

## ***[Appendices]***

- 1. Member List of the Study Team***
- 2. Study Schedule***
- 3. List of Parties Concerned in the Recipient Country***
- 4. Minutes of Discussions***
- 5. Others***
  - 5-1. Result of Traffic Volume Count***
  - 5-2. Result of Topographic Survey***
  - 5-3. Result of Geological Investigation***
  - 5-4. Result of Environmental Social Consideration Investigation***
  - 5-5. Existing Structures Inventory***

**Appendix 1. Member List of the Study Team**

Assignment	Name	Organization
Team Leader	Yuusuke KITAMURA	JICA PNG Office Representative
Project Coordinator	Masahiko EGAMI	Grant Aid Management Department, JICA
Chief Consultant	Junji YASUI	International Division, Chodai Co., Ltd.
Bridge Design I	Masahiko MORI	International Division, Chodai Co., Ltd.
Bridge Design II	Hitoshi NAKAMURA	International Division, Chodai Co., Ltd.
Environmental Social Consideration I	Hironori KUROKI	Japan Engineering Consultants Co., Ltd.
Construction Plan / Cost Estimate	Jun MORISHITA	International Division, Chodai Co., Ltd.
Natural Condition Survey I	Nobuyuki OKABE	Japan Engineering Consultants Co., Ltd.
Environmental Social Consideration II Natural Condition Survey II	Ryoichi KAWABE	International Division, Chodai Co., Ltd.




## Appendix 2. Study Schedule

The 1<sup>st</sup> site investigation Schedule

Date	Item	Team Leader	Project Coordinator	Chief Consultant/Bridge Planner	Bridge Designer. I	Bridge Designer. II	Environmental Social Consideration	Construction Planner / Cost Estimator	Natural Condition Surveyor I (Hydrology)	Natural Condition Surveyor II (Geology and Topography)			
				J. Yasui	M. Mori	H.Nakamura	H.Kuroki	J. Morishita	N. Okabe	R. Kawabe			
1	27-Feb	Wed	Y.Kitamura	M. Egami	Departure from Naria			Naria	Naria	Naria			
2	28-Feb	Thu			Arrive at Port Moresby JICA office Sub-contractor signing			JICA office	JICA office	JICA office			
3	29-Feb	Fri			Japan Embassy, DNP			Japan Embassy DNP	Japan Embassy DNP	Japan Embassy DNP			
4	1-Mar	Sat			Buka				Buka	Buka			
5	2-Mar	Sun			Site survey				Cost Estimat Survey at Port Moresby	Site Survey			
6	3-Mar	Mon			Site survey					Rabaul			
7	4-Mar	Tue			Site survey								
8	5-Mar	Wed			Site survey		Port Moresby	Site Survey	Naria	Naria	Boring instruments Immigration formalities		
9	6-Mar	Thu			Data collection		Port Moresby		LAE	Port Moresby			
10	7-Mar	Fri			DNP,DOW,Environment Ministry				DNP,DOW,Environment Ministry	Data collection			
11	8-Mar	Sat			Naria	Rabaul	Data collection		Data collection		Buka		
12	9-Mar	Sun			Port Moresby,Meeting Study Team	Port Moresby	Data collection		Data arrangement	Cost Estimate Survey(LAE)			
13	10-Mar	Mon			Meeting with JICA Office, C/C on EOJ, C/C on and Discussion with DNP,DOW,ABG				JICA,EOJ,DNP		Hydraulics Data collection (Port Moresby)	Boring inspection	
14	11-Mar	Tue			Discussion with DOW,ABG				DOW				
15	12-Mar	Wed			Finalization of M/D with DNP,DOW and ABG Signing of M/D with DNP,DOW and ABG Report to EOJ, 14:00 JICA office				Buka				
16	13-Mar	Thu			Data collection					Rabaul			
17	14-Mar	Fri			Buka								Buka
18	15-Mar	Sat			Data collection				Cost Estimate Survey (Rabaul)				
19	16-Mar	Sun			Buka					Hydraulics Data collection			
20	17-Mar	Mon			Site survey					Buka	Port Moresby		
21	18-Mar	Tue			Site survey						Naria		
22	19-Mar	Wed			Site survey								
23	20-Mar	Thu			Site survey								
24	21-Mar	Fri			PNG National Holiday								
25	22-Mar	Sat			PNG National Holiday			Port Moresby	Site Survey				
26	23-Mar	Sun			PNG National Holiday			Data collection	Environment Data collection				
27	24-Mar	Mon			PNG National Holiday			Site survey			Geologic survey		
28	25-Mar	Tue			Arrive at Naria								
29	26-Mar	Wed			Port Moresby					Port Moresby			
30	27-Mar	Thu			Port Moresby								
31	28-Mar	Fri			Report to DNP, DOW				Cost Estimat Survey (Port Moresby)				
32	29-Mar	Sat			Data collection					Port Moresby			
33	30-Mar	Sun			Data collection					DNP,DOW			
34	31-Mar	Mon			Report to Japan Embassy, to JICA office,		Report		Report to Japan embassy, to JICA office	Report			
35	1-Apr	Tue			Arrive at Naria					Arrive at Naria			

Traveling    
 Port Moresby    
 Site    
 Rabaul    
 Lae

2<sup>nd</sup> site investigation schedule

Assignment & name Date			Environmental Social Consideration I Hironori KUROKI	Environmental Social Consideration II Ryoichi KAWABE	
			1	Jun. 15	Sun.
2	Jun. 16	Mon.	Arrive POM JPN Embassy, JICA, DNPM		
3	Jun. 17	Tue.	Aus AID, DEC, DOW		
4	Jun. 18	Wed.	Move to Buka, Meeting ABG		
5	Jun. 19	Thu.	Site Investigation		
6	Jun. 20	Fri.			
7	Jun. 21	Sat.			
8	Jun. 22	Sun.			
9	Jun. 23	Mon.			
10	Jun. 24	Tue.			
11	Jun. 25	Wed.	Move to POM		
12	Jun. 26	Thu.	DNPM, DOW		
13	Jun. 27	Fri.	JPN Embassy, JICA		
14	Jun. 28	Sat.	Arrive Narita		
			 Move	 Meeting	 Site Investigation

3<sup>rd</sup> site investigation schedule

Assignment & name Date			Chief Consultant/ Bridge Planner Junji YASUI	Bridge Designer I Masahiko MORI	Environmental Social Consideration I Hironori KUROKI
			1	Oct.5	Sun.
2	Oct. 6	Mon.	Arrive POM JPN Embassy, JICA, DNPM		
3	Oct.7	Tue.	Explanation and discussion		
4	Oct.8	Wed.			
5	Oct.9	Thu.			
6	Oct.10	Fri.			
7	Oct.11	Sat.	Signing of Minutes of Discussion		
8	Ocr.12	Sun	Arrive Narita		

### **Appendix 3. List of parties Concerned in the Recipient Country**

- ( 1 ) Department of National Planning and Monitoring : DNPM
  - Mr. Mosilayola Kwayaila, Director, Aid Policy & Coordination Directorate
  - Mr. Karl Sopol, Assistant Director Bilateral Branch
  - Mr. Robert Gondor, Senior Aid Coordinator Japan Desk
  - Mr. Raimond Oliver, Aid Coordinator
  - Ms. Jenny Tumun, Aid Coordinator
  - Mr. Nelson Kai, Senior Planner Transport
  - Mr. Paul Iliia, Assistant Secretary Infrastructure
  - Mr. Danny Storr, Assistant Director Provincial District Coordination
  - Mr. Touru OGURA Project Formulation Advisor
  - Mr. Michio SERIZAWA Project Formulation Advisor
  
- ( 2 ) Department of Works : DOW
  - Mr. Joel Luma, Secretary
  - Mr. Eric Sikam, First Assistant Secretary
  - Mr. Wilfred Peko, Assistant secretary
  - Mr. William Willie Asigau, Environmental Officer
  - Mr. Michaela Sirabis, Assistant Secretary of Survey and Lands Branch
  
- ( 3 ) DOW Buka Office
  - Mr. Hillary Hangatsia, Provincial Works manager
  - Mr. Patrick Matheson, Acting/Provincial Civil Engineer
  
- ( 4 ) Autonomous Bougainville Government : ABG
  - Mr. Raymond Masono, Chief Administration
  - Mr. John Kolan, Chief Executive Officer-Technical Service
  - Mr. Itamai Simeon, Civil Engineer
  - Mr. Ephraim Evrunoni, Special Project Officer
  - Mr. Sam Rangai, Chief Executive Officer (DPI)
  - Mr. Gabriel Wayen, Division of Economic Service (DPI)
  - Mr. Joe Ababa, Officer (DPI)

- ( 5 ) Department of Environment and Conservation : DEC  
Ms. Katrina Solien, Assistant Manager-EIA
  
- ( 6 ) Internal Revenue Commission : IRC  
Mr. William Saapak, Director Tariff & Trade
  
- ( 7 ) Australian Agency for International Development : AusAID  
Mr. Bob Willis, Director Autonomous Region of Bougainville

**Appendix 4. Minutes of Discussions**

1st Site investigation

**Minutes of Discussions  
on the Basic Design Study  
on the Project for Construction of Bridges on Bougainville Coastal Trunk Road  
in the Independent State of Papua New Guinea**

Based on the results of the Preliminary Study, the Government of Japan decided to conduct a Basic Design Study on the Project for Construction of Bridges on Bougainville Coastal Trunk Road (hereinafter referred to as "the Project") and entrusted the study to the Japan International Cooperation Agency (hereinafter referred to as "JICA").

JICA sent to the Independent State of Papua New Guinea (hereinafter referred to as "PNG") the Basic Design Study Team (hereinafter referred to as "the Team" ), which was headed by Mr. Yusuke Kitamura, Resident Representative of the JICA PNG Office, and is scheduled to stay in the country from February 28 to April 1, 2008.

The Team held discussions with the officials concerned of the Government of PNG and conducted a field survey at 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 proceed to further works and prepare the Basic Design Study Report.

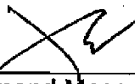
Port Moresby, March 12, 2008



Yusuke Kitamura  
Leader  
Basic Design Study Team  
Japan International Cooperation Agency



Mosilayola Kwayaila  
Director, Aid Policy & Coordination Directorate  
Department of National Planning and Monitoring  
PNG



Raymond Masono  
Acting Chief Administrator  
Autonomous Bougainville Government  
PNG



Eric Sikam  
First Assistant Secretary (Technical Services)  
Department of Works  
PNG

## ATTACHMENT

### 1. Objective of the Project

The objective of the Project is to construct bridges and culverts on Bougainville Coastal Trunk Road, in order to support provincial security, secure economic development and provincial cohesion.

### 2. Project Site

The sites of the Project are on Bougainville Coastal Trunk Road between Kokopau and Arawa in Bougainville Autonomous Region, as shown in Annex-1.

### 3. Responsible and Implementing Organizations

3-1. The Responsible organization is the Department of National Planning and Monitoring (DNPM) of the Government of PNG. DNPM shall have the responsibility for the Project as a client when the Project is implemented, and also have the responsibility for coordinating Implementing Agencies.

3-2. The Implementing Agencies are the Department of Works (DOW) and the Autonomous Bougainville Government (ABG). DOW is responsible for the implementation of the Project and for maintenance after construction with support as required from ABG. Organization charts of DNPM, DOW and ABG are shown in Annex-2.

### 4. Items Requested by the Government of PNG

After discussions with the Team, the Project components were confirmed as below:

- Construction of bridges and culverts at fifteen river crossing places listed in Annex-1.

JICA will assess the appropriateness of the request and will recommend to the Government of Japan for approval.

### 5. Japan's Grant Aid Scheme

5-1. PNG side understands the Japan's Grant Aid Scheme and the necessary measures to be taken by the Government of PNG as explained by the Team and described in Annex- 3 and Annex-4 of the Minutes of Discussions signed by both parties on September 5, 2007.

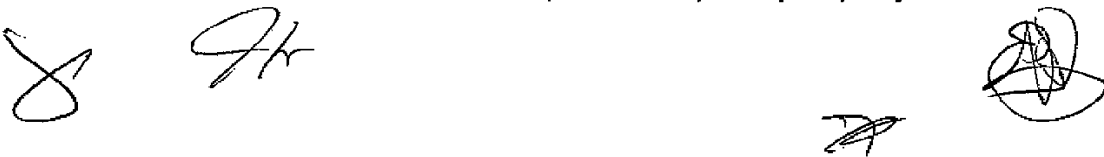
5-2. PNG side explained to the Team that the necessary measures to be taken by PNG side should be conducted by each organization as shown in Annex-3.

### 6. Schedule of the Study

6-1. The consultants will proceed to further studies in PNG until April 1, 2008.

6-2. JICA will prepare the draft report in English and dispatch a mission in order to explain its contents in August 2008.

6-3. In case that the contents of the report are accepted in principle by the Government

The bottom of the page features several handwritten signatures and initials. On the left, there is a large, stylized signature. Next to it is another signature that appears to be 'JICA'. To the right, there are two smaller, less distinct signatures or initials.



of PNG, JICA will complete the final report and send it to the Government of PNG by the end of October 2008.

#### 7. Environmental and Social Considerations

7-1. The Team explained the outline of the JICA Environmental and Social Considerations Guidelines (hereinafter referred to as "the JICA Guidelines") to PNG side. PNG side took the JICA Guidelines into consideration, and shall complete the necessary procedures.

7-2. Both sides confirmed that the Department of Environment and Conservation (DEC) categorized the Project as a Level 2 activity under the "Environment (Prescribed Activities) Regulation 2002" of the Government of PNG, as shown in Annex-4.

7-3. In accordance with the result of categorization, DOW shall prepare necessary documents with support of the Team, and submit the Environment Permit Application to DEC by the end of March 2008, in order to obtain an environment permit before the end of September 2008.

7-4. Both sides confirmed that basic understandings of the local residents for the Project were secured as the result of the stakeholder meetings for each project site held by ABG in September 2007. ABG shall hold stakeholder meetings again to explain the more specific impact including the area necessary for the Project through the Community Coordination Committees organized at each project site. The impact will be reported by the Team at the second field survey in June 2008.

7-5. PNG side shall acquire the consensus on the agreement for implementation of the Project through the stakeholder meetings, including the following articles by the end of July 2008, and report the results in writing to JICA PNG office by the same date.

(1) The stakeholders agree to the use of land necessary for the Project with conditions of the land acquisition procedures of the PNG national law.

(2) The local residents in the Project area will cooperate for the smooth implementation of the Project.

(3) In case any problem arise among local residents concerning the Project, the Community Coordination Committee members should hold meeting(s) and find out an effective solution in continuous communication with ABG and DOW.

#### 8. Land Acquisition

ABG shall secure the necessary land for the Project. The land acquisition procedure shall be in accordance with the PNG national law and the expenses of the procedures and the compensation to the local residents should also be borne by ABG. ABG shall complete the land acquisition before the implementation of the Project.



9. Other Relevant Issues

9-1. PNG side proposed to organize the Project Coordination Group consisting of DNPM, DOW and ABG for smooth implementation of the Study and the Project. Both sides confirmed that the Project Coordination Group have a meeting again when the Team is dispatched to explain draft report in August 2008.

9-2. PNG side proposed to organize a steering committee, which shall consist of DNPM, DOW, ABG and Internal Revenue Commission (IRC), immediately after the approval of the Project by the Government of Japan, in order to coordinate concerned organizations for smooth implementation of the Project. Both sides confirmed that PNG side shall prepare the outline of the committee, including the purpose, objective and role, and submit it to JICA PNG office by the end of July.

9-3. PNG side confirmed that the following undertakings should be taken by PNG side at PNG side's expenses. The organization in charge for major undertaking is shown in Annex-3.

- Relocation of existing utilities (power, telecommunication lines, water lines, etc.), if necessary,
- Removal of existing bridges and culverts at the Project sites, if necessary,
- Securing and clearance of the temporary yard and land for detour,
- Securing of the site for borrow pit and disposal of waste,
- Maintaining the security of the personnel at the sites and yards for the Project, and
- Maintaining the security of Loloho and/or Kieta ports, in order to unload and stock the construction materials and equipment for the Project.

9-4. There is no overlap of similar support by other donors in the scope of the Project.

9-5. Since the Bougainville Coastal Trunk Road is a National Road, construction permission for the Project is not necessary.

9-6. DOW and ABG shall secure enough budget and personnel necessary for the maintenance of the bridges constructed by the Project.

9-7. PNG side shall submit the answers to the Questionnaire, which the Team handed to PNG side, by March 21, 2008.

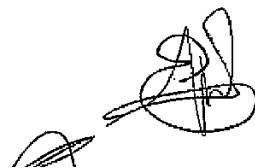
9-8. PNG side shall provide necessary number(s) of counterpart personnel to the Team during the period of the study in PNG.

Annex-1: Location Map and List of Requested Bridges

Annex-2: Organization Chart of DNPM, DOW and ABG

Annex-3: Major Undertaking to be taken by Each Government

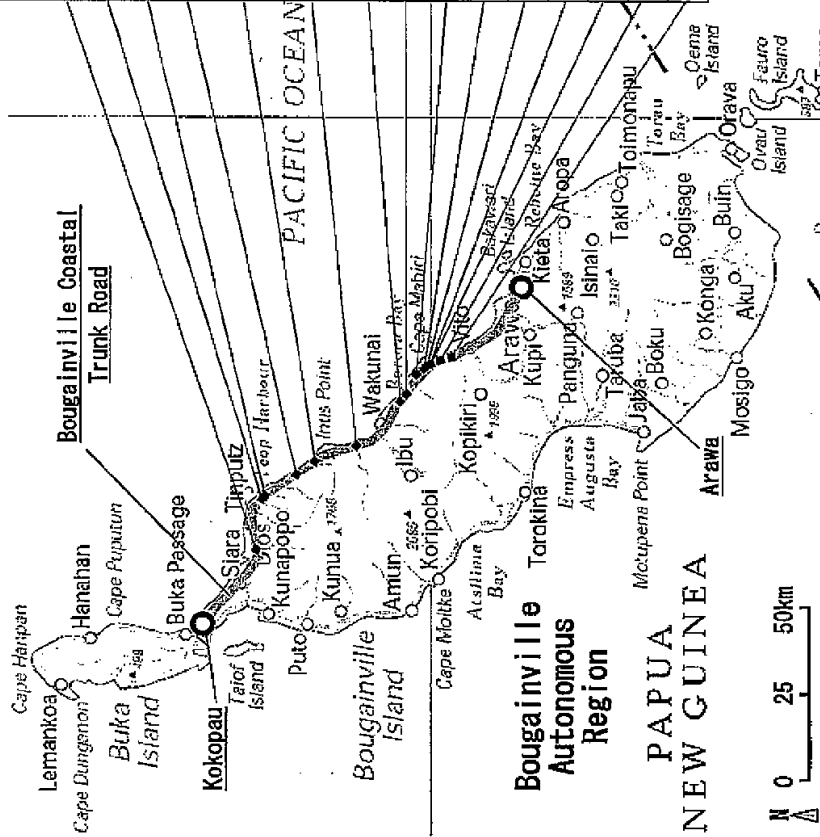
Annex-4: Notice to Apply for an Environment Permit



List of Requested Bridges

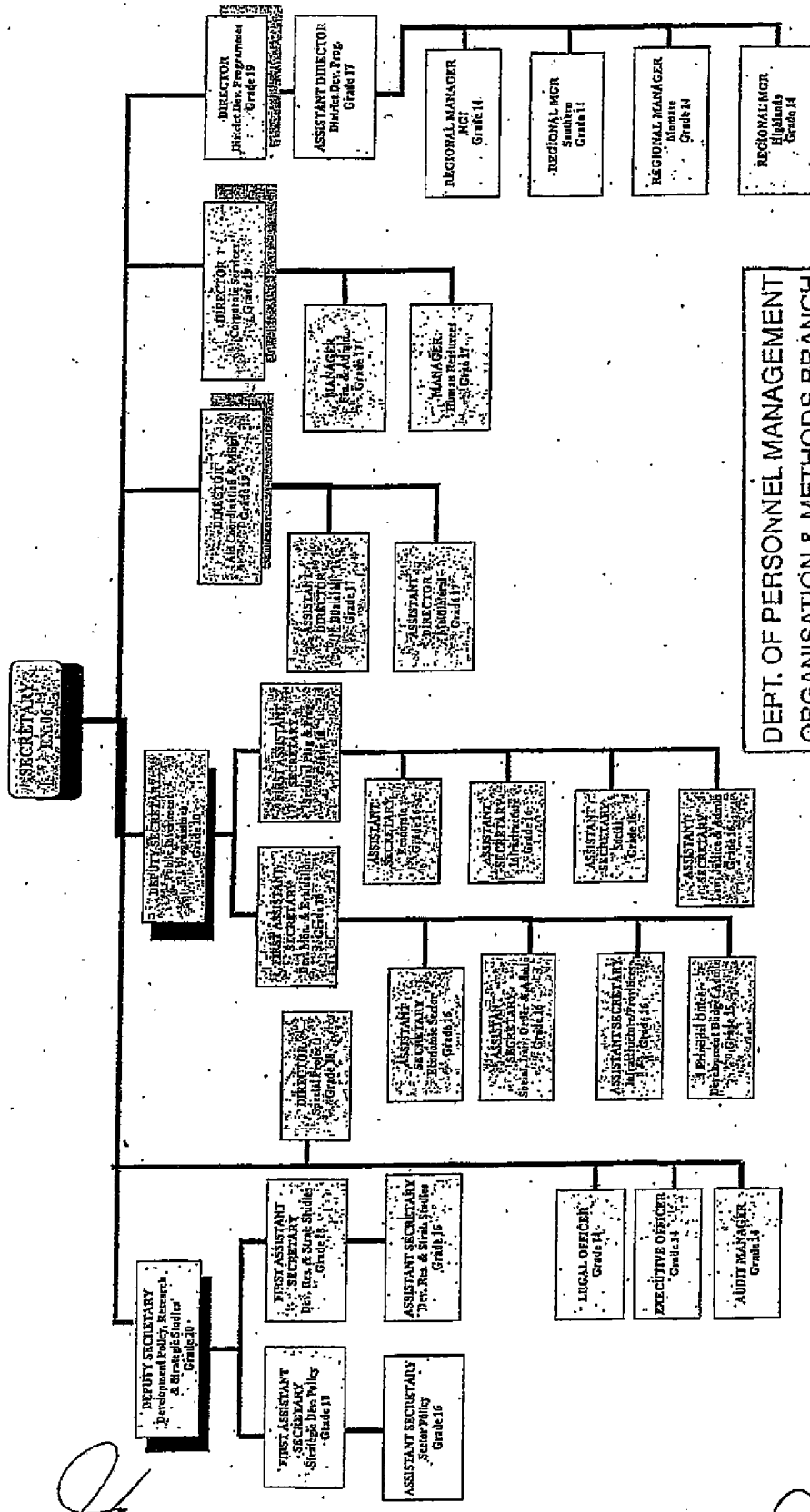
	No. & Names of Bridges		Names in the Original Request
	Corrected Names		
35.	Rawa1		Rawa1
31.	Iruing		Iruing
30.	Warakapis		Tinputz
27.	Rotaovei		Rotaovei
24.	Kaskrus (Additional Request)		Kaskas (Not Requested)
19.	Ururua (Additional Request)		Asitavi (Not Requested)
14.	Malas		Teproi
12.	Korova		Felorovia
11.	Iraka		Ivaka
10.	Ratavi		Mad Water1
9.	Creepers		Mad Water2
8.	Pukarobi 2		Mad Water3
7.	Pukarobi 1		Mad Water4
4.	Bove		Vove
3.	Bakanovi		Vakanovi

Location Map of Requested Bridges



ORGANISATIONAL AND MANAGEMENT STRUCTURE

Department of National Planning and Monitoring



DEPT. OF PERSONNEL MANAGEMENT  
 ORGANISATION & METHODS BRANCH  
 APPROVED ORG. STRUCTURE  
 DATE 10 / 08 / 06  
 SIGNATURE *Mr. K. S. [Signature]*

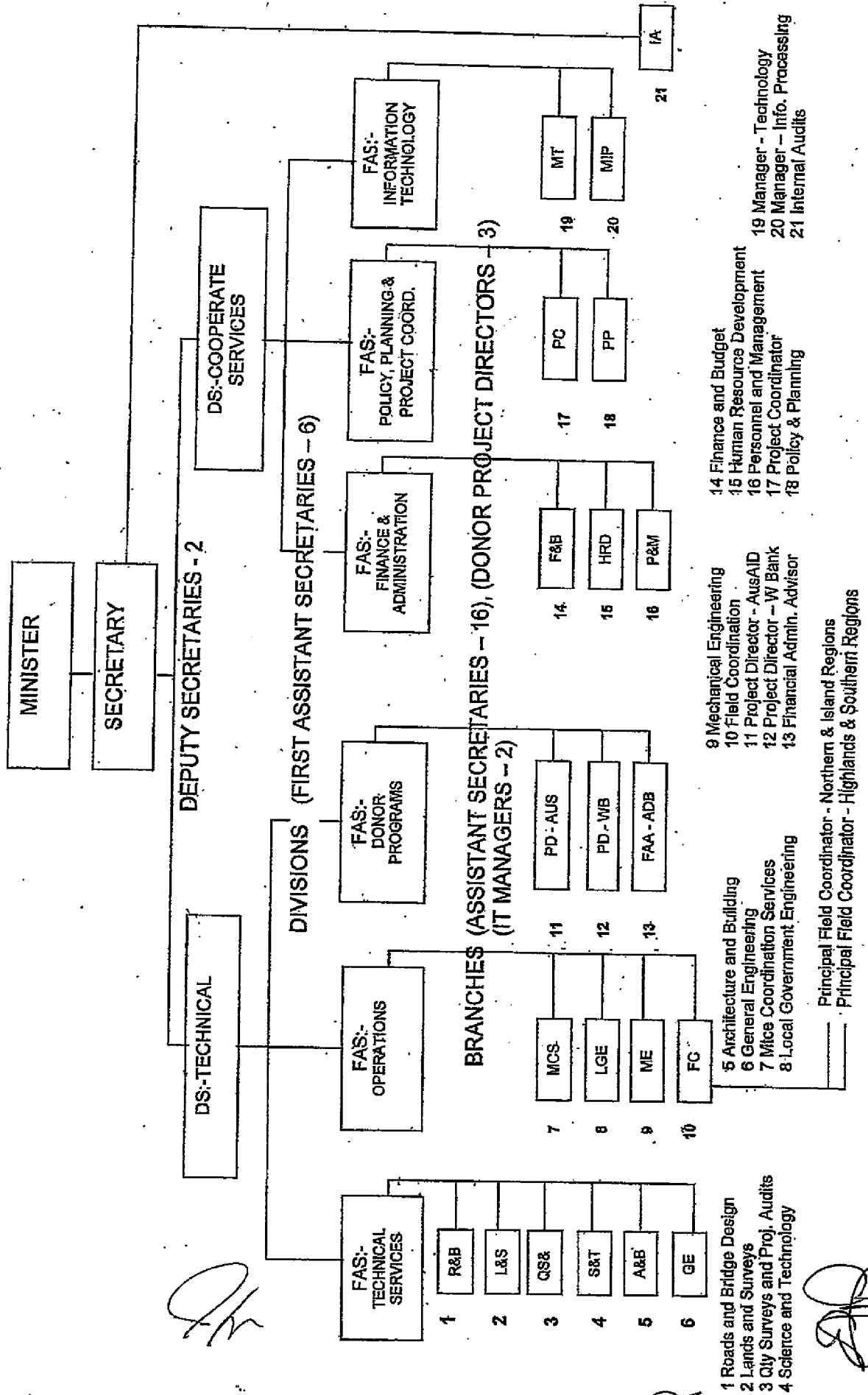
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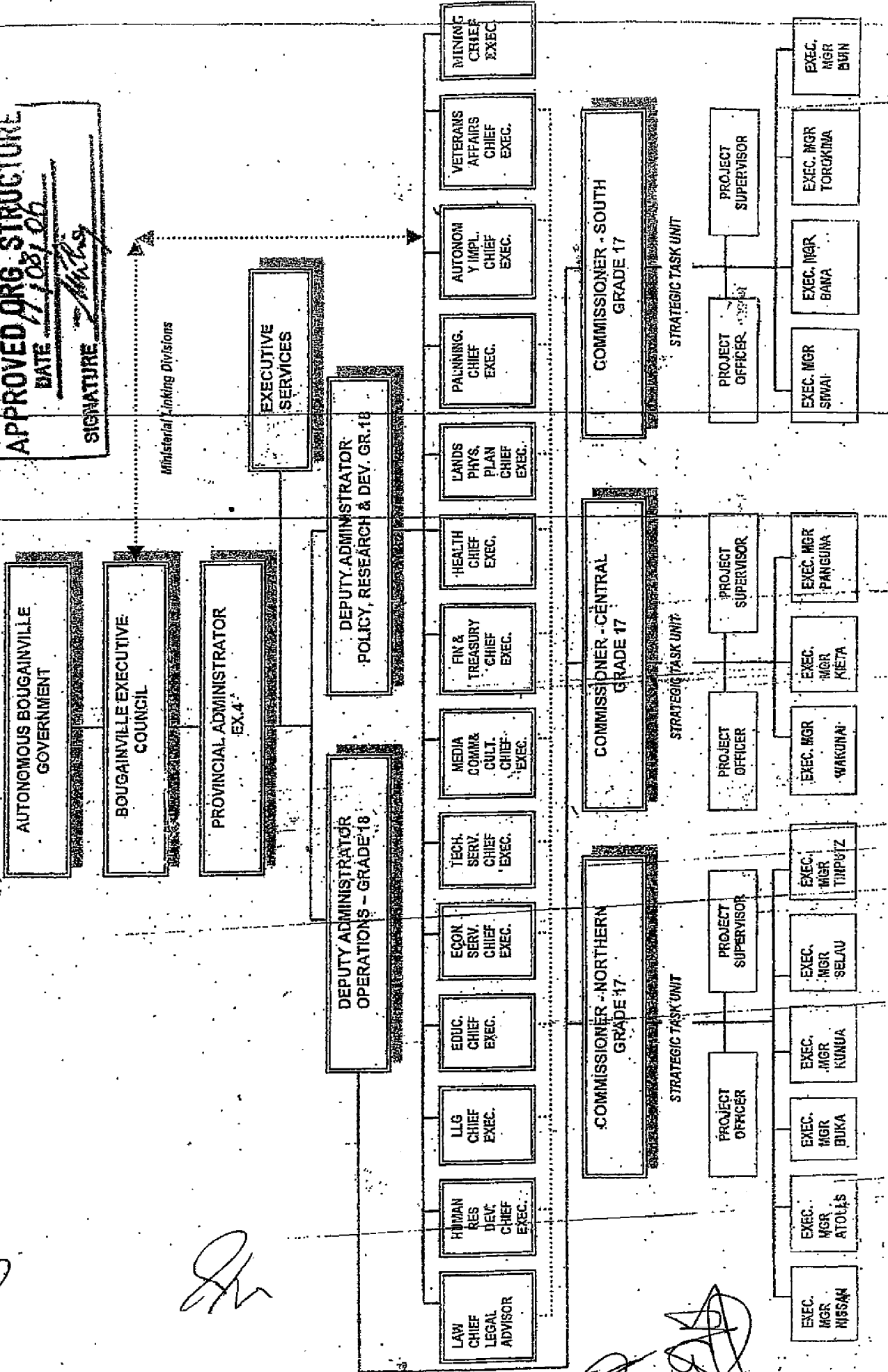
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# DEPARTMENT OF WORKS TOP ORGANISATION STRUCTURE



**AUTONOMOUS BOUGAINVILLE ADMINISTRATION  
FUNCTIONAL AND MANAGEMENT STRUCTURE**

DEPT. OF PERSONNEL MANAGEMENT  
ORGANISATION DESIGN BRANCH  
**APPROVED ORG. STRUCTURE**  
DATE 17/08/2012  
SIGNATURE *[Signature]*



## Major Undertaking to be taken by Each Government

No.	General Items for Grant Aid Scheme	To be covered by Grant Aid	To be covered by Recipient Side		
			Organization in charge		
			DNPM	DOW	ABG
1	To secure land - Allocation of Budget				● ●
2	To clear, level and reclaim the site when needed - Allocation of Budget				● ●
3	To construct gates and fences in and around the site, if necessary				●
4	To bear the following commissions to the Japanese bank for banking services based upon the Banking Arrangement (B/A)				
	1) Advising commission of Authorization to Pay (A/P)		●		
	2) Payment commission		●		
5	To ensure prompt unloading and customs clearance at the port of disembarkation in recipient country				
	1) Marine and land 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	●			
6	To accord Japanese nationals, whose services may be required in connection with the supply of the products and the services under the verified contract, such facilities as may be necessary for their entry into the recipient country and stay therein for the performance of their work.		●		
7	To exempt Japanese nationals from customs duties, internal taxes and other fiscal levies which may be imposed in the recipient country with respect to the supply of the products and services under the verified contracts		●		
8	To maintain and use properly and effectively the facilities constructed and equipment provided under the Grant Aid - Allocation of budget			●	● ●
9	To bear all the expenses, other than those to be borne by the Grant Aid, necessary for construction of the facilities as well as for the transportation and installation of the equipment			(●)	●

No.	Specific Items for the Project	To be covered by Grant Aid	To be covered by Recipient Side		
			Organization in charge		
			DNPM	DOW	ABG
10	Submission of Environment Permit Application to DEC - Payment of Application fee and Annual fee, if necessary			●	
11	Explanation of the Project to the stakeholders and acquisition of their consensus on the agreement for implementation of the Project				●
12	Relocation of existing utilities (power, telecommunication lines, water lines etc.), if necessary				●
13	Removal of existing bridges and culverts at the Project sites, if necessary			(●)	(●)
14	Securing and clearance of the temporary yard and land for detour				●
15	Securing of the site for borrow pit and disposal of waste				●
16	Maintaining the security of the personnel at the sites and yards for the Project				●
17	Maintaining the security of Loloho and/or Kieta ports, in order to unload and stock the construction materials and equipment for the Project				●
18	Maintenance of the bridges constructed by the Project - Allocation of Budget - Provision of Personnel			●	●

(●): Organization in charge within its authority





THE INDEPENDENT STATE OF PAPUA NEW GUINEA

NOTICE

Act, Sec. 50

Environment Act 2000

NOTICE TO APPLY FOR AN ENVIRONMENT PERMIT

TO: Department of Works

OF: PO Box 1108, Boroko, National Capital District.

Further to your notice of intention received on 1<sup>st</sup> October 2007 to carry out preparatory work in relation to the "Bridge Construction Project on Bougainville Trunk Road - from Buka to Arawa in North Solomons Province", please note that the proposal is categorized as a Level 2 (Category A) activity Under the Environment (Prescribed Activities) Regulations 2002.

In accordance with Section 60 of Environment Act 2000, you are required to apply for an Environmental Permit for the proposed activity. The application should consist of the following -

1. a completed Permit Application Form and a document containing the main submission, and
2. a Permit Application Fee of K100.00.

Attached is a copy of the Application Form and DEC Technical Guidelines for Water/Land Discharges, Noise Discharges & Air Discharges to assist you in completing and submitting your application.

Take note that the application should comply substantially with the DEC Technical Guidelines in terms of content before an application is lodged with the Director of Environment.

FAILURE TO COMPLY WITH REQUIREMENTS IN THE TECHNICAL GUIDELINES MAY RESULT IN REJECTION OF AN APPLICATION.

Dated: 12<sup>th</sup> October 2007

KELLY GAWI  
Acting Deputy Secretary  
Delegate of the  
Department of Environment and Conservation

encl.



**BOUGAINVILLE ADMINISTRATION**  
**DIVISION OF TECHNICAL SERVICE**  
**DIVISION OF LANDS & PHYSICAL PLANNING**

Telephone: (675) 973 9900

PO Box 322

Facsimile : (675) 973 9797

BUKA Autonomous Region Bougainville

Date: 24th June, 2008

Our Ref

Dear Mr. Yusuke KITAMURA  
 Representative of Japan International Cooperation Agency, Port Moresby

C.C.

Mr. Mosilayola KWAYAILA

Director, Department of National Planning and Monitoring

Mr. Eric SIKAM

First Assistant Secretary (Technical Service), Department of Works

Ms. Katrina SOLIEN

Acting Manager - EIA, Department of Environment and Conservation

**Re: THE PROJECT FOR CONSTRUCTION OF BRIDGES ON BOUGAINVILLE COASTAL TRUNK ROAD**

**Sub: Agreement for land acquisition and/or compensation**

Autonomous Bougainville Government (hereinafter referred to as "ABG") and Department of Works (hereinafter referred to as "DOW") held stakeholder meetings and obtained memorandum of agreements (hereinafter referred to as "MOA") for following objectives at RAWA 1 Bridge and Uruva Bridge at 19<sup>th</sup> and 23<sup>rd</sup> June 2008 with supports from JICA Study Team.

< Objectives of Stakeholder Meeting for the Project >

- a) To obtain stakeholder's consensus for implementation of the project
- b) To obtain stakeholder's agreement to the use of land necessary for the project with conditions of the land acquisition and/or compensation procedures of the Papua New Guinea national laws.
- c) To obtain consensus that in case any problems arise among local residents concerning the project, ABG, DOW and the Community Coordination Committee (hereinafter referred to as "CCC") members will hold meetings and find out an effective solution in continuous communication.



Additionally ABG will hold stakeholder meetings at remaining 13 bridge construction sites by the end of July to get agreement for above objectives.

It is expected that these meetings will be completed and submit MOA and minute of meeting by the end of July 2008.

Furthermore legal certificates\* for land acquisition and/or compensation such as Native Land Dealings (hereinafter referred to as "NLD") will be prepared by August 2009 ( before the implementation of the project).

A processes of land acquisition and compensation is attached in Annex-1 and law based compensation lists by properties are attached in Annex-2.

\*note) In 1970's, the right of way around each bridge on Bougainville Coastal Trunk Road was purchased from past land owners and declared by GoPNG. However these evidences such as NLD have been lost during the civil war in Bougainville Island.

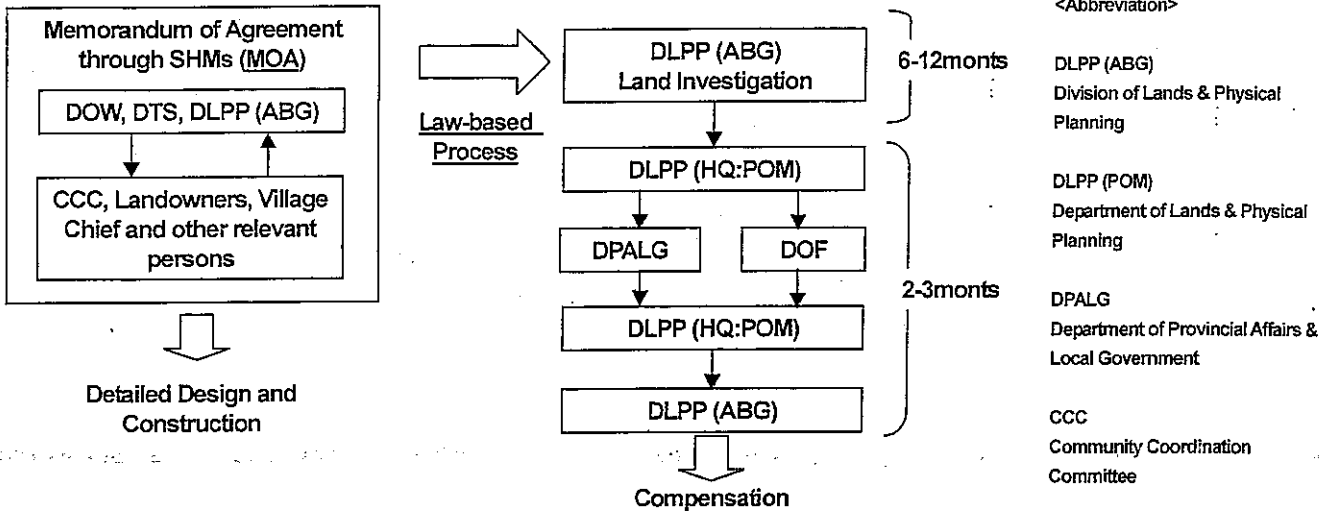
Yours faithfully

John KOLAN  
Administration Chief Executive Officer, Division of Technical Service

Andrew DOVARO  
Chief Executive Officer, Division of Lands and Physical Planning



**Annex-1 Law-based Process for Land Acquisition and Compensation**

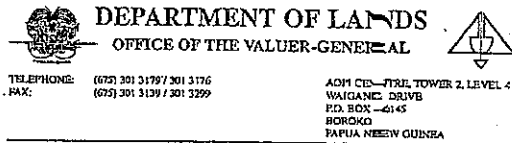


**Law-based Process for Land Acquisition**

Source: JICA Study Team (based on interview with DLPP (Division of Lands & Physical Planning))



## Annex-2 Law based Compensation List



TELEPHONE: (675) 301 3199 / 301 3176  
FAX: (675) 301 3139 / 301 3299

AOM CEN—TIRL TOWER 2, LEVEL 4  
WAIGANE DRIVE  
P.O. BOX—6145  
BOROKO  
PAPUA NEW GUINEA

### VALUER-GENERAL

#### PRICE SCHEDULE FOR ACQUISITION OF TREES AND PLANTS ALL REGIONS

MARCH 2000

#### 1. INTRODUCTION

The values and prices in this schedule are to be considered as guidelines for general use as local conditions and scarcity/abundance will affect the value of a particular item.

Field officers are to exercise care when collecting and collating data that fairness to all parties prevails unconditionally. Any person or group aggrieved by a specific tree or plant price should write to the Valuer-General giving reasons why the price is contested.

If it is agreed by all parties concerned, then evaluation of trees and plants over large areas can be simplified by performing sample counts in defined areas and then extrapolating to reach an acquisition rate on a per hectare basis.

Where there is disagreement over the authenticity, importance, or extent of any sacred site the matter should be referred to the Valuer-General, who may in turn refer the matter to an appropriately qualified person or organisation for adjudication.

These guidelines are reviewed on an annual basis by a committee chaired by the Valuer-General with representatives from:

- (i) Government Departments - Mining, Petroleum and Energy, Provincial and Local-level Government Affairs, and Transport and Works;
- (ii) Statutory Authorities - Elcom, Telikom and the Papua New Guinea Forest Authority;
- (iii) PNG Chamber of Mines and Petroleum.

In conducting its review, the committee uses the CPI and other economic indicators as a reference where any increase is being considered.

#### 2. CLASSIFICATION OF TREES BY SIZE

##### 2.1 Forest and Other Large Trees (Category D) = 75% of value

For all naturally occurring trees that normally grow to a large size, the maturity will be determined by measurement of trunk diameter as follows:-

- (a) Trees with a diameter 6 centimetres to 15 centimetres shall be deemed to be small trees, and
- (b) Trees with a diameter 15 centimetres to 60 centimetres shall be deemed to be medium trees, and
- (c) Trees with diameter greater than 60 centimetres shall be deemed to be mature trees.

The trunk diameter measurement is to be made at a height of 2.00 metres above the ground level; and trees that do not reach a height of 2.00 metres shall not be the subject of compensation claims.

#### Cash Crop

##### 2.2 Tree Crops (Category A)

Tree crops such as citrus trees, coffee, cocoa, coconut palms, oil palms and rubber (which does not bear fruit but at a certain age is tapped) shall be assessed as follows:-

- (a) Trees less than 1 year old, or less than 6 centimetres diameter 1.00 metre above ground level, shall be deemed to be seedlings, and
- (b) Trees from seedling up to 2 years old shall be deemed to be small trees, and
- (c) Trees over the age of 2 years up to bearing stage shall be deemed to be medium trees, and
- (d) Trees that are fully grown and bearing fruit shall be deemed to be mature trees.
- (e) Coconut palm trees from 1 year up to 5 years shall be deemed to be small trees, and
- (f) Coconut palm trees over 5 years to bearing stage shall be deemed to be medium trees, and
- (g) Coconut palm trees that are fully grown and bearing shall be deemed to be mature trees.
- (h) Oil palm trees from 1-3 years shall be deemed to be small trees, and
- (i) Oil palm trees over 3 years up to bearing stage shall be deemed to be medium trees, and
- (j) Oil palm trees that are fully grown and bearing (over 7 years old) shall be deemed to be mature trees.

##### 2.3 Other Trees (Category B1) = 25% of value

Trees in Category B1 shall be assessed by mutual agreement between the parties concerned using the following guidelines:

- (a) Seedlings: planted or tended seedlings up to 6 months old.
- (b) Small trees: those trees between seedling and bearing stage.
- (c) Medium trees: those trees that have commenced to bear but are not fully mature.
- (d) Mature trees: those trees in full bearing.



**B2. Clump Plants and Trees**

	Kina		
	Small	Medium	Large
Bamboo (Use As Building Material) <sup>(1)</sup>	5.00	10.00	20.00
Bamboo (Use As Cooking Pot) <sup>(1)</sup>	3.50	7.00	15.00
Bamboo (Edible Shoots) <sup>(1)</sup>	3.50	7.00	15.00
Banana	5.00	10.00	20.00
Fern Plant (Edible Leaves)	0.40	0.80	1.50
Pitpit	0.80	1.50	3.00
Pitpit - Wild	0.10	0.20	0.30
Rattan Cane	1.00	2.50	5.00
Sago - Edible <sup>(2)</sup>	7.00	15.00	30.00
Sago - Non Edible <sup>(2)</sup>	5.00	10.00	20.00
Sugarcane	2.50	5.00	10.00
Tangets	0.20	0.50	1.00

Notes: Small, medium and large refer to the size of the clump.

(1) Where wild scrambling bamboo covers an area greater than 1 hectare, the value may be assessed on a kina per hectare basis. (see Category B3)

(2) Where sago palms grow wild or sago palms cover an area greater than 1 hectare, the value may be assessed on a kina per hectare basis. (see Category B3)

**B3. Plants and Trees by Area**

Kunoi Grass	K30.00/hectare
Wild Bamboo (Scrambling or Small Clump)	K10.00/hectare
Watercress (including Similar Creeping Crops)	K2.00/m <sup>2</sup>
Wild Sago or Sago Covering Large Areas	K30.00/hectare

**3.3 Category C - Edible Plants**

**C1. Single Plants**

	Kina		
	Small	Medium	Mature
Aibika (Edible Leaves - Greens)	0.50	1.00	2.00
Bean (All Species)	0.20	0.50	1.00
Black Kumu (Edible Greens)	0.10	0.30	0.50
Broccoli	0.50	1.00	2.00
Cabbage (Chinese)	0.30	0.50	1.00
Cabbage (Round)	0.50	1.00	2.00
Capsicum	0.20	0.50	1.00
Carrot	0.20	0.50	1.00
Corn	0.20	0.50	1.00
Cauliflower	0.50	1.00	2.00
Cucumber	0.20	0.80	1.50
Egg Plant	0.20	0.80	1.50
Ginger	0.10	0.30	0.50
Lettuce	0.50	0.80	1.00
Onion (i) Spring	0.10	0.30	0.50
Onion (ii) Round	0.50	0.80	1.00
Peanut	0.10	0.30	0.50
Pineapple	0.50	1.50	3.00
Radish (Edible Root)	0.20	0.50	1.00
Soya Bean	0.20	0.30	0.50
Strawberry (Palpy Red Berry)	0.20	0.50	1.00
Taro	0.50	2.50	5.00
Taro Kongkong	0.40	2.00	4.00
Tomato	0.20	0.50	1.00
Yam	0.30	1.50	3.00

**C2. Vines or Clump Plants**

	Kina		
	Small	Medium	Mature
Cassava (Clump, Edible)	0.30	1.00	2.00
Ginger (Clump)	0.10	0.30	0.50
Passion Fruit (Vine)	0.20	0.50	1.00
Pepper Vines (Daka)	0.50	1.50	3.00
Pumpkin (Vine)	0.30	1.00	2.00
Water Melon (Vine)	0.30	1.00	2.00

Notes: Small, medium and large refer to the size of the clump or vine growth.

**C3. Mound Plants**

	Kina		
	Small (<0.75m)	Medium (0.75-1.50m)	Large (>1.50m)
English Potato	1.00	2.00	4.00
Sweet Potato	1.00	3.00	6.00

Notes: Small, medium and large refer to the diameter of the mound.

**3.4 Category D - Forest Trees**

	Kina		
	Small	Medium	Mature
Hardwood (All Species)	5.00	9.00	18.00
Semi-Hardwood (All Species)	3.00	6.00	12.00
Lesser Known Timber Species	1.50	3.50	7.50
All Other Trees	0.50	1.50	3.00
Pine Tree	5.00	20.00	45.00
Canoe Tree <sup>(1)</sup>	10.00	50.00	100.00

Notes: (1) A canoe tree must be a tree customarily used as the principal timber for the construction of canoes within the area concerned. Any specific canoe tree must be within a realistic distance of the water body where the canoe is to be launched.

**3.5 Category E - Miscellaneous**

	Kina		
	Small	Medium	Large
Wild Fowl (Nesting Mound)	2.00	4.00	6.00
Man Made Fish Pond	K2/m <sup>2</sup>		
Ceremonial Grounds (i) 1-5 hectares	K1,200/hectare		
Ceremonial Grounds (ii) Over 5 hectares	K800/hectare		
Grave Site (Value Per Site) <sup>(1)</sup>	K100/unmarked, K200/marked grave site		
Sacred Site	K600/hectare		
River Gravel and Stone	In accordance with rates paid in that area by the Provincial Works Office		

Notes: (1) A grave site covers a single site or multiple graves together.

MINUTES OF DISCUSSIONS  
ON THE BASIC DESIGN STUDY  
ON  
THE PROJECT FOR CONSTRUCTION OF BRIDGES  
ON BOUGAINVILLE COASTAL TRUNK ROAD  
IN THE INDEPENDENT STATE OF PAPUA NEW GUINEA  
(EXPLANATION ON DRAFT REPORT)

In March 2008, the Japan International Cooperation Agency (hereinafter referred to as "JICA") dispatched the Basic Design Study Team on the Project for Construction of Bridges on Bougainville Coastal Trunk Road (hereinafter referred to as "the Project") to the Independent State of Papua New Guinea (hereinafter referred to as "PNG"), and through discussions, field survey, and technical examination of the results in Japan, JICA prepared the draft report of the study.

In order to explain and to consult with the officials concerned of the Government of PNG on the components of the draft report, JICA sent to PNG the Basic Design Explanation Team (hereinafter referred to as "the Team" ), which was headed by Yusuke Kitamura, Resident Representative of JICA PNG Office, from October 6 to 10, 2008.

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

Port Moresby, October 9, 2008



Yusuke Kitamura  
Leader  
Basic Design Explanation Team  
Japan International Cooperation Agency  
Japan



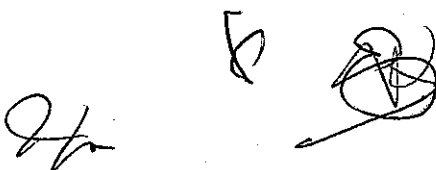
Kingsley Lore  
Acting Director  
Aid Policy & Coordination Directorate  
Department of National Planning and Monitoring  
PNG



Raymond Masono  
Acting Chief Administrator  
Autonomous Bougainville Government  
PNG



Eric Sikam  
First Assistant Secretary (Technical Services)  
Department of Works  
PNG



## ATTACHMENT

### 1. Components of the Draft Report

PNG side agreed and accepted in principle the contents of the Draft Report of the Basic Design Study explained by the Team.

### 2. Japan's Grant Aid Scheme

PNG side understands the Japan's Grant Aid scheme and the necessary measures to be taken by the Government of PNG as described in Annex-1 of the Minutes of Discussions and in Annex-3 and Annex-4 of the Minutes of Discussions signed on September 5, 2007.

### 3. Schedule of the Study

JICA will complete the Final Report in accordance with the confirmed items and send it to the Government of PNG by the end of November, 2008.

### 4. Other Relevant Issues

4.1. The Project Cost Estimation, as attached in Annex-2, is confidential and should never be duplicated or disclosed to any outside parties before the signing of all the contracts for the Project.

4.2. PNG side ensured that tax exemption for the Project shall be fulfilled in a timely manner, as a condition for the Japan's Grant Aid to be implemented.

4.3. Department of Works (hereinafter referred to as "DOW") already obtained Environment Permit for implementation of the Project as attached in Annex-3. DOW shall continue required activities for environmental and social consideration, such as mitigation measures and monitoring based on Environment Permit documents.

4.4. The following undertakings should be taken by the PNG side at its own expenses.

(1) PNG side shall maintain the security at relevant area for the Project including the construction sites and the Kieta port for the safety implementation of the Project during the construction.

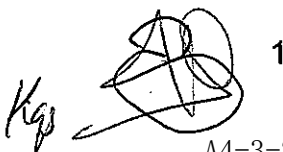
(2) Autonomous Bougainville Government (hereinafter referred to as "ABG") shall maintain and repair the existing road and the facilities including the causeway at Rawa-2 and Uruavi-2 for the smooth access to the construction sites.

(3) ABG shall remove the existing bailey bridge at Ururva before the beginning of construction.

(4) PNG side shall bear the banking commissions as a condition for the Japan's Grant Aid to be implemented. Department of National Planning and Monitoring (hereinafter referred to as "DNPM") should secure the sufficient budget to cover the following cost.

1) The commissions for the banking services based upon Banking Arrangement (B/A)

2) The advising commission of the Authorization to Pay (A/P).





4.5. Both sides confirmed to organize the Steering Committee immediately after the approval of the Project by the Government of Japan for smooth implementation of the Project. The outline of the Steering Committee is as follows.

(1) Purpose

- To coordinate for smooth implementation of the Project.

(2) Role

- To share the Project information through establishment of the liaison network among the members.
- To solve the issues that may arise in the course of the Project implementation.

(3) Member

The members of the Committee are shown in Annex-4.

DNPM plays the role of the chairmanship.

4.6. PNG side shall secure enough budget and personnel necessary for maintenance of the bridges constructed by the Project.

Annex-1: Major Undertakings to be taken by Each Government

Annex-2: Project Cost to be borne by Japan's Grant Aid

Annex-3: Environment Permit

Annex-4: Members of the Steering Committee

## Major Undertakings to be taken by Each Government

No.	General Items for Grant Aid Scheme	To be covered by Grant Aid	To be covered by Recipient Side		
			Organization in charge		
			DNPM	DOW	ABG
1	To secure land - Allocation of Budget				● ●
2	To clear, level and reclaim the site when needed - Allocation of Budget				● ●
3	To construct gates and fences in and around the site, if necessary				●
4	To bear the following commissions to the Japanese bank for banking services based upon the Banking Arrangement (B/A)				
	1) Advising commission of Authorization to Pay (A/P)		●		
	2) Payment commission		●		
5	To ensure prompt unloading and customs clearance at the port of disembarkation in recipient country				
	1) Marine and land 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	●			
6	To accord Japanese nationals, whose services may be required in connection with the supply of the products and the services under the verified contract, such facilities as may be necessary for their entry into the recipient country and stay therein for the performance of their work.		●		
7	To exempt Japanese nationals from customs duties, internal taxes and other fiscal levies which may be imposed in the recipient country with respect to the supply of the products and services under the verified contracts		●		
8	To maintain and use properly and effectively the facilities constructed and equipment provided under the Grant Aid - Allocation of budget			● ●	● ●
9	To bear all the expenses, other than those to be borne by the Grant Aid, necessary for construction of the facilities as well as for the transportation and installation of the equipment			(●)	●


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No.	Specific Items for the Project	To be covered by Grant Aid	To be covered by Recipient Side		
			Organization in charge		
			DNPM	DOW	ABG
10	Submission of Environment Permit Application to DEC - Payment of Application fee and Annual fee, if necessary			● ●	
11	Explanation of the Project to the stakeholders and acquisition of their consensus on the agreement for implementation of the Project				●
12	Relocation of existing utilities (power, telecommunication lines, water lines etc.), if necessary				●
13	Removal of existing bridges and culverts at the Project sites, if necessary			(●)	(●)
14	Securing and clearance of the temporary yard and land for detour				●
15	Securing of the site for borrow pit and disposal of waste				●
16	Maintaining the security of the personnel at the sites and yards for the Project				●
17	Maintaining the security of Loloho and/or Kieta ports, in order to unload and stock the construction materials and equipment for the Project				●
18	Maintenance of the bridges constructed by the Project - Allocation of Budget - Provision of Personnel			● ● ●	● ● ●

(●): Organization in charge within its authority

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# Environment Permit



THE INDEPENDENT STATE OF PAPUA NEW GUINEA

Environment Act 2000

Act No. 57 of 2000  
Reg. No. 1997

## ENVIRONMENT PERMIT

An Environment Permit is hereby issued under Section 65 of the Environment Act 2000

TO: Department of Works

OF: P.O. Box 1108, Boroko, National Capital District, Port Moresby

(a) to carry out works associated with construction or refurbishment of bridges at Bekarova, Bove, Pukarobi 1, Pukarobi 2, Creepers, Ratawi, Inaka, Koveva, Kalia, Urupia, Kaskina, Retaovai, Wairakapi, Iung, and Rawa ("premises") along the Bougainville Coastal Trunk Road in the Autonomous Region of Bougainville.

(b) to discharge waste into the environment from the premises while carrying out a Level 2 (Category A) activity associated with construction or refurbishment of bridges which would result in discharge of waste into water or onto land in such a way that it results in the waste entering water.

The activities shall be carried out in accordance with the terms conditions of this permit.

Permit Number:	WD/E2A/17/1
Date of Issue:	7 <sup>th</sup> May 2009
Date of Commencement:	3 <sup>rd</sup> June 2008
Term of Permit:	Five (5) years
Date of Expiry:	2 <sup>nd</sup> June 2013

KELLY GAWI  
Director of Environment

## INTERPRETATIONS

**DEC:** mean the Department of Environment and Conservation

**Director/Director of Environment:** means the Secretary or the Head of the Department of Environment and Conservation. The term is used to ensure consistency with the designation provided in s. 16 of the Environment Act 2000 and its roles and functions under s. 16 of the Act.

**Domestic Wastewater:** means grey water and sewage.

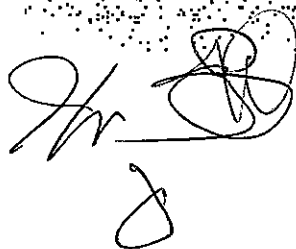
**Environment Act/the Act:** means the Environment Act 2000 (as amended) and any Environmental Policies and Regulations made thereunder.

**Permit:** means the Environment Permit issued under Section 65 of the Environment Act 2000. The permit authorizes the commencement of works and the discharge of wastes from the premises whilst carrying out works associated with construction or refurbishment of bridges.

**Permit Holder:** refers to the Department of Works

**Premises:** refers to the area within the locality of the bridges at Bakanovi, Bova, Pukarabi 1, Pukarabi 2, Creaspers, Ratavi, Iraka, Korova, Mala, Uunua, Kaskrus, Rotove, Wankapa, Iung, and Rawai ("premises") along the Bougainville Coastal Trunk Road in the Autonomous Region of Bougainville that are defined by the following grid reference - Location (1): refers to Bakanovi bridge located within 155°23'47.020"E and 6°05'38.142"S; Location (2): refers to Bova bridge located within 155°24'15.720"E and 6°04'05.616"S; Location (3): refers to Pukarabi 1 bridge located within 155°22'03.150"E and 6°00'12.348"S; Location (4): refers to Pukarabi 2 bridge located within 155°21'38.852"E and 5°59'44.832"S; Location (5): refers to Creaspers bridge located within 155°21'31.488"E and 5°59'28.530"S; Location (6): refers to Ratavi bridge located within 155°21'27.918"E and 5°59'18.544"S; Location (7): refers to Iraka bridge located within 155°19'42.678"E and 5°57'05.956"S; Location (8): refers to Korova bridge located within 155°19'09.918"E and 5°57'02.916"S; Location (9): refers to Mala bridge located within 155°18'50.004"E and 5°54'35.784"S; Location (10): refers to Uunua bridge located within 155°11'09.160"E and 6°51'33.180"S; Location (11): refers to Kaskrus bridge located within 155°09'48.988"E and 5°39'38.360"S; Location (12): refers to Rotove bridge located within 156°04'51.240"E and 5°37'00.252"S; Location (13): refers to Wankapa bridge located within 155°01'15.960"E and 6°33'57.660"S; Location (14): refers to Iung bridge located within 155°00'30.000"E and 5°33'38.124"S and Location (15): refers to Bakanovi bridge located within 154°54'46.992"E and 5°32'36.502"S

**Works:** means vegetation clearance, earth works, removal of old culvert debris and carrying out works associated with the refurbishment and construction of bridges within the premises.



## TERMS AND CONDITIONS OF ENVIRONMENT PERMIT

### Annual Charge

The annual charge under this Permit is = K1,020,00

This charge is based on the following fees -

- a) **Rainfall Runoff** runoff containing sediments construction phase = K1,000,00
- b) **Annual Fees** annual (administration) fee for Level 2A activity = K20,00

### Conditions

#### General

1. The Permit Holder shall carry out works associated with the refurbishment and construction of bridges in accordance with the plans and specifications in the environment permit application unless otherwise specified through a condition of this permit.
2. In the event of an inconsistency between the permit application and a condition of this permit, the condition of this permit will apply.

#### Works

##### Bridge Construction

3. The Permit Holder shall carry out works associated with the refurbishment and construction of 15 bridges along the Bougainville Coastal Trunk Road between Kokopau and Arara in the Bougainville Autonomous Region.

##### Waste Treatment Facilities

##### Septic Tank

4. The Permit Holder shall construct a septic tank with a soak-away trench not less than 100m from the nearest surface water for treatment of domestic wastewater.

##### Landfill

5. The Permit Holder shall construct a landfill not less than 100m from the nearest watercourse for disposal of solid wastes.

#### Operation

##### Erosion Control

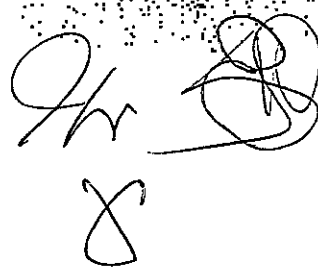
6. The Permit Holder shall design and apply appropriate measures to prevent soil erosion and minimize sediment runoff into watercourses at the premises. The measures shall include but not limited to use of cut-off drains, velocity control techniques, sediments traps, ground cover (natural, e.g. grass growing or artificial, e.g. plastic sheets), sedimentation traps and limited vegetation clearing.

#### Waste Management

##### Wastewater

7. The Permit Holder shall ensure that all domestic wastewater from the premises are directed to the septic tank referred to in Condition 4 for treatment prior to disposal.

8. The Permit Holder shall employ waste minimization strategy (avoid, reduce, recycle, treatment, disposal) in managing the waste streams from the quarry.



Solid Waste

9. The Permit Holder shall ensure that all solid wastes are collected and disposed at the designated landfills.

Air Emission

10. The Permit Holder shall employ appropriate control measures to minimize aerial emissions produced by the machinery and equipment used for the bridge construction from the premises. Dust should be controlled using dust suppressants including water sprays.
11. The Permit Holder shall not generate offensive odour from the premises.

Noise

12. The Permit Holder shall ensure that noise levels from the premises are minimized through the use of appropriate noise control measures. These abatement measures may include noise barriers, attenuation of sound from vehicles and equipment, etc.

Runoff Control

13. The Permit Holder shall segregate rainfall runoff from the fuel and chemical storage areas used during the bridge construction by diverting clean runoff from these areas in order to avoid cross-contamination.

Waste Fuel Oil

14. The Permit Holder shall ensure that waste oil from the machinery and fuel storage facilities are reused and/or disposed by incineration and/or removed for reprocessing where appropriate.

Monitoring

15. The Permit Holder shall carry out regular checks on machinery and equipment used for quarrying to ensure that they are in good working condition so as to minimize noise and air emissions.
16. The Permit Holder shall carry out routine monitoring of air, noise and waste generation to detect non-compliance at early stages and apply corrective measures to minimize impacts.
17. The Permit Holder shall carry out regular checks on measures taken to minimize soil erosion and discharge of sediments (Condition 12) to ensure their treatment efficiency.

Rehabilitation

18. The Permit Holder shall perform land forming and re-vegetation activities at the end of the bridge rehabilitation and construction operation. All stockpile areas shall be rehabilitated and re-vegetated.

Reporting

19. The Permit Holder shall submit summary monitoring reports every three months and an Environmental Performance Report to the Director at the end of each calendar year or other reports as directed by the Director for evaluation and compliance. The reports may include but not limited to:
- a) Raw data (analyzed by certified laboratories) from monitoring programs;
  - b) Interpretation of raw data;
  - c) Evidence of non-compliance and reasons, and;
  - d) Status of compliance with the other conditions of the permit.
20. The Permit Holder shall notify the Director on any significant environmental incident that occurs in relation to the discharge of waste from the construction of the fifteen (15) bridges.

## Members of the Steering Committee

### Department of National Planning and Monitoring (DNPM)

Paul Enny	Director - Aid Policy & Coordination Directorate
Gregory Ume	Assistant Secretary - Infrastructure
Jenny Tumun	Aid Coordinator Japan Desk

### Department of Works (DOW)

Eric Sikam	First Assistant Secretary, Technical
Wilfred Peko	Assistant Secretary, Roads & Bridges

### Department of Foreign Affairs (DOFA)

Frank Mizinki	Assistant Director, Eco Cooperation
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### Internal Revenue Commission (IRC)

Garry Zufa	Assistant Commissioner, Customs
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### Autonomous Bougainville Government (ABG)

Raymond Masono	Acting Chief Administrator
John Kolan	Chief Executive Officer, Technical Services
Leslie Tseraha	Chief Executive Officer, Planning
Peter Nesatt	Assistant Commissioner, Police

