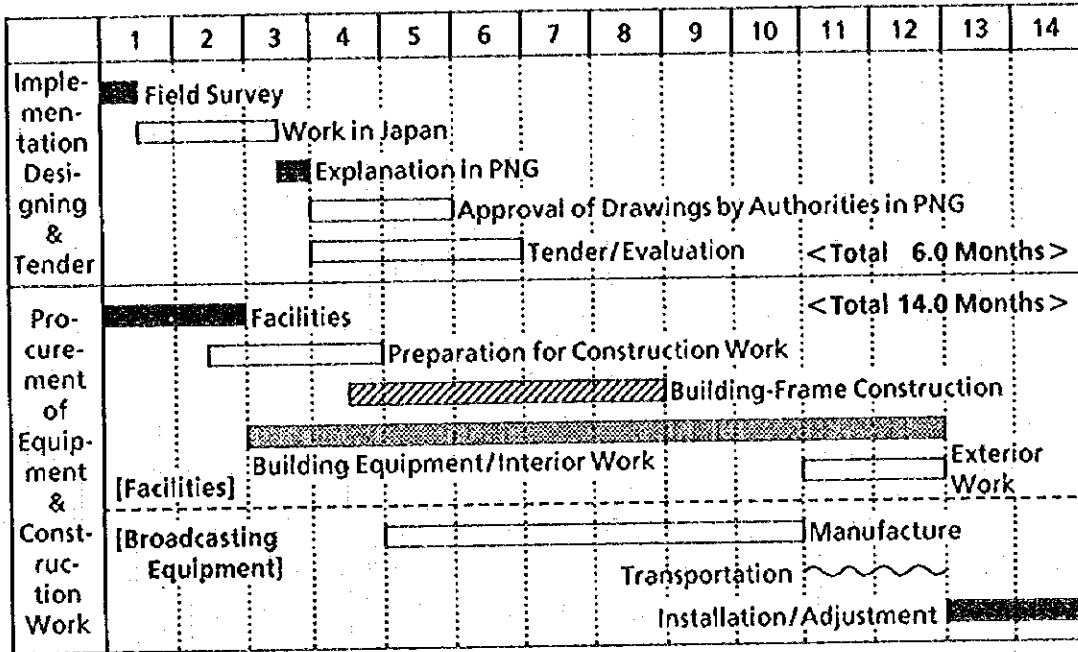


3-1-6 Implementation Schedule

The implementation schedule is shown below.



3-1-7 Obligations of Recipient Country

(1) Obtaining all legal approvals concerning construction and renovations

(2) Providing tax-free importation of all construction materials required for work funded by Japan, and of all equipment to be donated by Japan

(3) Preparing payment authorizations and paying bank charges required for amending these documents

(4) All other duties to be incurred by the aid recipient country, as specified in the agreements exchanged

(5) NBC has accepted to take necessary measures described below.

- 1) To ensure that specialists for maintenance of the Digital Storage System are available
- 2) To ensure that an appropriate budget for equipment maintenance, including "Programme Editing and Sending-out System" is provided
- 3) To secure approval for five carrier frequencies at 1.6GHz band for Studio Transmitter Link
- 4) To secure approval for two broadcast frequencies for FM transmitters
- 5) To ensure that PTC line is provided for Karai programme to Kokopo Radio Studio Center
- 6) To dismantle the existing 3MHz antenna at Kurakakaul site to make way for the installation of a new Short wave antenna
- 7) To ensure that Kundu broadcasting service (RENB) is uninterrupted during installation of the new antenna

Table 3-1-1 List of Procurement Sources of Main Construction Equipment and Materials

Item	Procurement Source			Reason for Selection and Remarks
	PNG	Third Country	Japan	
(Building Work)				
• Sand	<input type="radio"/>			• Local products
• Aggregate	<input type="radio"/>			• Local products
• Cement	<input type="radio"/>			• Local products
• Reinforcing bars				• Based on comparison of materials on quality and price
• Structural steel		<input type="radio"/>		• Based on comparison of materials on quality and price
• Concrete blocks	<input type="radio"/>			• Local products
• Wood	<input type="radio"/>			• Local products
• Waterproofing material	<input type="radio"/>			• To be imported from Australia
• Roof tile	<input type="radio"/>			• Imported material from Australia
• Steel doors and windows	<input type="radio"/>			• Imported material from Australia or New Zealand
• Sound insulation doors	<input type="radio"/>			• Imported material
• Wooden doors	<input type="radio"/>			• Local products
• Plastering material	<input type="radio"/>			• Local products
• Paint	<input type="radio"/>			• To be imported from Australia
• Glass	<input type="radio"/>			• To be imported from Australia
• Tiles	<input type="radio"/>			• To be imported from Australia
• Vinyl sheet	<input type="radio"/>			• To be imported from Australia
• Ceiling materials	<input type="radio"/>			• To be imported from Australia
• Sound absorbent finishing material	<input type="radio"/>			• To be imported from Australia
(Equipment Work)				
• Distribution panel	<input type="radio"/>			Equipment and machinery imported from advanced nations such as Australia, New Zealand and Japan, etc. are available
• Electric wire and cables	<input type="radio"/>			
• Lighting fixtures	<input type="radio"/>			
• Switches	<input type="radio"/>			
• Socket outlets	<input type="radio"/>			
• Air conditioners	<input type="radio"/>			
• Ventilation fans	<input type="radio"/>			
• Duct material	<input type="radio"/>			
• Piping (vinyl chloride)	<input type="radio"/>			
• Piping (steel pipes)	<input type="radio"/>			
• Sanitary fixtures	<input type="radio"/>			
• FRP septic tanks	<input type="radio"/>			
• Pumps	<input type="radio"/>			

3-2 Operation and Maintenance Costs

The operation and maintenance costs resulting from Project implementation will arise from the latter half of fiscal 1998. The main costs that are considered will arise under operation and maintenance are personnel expenses, broadcast operating costs and equipment maintenance and repair costs, etc.

(1) Personnel Expenses

The RENB staff currently consists of 20 personnel (including two vacancies) and four personnel from the island regional headquarters (including one vacancy), making a total of 24, and it is estimated that operation of the station following implementation of the Project can be managed by these existing personnel. It is thus considered that no major increase will be required in the conventional budget to cover staff salaries following the Project implementation.

Staff salaries are funded by the central government and the budget for this in fiscal 1995 was 115,813 kina (approximately 89,900 US\$). Following completion of the Project, it should only be necessary to secure this amount plus an additional amount to represent the annual pay increase.

(2) Broadcast Operating Costs

Regarding payment of the RENB broadcast expenses, because the East New Britain Provincial Government has come to bear the cost of Kundu service as of April 1996, RENB and the provincial government signed an agreement on August 2, 1996 stating that the provincial government will include running costs for the RENB Kundu service as an expenditure item within its annual budget. According to the signed agreement, the said budget will be 100,000 kina (approximately 77,500 US\$) in fiscal 1996 and 246,720 kina (approximately 191,300 US\$) in fiscal 1997. As for additional costs to expect in the case where the Project equipment is introduced, because the daily broadcasting time will increase from the present five hours to nine-and-half hours, the consumption of electricity, the cost of which is counted as part of the utilities cost (electricity, telephones, water supply, etc.), will almost double. As the cost of utilities was 20,600 kina (approximately 16,000 US\$) in fiscal 1995, it is thus

safe to assume that a utilities cost double this of 40,000 kina (approximately 31,000 US\$) will need to be secured.

(3) Equipment Maintenance and Repair Costs

Regarding the cost of equipment maintenance and repair, by applying the general method adopted by Japanese broadcasters in which roughly 1% of the equipment cost is put aside for maintenance and repairs within the annual budget, it works out that approximately 41,000 kina (approximately 31,800 US\$) will be required for the Project equipment. Upon trial calculating the maintenance and repair cost of the programme editing and sending out system to be newly introduced under the Project, based on the assumption that the audio server has a life of five years, it worked out that approximately 12,000 kina (approximately 9,300 US\$) per years will be required.

From this it is therefore considered that a total equipment maintenance and repair cost of 41,000 kina (approximately 31,800 US\$) per year is appropriate.

(4) Income form the RENB Kundu Service

The breakdown of the Kundu service budget for fiscal 1997 based on the budget agreement signed between RENB and the provincial government is as follows.

<u>Budget Item</u>	<u>Kina</u>
113 Overtime	2,000
121 Travel and Subsistence	7,200
122 Utilities	58,400
123 Office Materials & Supplies	3,000
124 Operational Materials & Supplies	24,100
125 Transport & Fuel	17,220
128 Routine Maintenance & Expenses	34,100
135 Other Operational Expenses	9,000
221 Purchase of Furniture & Office Equipment	30,200
222 Purchase of Vehicles	45,000
224 Purchase of Lawn Mower and Communication Equipment	16,500
Total :	246,720

This shows that 58,000 kina (approximately 45,000 US\$) has been secured to cover the cost of utilities in fiscal 1997, and this is considered to be appropriate. However, regarding the 34,100 kina (approximately 26,400 US\$) secured to cover routine maintenance costs, because it is estimated that 41,000 kina (approximately 31,800 US\$) will be needed to cover equipment maintenance and repair costs following introduction of the Project equipment, it will be necessary to increase expenditure on this item from fiscal 1998 onwards.

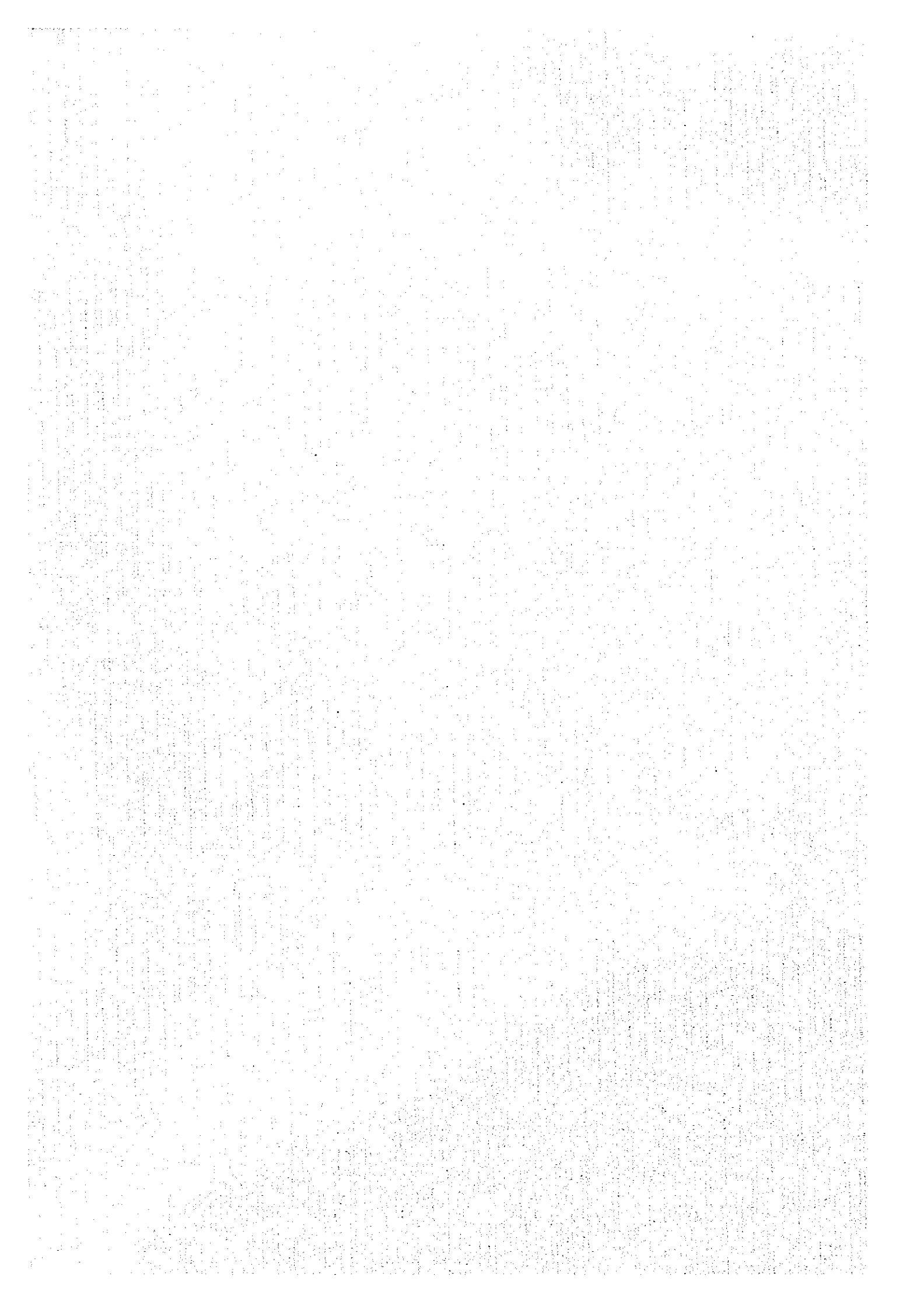
(5) Spare Parts Purchase Route

Regarding the purchase of spare parts, it is basically advisable to buy from the equipment manufacturer for the sake of stable operation and reliability, however, in the case of general-purpose equipment, parts can easily be obtained through local dealers in markets such as Australia and Singapore.

(6) Staffing Plan

After implementation of the Project, because a programme editing and sending-out system that uses an audio server and multiple personal computers will be introduced, the ease of operation and efficiency of work will be improved so much that it will not be necessary to add to the existing RENB staff of 18.

Chapter 4 Project Evaluation and Recommendation



Chapter 4 Project Evaluation and Recommendation

4-1 Project Effect

(1) Validation of Appropriateness

The Project aims to restore Radio East New Britain (RENB) in Papua New Guinea, which suffered damage as a result of the volcanic eruption of September 1994.

RENB had before the eruption been located in Rabaul, the capital of East New Britain Province, however, following its destruction as a result of the said disaster, it is currently using temporary premises on the outskirts of Kokopo and continuing to broadcast programmes by using the little equipment that could be retrieved from the ashes of the old radio studio center. These conditions have obviously placed great limitations on programme production and, compared to before the disaster when nine-and-a-half hours of Kundu service (local programme) were broadcast daily, the broadcast time is now restricted to only five hours in the evening.

In this way the amount of information available to the residents of East New Britain is limited following the disaster, and the restoration of RENB is an issue requiring urgent attention.

The Government of PNG, considering the disaster restoration effort to be a high priority issue within the national development plan, established the Gazelle Restoration Authority (GRA) to take charge of the disaster restoration in the Gazelle Peninsula centering around the city of Rabaul. The GRA has compiled a new city plan to transfer the provincial capital from Rabaul to Kokopo as one element of the restoration effort, and a site for the construction of the new radio studio center has already been secured within this plan.

In consideration of the urgency with which the local side views the situation and the fact that preparation of the implementation setup is advancing in this way, it can be said that implementation of the Project is highly appropriate.

(2) Project Effect

1) Restoration of Listener services

Completion of the Project will remove the current limitations in terms of studios and broadcast equipment and once more enable nine-and-a-half hours of programmes to be broadcast in the morning and evening daily.

Practically every household in PNG owns at least one radio receiver and, in East New Britain Province alone, implementation of the Project will enable radio programmes to be broadcast on the same level as before the disaster to approximately 260,000 listeners. This will in turn enable the following targets expected of NBC broadcasts to be achieved more effectively.

- (a) Contribution to socioeconomic development
- (b) Unification of the multi-racial state
- (c) Diffusion of the official language
- (d) Maintenance of traditional culture
- (e) Diffusion of child education, literacy education, skills and technologies, and knowledge regarding public health and sanitation
- (f) Provision of weather and disaster reports and other necessary every day information

2) Increased Efficiency of Programme Production and Sending-out

(a) Based on the wishes of the PNG side and in consideration technological advances and cost, the studio equipment shall be a programme editing and sending-out system consisting of audio server and personal computer terminals. Such a system is steadily becoming the mainstream broadcasting system equipment used throughout the world.

In such a system, by recording previously raw sound materials on the audio server, the raw sounds can freely be used for editing and transmitting purposes later simply by operating a computer terminal. In this way, time that had been previously spent on inserting and removing audio tapes to and from recorders during every editing and sending-

out operation can be saved on, and work involving the checking of tape contents and handing over of tapes when broadcasting prerecorded programmes can be simplified. Thus, the new system can contribute to increased efficiency in work and a reduction in broadcasting misoperation.

(b) Furthermore, because it is possible to record and store raw sounds on the audio server, less space is required in the tape storeroom to store recorded tapes, records and CD, etc. , and the storage control of such broadcast materials is made easier.

3) Strengthening of the System for Broadcasting During Emergencies and Disasters

Implementation of the project will entail the radio studio center that contains the programme production facilities transferring to Kokopo, which is a safer site in the event of further volcanic activity, and this will make it possible for the center to broadcast programmes at times of emergency or disaster.

Regarding the broadcasting transmission, the existing MF and HF transmitter station at Kurakakaul received hardly any damage during the eruption, however, as a precaution against the said facility becoming inoperable due to further volcanic disaster in the future, it shall be made possible to use the FM broadcasts transmitted from Kenabot Relay Station, which will be fitted out in the Project, as a standby system for broadcasting emergency services.

Furthermore, the lines previously used to transmit programmes from the radio studio to the transmitter station belonged to the PTC, however, the lines included in the Project shall be the wireless type.

As a result of these measures, the broadcasting functions of RENB will be dramatically strengthened into a system that can broadcast in the face of volcano, earthquake and other natural disasters, and this will enable listeners to receive the proper information they need on such occasions.

4-2 Recommendation

As stated in the previous section, the implementation of this project is expected to bring extensive benefits to the East New Britain nation as a whole. In order to turn this hope into reality, it is necessary for the Government of Papua New Guinea to meet the following conditions.

(1) Securing a Project Operation Budget

The income of RENB comes from subsidies provided by the National Broadcasting Corporation (NBC) and the East New Britain Provincial Government. The NBC subsidy covers the personnel expenses for all employees and the operating and management costs for Karai service, whereas the provincial government subsidy covers the operating costs for Kundu service.

A major increase in the subsidy provided by the provincial government has been agreed for fiscal 1997, but this needs to be permanently secured from 1998 onwards, when the Project facilities and equipment come into operation.

(2) Learning of New Technology

The equipment to be introduced is the latest of its kind and incorporates state-of-the-art technology. Thus, it is necessary to take measures such as establishing a training programme, to raise the technical capacity of staff and so enable them to operate and maintain the equipment properly.

(3) Recommendation

PNG has no public television broadcasting service, and the commercial television stations in Port Moresby only broadcast mainly entertainment programs (consisting mostly of imported films) over networks that cover just the main cities.

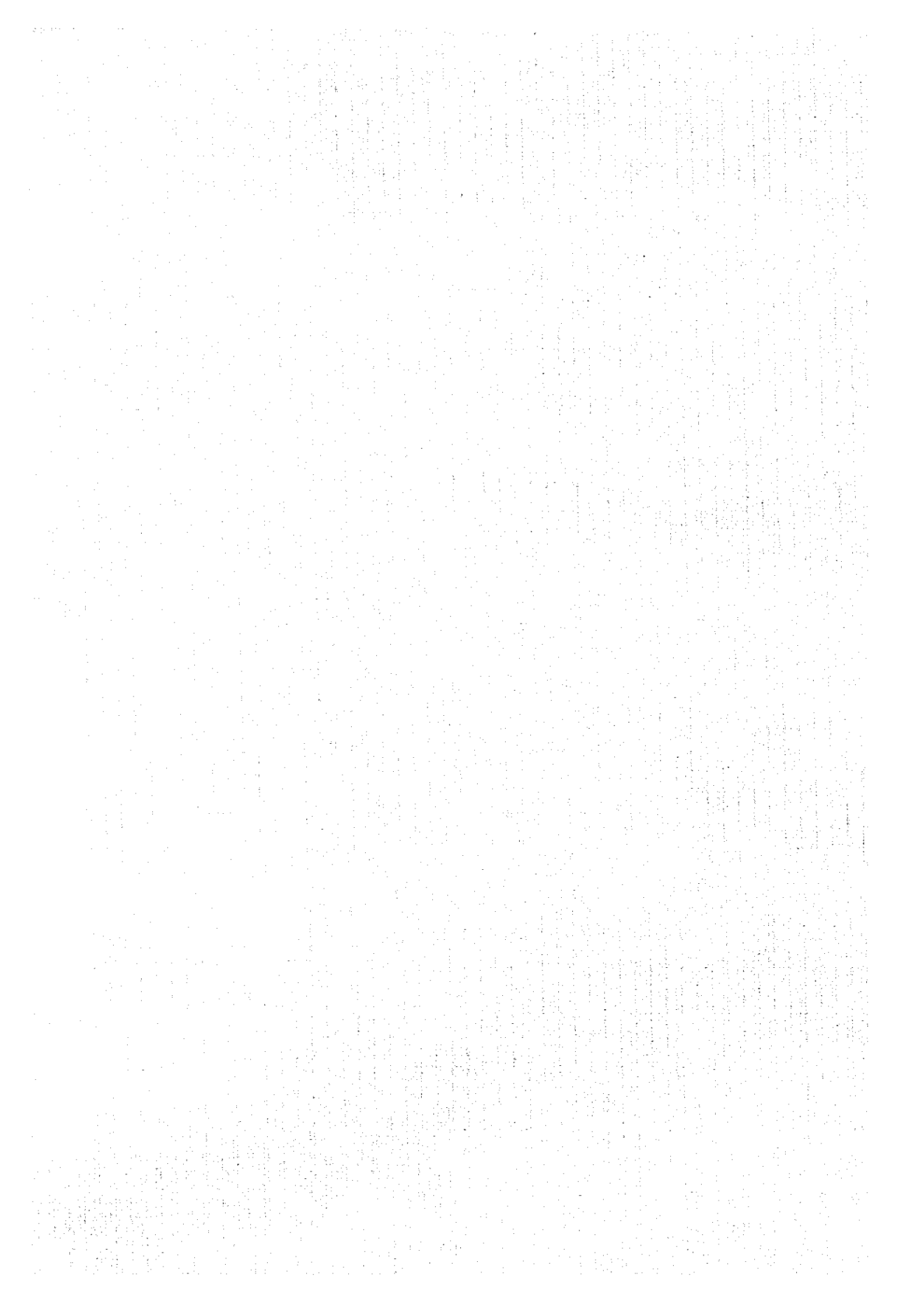
The role to be played by television in effectively expanding on the current radio broadcast goals of contributing to socioeconomic development, unifying the multi-racial state, spreading the official language, maintaining traditional culture, and providing weather and emergency information, etc. is large. It is considered that the time is near at hand for PNG to plan for the introduction of public

television broadcasting, thus it is necessary for the country to start preparing for this.

Appendices

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1. Member List of Survey Team



1. Member List of Survey Team

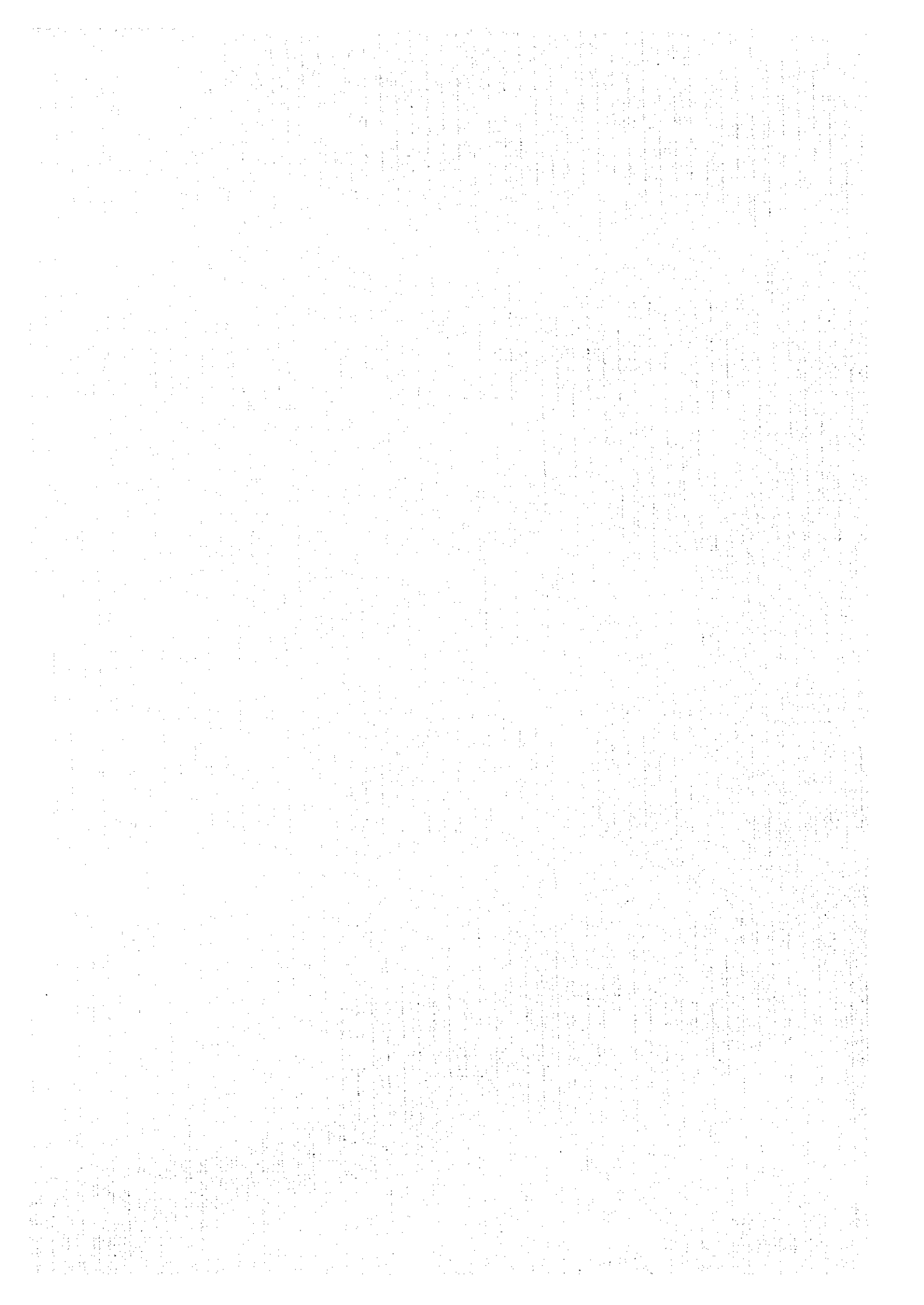
(1) The Basic Design Study Team

<u>Name</u>	<u>Assignment</u>	<u>Present Post</u>
Mr Masafumi NAGAISHI	Leader/ Project Coordinator	Second Project Study Division, Grant Aid Project Study Department, JICA
Mr. Mineo NEGITA	Grant Aid Cooperation	Grant Aid Division, Economic Cooperation Bureau, Ministry of Foreign Affairs
Mr. Yoshihiro KIYAMA	Technical Advisor	Section Chief, International Cooperation Division, International Affairs Department, Ministry of Posts and Telecommunications
Mr. Hideo KAWAKAMI	Chief Consultant/ Transmission System Planner	NHK Integrated Technology Inc.
Mr. Akira SHIRAI	Construction Designer	NHK Integrated Technology Inc.
Mr. Susumu TOYODA	Broadcasting Facility Planner	NHK Integrated Technology Inc.
Mr. Tomonori KONNO	Construction Schedule	NHK Integrated Technology Inc.

(2) The Draft Report Explanation Team

<u>Name</u>	<u>Assignment</u>	<u>Present Post</u>
Mr. Takashi KIDA	Team Leader	Grant Aid Division, Economic Cooperation Bureau, Ministry of Foreign Affairs
Mr. Hideo KAWAKAMI	Chief Consultant	NHK Integrated Technology
Mr. Akira SHIRAI	Contraction Designer	NHK Integrated Technology
Mr. Susumu TOYODA	Broadcasting Facility Planner	NHK Integrated Technology

2. Survey Schedule



2. Survey Schedule

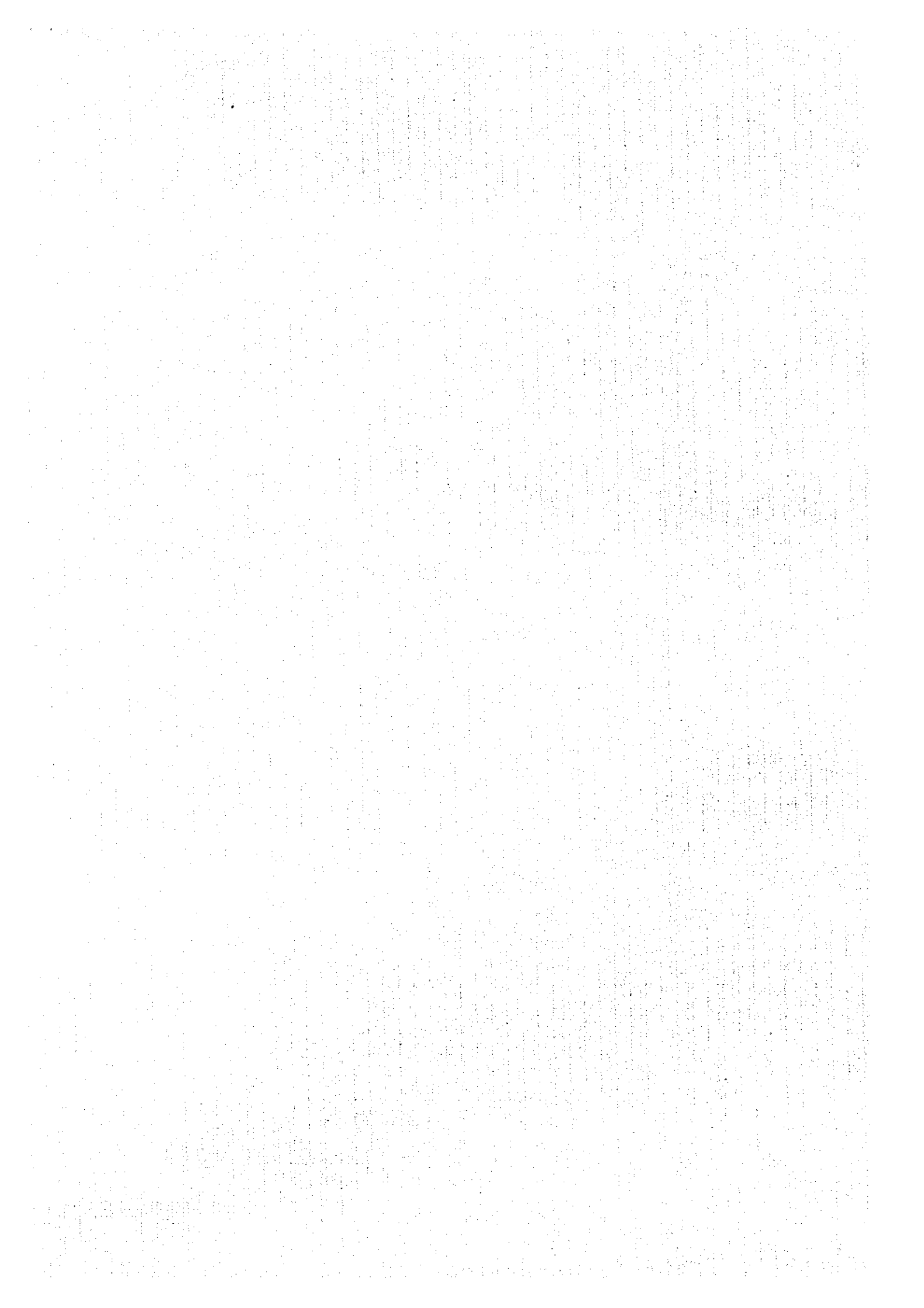
(1) The Basic Design Study Team

	Date (1996)	Activities					
		Official Members			Consultant Members		
		Nagaishi	Negita	Kiyama	Kawakami	Toyoda	Shirai
1	June 30 (Sun)	Narita → Cairns → Port Moresby					
2	July 1 (Mon)						
3	2 (Tue)	Courtesy call on Embassy of Japan, JICA Office, Department of Foreign Affairs, Department of Information and Communications and Head Office of NBC, and discussion with relevant agent					
4	3 (Wed)	Discussion with relevant agent / Port Moresby → Rabaul				<ul style="list-style-type: none"> Request for estimation to geological measurement firms Investigation on local consultants Investigation on local tower constructors Investigation on local purchase of materials 	
5	4 (Thu)	Courtesy call on NBC Rabaul and Explanation on an activities of the survey					
6	5 (Fri)	<ul style="list-style-type: none"> Survey of the location scheduled a new studio building Survey of existing MF, HF and FM transmitter station 					
7	6 (Sat)	Rabaul → Hoskins / Survey of Kimbe radio station					
8	7 (Sun)	Hoskins → Lae				Arrangement of data	
9	8 (Mon)	Survey of Morobe radio station / Lae → Port Moresby				Selection of geological measurement firms	
10	9 (Tue)	Discussion with NBC at Head Office (NBC, NPO, GRA)					
11	10 (Wed)	Confirmation about Minutes of Discussion (M/D)					
12	11 (Thu)	Port Moresby → Cairns			Signing of M/D Report of the result to Embassy of Japan and JICA		
13	12 (Fri)	Cairns → Narita			<ul style="list-style-type: none"> Confirmation of the contents of the Project requested Confirmation of the central, executing, operating agency with its administration, budget, staff, and manpower 		<ul style="list-style-type: none"> Confirmation of the related plan Confirmation of the related law and regulation in Papua New Guinea Confirmation data on cost estimation Survey of execution method
14	13 (Sat)						
15	14 (Sun)						
16	15 (Mon)						
17	16 (Tue)	Port Moresby → Rabaul					
18	17 (Wed)	<ul style="list-style-type: none"> Survey of the MF and HF transmitting site Survey of the radio wave propagation route of STL Confirmation of the programs, facilities, and equipment in present status Confirmation of the programs, facilities, and equipment before being destroyed 				<ul style="list-style-type: none"> Survey of the new building site Study of the existing tower used for STL antenna Collection of data on cost estimation Survey of the MF and HF transmitting site Collection of data on meteorological conditions 	
19	18 (Thu)						
20	19 (Fri)	Rabaul → Kimbe					
21	20 (Sat)	Survey of related similar facilities and equipment					
22	21 (Sun)	Kimbe → Port Moresby					
23	22 (Mon)	<ul style="list-style-type: none"> Arrangement of data Discussion on the Draft Basic Design with NBC 					
24	23 (Tue)						
25	24 (Wed)	Report of the result to Embassy of Japan and JICA				Port Moresby → Brisbane	
26	25 (Thu)	Port Moresby → Brisbane				Investigation of purchasing facilities and equipment	
27	26 (Fri)	Investigation of purchasing facilities and Equipment					
28	27 (Sat)	Brisbane → Narita					

(2) Draft Report Discussion Team

Date	Activities			
	Official Members	Consultant Members		
	Kida	Kawakami	Toyoda	Shirai
1	October 20 (Sun)	Narita→Cairns→Port Moresby		
2	October 21 (Mon)			
3	October 22 (Tue)	Courtesy call on Embassy of Japan, JICA Office, NPO, and Head Office of NBC		
4	October 23 (Wed)	Discussion on the Draft Basic Design Report with NBC		
5	October 24 (Thu)	Port Moresby→Rabaul Courtesy call on GRA Discussion on the Draft Basic Design Report with GRA		
6	October 25 (Fri)	Discussion on the Draft Basic Design Report with RENB		
7	October 26 (Sat)	Rabaul→Port Moresby		
8	October 27 (Sun)	Arrangement of Minutes of Discussions		
9	October 28 (Mon)			
10	October 29 (Tue)	Arrangement of Minutes of Discussion Report to Embassy of Japan and JICA Port Moresby→Cairns		
11	October 30 (Wed)	Cairns→Narita		

3. List of Party Concerned in the Recipient Country



3. List of Party Concerned in the Recipient Country

- National Broadcasting Corporation (NBC)

Renagi R. Lohia CBE	Chairman, NBC
Boski Tonny	Deputy Chairman, NBC
John Waingut	Controller Technical Service, NBC
Joe Wafewa	Head Design & Construction, NBC
Demas Lolo	Coordinator-Works, NBC
Demas Totil	Technical Service, NBC
Isaac Marinjemi	Technical Service, NBC
Francesca Marcda	Technical Service, NBC
Leo Arada	Technical Service, NBC
Aloysius Rumina	Regional Manager Islands, NBC
Esekia Mael	Prov. Prog. Manager, RENB, NBC
Robin Vuvut	Regional Tech. Manager, NBC
Bale Ruben	Kimnr, NBC
Mathias Marmar	Kimbe, NBC

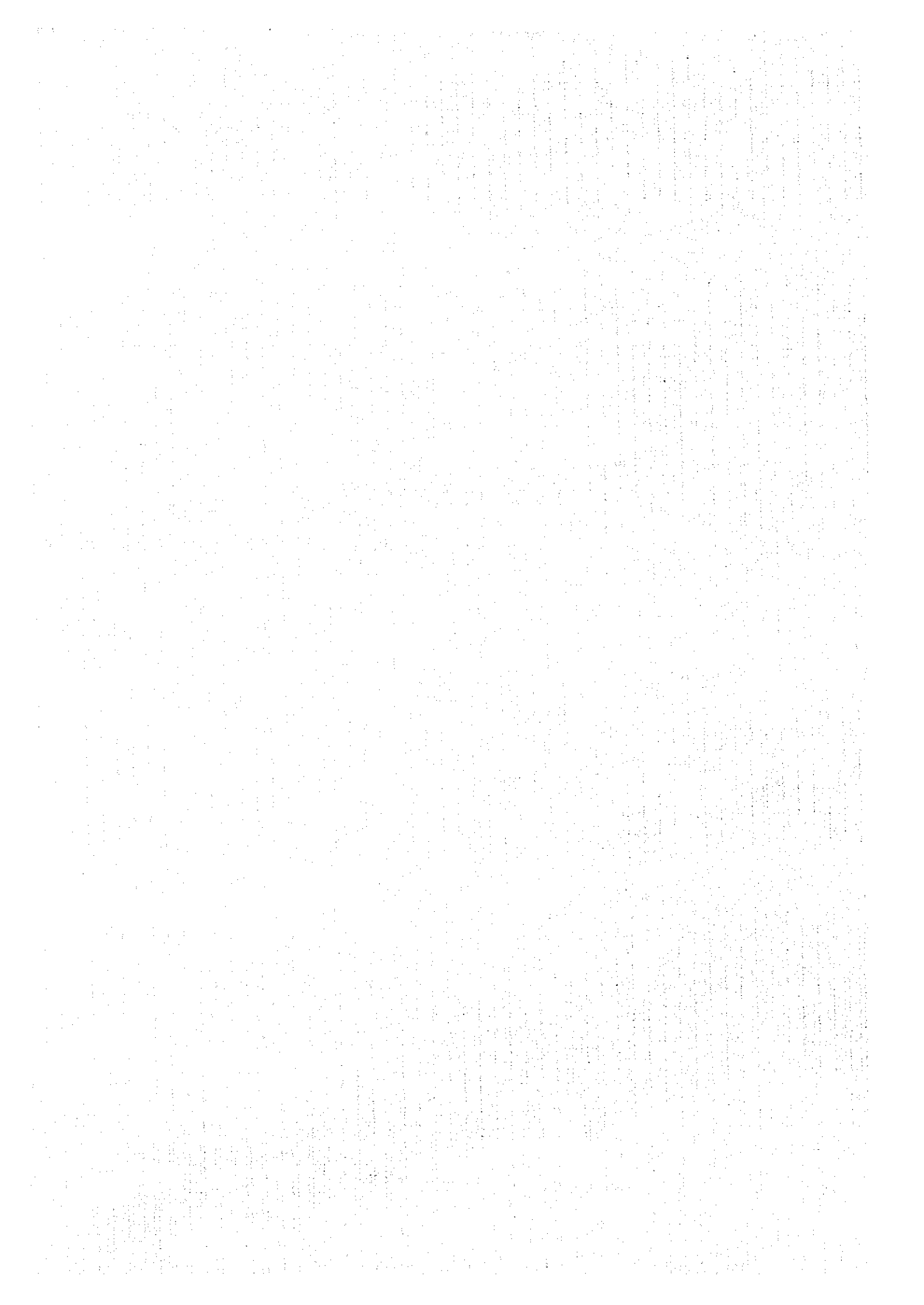
- National Planning Office (NPO)

Kira Ai	Director, NPO
Frank Agaru	A/Assist. Director, BPB, NPO
Joe Kenken	SPO-BPB-FAMD/NPO
Masayoshi Ono	JICA Adviser-FAMD/NPO
Nancy Ebbes	A/Assistant Secretary, NPO

- Gazelle Restoration Authority (GRA)

Ronald Kuk	GRA Liaison Office NPO
Ellison Kaivovo	Project Manager, GRA
Robert Cohen	OPS Manager/Financial Controller, GRA
A. Tubai	Engineer, GRA
John Brown	Engineer, GRA
John Eddison	Engineer, GRA

4. Minutes of Discussions



4. Minutes of Discussions

(1) Basic Design Study

MINUTES OF DISCUSSIONS
BASIC DESIGN STUDY ON THE PROJECT
FOR
REBUILDING OF RADIO EAST NEW BRITAIN
IN
PAPUA NEW GUINEA

In response to a request from the Government of Papua New Guinea, the Government of Japan decided to conduct a Basic Design Study on the Project for Rebuilding of Radio East New Britain (hereinafter referred to as "the Project") and entrusted the study to the Japan International Cooperation Agency (hereinafter referred to as "JICA").

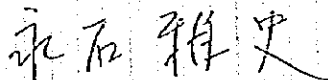
JICA sent to Papua New Guinea a study team, which is headed by Mr. Masafumi NAGAISHI, Second Project Study Division, Grant Aid Project Study Department, JICA, and is scheduled to stay in the country from 2nd of July to 24th of July, 1996.

The team held a series of discussions with the relevant officials of the Government of Papua New Guinea and conducted a field survey at the study area.

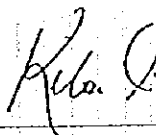
As a result of discussions and field survey, both sides have confirmed the main items described on the attached sheets.

The team will proceed to further works and prepare the Basic Design Study Report.

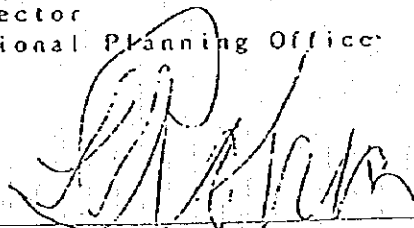
Port Moresby, July 11, 1996



Mr. Masafumi NAGAISHI
Leader
Basic Design Study Team
JICA



Mr. Kila Ai
Director
National Planning Office



Mr. Renagi R. Lohia, CBE
Chairman
National Broadcasting Commission



Sir. Henry ToRobert
Chairman
Gazelle Restoration Authority

ATTACHMENT

1. OBJECTIVE

The objective of the Project is to rebuild Radio East New Britain which was damaged by the volcanic eruption in September 1994, and to restore the same service as before.

2. PROJECT SITES

The proposed sites of new studio building and program repeater station in Kokopo are shown in ANNEX-I.

MF/HF transmitting station at Kurakakaul is the existing site.

3. EXECUTING AGENCY

National Broadcasting Commission is responsible for administration and execution of the Project.

4. ITEMS REQUESTED BY THE GOVERNMENT OF PAPUA NEW GUINEA

As a result of the series of discussions, the following has been finally requested by the Papua New Guinean side.

- (1) Kokopo Studio site
 - 1) Building
 - 2) Studio Equipment including Editing and Sending-out System
 comprising of
 - a) Network Studio
 - b) Production Studio
 - c) Master Control Room
 - 3) STL Equipment (Transmitter)
 - 4) Test Equipment
 - 5) Accessories
 - 6) Spare Parts
- (2) Kenabot Hill site
 - 1) Building
 - 2) 80m Self Supporting Tower
 - 3) STL Equipment (Receiver)
 - 4) FM Transmitter
- (3) Kurakakaul site
 - 1) FM Receiver
 - 2) HF Antenna

Above components are shown in ANNEX-II, Schematic Diagram of the Project.

Both sides have confirmed that priority of the components is as follows:

• First priority;

Kokopo Studio site

- 1) Building
- 2) Studio Equipment including Editing and Sending-out System
 comprising of
 - a) Network Studio
 - b) Production Studio
 - c) Master Control Room
- 3) STL Equipment (Transmitter)
- 4) Test Equipment
- 5) Accessories
- 6) Spare Parts

• Second priority;

Kenabot Hill site

- 1) 80m Self Supporting Tower
- 2) STL Equipment (Receiver)
- 3) FM Transmitter

Kurakakaul site

- 1) FM Receiver

• Third priority;

Kenabot Hill site

- 1) Building

Kurakakaul site

- 1) HF Antenna

However, the final components of the Project will be decided after further discussion and field survey in Papua New Guinea, and detailed analysis in Japan.

5. JAPAN'S GRANT AID SYSTEM

The Government of Papua New Guinea has understood the system of Japan's Grant Aid explained in ANNEX-III.

6. NECESSARY MEASURES TO BE TAKEN BY THE PAPUA NEW GUINEAN SIDE

The Government of Papua New Guinea will take necessary measures described in ANNEX-IV for smooth implementation of the Project on condition that the Grant Aid by the Government of Japan is extended to the Project.

7. THE SCHEDULE OF THE STUDY

(1) The team will proceed to further studies in Papua New Guinea until July 24, 1996.

(2) Based on the result of the study, JICA will prepare the Draft Basic Design Report in English and dispatch a team around the end of September 1996 in order to explain and confirm the contents.

(3) In case that the contents of the report is accepted in

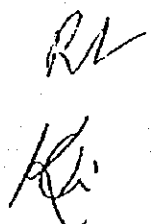
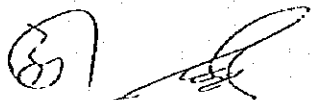
principle by the Government of Papua New Guinea, JICA will complete the Basic Design Report and forward it to the Papua New Guinean side by the end of December 1996.

8. OTHER RELEVANT ISSUES

(1) The Government of Papua New Guinea shall provide all necessary information and data when the Basic Design Team requests.

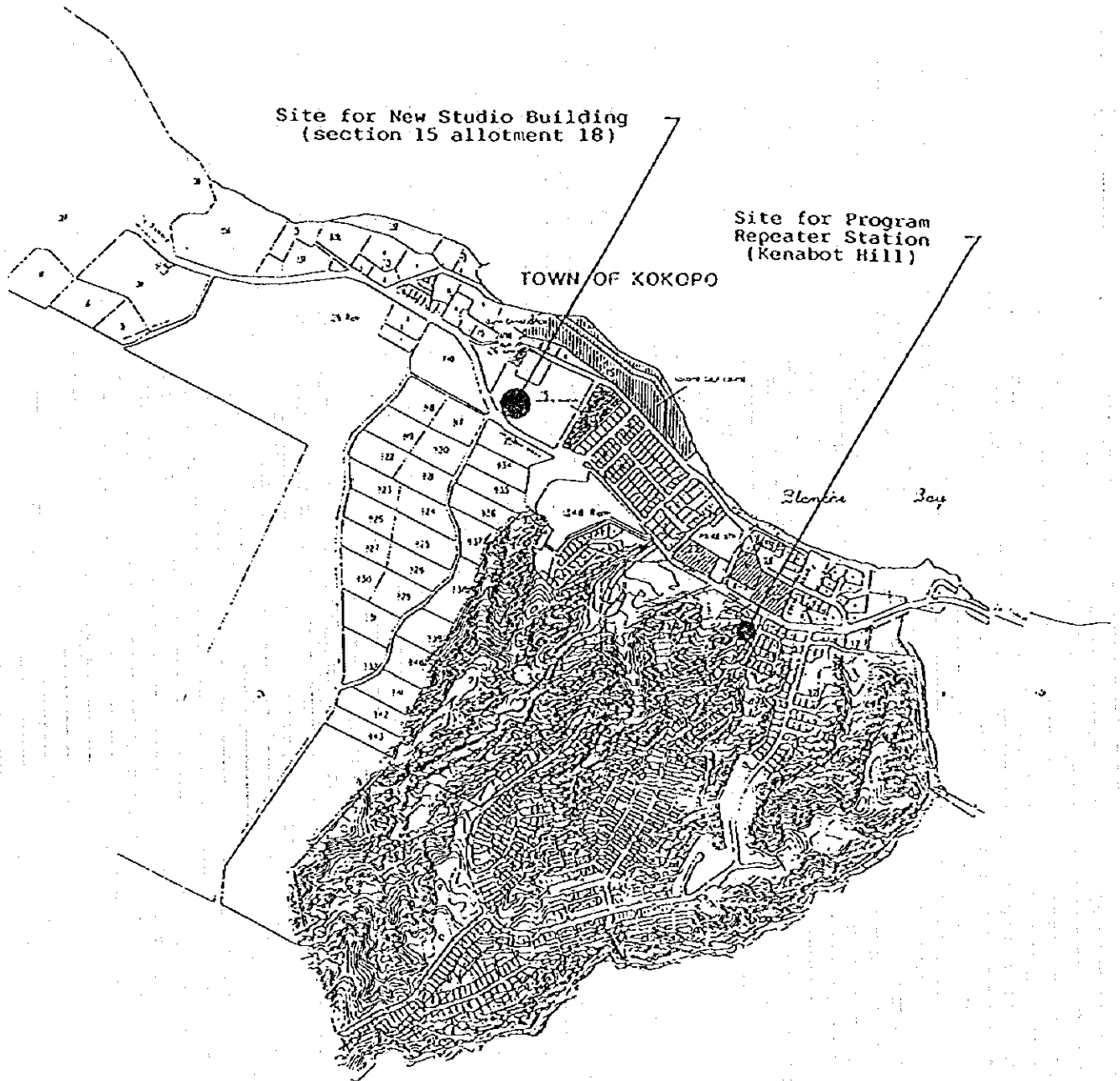
(2) The Papua New Guinean side will take all possible measures to secure the safety of the team during the field survey.

(3) The Government of Papua New Guinea requests relevant training related to the Project under JICA technical cooperation.



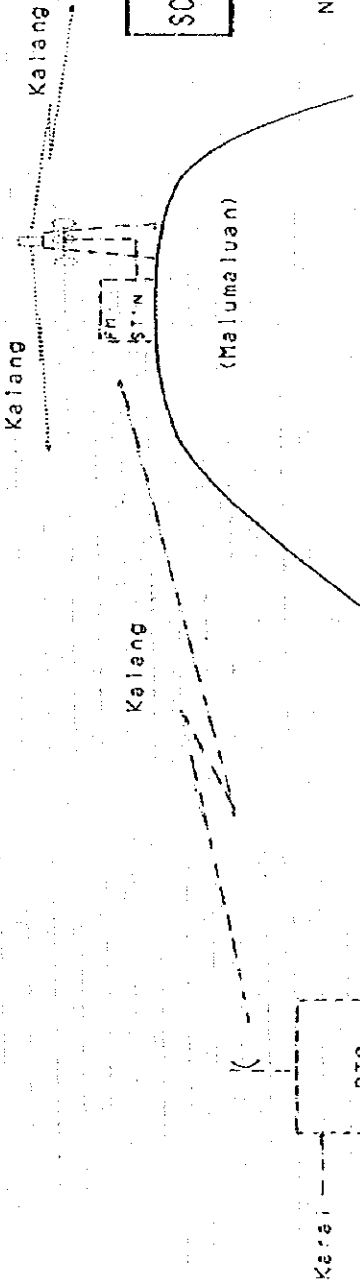
ANNEX-I
PROJECT SITES

12



ANNEX-II

SCHEMATIC DIAGRAM OF THE PROJECT



Note:

: Existing Facilities &
Existing Equipment

MAIN FACILITIES & EQUIPMENT:

- BUILDING
- 80m TOWER
- STL TRANSMITTER
- 1kw FM TRANSMITTER (Karai)
- 1kw FM TRANSMITTER (Kundu)

MAIN FACILITIES & EQUIPMENT:

- BUILDING
- STUDIO EQUIPMENT
- STL TRANSMITTER (Karai & Kundu)

(Kurakakau)

MAIN FACILITIES & EQUIPMENT:

- FM RECEIVER (Karai)
- FM RECEIVER (Kundu)
- HF ANTENNA

ANNEX-III

5. Japan's Grant Aid

5-1 Japan's Grant Aid System

(1) Grant Aid Procedures

- 1) Japan's Grant Aid Programme is executed through the following procedures.

Application (request made by a recipient country)

Study (Basic Design Study conducted by JICA)

Appraisal & Approval (Appraisal by the Government of Japan and Approval by Cabinet)

Determination of Implementation (The Notes exchanged between the Government of Japan and the recipient country)

- 2) Firstly, the application or request for a Grant Aid project submitted by a recipient country is examined by the Government of Japan (the Ministry of Foreign Affairs) to determine whether or not it is eligible for Grant Aid. If the request is deemed appropriate, the Government of Japan assigns JICA (Japan International Cooperation Agency) to conduct a study on the request.

Secondly, JICA conducts the study (Basic Design Study), using (a) Japanese consulting firms(s).

Thirdly, the Government of Japan appraises the Project to see whether or not it is suitable for Japan's Grant Aid Programme, based on the Basic Design Study report prepared by JICA, and the results are then submitted to the Cabinet for approval.

Fourthly, the Project, once approved by the Cabinet, becomes official with the Exchange of Notes signed by the Government of Japan and the recipient country.

Finally, for the implementation of the Project, JICA assists the recipient country in such matters as preparing tenders, contracts and so on.


(2) Basic Design Study

1) Contents of the Study

The aim of the Basic Design Study (hereafter referred to as "the Study"), conducted by JICA on a project requested (hereafter referred to as "the Project") is to provide a basic document necessary for the appraisal of the Project by the Government of Japan. The contents of the Study are as follows:

- a) Confirmation of the background, objectives, and benefits of the Project and also institutional capacity of agencies concerned of the recipient country necessary for the Project's implementation
- b) Evaluation of the appropriateness of the Project to be implemented under the Grant Aid Scheme from a technical, social and economic point of view
- c) Confirmation of items agreed on by both parties concerning the basic concept of the Project
- d) Preparation of a basic design of the Project
- e) Estimation of costs of the Project

The contents of the original request are not necessarily approved in their initial form as the contents of the Grant Aid project. The Basic Design of the Project is confirmed considering the guidelines of Japan's Grant Aid Scheme.

⑧ 



The Government of Japan requests the Government of the recipient country to take whatever measures are necessary to ensure 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 in the recipient country actually implementing the Project. Therefore, the implementation of the Project is confirmed by all relevant organizations of the recipient country through the Minutes of Discussions.

2) Selection of Consultants

For smooth implementation of the Study, JICA uses (a) registered consultant firm(s). JICA select (a) firms(s) based on proposals submitted by interested firms. The firm(s) selected carry(ies) out a Basic Design Study and write(s) a report, based upon terms of reference set by JICA.

The consulting firm(s) used for the Study is(are) recommended by JICA to the recipient country to also work on the Project's implementation after the Exchange of Notes, in order to maintain technical consistency and also to avoid any undue delay in implementation should the selection process be repeated.

(3) Japan's Grant Aid Scheme

1) What is Grant Aid?

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

2) Exchange of Notes (E/N)

Japan's Grant Aid is extended in accordance with the Notes exchanged by the two Governments concerned, in which the objectives of the Project, period of execution, conditions and amount of the Grant Aid, etc., are confirmed.

3) "The period of the Grant Aid" means the one fiscal year which the Cabinet approves the Project for. Within the fiscal year, all procedures such as exchanging of the Notes, concluding contracts with (a) consultant firm(s) and (a) contractor(s) and final payment to them must be completed.

However in case of delays in delivery, installation or construction due to unforeseen factors such as weather, the period of the Grant Aid can be further extended for a maximum of one fiscal year at most by mutual agreement between the two Governments.

4) Under the Grant Aid, in principle, Japanese products and services including transport or those of the recipient country are to be purchased.

When the two Governments 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, consulting, constructing and procurement firms, are limited to "Japanese nationals". (The term "Japanese nationals" means persons of Japanese nationality or Japanese corporations controlled by persons of Japanese nationality.)

5) Necessity of "Verification"

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

6) Undertakings required of the Government of the Recipient Country

In the implementation of the Grant Aid project, the recipient county is required to undertake such necessary measures as the following:

- a) To secure land necessary for the site(s) of the Project and to clear, level and reclaim the land prior to commencement of the construction.
- b) To provide facilities for the distribution of electricity, water supply and drainage and other incidental facilities in and around the site(s).
- c) To secure buildings prior to the procurement in case the installation of the equipment.
- d) to ensure prompt execution for unloading, customs clearance at the port of disembarkation and internal transportation of the products purchased under the Grant Aid.
- e) To exempt Japanese nationals from customs duties, internal taxes and other fiscal levies which will be imposed in the recipient country with respect to the supply of the products and services under the Verified Contracts.
- f) To accord Japanese nationals whose services may be required in connection with the supply of the products and services under the Verified contracts, such facilities as may be necessary for their entry into the recipient country and stay therein for the performance of their work.

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g) "Proper Use"

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

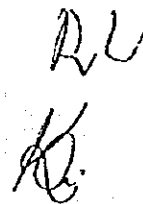
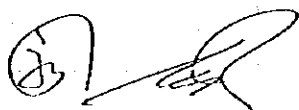
h) "Re-export"

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

i) Banking Arrangements (B/A)

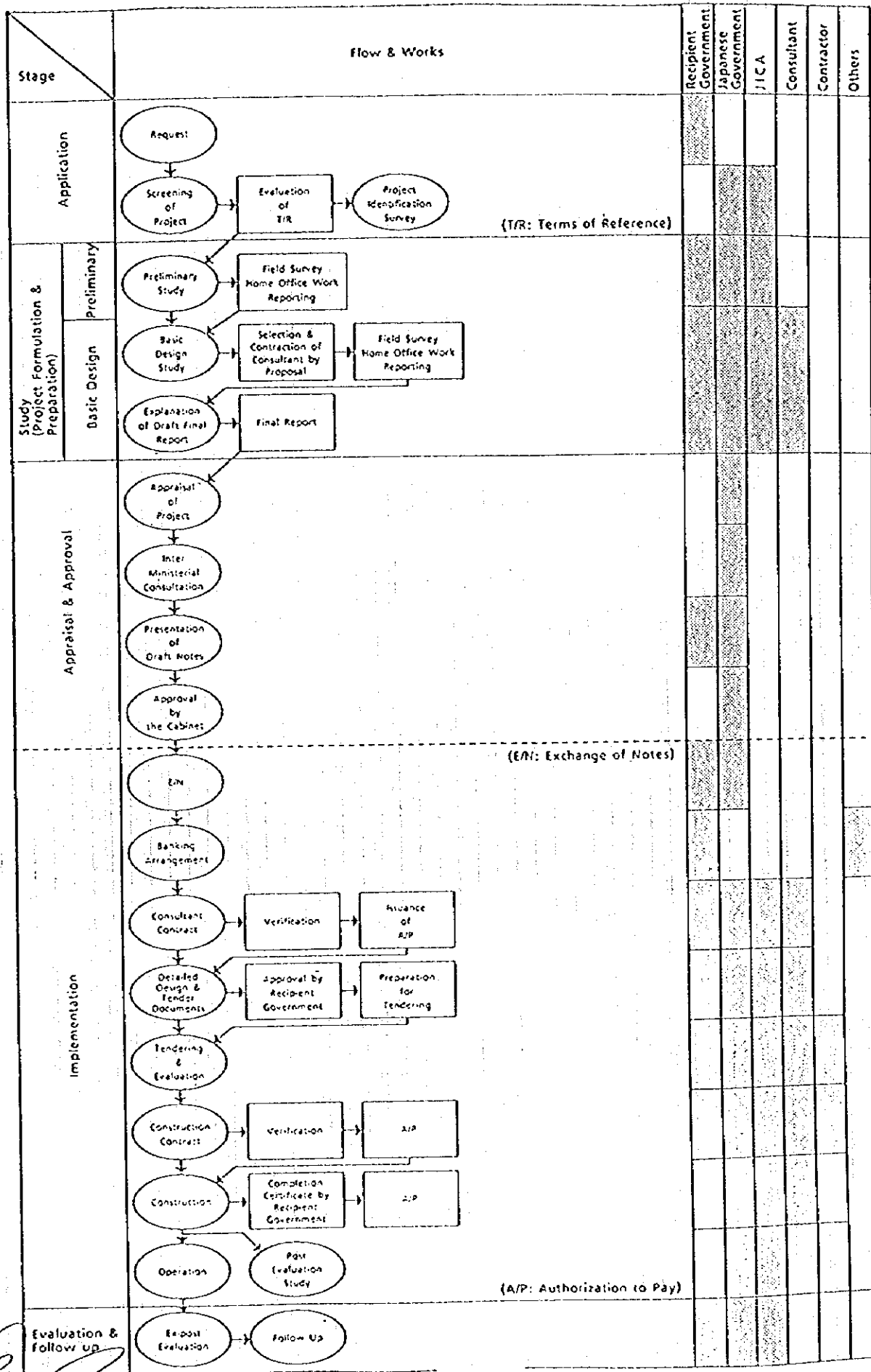
a. The Government of the recipient country or its designated authority should open an account in the name of the Government of the recipient country in an authorized foreign exchange bank of Japan (hereinafter referred to as "the Bank"). The Government of Japan will execute the Grant Aid by making payments 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 the Government of Japan under an authorization to pay issued by the Government of the recipient country or its designated authority.



5-2 Grant Aid Procedures

Flow Chart of Japan's Grant Aid Procedures



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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 land		●
2.	To clear, level and reclaim the site when needed		●
3.	To construct gates and fences in and around the site		●
4.	To construct the parking lot	●	
5.	To construct roads		
	1) Within the site	●	
	2) Outside the site		●
6.	To construct the buildings	●	
7.	To provide facilities for the distribution of electricity, water supply, drainage and other incidental facilities		
	1) Electricity		
	a. The distributing line to the site		●
	b. The drop wiring and internal wiring within the site	●	
	c. The main circuit breaker and transformer	●	
	2) Water Supply		
	a. The city water distribution main to the site		●
	b. The supply system within the site (receiving and elevated tanks)	●	
	3) Drainage		
	a. The city drainage main (for storm, sewer and others) to the site		●
	b. The drainage system (for toilet sewer, ordinary waste, storm drainage and others) within the site	●	
	4) Gas Supply		
	a. The city gas main to the site		●
	b. The gas supply system within the site	●	
	5) Telephone System		
	a. The telephone trunk line to the main distribution frame/panel (MDF) of the building		●
	b. The MDF and the extension after the frame/panel	●	
	6) Furniture and Equipment		
	a. General furniture		●
	b. Project equipment	●	
8.	To bear the following commissions to the Japanese foreign exchange bank for the banking services based upon the B/A		
	1) Advising commission of A/P		●
	2) Payment commission		●
9.	To ensure unloading and customs clearance at port of disembarkation in recipient country		
	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	●	
10.	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		●
11.	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		●
12.	To maintain and use properly and effectively the facilities constructed and equipment provided under the Grant		●
13.	To bear all the expenses, other than those to be borne by the Grant, necessary for construction of the facilities as well as for the transportation and installation of the equipment		●

ANNEX-IV

NECESSARY MEASURES TO BE TAKEN BY THE GOVERNMENT OF PAPUA NEW GUINEA

- 1) To provide data and information necessary for carrying out the detailed design of the Project
- 2) To secure the sites and spaces necessary for construction of the buildings, as well as access to the sites
- 3) To clear, level and reclaim the sites prior to commencement of the work
- 4) To undertake such outdoor works as construction of gates and fences, gardening, exterior lighting, etc.
- 5) To provide commercial power supply, water supply, drainage system to the sites, timely during construction of the buildings
- 6) To provide telephone system, furniture, utensils and other incidental facilities generally required for the buildings
- 7) To obtain permissions and licenses to be imposed by the authorities concerned in execution of the Project in Papua New Guinea
- 8) To ensure prompt unloading, tax exemption and customs clearance at the port of disembarkation in Papua New Guinea and prompt internal transportation therein of products purchased under the Grant
- 9) To exempt Japanese nationals from customs duties, internal taxes and other fiscal levies which may be imposed in Papua New Guinea with respect to supply of the products and services under the verified contracts
- 10) To accord without delay to 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 Papua New Guinea and stay therein for the performance of their work
- 11) To bear advising commission of Authorization to Pay (A/P) and payment commission to the Japanese foreign exchange bank for the banking services based upon the Banking Arrangement (B/A)
- 12) To bear all the expenses, other than those to be borne by the Grant, necessary for construction of the facilities as well as for supply and installation of the equipment
- 13) To maintain and use properly and effectively the facilities constructed and the equipment provided under the Grant

(2) Explanation of Draft Report,

MINUTES OF DISCUSSIONS
BASIC DESIGN STUDY ON THE PROJECT
FOR
REBUILDING OF RADIO EAST NEW BRITAIN
IN
PAPUA NEW GUINEA
(CONSULTATION ON DRAFT REPORT)

In July 1996, The Japan International Cooperation Agency (hereinafter referred to as "JICA") dispatched a Basic Design Study team on the Project for Rebuilding of Radio East New Britain (hereinafter referred to as "the Project") to Papua New Guinea, and through discussions, field survey, and technical examination of the results in Japan, has prepared the draft report of the study.

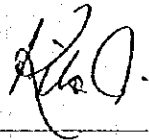
In order to explain and to consult the Papua New Guinean side on the components of the draft report, JICA sent to Papua New Guinea a study team, which is headed by Mr. Takashi Kida, Grant Aid Division, Economic Cooperation Bureau, Ministry of Foreign Affairs and is scheduled to stay in the country from October 21st to 29th of October, 1996.

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

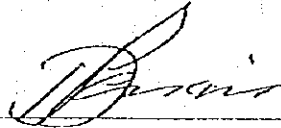
Port Moresby, October 29, 1996

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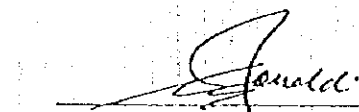
Mr. Takashi Kida
Leader
Basic Design Study Team
JICA



Mr. Kila Ai
Director
National Planning Office



Mr. Renagi R. Lohia, CBE
Managing Director
National Broadcasting Corporation



for Sir. Henry ToRobert
Chairman
Gazelle Restoration Authority

ATTACHMENT

1. Components of Draft Report

The Government of Papua New Guinea has agreed and accepted in principle the components of the Draft Report proposed by the team.

2. Japan's Grant Aid system

The Government of Papua New Guinea has understood the system of Japan's Grant Aid explained in ANNEX-I.

3. Necessary Measures to be taken by the Government of Papua New Guinea

The Government of Papua New Guinea will take necessary measures described in ANNEX-II for smooth implementation of the project on condition that the Grant Aid by the Government of Japan is extended to the Project.

4. Necessary Measures to be taken by National Broadcasting Corporation (NBC)

NBC has accepted to take necessary measures described in ANNEX-III.

5. Necessary Measures to be taken by Gazelle Restoration Authority (GRA)

NBC and the team have confirmed, through discussions with GRA, that the access road to the site of Kenabot Repeater Station will be completed by GRA by the end of September 1997.

6. Further Schedule

The team will make the Final report in accordance with the confirmed items, and send it to the Government of Papua New Guinea by the end of January 1997.

5. Japan's Grant Aid

5-1 Japan's Grant Aid System

(1) Grant Aid Procedures

- 1) Japan's Grant Aid Programme is executed through the following procedures.

Application	(request made by a recipient country)
Study	(Basic Design Study conducted by JICA)
Appraisal & Approval	(Appraisal by the Government of Japan and Approval by Cabinet)
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Japan's Grant Aid is extended in accordance with the Notes exchanged by the two Governments concerned, in which the objectives of the Project, period of execution, conditions and amount of the Grant Aid, etc., are confirmed.

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However in case of delays in delivery, installation or construction due to unforeseen factors such as weather, the period of the Grant Aid can be further extended for a maximum of one fiscal year at most by mutual agreement between the two Governments.

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When the two Governments 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, consulting, constructing and procurement firms, are limited to "Japanese nationals". (The term "Japanese nationals" means persons of Japanese nationality or Japanese corporations controlled by persons of Japanese nationality.)

5) Necessity of "Verification"

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

6) Undertakings required of the Government of the Recipient Country

In the implementation of the Grant Aid project, the recipient county is required to undertake such necessary measures as the following:

- a) To secure land necessary for the site(s) of the Project and to clear, level and reclaim the land prior to commencement of the construction.
- b) To provide facilities for the distribution of electricity, water supply and drainage and other incidental facilities in and around the site(s).
- c) To secure buildings prior to the procurement in case the installation of the equipment.
- d) to ensure prompt execution for unloading, customs clearance at the port of disembarkation and internal transportation of the products purchased under the Grant Aid.
- e) To exempt Japanese nationals from customs duties, internal taxes and other fiscal levies which will be imposed in the recipient country with respect to the supply of the products and services under the Verified Contracts.
- f) To accord Japanese nationals whose services may be required in connection with the supply of the products and services under the Verified contracts, such facilities as may be necessary for their entry into the recipient country and stay therein for the performance of their work.

g) "Proper Use"

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

h) "Re-export"

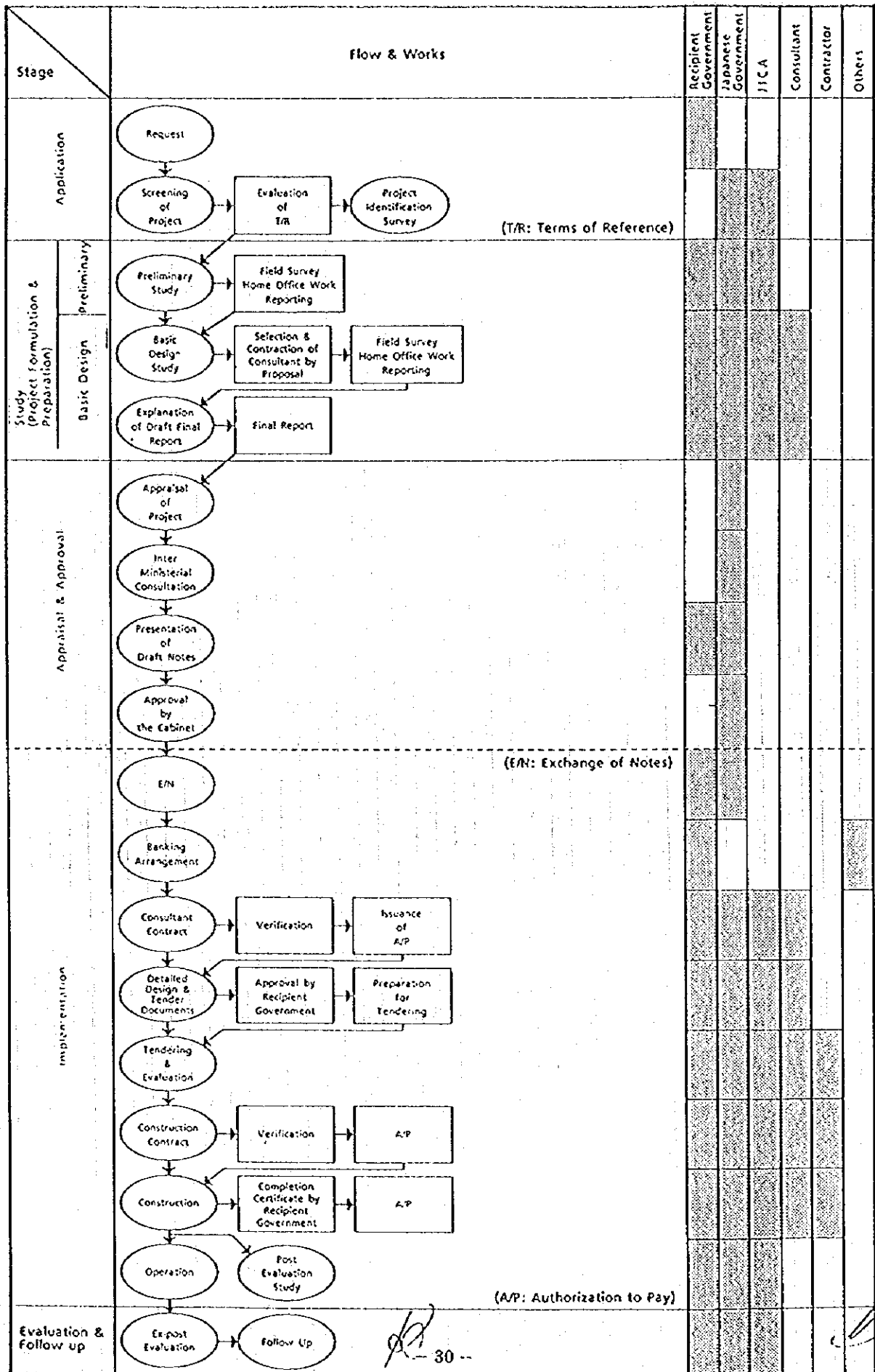
The products purchased under the Grant Aid should not be re-exported from the recipient country.

i) Banking Arrangements (B/A)

a. The Government of the recipient country or its designated authority should open an account in the name of the Government of the recipient country in an authorized foreign exchange bank of Japan (hereinafter referred to as "the Bank"). The Government of Japan 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 the Government of Japan under an authorization to pay issued by the Government of the recipient country or its designated authority.

Flow Chart of Japan's Grant Aid Procedures



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 land		●
2.	To clear, level and reclaim the site when needed		●
3.	To construct gates and fences in and around the site		●
4.	To construct the parking lot	●	
5.	To construct roads		
	1) Within the site	●	
	2) Outside the site		●
6.	To construct the buildings	●	
7.	To provide facilities for the distribution of electricity, water supply, drainage and other incidental facilities		
	1) Electricity		
	a. The distributing line to the site		●
	b. The drop wiring and internal wiring within the site	●	
	c. The main circuit breaker and transformer	●	
	2) Water Supply		
	a. The city water distribution main to the site		●
	b. The supply system within the site (receiving and elevated tanks)	●	
	3) Drainage		
	a. The city drainage main (for storm, sewer and others) to the site		●
	b. The drainage system (for toilet sewer, ordinary waste, storm drainage and others) within the site	●	
	4) Gas Supply		
	a. The city gas main to the site	●	●
	b. The gas supply system within the site	●	
	5) Telephone System		
	a. The telephone trunk line to the main distribution (framepanel) (MDF) of the building		●
	b. The MDF and the extension after the framepanel	●	
	6) Furniture and Equipment		
	a. General furniture		●
	b. Project equipment	●	
8.	To bear the following commissions to the Japanese foreign exchange bank for the banking services based upon the B/A		
	1) Advising commission of A/P		●
	2) Payment commission		●
9.	To ensure unloading and customs clearance at port of disembarkation in recipient country		
	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	●	
10.	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.		●
11.	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.		●
12.	To maintain and use properly and effectively the facilities constructed and equipment provided under the Grant.		●
13.	To bear all the expenses, other than those to be borne by the Grant, necessary for construction of the facilities as well as for the transportation and installation of the equipment.		●

Annex-II

Necessary measures to be taken by the Government of Papua
New Guinea in case Japan's Grant Aid is executed.

- (1) To provide data and information necessary for carrying out the detailed design of the Project
- (2) To secure the sites and spaces necessary for construction of the buildings, as well as access to the sites
- (3) To clear, level and reclaim the sites prior to commencement of the work
- (4) To undertake such outdoor works as construction of gate and fences, gardening, exterior lighting, etc.
- (5) To provide commercial power supply, water supply, drainage system to the sites, timely during construction of the buildings
- (6) To provide telephone system, furniture, utensils and other incidental facilities generally required for the buildings
- (7) To obtain permissions and licenses to be imposed by the authorities concerned in execution of the Project in Papua New Guinea
- (8) To ensure prompt unloading, tax exemption and customs clearance at the ports of disembarkation in Papua New Guinea and prompt internal transportation therein of products purchased under the Grants
- (9) To exempt Japanese nationals from customs duties, internal taxes and other fiscal levies which may be imposed in Papua New Guinea with respect to supply of the products and services under the verified contracts
- (10) To accord without delay to 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 Papua New Guinea and stay therein for the performance of their work
- (11) To bear advising commission of Authorization to Pay (A/P) and payment commission to the Japanese foreign exchange bank for the banking services based upon the Banking Arrangement (B/A)
- (12) To bear all the expenses, other than those to be borne by the Grant, necessary for construction of the facilities as well as for supply and installation of the equipment
- (13) To maintain and use properly and effectively the facilities constructed and the equipment provided under the Grant

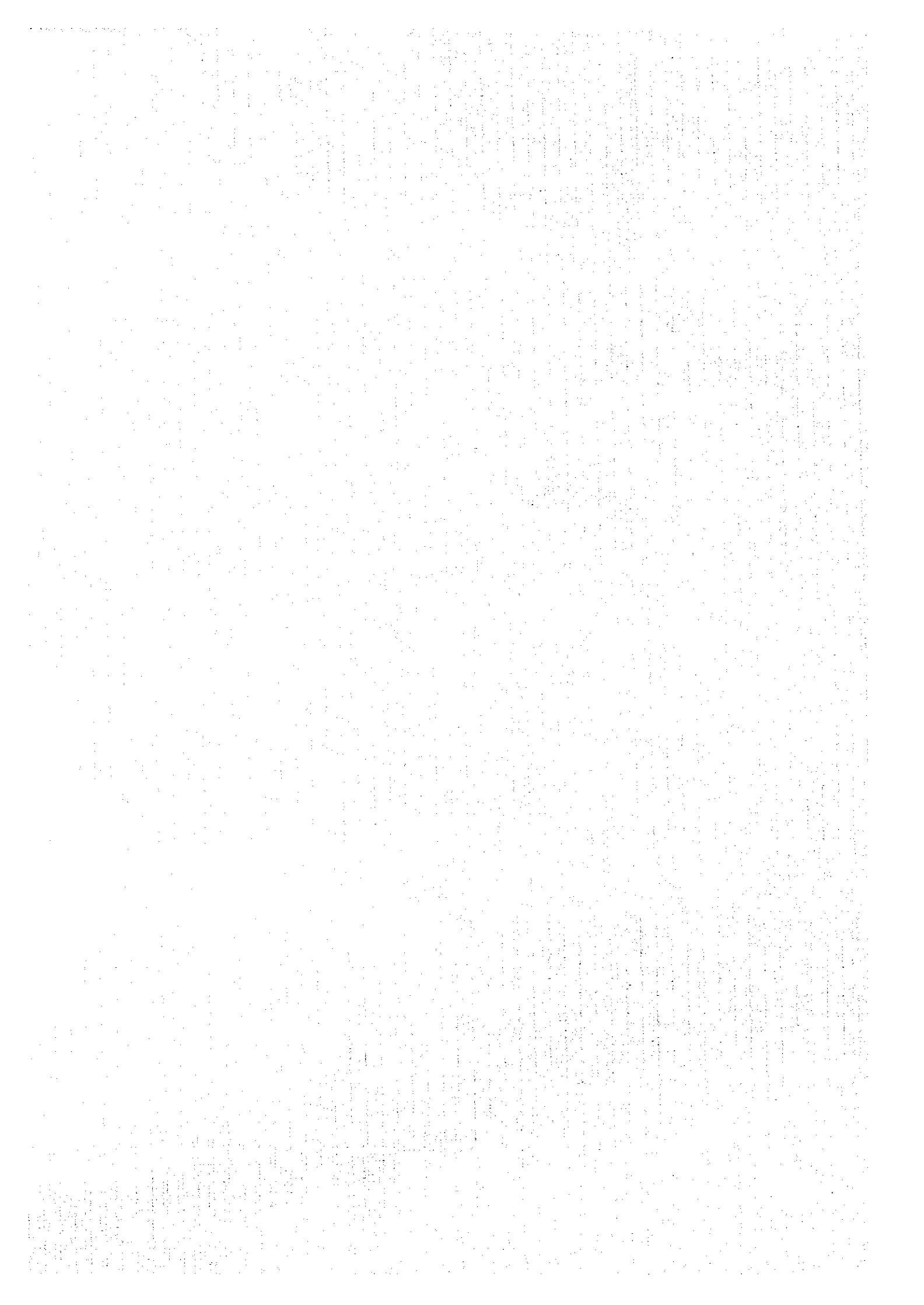
Annex-III

Necessary measures to be taken
by NBC in case Japan's Grant Aid is executed

- (1) To ensure that specialists for maintenance of the Digital Storage System are available
- (2) To ensure that an appropriate budget for equipment maintenance, including "Program Editing and Sending-out System" is provided
- (3) To secure approval for five carrier frequencies at 1.6GHz band for Studio Transmitter Link
- (4) To secure approval for two broadcast frequencies for FM transmitters
- (5) To ensure that PTC line is provided for Karai programme to Kokopo Radio Studio Center
- (6) To dismantle the existing 3MHz antenna at Kurakakaul site to make way for the installation of a new Short wave antenna
- (7) To ensure that Kundu broadcasting service (RENBP) is uninterrupted during installation of the new antenna



5. Cost Estimation Borne by The Recipient Country



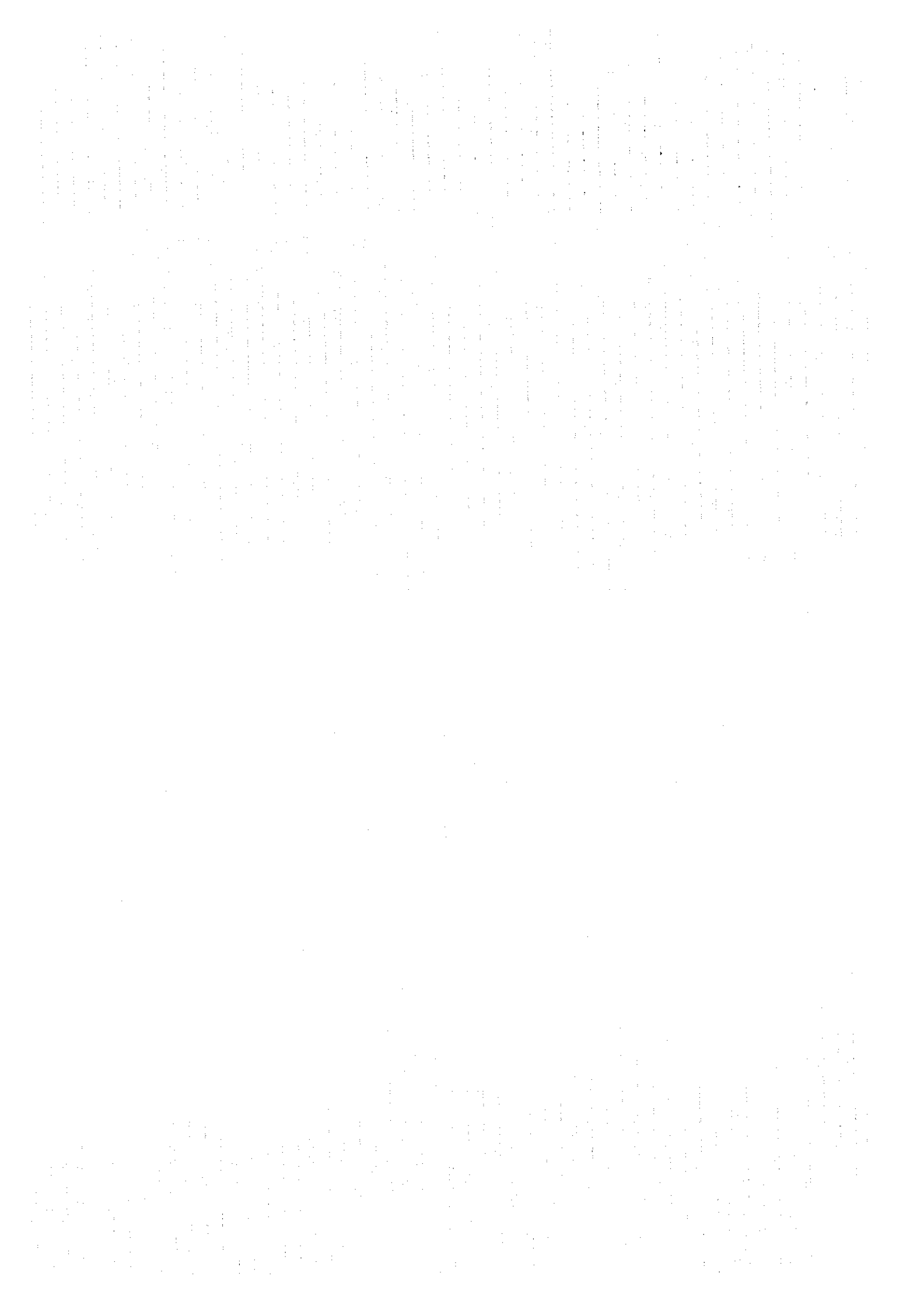
5. Cost Estimation Borne by the Recipient Country

The necessary budget born by NBC for implementation of the project for rebuilding of RENB is Kina 24,000 (approximately US\$ 18,600).

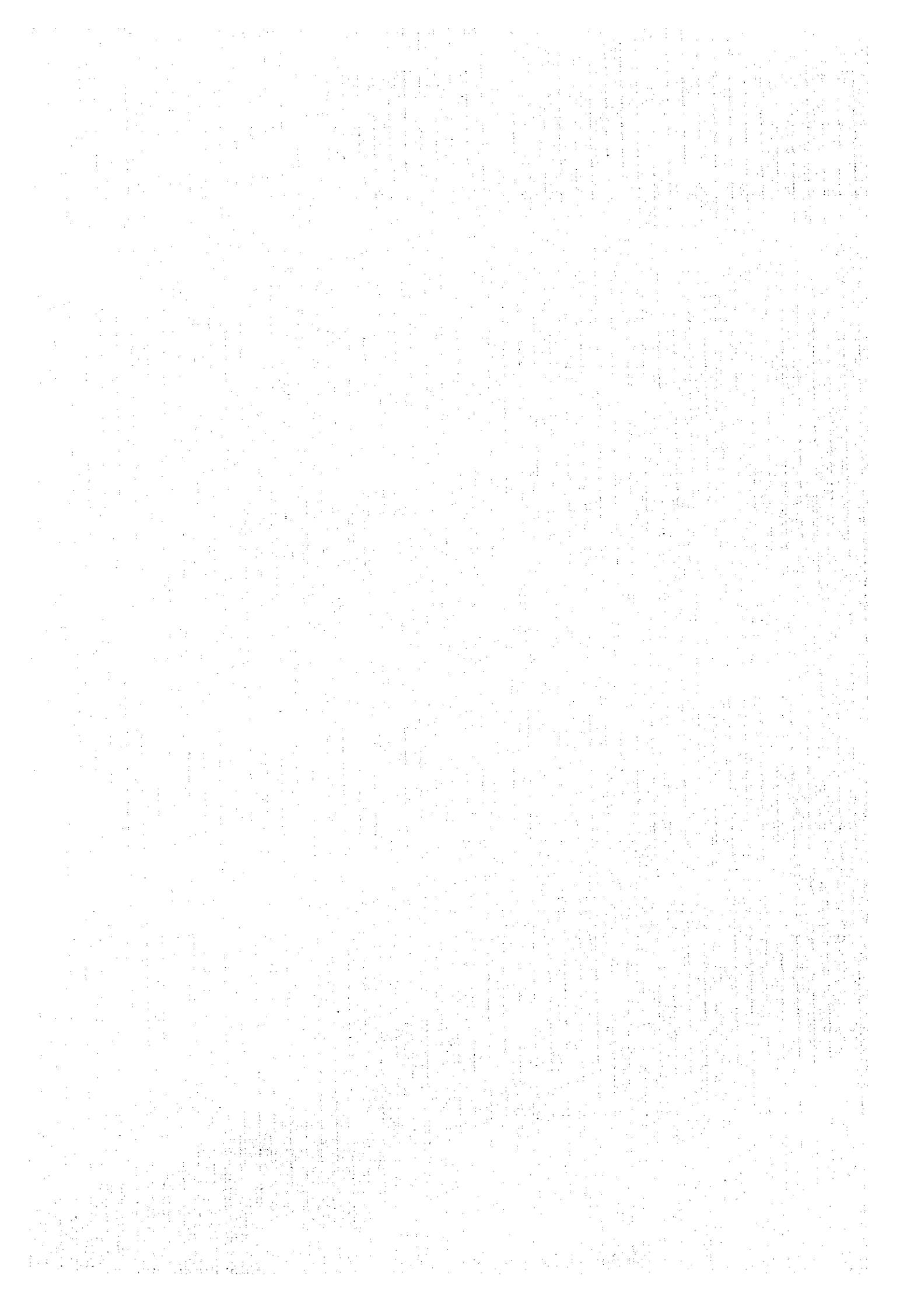
Breakdown of expenses:

- 1) Removal of obstructions inside KRSC and KRS sited and Site Preparation Kina 12,000 (US\$ 9,300)

- 2) Removal of the existing 3 MHz band shortwave antenna Kina 12,000 (US\$ 9,300)



6. References



6. References

- 6.1 1996 Estimates of Revenue and Expenditure for The Development Budget Vol.2
Presented by Hon. Chris S. Haiveta, MP, Deputy Prime Minister and Minister for Finance on the Occasion of the 1996 Budget
- 6.2 Public Investment Programme: 1995 - 1999 Vol.3
Presented by Hon. Chris S. Haiveta, MP, Deputy Prime Minister and Minister for Finance and Planning on the Occasion of the 1995 Budget
- 6.3 Report on the 1990 National Population and Housing Census in Papua New Guinea
National Statistical Office Port Moresby 1994
- 6.4 First Marketserch Media Survey 1994
Market Resurch & Marketing Consultants
- 6.5 A Broadcasting Development Plan for the National Broadcasting Commission of Papua New Guinea October 1992
Australian Broadcasting Corporation
- 6.6 Broadcasting Commission (Change of Name and Corporate Structure) Act 1995
- 6.7 Annual Report - Radio East New Britain (1995)
Presented by RENB
- 6.8 Existing Facilities and Equipment List
Presented by RENB
- 6.9 Kokopo Urban Development Plan / Final Report
December, 1995
East New Britain Provincial Government

- 6.10 Kokopo Commercial Business Centre · Ralum Civic Centre /
Detailed Masterplan Report
April, 1996
Gazelle Restoration Authority
- 6.11 Ralum Civic Centre and Kokopo Commercial Business Centre /
Buildings Volcanic Impact Report
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