

**Preliminary Basic Design Study**  
**on the Project for Improvement of Broadcasting Equipment**  
**For National Broadcasting Corporation in Papua New Guinea**

- 1 Objective Station     Kimbe, West New Britain Province
- 2 Period of Survey     6<sup>th</sup> Nov to 7<sup>th</sup> Nov, 2001
- 3 Qualification Survey

**(1) Project Site**

The location of site is at the west end of the Kimbe city, at about 500m from the Radio West New Britain. The proposed land is 56,000m<sup>2</sup>. The distance to proposed site from the airport is about 30km. Eight houses of illegal residents are in the site.

**(2) Sustainability**

The financial support of the Provincial Government is different in every year. Though the studio equipment was renewed by the fund of the Provincial Government in 2000, the financial management of the Radio West New Britain is suffering the shortage of the funds for the electricity bill for this year. Therefore, the morning session of Kundu Service has stopped for 2000.

Although decaying, the Transmitter for Kundu Service is very well maintained by obtaining the parts from other equipment appropriately.

The official comments made by Mr. Paul Smith Rame, Deputy Provincial Administrator in West New Britain is positive for the continuation of financial support for Kundu Service by the Provincial Government.

**(3) Beneficial Effect.**

Total Population: 184,000.

The number of responses from the radio listener is about 500 per month by means of the telephone or letter. Main responses are the requests of the songs and questions on Gospel. However, the demand for the replacement of deteriorated Transmitting equipment is emphasized by the Administration Office in the viewpoint of the precaution of serious disaster caused by eruptions of Mt. Pago

The beneficial population of this investment is about 70%(129,000) of the total population.

**(4) Status of Station Building**

The existing SW transmitter station building is a wooden one that exceeded its durability.

Moreover, the distance from the building to the expected MW antenna site is too far (about 300m) and there is no space for 10kW Medium Wave Transmitter.



Therefore, a TX Shelter in the site near the MW antenna is recommendable for the installation of a new MW Transmitter.

**(5) Status of SW TX for Kundu Service**

The existing SW Transmitter is judged to be replaced due to the deterioration of the parts such as connectors, circuit breaker, various contactors used for tuning, and Transmission Tube Socket.

**(6) Measures to be taken by Papua New Guinean side**

On condition that the Government of Japan approves the improvement of the existing SW Transmitting station of the Radio West New Britain, the Government of Papua New Guinea agreed to take necessary measures as follows.

- 1) Leveling of the proposed project site.
- 2) Completion of Gate and Fencing of the proposed project site.
- 3) Installation, Test and Commissioning of Main Power Lines to TX Shelter.
- 4) Installation, Test and Commissioning of Program Feed Lines to TX Shelter.
- 5) Removal illegal residence from the proposed site.
- 6) Secure the operation and maintenance expense incurred by new equipment.
- 7) Prepare the future replacement plan based on the depreciation account of new equipment.
- 8) Execution of the PNG's side work listed Annex-4 of the Minutes of Discussions on the Basic Design Study on the Project for Improvement of Broadcasting Equipment for National Broadcasting Corporation made November 1, 2002 between Mr. Katsutoshi Komori, Leader of Basic Design Study Team, Japan International Cooperation Agency and Kristoffa Ninkama, Managing Director, National Broadcasting Corporation.

**(7) Assigned Frequency**

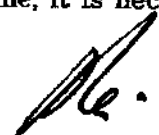
ITU assigned frequency for Kundu Service of Radio West New Britain is 1215kHz

**(8) Power Supply**

Surge Protector and Emergency Engine Generator are necessary for the protection from Lightning Surge, Fluctuation of Power Supply and sudden Power Stoppage.

**(9) Status of Studio**

In order to improve the quality and productivity of programme, it is necessary to improve studio equipment.



**Basic Design Study**  
**on the Project for Improvement of Broadcasting Equipment**  
**for National Broadcasting Corporation in Papua New Guinea**

- 1 Objective Station      **Wewak, East Sepik Province**
- 2 Period of Survey      **27<sup>th</sup> Oct to 28<sup>th</sup> Oct, 2002**
- 3 Qualification Survey

**(1) Project Site**

The site is located next to the Wewak airport. Therefore, in conformity with the International Civil Aviation Regulation, there is a limitation to the tower height.

The site is occupied with Karai MW antenna and Kundu SW antenna, hence there is no space for Kundu MW antenna.

**(2) Sustainability**

The financial support of the Provincial Government is not certain and the financial management of the Radio East Sepik is suffering the shortage of the funds for the operation and maintenance. The station power supply has stooped for more than one year due to the non-payment of electricity bill.

**(3) Beneficial Effect**

Total Population: 343,000.

The very little beneficial effect is expected due to the location of antenna site next to the airport and a mountainous range of 1000m high.

The majority of the people in East Sepik Province are living in the valley after the mountain range. For the effective coverage of the Kundu Service, it is necessary to consider the relocation of the station in the future.

**(4) Status of Station Building**

The existing SW transmitter station building is a wooden one that exceeded its durability.

And, the station building is accommodating one SW transmitter and one MW transmitter, thus there is no space for others.

**(5) Status of SW TX for Kundu service**

The existing SW Transmitter is judged to be replaced due to the deterioration of the parts such as connectors, circuit breaker, various contactors used for tuning, and Transmission Tube Socket.

**(6) Measures to be taken by Papua New Guinean side**

On condition that the Government of Japan approves the improvement of the existing SW Transmitting station of the Radio East Sepik, the Government of



Papua New Guinea agreed to take necessary measures as follow.

1) Execution of the PNG's side work listed Annex-4 of the Minutes of Discussions on the Basic Design Study on the Project for Improvement of Broadcasting Equipment for National Broadcasting Corporation made November 1, 2002 between Mr. Katsutoshi Komori, Leader of Basic Design Study Team, Japan International Cooperation Agency and Kristoffa Ninkama, Managing Director, National Broadcasting Corporation.

**(7) Assigned Frequency**

ITU assigned frequency for Kundu Service of Radio East Sepik Province is 1314kHz.

**(8) Power Supply**

Surge Protector and Emergency Engine Generator are necessary for the protection from Lightening Surge, Fluctuation of Power Supply and sudden Power Stoppage.

**(9) Status of Studio**

In order to improve the quality and productivity of programme, it is necessary to improve studio equipment.



**Member of the Site Survey Team**

**Momose Region**

**Period of Survey**

27<sup>th</sup> Oct., to 28<sup>th</sup> Oct., 2002      Wewak, East Sepik  
29<sup>th</sup> Oct., to 30<sup>th</sup> Oct., 2002      Vanimo, West Sepik  
01<sup>st</sup> Nov., to 02<sup>nd</sup> Oct., 2002      Lae, Morobe

**Participants**

NBC                      Mr. Demas Totil  
JICA Study Team      Mr. Masatoshi Hamada  
                                 Mr. Hiromu Kamijyo  
                                 Mr. Toru Uruwashi

**Island Region**

**Period of Survey**

06<sup>th</sup> Nov., to 07<sup>th</sup> Oct., 2002      Kimbe, West New Britain

**Participants**

NBC                      Mr. Demas Totil  
JICA Study Team      Mr. Yoshihiro Nohara  
                                 Mr. Toru Uruwashi

**Highland Region**

**Period of Survey**

04<sup>th</sup> Nov., to 05<sup>th</sup> Nov, 2002      Goroka, Eastern Highlands  
06<sup>th</sup> Nov., to 07<sup>th</sup> Nov, 2002      Kundiawa, Simbu  
08<sup>th</sup> Nov., 2002                      Wabag, Enga  
09<sup>th</sup> Nov., to 10<sup>th</sup> Nov., 2002      Mt. Hagen, Western Highlands

**Participants**

NBC                      Mr. Issac Marinjembi  
JICA Study Team      Mr. Hiroaki Otsuka  
                                 Mr. Masatoshi Hamada  
                                 Mr. Hiromu Kamijyo  
JICA(PNG)              Mr. Tony Ombo



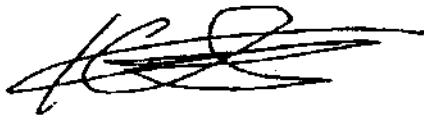
**Minutes of Discussions  
on the Basic Design Study  
on the Project for Improvement of Broadcasting Equipment  
for the National Broadcasting Corporation  
in the Independent State of Papua New Guinea  
(Explanation on Draft Report)**

In October 2002, the Japan International Cooperation Agency (hereinafter referred to as "JICA") dispatched the Basic Design Study Team on the Project for Improvement of Broadcasting Equipment for the National Broadcasting Corporation (hereinafter referred to as "the Project") to the Independent State of Papua New Guinea (hereinafter referred to as "the PNG"), and through discussions, field survey and technical examination of the results in Japan, JICA prepared a 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 Mr. Katsuro Saito, Resident Representative of the JICA PNG Office, from February 17 to 26, 2003.

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

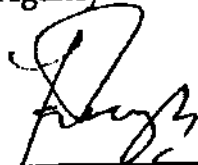
Port Moresby, 25 February 2003



Katsuro Saito  
Leader  
Basic Design Explanation Team  
Japan International Cooperation  
Agency



Kristoffa Ninkama  
Managing Director  
National Broadcasting Corporation



Mosilayola Kwayaila  
First Assistant Secretary  
Aid Coordination and Management  
Division  
Department of National Planning &  
Rural Development



Henao Iduhu  
Director General  
Office of Information & Communication

## ATTACHMENT

### 1. Components of the Draft Report

The PNG side agreed and accepted in principle the components of the draft report explained by the Team.

However, as the result of the field survey jointly conducted by the PNG side and the Team, both sides concluded that proposed site for relay station at Hafaru, Eastern Highland Province, was not suitable due to the lack of necessary access road and power supply. Based on a comprehensive search for an alternative site, both sides temporarily concluded that a relay station at Kainantu, which could cover larger population than the one at Hafaru, would be suitable in terms of land space, access and power availability. The PNG side shall, as referred to in 4-5 of this Minutes of Discussions, obtain the legal permission to use the land and facilities for the proposed relay station in Kainantu, which are currently owned by the TELIKOM. The Team shall examine the technical and financial feasibility of the plan in Japan.

### 2. Japan's Grant Aid Scheme

The 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 sides on November 1, 2002.

### 3. Schedule of the Study

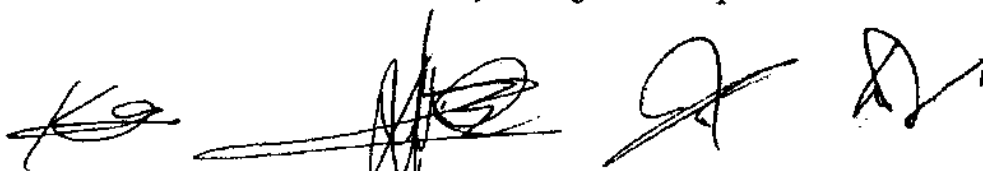
JICA will complete the final report in accordance with the confirmed items and send it to the Government of PNG by the end of April 2003.

### 4. Other Relevant Issues

4-1. The PNG side shall secure personnel and budget necessary for the Project.

4-2. The PNG side shall take all possible measures to secure safety of the people concerned during the implementation of the Project. The PNG side shall arrange police escort for the Japanese people concerned of the Project all the time at PNG side's expense.

4-3. The PNG side shall allocate the necessary budget for operation and



maintenance of each station of the Project in cooperation with a relevant provincial government. The PNG side shall submit to the JICA PNG Office the letters from each provincial governor to ensure that the provincial government shall allocate necessary budget by the end of February 2003.

4-4. The PNG side shall replace the equipment to be installed in the Project at their own expense in the future when the equipment becomes deteriorated, as mentioned in the letter from the Minister of Communication and Information, dated November 11th, 2002.

4-5. The PNG side shall secure adequate lands and facilities for installation of a transmitter and an antenna for each main station and relay station of the Project. The PNG side shall obtain the official and legal permission to use the land and facilities from the relevant authorities and submit the copy of permission to JICA PNG Office by 14th March 2003.

4-6. The PNG side shall secure frequencies from PANGTEL for each main and relay station of the Project as follows:

Vanimo	585 KHz (STL 490.075 MHz)
Kimbe	900 KHz (STL 490.075 MHz)
Lae	810 KHz
Mt. Hagen	91.5 MHz
Goroka	91.9 MHz (STL 490.075 MHz)
Kainantu (Relay station)	91.1 MHz

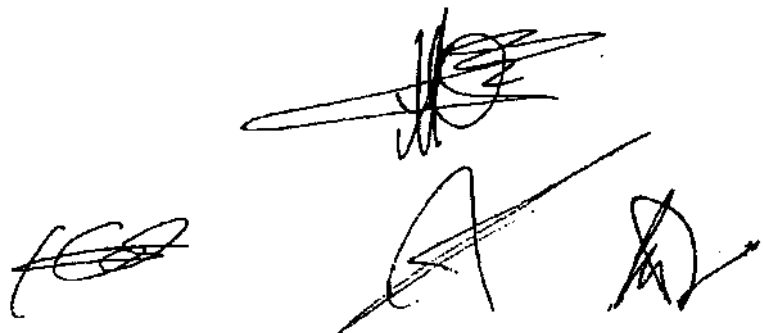
4-7. The PNG side shall take the following measures for each station of the Project:

- 1) To clear, level and reclaim the lands,
- 2) To construct gates and fences,
- 3) To construct access roads,
- 4) To construct telephone trunk line,
- 5) To supply electricity,
- 6) To secure spaces for temporal works such as offices, stockyards and etc.,
- 7) To remove obstacles such as trees for installation works,
- 8) To relocate utilities such as water pipe, gas pipe, power supply line, etc.
- 9) To remove the existing SW antenna, which becomes unnecessary.

4-8. The PNG side shall, as mentioned in the letter from the Minister of Communication and Information dated November 11th 2002, air a message of acknowledgement and appreciation of the Project from the stations of the



Project, so that the people of PNG are fully aware that the Japanese Grant Aid makes the broadcasting possible. The message will be announced three times a day, e.g. at the beginning, noon and closing time of the daily service, for the period of at least one year.

The image shows four handwritten signatures or initials in black ink. One is on the left, and three are on the right, arranged in a roughly triangular pattern. The signatures are stylized and difficult to decipher.

## **5. Cost Estimation Borne By Papua New Guinea**

Among the responsibilities to required in By Papua New Guinea side for implementation of the Project, the following work require urgent preparation of the budget, since the work is essential to start the Project and without performing the work, nothing will be commenced.

- Leveling of the Project sites
- Gate and fence building and renovation of building
- Laying of power lines to transmitter rooms
- Laying program line to transmitter rooms

The cost required for the above work can be estimated at 495,000 kina and above cost have been estimated by NBC.