seen in relation to the serious resource problems facing them. Currently, these governments are finding it difficult to meet basic needs, for example those associated with health and pensions. Safety in the road sector has also been compromised because of lack of resources. The Kyrgyz Republic has a low tax to gross domestic product ratio with the potential to increase tax collection. However, inefficiency in tax collection and smuggling through the porous borders with Kazakhstan and Uzbekistan inhibit a rise in revenue. Any increase in excise fuel duty has invariably led to increased smuggling of fuel across these borders: between 1999 and 2000, revenue fell by approximately 75% as a consequence of an increase in excise fuel duty. In Kazakhstan, funding to the road sector remains inadequate in spite of a significant increase in allocations. Given the considerable resources available to the Government, the inadequate funding is associated with low priority allocated to the road sector.

2. Road Density

40. Kazakhstan and Mongolia have high per capita maintenance costs given their large road networks and low populations (Appendix 1). The problem has been identified in Kazakhstan and the President of the country, in his annual policy speech, noted that 186 villages were disbanded in 2000–2001 and another 93 will be disbanded in the current year, thereby reducing the need to maintain the existing extensive road network. In Mongolia, population per km of road is even lower than in Kazakhstan (54 and 169, respectively). There is a need for Mongolia to be more aware of the problem of its large road network and undertake appropriate measures to deal with it, for example by linking maintenance allocations to traffic.

3. Quality of Data

41. Data collection in the Kyrgyz Republic and Mongolia on the condition of roads is neither regular nor carried out in full. In the Kyrgyz Republic, there is reliance on visually-based seasonal surveys on the state of the roads and only 853 km were surveyed using instruments over a 2-year period. Financial data from the Ministry of Finance and MOTC was found to be inconsistent, including the amount allocated to MOTC. In Mongolia, traffic data is being

²⁶ Construction work is limited to 6–9 months a year in the three DMCs. Any delay, which prevents work beginning before the winter sets in, may prolong the work by up to 6 months.

collected as recommended in TA 2380-MON. In Kazakhstan, the OEM confirmed that there was monitoring of the condition of national roads and their traffic levels but there was no monitoring of the larger provincial road network. However, a World Bank project envisages the establishment of such a system using road monitoring equipment that, when implemented, would require additional staff to utilize the data for planning purposes.

4. Planning and Research Activity

42. In the Kyrgyz Republic and Mongolia, the road departments have no capacity for carrying out feasibility studies. This is a serious issue for domestically-funded projects. In the Kyrgyz Republic, the departments of transport and of planning, design, and construction within MOTC were established but remain ineffective. In Mongolia, the Planning and Research Division does not have access to vital information on the condition of roads.

5. Staff Constraints

43. Staff turnover is high in Kazakhstan and the Kyrgyz Republic, largely a result of government changes as well as low salaries. In Mongolia, lack of alternate employment opportunities makes this less of an issue, however, recruiting qualified staff is a problem.

B. Overall Assessment

1. Relevance

44. Four of the five TAs were highly relevant in relation to the governments' sector goals and ADB's country operational strategies. TA 3268-MON is assessed as relevant as it envisaged the establishment of a road board, which would have been an effective mechanism to manage funds for the road sector but for which there is no political support yet.

45. The design of the RETA was irrelevant as it failed to take account of local conditions and produced only general design and construction standards.

2. Efficacy

46. The terms of reference of the consultants were met and the reports of the five TAs and the RETA were adequate. Overall contributions to institutional development from the first-generation TAs were significant in the three DMCs. However, in Kazakhstan, no clear linkage between the recommendations of TA 2631-KAZ and the institutional building that took place was evident. Kazakhstan and the Kyrgyz Republic suffer from low skill levels in the road sector, a problem exacerbated by the high staff turnover, a consequence of frequent government changes and low salaries. In Mongolia, even though staff turnover is low, state-owned road institutions are not attracting new qualified staff because of low salaries. Nevertheless, on balance, the three first-generation TAs are assessed as efficacious. The two second-generation TAs are assessed as less efficacious because of the governments' failure to follow some politically sensitive recommendations, including a full development of the road board in Mongolia and handing over the control of the road fund from the Ministry of Finance to DOR in the Kyrgyz Republic.

47. The RETA is also assessed as less efficacious. The objective of updating the road design and construction standards by incorporating international concepts was not achieved as the recommendation of the final report to translate AASHTO's specific standards into Russian was not carried out.

3. Efficiency

48. The implementation of the first-generation TAs was efficient in achieving their purpose. The second-generation TAs were less efficient because the road departments remained under the overall direction of the ministries of finance, which continued to determine the revenue and expenditure priorities of the road departments.

49. Implementation of the RETA was inefficient in Kazakhstan and the Kyrgyz Republic where the recommended standards are not in use, and efficient in Mongolia, where the standards are in use with adaptations to meet local climatic conditions, though with a large number of AASHTO's construction standards and specifications still to be translated. Overall, the RETA is assessed as less efficient.

4. Sustainability

50. Sustainability of the institutional strengthening components of the five TAs is assessed as likely. On the negative side, none of the three DMCs accepted the proposals for revenue and expenditure items of the road fund. The respective ministries of finance continue to determine maintenance expenditures. Overall sustainability is assessed as likely.

51. The RETA recommendations are likely to be sustained in Mongolia as efforts to translate the document bear fruition. In Kazakhstan and the Kyrgyz Republic, the acceptance of the revised standards is complicated by their preference to have Commonwealth-wide standards. Overall sustainability is assessed as unlikely.

5. Other Impacts

52. Other impacts of the five TAs are assessed as moderate. The first-generation TAs led to greater awareness of the merits of delinking maintenance activities from the road departments, which became the clients to set the stage for commercialization and corporatization of road sector institutions toward eventual privatization. As a result, Mongolia is currently involved in a pilot project whereby small sections of road are being maintained by the private sector as an employment-generating strategy. The second-generation TAs have strengthened the road departments' support for the road funds.

53. Other impacts of the RETA are also assessed as moderate. Its recommendations have led to greater awareness of the need to bring the existing road network in Mongolia to international standards with respect to design and construction.

6. Overall Ratings

54. Detailed assessment of the five country-specific TAs is provided in Appendix 5. The three first-generation TAs were successful because their objectives of restructuring and strengthening the road departments were met. Laws recommended in the TAs were enacted but the recommendations on road user charges have not yet been implemented. The second-generation TAs in the Kyrgyz Republic and Mongolia were partly successful, given the lower stakeholder ownership of some politically sensitive recommendations. The RETA was unsuccessful as the DMC grouping was inappropriate and, with the ongoing work of the Interstate Council of Roads at the time of the RETA, exploring cooperative arrangements may have been more effective for Kazakhstan and the Kyrgyz Republic. The ratings of the five TAs and the RETA are summarized below.

Summary of Evaluation

Technical Assistance	Overall Assessment ^a
2380-MON	Successful
2587-KGZ	Successful
2631-KAZ	Successful
3268-MON	Partly Successful
3065-KGZ	Partly Successful
5733-REG	Unsuccessful

^a Using the current four-category rating system (highly successful, successful, partly successful, and unsuccessful).

Source: Operations Evaluation Mission.

C. Lessons Learned

55. The TAs were appropriate for transition economies, yet it may be appropriate in the future not to focus only on workshops and training on procurement processes but to also provide job classification and description as part of the human resource development program.

56. A lesson learned from the success of the first-generation TAs is that the scope should be simple and achievable within the given timeframe.

57. While government allocations to the road sector have increased significantly since the road fund in Kazakhstan was abolished, DOR retains little flexibility to reallocate funds in cases of savings. In the Kyrgyz Republic and Mongolia, the lesson learned is that a road fund by itself is not a guarantee that sufficient funds will be provided to maintain the road network. There is a need for better coordination among external aid agencies in ascertaining the usefulness or otherwise of road funds. If there is no agreement, then the ADB covenant that violates another agency's basic philosophy should be abandoned.

58. The very low salary structure in the civil service relative to the private sector in Kazakhstan and the Kyrgyz Republic makes it difficult for the governments to retain or recruit competent staff. Capacity building within the existing pay scales may not be possible. In Mongolia, salaries are low but there are limited opportunities outside the public sector. However, there is a limited range of available courses, which restricts the supply of qualified people. There is a need to strengthen the technical training facilities for the road sector in Mongolia.

59. The RETA design was appropriate for Mongolia, but not for Kazakhstan and the Kyrgyz Republic. Regional groupings should take note of government priorities and ongoing relevant activities.

D. Recommended Follow-Up Actions

60. In Kazakhstan, there is an urgent need to build capacity in the Division of Investment Projects in the Committee of Roads, which is undertaking the functions of the old PIUs. ADB may consider a TA, with government concurrence, for this purpose for 2003. In the Kyrgyz Republic and Mongolia, the PIU concept has been strengthened but there is also a need to strengthen, by 2004, traffic monitoring capabilities and the ability to undertake feasibility studies, and to improve the quality of statistical information.

61. In Kazakhstan and Mongolia, the need to maintain and improve the existing road networks in areas with very low population densities should be critically examined by 2003. In the Kyrgyz Republic, rehabilitation is required on 75% of the road network of which the majority are local roads. Considering that the Kyrgyz Republic is operating under a borrowing constraint imposed by IMF, there is a need to prioritize rehabilitation works. ADB should remain engaged in this prioritization for the next 5 years.

62. There is a need to increase expenditure on road maintenance in all three DMCs. While in Kazakhstan the issue is one of priorities as set in the annual budget, the Kyrgyz Republic and Mongolia are struggling with the lack of clarity on the issue of the road fund. There is a need to reach a consensus, during 2003, on the road fund among ADB, IMF, other external aid agencies, and the governments.

63. In Kazakhstan and the Kyrgyz Republic, a pavement management system needs to be established for international and national roads. Assistance should be considered by ADB for this purpose by 2003, particularly for road monitoring equipment, setting up a survey system and database, and training in appropriate software. For local roads, an investigation of their basic condition and appropriate standards should be carried out.

64. The second phase of the process of commercialization recommended by TA 2587-KGZ and TA 3268-MON has still to take effect in the road maintenance units (paras. 30–31). ADB needs to remain engaged in this process to ensure that it is carried out effectively. Attention needs to be paid by ADB to this issue during implementation of the proposed third road project in Mongolia and the ongoing road project in the Kyrgyz Republic.

BASIC SOCIOECONOMIC DATA^a

Item	Kazakhstan	Kyrgyz Republic	Mongolia
Population ('000)	14,842	4,970	2,425
Area ('000 km ²)	2,725	200	1,564
Population density (persons per km ²)	5.4	24.9	1.6
Road network (km) of which:	88,045	18,828	45,250
national/state	23,011	9,833	11,063
local	65,034	8,995	34,187
Road density (km per '000 km ²)	32	94	29
Population per km of road	169	264	54
GDP (\$ million)	16,957	1,390	950
GDP per capita (\$)	1,142	280	392
State budget revenue (\$ million)	3,909	193	309
(% of GDP)	23	14	33
Consumer price index 2001 (1995 = 100)	218	290	222
Fuel prices (\$/liter mid-2002):			
93 octane petrol	0.28	0.32	0.33
76 octane petrol	0.22	0.24	0.32
diesel fuel	0.18	0.21	0.35

GDP = gross domestic product, km = kilometer, km² = square kilometer.

^a Data relates to the latest available year.

Source: Operations Evaluation Mission.

REVENUE AND EXPENDITURE IN MONGOLIA'S ROAD SECTOR
(MNT million)

Item	1997	1998	1999	2000	2001
A. Revenue					
Fuel tax	4,200.1	4,434.0	3,481.0	4,222.0	4,654.8
Carryover	11.0	53.6			
State budget	40.0	1,102.4	2,341.7	3,672.3	6,010.4
Other income	52.4	307.0	600.6	47.4	89.0
Foreign loans	4,100.0	8,220.0	9,300.0	9,130.0	4,790.0
Grant aid	5,902.3	6,820.4	6,500.5		1,701.7
Total A	14,305.8	20,937.4	22,223.8	17,071.7	17,245.9
B. Expenditure					
Construction and rehabilitation of roads and bridges	2,523.6	2,500.3	2,225.4	2,379.5	3,491.9
Maintenance of roads and bridges	789.5	1,184.9	369.9	1,468.9	2,018.7
Design	131.8	112.8			
Department of Roads operating costs	170.0	149.0	53.6	51.0	78.0
Equipment	98.3		182.0	97.3	128.9
Counterpart portion of foreign loan projects	588.0	1,952.3	3,539.3	3,843.7	4,772.3
Other			51.6	69.6	198.6
Total B	4,301.2	5,899.3	6,421.8	7,910.0	10,688.4

Source: Mongolian Department of Roads.

REVENUE AND EXPENDITURE IN THE KYRGYZ REPUBLIC'S ROAD SECTOR

Table A3.1: Expenditure on the Public Road Network, 1998–2001
(Som million)

Item	1998	1999	2000	2001
New construction			16.3	1.2
Bishkek-Osh Road rehabilitation	47.8	200.9	201.1	135.3
Repair and maintenance	85.6	141.6	139.2	203.0
Subtotal government	133.4	342.6	356.6	339.4
Bishkek-Osh Road—Foreign assistance ^a	443.7	1,185.6	1,566.6	1,435.2
Total	577.1	1,528.1	1,923.2	1,774.6

^a Provided by the Asian Development Bank, Islamic Development Bank, and Japan Bank for International Cooperation.

Source: Ministry of Transport and Communications of the Kyrgyz Republic.

Table A3.2: Road Fund Revenue, 1999–2001
(Som million)

Source	1999	2000	2001
Annual vehicle registration	6.7	34.9	34.9
Tax for using roads (0.8% turnover tax)	176.8	343.7	374.6
90% of change of ownership tax	91.2	67.4	61.6
50% of excise tax on vehicle fuel	414.7	118.7	138.7
Fees for entry of foreign vehicles			4.4
Total	689.5	564.6	614.2

Source: Ministry of Transport and Communications of the Kyrgyz Republic.

REVENUE AND EXPENDITURE IN KAZAKHSTAN'S ROAD SECTOR

Table A4.1: Road Expenditure, 1996–2002
(T million)

Item	1996	1997	1998	1999	2000	2001	2002
Current repairs, maintenance, and forestation	2,968.6	3,299.1	2,603.0	933.9	1,647.3	3,524.4	1,885.5
Capital and medium repairs	4,605.3	6,095.8	5,407.0	175.7	3,512.9	1,630.8	4,200.0
Construction and reconstruction	0.0	0.0	951.0	668.0	1,853.8	7,630.2	5,400.0
Investment projects involving external loans	0.0	501.5	677.2	1,402.2	6,569.0	11,028.0	28,285.6
Transport and communication research	0.0	0.0	0.0	0.0	0.0	50.0	50.0
Feasibility studies for reconstruction	0.0	0.0	0.0	0.0	0.0	84.7	301.0
Procurement of road maintenance machinery	0.0	0.0	0.0	0.0	0.0	0.0	2,000.0
Total	7,573.9	9,896.4	9,638.2	3,179.8	13,583.0	23,948.2	42,122.2

Note: Figures for the period 1996–1998 include allocations for local roads; from 1999 onward figures refer only to national roads.
Source: Committee of Roads in Kazakhstan.

Table A4.2: Road Fund Revenue and Allocations, 1996–1998
(T million)

Item	1996	1997	1998
A. Source of Finance			
Turnover tax	6,059.0	7,198.5	4,832.0
Excise fuel duty	969.0	1,512.0	3,379.0
Transit charges	445.0	691.0	637.0
Miscellaneous	100.0	146.5	234.0
Total A	7,573.0	9,548.0	9,082.0
B. Allocations			
National roads	4,315.0	5,997.0	6,726.0
Local roads	3,258.0	3,551.0	2,356.0
Total B	7,573.0	9,548.0	9,082.0

Source: Committee of Roads in Kazakhstan.

TECHNICAL ASSISTANCE RATINGS

A. TA 2380-MON: Institutional Strengthening of the Road Sector

1. **Relevance.** Mongolia's move toward a free market system made it essential to rehabilitate and maintain parts of its road network and to strengthen the Department of Roads (DOR). The technical assistance (TA) was consistent with the Government's sector goals and priorities and the country operational strategy of the Asian Development Bank (ADB). The TA is assessed highly relevant.
2. **Efficacy.** The expected results and deliverables in relation to institutional strengthening were largely achieved. Two divisions within DOR were disbanded. The Planning and Research Division was reestablished and a new position was created for traffic volume count to provide support for analysis and planning of the sector. Improvement of road fund management was not achieved and the fund remains under the purview of the Ministry of Finance. The Government also did not follow the TA recommendations on increasing road fund revenue. Overall, the TA is assessed efficacious.
3. **Efficiency.** The TA is assessed efficient as its organization and management was satisfactory.
4. **Sustainability.** As the Government is committed to reform, the TA objectives with regard to institutional development are likely to be sustainable.
5. **Other Impacts.** Other impacts are assessed moderate. There were no social and environmental issues associated with the TA. The TA generated greater awareness of the merits of delinking maintenance activities from DOR that became the client. This delinking helped set the stage for greater corporatization of road sector institutions toward eventual privatization.
6. **Overall TA Rating.** The TA is rated successful.

B. TA 3268-MON: Policy Support in the Road Sector

7. **Relevance.** The TA was designed to strengthen policy and institutional reforms initiated under the first ADB-financed road project in Mongolia. The TA proposed the establishment of a road board, which would have been an effective mechanism to manage funds for the road sector but for which there is no political support yet. The TA is assessed relevant.
8. **Efficacy.** The TA recommendations with respect to institutional strengthening have largely been carried out. The Construction Management Division and the Maintenance Management Division have been separated. Design companies were privatized and four of the remaining five construction companies are targeted to be privatized in 2002. DOR is the client of the 13 maintenance units, which are managed by the State Property Committee. The TA recommendations with respect to the road fund and the road board have not been implemented. The road fund continues to be administered by the Ministry of Finance, and the newly established road board is still grappling with the charter of the more permanent board. The TA is assessed less efficacious.
9. **Efficiency.** The TA is assessed less efficient because DOR remains under the overall direction of the Ministry of Finance.

10. **Sustainability.** The TA recommendations with respect to institutional strengthening are likely to be sustainable as there is government commitment to reform. However, the road fund and the road board are not likely to be strengthened in the near future. The overall sustainability is assessed less likely.

11. **Other Impacts.** Other impacts of the TA are assessed moderate. The TA cautioned against early privatization of the maintenance units. A pilot project is underway whereby small sections of road are being maintained by the private sector as an employment-generating strategy.

12. **Overall TA Rating.** The TA is rated partly successful.

C. TA 2587-KGZ: Institutional Strengthening of the Road Sector

13. **Relevance.** As in Mongolia, the Kyrgyz Republic's move toward a free market system made it essential to rehabilitate and maintain parts of its road network and to strengthen DOR. The TA was consistent with the Government's sector goals and priorities and ADB's country operational strategy. The TA is assessed highly relevant.

14. **Efficacy.** The institutional strengthening component of the TA was largely successful. The number of subsidiary divisions within the Ministry of Transport and Communications (MOTC) was reduced from 17 to 12. The number of road maintenance units was reduced from 78 in 1997 to 58 at the time of the Operations Evaluation Mission, and the units now service an average of 325 kilometers (km) each instead of the previous 250 to 325 km. DOR was strengthened from 6 to 18 persons. The eight regional road maintenance agencies under MOTC were transformed into government client organizations and staff were trained to prepare bidding documents and supervise bidding. The TA's objectives with respect to policy support were not met. Its recommendation to develop a broader approach to road sector revenues by developing a user-pay principle of road funding was not adopted by the Government. However, the TA is assessed efficacious.

15. **Efficiency.** The TA is assessed efficient as the organization and management of ADB and the executing and implementing agencies was adequate.

16. **Sustainability.** As the Government is committed to reform, the TA's objectives with regard to institutional development are likely to be sustainable.

17. **Other Impacts.** Other impacts are assessed moderate. The TA generated greater awareness of the merits of delinking maintenance activities from DOR that became the clients. This delinking helped set the stage for commercialization and corporatization of road sector institutions toward eventual privatization.

18. **Overall TA Rating.** The TA is rated successful.

D. TA 3065-KGZ: Policy Support in the Transport Sector

19. **Relevance.** The TA was designed to support policy and institutional reforms initiated under the first ADB-financed road project in the Kyrgyz Republic. The TA is assessed highly relevant.

20. **Efficacy.** The TA recommendation to develop the transport policy department and the planning design and construction department in MOTC was not followed. These two departments exist only nominally. The training component was ineffective as staff turnover continues to be considerable. The TA objectives with respect to generating resources to meet the maintenance needs of the road sector were not achieved. The TA is assessed less efficacious.

21. **Efficiency.** Overall, the TA is assessed less efficient as DOR remained under the overall direction of the Ministry of Finance, which continued to determine the revenue and expenditure priorities of DOR.

22. **Sustainability.** The TA recommendations with respect to institutional strengthening are likely to be sustainable as there is government commitment to reform. However, the road fund is not likely to be strengthened in the near future with the International Monetary Fund opposed to it. The overall sustainability is assessed less likely.

23. **Other Impacts.** There were no other intended or unintended impacts.

24. **Overall TA Rating.** The TA is rated partly successful.

E. TA 2631-KAZ: Institutional Strengthening of the Road Sector

25. **Relevance.** As in the Kyrgyz Republic and Mongolia, Kazakhstan's move toward a free market system made it essential to rehabilitate and maintain parts of its road network and to strengthen DOR. The TA was consistent with the Government's sector goals and priorities and with ADB's country operational strategy. The TA is assessed highly relevant.

26. **Efficacy.** The TA's institutional strengthening component was successful. DOR was been replaced by a larger and more autonomous Committee of Roads. Kazakhavtador conducts maintenance on provincial roads through competitive bidding. The Road Act was passed in 2001. However, no clear linkage between the TA recommendations and the structural changes that took place was evident. Training activities were not sustained because of high staff turnover. In common with the other first-generation TAs, a broader approach to cost recovery was not implemented. The TA is assessed efficacious.

27. **Efficiency.** The TA is assessed efficient as its organization and management was satisfactory.

28. **Sustainability.** The Government abolished project implementation units funded by external projects and replaced them with the Division of Investment Projects in the Committee of Roads. The rationale was to increase government ownership. However, capacity to effectively replace the project implementation units was not built first in the new division. Frequent changes in government—leading to significant changes in staff and steady outflow of qualified staff to the private sector due to low salaries in the public sector—is another factor accounting for assessing sustainability as less likely.

29. **Other Impacts.** Other impacts are assessed moderate. The TA generated greater awareness of the merits of delinking maintenance activities from DOR that became the client. This delinking helped set the stage for commercialization and corporatization of road sector institutions toward eventual privatization.

30. **Overall TA Rating.** The TA is rated successful.