

## [資料]

## 1. 調査団員・氏名

## (1) 現地調査団団員リスト

| 氏名    | 担当        | 所属先・職位                    |
|-------|-----------|---------------------------|
| 杉山 茂  | 総括        | JICA 資金協力支援部 実施監理第一課 課長   |
| 島田亜弥  | 計画管理      | JICA 経済基盤開発部 運輸交通・情報通信第三課 |
| 中川輝雄  | 業務主任／交通計画 | セントラルコンサルタント（株）           |
| 多田一正  | 橋梁設計      | エンジニアリング経済企画（株）           |
| 梅野 順  | 水理・水文     | セントラルコンサルタント（株）           |
| 武田睦弘  | 自然条件調査    | セントラルコンサルタント（株）           |
| 庄司岳雄  | 環境社会配慮    | 日本海外コンサルタンツ（株）            |
| 高山博文  | 施工計画／積算   | セントラルコンサルタント（株）           |
| 松田真佐子 | 通訳（露語）    | （株）フランシール                 |

## (2) 概略設計概要説明調査団団員リスト

| 氏名    | 担当        | 所属先・職位                          |
|-------|-----------|---------------------------------|
| 田中総東  | 総括        | JICA 経済基盤開発部<br>運輸交通・情報通信第三課 課長 |
| 島田亜弥  | 計画管理      | JICA 経済基盤開発部 運輸交通・情報通信第三課       |
| 中川輝雄  | 業務主任／交通計画 | セントラルコンサルタント（株）                 |
| 高山博文  | 施工計画／積算   | セントラルコンサルタント（株）                 |
| 松田真佐子 | 通訳（露語）    | （株）フランシール                       |

2. 調査行程

(1) 現地調査行程表

| 日程 | 月 | 日  | 曜日 | 総括  | 計画管理                 | 業務主任<br>交通計画                        | 橋梁設計                 | 水理・水文                    | 自然条件調査<br>(地形・地質等)                           | 環境社会配慮  | 施工計画<br>・積算             | 通訳(露語) |                             |       |                        |
|----|---|----|----|---|----------------------|-------------------------------------|----------------------|--------------------------|--|---|-------------------------|--------|-----------------------------|-------|------------------------|
|    |   |    |    | 杉山 茂  | 島田亜弥                 | 中川輝雄                                | 多田一正                 | 梅野 順                     | 武田睦弘   | 庄司岳雄  | 高山博文                    | 松田真佐子  |                             |       |                        |
| 1  | 3 | 19 | 月  | 13:05 成田⇒モスクワ   |                      |                                     |                      |                          |  | 13:05 成田⇒モスクワ   |                         |        |                             |       |                        |
| 2  |   | 20 | 火  | ⇒05:10 ビシュケク着<br>AM:JICA事務所<br>PM:MOTC & UAD                    |                      |                                     |                      |                          |  | ⇒05:10 ビシュケク着<br>AM:JICA事務所<br>PM:MOTC & UAD                    |                         |        |                             |       |                        |
| 3  |   | 21 | 水  | 8:00 ビシュケク発⇒8:40 オシユ着<br>サイト調査                                  |                      |                                     |                      |                          |  | 8:00 ビシュケク発⇒8:40 オシユ着<br>サイト調査                                  |                         |        |                             |       |                        |
| 4  |   | 22 | 木  | AM:MES (JICA)<br>14:00:MES (コンサルタント)<br>18:40 オシユ発⇒19:25 ビシュケク着 |                      |                                     |                      |                          |  | AM:MES (JICA)<br>14:00:MES (コンサルタント)<br>18:40 オシユ発⇒19:25 ビシュケク着 |                         |        |                             | サイト調査 |                        |
| 5  |   | 23 | 金  | AM:ミニッツ協議<br>PM:ミニッツ署名  |                      |                                     |                      |                          |  | AM:ミニッツ協議<br>PM:ミニッツ署名  |                         |        |                             |       |                        |
| 6  |   | 24 | 土  | 6:30 ビシュケク<br>⇒モスクワ⇒  | 資料整理<br>団内会議         | 団内ミーティング<br>資料整理                    |                      |                          | 団内ミーティング<br>資料整理                             |   |                         |        |                             |       |                        |
| 7  |   | 25 | 日  | 11:40 成田着   | 資料整理<br>団内会議         | 資料整理                                |                      |                          | 資料整理   |   |                         |        | 09:20 オシユ発⇒<br>10:20 ビシュケク着 |       |                        |
| 8  |   | 26 | 月  |   | AM:MOTC              | 資料収集                                |                      |                          | 資料収集   |   |                         |        |                             |       |                        |
| 9  |   | 27 | 火  |   | 6:30 ビシュケク<br>⇒モスクワ⇒ | 資料収集                                |                      |                          | 資料収集   |   |                         |        |                             |       |                        |
| 10 |   | 28 | 水  |   | 11:40 成田着            | 8:00 ビシュケク発⇒8:40 オシユ<br>サイト調査       |                      |                          | 8:00 ビシュケク発⇒8:40 オシユ着<br>サイト調査               |   |                         |        |                             |       |                        |
| 11 |   | 29 | 木  |   |                      | サイト調査                               |                      |                          | サイト調査<br><br>サイト調査(測量・ボーリング)                 |   |                         |        |                             |       |                        |
| 12 |   | 30 | 金  |   |                      | AM:サイト調査<br>18:40 オシユ発⇒19:25 ビシュケク着 |                      |                          |  |   |                         |        |                             |       |                        |
| 13 |   | 31 | 土  |   |                      | 資料整理                                |                      |                          |  |   |                         |        |                             |       |                        |
| 14 | 4 | 1  | 日  |   |                      | 資料整理<br>団内ミーティング                    |                      |                          |  |   |                         |        |                             |       |                        |
| 15 |   | 2  | 月  |   |                      | AM:MOTC<br>PM:UAD                   |                      |                          | 資料収集   |   |                         |        |                             |       |                        |
| 16 |   | 3  | 火  |   |                      | 資料収集                                |                      |                          | 資料収集   |   |                         |        |                             |       |                        |
| 17 |   | 4  | 水  |   |                      | 中間調査報告書作成                           |                      |                          | 中間調査報告書作成                                    |   |                         |        |                             |       |                        |
| 18 |   | 5  | 木  |   |                      | 15:00 JICA                          |                      |                          | 15:00 JICA                                   |   |                         |        |                             |       |                        |
| 19 |   | 6  | 金  |   |                      | 資料収集                                | 6:30 ビシュケク<br>⇒モスクワ⇒ | 資料収集                     | 資料収集   |   |                         |        |                             |       |                        |
| 20 |   | 7  | 土  |   |                      | 資料収集                                | ⇒11:40 成田着           | 資料収集                     | 13:05 成田⇒モスクワ                                |   |                         |        |                             |       |                        |
| 21 |   | 8  | 日  |   |                      | 団内ミーティング<br>資料整理                    |                      | 団内ミーティング<br>資料整理         | ⇒05:10 ビシュケク着<br>08:00 ビシュケク発⇒<br>08:40 オシユ着 | 団内ミーティング<br>資料整理  | 08:00 ビシュケク発⇒08:40 オシユ着 |        |                             |       |                        |
| 22 |   | 9  | 月  |   |                      | AM:MOTC<br>15:00:JICA               |                      | AM:MOTC<br>15:00:JICA    | サイト調査<br>(測量・ボーリング)                          |   |                         |        |                             |       |                        |
| 23 |   | 10 | 火  |   |                      | 資料収集                                |                      | 資料収集                     |  |   |                         |        |                             |       |                        |
| 24 |   | 11 | 水  |   |                      | 資料収集                                |                      | 資料収集                     |  |   |                         |        |                             |       |                        |
| 25 |   | 12 | 木  |   |                      | 調査報告書作成                             |                      | 調査報告書作成                  |  |   |                         |        |                             |       |                        |
| 26 |   | 13 | 金  |   |                      | 10:00:MOTC<br>PM:JICA事務所            |                      | 10:00:MOTC<br>PM:JICA事務所 | 10:00:MOTC<br>PM:JICA事務所                     |   |                         |        |                             |       |                        |
| 27 |   | 14 | 土  |   |                      | 資料整理                                |                      | 資料整理                     | 06:30 ビシュケク発<br>⇒モスクワ⇒                       |   | 資料整理                    |        |                             |       |                        |
| 28 |   | 15 | 日  |   |                      | 団内ミーティング                            |                      | 団内ミーティング                 | 団内ミーティング<br>資料整理                             | ⇒11:40 成田着  | 団内ミーティング<br>資料整理        |        |                             |       |                        |
| 29 |   | 16 | 月  |   |                      | 06:30 ビシュケク<br>⇒モスクワ⇒               |                      | 06:30 ビシュケク<br>⇒モスクワ⇒    | サイト調査<br>(測量・ボーリング)                          |   |                         |        |                             |       |                        |
| 30 |   | 17 | 火  |   |                      | ⇒11:40 成田着                          |                      | ⇒11:40 成田着               |  |   |                         |        | 資料収集                        |       | 06:30 ビシュケク発<br>⇒モスクワ⇒ |
| 31 |   | 18 | 水  |   |                      |                                     |                      |                          |  |   |                         |        |                             |       | ⇒11:40 成田着             |
| 32 |   | 19 | 木  |   |                      |                                     |                      |                          |  |   |                         |        |                             |       |                        |
| 33 |   | 20 | 金  |   |                      |                                     |                      |                          |  |   |                         |        |                             |       |                        |
| 34 |   | 21 | 土  |   |                      |                                     |                      |                          | 資料整理   |   |                         |        |                             |       |                        |
| 35 |   | 22 | 日  |   |                      |                                     |                      |                          | 資料整理   |   |                         |        |                             |       |                        |
| 36 |   | 23 | 月  |   |                      |                                     |                      |                          |  |   |                         |        |                             |       |                        |
| 37 |   | 24 | 火  |   |                      |                                     |                      |                          |  |   |                         |        |                             |       |                        |
| 38 |   | 25 | 水  |   |                      |                                     |                      |                          | サイト調査<br>(測量・ボーリング)                          |   |                         |        |                             |       |                        |
| 39 |   | 26 | 木  |   |                      |                                     |                      |                          |  |   |                         |        |                             |       |                        |
| 40 |   | 27 | 金  |   |                      |                                     |                      |                          |  |   |                         |        |                             |       |                        |
| 41 |   | 28 | 土  |   |                      |                                     |                      |                          |  |   |                         |        |                             |       |                        |
| 42 |   | 29 | 日  |   |                      |                                     |                      |                          | 資料整理   |   |                         |        |                             |       |                        |
| 43 |   | 30 | 月  |   |                      |                                     |                      |                          |  |   |                         |        |                             |       |                        |
| 44 | 5 | 1  | 火  |   |                      |                                     |                      |                          | サイト調査<br>(測量・ボーリング)                          |   |                         |        |                             |       |                        |
| 45 |   | 2  | 水  |   |                      |                                     |                      |                          |  |   |                         |        |                             |       |                        |
| 46 |   | 3  | 木  |   |                      |                                     |                      |                          |  |   |                         |        |                             |       |                        |
| 47 |   | 4  | 金  |   |                      |                                     |                      |                          |  |   |                         |        |                             |       |                        |
| 48 |   | 5  | 土  |   |                      |                                     |                      |                          | 18:40 オシユ発⇒<br>19:25 ビシュケク着                  | 06:30 ビシュケク発<br>⇒モスクワ⇒  |                         |        |                             |       |                        |
| 49 |   | 6  | 日  |   |                      |                                     |                      |                          | 06:30 ビシュケク発<br>⇒モスクワ⇒                       | ⇒11:40 成田着  |                         |        |                             |       |                        |

## (2) 概略設計概要説明調査

| 日程 | 月  | 日  | 曜日 | 総括  | 計画管理                    | 業務主任<br>交通計画 | 施工計画<br>・積算 | 通訳（露語） |  |
|----|----|----|----|---|-------------------------|--------------|-------------|--------|--|
|    |    |    |    | 田中総東  | 島田亜弥                    | 中川輝雄         | 高山博文        | 松田真佐子  |  |
| 1  | 10 | 17 | 水  | 成田発⇒イスタンブール   |                         |              |             |        |  |
| 2  |    | 18 | 木  | ビシュケク着<br>AM：MOTCと協議（概略設計概要説明及びミニッツ協議）<br>PM：JICA事務所へ報告 |                         |              |             |        |  |
| 3  |    | 19 | 金  | PM:ミニッツ署名   |                         |              |             |        |  |
| 4  |    | 20 | 土  |   | ・資料整理<br>・団内ミーティング      |              |             |        |  |
| 5  |    | 21 | 日  |   | ・資料整理<br>・団内ミーティング      |              |             |        |  |
| 6  |    | 22 | 月  |   | ・資料整理<br>・団内ミーティング      |              |             |        |  |
| 7  |    | 23 | 火  |   | ・ビシュケク→ジャララバード<br>・現地調査 |              |             |        |  |
| 8  |    | 24 | 水  |   | ・現地調査<br>・ジャララバード→ビシュケク |              |             |        |  |
| 9  |    | 25 | 木  | ビシュケク→イスタンブール   |                         |              |             |        |  |
| 10 |    | 26 | 金  | イスタンブール→成田着   |                         |              |             |        |  |

### 3. 関係者（面会者）リスト

<「キ」国側>

(1) 運輸通信省 (Ministry of Transport and Communications : MOTC)

|                      |  |
|----------------------|--|
| Mr. Mamaev K A       | Director of Investment Projects Implementation Group |
| Mr. Osoev Erkinbek   | Deputy Head  |
| Mr. Sagaliev Azat    | Specialist of GDAD Bishkek-Osh                       |
| Mr. Alpsatarov Melis | Head of Automobile Road Department                   |
| Mr. Asanaliev Sanjar | Staff of Investment Projects Implementation Group    |
| Ms. Milovatskaya N A | Chief Specialist of Automobile Road Department       |
| 大橋 岳                 | JICA 専門家 (道路行政アドバイザー)                                |

(2) 非常事態省 (Ministry of Emergency Situations : MES)

|                       |  |
|-----------------------|--|
| Mr. Yunusov Ilkhom    | Deputy Director of the Flood Protection Department |
| Mr. Tashimatov Maksat | Head of Operation and Technical Division           |
| Mr. Israilov E        | Chief Specialist (Suzak District)                  |

(3) 設計研究所 (Design Institute of MOTC、Kyrgyz Dor Trans Project)

|                          |   |
|--------------------------|---|
| Mr. Kalilov D K          | Director                                |
| Mr. Alibegashvili L M    | Deputy Director                         |
| Mr. Duishembiev Jetimish | Main Specialist                         |
| Mr. Kuznetsov G F        | Chief Specialist of Bridge Division     |
| Mr. Liyanov T. D.        | Chief Specialist of Geological Division |
| Mr. Moldoshev A          | Environmental Engineer                  |
| Mr. Tonkikh G A          | Chief Engineer of Road Division         |

(4) 設計研究所 (Design Institute on Water Structure, Kyrgyzsuudolbooru)

|                         |                   |
|-------------------------|-------------------|
| Mr. Kichibaev A M       | Chairman of Board |
| Mr. Kim Mark Ivgenovich | Chief Engineer    |
| Mr. Yakimansky Y S      | Chief Specialist  |

(5) 水文気象局 (State Agency of Hydrometeorology under MES)

|                        |  |
|------------------------|--|
| Mr. Tabyldiyev D U     | Deputy Director                                |
| Ms. Solobieva Tatiyana | Hydrologist                                    |
| Mr. Mamytov Urmat      | Head of Hydrometeorology Centre in Djalal-Abad |
| Ms. Tashmatova F D     | Observer of Hydrology Station in Kugart        |

(6) ビシュケクーオシュ道路管理局 (Bishkek-Osh Road State Directorate)

|                          |   |
|--------------------------|---|
| Mr. Zhanibek E. Aliyazov | First Deputy General Director                 |
| Mr. Kurbahov R T         | Head of Road Operation Office No. 22 (DEP 22) |

(7) 環境保全林野庁 (State Agency of Environment Protection and Forestry)

Mr. Barykin Evgenii                      Executive Deputy Director (ビシュケク)

Mr. Duvanakulov Mametaly              Chief Specialist(ジャラル・アバド州)

(8) スザク地区 区役所 (District Administration of Suzak District)

Mr. Mirzakhmedov Nurbolob              Head (Governor) of District Administration

Mr. Abidov Ulugbek                      Chief Specialist

<日本側>

(1) 在「キ」国共和国 日本国大使館

丸尾 眞                                      日本大使

堀口 剛輔                                      一等書記官

(2) JICA「キ」国事務所

大山 高行                                      所長

今井 成寿                                      所員

Ms. Bayaleva Aidai                          所員

#### 4. 討議議事録 (M/D)

##### (1) 現地調査時

MINUTES OF DISCUSSIONS  
ON THE PREPARATORY SURVEY  
ON THE PROJECT FOR RECONSTRUCTION OF KOK-ART RIVER BRIDGE  
ON BISHKEK-OSH ROAD  
IN THE KYRGYZ REPUBLIC


In response to a request from the Government of the Kyrgyz Republic (hereinafter referred to as "Kyrgyz") and based on the results of the preceding Preparatory Survey in October 2011, Japan International Cooperation Agency (hereinafter referred to as "JICA") in consultation with the Government of Japan decided to conduct a Preparatory Survey (hereinafter referred to as "the Survey") on the Project for Reconstruction of Kok-Art River Bridge on Bishkek-Osh Road (hereinafter referred to as "the Project").

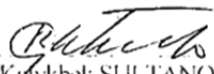
JICA sent a Preparatory Survey Team (hereinafter referred to as "the Team") to Kyrgyz, headed by Mr. Shigeru SUGIYAMA, Director, Grant Aid Project Management Division 1, Financing Facilitation and Procurement Supervision Department of JICA, and was scheduled to stay in the country from March 20<sup>th</sup> to 24<sup>th</sup>, 2012.

The Team held discussions with officials concerned of the Government of Kyrgyz and conducted a field survey in the study area.

In the course of discussions and field survey, both sides confirmed the main items described in the attached sheets. The Team will continue further studies and prepare a Preparatory Survey Report.

Bishkek, March 23, 2012

  
Shigeru SUGIYAMA  
Leader  
Preparatory Survey Team  
Japan International Cooperation Agency  
Japan

  
Kalykбек SULTANOV  
Minister  
Ministry of Transport and Communications  
the Kyrgyz Republic

## ATTACHMENT

## 1. Objective of the Project

The objective of the Project is to reconstruct a bridge at 564 km of Bishkek-Osh Road over Kok-Art River in Suzak Raion of Jalal-Abad Oblast to ensure safe and smooth road traffic on the bridge and Bishkek-Osh Road.

## 2. Project Site

The site of the Project is shown in Annex-1.

## 3. Objective of the Survey

3-1. To understand background and objective of the Project and examine its impacts and appropriateness.

3-2. To identify the components of the Project, and conduct outline design and cost estimation of the Project based on the data and information collected through the Survey and the results of discussions between the Japanese side and the Kyrgyz side.

3-3. To study the issues of environmental and social considerations through the Survey.

## 4. Components of the Project

4-1. The Project will include the following components:

4-1-1. Construction of a prestressed concrete bridge with two (2) vehicle lanes and pedestrian sidewalks.

4-1-2. Reconstruction of approach roads, if deemed necessary, and

4-1-3. Demolition of existing Kok-Art River Bridge.

4-2. Technical matters

4-2-1. Location of the new bridge is the same as that of the existing bridge, excepting the case that any significant problem arises.

4-2-2. A route through a temporary bridge may be used as a detour road during the construction work of the new bridge.

4-2-3. Other technical matters including the outline design of the new bridge will be considered by the Team and explained to the Kyrgyz side around September 2012.

## 5. Responsible and Implementing Organizations

5-1. The responsible organization is the Ministry of Transport and Communications (MOTC).

5-2. The implementing organization is Bishkek-Osh Road State Directorate (BORSRD).

5-3. The organization chart of MOTC is as shown in Annex-2.

5-4. The organization chart of BORSRD is as shown in Annex-3.

## 6. Japan's Grant Aid Scheme

6-1. The Kyrgyz side understands the Japan's Grant Aid scheme explained by the Team, as described in Annex-4.

6-2. The Kyrgyz side will take necessary measures, as described in Annex-5, to facilitate smooth implementation of the Project, as a condition for the Japan's Grant Aid to be implemented.



## 7. Schedule of the Study

7-1. The Team will continue further studies in Kyrgyz until May 5<sup>th</sup>, 2012.

7-2. JICA will prepare a draft Preparatory Survey Report in Russian and send a mission team in order to explain its contents to the Kyrgyz side around September 2012.

7-3. When the contents of the draft Preparatory Survey report are accepted in principle by the Government of Kyrgyz, JICA will complete the final report and send it to the Government of Kyrgyz around February 2013.

Annex-1: Project Site

Annex-2: Organization Chart of MOTC

Annex-3: Organization Chart of BORSD

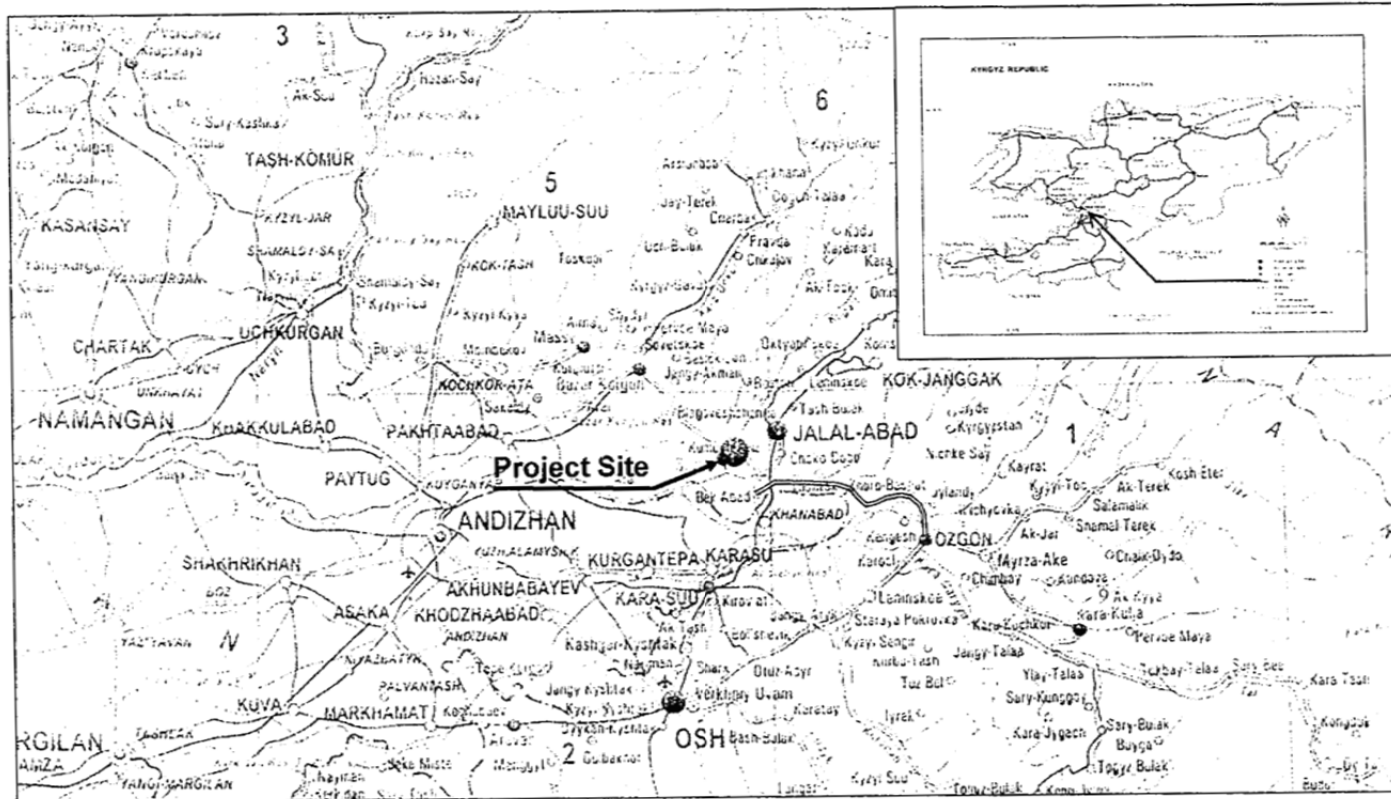
Annex-4: Japan's Grant Aid Scheme

Annex-5: Major Undertakings to be Taken by Each Government

A large, stylized handwritten signature in black ink, consisting of a large loop followed by a horizontal line.A smaller, more compact handwritten signature in black ink, featuring several sharp, angular strokes.



PROJECT SITE



A-9

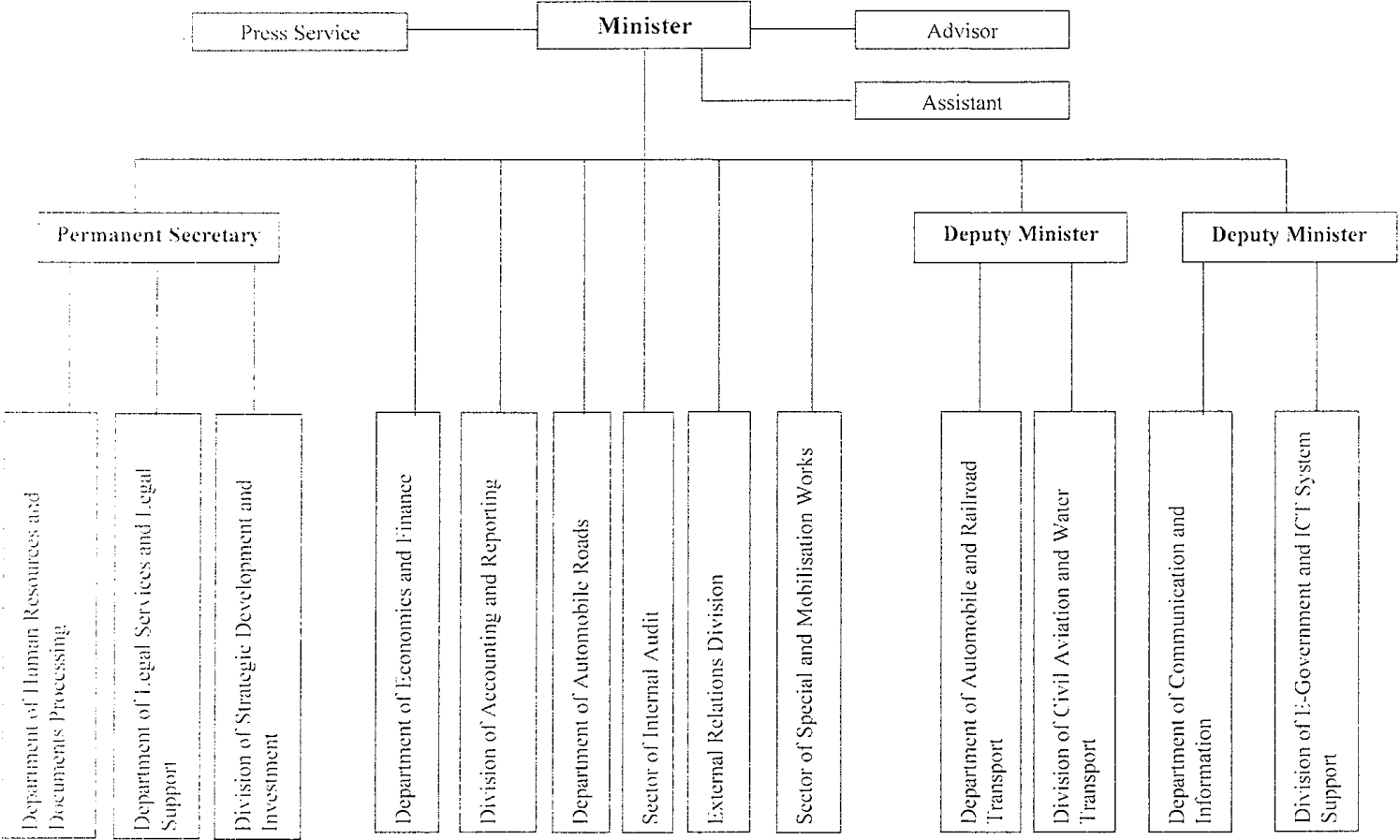
Handwritten mark

Handwritten mark

Handwritten signature

資料

ORGANIZATION CHART OF MOTC

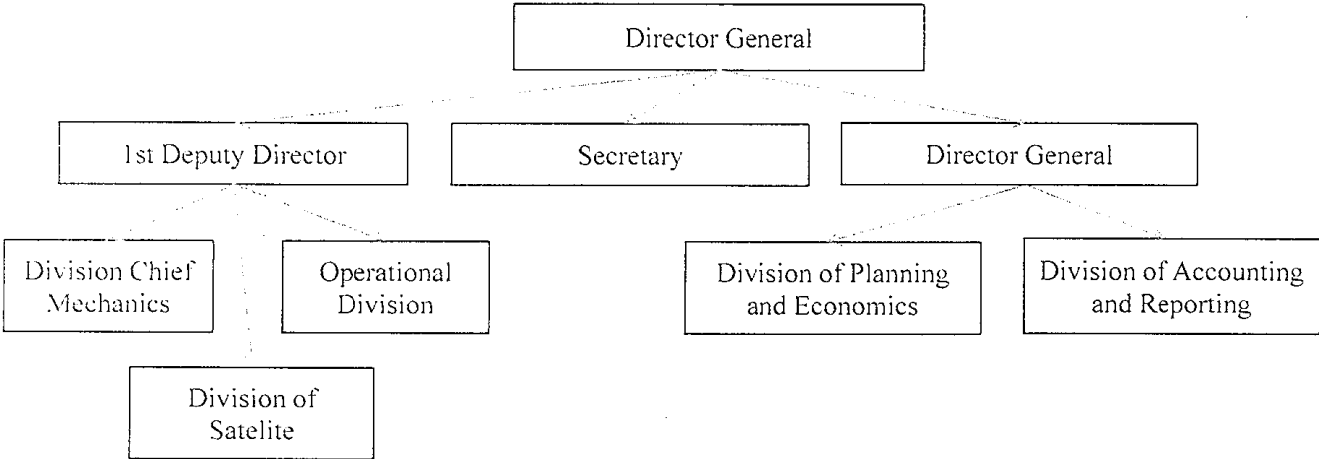


A-10






ORGANIZATION CHART OF BORSD



A-11

## JAPAN'S GRANT AID

The Government of Japan (hereinafter referred to as "the GOJ") is implementing the organizational reforms to improve the quality of ODA operations, and as a part of this realignment, a new JICA law was entered into effect on October 1, 2008. Based on this law and the decision of the GOJ, JICA has become the executing agency of the Grant Aid for General Projects, for Fisheries and for Cultural Cooperation, etc.

The Grant Aid is non-reimbursable fund provided to a recipient country to procure the facilities, equipment and services (engineering services and transportation of the products, etc.) for its economic and social development in accordance with the relevant laws and regulations of Japan. The Grant Aid is not supplied through the donation of materials as such.

### 1. Grant Aid Procedures

The Japanese Grant Aid is supplied through following procedures :

- Preparatory Survey
  - The Survey conducted by JICA
- Appraisal & Approval
  - Appraisal by the GOJ and JICA, and Approval by the Japanese Cabinet
- Authority for Determining Implementation
  - The Notes exchanged between the GOJ and a recipient country
- Grant Agreement (hereinafter referred to as "the G/A")
  - Agreement concluded between JICA and a recipient country
- Implementation
  - Implementation of the Project on the basis of the G/A

### 2. Preparatory Survey

#### (1) Contents of the Survey

The aim of the preparatory Survey is to provide a basic document necessary for the appraisal of the Project made by the GOJ and JICA. The contents of the Survey are as follows:

- Confirmation of the background, objectives, and benefits of the Project and also institutional capacity of relevant agencies of the recipient country necessary for the implementation of the Project.





- Evaluation of the appropriateness of the Project to be implemented under the Grant Aid Scheme from a technical, financial, social and economic point of view.
- Confirmation of items agreed between both parties concerning the basic concept of the Project.
- Preparation of a outline design of the Project.
- Estimation of costs of the Project.

The contents of the original request by the recipient country are not necessarily approved in their initial form as the contents of the Grant Aid project. The Outline Design of the Project is confirmed based on the guidelines of the Japan's Grant Aid scheme.

JICA requests the Government of the recipient country to take whatever measures necessary to achieve its self-reliance in the implementation of the Project. Such measures must be guaranteed even though they may fall outside of the jurisdiction of the organization of the recipient country which actually implements the Project. Therefore, the implementation of the Project is confirmed by all relevant organizations of the recipient country based on the Minutes of Discussions.

#### (2) Selection of Consultants

For smooth implementation of the Survey, JICA employs (a) registered consulting firm(s). JICA selects (a) firm(s) based on proposals submitted by interested firms.


#### (3) Result of the Survey

JICA reviews the Report on the results of the Survey and recommends the GOJ to appraise the implementation of the Project after confirming the appropriateness of the Project.

### 3. Japan's Grant Aid Scheme

#### (1) The E/N and the G/A

After the Project is approved by the Cabinet of Japan, the Exchange of Notes(hereinafter referred to as "the E/N") will be signed between the GOJ and the Government of the recipient country to make a pledge for assistance, which is followed by the conclusion of the G/A between JICA and the Government of the recipient country to define the necessary articles to implement the Project, such as payment conditions, responsibilities of the Government of the recipient country, and procurement conditions.



## (2) Selection of Consultants

In order to maintain technical consistency, the consulting firm(s) which conducted the Survey will be recommended by JICA to the recipient country to continue to work on the Project's implementation after the E/N and G/A.

## (3) Eligible source country

Under the Japanese Grant Aid, in principle, Japanese products and services including transport or those of the recipient country are to be purchased. When JICA and the Government of the recipient country or its designated authority deem it necessary, the Grant Aid may be used for the purchase of the products or services of a third country. However, the prime contractors, namely, constructing and procurement firms, and the prime consulting firm are limited to "Japanese nationals".

## (4) Necessity of "Verification"

The Government of the recipient country or its designated authority will conclude contracts denominated in Japanese yen with Japanese nationals. Those contracts shall be verified by JICA. This "Verification" is deemed necessary to fulfill accountability to Japanese taxpayers.

## (5) Major undertakings to be taken by the Government of the Recipient Country

In the implementation of the Grant Aid Project, the recipient country is required to undertake such necessary measures as Annex-5.

## (6) "Proper Use"

The Government of the recipient country is required to maintain and use properly and effectively the facilities constructed and the equipment purchased under the Grant Aid, to assign staff necessary for this operation and maintenance and to bear all the expenses other than those covered by the Grant Aid.

## (7) "Export and Re-export"

The products purchased under the Grant Aid should not be exported or re-exported from the recipient country.

## (8) Banking Arrangements (B/A)

- a) The Government of the recipient country or its designated authority should open an account under the name of the Government of the recipient country in a bank in Japan (hereinafter

referred to as "the Bank"). JICA will execute the Grant Aid by making payments in Japanese yen to cover the obligations incurred by the Government of the recipient country or its designated authority under the Verified Contracts.

b) The payments will be made when payment requests are presented by the Bank to JICA under an Authorization to Pay (A/P) issued by the Government of the recipient country or its designated authority.

(9) Authorization to Pay (A/P)

The Government of the recipient country should bear an advising commission of an Authorization to Pay and payment commissions paid to the Bank.

(10) Social and Environmental Considerations

A recipient country must carefully consider social and environmental impacts by the Project and must comply with the environmental regulations of the recipient country and JICA socio-environmental guidelines.





FLOW CHART OF JAPAN'S GRANT AID PROCEDURES

| Stage                             | Flow & Works   | Recipient Government | Japanese Government | JICA | Consultant | Contract | Others |
|-----------------------------------|--|----------------------|---------------------|------|------------|----------|--------|
| Application                       | Request (Request Terms of Reference)<br>Screening of Project → Evaluation of F.R.  |                      |                     |      |            |          |        |
| Project Formulation & Preparation | Preparatory Survey<br>Preliminary Survey → Field Survey Home Office Work Reporting<br>Basic Design → Selection & Contracting of Consultant by Proposal → Field Survey Home Office Work Reporting<br>Explanation of Draft Final Report → Final Report   |                      |                     |      |            |          |        |
| Appraisal & Approval              | Appraisal of Project<br>Inter Ministerial Consultation<br>Presentation of Draft Notes<br>Approval by the Cabinet   |                      |                     |      |            |          |        |
| Implementation                    | T.N. & G.A. (T.N. Exchange of Notes, G.A. Grant Agreement)<br>Banking Arrangement<br>Consultant Contract → Verification → Issuance of A/P<br>Detailed Design & Tender Documents → Approval by Recipient Government → Preparation for Tendering<br>Tendering & Evaluation<br>Disbursement Construction Contract → Verification → A/P<br>Construction → Completion Certificate by Recipient Government → A/P<br>Operation → Post Evaluation Study (A/P Authorization to Pay) |                      |                     |      |            |          |        |
| Evaluation & Follow up            | Ex-post Evaluation → Follow up   |                      |                     |      |            |          |        |

77




| Annex-5   |  |                            |                                 |
|---|--|----------------------------|---------------------------------|
| MAJOR UNDERTAKINGS TO BE TAKEN BY EACH GOVERNMENT |  |                            |                                 |
| No.   | Items  | To be covered by Grant Aid | To be covered by Recipient Side |
| 1   | To secure lots of land necessary for the implementation of the Project and to clear the sites  |                            | ●                               |
| 2   | To ensure prompt customs clearance of the products and to assist internal transportation of the products in the recipient country<br><br>1) Marine (Air) transportation of the products from Japan to the recipient country<br><br>2) Tax exemption and custom clearance of the products at the port of disembarkation<br><br>3) Internal transportation from the port of disembarkation to the project site | ●<br><br><br>(●)           | <br><br>●<br><br>(●)            |
| 3   | To ensure that customs duties, internal taxes and other fiscal levies which may be imposed in the recipient country with respect to the purchase of the products and the services be exempted.   |                            | ●                               |
| 4   | To accord Japanese nationals whose services may be required in connection with the supply of the products and the services such facilities as may be necessary for their entry into the recipient country and stay therein for the performance of their work   |                            | ●                               |
| 5   | To ensure that the facilities and the products be maintained and used properly and effectively provided under Japan's Grant.   |                            | ●                               |
| 6   | To bear all the expenses, other than those covered by the Grant, necessary for the implementation of the Project   |                            | ●                               |
| 7   | To bear the following commissions paid to the Japanese bank for banking services based upon the B/A<br><br>1) Advising commission of A/P<br><br>2) Payment commission  |                            | ●<br>●                          |
| 8   | To give due environmental and social consideration in the implementation of the Project.   |                            | ●                               |

(B/A : Banking Arrangement, A/P : Authorization to pay)




## (2) 概略設計概要説明時

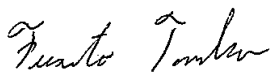
MINUTES OF DISCUSSIONS  
ON THE PREPARATORY SURVEY  
ON THE PROJECT FOR RECONSTRUCTION OF KOK-ART RIVER BRIDGE  
ON BISHKEK-OSH ROAD  
IN THE KYRGYZ REPUBLIC  
(EXPLANATION OF DRAFT REPORT)

On the basis of the discussions and field survey in the Kyrgyz Republic (hereinafter referred to as "Kyrgyz") in March, April and May 2012, and the subsequent technical examination of the results in Japan, Japan International Cooperation Agency (hereinafter referred to as "JICA") prepared a draft Preparatory Survey Report on the Project for Reconstruction of Kok-Art River Bridge on Bishkek-Osh Road (hereinafter referred to as "the Project").

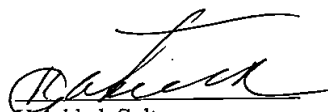
JICA sent a Preparatory Survey Team (hereinafter referred to as "the Team") to Kyrgyz, headed by Mr. Fusato Tanaka, Director, Transportation and ICT Division 3, Economic Infrastructure Department of JICA, to explain to and consult with officials concerned of the Government of Kyrgyz on the contents of the draft Preparatory Survey Report from October 18<sup>th</sup> to 19<sup>th</sup>, 2012.

As a result of discussions, both sides confirmed the main items described in the attached sheets.

Bishkek, October 19<sup>th</sup>, 2012



Fusato Tanaka  
Leader  
Preparatory Survey Team  
Japan International Cooperation Agency  
Japan



Kalykbek Sultanov  
Minister  
Ministry of Transport and Communications  
the Kyrgyz Republic

## ATTACHMENT

## 1. Components of the Draft Preparatory Survey Report

The Kyrgyz side agreed and accepted in principle the contents of the draft Preparatory Survey Report explained by the Team.

## 2. Confidentiality of the Cost Estimation

The both sides agreed that the Project Cost Estimation, as attached in Annex-1, is confidential and should never be duplicated or disclosed to any third parties until all the contracts for the Project are concluded.

## 3. Validity of the Previous Minutes of Discussions

Both sides confirmed that all the agreements in the Minutes of Discussions of the preceding Preparatory Survey signed on October 5<sup>th</sup>, 2011 and March 23<sup>rd</sup>, 2012 continue to be valid unless information is updated by the draft Preparatory Survey Report.

## 4. Japan's Grant Aid Scheme

The Kyrgyz side fully understood the scheme of the Japan's Grant Aid and the necessary measures to be undertaken by the Kyrgyz side as explained by the Team and described in Annex-4 and Annex-5 of the Minutes of Discussions signed on March 23<sup>rd</sup>, 2012.

## 5. Environmental and Social Considerations

5-1. Monitoring for environmental and social considerations will be conducted by MOTC in accordance with the Monitoring Plan for the Project described in the Preparatory Survey Report. The results of monitoring will be provided to JICA on a quarterly basis until the completion of the Project by filling in the Monitoring Form attached as Annex 2 as part of progress report.

5-2. MOTC agreed that JICA may disclose the part of the monitoring results as shown in Annex 2 conducted by MOTC. JICA explained that JICA will disclose further information, when third parties request, subject to approval of MOTC.

5-3. The Environmental and Social considerations including major impacts and mitigation measures for the Project are summarized in the Environmental Checklist attached as Annex 3.

## 6. Undertaking of the Kyrgyz Side

The Kyrgyz side shall undertake the following arrangements for the Project at its expense based on the contents of the draft Preparatory Survey Report.

## 6-1. Preparatory Administrative Arrangements

- 1) Commission for Banking Arrangement and Authorization to Pay
- 2) Tax exemption and custom clearance

## 6-2. Preparatory Civil Works

- 1) Removal of utilities and facilities on the Project site within six (6) months after signing of the Exchange of Notes between the Government of Japan and the Government of Kyrgyz
- 2) Securing additional land to existing road sites within six (6) months after signing of the Exchange of Notes between the two (2) Governments
- 3) Securing and leveling land for temporary yards within six (6) months after signing of the

Exchange of Notes between the two (2) Governments

- 4) Securing sites for disposal of waste and land waste within six (6) months after signing of the Exchange of Notes between the two (2) Governments

6-3. Arrangements during the Construction

- 1) Arrangement for traffic control for detouring on the Project site
- 2) Ensuring security at the Project sites and temporary yards

7. Operation and Maintenance of the Bridge

The Kyrgyz side shall secure enough budget and personnel necessary for operation and maintenance of the bridge constructed by the Project including the periodical maintenance work after the completion of the Project.

8. Schedule of the Study

JICA will complete the final Preparatory Survey Report in Russian, in accordance with the confirmed items and send it to the Government of Kyrgyz around February 2013.

Annex-1: Project Cost Estimation

Annex-2: Monitoring Form

Annex-3: Environmental Checklist

CONFIDENTIAL  
PROJECT COST ESTIMATION

This page will not be disclosed until all the contracts for the Project are concluded.

## MONITORING FORM

DURING CONSTRUCTION

During the construction, the supervising consultants will monitor the environment and social measures taken by the contractors through site inspection and monthly reports on behalf of the proponent, Ministry of Transport and Communications.

## 1. Responses/Actions to Comments and Guidance from Government Authorities and the Public

| <u>Monitoring Item</u>  | <u>Monitoring Results during Monitoring Period</u>        |
|---|---|
| Permission for using the sites for disposal of waste and land waste acquired by the proponent | Date of permission acquired                               |
| Local stakeholders meetings   | Date, topic, participants, comments from the stakeholders |

## 2. Mitigation Measures

## 2-1. Noise

| <u>Item (unit)</u> | <u>Measured Value</u> | <u>Country's Standards</u> | <u>Referred International Standards</u>         | <u>Remarks (Measurement Point and Timing)</u>  | <u>Measures to be taken, if necessary</u>  |
|--------------------|-----------------------|----------------------------|---|--|--|
| Noise level        |                       | N/A                        | WHO standard (85dB or less at the public areas) | <ul style="list-style-type: none"> <li>- At the entrance and windows of the houses near the project site</li> <li>- When heavy machines are operating</li> </ul> | Installation of noise barriers or/and introduction of construction method with less noise, when exceeding the standard |

## 2-2. Dust

|                           | <u>Monitoring Results during Monitoring Period</u> | <u>Measures to be taken</u>  |
|---------------------------|--|--|
| Road surface              |  | Sprinkling of Water 5 times/day during the dry season<br>Monthly site inspection during the dry season |
| Aggregate yard            |  | Sprinkling of water and covering with canvas<br>Monthly site inspection                                |
| Truck with earth and sand |  | Covering of loading platforms with canvas and prohibiting overloading<br>Monthly site inspection       |

## 2-3. Soil Pollution

|                      | <u>Monitoring Results during Monitoring Period</u> | <u>Measures to be taken</u>  |
|----------------------|--|--|
| Oil storage facility |  | Installation of concrete floor and oil prevention dike                                     |
| Gas station          |  | Installation of concrete floor   |
| Heavy machines       |  | Monthly monitoring of oil spilling from heavy machines through site inspection and reports |

## 2-4. Waste (including Odor)

| <u>Monitoring Item</u>  | <u>Monitoring Results during Monitoring Period</u> |
|---|--|
| Contents, quantity, procedure of treatment and disposal of wastes from the project site and the workers' camp |  |

## 3. Health and Safety Management of Workers

| <u>Monitoring Item</u>                           | <u>Monitoring Results during Monitoring Period</u> | <u>Monitoring Method</u>   |
|--|--|--|
| Number of affected workers with various diseases |  | Monthly monitoring of records of the clinic at the workers' camp   |
| Number of accidents and safety training          |  | Monthly monitoring of records of accidents and safety trainings and monthly site inspection of safety measures |
| Number of HIV prevention trainings               |  | Monitoring of records of trainings   |

## 4. Ecosystem

| <u>Monitoring Item</u>                               | <u>Monitoring Results during Monitoring Period</u> | <u>Monitoring Method</u>   |
|--|--|--|
| Protection of Turkistan Catfish (endangered species) |  | Monthly site inspection of prohibiting disposal of wastes into the river and fishing/fish catching |

## 5. Gender

| <u>Monitoring Item</u>     | <u>Monitoring Results during Monitoring Period</u> | <u>Monitoring Method</u>               |
|----------------------------|--|--|
| Gender inequality of wages |  | Monthly monitoring of records of wages |

AFTER CONSTRUCTION

## 6. Sedimentation

| <u>Monitoring Item</u>                        | <u>Monitoring Results during Monitoring Period</u> | <u>Responsible Organization for Implementation</u> | <u>Responsible Organization for Monitoring</u> |
|---|--|--|--|
| Dredging of 2 meters depth once per two years |  | Ministry of Emergency Situations                   | Ministry of Transport and Communications       |



## ENVIRONMENTAL CHECKLIST

| Category                         | Environmental Item                              | Main Check Items   | Yes:Y<br>No: N                   | Confirmation of Environmental Considerations (Reasons, Mitigation Measures)   |
|----------------------------------|---|--|----------------------------------|---|
| 1.<br>Permits and<br>Explanation | (1) EIA and<br>Environmental<br>Permits         | (a) Have EIA reports been already prepared in official process?<br>(b) Have EIA reports been approved by authorities of the host country's government?<br>(c) Have EIA reports been unconditionally approved? If conditions are imposed on the approval of EIA reports, are the conditions satisfied?<br>(d) In addition to the above approvals, have other required environmental permits been obtained from the appropriate regulatory authorities of the host country's government?   | (a) Y<br>(b) Y<br>(c) Y<br>(d) N | (a) Already prepared<br>(b) Already approved<br>(c) To follow the environmental protection plan proposed including to use official dumping site for construction waste and to obtain materials from authorized suppliers<br>(d) - |
|                                  | (2) Explanation to<br>the Local<br>Stakeholders | (a) Have contents of the project and the potential impacts been adequately explained to the Local stakeholders based on appropriate procedures, including information disclosure? Is understanding obtained from the Local stakeholders?<br>(b) Have the comment from the stakeholders (such as local residents) been reflected to the project design?   | (a) Y<br>(b) Y                   | (a) Public meeting was held at local authority office on 10 <sup>th</sup> April 2012 and minutes of meeting is submitted to the state agency<br>(b) Protection of endangered species of Tajik Catfish is requested.               |
|                                  | (3) Examination of<br>Alternatives              | (a) Have alternative plans of the project been examined with social and environmental considerations?  | (a) Y                            | (a) Most appropriate alternative was chosen economically and socially. Detail is presented in the EIA report.   |
| 2.<br>Pollution<br>Control       | (1) Air Quality                                 | (a) Is there a possibility that air pollutants emitted from the project related sources, such as vehicles traffic will affect ambient air quality? Does ambient air quality comply with the country's air quality standards? Are any mitigating measures taken?<br>(b) Where industrial areas already exist near the route, is there a possibility that the project will make air pollution worse?   | (a) Y<br>(b) N                   | (a) Based on the traffic volume predicted, air quality will not be worsened.<br>(b) Air quality will be improved. No measure is required.   |
|                                  | (2) Water Quality                               | (a) Is there a possibility that soil runoff from the bare lands resulting from earthmoving activities, such as cutting and filling will cause water quality degradation in downstream water areas?<br>(b) Is there a possibility that surface runoff from roads will contaminate water sources, such as groundwater?<br>(c) Do effluents from various facilities, such as parking areas/service areas comply with the country's effluent standards and ambient water quality standards? Is there a possibility that the effluents will cause areas not to comply with the country's ambient water quality standards? | (a) Y<br>(b) N<br>(c) Y          | (a) No soil is cut. Fill will be covered with grass to minimize erosion by run-off water<br>(b) There no well at the out crop area.<br>(c) Liquid waste from workers camp is dumped at the official dumping site.                 |

- : Not Applicable

| Category                     | Environmental Item      | Main Check Items  | Yes: Y<br>No: N                                    | Confirmation of Environmental Considerations (Reasons, Mitigation Measures)  |
|------------------------------|-------------------------|---|--|--|
|                              | (3) Wastes              | (a) Are wastes generated from the project facilities, such as parking areas/service areas, properly treated and disposed of in accordance with the country's regulations?   | (a) Y  | (a) Solid waste is generated from the workers camp and is properly dumped at the official dumping site   |
|                              | (4) Noise and Vibration | (a) Do noise and vibrations from the vehicle and train traffic comply with the country's standards?   | (a) Y  | (a) It may become greater than standard during construction in the area facing the road. Noise barrier sheet may be installed if noise is found to be excessive by monitoring.   |
| 3.<br>Natural<br>Environment | (1) Protected Areas     | (a) Is the project site located in protected areas designated by the country's laws or international treaties and conventions? Is there a possibility that the project will affect the protected areas?   | (a) N  | (a) -  |
|                              | (2) Ecosystem           | (a) Does the project site encompass primeval forests, tropical rain forests, ecologically valuable habitats (e.g., coral reefs, mangroves, or tidal flats)?<br>(b) Does the project site encompass the protected habitats of endangered species designated by the country's laws or international treaties and conventions?<br>(c) If significant ecological impacts are anticipated, are adequate protection measures taken to reduce the impacts on the ecosystem?<br>(d) Are adequate protection measures taken to prevent impacts, such as disruption of migration routes, habitat fragmentation, and traffic accident of wildlife and livestock?<br>(e) Is there a possibility that installation of roads will cause impacts, such as destruction of forest, poaching, desertification, reduction in wetland areas, and disturbance of ecosystems due to introduction of exotic (nonnative invasive) species and pests? Are adequate measures for preventing such impacts considered?<br>(f) In cases the project site is located at undeveloped areas, is there a possibility that the new development will result in extensive loss of natural environments? | (a) N<br>(b) Y<br>(c) N<br>(d) N<br>(e) N<br>(f) N | (a) -<br>(b) A endangered species of Tajikistan Cat Fish may be there in Kugart River and fishing and waste dumping into river is prohibited<br>(c) -<br>(d) -<br>(e) -<br>(f) - |
|                              | (3) Hydrology           | (a) Is there a possibility that alteration of topographic features and installation of structures, such as tunnels will adversely affect surface water and groundwater flows?   | (a) N  | (a) -  |

| Category              | Environmental Item         | Main Check Items  | Yes:Y<br>No: N   | Confirmation of Environmental Considerations (Reasons, Mitigation Measures)   |
|-----------------------|----------------------------|---|--|---|
|                       | (4) Topography and Geology | (a) Is there any soft ground on the route that may cause slope failures or landslides? Are adequate measures considered to prevent slope failures or landslides, where needed?<br>(b) Is there a possibility that civil works, such as cutting and filling will cause slope failures or landslides? Are adequate measures considered to prevent slope failures or landslides?<br>(c) Is there a possibility that soil runoff will result from cut and fill areas, waste soil disposal sites, and borrow sites? Are adequate measures taken to prevent soil runoff?  | (a) N<br>(b) N<br>(c) N  | (a) Based on the results of boring, the ground is confirmed to be generally firm. The collapse is not caused since the excavation is made with proper slope angles and depths.<br>(b) Excavation in the river will be made surrounded by steel pipe walls.<br>(c) The slope of piers will be protected.   |
| 4. Social Environment | (1) Resettlement           | (a) Is involuntary resettlement caused by project implementation? If involuntary resettlement is caused, are efforts made to minimize the impacts caused by the resettlement?<br>(b) Is adequate explanation on compensation and resettlement assistance given to affected people prior to resettlement?<br>(c) Is the resettlement plan, including compensation with full replacement costs, restoration of livelihoods and living standards developed based on socioeconomic studies on resettlement?<br>(d) Are the compensations going to be paid prior to the resettlement?<br>(e) Are the compensation policies prepared in document?<br>(f) Does the resettlement plan pay particular attention to vulnerable groups or people, including women, children, the elderly, people below the poverty line, ethnic minorities, and indigenous peoples?<br>(g) Are agreements with the affected people obtained prior to resettlement?<br>(h) Is the organizational framework established to properly implement resettlement? Are the capacity and budget secured to implement the plan?<br>(i) Are any plans developed to monitor the impacts of resettlement?<br>(j) Is the grievance redress mechanism established? | (a) Y<br>(b) Y<br>(c) Y<br>(d) Y<br>(e) Y<br>(f) Y<br>(g) Y<br>(h) Y<br>(i) Y<br>(j) Y | (a) Resettlement policy framework(RPF) has been established and approved by MOTC<br>(b) To be made as per RPF<br>(c) To be made based on the result of replacement cost survey<br>(d) To be paid before start construction<br>(e) Prepared as RPF<br>(f) Vulnerable group is focused<br>(g) To be obtained<br>(h) Capacities and budgets are to be secured<br>(i) Monitoring plan is established<br>(j) To be established |
|                       | (2) Living and Livelihood  | (a) Where roads are newly installed, is there a possibility that the project will affect the existing means of transportation and the associated workers? Is there a possibility that the project will cause significant impacts, such as extensive alteration of existing land uses, changes in sources of livelihood, or unemployment? Are adequate measures considered for preventing these impacts?<br>(b) Is there any possibility that the project will adversely affect the living conditions of the inhabitants other than the target   | (a) Y<br>(b) Y<br>(c) Y<br>(d) N<br>(e) Y<br>(f) N                                     | (a) Shop keeper who loses shop is provided with shop loss allowance. Farmers, who lose farmland are provided with equivalent compensation of crops lost<br>(b) Residents who may lose their job are employed at the construction site with priority.<br>(c) Provision of safety goods and prevention campaigns are planned.<br>(d) -  |

| Category                    | Environmental Item                           | Main Check Items  | Yes: Y<br>No: N           | Confirmation of Environmental Considerations (Reasons, Mitigation Measures)   |
|-----------------------------|--|---|---------------------------|---|
|                             |  | <p>population? Are adequate measures considered to reduce the impacts, if necessary?</p> <p>(c) Is there any possibility that diseases, including infectious diseases, such as HIV will be brought due to immigration of workers associated with the project? Are adequate considerations given to public health, if necessary?</p> <p>(d) Is there any possibility that the project will adversely affect road traffic in the surrounding areas (e.g., increase of traffic congestion and traffic accidents)?</p> <p>(e) Is there any possibility that roads will impede the movement of inhabitants?</p> <p>(f) Is there any possibility that structures associated with roads (such as bridges) will cause a sun shading and radio interference?</p> |                           | <p>(e) Detour bridge will be constructed beside the present bridge so that the impact to the traffic movement will be minimized</p> <p>(f) The height of bridge is almost same as before.</p> |
| 4.<br>Social<br>Environment | (3) Heritage                                 | (a) Is there a possibility that the project will damage the local archeological, historical, cultural, and religious heritage? Are adequate measures considered to protect these sites in accordance with the country's laws?   | (a) N                     | (a) -   |
|                             | (4) Landscape                                | (a) Is there a possibility that the project will adversely affect the local landscape? Are necessary measures taken?  | (a) N                     | (a) Slope of embankment is covered with grass to create green landscape   |
|                             | (5) Ethnic Minorities and Indigenous Peoples | <p>(a) Are considerations given to reduce impacts on the culture and lifestyle of ethnic minorities and indigenous peoples?</p> <p>(b) Are all of the rights of ethnic minorities and indigenous peoples in relation to land and resources to be respected?</p>   | <p>(a) N</p> <p>(b) N</p> | <p>(a) -</p> <p>(b) -</p>   |

| Category  | Environmental Item              | Main Check Items   | Yes:Y<br>No:N                              | Confirmation of Environmental Considerations (Reasons, Mitigation Measures)  |
|-----------|---------------------------------|--|--|--|
|           | (6) Working environment         | <p>(a) Is the project proponent not violating any laws and ordinances associated with the working conditions of the country which the project proponent should observe in the project?</p> <p>(b) Are tangible safety considerations in place for individuals involved in the project, such as the installation of safety equipment which prevents industrial accidents, and management of hazardous materials?</p> <p>(c) Are intangible measures being planned and implemented for individuals involved in the project, such as the establishment of a safety and health program, and safety training (including traffic safety and public health) for workers etc.?</p> <p>(d) Are appropriate measures being taken to ensure that security guards involved in the project not to violate safety of other individuals involved, or local residents?</p> | <p>(a) Y<br/>(b) Y<br/>(c) Y<br/>(d) Y</p> | <p>(a) Compliance with the law is first prioritized policy in EMP.</p> <p>(b) Protection of Health and safety for employees and residents are planned properly and secured.</p> <p>(c) Safety education, including how to use safety goods and how to behave in emergency case, are to be implemented</p> <p>(d) Security guard is chosen after his background is sufficiently checked</p>   |
| 5. Others | (1) Impacts during Construction | <p>(a) Are adequate measures considered to reduce impacts during construction (e.g., noise, vibrations, turbid water, dust, exhaust gases, and wastes)?</p> <p>(b) If construction activities adversely affect the natural environment (ecosystem), are adequate measures considered to reduce impacts?</p> <p>(c) If construction activities adversely affect the social environment, are adequate measures considered to reduce impacts?</p>   | <p>(a) Y<br/>(b) N<br/>(c) N</p>           | <p>(a) Monthly meeting will be held to monitor complains about construction. Based on the meeting, mitigation measures are taken when necessary.</p> <p>(b) Impact to ecosystem is negligible and, for improvement of landscape, the vegetation on the embankment slope is promoted</p> <p>(c) Impact can be considered to be mitigated and public meeting is continued.</p>   |
|           | (2) Monitoring                  | <p>(a) Does the proponent develop and implement monitoring program for the environmental items that are considered to have potential impacts?</p> <p>(b) What are the items, methods and frequencies of the monitoring program?</p> <p>(c) Does the proponent establish an adequate monitoring framework (organization, personnel, equipment, and adequate budget to sustain the monitoring framework)?</p> <p>(d) Are any regulatory requirements pertaining to the monitoring report system identified, such as the format and frequency of reports from the proponent to the regulatory authorities?</p>  | <p>(a) Y<br/>(b) Y<br/>(c) N<br/>(d) Y</p> | <p>(a) The contractor implements monitoring under the supervision of proponent.</p> <p>(b) Scheduled before, during and after construction for air pollution, noise and vibration, water pollution and social conditions of affected people as indicated in the monitoring plan in EIA.</p> <p>(c) Proponent is going to request enough budget to fulfill the requirement of JICA Environmental and Social Considerations Guidelines as much possible.</p> <p>(d) Every month the monitoring report is submitted to JICA</p> |

| Category | Environmental Item                      | Main Check Items   | Yes: Y<br>No: N | Confirmation of Environmental Considerations (Reasons, Mitigation Measures)  |
|----------|---|--|-----------------|--|
| 6. Note  | Reference to Checklist of Other Sectors | (a) Where necessary, pertinent items described in the Forestry Projects checklist should also be checked (e.g., projects including large areas of deforestation).<br>(b) Where necessary, pertinent items described in the Power Transmission and Distribution Lines checklist should also be checked (e.g., projects including installation of power transmission lines and/or electric distribution facilities). | (a) N<br>(b) N  | (a) No forest at the site<br>(b) -   |
|          | Note on Using Environmental Checklist   | (a) If necessary, the impacts to transboundary or global issues should be confirmed, if necessary (e.g., the project includes factors that may cause problems, such as transboundary waste treatment, acid rain, destruction of the ozone layer, or global warming).   | (a) Y           | Prediction of emission of CO2 were implemented in 2015 and 2025 respectively and results was found as the emission amounts will be halved by the implementation of the project in 2015 and 2025 respectively |

- 1) Regarding the term "Country's Standards" mentioned in the above table, in the event that environmental standards in the country where the project is located diverge significantly from international standards, appropriate environmental considerations are required to be made. In cases where local environmental regulations are yet to be established in some areas, considerations should be made based on comparisons with appropriate standards of other countries (including Japan's experience).
- 2) Environmental checklist provides general environmental items to be checked. It may be necessary to add or delete an item taking into account the characteristics of the project and the particular circumstances of the country and locality in which it is located.

## 収集資料リスト (1/2)

| 番号 | 名 称   | 形態<br>図書、ビデオ、<br>地図、写真等 | オリジナル・<br>コピー | 発 行 機 関   | 発行年  |
|----|---|-------------------------|---------------|---|------|
| 1  | 国家開発戦略 CDS (2009-2011)  | Word                    | コピー           | キルギス国政府   | 2009 |
| 2  | Road Sector Development Strategy 2009-2011  | Word                    | コピー           | MOTC  | 2009 |
| 3  | 経済統計データ   | Excel                   | コピー           |   | 2011 |
| 4  | キルギス国道路計画路線図  | CAD                     | コピー           | MOTC  | -    |
| 5  | ビシュケク-オシュ道路路線図  | CAD                     | コピー           | MOTC  | -    |
| 6  | キルギス国の民族構成・人口   | Word                    | コピー           | The National Committee of the static CR   | 2010 |
| 7  | 国内総生産 (2012)  | Word                    | コピー           |   | 2012 |
| 8  | ビシュケク-オシュ道路特性値  | Excel                   | コピー           | MOTC  | 2011 |
| 9  | 橋梁設計基準 (SNiP)   | ハードコピー                  | コピー           | Ministry of Regional Development<br>RUSSIAN FEDERATION                          | 2009 |
| 10 | 道路設計基準 (SNiP)   | ハードコピー                  | コピー           | Ministry of Regional Development<br>RUSSIAN FEDERATION                          | 2004 |
| 11 | ビシュケク-オシュ道路橋梁台帳   | Excel                   | コピー           | MOTC  |      |
| 12 | 道路ハンドブック  | 図書                      | オリジナル         | MOTC  | 2009 |
| 13 | ビシュケク-オシュ道路 50 周年誌  | 図書                      | オリジナル         | キルギス政府  | 2007 |
| 14 | 耐震設計基準  | ハードコピー                  | コピー           | Institute of seismology of national<br>Academy of Science of Kyrgyz<br>Republic | 2009 |
| 15 | ビシュケク-オシュ道路区間の河川上の橋梁  | ハードコピー                  | コピー           | MOTC  | 2010 |
| 16 | 公開制株式会社キルギスヴォドプロジェクトスザク地区クガルト川堤防<br>構造詳細設計(コード番号 98-1177) NO12663   | ハードコピー                  | オリジナル         | ビシュケク市  | 1998 |
| 17 | 公開制株式会社キルギスヴォドプロジェクト 洪水非常時対策設計案<br>クガルト川堤防 (第 6 区間—ビシュケク-オシュ間道路橋の上流部分)<br>建設及び改修工事(改訂版) (コード番号 99-1195) NO13115 | ハードコピー                  | オリジナル         | ビシュケク市  | 2000 |

収集資料リスト (2/2)

|    |   |        |       |            |      |
|----|---|--------|-------|------------|------|
| 18 | 公開制株式会社キルギスヴォドプロジェクト 洪水非常時対策設計案<br>クガルト川堤防(第6区間—ビシュケク—オシュ間道路橋の下流部分)<br>建設及び改修工事(改訂版)(コード番号 99-1195) NO13326 | ハードコピー | オリジナル | ビシュケク市     | 2001 |
| 19 | キルギス共和国緊急事態省 プロジェクト クガルト川護岸タイガラ<br>エフスザク地区  | ハードコピー | コピー   | ビシュケク市     | 2011 |
| 20 | 副次的農業サービス支援プロジェクトにおけるコンサルティング契約<br>数学モデリング・コンポーネント KR-PPVSU 1 クガルト川沈泥問題調<br>査(パワーポイント発表のアウトプット)             | ハードコピー | コピー   | UNITN チーム  | 2009 |
| 21 | 公開制株式会社キルギスヴォドプロジェクト ジャララバード州スザク<br>地区スザク村区域におけるクガルト川の堆砂に関する現地調査 全体<br>作業計画                                 | ハードコピー | コピー   | ビシュケク市     |      |
| 22 | スザク地区の社会経済統計データ   | Word   | オリジナル | スザク地区区長    | 2012 |
| 23 | キルギス全土地形・植生パンフレット   | PDF    | オリジナル | ジャララバード環境課 |      |
| 24 | キルギス全土地利用パンフレット   | PDF    | オリジナル | ジャララバード環境課 |      |
| 25 | ビシュケク—オシュ道路交通事故データ 2011   | PDF    | オリジナル | DEP-2      |      |
| 26 | クガルト河氾濫原計画図   | PDF    | コピー   | 非常事態省      | 2012 |
| 27 | 土地所有者権利図  | PDF    | オリジナル | DEP-2      | 2012 |
| 28 | EIA に関する法律  | Word   | コピー   | Web        | 1997 |
| 29 | 湖沼・河川に関する法  | PDF    | コピー   | スザク地区区長    |      |
| 30 | 子供手当法 2011  | PDF    | コピー   | スザク地区区長    | 2011 |
| 31 | 水質最終基準  | PDF    | コピー   | Web        | 2004 |
| 32 | 水質暫定基準  | PDF    | コピー   | Web        | 2004 |
| 33 | 大気汚染基準  | PDF    | コピー   | Web        |      |
| 34 | 年金法 2003  | PDF    | コピー   | スザク地区区長    | 2003 |
| 35 | 排ガス基準 最終目標  | PDF    | コピー   | Web        | 2004 |
| 36 | 排ガス基準 暫定目標  | PDF    | コピー   | Web        | 2004 |