

資 料

1. 調査団員・氏名

1.1 第1次現地調査時（2011年3月8日～2011年6月28日）

担当	氏名	所属	派遣期間
(1) 総括	: 鈴木 正彦	JICA 国際協力専門員	3/10 – 3/25
(2) 計画管理	: 福沢 大輔	JICA 経済基盤開発部	3/10 – 3/25
(3) 業務主任／橋梁設計 I	: 安井 淳治	(株)長大	3/08 – 4/21
(4) 道路設計／ 物流調査	: 石井 公一	(株)エイト日本技術開発 (ペガサスエンジニアリング(株))	3/08 – 4/21
(5) 橋梁設計 II／ 自然条件調査 I	: 小林 幸和	(株)長大	3/08 – 4/21, 6/14 – 6/28
(6) 自然条件調査 II	: 高橋 康二	(株)エイト日本技術開発	4/05 – 5/19
(7) 環境社会配慮	: 飯山 一男	(株)長大 (日本工営(株))	3/08 – 4/21
(8) 施工・調達計画／積算	: 森下 潤	(株)長大	3/08 – 4/06
(9) 通訳	: 玉井 京子	(株)長大 ((株)翻訳センターパイオニア)	3/10 – 3/25

1.2 第2次現地調査時（DOD 現地説明時）（2011年10月26日～2011年11月4日）

担当	氏名	所属	派遣期間
(1) 総括	: 鈴木 正彦	JICA 国際協力専門員	10/29 – 11/04
(2) 計画管理	: 福沢 大輔	JICA 経済基盤開発部	10/29 – 11/04
(3) 業務主任／橋梁設計 I	: 安井 淳治	(株)長大	10/26 – 11/04
(4) 橋梁設計 II／ 自然条件調査 I	: 小林 幸和	(株)長大	10/26 – 11/04

2. 調査日程

2.1 第1次現地調査時（2011年3月8日～2011年6月28日）

項目			総括 鈴木 正彦	計画管理 福沢 大輔	業務主任/ 橋梁設計Ⅰ 安井淳治	道路設計/ 物流調査 石井公一	橋梁設計Ⅱ/ 自然条件調査Ⅰ 小林 幸和	自然条件調査Ⅱ 高橋康二	環境社会配慮 飯山一男	施工・調査計画/ 積算 森下 潤	通訳 玉井京子	
年月日					空路移動(東京→マプト)			現地調査	空路移動(東京→マプト)			
1	8-Mar-11	Tue			ANE打ち合わせ				ANE打ち合わせ		空路移動(東京→マプト)	
2	9-Mar-11	Wed	空路移動(東京→マプト)						JICA事務所表敬・ANE表敬			
3	10-Mar-11	Thu							空路移動(マプト→キリマネ)		橋梁視察	
4	11-Mar-11	Fri	JICA事務所表敬・ANE表敬						空路移動(マプト→キリマネ)		空路移動(キリマネ→マプト)	
5	12-Mar-11	Sat	空路移動(マプト→キリマネ)						現地調査		インセプション説明・MD協議(ANE)	
6	13-Mar-11	Sun	橋梁視察			現地調査	再委託業者選定準備					
7	14-Mar-11	Mon	空路移動(キリマネ→マプト)									
8	15-Mar-11	Tue	インセプション説明、M/D協議(ANE)									
9	16-Mar-11	Wed										
10	17-Mar-11	Thu							空路移動(キリマネ→マプト)			
11	18-Mar-11	Fri	予備日			資料収集	空路移動(キリマネ→マプト)					資料整理
12	19-Mar-11	Sat				資料整理						M/D協議
13	20-Mar-11	Sun	M/D署名・大使館、JICA事務所帰国報告			M/D協議						M/D署名
14	21-Mar-11	Mon				M/D署名、大使館、JICA事務所帰国報告						
15	22-Mar-11	Tue										
16	23-Mar-11	Wed	空路移動(マプト→東京)			資料収集	再委託業者選定準備					空路移動(マプト→東京)
17	24-Mar-11	Thu							資料収集	資料収集	空路移動(マプト→東京)	
18	25-Mar-11	Fri										
19	26-Mar-11	Sat										
20	27-Mar-11	Sun										
21	28-Mar-11	Mon										
22	29-Mar-11	Tue										
23	30-Mar-11	Wed										
24	31-Mar-11	Thu										
25	1-Apr-11	Fri										
26	2-Apr-11	Sat										
27	3-Apr-11	Sun										
28	4-Apr-11	Mon										
29	5-Apr-11	Tue										
30	6-Apr-11	Wed										
31	7-Apr-11	Thu										
32	8-Apr-11	Fri										
33	9-Apr-11	Sat										
34	10-Apr-11	Sun										
35	11-Apr-11	Mon										
36	12-Apr-11	Tue										
37	13-Apr-11	Wed										
38	14-Apr-11	Thu										
39	15-Apr-11	Fri										
40	16-Apr-11	Sat										
41	17-Apr-11	Sun										
42	18-Apr-11	Mon										
43	19-Apr-11	Tue										
44	20-Apr-11	Wed										
45	21-Apr-11	Thu										
46	22-Apr-11	Fri										
47	23-Apr-11	Sat										
48	24-Apr-11	Sun										
49	25-Apr-11	Mon										
50	26-Apr-11	Tue										
51	27-Apr-11	Wed										
52	28-Apr-11	Thu										
53	29-Apr-11	Fri										
54	30-Apr-11	Sat										
55	1-May-11	Sun										
56	2-May-11	Mon										
57	3-May-11	Tue										
58	4-May-11	Wed										
59	5-May-11	Thu										
60	6-May-11	Fri										
61	7-May-11	Sat										
62	8-May-11	Sun										
63	9-May-11	Mon										
64	10-May-11	Tue										
65	11-May-11	Wed										
66	12-May-11	Thu										
67	13-May-11	Fri										
68	14-May-11	Sat										
69	15-May-11	Sun										
70	16-May-11	Mon										
71	17-May-11	Tue										
72	18-May-11	Wed										
73	19-May-11	Thu										
74	14-Jun-11	Tue										
75	15-Jun-11	Wed										
76	16-Jun-11	Thu										
77	17-Jun-11	Fri										
78	18-Jun-11	Sat										
79	19-Jun-11	Sun										
80	20-Jun-11	Mon										
81	21-Jun-11	Tue										
82	22-Jun-11	Wed										
83	23-Jun-11	Thu										
84	24-Jun-11	Fri										
85	25-Jun-11	Sat										
86	26-Jun-11	Sun										
87	27-Jun-11	Mon										
88	28-Jun-11	Tue										

2.2 第2次現地調査時(DOD 現地説明時) (2011年10月26日～2011年11月4日)

項目 年月日			総括 鈴木 正彦	計画管理 福沢 大輔	業務主任/ 橋梁設計Ⅰ 安井淳治	橋梁設計Ⅱ/ 自然条件調査Ⅰ 小林 幸和
1	26-Oct-11	Wed.			空路移動(東京→マプト)	
2	27-Oct-11	Thu			JICA事務所表敬・打合せ	
3	28-Oct-11	Fri			概略設計概要説明(ANE)	
4	29-Oct-11	Sat	空路移動(マプト到着)			資料整理
5	30-Oct-11	Sun	団内打合せ			
6	31-Oct-11	Mon	JICA事務所表敬・ANE表敬・概略設計概要説明			
7	1-Nov-11	Tue	道路基金表敬・協議、MD協議(ANE)			
8	2-Nov-11	Wed	空路移動(キリマネ→マプト)			
9	3-Nov-11	Thu	M/D署名、大使館、JICA事務所帰国報告			
10	4-Nov-11	Fri	空路移動(マプト→東京)			

3. 関係者（面会者）リスト

Organization	Position / Occupation	Name
ANE(道路公社)	General Director	Mr. Cecilio Grachane
	Director of Planning	Mr. Calado Ouana
	Director of Projects	Mr. Ismael Sulemane
	Bridge Engineer	Mr. Evaristo Mussupai
	Traffic Department	Mr. Anival Nuvunga
	Environmental Department	Ms. Emilia Tembe
	Delegate of ANE Zambezia	Mr. Andre Chachine
	ANE Project Office (Gurue – Magige Road Project)	Mr. Fransisco Simbini
	ANE Zambezia	Mr. Roberto
Road Fund(道路基金)	Chairman	Mr. Elias Paulo
	Lawyer, Dep. of External Relationship	Mr. Frederico Chipuale
	Economist	Mr. Joao Mutombene
Gurue District Office	Infrastructure Department	Mr. Walien Jenuce
Gurue Municipally Office	Mayer	Mr. Anisetoue Guile
	Infrastructure Department	Mr. Soaji
Ile District Office	Infrastructure Department	Mr. Paulo Nacomaka
Zambezia Traffic Police	Director	Mr. Chimene
Quelimane Port Authority	Executive Director	Mr. Domingos Muzeia
Quelimane Customs	Gestor de Operacoes	Mr. Custodio Macamo
Quelimane Statistics Office	Director	Mr. Armando Terenhes
Zambezia Agriculture Office	Agriculture Department	Mr. Jesus Gunia
	Timber Department	Mr. Bastique
Zambezia Planning Department	Planning / Finance	Mr. Gracidiyp Francer
Cha Gurue	Manager	Mr. Almeida Lee
Agua Gurue	Factory Manager	Mr. Aslam Vahoro
ENGLOB	Resident Engineer	Mr. Jose Marin
TECNICA	Resident Engineer	Mr. Moniero
Hoyo hoyo	Resident Engineer	Mr. Zewi
MICOA	Director	Ms. Rosa Benedito
Department for Environmental Impact Evaluation (Zambezia)	Head of Department	Ms. Fatima Mudanisie
Forest & Wildlife Section, Department for Agriculture	Director	Mr. Antonio Chibite
Cuamba Municipally Office	Advisor	Mr. Mario Lazaro
Governo Distrito de Cuamba	Public Works Department	Ms. Lueiana
在モザンビーク日本大使館	特命全権大使	瀬川 進
	特命全権大使	橋本 栄治
	参事官	浜田 圭司
	2 等書記官	岩波 由佳
JICA モザンビーク事務所	所長	宿野部 雅美
	次長	松本 仁
	業務総括	宮崎 明博
	企画調査員	丸山 治美

4. 討議議事録(M/D)

4.1 第1次現地調査時（2011年3月23日）

**MINUTES OF DISCUSSIONS
ON THE PREPARATORY SURVEY (OUTLINE DESIGN STUDY)
ON THE PROJECT FOR CONSTRUCTION OF BRIDGES ON THE ROAD
BETWEEN ILE AND CUAMBA
IN THE REPUBLIC OF MOZAMBIQUE**

In response to a request from the Government of the Republic of Mozambique (hereinafter referred to as "Mozambique"), the Government of Japan decided to conduct a Preparatory Survey for Outline Design (hereinafter referred to as "the Survey") on the Project for Construction of Bridges on the Road between Ile and Cuamba (hereinafter referred to as "the Project"), and entrusted the study to Japan International Cooperation Agency (hereinafter referred to as "JICA").

JICA sent the Preparatory Survey Team for Outline Design (hereinafter referred to as "the Team") to Mozambique. The Team is headed by Mr. Masahiko SUZUKI, Senior Transport Sector Advisor, JICA and is scheduled to stay in the country from March 9 to June 5, 2011.

The Team held a series of discussions with the officials of Mozambique and conducted a field survey at the Project area. In the course of the discussions, both sides have confirmed the main items described in the attached sheets. The Team will proceed to further works and prepare the Preparatory Survey Report.

Maputo, March 23, 2011

鈴木正彦

Suzuki Masahiko
Leader
Preparatory Survey Team
Japan International Cooperation Agency
Japan

Cecilio Grachane

Mr. Cecilio Grachane
Director General
National Road Administration
The Republic of Mozambique

ATTACHMENT

1. Objective of the Project

The objective of the Project is to secure smooth transport between Ile/Nampevo and Cuamba through the construction/rehabilitation of bridges.

2. Project Sites

The Project sites locate in Zambezia and Niassa Provinces which are shown in Annex 1.

3. Responsible and Implementing Organizations

The responsible ministry of the Project is the Ministry of Public Works and Housing. (hereinafter referred to as "MOPH"). The implementing organization of the Project is the National Road Administration (hereinafter referred to as "ANE"). The organization charts are shown in Annex 2 and 3 respectively.

4. Items requested by the Government of Mozambique

4-1. As a result of the discussions, the bridges described below were requested by the Mozambican side to be reconstructed or rehabilitated.

- Mutabasse bridge
- Muliquela bridge
- Matacasse bridge
- Lua bridge
- Ualasse bridge
- Licungo bridge
- Nivaco bridge
- Matsitse bridge
- Namisagua bridge
- Nuhusse bridge
- Lurio bridge
- Muassi bridge
- Namutimbua bridge

4-2. JICA will assess the appropriateness of the request through the Survey and will report the findings to the Government of Japan. Implementation and components of the Project will be decided by the Government of Japan.

4-3. Both sides confirmed that there is a possibility that the Project would be divided into several phases or that not all the requested bridges could be the component of the Project based on the prioritization of the bridges as shown in Annex 4.

5. Japan's Grant Aid Scheme

- 5-1. The Mozambican side has shown a full understanding to the Japan's Grant Aid Scheme explained by the Team, as described in Annex 5 and 6.
- 5-2. The Mozambican side will take the necessary measures, as described in Annex 7, for smooth implementation of the Project, as a condition for the Japanese Grant Aid to be implemented.

6. Environmental and Social Considerations

- 6-1. Both sides confirmed that the Mozambican side shall conduct the necessary procedure concerning the environmental assessment (including stakeholder meetings, EIA survey etc.) and make EIA report of the Project. The EIA approval shall be received from the responsible authorities and submitted to JICA Mozambique office before November 2011.
- 6-2. The Mozambican side agreed to arrange the budget allocation for EIA study, land acquisition, resettlement and compensation for the Project Affected Persons (PAPs) and to take necessary measures for PAPs and secure the land before the commencement of pre-qualification under the contractor bidding procedure.

7. Schedule of the Study

- 7-1. The Team will proceed with further studies in Mozambique until June 5, 2011.
- 7-2. JICA will prepare a draft final report in English and dispatch a mission to Mozambique in order to explain its contents around October 2011.
- 7-3. When the contents of the report is accepted in principle by the Mozambican side, JICA will complete the final report in English and send it to Mozambique around February 2012.

8. Other Relevant Issues

- 8-1. The Mozambican side confirmed that the following undertakings should be taken by the Mozambican side at the Mozambican expenses under the Project.
 - (1) To provide tax exemption for construction materials and equipment for the Project
 - (2) To provide land necessary for the Project including detour, camp yard and temporary construction yard
 - (3) To remove existing obstacles including optical fiber cables and electric cables
 - (4) To detect, discriminate and clear UXO's and land mines in the areas shown by the Japanese side before the commencement of the construction
 - (5) To provide temporary facilities such as bailey bridge
 - (6) To provide preventive education for HIV/AIDS

(7)To conduct public announcement if there will be a traffic interrupt by the Project

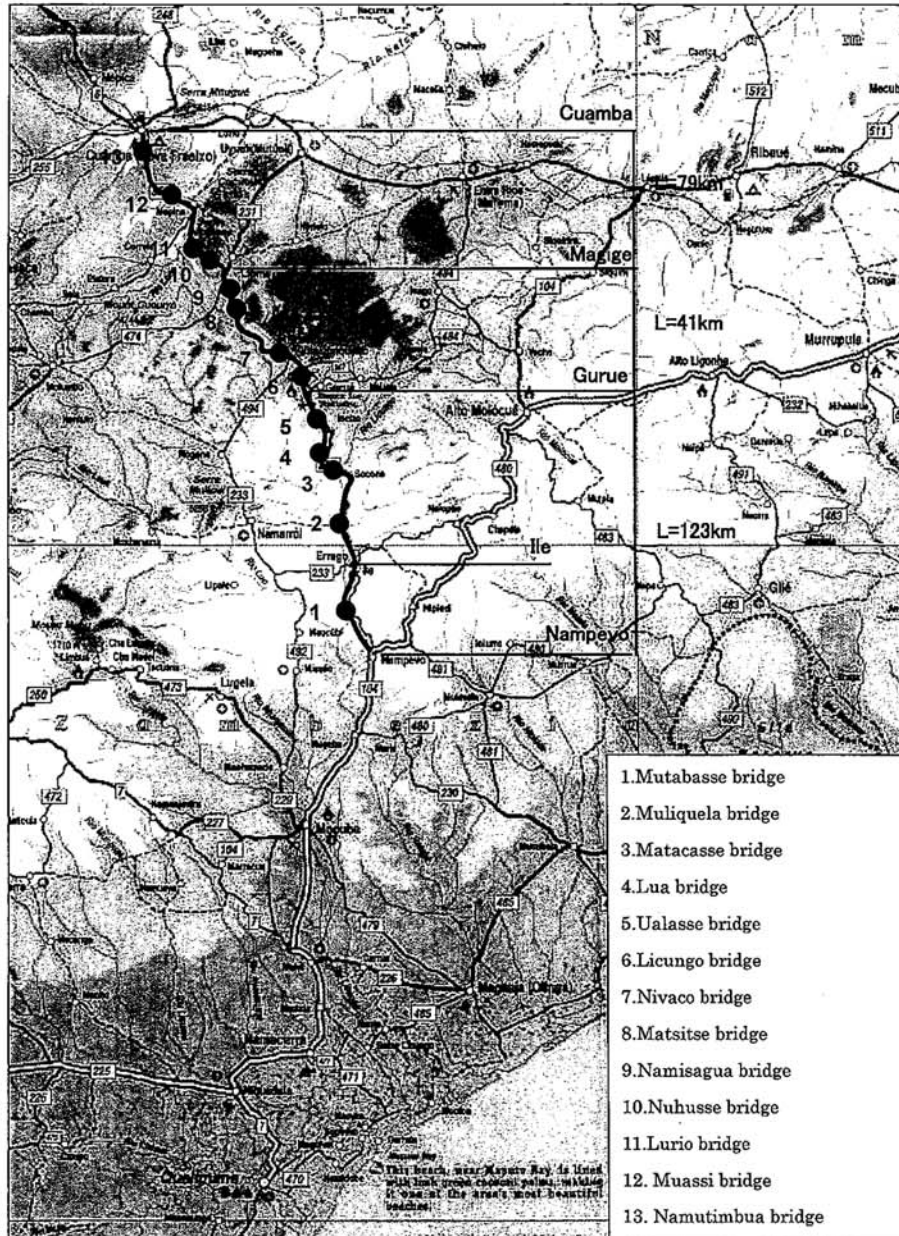
(8)To secure site for borrow pit and disposal area

8-2. The road between Ile/Nampevo to Cuamba is currently or planned to be rehabilitated by other donors. The Mozambican side confirmed that no bridge of the Project is overlapped with the components of other donor projects.

8-3. The Mozambican side shall secure enough budget and personnel necessary for the operation and maintenance of the road and bridges constructed by the Project, including the periodical maintenance work after the completion of the Project.

- Annex-1 Project Site
- Annex-2 Organization Chart of MOPH
- Annex-3 Organization Chart of ANE
- Annex-4 Prioritization of the requested bridges
- Annex-5 Japan's Grant Aid
- Annex-6 Flow Chart of Japan's Grant Aid Procedures
- Annex-7 Major Undertakings to be taken by Each Government

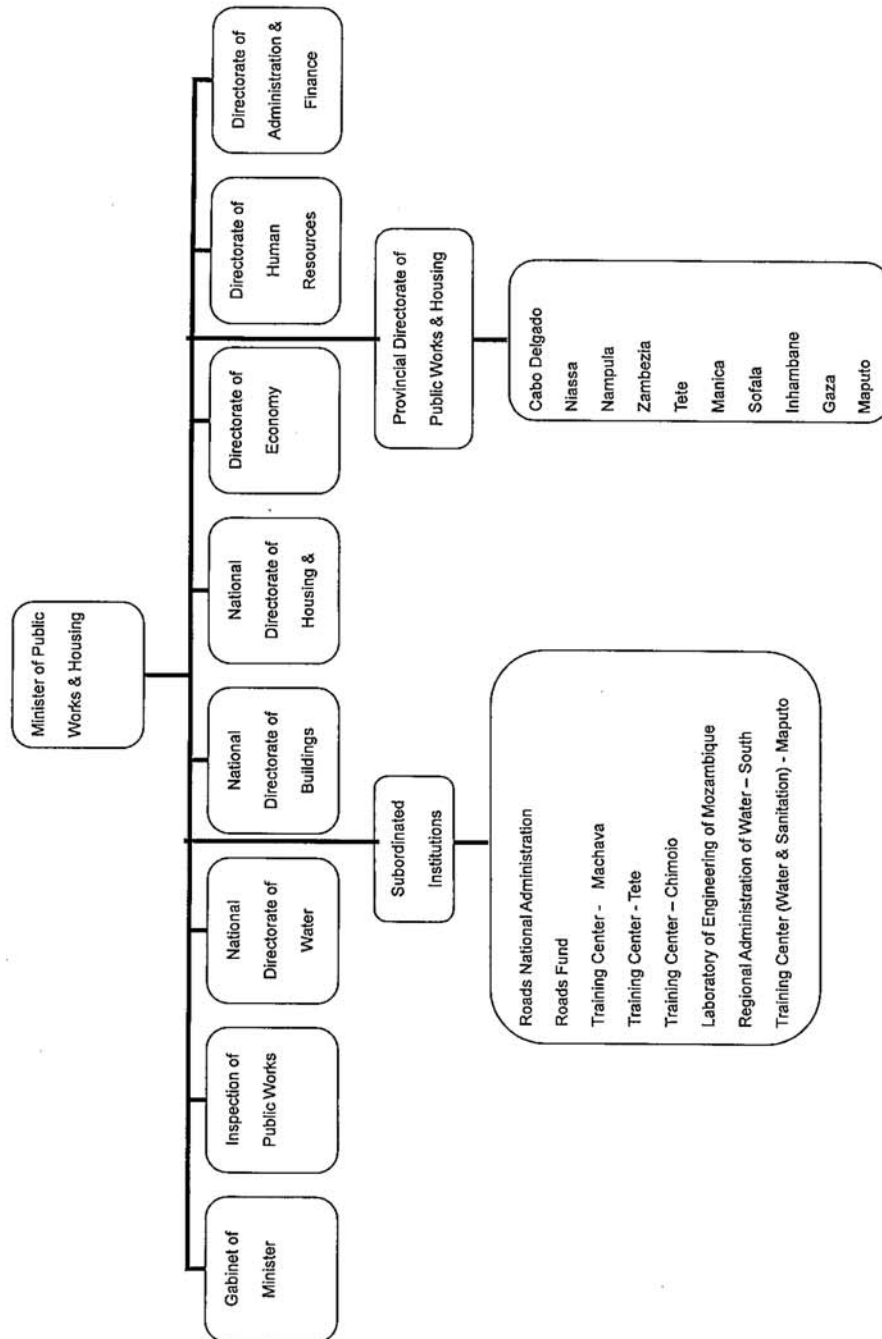
Annex-1



Project Site

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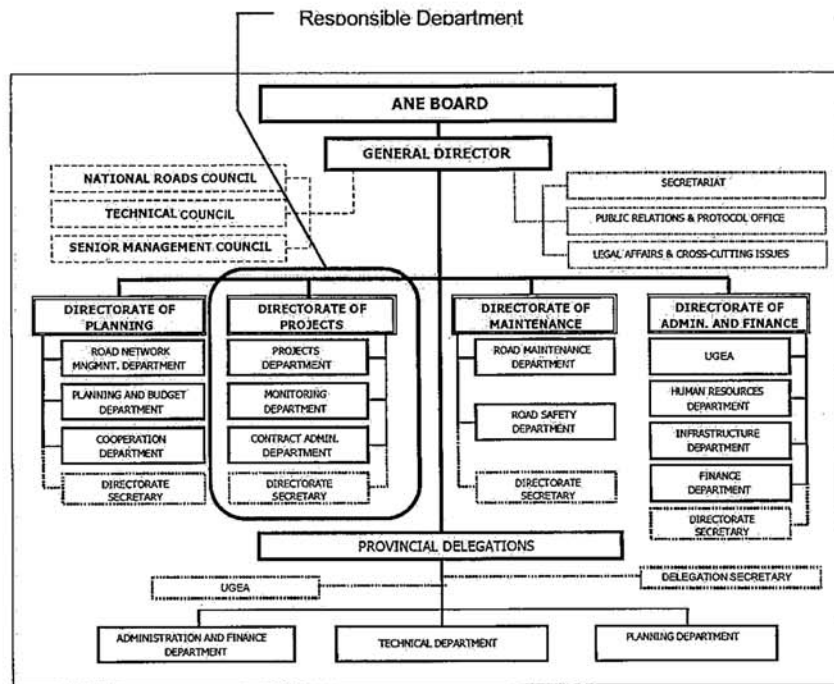
Annex-2



Organizational Chart of MOPH

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Annex-3



Organization Chart of ANE

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Annex-4

Prioritization of the requested bridges

Priority	Bridge
1	Nivaco Bridge
2	Matacasse Bridge Ualasse Bridge Matsitse Bridge Nuhusse Bridge Namisagua Bridge
3	Lurio Bridge
4	Namutimbua Bridge
5	Muassi Bridge
6	Licungo Bridge
7	Mutabasse Bridge
8	Lua Bridge
9	Muliquela Bridge

7/10

Annex-5

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.

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- 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

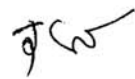
After the Project is approved by the Cabinet of Japan, the Exchange of Notes(hereinafter referred to as "the E/N") will be signed between the GOJ and the Government of the recipient country to make a pledge for assistance, which is followed by the conclusion of the G/A between JICA and the Government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

(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.

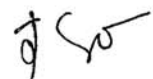
b) The payments will be made when payment requests are presented by the Bank to JICA under an Authorization to Pay (A/P) issued by the Government of the recipient country or its designated authority.

(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.

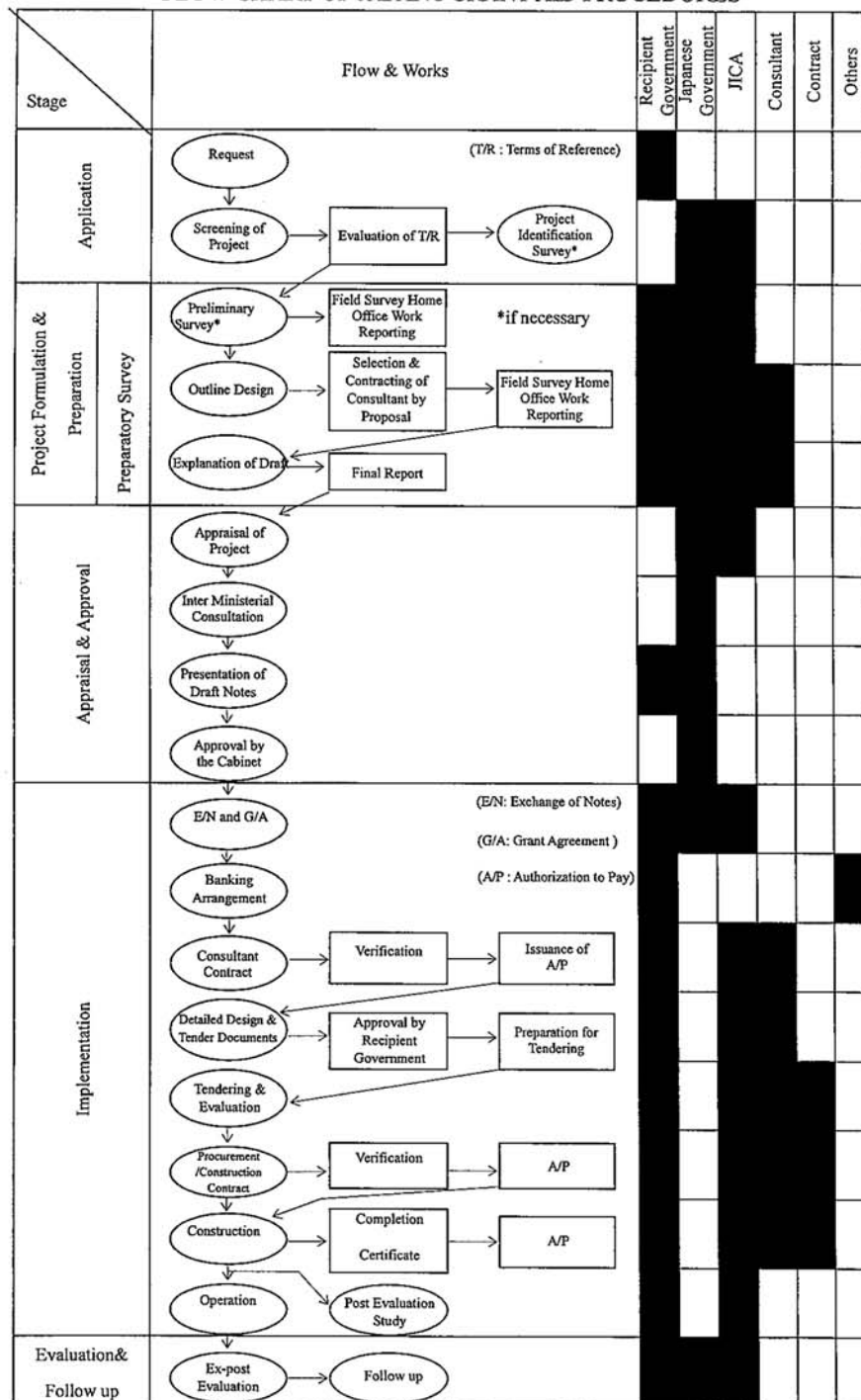
(10) Social and Environmental Considerations

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.



Annex-6

FLOW CHART OF JAPAN'S GRANT AID PROCEDURES



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Annex-7

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 a lot of land necessary for the implementation of the Project and to clear the site;		●
2	To ensure prompt unloading and customs clearance of the products at ports of disembarkation in the		
	1) Marine (Air) transportation of the Products from Japan to the recipient country	●	
	2) Tax exemption and custom clearance of the Products at the port of disembarkation		●
	3) Internal transportation from the port of disembarkation to the project site	(●)	(●)
3	To ensure that customs duties, internal taxes and other fiscal levies which may be imposed in the		●
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]/[the Facilities]/ [the products] be maintained and used properly and effectively for the implementation of the Project		●
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		
	1) Advising commission of A/P		●
	2) Payment commission		●
8	To give due environmental and social consideration in the implementation of the Project.		●

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

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4.2 第2次現地調査時(DBD 現地説明時) (2011年11月2日)

**MINUTES OF DISCUSSIONS
ON THE PREPARATORY SURVEY ON THE PROJECT
FOR CONSTRUCTION OF BRIDGES ON THE ROAD BETWEEN ILE AND CUAMBA
IN THE REPUBLIC OF MOZAMBIQUE
(Explanation on Draft Final Report)**

In March 2011, the Japan International Cooperation Agency (hereinafter referred to as "JICA") dispatched the Preparatory Survey Teams on the Project for Construction of Bridges on the Road between Ile and Cuamba in the Republic of Mozambique (hereinafter referred to as "Mozambique"), and through discussions, field surveys and technical examination of the results in Japan, JICA prepared a Draft Final Report of the study.

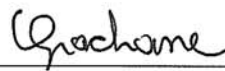
In order to explain and to consult with the concerned officials of the Government of Mozambique on the contents of the Draft Final Report, JICA sent to Mozambique the Preparatory Survey Team (hereinafter referred to as "the Team"), for explaining the Draft Final Report. The team is headed by Mr. Masahiko Suzuki, Senior Transport Sector Advisor, JICA and is scheduled to stay from October 27 to November 3, 2011.

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

Maputo, November 2, 2011



Mr. Masahiko Suzuki
Leader
Preparatory Survey Team
Japan International Cooperation Agency



Mr. Cecilio Grachane
Director General
National Road Administration

Witnessed by



Mr. Elias Paulo
Chairman
Road Fund Board

ATTACHMENT

1. Project Component
After the explanation of the contents of the Draft Final Report by the Team, the Mozambican side agreed in principle to the project contents, while live load of the bridge design will be updated at the detailed design stage based on the updated standard of National Road Administration (ANE).
2. Cost Estimation
Both sides agreed that the Project Cost Estimation as attached in Annex-1 should never be duplicated or disclosed to any third parties before the signing of all the contract(s) with contractor(s) for the Project.
3. Japan's Grant Aid Scheme
The Mozambican side understood the Japan's Grant Aid scheme and the necessary measures to be taken by the recipient country as explained by the Team and described in Annex-5, Annex-6 and Annex-7 of the Minutes of Discussions signed on March 23, 2011.
4. Schedule of the Study
JICA will complete the final report in accordance with the confirmed items and send it to the Mozambican side around February, 2012.
5. Environmental and Social Considerations
 - 5-1 The Mozambican side agreed to complete the EIA certification process and inform the result to JICA Mozambique office by the end of November, 2011.
 - 5-2. Both sides agreed the contents of the Environmental Checklist as shown in Annex-2.
 - 5-3. The Mozambican side agreed that monitoring for Environmental and Social considerations should be conducted by ANE in accordance with the Monitoring Plan for the Project described in the Preparatory Survey Report and EIA report.
The results of monitoring will be provided to JICA by filling in the Monitoring Form attached as Annex-3, at the pre- construction phase and monthly in the construction phase.
 - 5-4. The Mozambican side agreed that JICA will disclose the results of the monitoring conducted by ANE on JICA's website and report the results to the Advisory Committee for Environmental and Social Considerations established by JICA on a periodic basis.
6. Other Relevant Issues
 - 6-1. Both sides confirmed that the following undertakings should be carried out by the Mozambican side at the Mozambican expenses for the Project.
 - (1) To acquire the land necessary for the Project, compensate for the crops affected by the Project and relocate all utilities from the Project site by the end of July, 2012.
 - (2) To clear the landmines and unexploded ordnance in the area shown in Annex-4 and send the result to JICA Mozambique office by the end of July, 2012.
 - (3) To clear the landmines and unexploded ordnance in the Project area requested by the consultant(s) or contractor(s) during the detailed design stage and the construction stage.
 - (4) To demolish existing Mutabasse, Lurio, Muassi and Namutinbua Bridges after the completion of the

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- new bridges.
- (5) Necessary arrangement for traffic control at necessary sections.
 - (6) To provide construction yards for the Project.
 - (7) To provide borrowing pits, quarry and disposal areas.
 - (8) Necessary arrangement for tax exemption and custom clearance for project related equipments, materials and facilities.
- 6-2. Mozambican side agreed that the clearance of the landmines and unexploded ordnance within the Project area and the relocation of all utilities which interrupt the Project are the pre-requisite of pre-qualification of contractors.
- 6-3. Both sides confirmed that in case of an accident by landmines or unexploded ordnance, the Mozambican side takes full responsibility to address it.
- 6-4. The road between Ile/Nampevo to Cuamba is currently or planned to be rehabilitated by other development partners. The Mozambican side confirmed that the rehabilitation will be completed with two lane paved road.
- 6-5. The Mozambican side shall bear the following costs as a condition for the Japan's Grant Aid to be implemented.
- (1) The commissions for the banking services based upon Banking Arrangement (B/A)
 - (2) The advising commission of the Authorization to Pay (A/P)
- 6-6. The Mozambican side shall secure enough budget and personnel necessary for the operation and maintenance of the facilities constructed by the Project.

Annex-1 Project Cost Estimation

Annex-2 Environmental Checklist

Annex-3 Monitoring Form

Annex-4 Required demining area for the construction of bridges

1
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Environmental Checklist			Annex-2	
Category	Environmental Item	Main Check Items	Yes: Y No: N	Confirmation of Environmental Considerations (Reasons, Mitigation Measures)
1 Permits and Explanation	(1) EIA and Environmental Permits	(a) Have EIA reports been already prepared in official process? (b) Have EIA reports been approved by authorities of the host country's government? (c) Have EIA reports been unconditionally approved? If conditions are imposed on the approval of EIA reports, are the conditions satisfied? (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) N (b) N (c) - (d) N	(a) Based on the categorization decided by DPCA, Environmental Study is being conducted at the moment. ANE applied DPCA for the categorization of the project for EIA process and DPCA made categorization of impacts based on the field survey. In Zambezia province, all 11 bridges were categorized as category C. In Niassa province, 2 bridges were categorized as category C and 1 bridge: Br-Lurio was categorized as category B. The project of category E requires EAS for obtaining Environmental license. For the other 12 bridges, further studies are not required. (b) The study for EAS is in progress. Simplified Environmental Report(EAS) for the Lurio bridge will be submitted to the MICOA for the approval. Environmental license will be issued by MICOA by the end of November, 2011. (c) After submitting the report, it will be clarified whether some conditions are imposed on the approval or not. (d) As mentioned above, further studies on the other 11 bridges are not required for obtaining the environmental license issued by the MICOA.
	(2) Explanation to the Local 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? (b) Have the comment from the stakeholders (such as local residents) been reflected to the project design?	(a) Y (b) N	(a) The local residents are generally explained about the project, because the road implementation project has been already started in the area. After finalizing the project affected area, the baseline survey for the land(for peoples, if necessary), will be conducted. Before the commencement of the land survey, the project activity (including cut-off date) was informed to the local residents. Resettlement was avoided at the basic design. (b) As to the compensation, the discussion between ANE and local residents has been done. ANE will establish the system for compensation. In case the local residents have any grievance, the issue will be solved based on the regulations stipulated by the MICOA.
	(3) Examination of Alternatives	(a) Have alternative plans of the project been examined with social and environmental considerations?	(a) Y	(a) To minimize the environmental impact, each bridge location was considered at preparatory survey(phase-1).
2 Pollution 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? (b) If air quality already exceed country's standards near the route, is there a possibility that the project will make air pollution worse?	(a) N (b) N	(a) No particular impact is anticipated. (b) No particular impact is anticipated.
	(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? (b) Is there a possibility that the project will contaminate water sources, such as well water?	(a) N (b) N	(a) The project mainly contains the replacement of existing old bridges and no particular impact is anticipated. (b) No particular impact is anticipated.
	(3) Noise and Vibration	(a) Do noise and vibrations from the vehicle and train traffic comply with the country's standards? (b) Do low frequency sound from the vehicle and train traffic comply with the country's standards?	(a) - (b) -	(a) There is no particular standard for noise and vibration for vehicle and train traffic. (b) There is no particular standard for low frequency sound from the vehicle and train traffic.

2

3

7

Environmental Checklist Annex-2

Category	Environmental Item	Main Check Items	Yes: Y No: N	Confirmation of Environmental Considerations (Reasons, Mitigation Measures)
3 Natural 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? (b) Does the project site encompass primeval forests, tropical rain forests, ecologically valuable habitats (e.g., coral reefs, mangroves, or tidal flats)? (c) Does the project site encompass the protected habitats of endangered species designated by the country's laws or international treaties and conventions? (d) If significant ecological impacts are anticipated, are adequate protection measures taken to reduce the impacts on the ecosystem? (e) Are adequate protection measures taken to prevent impacts, such as disruption or migration routes, habitat fragmentation, and traffic accident of wildlife and livestock?	(a) N (b) N (c) - (d) - (e) -	(a) There is no protected area at the surrounding area of the bridges. (b) There is no particular important ecosystem which is categorized as an ecologically valuable habitats near the bridges. (c) No serious impact to the ecosystem is anticipated. (d) Basic concept of the project is to replace old small and middle scale bridges and there is no serious impact anticipated. There is no significant forest area near the bridges.
	(2) Ecosystem	(a) Is there a possibility that installation of bridges and access roads will cause impacts, such as destruction of forest, poaching, desertification, reduction in wetland areas, and disturbance of ecosystems due to introduction of exotic (non-native invasive) species and pests? Are adequate measures for preventing such impacts considered?	(a) N	
	(3) Hydrology	(a) Is there a possibility that hydrologic changes due to the installation of structures will adversely affect surface water and groundwater flows? (b) Are 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? (c) 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? (d) 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 (b) N (c) N	(a) No serious impact to hydrology is anticipated. (b) No serious impact is anticipated because the project mainly contains the replacement of the old bridges. (c) No serious impact to the soil erosion is anticipated. Yet, embankment and cutting slope will be protected adequately such as by vegetation.
	(4) Topography and Geology			

2

Environmental Checklist
Annex-2

Category	Environmental Item	Main Check Items	Yes: Y No: N	Confirmation of Environmental Considerations (Reasons, Mitigation Measures)
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? (b) Is adequate explanation on compensation and resettlement assistance given to affected people prior to resettlement? (c) Is the resettlement plan, including compensation with full replacement costs, restoration of livelihoods and living standards developed based on socioeconomic studies on resettlement? (d) Is the compensation going to be paid prior to the resettlement? (e) Is the compensation policies prepared in document? (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? (g) Are agreements with the affected people obtained prior to resettlement? (h) Is the organizational framework established to properly implement resettlement? (i) Are the capacity and budget secured to implement the plan? (j) Are any plans developed to monitor the impacts of resettlement? (k) Is the grievance redress mechanism established?	(a) N (b) Y (c) Y (d) Y (e) Y (f) Y (g) Y (h) Y (i) Y (j) Y (k) Y	(a) No resettlement is associated to the project. The resettlement was avoided at the basic design. (b) The resettlement was avoided at the basic design. (c) No resettlement is associated to the project. For the land acquisition, the baseline survey will be conducted by ANE based on the result of the basic design study. (d) Compensation for crops is expected to be done before implementation. (e) There is no document prepared for this project. The document is expected to be made based on the result of the basic design study. (f) No resettlement is associated to the project. (g) No resettlement is associated to the project. (h) No resettlement is associated to the project. (i) No resettlement is associated to the project. (j) No resettlement is associated to the project. (k) No resettlement is associated to the project.
	(2) Living and Livelihood	(a) Where bridges and access 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? (b) Is there any possibility that the project will adversely affect the living conditions of the inhabitants other than the target population? Are adequate measures considered to reduce the impacts, if necessary? (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? (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)? (e) Is there any possibility that project will impede the movement of the inhabitants? (f) Is there any possibility that bridges will cause a sun shading and radio interference?	(a) N (b) N (c) Y (d) N (e) N (f) N	(a) During the construction stage, temporary detours will be provided to avoid traffic problems. Improvement of road condition is expected to contribute economical development in the area. (b) No particular negative impact is anticipated. (c) Increased number of labours/traffics for construction activities/transportation may increase risk of the disease including HIV/AIDS infection in the rural areas. Adequate education to the labours will be provided by ANE. (d) No serious negative impact is anticipated. Collaboration with the local government (Police station) and adequate signboard will be installed. (e) No serious negative impact is anticipated. (f) No serious negative impact is anticipated.
	(3) Heritage	(a) Is there a possibility that the project will damage the local archaeological, historical, cultural, and religious heritage? Are adequate measures considered to protect these sites in accordance with the country's laws?	(a) N	(a) The project of Bridge No.2 will not affect the grave yard near the bridges.
	(4) Landscape	(a) Is there a possibility that the project will adversely affect the local landscape? Are necessary measures taken?	(a) -	(a) No serious negative impact is anticipated.
	(5) Ethnic Minorities and Indigenous Peoples	(a) Are considerations given to reduce impacts on the culture and lifestyle of ethnic minorities and indigenous peoples? (b) Are all of the rights of ethnic minorities and indigenous peoples in relation to land and resources respected?	(a) N (b) -	(a) No particular ethnic group/indigenous people are affected by the project. (b)

Annex-2

Environmental Checklist		Confirmation of Environmental Considerations (Reasons, Mitigation Measures)		Yes: Y No: N
4 Social Environment	Environmental Item	Main Check Items		
	(6) Working Conditions	(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? (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? (c) Are triageable 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.? (d) Are appropriate measures taken to ensure that security guards involved in the project not to violate safety of other individuals involved, or local residents?		
5 Others	(1) Impacts during Construction	(a) Are adequate measures considered to reduce impacts during construction (e.g., noise, vibrations, turbid water, dust, exhaust gases, and wastes)? (b) If construction activities adversely affect the natural environment (ecosystem), are adequate measures considered to reduce impacts? (c) If construction activities adversely affect the social environment, are adequate measures considered to reduce impacts?		
	(2) Monitoring	(a) Does the proponent develop and implement monitoring program for the environmental items that are considered to have potential impacts? (b) What are the items, methods and frequencies of the monitoring program? (c) Does the proponent establish an adequate monitoring framework (organization, personnel, equipment, and adequate budget to sustain the monitoring framework)? (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?		
6 Note	Reference to Checklist of Other Sectors	(a) Where necessary, pertinent items described in the Roads, Railways and Forestry Projects checklist should also be checked (e.g., projects including large areas of deforestation). (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).		
	Note on Using Environmental Checklist	(a) If necessary, the impacts to transboundary or global issues should be confirmed (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).		
1) Regarding the item "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 the project is located.				

Annex-3

Environmental Monitoring Plan (Tentative draft)

Environmental item	Contents for monitoring	Method	Result	Implemented by	Frequency and expected time
Planning phase					
Environmental License	1. Situation of obtaining the license 2. Conditions for obtaining the license	Handing in relevant documents (copy of license, application documents)		ANE	Once after completion of process (by the end of Nov, 2011)
Results of the basic design	Involuntary resettlement	Joint survey with land owner/ user, community representative. Handing in relevant documents to JICA		ANE	Once after Basic Design
Adequate compensation	Local residents for land acquisition	Joint survey with land owner/ user, community representative. Handing in relevant documents to JICA		ANE	Once after Basic Design and completion of process
Information to the local residents	Information about the results of basic design.	Results of activities		ANE	Once after Basic Design
Construction phase					
Adequate project implementation following legislation / instruction of MICOA	Conditions in the environmental license or others instruction from MICOA	Relevant documents		Consultant/ Contractor	During construction as it be requested by MICOA
Compensation or replacement of public facilities such as washing place	Alternative facilities whether those are compensated adequately.	Alternative facilities		Consultant / Contractor	Once during construction
Grievance from the local residents	Grievance process whether it meet to ANE's framework	Record of grievance		Villages/ Districts/ ANE/ Consultant	Monthly Meeting
Operation phase					
Grievance from the local residents	Grievance process whether it meet to ANE's framework	Record of grievance		Villages/ Districts/ ANE/ Consultant	Once after completion of bridge

Source: JICA Study Team

7 9