

添付資料

キルギス国政府の本件調査の要請内容

GOVERNMENT OF KYRGYZSTAN

MINISTRY OF TRANSPORT

TERMS OF REFERENCE

FEASIBILITY STUDY

ON

ROAD REHABILITATION PROJECT

IN KYRGYZSTAN

1. Objectives of the Study

The objectives of the study are

- 1) To identify priority areas of problem sections/spots/bridges of road distress, slope failure, and bridge deficiency along the project road
- 2) To propose appropriate rehabilitation/improvement works required
- 3) To conduct feasibility study on selected rehabilitation and improvement works
- 4) To prepare a implementation program of the rehabilitation and improvement project
- 5) To transfer its technology for pavement rehabilitation, counter measures for slope failure and rehabilitation works of bridge deficiencies to Kyrgyzstan counterpart personnel in the course of the study

2. PROJECT ROAD

The project road shall cover trunk road between Bishkek and Osh totalling about 350km.

3. SCOPE OF WORK

In order to achieve the objectives mentioned above, the study shall be carried out the following two(2) phases;

3.1 Phase 1: Identification of priority Areas (sections/spots/bridges)

The priority areas shall be identified based on the following items of the study;

- 1) Field Investigation
- 2) Collection and review of existing data and information.
 - a) Socio-economic data
 - b) Traffic data
 - c) Engineering data
 - e) Past record on problem occurrence
- 3) Identification of problem sections/spots/bridges

Problem sections/spots/bridges including extent of severity shall be identified and evaluated.

4) Review on institutional organization

The institutional organization for rehabilitation works shall be reviewed.

5) Selection of priority areas for feasibility study

Priority areas of problem sections/spots/bridges shall be selected taking into consideration necessity and urgency to be solved.

3.2 Phase 2: Feasibility study on priority projects

1) Engineering surveys

The following engineering surveys shall be conducted for selected disaster sections.

- a) Topographic survey
- b) Geological survey
- c) Meteorological survey
- d) Hydrological survey

2) Traffic Study

Future traffic demand shall be forecasted on the basis of future development framework of the region.

3) Detailed investigation survey

- a) Pavement condition survey
- b) Slope condition survey
- c) Bridge condition survey

4) Preliminary design and cost estimation

Preliminary design and cost estimate on the proposed works shall be carried out.

5) Environmental impact assessment

Environmental impacts on implementation of the Project shall be assessed.

6) Project evaluation

Project shall be evaluated from technical, economic and financial viewpoints.

7) Implementation plan

Practical implementation program shall be prepared for the Project based on the above mentioned studies.

8) Recommendation for institutional organization

It shall be recommended the most efficient and effective institutional organization for rehabilitation works.

3. Study Schedule

The study shall be carried out in accordance with the attached work schedule.

4. Reports

The following reports shall be prepared in this study:

- 1) Inception Report
Thirty(30) copies in English at beginning of the study
- 2) Progress Report
Thirty(30) copies within four(4) months after beginning of the study
- 3) Interim Report
Thirty(30) copies within six(6) months after beginning of the study
- 4) Draft Final Report
Thirty(30) copies in English within ten(10) months after beginning of the study
- 5) Final Report
Fifty(50) copies in English within two(2) months after receipt of the written comments on the Draft Final Report from the Government of Kyrgyzstan.

5. Undertaking of the Government of Kyrgyzstan

To facilitate smooth implementation of the Study, the Government of Kyrgyzstan shall take necessary measures:

- 1) to secure the safety of the Japanese study team.
- 2) to permit the members of the study team to enter, leave and sojourn in Kyrgyzstan for the duration of their assignment therein, and exempt them from alien registration requirements and consular fees.
- 3) to exempt the member of the study team from taxes, duties and any other charges on equipment, machinery and other materials brought into and out of Kyrgyzstan for the implementation of the study.
- 4) to exempt the member of the study team from income tax and other charges of any kind imposed on or in

connection with any emoluments or allowances paid to the members of the study team for their services in connection with the implementation of the study.

- 5) to provide necessary facilities to the study team for remittances as well as utilization of the funds introduced into Kyrgyzstan from Japan in connection with the implementation of the study.
 - 6) to secure permission for entry into private properties or restricted areas for the implementation of the study.
 - 7) to secure permission for the study team to take all data and documents (including photographs, maps) related to the study out of Kyrgyzstan.
 - 8) to provide medical services as needed and its expenses will be chargeable on the members of the study team.
6. The Government of Kyrgyzstan shall, at its own expenses, provide with followings:
- 1) Available data and information necessary for the study.
 - 2) Counterparts personnel in necessary number.
 - 3) Suitable office space with necessary equipment (desk, cabinet, telephone, etc.)
 - 4) Credentials or identification cards for the members of the study team.

Tentative Study Schedule

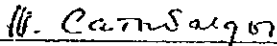
	1	2	3	4	5	6	7	8	9	10	11	12
Work in:	_____											
Work in Japan	—			_____					_____			_____
Reports	△ IC/R			△ P/R		△ IT/R				△ DF/R		△ F/R

NOTE: IC/R: Inception Report P/R: Progress Report
 IT/R: Interim Report DF/R: Draft Final Report
 F/R : Final Report

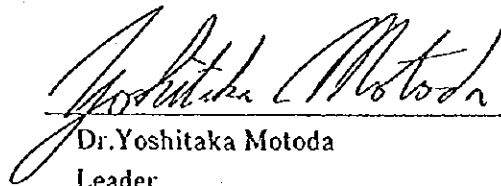
今次ミッション合意議事録

MINUTES OF MEETING
FOR
THE FEASIBILITY STUDY
ON
ROAD REHABILITATION PROJECT
BETWEEN BISHKEK AND OSH
IN
THE REPUBLIC OF KYRGYZ
AGREED UPON BETWEEN
MINISTRY OF TRANSPORT
AND
JAPAN INTERNATIONAL COOPERATION AGENCY

Bishkek, September 26th, 1994

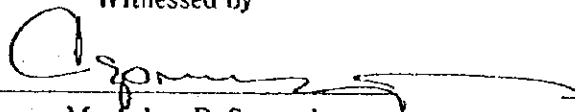


Mr. Zhantoro Zh. Satybaldyev
Vice Minister
Ministry of Transport



Dr. Yoshitaka Motoda
Leader
Preparatory Study Team
Japan International
Cooperation Agency

Witnessed by



Mr. Askar F. Sarygulov
Vice Chairman
State Commission of
Foreign Investments
and Economic Assistance

The Japanese Preparatory Study Team organized by the Japan International Cooperation Agency, headed by Dr. Yoshitaka Motoda visited The Republic of Kyrgyz from September 21th, 1994 for the purpose of discussing the possibility of technical assistance for " THE FEASIBILITY STUDY ON ROAD REHABILITATION PROJECT BETWEEN BISHKEK AND OSH" in The Republic of Kyrgyz (hereinafter referred to as "the Study") Meanwhile, the Asian Development Bank (hereinafter referred to as "the ADB") had accepted the Kyrgyz request for the Feasibility Study on the same road rehabilitation project.

The Japanese Preparatory Study Team exchanged views and had a series of discussions with representatives of Ministry of Transport and State Commission of Foreign Investments and Economic Assistance (hereinafter referred to as "MOT" and GOSKOMINVEST) and the organizations concerned. And the Japanese Preparatory Study Team carried out field visits/reconnaissance from September 24th to 25th , 1994 on the road section between Bishkek and Naryn. The JICA Team also has plan to conduct a field survey between Bishkek and Osh from September 27th to 29th ,1994 in accordance with original schedule.

Through these discussions and observations, both sides (ANNEX 1) prepared the Minutes of Meeting as follows.

1. Both sides agreed the importance of the urgent road rehabilitation project between Bishkek and Osh.
2. Both sides reached the identical recognition that it is difficult for both the JICA and the ADB to implement the same feasibility study.
3. Both sides agreed to seek the possibility of the future technical cooperation for other road development projects.
4. The Japanese side will inform the possibility of the alternative cooperation through Japanese Embassy in Moscow, after the consultation within Japanese government and coordination with the ADB.

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ANNEX 1

ATTENDANCE LIST

KYRGYZ SIDE

Mr. Askar F. Sarygulov Vice Chairman,
State Commission on Foreign Investments
and Economic Assistance (GOSKOMINVES)

Mr. Tuleberdier Omurbek Dept. of Information & Analysis of Project
GOSKOMINVEST

Mr. Kurmanbaev Erkinbek Minister, Ministry of Transport
Mr. Zhantoro Zh. Satybaldyev
Vice Minister, MOT

Mr. Aolam Z. Zakirov Vice Minister, MOT

Mr. Rakhmatulin Renat Valievitch
Adviser to Minister, MOT

Mr. Anatoly V. Shartsman Department Head of Capital Building, MOT

Mr. Aliberashvili Levon Markovich
Chief of Kyrgyz Dol Trans Project.

Mr. Ksdyrbek Duishenalievich Bozon
Vice President, The State Commission for
Environmental Protection (GOSKOMPRIRODA)

Dr. Valery E. Tsurkov Director, State Agency of Geodesy and Cartography

Prof. Apas Bakirov Director, Institute of Geology

Mr. Bokonbayev Kulubek Assistant Director, Institute of Geology

JAPANESE SIDE

Dr. Y. Motoda Leader, Preparatory Study Team,
Japan International Cooperation Agency (JICA)

Mr. M. Fuwa Member of Team, JICA

Mr. K. Ohashi Member of Team, JICA

Mr. R. Ichihara Member of Team, JICA

Mr. K. Kimura Member of Team, JICA

Mr. J. Katori Member of Team, JICA

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Scope of Work案

(DRAFT)

SCOPE OF WORK
FOR
THE FEASIBILITY STUDY
ON
ROAD REHABILITATION PROJECT
BETWEEN BISHKEK AND OSH
IN
THE REPUBLIC OF KYRGYZ

AGREED UPON BETWEEN
MINISTRY OF TRANSPORT
AND
JAPAN INTERNATIONAL COOPERATION AGENCY

Bishkek, September th, 1994

Road Agency,
Ministry of Transport

Leader
Preparatory Study Team
Japan International
Cooperation Agency

Witnessed by

Askar I. Sarygulov
Vice Chairman
State Commission of
Foreign Investments
and Economic Assistance

I. INTRODUCTION

In response to the request of the Government of the Republic of Kyrgyz, the Government of Japan has decided to conduct the Feasibility Study on the Road Rehabilitation Project between Bishkek and Osh (hereinafter referred to as "the Study"), in accordance with the relevant laws and regulations in force in Japan.

Accordingly, the Japan International Cooperation Agency (hereinafter referred to as "JICA"), the official agency responsible for the implementation of the technical cooperation programs of the Government of Japan, will undertake the Study in close cooperation with the authorities concerned of the Republic of Kyrgyz.

The present document sets forth the scope of work with regard to the Study.

II. OBJECTIVE OF THE STUDY

The objective of the Study is to carry out a feasibility study on the rehabilitation of selected damaged/hazardous sections of road connecting Bishkek and Osh.

III. SCOPE OF THE STUDY

In order to achieve the above-mentioned objective, the Study covers the following items;

1. Data Collection and Analysis
 - (1) Socio-economic data
 - (2) Land use conditions
 - (3) Traffic data
 - (4) Topographic data
 - (5) Geological data
 - (6) Meteorological and hydrological data
 - (7) Road facilities (incl. bridges)
 - (8) Development plans
 - (9) Road related administration and budgetary situation
 - (10) Disaster records
 - (11) Road related facilities design standards
 - (12) Environmental conditions and relevant legislation
 - (13) Construction materials
2. Field Reconnaissance Survey
3. Identification of Damaged and Hazardous Sections
4. Selection of Sections for Feasibility Study and Preliminary Study of Road Rehabilitation Alternatives
5. Detailed Field Surveys for Selected Sections
 - (1) Supplemental traffic survey

- (2) Natural condition surveys
 - a. Topographic survey
 - b. Geological survey
 - c. Construction material survey
- (3) Road/Bridge condition survey
- (4) Slope condition survey
- (5) Environmental Survey

- 6. Formulation of Socio-economic Framework
- 7. Forecast of Future Traffic Demand
 - (1) Preparation of present OD table
 - (2) Preparation of future OD table
 - (3) Traffic assignment

- 8. Determination of Design Standards
- 9. Road Rehabilitation Alternative Study
- 10. Preliminary Engineering Design
- 11. Environmental Impact Assessment
- 12. Preparation of Construction Plan
- 13. Preparation of Maintenance Plan
- 14. Cost Estimates
- 15. Economic Evaluation of the Project
- 16. Preparation of Project Implementation Program
- 17. Overall Project Evaluation and Recommendations

IV. STUDY SCHEDULE

The whole work shall be carried out in accordance with the attached tentative study schedule (APPENDIX-1).

V. REPORT

JICA shall prepare and submit the following reports in English to the Government of the Republic of Kyrgyz.

- 1. Inception Report
 - Thirty (30) copies.
 - At the beginning of the Study in Kyrgyz.
- 2. Interim Report
 - Thirty (30) copies.
 - Within three (3) months after the submission of the Inception Report.
- 3. Draft Final Report
 - Thirty (30) copies.
 - Within eight (8) months after the submission of the Interim Report.

The Government of the Republic of Kyrgyz shall provide JICA with its comments within one (1) month after the receipt of the Draft Final Report.
- 4. Final Report
 - Fifty (50) copies.

Within two (2) months after the receipt of the comments on the Draft Final Report.

VI. UNDERTAKINGS OF THE GOVERNMENT OF THE REPUBLIC OF KYRGYZ

1. To facilitate smooth conduct of the Study, the Government of the Republic of Kyrgyz shall take necessary measures:

- (1) To secure the safety of the Japanese study team (hereinafter referred to as "the Team");
- (2) To permit the members of the Team to enter, leave and stay in Kyrgyz for the duration of their assignment therein, and exempt them from foreign registration requirements and consular fees;
- (3) To exempt the members of the Team from taxes, duties and other charges on equipment, machinery and other materials brought into and out of Kyrgyz for the conduct of the Study;
- (4) To exempt the members of the Team from income taxes and other charges of any kind imposed on or in connection with any emoluments or allowances paid to the members of the Team for their services in connection with the implementation of the Study;
- (5) To provide the necessary facilities to the Team for remittances as well as utilization of fund introduced into Kyrgyz from Japan in connection with the implementation of the Study;
- (6) To secure permission for entry into private properties or restricted areas for implementation of the Study;
- (7) To secure permission for the Team to take all data and documents (including maps, photographs) related to the Study out of Kyrgyz to Japan;
- (8) To provide medical services as needed. Its expenses will be chargeable on the members of the Team.

2. The Government of the Republic of Kyrgyz shall bear claims, if any arises, against the members of the Team resulting from, occurring in the course of, or otherwise connected with, the discharge of their duties in the implementation of the Study, except when such claims arise from gross negligence or willful misconduct on the part of the members of the Team.

3. Road Agency, Ministry of Transport shall act as a counterpart agency to the Team and also act as a coordinating body in relation with other governmental and non-governmental organizations for the smooth implementation of the Study;

4. Road Agency, Ministry of Transport shall, at its own expense, provide the Team with the following, in cooperation with other relevant organizations;

- (1) available data and information, related to the Study including aerial photographs and maps,
- (2) counterpart personnel,
- (3) suitable office space with necessary equipment in Bishkek,
- (4) credentials or identification cards, and
- (5) appropriate number of vehicles with drivers.

VII. UNDERTAKING OF JICA

For the implementation of the Study, JICA shall take the following measures:

- (1) to dispatch, at its own expense, the Team to the Kyrgys, and
- (2) to pursue technology transfer to the Kyrgyz counterpart personnel in the course of the Study.

VIII. OTHERS

JICA and Road Agency, Ministry of Transport shall consult with each other in respect of any matter that may arise from or in connection with the Study.

TENTATIVE STUDY SCHEDULE

ITEM	MONTH	1	2	3	4	5	6	7	8	9	10	11	12	13	14
WORK IN KYRGYS		▣	▣			▣	▣	▣				▣			
TOPO MAPPING				▣	▣	▣									
WORK IN JAPAN		▣						▣	▣	▣			▣		
REPORTING		△ IC/R		△ IT/R							△ DFR			△ F/R	

IC/R: Inception Report
 IT/R: Interim Report
 DFR: Draft Final Report
 F/R: Final Report

QUESTIONNAIRE

OF

JICA PREPARATORY STUDY TEAM

FOR

THE FEASIBILITY STUDY ON ROAD REHABILITATION PROJECT BETWEEN BISHKEK AND OSH

IN

THE REPUBLIC OF KYRGYZ

Questionnaire

SEPTEMBER 1994

JAPAN INTERNATIONAL COOPERATION AGENCY

This questionnaire is prepared by the JICA Preparatory Study Team for the Feasibility Study on Road Rehabilitation Project in the Republic of Kyrgyz (hereinafter referred to as "the Study") so as to obtain basic information and data required for the Study.

Please try to answer all the questions in English where possible or Russian and also identify materials requested in this questionnaire.

It would be highly appreciated if you could prepare replies for all the questions listed hereunder before the Study Team's arrival in Kyrgyz.

Based on the filled-in questionnaire, the Study Team hopes to ask for additional data / information for further clarification during the mission.

Thank you for your kind cooperation in advance.

I. GENERAL

The Preparatory Study Team would like to receive general explanation and related information on the following issues at the occasion of 1st meeting:

- (1) Background and priority of the Project
- (2) Existing conditions of the Project Road and priority sections for rehabilitation
- (3) Actions / discussions having been undertaken / being undertaken between the Kyrgyz government and international organizations (such as World Bank, EBRD, Saudi Fund etc.) in connection with the implementation of the Project the project.

- (4) Possible actions to be undertaken by the Kyrgyz government based upon the output of this Study.
- (5) Name of agencies responsible for the followings (together with organization chart):
- 1) Road development planning (National, Provincial and Municipal)
 - 2) Road construction (National, Provincial and Municipal)
 - 3) Road improvement/betterment (National, Provincial and Municipal)
 - 4) Road maintenance/management (National, Provincial and Municipal)
- (6) Name of agencies in charge of the followings together with names and positions of the persons in charge for the Study Team to contact:
- 1) Permission to take aerial photos
 - 2) Custody of topographic maps / aerial photos and topo surveying
 - 3) Area conservation (environmental)
 - 4) Geological data/information
- (7) Budgetary/manpower/construction equipment situations of Ministry of Transport for the past five years:
- (8) Outline of road sector development master plan:
- (9) Details of existing and on-going major road development projects:
- 1) Major design specifications
 - 2) Implementation schedule
 - 3) Current project status
- (10) Current situation of public sector reformation and its future prospects in road sector:
(ex. role delineation of public/private sectors, number of private construction companies, future reformation policy, etc.)

II AVAILABILITY OF DATA/INFORMATION
 1. TECHNICAL DATA / INFORMATION

ITEM	DESCRIPTION	AVAILABILITY		NAME OF MATERIALS
		AVAILABILITY	PLACE OF DATA AVAILABLE	
1. Transport system	(1) Network maps and capacity of transport system, roads, rail ways, commercial flights (2) Traffic flow data and forecasts of cargo/passengers by each mode (by type of vehicle) (3) Transportation cost of each mode (by type of vehicle) (4) Development/improvement policies (5) Related materials, if any (national transportation studies, etc.)			
2. Data/information on the project roads	(1) Road statistics for whole country (2) Road inventories (class, length, surface type & conditions, bridge type, dimension & conditions, right of way and lane width) (3) Record of past disaster (flood, slope failure, etc.) (4) Record of accidents			
3. Construction History of the Project Road	(1) Availability of drawings including topographical map (2) Technical standards for road facilities and design criteria			

Note: Please mark for the Date/Item in the "Availability" which is available

4. Traffic data on the project roads	<ul style="list-style-type: none"> (1) Location of traffic count and O-D Survey stations in the Study Area (2) Traffic volume by vehicle types (3) Number of registered vehicles (4) Record of traffic accidents (type, causes, location, etc) (5) Vehicle O-D matrices 		
5. Hydrological data	<ul style="list-style-type: none"> (1) Hydrological data of rivers related with Project Road (2) Location of water level recording stations in rivers related with Project Road 		
6. Land use plans and maps			
7. Specification and standard	<ul style="list-style-type: none"> (1) Geometric standard (2) Bridge standard (3) Pavement standard (4) Environment standard (5) Maintenance manual (6) Others 		
8. Road related cost	<ul style="list-style-type: none"> (1) Construction cost by type of road, bridge and location (2) Maintenance cost by type of road, bridge and location (3) Construction material costs (4) Unit costs for major work 		

<p>9. Maps to be used for field investigation</p> <p>10. Availability of aerial photos and topographic maps</p> <p>11. Geological data</p> <p>12. Geodetic data</p> <p>13. Meteorological data</p> <p>14. Earthquake data</p>	<p>(1) Topographic maps covering the Study area (of smaller scale)</p> <p>(1) Aerial photos (1/10,000)</p> <p>(2) Topographic maps (1/100,000)</p> <p>(3) Topographic maps (1/500,000), etc.</p> <p>(1) Geological maps covering the Study area</p> <p>(2) Existing report about data/information such as:</p> <ul style="list-style-type: none"> - Location of soft ground - Results of geological/soil investigation such as boring data and results of soil test <p>(1) Triangulation point network</p> <p>(2) Bench mark network</p> <p>(3) Points description (Control points, Bench mark)</p> <p>(4) Triangulation point data lists</p> <p>(1) Monthly rainfall data (daily rainfall data, if possible)</p> <p>(2) Temperature</p> <p>(3) Others</p> <p>(1) List of recorded earthquake</p>		
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2. SOCIO-ECONOMIC DATA/INFORMATION

ITEM	DESCRIPTION	AVAILABILITY		NAME OF MATERIALS
		AVAILABILITY	PLACE OF DATA AVAILABLE	
1. Latest socio-economic indices	<ul style="list-style-type: none"> (1) GNP and GDP (2) Population (3) Past and future population growth rate (4) Industrial, agricultural and mining products (by main sort) (5) Foreign trade (quantity and value) (6) Tourism development plans (7) Others 			
2. Existing development plans and reports	<ul style="list-style-type: none"> (1) Economic development plans (2) Transportation development plans (3) Industrial development plans (4) Mining and agricultural development plans (5) Forecast of socio-economic indicators 			

3. ENVIRONMENTAL ISSUES

ITEM	DESCRIPTION	AVAILABILITY		NAME OF MATERIALS
		AVAILABILITY	PLACE OF DATA AVAILABLE	
1. Legislation	<p>(1) Law/guidelines on environmental impact assessment</p> <p>(2) Quality standards</p>			
2. International convention on environment conservation	<p>(1) Bilateral convention</p> <p>(2) Multilateral convention</p>			
3. Information on present situation of the project area	<p>(1) Socio-econom: environment</p> <ul style="list-style-type: none"> • Main industry or source of income of the residents • Location of the community which might be split by the project • Number and distribution of schools, hospitals, religious facilities • Cultural property or archaeological site • Use of river/lake water, i.e. domestic, industrial and agricultural • Existence of common land <p>(2) Natural environment</p> <ul style="list-style-type: none"> • Availability of meteorological data • Availability of hydrological data • Availability of land use and vegetation map 			

	<ul style="list-style-type: none"> • History of natural disaster, landslide earthquake and flood • Areas affected by soil erosion • Location of environmentally vulnerable areas such as wetland (swamp) • Species of valuable animals and plants living in the project area • Location of particular areas officially protected such as national parks and wildlife reserve • Distribution of important landscape or scenery for tourism • EIA report (road construction or restoration) 		
	<p>(3) Quality of life</p> <ul style="list-style-type: none"> • Present air quality • Regulation on emission gas • Present water quality • Regulation on effluent • Present condition of soil contamination • Regulation for prevention of soil contamination • Present condition of noise and vibration • Regulation for prevention of noise and vibration 		

4. OTHER INFORMATION

ITEM	DESCRIPTION	AVAILABILITY		NAME OF MATERIALS
		AVAILABILITY	PLACE OF DATA AVAILABLE	
<p>1. Availability of the Government's equipment/instruments/apparatus for the Study</p>	<p>(1) List up equipment/instruments/apparatus which are available for the Study by the following category with the following information:</p> <p>a) Category</p> <ul style="list-style-type: none"> - Instrument for topographical survey - Apparatus for geological/soil investigation - Apparatus for traffic survey - Computer - Service vehicle - Others <p>b) Information</p> <ul style="list-style-type: none"> - Make - Model - Characteristics (or capacity) - Number of unit - Conditions 			
<p>2. Local Consultants</p> <p>(1) Please provide list of registered consulting firms or relevant organizations</p> <p>. Also please recommend five main consultants by specialization.</p>	<ul style="list-style-type: none"> - Traffic survey - Environmental survey - Geological survey - Topographical survey - Socio-economic survey 			

ITEM	DESCRIPTION	AVAILABILITY		NAME OF MATERIALS
		AVAILABILITY	PLACE OF DATA AVAILABLE	
(2) Billing rate	<ul style="list-style-type: none"> ·Traffic engineer ·Assistant traffic engineer ·Traffic surveyor ·Geological engineer ·Topographic surveyor ·Economist 			

GOVERNMENT OF THE KYRGYZ REPUBLIC
TECHNICAL ASSISTANCE FOR ROAD REHABILITATION
MEMORANDUM OF UNDERSTANDING OF THE FACT-FINDING MISSION
OF THE ASIAN DEVELOPMENT BANK

A. INTRODUCTION

1. A Fact-Finding Mission (the Mission) from the Asian Development Bank (Bank) consisting of Charles M. Melhuish, Sr Project Economist/Mission Chief, and Gunter Hecker, Manager, Transport and Communications Division (East) visited the Kyrgyz Republic between the 4 and 16 September 1994 to discuss the objectives, scope and costs of a proposed Project Preparatory Technical Assistance (PPTA) for Road Rehabilitation, which is included in the Bank's Country Program for approval in 1994.
2. Discussions were held between the Mission and officials of the Ministry of Transport (MOT), the State Committee on the Economy and the State Commission on Foreign Investments and Economic Assistance (Goskominvest). The Mission undertook a site visit of the Bishkek to Osh road to observe the road conditions and discuss the priority needs with MOT officials in the field. During the site visit the Mission also discussed road maintenance needs and visited a number of road maintenance workshops. A list of the officials met by the Mission is attached as Appendix 1. This Memorandum of Understanding (MOU) reflects the discussions held and understanding reached between the Mission and the Government. The MOU is subject to confirmation by the higher authorities of the Government and the Bank.
3. Through this MOU the Mission expresses its appreciation for the co-operation, excellent hospitality and organizational arrangements it has received from the Government.

B. OBJECTIVES AND SCOPE OF THE TECHNICAL ASSISTANCE

4. The primary objective of the PPTA is to assist the Government in preparing a Road Rehabilitation Project suitable for external financing focussing on the Bishkek to Osh road which is approximately 620 km in length. The road is strategically the most important in the country in that it links the north and south of the country and areas of highest economic activity and population. The road contains the highest interurban traffic flows in the country which primarily consists of commercial vehicles. The road is also of regional importance linking Almaty, the capital of Kazakhstan with the agriculturally productive Fergana valley in Uzbekistan as well as the neighbouring countries of Tajikistan and Turkmenistan. The technical assistance will also include the

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preparation of a transport sector profile for the Kyrgyz Republic.

5. The scope of the PPTA will be undertaken in two phases: Phase I will comprise a studies component while Phase II will prepare detailed engineering designs. Phase I will prepare a profile of the transport sector in the Kyrgyz Republic which will establish a broad framework against which the needs and priorities in the sector can be ascertained and important sector issues assessed. This phase of the technical assistance will also examine the technical and economic feasibility for rehabilitating and improving the Bishkek to Osh road and will define priority components for phased investment. An environmental impact assessment will also be made of the road and of the various proposed rehabilitation and improvement options.

6. Phase II will undertake detailed engineering designs for selected high priority sections of the road based on the results of Phase I. It will also prepare prequalification and bidding documents suitable for implementing the civil works in accordance with the Bank's Guidelines on Procurement.

7. The Mission informed the Government that the approval of the PPTA does not necessarily commit the Bank to financing any ensuing project in part or in full.

C. CONSULTING SERVICES

8. To ensure that the various tasks under the PPTA are accomplished satisfactorily and in a cost-effective manner, it is proposed that it is carried out by a team of internationally recruited experts who will work with counterpart staff from the Ministry of Transport. The PPTA will require a total of about 20 person-months of consulting services and the international consultants will need to have extensive experience in highway engineering, soils and materials engineering, structural engineering, drainage engineering, surveys and testing, workshop equipment, road maintenance operations, contract documentation, transport economics and environmental impact assessment. In order that the MOT will obtain maximum benefit from the consulting services the work will be based in Bishkek where the consultants will be based full time.

9. An international firm of consultants will be selected and engaged in accordance with the Bank's Guidelines on the Use of Consultants to provide the services to fulfil the objectives and scope of the proposed technical assistance. Outline terms of reference for the services are attached as Appendix 2.

10. At the time of contract negotiations with the first ranked consultant the technical assistance will provide for an official from the Ministry of Transport to visit Manila to attend, as an observer, the negotiations. The purpose of the Government observer is to ensure that the contributions to the technical assistance which are to be provided by the Government can be made available and in a timely manner, and also

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to address any problems that might be raised by the consultant during negotiations. Agreement to such problems at an early stage will help ensure that a smooth commencement and implementation of the services can be attained.

D. COST ESTIMATES AND FINANCING PLAN

11. The total cost of the PPTA is estimated at \$618,000, consisting of \$548,000 in foreign exchange and \$70,000 in local currency equivalent. It is proposed that the Bank provide a technical assistance grant in the amount of \$500,000 to cover the entire foreign exchange cost and \$52,000 of the local currency cost equivalent. The remainder of the local currency cost amounting to \$18,000 equivalent will be met by the Government for the provision of office accommodation, support services, utilities, field transport and field surveys. Appendix 3 indicates the cost estimates of the PPTA and the proposed financing arrangements.

E. IMPLEMENTATION ARRANGEMENTS

12. The Executing Agency for the PPTA will be the Ministry of Transport (MOT). MOT will appoint a Project Coordinator who will be responsible for coordinating and supervising the work of the consultants on a day-to-day basis and provide liaison between the consultant team and other concerned agencies. MOT will also form a Project Coordinating Committee which will be chaired by the Deputy Minister and also contain the Roads Adviser to the Minister, the Head of the Road Reconstruction Agency and the Head of the Foreign Communications Agency as members. The Project Coordinating Committee will supervise and monitor the technical outputs of the work and will tentatively meet at monthly intervals. In addition all final engineering designs will need to be approved by the Scientific Technical Design Agency.

13. In order to facilitate the work and to ensure that technical expertise and knowledge is gained by MOT the consultant team will work closely with counterpart staff. Counterpart staff will be primarily sourced from the Road Design Institute under the responsibility of its Director and Chief of the Roads and Bridges Section. The Road Design Institute will provide technical experts in highway engineering, soils and materials engineering, structural engineering, drainage engineering, surveys and testing and will work alongside the international consultants. Technician staff will also be made available to assist with any necessary survey and field work. Staff experienced in road construction and maintenance and equipment operations will be sourced from Kyrgyzjol under the guidance of the Vice President (Maintenance) and the Chief of the Road Construction Section, and will also work alongside the international consultants.

14. The technical assistance will be undertaken in two phases over a seven (7) month period. Phase I which will concentrate upon studies will report at the end of the

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fourth month. A tripartite meeting between the Government, the Consultants and the Bank will review the findings and determine the priority components to be incorporated for detailed engineering under Phase II. The Phase II work is expected to be complete by the end of the seventh month.

F. FOLLOW-UP ACTIONS

15. In order to facilitate implementation of the study MOT has agreed to take appropriate action on the following. Firstly, copies of reports of completed studies and engineering designs relevant to the proposed PPTA, general information, maps and various data sources for use in the studies will be assembled prior to the commencement of the consulting services. Secondly, suitable office accommodation for the consultant team will be prepared prior to the commencement of the services.

G. PROCESSING SCHEDULE

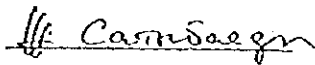
16. The tentative schedule for further processing of the PPTA is as follows:

Staff Review Committee	IV October 1994
Approval	IV November 1994
Proposal Invitation	II December 1994
Submission of Proposals	II February 1995
Contract Negotiations	II March 1995
Fielding of Consultants	I April 1995

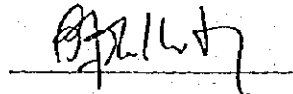
SIGNED IN BISHKEK ON 16 SEPTEMBER 1994

FOR THE GOVERNMENT

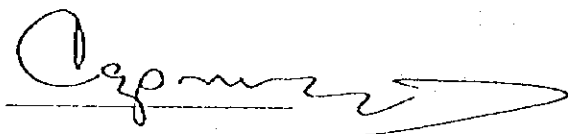
FOR THE BANK



Ghantoro Satybaldiev
Deputy Minister
Ministry of Transport



Charles M. Melhuish
Mission Chief
Asian Development Bank



Askar Sarygulov
Vice Chairman
Goskominvest

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List of Persons Met by the Mission

A. Ministry of Transport

Ghantoro Satybaldiev	First Deputy Minister
Renat Rahmatulin	Adviser to the Minister (Roads)
Ms Vladimirova	Foreign Affairs

B. Kyrgyzjol (Road Construction and Maintenance)

Kubulbek Tjolegenov	Vice President
Mr Diu	Head, Construction and Maintenance
Ms Esenamanova	Senior Engineer

C. Kyrgyzdortransproect (Highway Design Institute)

Mr Alibegashvili	Director
Mr Soloshenko	Head Technical Department
Mr Tonkih	Senior Engineer of Projects
Mr Kakinov	Engineer

D. State Commission on Foreign Investments and Economic Assistance (Goskominvest)

Askar Sarygulov	Vice Chairman
Sarina Turgunaliyeva	Technical Assistance Unit
Omurbek Tuleberdiyev	Project Implementation Unit

E. State Committee on the Economy

T.D. Koichumanov	Chairman
I. Ryskulov	Director of Foreign Affairs

F. United Nations Development Program

Ercan Murat	Resident Representative
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G. Embassy of Turkey

H.E. Ambassador

H. USAID Privatization Team

Michael Wood
Tav Morgan

Project Manager
Privatization Consultant

I. World Bank

Michael S.V. Rathnam

Resident Representative

J. EBRD Central Asia Outline Transport Strategy (BCEOM)

Paul Pezant
Mathias Dziubak

Project Manager
Senior Road Engineer

TECHNICAL ASSISTANCE FOR A ROAD REHABILITATION PROJECT
IN THE KYRGYZ REPUBLIC

TERMS OF REFERENCE FOR CONSULTANT SERVICES

A. OBJECTIVES

1. The primary objective of the technical assistance is to assist the Government in preparing a Road Rehabilitation Project suitable for external funding focussing on the Bishkek to Osh Road which is approximately 630 km in length. The road is strategically the most important as it links the major population centers of the country and is the major artery connecting the north with the south of the country. It also has an important regional role providing the shortest and most direct link between Kazakhstan in the north and the fertile Fergana valley in Uzbekistan in the south west. The bulk of the industry and commercial activities are situated in the north of the country which also contains the administrative capital of Bishkek. The economy of the south is mainly focussed on agriculture located on the periphery of the Fergana valley which traditionally has strong trading and cultural links with Uzbekistan. The improvement of the Project road will, in addition to supporting economic growth, also foster national unity. Subsequent to establishing the technical viability, economic feasibility and environmental soundness of improving the road, priority sections will be selected for detailed engineering design. In addition the TA will prepare a profile of the transport sector as a whole and identify and assess various key sector issues which will provide the basis for enhancing the efficiency and effectiveness of the sector.

B. SCOPE OF SERVICES

2. The scope of the technical assistance will be undertaken in two phases. Phase I will comprise 3 sub-components, namely: (i) preparation of a transport sector profile of the Kyrgyz Republic; (ii) examination of the technical and economic feasibility for rehabilitating and improving the Bishkek to Osh road and defining priority components for phased investment; and (iii) undertake an environmental impact assessment of the road and proposed improvements. Phase II will prepare detailed engineering designs for selected portions of the road based upon the results of Phase I and prepare prequalification and bidding documents suitable for implementation of the civil works in accordance with the Bank's *Guidelines on Procurement*.

1. Phase I: Studies

3. The studies to be undertaken in Phase I comprise a profile of the transport sector in the Kyrgyz Republic which will include assessment of various road sector policies, technical and economic feasibility studies for rehabilitating and improving the Bishkek to Osh road and an environmental impact assessment of the proposed road improvements.

4. The scope of the consulting services will include:

1. Transport Sector Profile

5. The transport sector profile will establish a broad framework against which the needs and priorities for investment and expenditures in the sector can be ascertained. Given the limited scale of the railway and civil aviation sectors the major emphasis should be placed upon assessing road and road transport operations and issues. The consultant services are expected to:

- (i) Review the scope and scale of transport operations in the country comprising roads and road transport, railways and civil aviation.
- (ii) Develop a profile of the transport industry including numbers and types of vehicles, ownership patterns, efficiency of vehicle use and repair facilities.
- (iii) Broadly assess the impact of recent Government efforts to privatize the transport industry.
- (iv) Review highway design standards and specifications currently used and assess their suitability.
- (v) Analyze the organizational arrangements for road maintenance and assess the standard of maintenance operations, the condition of workshops, workshop equipment and road maintenance equipment and identify any requirement for investment and training; particular attention should be given to the maintenance needs for keeping roads passable during winter when heavy snowfall occurs.
- (vi) Identify in broad terms the minimum financial requirements needed annually to maintain the road network and identify relative investment priorities in the roads sector.
- (vii) Assess the general financial situation of the transport sector, by mode, identifying costs and revenues (including any subsidies).

- (vii) Examine the structure and composition of revenues in the road sector and assess where additional revenue sources might be derived and their potential amount.
- (ix) Identify areas where institutional strengthening might be required including any basic training requirements.
- (x) Identify areas where further detailed follow-up studies are required which will examine issues to improve and enhance the efficiency and effectiveness of the transport sector.

2. Feasibility Study

6. In examining the technical, economic and social viability for rehabilitating and improving the Bishkek to Osh road the consultants should take fully into account other recently completed studies which include: the Road Reconstruction Feasibility Study by the Road Design Institute, Ministry of Transport, dated 1994, and a Prefeasibility Study funded by the European Bank for Reconstruction and Development in 1994. The Road Design Institute have also prepared detailed designs for some stretches of the road. In preparing the feasibility study the consultants are expected to:

- (i) Review all available data, previous study reports and current development plans related to socioeconomic development and the transport system in the Project area, and provide an economic profile for those areas.
- (ii) Conduct traffic counts at appropriate locations and origin-destination and axle-load surveys as necessary to establish the current pattern and volume of vehicle, passenger and cargo movements.
- (iii) Assess the possibility of traffic diversion from other routes particularly traffic using Kazakhstan and Uzbekistan road and rail infrastructure facilities.
- (iv) Using the information in (i) to (iii) above, prepare traffic forecasts by representative types taking into account population growth rates, production increases and income in the hinterland of the Project road.
- (v) Carry out topographic surveys, including alignment plans, longitudinal sections, cross-sections and drainage surveys, and assess the right-of-way requirements for the Project road.
- (vi) Undertake studies of the existing pavement structure, identify the pavement condition and strength, and the most cost-effective way of rehabilitating the pavement.

- (vii) Establish the suitability of locally available construction materials and identify quarries and borrow pits.
- (viii) Study existing roadside and cross drainage facilities and establish the adequacy of embankment heights and pavement levels, cross culverts, and side and run-off ditches.
- (ix) Examine slope stability of embankments and cuttings and propose possible least cost remedial actions.
- (x) Investigate all bridges and culverts on the Project road to determine their condition, adequacy of waterway openings, load capacity, anticipated future serviceability, and the general extent of repairs and strengthening needed.
- (xi) Based on the results of (v) to (x) above, prepare preliminary designs, construction quantities and overall construction costs for each road section, to a level of accuracy of (\pm) 20 per cent for each improvement option. Cost estimates should include a breakdown of foreign and local costs and tax and duty components.
- (xii) Calculate economic vehicle operating costs for each homogeneous road section with and without the proposed improvements based on estimated changes in road surface roughness and quantify the benefits for each Project road section and for each improvement option.
- (xiii) Carry out an economic evaluation of each Project road section and the overall Project road by calculating the economic internal rate of return (EIRR).
- (xiv) Identify any social benefits (or costs) likely to accrue from the different rehabilitation and improvement options and assess any environmental impact within the area of influence of each Project road section.
- (xv) Taking into consideration the economic evaluation, social benefits and environmental impact, recommend the most suitable kind of road rehabilitation and/or improvement option for each road section and derive a priority ranking of the recommended improvements.
- (xvi) Identify the beneficiaries of the road improvement, quantify its employment implications, and outline in general terms the energy implications of the recommended improvements.

- (xvii) Undertake sensitivity tests on the recommended improvements by appropriately varying benefits, project costs and the implementation period.
- (xviii) Prepare appropriate formats for the collection of baseline data, time schedules and related costs for project benefit monitoring and evaluation after completion of civil works.
- (xix) Assess MOTs capacity to implement the ensuing Project and recommend any institutional strengthening and training that may be required and suggest suitable arrangements for adequate maintenance.
- (xx) Based on the foregoing propose a phased project suitable for external assistance that is technically sound and economically viable and indicate possible project implementation arrangements, schedule and contract packaging and recommend the most appropriate forms of procurement and construction methods.

3. Environmental Impact Assessment

- (i) In conjunction with the preparation of the feasibility study, review all possible environmental impacts during and after construction including land acquisition and compensation/resettlement arrangements along the proposed alignment.
- (ii) In line with the Bank's *Environmental Guidelines for Selected Infrastructure Projects*, conduct initial environmental examinations (IEEs) for each section of road under the Project. This activity should include profiles of the environment and the required mitigation measures in the design, construction and maintenance of each road section. Prepare a detailed environmental impact assessment report (EIA) covering mitigation measures for all sections of the Project road and draft any proposed mitigation measures that will be required for inclusion in the General Conditions of Contract. Mitigation measures that will need to be considered during design include, but are not limited to, alignment, slope stability, slope erosion, flooding and pedestrian safety. Mitigation measures to be considered during the construction and maintenance phases should cover natural surroundings, air pollution, water pollution, noise pollution, quarry operations and borrow pits, solid and human wastes. Prepare an appropriate time-bound land and resettlement plan if the IEEs and EIA identify such provision necessary. The plans will depict, inter alia, time-bound arrangements public consultation, relocation, compensation for affected inhabitants along the alignment and demolition of the existing facilities. Costs related to relocation, compensation and demolition need

to be included in the plans.

- (iii) Incorporate all mitigation measures including land acquisition and resettlement measures identified by IEE and EIA into the Project components.

II. Phase II: Detailed Engineering and Bidding and Contract Documentation

7. The consultants' findings and recommendations under Phase I will be reviewed in the field jointly by the Government and the Bank. At this time road sections considered the highest priority and suitable for improvement will be selected for detailed engineering design during Phase II. The tasks to be covered during Phase II shall include, inter alia, the following:

- (i) Prepare detailed engineering designs based on information collected in Phase I together with further field surveys and analysis as appropriate.
- (ii) Prepare all detailed engineering drawings comprising key plan, roadway plans and longitudinal sections, intersection designs, details of proposed roadway and cross-section details, including superelevation where required, pavement thickness, details of drainage structures, including culverts and bridges, traffic signs and road markings and quarry and borrow pits plans.
- (iii) Prepare right-of-way plans and utility relocation plans where required, indicating existing right-of-way and including pertinent topographic details such as buildings, fences and other installations such as telephone and electricity poles where relevant.
- (iv) Prepare bill of quantities for each road section and carry out detailed analysis of unit costs for each item broken down into foreign exchange, local currency, and local taxes and duties components.
- (v) Prepare detailed technical specifications for each item of work taking into consideration the appropriate standard specifications being used in the Kyrgyz Republic.
- (vi) Calculate construction cost estimates for each road section utilizing the quantities and unit prices developed in (iv) above.
- (vii) Recommend contract packages suitable for implementation and consistent with the Bank's Guidelines for Procurement.

- (vii) Prepare documents for prequalification of contractors. Prepare bid documents comprising special provisions, instructions for bidders, technical specifications, itemized bills of quantities, work schedules, performance guarantees and all other information required for bidding consistent with the Bank's Guidelines for Procurement.

C. REQUIRED EXPERTISE

8. It is estimated that a total of 20 person-months of internationally recruited consultants will be required who will work in conjunction with counterparts from the Ministry of Transport. The international consultants need to have extensive experience in the following fields: highway engineering, soils and materials engineering, structural engineering, drainage engineering, surveys and testing, workshop equipment and road maintenance activities, contract documentation, transport economics and environmental impact assessment.

D. TIMING

9. The consulting services for Phase I are expected to commence in April 1995 and Phase II is expected to be completed before the end of November 1995.

E. REPORTING REQUIREMENTS

10. The following reports, all in the English language, shall be submitted by the consultants, seven copies to MOT and three copies to the Bank.

- (i) Inception Report: This report will be submitted one month after commencement of the services and will outline a detailed work program and briefly describe the working methods proposed for fulfilling the terms of reference.
- (ii) Progress Reports: Brief Progress Reports summarizing activities, future timetable and any relevant commentary will be submitted monthly.
- (iii) Phase I Draft Final Report: The report giving details of the consultants' findings and recommendations based on the scope of work outlined for Phase I will be submitted within four months of the commencement of the consultant services.
- (iv) Phase I Final Report: Within one month of the tripartite meeting to discuss the findings of the Phase I studies the consultant will submit the Final Report to MOT (10 copies) and the Bank (6 copies).

- (v) Phase II Draft Final Report: This report to be submitted three months after the commencement of Phase II, will present the results of the work carried out under Phase II. It will include the detailed engineering designs and drawings, technical specifications, bid documents for procurement, bills of quantities and cost estimates as well as any institutional strengthening required for implementation of the ensuing Project and future maintenance.
- (vi) Phase II Final Report: This report will incorporate all revisions deemed relevant by the consultants following receipt of comments from the Government and the Bank and will be submitted within one month of receiving such comments with the following distribution: MOT (20 copies) and the Bank (6 copies).
- (vii) Seminars: During the course of the work the consultants should conduct seminars on a regular basis with staff of the MOT and any other interested organizations concerning the techniques, analysis and findings of the technical assistance.

平成 7 年 3 月 13 日作成

資料リスト (収集資料)

主任部長	文書管理員	主任部長	信種管理員	役員管理員

地域	中央アジア	調査団名又は 訪問者氏名	調査団名又は 調査者氏名	調査の種類又は 調査項目	事前調査	作成部課	調査期間
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					6年9月18日~6年10月7日		担当者氏名

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1	Kyrgyz Republic Economic Report	A4		コピー	1	World Bank.	"	取注	
2	Estonia Highway Maintenance Project	A4		"	1	"	"	"	
3	Kazakhstan Urban Transport Project	A4		"	1	"	"	"	
4	Russian Federation Highway Rehabilitation and Maintenance Project	A4		"	1	"	"	"	
5	Kyrgyz Republic Mining Sector Review	A4		"	1	"	"	"	
6	Kyrgyz Republic External Trade Policy	A4		"	1	"	"	"	
7	Kyrgyz Republic Social Safety Net Project	A4		"	1	"	"	"	
8	Roads and Road Transport Study Russia, Ukraine, Kazakhstan and Belarus	B4		"	1	European Bank (EBRD)	"	- 取注	
9	Investing in Reform Future Directions for Public Investment	B4		"	1	世界銀行 Geokominvest	"	"	
10	Technical Assistance Program	B4		"	1	"	"	"	
11	建築費助. 規則 道路工事 (027話)	A4		"	1	道路建設委員会	"	"	
12	協定	B4		"	1	"	"	"	
13	道路工事の改善と維持: 設計・道路設計 T.M.O. 報告書 (027話)	A4		"	1	"	"	"	
14	道路工事の改善と維持: 設計・道路設計 T.M.O. 報告書 (027話)	A4		2枚のコピー	1	"	"	"	
15	道路工事の改善と維持: 設計・道路設計 T.M.O. 報告書 (027話)	A4		2枚のコピー	1	"	"	"	
16	道路工事の改善と維持: 設計・道路設計 T.M.O. 報告書 (027話)	A4		2枚のコピー	1	"	"	"	
17	道路工事の改善と維持: 設計・道路設計 T.M.O. 報告書 (027話)	A5		コピー	1	"	"	"	
18	道路工事の改善と維持: 設計・道路設計 T.M.O. 報告書 (027話)	A5		コピー	1	"	"	"	
17	道路工事の改善と維持: 設計・道路設計 T.M.O. 報告書 (027話)	A4		コピー	1	キルギス 運輸省	"	"	
20	道路工事の改善と維持: 設計・道路設計 T.M.O. 報告書 (027話)	A4		コピー	1	建設省建築委員会	"	"	
21	道路工事の改善と維持: 設計・道路設計 T.M.O. 報告書 (027話)	A4		コピー	1	"	"	"	

平成7年3月13日作成

資料リスト (収集資料)

主任部長	文書管理 長	武官部長	情報管理 長	技術管理 長
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地域	中央了了	調査の種別又は 指定種別	事前調査	作成部署	建設部
四名	キルギス	調査機関名 配属機関名	---	調査期間 又は調査期間	6年9月18日~6年10月7日 担当者氏名

番号	資料の名称	版数	ページ数	フォーマットの別	部数	調査機関 又は調査機関	寄贈・購入 (備考)の別	取扱区分	利用表示
22	首都建設と交通の設計の概況(1973) 1: 建設省の資料	A4		コピー	1	建設省	寄贈	一般	
23	キルギスの地域区分 (1973)	A4		"	1	建設省	"	"	
24	(地形図作成) 指図経路地帯等 (1973)	A4		"	1	建設省	"	"	
25	Bishkek - Osh Automobile Road Road Reconstruction Feasibility Study	A4		"	1	建設省	"	"	
26	Kyrgystan Investment Guide	A4		"	1	建設省	"	"	
27	Central Asian Forum 9, 1994	A4		オリジナル	1	建設省	"	"	
28	" " 15, 1994	A4		"	1	建設省	"	"	
29	" " 16, 1994	A4		"	1	建設省	"	"	

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