

ASIAN DEVELOPMENT BANK

TAR: CON 35077

**TECHNICAL ASSISTANCE
FOR
REGIONAL COOPERATION
IN TRANSPORT PROJECTS IN CENTRAL ASIA**

March 2002

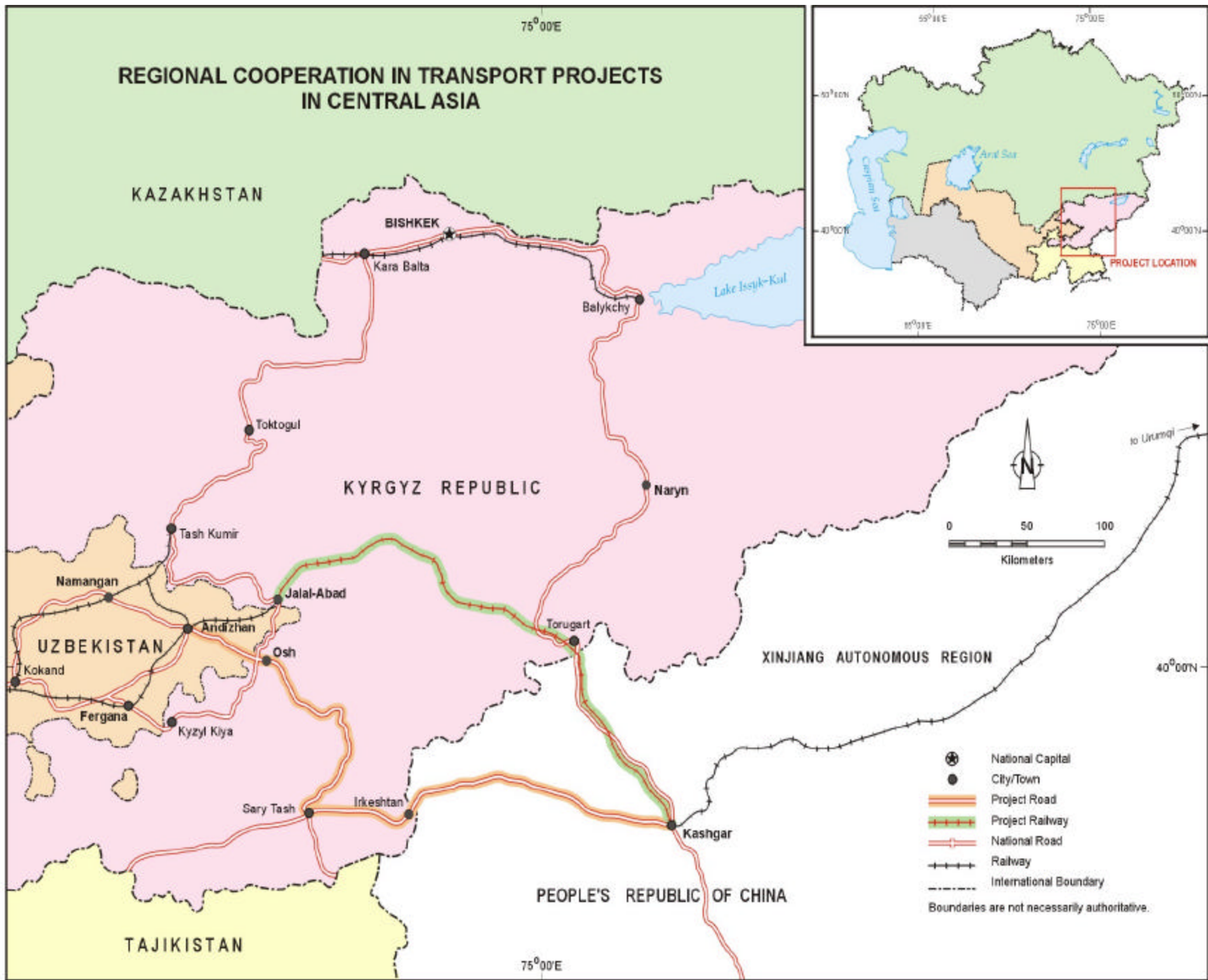
ABBREVIATIONS

ADB	–	Asian Development Bank
PRC	–	People’s Republic of China
TA	–	technical assistance
Xinjiang	–	Xinjiang Autonomous Region

NOTE

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

REGIONAL COOPERATION IN TRANSPORT PROJECTS IN CENTRAL ASIA



I. INTRODUCTION

1. A high-level conference on Central Asian regional cooperation in transportation, held in September 2000 and financed by the Asian Development Bank (ADB), agreed to establish intercountry working groups for specific regional cooperation projects. The working groups, with proposed ADB support, would facilitate the preparation and implementation of regional transport projects and address associated transport policy matters. The joint statement of the conference included reference to two key regional cooperation projects involving the People's Republic of China (PRC), Kyrgyz Republic, and Uzbekistan. The projects are (i) improvement of the Andizhan-Osh-Irkeshtan road, and extension road in Xinjiang Autonomous Region (Xinjiang), PRC; and (ii) construction of a PRC-Kyrgyz Republic-Uzbekistan railway. In August 2001 another ADB-supported forum, the Senior Official's Meeting on Regional Economic Cooperation in Central Asia, was held to build consensus on the overall institutional framework for cooperation, and to identify priority activities. The proposed regional technical assistance (TA) to facilitate regional cooperation in transport projects was presented to and supported by the meeting. Reconnaissance missions were fielded, and the cooperating governments have endorsed the objectives, scope, cost, and implementation arrangements for the TA.¹ The TA framework is in Appendix 1.

II. ISSUES

2. **Need for Regional Transport Cooperation.** A decade ago the former Soviet republics began a process of nation building and economic transformation. Since the region is landlocked and very distant from the major markets both in the West and East, one great challenge in this process is to increase exchange with countries both near and far, of goods, services, technology, and capital. For this, regional and national transport networks that connect to the world markets must be developed and maintained. Transport routes in the former Soviet Union were oriented towards Russia, with few connections to the PRC or other countries. Central Asian countries now need to construct new transport corridors to PRC, East Asia, and Europe, to open up new trade routes and address the problem of a rapidly deteriorating infrastructure caused by the scarcity of maintenance funding.

3. Xinjiang and the PRC as a whole share borders, economic interests, and cultural ties with Central Asian countries. Since the early 1990s, developing and strengthening economic ties has been a priority for the PRC in achieving faster economic growth and a higher living standard. As part of this, maintaining and building transport links to other parts of Central Asia and beyond is necessary. Stronger trading ties with its neighbors will help to meet its needs for energy and raw materials, and to find markets for its growing industrial production. Important for regional cooperation with Central Asia is the PRC Government's major strategic shift in its development focus to the country's western areas, of which Xinjiang is a key region.

4. Therefore the specific needs and the potential resource and market complementarity among the Central Asian republics and Xinjiang provides a strong impetus for regional economic cooperation. Upgrading existing transportation infrastructure and completing key linkages will benefit all the countries in the region. In particular, improvements will enable goods and people to move more easily and rapidly among the countries, reducing the cost of trade and enhancing the value of business, and thereby contributing to economic growth and poverty reduction. In addition there is a joint security interest that can only be overcome through cooperation.

¹ The TA was first listed in *ADB Business Opportunities* (Internet edition) on 1 August 2001.

5. **Key Regional Transport Issues.** Several key transport issues need to be addressed if regional cooperation is to be successful.

- (i) **Financing.** Regional transport infrastructure will involve significant investment. Because available resources, including government funding and official development assistance, are limited, achieving progress in regional transport development will require innovative financing mechanisms. Private sector participation and ways of accessing international capital markets will need to be explored as a means to raise additional financing. Other mechanisms include financing by a neighboring country in exchange for favorable transit charges and customs procedures; raising funds for loan repayment by imposing tolls; and establishing national road funds, funded by dedicated fuel taxes, transit fees, and other road user charges.
- (ii) **Cross-Border Issues.** The creation of new international borders in Central Asia, following the breakup of the Soviet Union, resulted in a series of cross-border barriers in the region, including closure of border crossings, inadequate border-crossing facilities and procedures, entry and transit restrictions and charges, inconsistent axle-load limits and control, excessive control by police and other authorities along road corridors, inappropriate setting of international railway tariffs, and delays in interrailway payments. Cross-border issues need to be addressed equitably through regional cooperation projects.
- (iii) **Coordination.** Coordination and dialogue are key to successful regional cooperation. Open and clear communication is essential between the cooperating countries and among donor and aid agencies to be able to effectively plan, prioritize, and reach fair and equitable agreements on the implementation of regional cooperation projects.

6. The TA seeks to address these issues for regional transport projects by seeking innovative financing solutions, and equitable cross-border arrangements, and by providing a forum through working groups for reaching the necessary understandings and agreements between the countries.

7. **PRC-Kyrgyz Republic-Uzbekistan Railway Development.** The region comprising western PRC, Kyrgyz Republic, and Uzbekistan is one of the few remaining areas that does not have economic and reliable railway transportation. In the PRC the existing railway network extends to Kashgar in Xinjiang, close to the PRC-Kyrgyz Republic international border. The link with the rest of the PRC rail system from Urumqi to Kashgar was opened in October 1999. The Kyrgyz Republic has four separate short railway lines that link to the railway networks in neighboring Uzbekistan and Kazakhstan. These links are not interconnected and there is no link with the PRC. A key east-west, 500 kilometer (km) railway line linking Kashgar and Andizhan in Uzbekistan is proposed (see map). The railway corridor would comprise construction of about 430 km of new railway line including about 170 km in the PRC and about 260 km in the Kyrgyz Republic, and improvement of about 70 km of existing railway lines in the Kyrgyz Republic and Uzbekistan. This line would serve as a transit route between East Asia and the PRC, and the Middle East and Europe, and would compete with other transcontinental routes. An additional railway line could connect this transit route with the railway in northern Kyrgyz Republic to Balykchy and Bishkek. Both of these lines would require large investment.

8. The governments have taken steps to progress project preparation. Since November 1997 a tripartite structure involving the three countries has been operating. It includes a commission at the ministerial level, a tripartite technical working group, and working groups in each country. Three technical working group meetings have been held, and in June 2001 a ministerial level meeting reviewed the findings and endorsed a northern transit route for the railway. A joint communiqué issued by the meeting reaffirmed that the PRC-Kyrgyz Republic-Uzbekistan railway should be planned, financed, implemented, and operated as one project to maximize benefits and sustainable development in the region. The meeting also agreed to continue investigations and to prepare a project cooperation agreement for tripartite ratification. The PRC has completed feasibility and preliminary design work for its section of the railway project. The European Union is funding a technical study of new rail links between the Fergana Valley, Bishkek, and Kashgar, PRC. The study commenced in January 2002 and the results are expected to be available in November 2002. The European Bank for Reconstruction and Development has been providing advisory assistance to the Kyrgyz Republic regarding the project. Finally, within Kyrgyz Republic, Parliament passed a new law providing investors with preferential investment incentives for the transit project. The project has been presented to various international meetings.

9. ADB will help coordinate efforts to prepare the railway development, particularly between the PRC and the Central Asian republics; and supplement technical studies to enhance the consideration of route logistics and traffic levels, and consider project financing options and institutional arrangements. ADB will support the operations of the existing tripartite mechanisms by holding working group meetings to consider these aspects of the project.

10. **Andizhan-Osh-Irkeshtan-Kashgar Road Improvement.** The road through southern Kyrgyz Republic linking the PRC and Uzbekistan, the Andizhan-Osh-Irkeshtan-Kashgar road (see map), needs improvement to allow effective use of this international route. Road improvements between Kashgar and Irkeshtan in the PRC have already been made. Increased trade and communication along this transport corridor would improve relations between PRC, Kyrgyz Republic, and Uzbekistan, as well as generate economic benefits in all three. The route is likely to have extraregional transport potential.

11. The European Union-funded feasibility study for road improvements from Osh to Irkeshtan provided a technical review, cost estimates, a viability analysis of various levels of road improvement based on different traffic scenarios, and a social and environmental evaluation. The study recommended erosion protection and essential drainage works to preserve the existing road; remedial works at the Chygyrchyk pass; widening, overlay, and reconstruction as necessary depending on the traffic level; and new alignments. The estimated cost ranged from \$14 million–86 million depending on design traffic levels. The Osh-Irkeshtan road condition is variable, and the key stretch of 80 km from Sary Tash to Irkeshtan, which could also carry traffic between the PRC and Tajikistan, is the most difficult section, with three high mountain passes and snow cover in winter. The study found that traffic is minimal except for border traffic. Recent information is that the route Osh-Sary Tash is being extensively used for humanitarian assistance to north-east Afghanistan via Tajikistan.

12. The PRC categorizes the border at Irkeshtan as a class I crossing, meaning that third country nationals can use it, and a trilateral traffic agreement between PRC, Kyrgyz Republic, and Uzbekistan already exists. The corridor has potential for tourism development as well as commodity trade. At present the border is open for 20 days a month, with a limited amount of truck traffic. New border facilities have been constructed on the PRC side, and border facilities on the Kyrgyz side need to be upgraded. Improvements to border facilities and schedules, and

effective implementation of the trilateral agreement on road traffic, need to be achieved to generate an increase in traffic.

13. The potential for diverting traffic to the route and its competitiveness as an international corridor need to be reviewed. Further project preparation would also need to consider cross-border arrangements and financing options for road improvements and maintenance in the Kyrgyz Republic. For coordination of cross-border, financing, and operational arrangements, and other matters relating to possible project implementation and operation, it is proposed to establish a working group, comprising representatives from the PRC, Kyrgyz Republic, and Uzbekistan to be supported under the TA.

III. THE TECHNICAL ASSISTANCE

A. Purpose and Output

14. The purpose of the TA is to facilitate cooperation among the participating countries of PRC, Kyrgyz Republic and Uzbekistan to develop regional transport projects, including the PRC-Kyrgyz Republic-Uzbekistan railway corridor development and the Andizhan-Osh-Irkeshtan-Kashgar road improvement. For the railway development the aim will be to reach agreement on the route, funding, and inter-country institutional arrangements in the form of a project implementation accord. For the road improvement the aim is to reach agreement on the approach to funding the project and on the cross-border arrangements.

Methodology and Key Activities

15. The TA will support the existing joint commission and technical working group in developing the railway corridor and for the road improvement help establish a project working group and support its activities. For both projects the TA will facilitate dialogue and cooperation through assistance in convening regional and country consultation meetings, workshops and conferences and the provision of specialist support services. The specialist support services will broadly cover (i) consideration of the potential of the transport corridors from a transcontinental perspective; (ii) assessment of the economic and financial viability of the projects, and the distribution of the benefits and costs among the countries; (iii) advice on innovative financing options and implementation arrangements, including the possibility of an international consortium for the rail project development; and (iv) advice on effective cross-border arrangements.

B. Cost and Financing

16. The total cost of the TA is estimated to be \$900,000 equivalent. ADB will provide \$850,000 equivalent to finance the cost of international and domestic consultants, and the costs associated with working group activities including the travel and per diem costs of delegates to meetings. The TA will be financed on a grant basis from the ADB-funded TA Special Fund. The participating governments will provide the remaining \$50,000 equivalent in-kind and on a pro-rata basis, in the form of counterpart staff, logistical support, and project-related information. The detailed cost estimate is included in Appendix 2.

C. Implementation Arrangements

17. The implementation arrangements are designed to ensure proper coordination among the participating governments and ADB to facilitate consensus on project issues. ADB will be

the Executing Agency for the TA. In each participating country, the respective transport agencies will act as implementing agencies for the TA and will assign representatives to participate in the working group activities. The TA will establish a secretariat in Bishkek to support the working group activities of both projects and guide TA implementation. The secretariat will be supported by the consultants to be engaged under the TA. Minutes of working group meetings and consultations will be the primary formal means by which ADB will carry out its role as the Executing Agency. ADB resident missions in the participating countries will also be involved in coordinating the activities of the working groups.

18. A suitable international consulting firm with expertise in highway and rail engineering, transport economics, finance, and regional cooperation will be engaged. The international consultants will associate with domestic consultants with similar expertise. The TA will require a total of 45 person-months of consulting services, 15 person-months international and 30 person-months domestic. The consultants will be engaged by ADB in accordance with its *Guidelines on the Use of Consultants* and other arrangements satisfactory to ADB for the engagement of domestic consultants. The consultants will help organize and manage working group activities, undertake necessary investigations, and provide technical support relating to the rail and road projects. The terms of reference for the consultants are in Appendix 3. To facilitate the work of the consultants, the governments will provide access to sites, existing studies, data, and necessary support. Procurement under the TA will be in accordance with ADB's *Guidelines for Procurement*. The TA is expected to commence in July 2002 and be completed by December 2003.

19. For the rail development, the consultants will arrange for a meeting of the technical working group to discuss project preparation and cooperation arrangements, and to review the proposed work program of the consultants. The consultants will then undertake the various investigations, and prepare recommendations and a draft project cooperation agreement to be presented at a second working group meeting. The consultants will revise the project cooperation agreement as required, and arrange for a high-level joint committee meeting to consider the agreement.

20. For the road improvement, the consultants will facilitate the establishment of a working group and make the necessary arrangements for the inaugural meeting to discuss all aspects of the road corridor improvement and cross-border arrangements. The consultants will then undertake the various investigations and prepare recommendations for consideration at a second working group meeting. The aim is for the cooperating countries to reach agreement on the approach to funding the project and on the cross-border arrangements.

21. In terms of reporting, for each project the consultants will be required to submit to ADB and each of the participating governments, inception reports prior to the initial working group meetings, interim reports prior to each subsequent working group meeting, and final reports at the end of TA implementation.

IV. THE PRESIDENT'S DECISION

22. The President, acting under the authority delegated by the Board, has approved the provision of technical assistance, on a grant basis, in an amount not exceeding the equivalent of \$850,000 for the purpose of the Regional Cooperation in Transport Projects in Central Asia, and hereby reports such action to the Board.

TECHNICAL ASSISTANCE FRAMEWORK

Design Summary	Targets	Monitoring Mechanism	Risks/Assumptions
<p>1. Goals</p> <ul style="list-style-type: none"> • Enable goods and people to move more easily and rapidly among and through the countries in the region, reducing the cost of trade, and thereby contributing to economic growth and poverty reduction 	<ul style="list-style-type: none"> • Increase regional cooperation among the Peoples' Republic of China (PRC) and the Central Asian republics • Increase trade • Increase transcontinental trade flows through the PRC, East Asia, Central Asia, Caucasus, and Europe transport corridor 	<ul style="list-style-type: none"> • National statistics of cooperating governments • Dialogue with the governments and other assistance agencies 	<ul style="list-style-type: none"> • Conducive macro-economic environment • Isolationist tendencies of the countries
<p>2. Purpose</p> <ul style="list-style-type: none"> • Facilitate regional cooperation among the participating countries to develop transport corridors between the PRC and Central Asia. 	<ul style="list-style-type: none"> • PRC-Kyrgyz Republic-Uzbekistan railway corridor development: support the joint committee and technical working group for developing the railway corridor by facilitating dialogue and cooperation, and by providing specialist support services • Andizhan-Osh-Irkeshtan-Kashgar road improvement: establish a project working group, and support its activities by facilitating dialogue and cooperation and by providing specialist support services 	<ul style="list-style-type: none"> • Technical assistance (TA) progress reports, review missions • TA completion report 	<ul style="list-style-type: none"> • Effective implementation of the TA • Long-term funds are available for infrastructure
<p>3. Outputs</p> <ul style="list-style-type: none"> • The PRC-Kyrgyz Republic-Uzbekistan railway development project ready for financing and implementation • The Andizhan-Osh-Irkeshtan-Kashgar road project ready for financing and implementation 	<ul style="list-style-type: none"> • Agreement reached on the route, funding, and intercountry institutional arrangements in the form of a project implementation accord • Agreement reached on the approach to funding the project and on the cross-border arrangements 	<ul style="list-style-type: none"> • TA review missions and progress reports • TA completion report 	<ul style="list-style-type: none"> • The secretariat and consultants perform satisfactorily
<p>4. Activities</p> <ul style="list-style-type: none"> • Support for project working group meetings and provision of specialist support services 	<p>5. Inputs</p> <ul style="list-style-type: none"> • \$0.85 million (15 months international + 30 months domestic consulting services) TA grant • \$0.05 million counterpart contribution 	<ul style="list-style-type: none"> • TA review missions and progress reports • TA completion report 	<ul style="list-style-type: none"> • Availability and timely recruitment of qualified consultants • Adequate counterpart contributions by counties

COST ESTIMATES AND FINANCING PLAN
(\$'000)

Item	Foreign Exchange	Local Currency	Total Cost
A. Asian Development Bank Financing^a			
1. Consultants			
a. Remuneration and Per Diem			
i. International Consultants	375	0	375
ii. Domestic Consultants	0	75	75
b. International and Local Travel	70	5	75
c. Reports and Communications	15	0	15
2. Meetings/Workshops ^b	150	0	150
3. Equipment ^c	15	0	15
4. Administration and Support Costs ^d	25	0	25
5. Contingencies	108	12	120
Subtotal (A)	758	92	850
B. Government Financing			
1. Counterpart Staff	0	25	25
2. Meetings/Workshops	0	15	15
3. Others	0	10	10
Subtotal (B)	0	50	50
Total	758	142	900

^a From the ADB-funded TA Special Fund.

^b Includes two high-level conferences and four regional workshops all to be held in the region. Includes airfare, hotel, and subsistence allowance of participants from the concerned governments.

^c Includes computer, printer, copier, in-focus projector, and other office equipment.

^d Administrative support for the transport secretariat.

Source: Asian Development Bank estimates.

OUTLINE TERMS OF REFERENCE FOR CONSULTANTS

A. Railway Corridor Development

1. The technical assistance (TA) will support the existing commission and technical working group in developing the railway corridor by facilitating dialogue and cooperation, and by providing specialist support services. The areas of support/further study will include (i) an in-depth review of the potential and competitiveness of the railway for local, regional, and extraregional transport and trade, with a view to establishing the likely level of diverted traffic; (ii) consideration of the economic and financial viability; (iii) assessment of the benefit distribution and cost among the participating countries; (iv) review of the project financing options; (v) development of an optimal institutional structure to plan, finance, construct, and operate the railway across the three countries; and (vi) development of effective cross-border arrangements. Consultant activities for the TA follow.

1. Project Cooperation

2. Provide support to the existing commission and technical working group established to oversee the rail development including convening of regional and country consultation meetings, workshops, and conferences as required.

2. Project Viability

3. The consultant will have the following responsibilities:

- (i) Review the results of previous project studies and investigations, and coordinate closely with the ongoing European Union study.
- (ii) Identify potential railway project(s) within the national boundaries of participating countries.
- (iii) Review available cost estimates for the railway project(s), and supplement, refine, and/or update as necessary.
- (iv) Based on available information consider the social and environmental implications and costs of the rail project(s).
- (v) Undertake a detailed analysis of the proposed rail route's competitiveness in comparison with other transcontinental transport routes, and assess the broader implications of the rail development on transcontinental trade.
- (vi) Assess likely economic developments in the transport corridor that would have a bearing on the railway project(s).
- (vii) Based on this review, supplement traffic forecasts as required. Forecast passenger and freight traffic and transportation requirements to 2030 for local, regional, and extraregional trade and traffic using a scenario approach.
- (viii) Carry out financial and economic analyses of the railway project(s).
- (ix) Assess the distribution of benefits and costs among the countries.

(Reference in text: page 5, para. 18)

- (x) Identify financially viable projects or project components suitable for private sector participation.

3. Project Financing

- 4. Review and recommend financing options for the railway development project(s). Identify possible sources of multilateral, bilateral, and commercial financing for the construction and equipment needed for the development of the railway. Consider options for private sector participation and financing.

4. Project Organization

- 5. Review the options, and recommend a suitable institutional structure for the financing, implementation, and operation of the rail development project. The possibility of a joint international organization/company should be considered where the construction and operation of the railway will be governed by the national laws of the respective countries and coordinated at the international level for arranging needed financing, expertise for management and operation, collection, and distribution of revenues to enable debt servicing.

5. Cross-Border Arrangements

- 6. Review border crossing facilities and arrangements between the concerned countries including the technical compatibilities. Consider proposals for harmonizing standards and traffic policies to facilitate the cross-border movement of people and goods. Develop a suitable cross-border protocol to facilitate the operation of the rail development project.

6. Rail Project Implementation Agreement

- 7. In close cooperation with the technical working group, draft a trilateral project implementation agreement and facilitate its consideration by the parties.

7. Other

- 8. Provide other necessary technical, financial, economic, social, and environmental studies as required.

B. Road Improvement

- 9. The TA will help establish a project working group and support its activities by facilitating dialogue and cooperation, and by providing specialist support services. The areas of support/further study will include (i) an in-depth study of the transport corridor and its potential and constraints for traffic diversion; (ii) development of effective cross-border arrangements to increase traffic flows; (iii) consideration of the required scope of rehabilitation work; (iv) review of the project viability, and the distribution of benefits and costs among the participating countries; and (v) consideration of financing options for road improvement works and maintenance. Consultant activities for the TA follow.

1. Project Cooperation

10. Provide support to establish a working group to oversee the road improvement project; and assist in convening and facilitating regional and country consultation meetings, workshops, and conferences as required.

2. Cross-Border Arrangements

11. The consultant will

- (i) review border crossing facilities and arrangements;
- (ii) identify physical and nonphysical constraints to traffic flows; and
- (iii) prepare a suitable cross-border agreement to facilitate the cross-border movement of people, goods, and vehicles; and maximize the benefits of the road improvement project.

3. Project Preparation

12. The consultants will undertake the following:

- (i) Review the results of previous project studies and investigations.
- (ii) Undertake in in-depth review of the potential of the transport corridor, including the prospects and constraints for traffic diversion and flows from east to west and vice versa.
- (iii) Review and supplement as required traffic forecasts, including traffic from and to the PRC, from and to Uzbekistan, and from, to, and within the Kyrgyz Republic. Forecast cross-border traffic and transportation requirements to 2030, assuming regional cooperation is successful, for trade and traffic within the region using a scenario approach.
- (iv) Determine the necessary rehabilitation works to meet likely traffic levels.
- (v) Based on available information, consider the social and environmental implications and costs of the road project.
- (vi) Based on the findings on likely traffic levels, update the economic analysis of the road improvements in the Kyrgyz Republic.
- (vii) Assess the distribution of benefits and costs among the countries.
- (viii) Consider the prospects for financial viability, if any, for the project or project components.

4. Project Financing and Management

13. The consultants will
 - (i) propose financing options for the road improvements taking account of the distribution of project costs and benefits among the participating countries; and
 - (ii) Consider management options for project implementation, and operation and maintenance including the possibility of a joint organization.

5. Other

14. Provide other necessary technical, financial, economic, social, and environmental studies as required.