

5-3 RECOMMENDATIONS

The following recommendations are presented for prompt implementation of the redevelopment project and for smooth and effective operations of the facilities after completion:

1) Establishment of Joint Committee for Redevelopment Project

The project hospitals are situated at three remote locations respectively. Project executing agencies are under the control of the Department of Health. Three hospitals are actually split into two separate organisation of National and Provincial, and the number of the acting agencies is large. It is, therefore, suggested to establish a joint committee having the right to discuss and decide to set up basic policy on implementation of the redevelopment project.

2) Prevention of Interruptions by Construction Work

The project hospitals continue their operation throughout the construction. The project is planned in a manner to minimise the interruptions to each other. The construction contractor is required to discuss with the representatives of the hospitals to least the interruptions to the health services.

3) Smooth Completion of Work by the Government of Papua New Guinea

The Government of Papua New Guinea will take an appropriate action for funding within the authorised fiscal year, and will complete the work to be borne by Papua New Guinea. Priority should be given to demolition of the existing buildings and site clearance within the proposed sites of construction, and to securing temporary power and water supply.

4) Funding for Operations and Maintenance

The project is planned to run new facilities at similar costs to the present operations and maintenance costs. However, the New MCH Wards at Mt. Hagen Hospital may cause increase of nursing staff to meet the increased beds of the hospital on the whole. It is recommended that the details of the operation after completion of the project are carefully studied to secure necessary funds required for operations and maintenance of new facilities including arrangement for hospital staff mentioned above.

APPENDIX

APPENDIX

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APPENDIX I MEMBERS OF THE BASIC DESIGN STUDY TEAM

Basic Design Study (August 26 - October 4, 1989)

POSITION	NAME	ORGANISATION
Team Leader	Dr. Toshihiko HASEGAWA	Deputy Director, Planning Division, Health Policy Bureau, Ministry of Health and Welfare
Grant Aid Programme	Mr. Tetsufumi MIKAMI	Officer, Grant Aid Division, Economic Cooperation Bureau, Ministry of Foreign Affairs
Project Coordinator	Mr. Tsutomu IWASAKI	Staff, First Basic Design, Study Department, Grant Aid Planning and Survey Division, Japan International Cooperation Agency (JICA)
Architectural Planning	Mr. Kenjiro FUJITA	GKK Architects & Engineers
Architectural Design	Mr. Masahiro IKAWA	GKK Architects & Engineers
Building Equipment Planning	Mr. Takehisa HASUO	GKK Architects & Engineers
Structural Planning	Mr. Hajime TAKAI	GKK Architects & Engineers
Medical Equipment Planning	Mr. Katsuo TATENO	GKK Architects & Engineers

Briefing Draft Study Report (February 7 - 16, 1990)

POSITION	NAME	ORGANISATION
Team Leader	Dr. Toshihiko HASEGAWA	Director Medical Cooperation Department, Medical Cooperation Division, Japan International Cooperation Agency (JICA)
Architectural Planning	Mr. Kenjiro FUJITA	GKK Architects & Engineers
Building Equipment Planning	Mr. Takehisa HASUO	GKK Architects & Engineers
Medical Equipment Planning	Mr. Katsuo TATENO	GKK Architects & Engineers

APPENDIX II FIELD SURVEY SCHEDULE

Basic Design Study (August 26 - October 4, 1989)

No.	Date	Location	Content of Survey
1	Aug 26 (Sat)	Movement	Left Narita (Messrs. Hasegawa, Mikami, Iwasaki, Fujita, Igawa, and Tateno)
2	27 (Sun)	Movement	Arrived at Port Moresby via Brisbane
3	28 (Mon)	Port Moresby	Courtesy call on Office of JICA and discussed scheduling Courtesy call on Japan Embassy and discussed scheduling Courtesy call on Department of Finance and Planning (DOFP) Courtesy call on Department of Foreign Affairs (MFA) Courtesy call on Department of Health (DOH)
4	29 (Tue)	Port Moresby	Meeting at DOFP (Government representatives only) Joint meeting at DOFP (participants from MFA, DOFP, DOH, and DOW) Meeting at DOH
5	30 (Wed)	Movement	Left Port Moresby and arrived at Lae Courtesy call on Premier of Morobe Province Surveyed the site of Lae Hospital
6	31 (Thu)	Lae	Meeting at Lae and surveyed the site Surveyed Chemical Storage Building Surveyed Wood Research and Laboratory
7	Sep 01 (Fri)	Movement	Left Lae and arrived at Mt. Hagen Courtesy call on Premier of Western Highlands Province Surveyed the site of Mt. Hagen Hospital
8	02 (Sat)	Mt. Hagen	Meeting at Mt. Hagen Hospital and surveyed the site
9	03 (Sun)	Movement	Left Mt. Hagen and arrived at Wewak Surveyed the site of Wewak Hospital (Messrs. Takai and Hasuo arrived at Port Moresby)
10	04 (Mon)	Wewak	Courtesy call on Premier of East Sepik Province Meeting and site survey at Wewak Hospital (Messrs. Takai and Hasuo surveyed applicable laws and regulations for construction of buildings at City of Port Moresby)
11	05 (Tue)	Movement	Left Wewak and arrived at Port Moresby In-team meeting (pigeonholing collected survey data)
12	06 (Wed)	Port Moresby	Joint meeting at DOFP (participants from MFA, DOFP, DOH, and DOW) Meeting at Office of JICA

No.	Date	Location	Content of Survey
13	Sep 07 (Thu)	Port Moresby	Signed the minutes of meeting at DOFP Briefing at Office of JICA (Government representatives only) Briefing at Japan Embassy (Government representatives only)
14	08 (Fri)	Port Moresby	Government representatives left for Japan Discussed with local consultant for future schedule
15	09 (Sun)	Port Moresby	Changed survey schedule. (due to riots in Lae)
16	10 (Sun)	Port Moresby	Pigeonholing collected survey data
17	11 (Mon)	Port Moresby	Held a meeting at Office of JICA Held a meeting at DOW Held a meeting with local consultant
18	12 (Tue)	Movement	Left Port Moresby and arrived at Wewak Surveyed the site of Wewak Hospital
19	13 (Wed)	Wewak	Held a meeting and conducted survey at Wewak Hospital Meeting at Provincial Public Work and asked questions for the local conditions Meeting at Electricity Commission (ELCOM)
20	14 (Thu)	Movement	Left Wewak and arrived at Goroka Held a meeting and conducted survey at Goroka Provincial Hospital
21	15 (Fri)	Movement	Left Goroka and arrived at Mt. Hagen Held a meeting with Secretary of Western Highlands Province Held a meeting and conducted survey at Mt. Hagen Hospital
22	16 (Sat)	Mt. Hagen	Surveyed the site of Mt. Hagen Hospital
23	17 (Sun)	Mt. Hagen	Pigeonholing collected survey data
24	18 (Mon)	Mt. Hagen	Surveyed Tokoba Nursing School and Hospital Surveyed the site of Mt. Hagen Hospital
25	19 (Tue)	Mt. Hagen	Held a meeting and conducted survey at Mt. Hagen Hospital Held a meeting with personnel in charge of hospital facilities from ELCOM and DOW Surveyed Chemical Storage Building Discussed with local consultant and asked questions for local construction problems
26	20 (Wed)	Mt. Hagen Movement	Held a meeting at Mt. Hagen Hospital Left Mt. Hagen and arrived at Lae Surveyed the site of Lae Hospital
27	21 (Thu)	Lae	Meeting and conducted survey at Lae Hospital Held a meeting with personnel in charge of hospital facilities from ELCOM and DOW (Called on local transportation firms)

No.	Date	Location	Content of Survey
28	Sep 22 (Fri)	Lae	Held a meeting and conducted survey at Lae Hospital
29	23 (Sat)	Movement	Left Lae and arrived at Port Moresby
30	24 (Sun)	Port Moresby	Pigeonholing collected survey data
31	25 (Mon)	Port Moresby	Held a meeting and conducted survey at PMGH Called on Office of JICA and briefed the progress of survey Held a meeting with local consultant
32	26 (Tue)	Port Moresby	Called on local construction companies and collected necessary data on local construction
33	27 (Wed)	Port Moresby	Briefing and meeting at DOH Briefing and meeting at DOW
34	28 (Thu)	Port Moresby	Held a meeting at DOH Held a meeting with local consultant Held a meeting at DOW
35	29 (Fri)	Port Moresby	Called on Office of JICA and made a final report prior to leaving Port Moresby for Japan Called on Japan Embassy and made a final report Called on DOFP and made a final report (Messrs. Hasuo and Takai left for Japan) Held a meeting at DOW
36	30 (Sat)	Port Moresby	Pigeonholing collected survey data
37	Oct 01 (Sun)	Movement	Left Port Moresby and arrived at Sydney
38	02 (Mon)	Sydney	Surveyed local situations of construction and medical services
39	03 (Tue)	Sydney	Courtesy call on Office of JICA and briefed the survey at sites in Papua New Guinea Called on Construction Centre and suppliers of medical equipment, and conducted survey on local situations
40	04 (Wed)	Movement	Left Sydney and arrived at Tokyo

Briefing Draft Study Report (February 7 - 16, 1990)

No.	Date	Location	Content of Survey
1	Feb 07 (Wed)	Movement	Left Narita (Messrs. Fujita, Hasuo, and Tateno)
2	08 (Thu)	Port Moresby	Courtesy call on Office of JICA Courtesy call on DOFP Courtesy call on DOH
3	09 (Fri)	Port Moresby	Contents of the Study Report briefed and discussed at DOH Held a meeting with the subcontracted local consultant
4	10 (Sat)	Port Moresby	Surveyed the local situations of construction industry
5	11 (Sun)	Port Moresby	Head of Study Team, Dr. Hasegawa arrived at Port Moresby Air Port Held a in-team meeting
6	12 (Mon)	Port Moresby	Contents of the draft report briefed at DOFP in the presence of DOH personnel Questions and answers exchanged Report briefed also at DOH in the presence of DOW personnel
7	13 (Tue)	Port Moresby	Briefing of the report continued at DOH in the presence of DOW personnel Courtesy call on the Embassy of Japan
8	14 (Wed)	Port Moresby	Briefing continued at DOW, and the contents were discussed in detail Held a meeting with subcontracted consultant
9	15 (Thu)	Port Moresby	Called on DOFP, agreed and signed the minutes of meetings Collected necessary data at DOH and DOW Collected data from the subcontracted consultant Called on the Embassy of Japan and reported on the results of the report briefing Called on the Office of JICA and made a report of the results of meetings
10	16 (Fri)	Movement	Left Port Moresby and arrived at Narita

APPENDIX III PERSONS INTERVIEWED

1) Government of Papua New Guinea

Department of Health (DOH)

Dr. Hon. Robert Suckling	Minister
Dr. Quentin Reilly	Secretary for Health
Dr. Edward Talwat	First Assistant Secretary for Second Health Services
Mr. Stephen L. Clein	Chief of Pharmaceutical Services
Dr. Nicholas Mann	Provincial Hospital Coordinator
Mr. Andrew Posong	Project Coordinator
Mr. Rore Rikis	Medical Building Coordinator
Mr. Sokon Emanuel	Public Investment Coordinator
Mr. Loh Leonard	Planning Division
Mr. Sege Wiyawa	Overseas Aid

Department of Finance and Planning (DOFP)

Mr. Robert Igara	Minister and Director of Office of International Development Assistance (OIDA)
Mr. Fui Williame	Assistant Secretary for Foreign Aid Management Division
Mr. Thomas Lisenia	Programme Officer
Mr. Francis Wagaia	Programme Officer
Mr. Y. Suzuki	Aid Adviser
Mr. Masanobu Kiyoka	JICA Expert

Ministry of Foreign Affairs (MFA)

Mr. Cris Mero	Assistant Secretary, Cooperation Division
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Department of Works (DOW)

Mr. David Gole	Principal Architect
Mr. Anthony W. Peck	Principal Architect
Mr. Brian Smith	Architect (in charge of Mt. Hagen Hospital)
Mr. Susan Pearson	Architect (in charge of Lae Hospital)
Mr. Anthony Peck	Architect
Mr. John Mora	Architect
Mr. S. Panchalingam	Senior Plant Engineer
Mr. Joe N. Guguan	Senior Design Engineer (Electrical)
Mr. Kevin Goddard	Senior Technical Officer

2) Lae

Provincial Government of Morobe

Mr. Joshva Augai	Premier
Mr. Vari Fore	Secretary, Department of Morobe
Ms. M. P. Haiverava	Provincial Architect, DOW
Mr. Andrew Buna	DOW
Mr. Thomas Kabo	Electricity Commission (ELCOM)
Mr. Amo Mark	Waterboard

Lae (Angau Memorial) Hospital

Dr. J. Ngahan	Medical Superintendent
Mr. J. T. Levi	Hospital Secretary
Ms. M. Emasanu	Hospital Matron
Mr. M. Koratsi	Acting Hospital Secretary
Mr. A. Yafo	Assistant Matron
Mr. T. Ganesh	Bio Medical Technician

3) Mt. Hagen

Provincial Government of Western Highlands

Mr. Philip Kapas	Premier
Mr. Peter Wama	Secretary, Department of Western Highlands Province
Mr. Moseny Pukut	Provincial Works Manager
Mr. Dave Allen	DOW
Mr. Willie Wandaki	ELCOM
Mr. John Kambu	Waterboard

Mt. Hagen Hospital

Dr. W. Seta	Medical Superintendent
Mr. S. Kelly	Assistant Secretary for Health
Mr. H. Lapu	Hospital Secretary
Mr. T. Aska	Hospital Matron
Mr. P. Eapaea	Health Adviser

4) Wewak

Provincial Government of East Sepik

Mr. Bruce Sambau	Premier
Mr. Camillus S. N. Narakobi	Secretary, Department of East Sepik
LLB. LIM	Provincial Legal Officer
Mr. Sumasy Singin	Provincial Works Manager
Mr. Frank Turner	Manager, ELCOM
Mr. Daniel Siriman	Post and Telecommunication Corporation
Mr. Tomy Hawre	

Wewak Hospital

Dr. Philip Raif	Medical Superintendent
Dr. J. Sairere	Assistant Secretary for Health
Dr. J. Hawap	Special Care Nursery
Dr. H. Taitarae	Wewak Hospital

5) Japanese Embassy at Port Moresby, Papua New Guinea

Mr. Akio Noguchi	Ambassador Extraordinary and Plenipotentiary
Mr. Tateo Iino	Counsellor
Mr. Hiroaki Takashima	Third Secretary

6) JICA Office, Papua New Guinea

Mr. Toshio Okazaki	Resident Representative
Mr. Akira Kumano	Assistant Resident Representative

APPENDIX IV MINUTES OF DISCUSSIONS

MINUTES OF DISCUSSIONS ON THE BASIC DESIGN STUDY ON THE PROVINCIAL HOSPITAL REDEVELOPMENT PROJECT IN PAPUA NEW GUINEA

In response to a request by Government of Papua New Guinea, the Government of Japan decided to conduct a basic design study on the Provincial Hospital Redevelopment Project in Papua New Guinea (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 headed by Dr. Toshihiko HASEGAWA, Deputy Director, Planning Division Health Policy Bureau, Ministry of Health and Welfare, from August 26 to October 4, 1989.

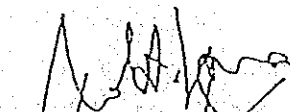
The team had discussions on the Project with government authorities of Papua New Guinea and conducted field surveys in Lae, Mt. Hagen and Wewak.

As a result of the study, both parties agreed to recommend to their respective Governments that the major points of understanding reached between them, as attached herewith, should be examined towards realization of the Project.

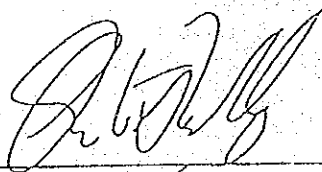
Port Moresby September 7, 1989.

長谷川 敏彦

Dr. Toshihiko HASEGAWA
Team Leader
Basic Design Study
Japan International
Cooperation Agency



Mr. Robert IGARA
Director a.i.
Office of International
Development Assistance (OIDA)
Department of Finance &
Planning
Papua New Guinea



Dr. Quentin REILLY
Secretary
Department of Health
Papua New Guinea

ATTACHMENT

1. Project Title:

The Provincial Hospital Redevelopment Project in Papua New Guinea.

2. Objective of the Project:

The objective of the Project is to improve the physical conditions of Provincial Hospitals such as Lae (Angau Memorial) Hospital, Mt. Hagen Hospital and Wewak Hospital to upgrade their functions through redevelopment and renovation of buildings and supply and installation of medical equipment.

3. Responsible Organizations:

The Department of Health (DOH) shall be responsible for the efficient management and execution of the Project, in close collaboration with the Department of Works (DOW), under overall supervision and coordination of the newly established Office of International Development Assistance (OIDA) in the Department of Finance and Planning.

4. Executing and Implementing Agency:

The Department of Health (DOH)

5. Project Sites:

5.1 Lae (Angau Memorial) Hospital

The Project site is at Lae Hospital in Lae, Morobe Province, as shown in Annex I.

5.2 Mt. Hagen Hospital

The Project site is at Mt. Hagen Hospital in Mt. Hagen, Western Highlands Province, as shown in Annex II.

5.3 Wewak Hospital

The Project site is at Wewak Hospital in Wewak, East Sepik Province, as shown in Annex III.

6. Major Items Requested for the Project:

Major items requested for the Project are listed in Annex IV.

7. Grant Aid Programme:

- (1) The PNG Side understood Japan's Grant Aid Programme and the principle for the use of Japanese consulting firm and contractor(s) for the implementation of the Project.
- (2) The Study Team will convey to the Government of Japan the desire of the Government of PNG that the former take necessary measures to cooperate in implementing the Project by providing necessary facilities and equipment under Japan's Grant Aid Programme.

(3) The Government of Papua New Guinea will take necessary measures, as listed in Annex V, on the condition that the Grant Aid by the Government of Japan be extended to the Project.

8. Transfer of Technology and Local Procurement:

The Government of PNG and the Team have agreed to the importance of maximising locally procured materials, products and services in order to minimize the difficulties associated with maintenance of overseas' products, as well as to maximise technology transfer to PNG nationals through encouragement of close association between Japanese firms engaged for the implementation of the Project and Papua New Guinea nationals and firms.

9. Request for Suggestion on Future Prospect:

PNG officials requested that the study team also makes suggestions on future prospects for the proposed 3 hospitals and remaining needs not covered under the Japan's Grant Aid Project.

10. Handling and Maintenance of Medical Equipment:

The Government of PNG and the Team have agreed that for all medical equipment provided under the Grant, on-site training should be provided to PNG personnel on operation and maintenance of equipment. All supplied equipment should be accompanied by relevant manuals in English language.

It was further agreed that the Team will convey to the Government of Japan, the desire of PNG side that arrangements acceptable to both Governments would be made regarding procurement of spare parts and maintenance for all equipment supplied under the Grant.

11. Reports:

All reports including in draft form relating to this project shall be submitted to the Director of OIDA with copies to the Secretaries of Health and Works.

ANNEX IV

Major Items Requested for the Project

Items requested by the Government of Papua New Guinea whose cost will be borne by the Government of Japan are as follows:

1. Lae (Angau Memorial) Hospital:

(1) Facilities to be improved by the Project are as follows:

i) New central building block: Includes new construction of the following facilities: Outpatient, Pathology, Dispensary, Operating Theatres, Administration, etc.

ii) Wards : Connection of Maternity and Labour wards with the present Operating Theatre in order to function as one space of Maternity and Labour wards.

iii) Accommodation : For on-call staff.

(2) Medical Equipment: This will be planned within the scope of the proposed.

2. Mt. Hagen Hospital:

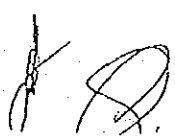
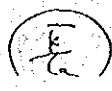
(1) Facilities to be improved by the Project are as follows:

i) Wards : New construction of ward block consisting of the followings at demolished site of present Psychiatrics and Intermediate wards: Pediatrics wards, Maternity and Labour wards, Special care nursery, ICU, X-ray room, etc.

ii) Outpatient : Expansion of outpatient block toward southern clear site of the present outpatient block in order to reorganize outpatient department and Pathology.

iii) Accommodation: For on-call staff.

(2) Medical Equipment: This will be planned within the scope of the proposed plan.



ANNEX IV (2)

3. Wewak Hospital:

(1) Facilities to be repaired by the Project are as follows:

Operating Theatre, Special Care Nursery, Adult Outpatient, Dispensary, Psychiatric Ward, Pathology, Rehabilitation for Physiotherapy, Others

(2) Medical Equipment:

This will be planned within the scope of the proposed plan.

ANNEX V

Arrangements to be undertaken by PNG Side:

1. To secure sites for the Project.
2. To demolish, clear and level sites prior to the commencement of construction.
3. To undertake incidental outdoor works, such as fencing, gates and exterior lighting in and around sites, if necessary.
4. To construct access roads to sites prior to the commencement of construction if necessary.
5. To provide facilities for the distribution of electricity, water supplies, telephones, drainage and other incidental facilities to the Project included for use in construction.
6. To bear commissions to the Japanese foreign exchange bank for banking services based on the Banking Agreement.
7. To ensure the necessary budget and personnel for proper and effective operation and maintenance of the facilities and equipment provided by the Grant Aid.
8. To ensure prompt unloading, tax exemption, customs clearance at ports of disembarkation in PNG and prompt internal transportation of materials and equipment provided under the Grant Aid.
9. To exempt Japanese nationals from customs duties, internal taxes and other fiscal levies which may be imposed in PNG with respect to supply of products and services for the Project.
10. To accord Japanese nationals whose services may be required in connection with supply of products and services under verified contract such facilities as may be necessary for their entry into PNG and stay for the performance of their work.
11. To properly maintain and use the facilities and equipment provided under the Grant Aid.
12. To bear all expenses other than those to be borne by the Grant Aid, necessary for the construction of the facilities, as well as for transportation and installation of the equipment.

ANNEX II

SITE OF MT. HAGEN HOSPITAL

Xumniga Road



obstetric ward

paediatric

offices

out patients

theatres

kitchen

laundry mess

Portion for redevelopment in the site

toilets

ward

psychiatric

ward

toilets

ward

ward

ward

power

mortuary

malaria

MT. HAGEN HOSPITAL
REDEVELOPMENT PLAN

(1/2)

MINUTES OF DISCUSSIONS
ON
THE DRAFT REPORT OF THE BASIC DESIGN STUDY ON THE PROJECT
FOR
THE PROVINCIAL HOSPITAL REDEVELOPMENT PROJECT
IN
PAPUA NEW GUINEA

At the request of the Government of the Papua New Guinea, the Government of Japan decided to conduct a Basic Design Study on the Project and entrusted the study to the Japan International Cooperation Agency (hereinafter referred to as "JICA").

JICA sent the Basic Design Study Team headed by Dr. Toshihiko HASEGAWA from August 26 to October 4, 1989. The Team carried out a field survey and had a series of discussions with authorities concerned of the Government of Papua New Guinea.

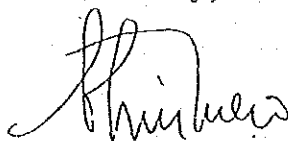
As the result of the survey and discussions, JICA prepared a Draft Final Report and dispatched a mission to explain and discuss the Report from February 7 to 16, 1990.

Both parties had a series of discussions on the Report and have agreed to recommend to their respective Governments that the major points of understanding reached between them, attached herewith, should be examined towards realization of the Project.

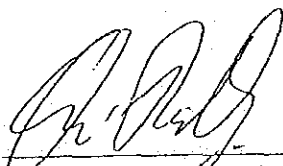
Port Moresby, February 15, 1990

長谷川 敏彦

Dr. Toshihiko HASEGAWA
Mission Leader
Japanese Mission
JICA



Mr. Christopher MERO
Assistant Director
Office of International
Development Assistance (OIDA)
Department of Finance & Planning
Papua New Guinea



Dr. Quentin REILLY
Secretary
Department of Health
Papua New Guinea

ATTACHMENT

1. Papua New Guinea side has agreed in principle to the Basic Design proposed in the Draft Final Report with minor but appropriate alterations to be incorporated in the Final Report.
2. Papua New Guinea side noted Japan's Grant Aid system and reconfirmed the measures to be taken by the Government of Papua New Guinea for the realization of the Project as agreed upon in the Minutes of Discussions dated September 7, 1989.
3. Both sides noted the necessity of arrangements by the Government of Papua New Guinea for recurrent cost of three redeveloped hospitals after their completion and the necessity of establishment of the Joint Committee for smooth implementation of the Project during construction.
4. JICA will submit the Final Report (10 copies in English) to Papua New Guinea side in March 1990.



CM

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APPENDIX V STATISTICAL DATA

TABLE V-1 POPULATION PROJECTION BASED ON 1980'S CENSUS, BY PROVINCE, 1980-1994

(Unit: 1000)

PROVINCE	GROWTH RATE (ESTIMATED)	1980	1982	1984	1986	1988	1990	1992	1994
Western	2.6	78.3	82.7	87.2	91.7	96.6	101.5	106.5	111.8
Gulf	1.8	63.8	66.2	68.9	71.6	74.4	77.0	79.9	83.2
Central	2.1	116.4	121.0	126.9	132.8	138.8	144.6	151.0	158.1
NCD	3.9	112.4	122.1	132.0	141.5	150.6	158.7	166.6	174.4
Milne Bay	2.7	127.7	134.7	142.5	150.6	150.0	166.6	174.7	183.4
Northern	2.6	77.1	81.3	85.7	90.3	95.2	100.0	104.9	110.0
South Highlands	1.5	135.6	243.0	251.0	259.5	263.0	278.0	288.2	299.2
Enga	1.3	164.4	168.9	173.9	178.6	133.8	189.6	195.9	202.1
West Highlands	2.1	164.1	275.4	287.8	300.2	312.8	324.9	337.3	350.1
Simbu	0.7	178.0	179.6	183.2	136.4	189.3	192.1	195.2	198.9
East Highlands	1.8	176.4	242.0	295.1	306.3	317.6	328.2	339.0	351.2
Morobe	2.6	105.4	321.4	339.2	357.1	375.8	394.0	412.9	432.6
Madang	2.6	109.7	220.6	232.8	245.7	259.8	275.5	292.2	310.3
East Sepik	2.3	120.8	231.1	242.8	254.9	268.2	281.8	296.2	312.2
West Sepik	1.9	113.8	118.3	123.3	128.3	133.4	135.6	144.2	150.4
Manus	2.2	25.9	27.0	28.3	29.9	31.5	33.1	34.8	36.7
New Ireland	2.6	65.7	69.1	73.1	77.2	81.5	85.8	90.4	95.4
East New Britain	2.7	130.7	138.0	145.9	154.2	163.3	172.2	181.5	190.7
West New Britain	3.2	95.4	94.5	100.9	107.7	114.3	121.9	129.5	137.7
North Solomons	3.4	125.5	134.2	144.2	154.5	165.5	176.5	188.5	201.3
TOTAL	2.2	2,978.3	3,113.3	3,264.7	3,419.0	3,580.1	3,740.6	3,909.3	4,089.9

(Source of Information: Handbook on Health Statistics 1985)

Note: The population includes citizenship holders only. Residents without citizenship and naturalised inhabitants are excluded from governmental statistics. According to the 1980's population census the residents without citizenship and naturalised inhabitants were approximately 33,000 persons.

TABLE V-2 SECTORAL DISTRIBUTION OF G.D.P.

(Unit: Kina (millions) %)

Economic	1983	%	1984	%	1985	%	1986	%
Agriculture, Forestry and Fishing	338.70	17.16	434.80	20.37	442.30	19.42	481.60	19.56
Mining & Quarring	210.80	10.68	109.40	5.13	247.50	10.87	294.40	11.96
Commerce	156.60	7.93	184.70	8.65	178.00	7.81	193.80	7.87
Manufacturing	178.80	9.06	210.90	9.88	203.20	8.92	221.30	8.99
Finance	133.90	6.78	157.90	7.40	152.20	6.68	165.80	6.74
Sub Total	1018.80	51.62	1097.70	51.43	1223.20	53.70	1356.90	55.12
Infrastructure								
Construction	70.40	3.57	83.00	3.89	80.00	3.51	87.10	3.54
Transport & Storage	68.30	3.46	80.60	3.78	77.60	3.41	84.50	3.43
Electricity, Gas, Water, Communications etc.	28.80	1.46	34.00	1.59	32.70	1.44	35.60	1.45
Sub Total	167.50	8.49	197.60	9.26	190.30	8.35	207.20	8.42
Social Services	225.80	11.44	242.00	11.34	257.40	11.30	262.00	10.64
Administration	147.10	7.45	157.60	7.38	167.60	7.36	170.60	6.93
Sub Total	1559.20	79.00	1694.90	79.41	1838.50	80.72	1996.70	81.11
Import Duties	91.10	4.82	107.40	5.03	103.60	4.55	112.80	4.58
GDP Market Component	1650.30	83.61	1802.30	84.44	1942.10	85.27	2109.50	85.70
GDP(Non-Market Component)	323.40	16.39	332.20	15.56	335.60	14.73	352.10	14.30
GDP(Both Components)	1973.70	100.00	2134.50	100.00	2277.70	100.00	2461.60	100.00
Equivalent Values to (1981 Price Level)								
GDP(Market Component)	1451.60		1432.60		1534.10		1588.90	
GDP(Non-Market Component)	292.40		289.20		286.20		291.90	
GDP(Both Components)	1744.00		1721.80		1820.30		1880.90	
Gross Fixed Capital Formation	547.20		433.30		364.30		395.50	
Population (1000)	3189		3281		3353		3426	
GDP at 1981 Prices (Market Component)/Head (Kina)	455.19		436.64		457.53		463.78	
GDP at 1981 Prices (Both Components)/Head (Kina)	546.88		524.78		542.89		584.98	

(Source: National Statistical Office)

TABLE V-3 DISTRIBUTION OF HOSPITALS, HEALTH CENTRES, SUBCENTRES AND URBAN CLINICS BETWEEN THE DEPARTMENT OF HEALTH AND CHURCH HEALTH SERVICES

31. 12. 85

Province	Hospitals			Health Centres			Health Subcentres				Urban Clinics	Aid Posts
	DOH	CHS	TOTAL	DOH	CHS	TOTAL	DOH	CHS	Others	TOTAL	DOH	TOTAL
Western	1		1	9	2	11	2	16	1	19		106
Gulf	1		1	6	3	9	2	6		8		70
Central				6	2	8	14	9		23		124
NCD	2		2								9	7
Milne Bay	1		1	7	1	8	3	23		26		96
Oro	1		1	4	1	5	7	4		11		86
Southern Highland	1		1	*11	2	13	3	20		23		178
Enga		1	1	7	3	10	5	4		9		130
Western Highland	1		1	7	4	11	4	4		8		160
Simbu	1		1	6	1	7	7	5		12		96
Eastern Highland	1		1	6	1	7	9	13		22	1	131
Morobe	1		1	13	4	17	6	1		7	5	240
Madang	1		1	12	7	19	2	6		8	2	169
East Sepik	1		1	9	3	12	6	14		20	1	169
West Sepik	1		1	8	2	10		18		18		127
Manus	1		1	4	3	7						56
New Ireland	1		1	3	5	8	11	4		15	2	65
East New Britain	1		1	8	3	11	1	9	1	11	1	61
West New Britain	1		1	6	3	9	1	10		11	1	82
North Solomons	1		1	5	3	8	12	6		18	1	78
TOTAL	19	1	20	137	53	190	95	172	2	269	23	2,231
				72%	27%	100%	35%	65%		100%		

(Source: Department of Health)

* One Health Centre jointly run by DOH and CHS

Note: Private and Military Medical Services are excluded. The 2 hospitals in the National Capital District are Port Moresby General Hospital and Laloki Psychiatric Hospital

TABLE V-4 LIFE EXPECTANCY, INFANT MORTALITY AND CHILD MORTALITY RATES

	Life Expectancy (years old)		Infant Mortality Rates per 1000 Live Births		Child Mortality Rates per 1000 Live Births	
	1971	1980	1971	1980	1971	1980
PNG Total	40.4	49.6	134	72	79	42
Western	38.5	47.7	129	83	82	49
Gulf	29.1	47.3	191	71	121	44
Central	43.7	51.3	85	59	56	34
N.C.D	N/A	56.7	N/A	35	56	20
Milne Bay	43.0	57.1	98	50	61	25
Oro	42.3	49.2	94	67	62	40
S. Highlands	36.8	43.8	159	116	93	66
Enga	N/A	47.1	N/A	91	83	53
W. Highlands	40.5	51.9	153	81	83	42
Simbu	43.3	50.2	149	87	77	47
E. Highlands	44.3	53.1	141	55	73	32
Morobe	42.7	50.9	123	62	71	37
Madang	40.2	50.7	122	62	76	37
East Sepik	32.8	49.3	183	94	107	50
West Sepik	36.5	42.1	143	104	90	66
Manus	43.7	51.8	86	55	56	32
New Ireland	45.9	52.7	74	62	48	34
E. N. Britain	47.1	52.8	77	57	47	32
W. N. Britain	44.3	51.3	88	60	56	35
N. Solomons	46.9	59.6	83	33	50	17

N/A = Not available

(Source: Handbook on Health Statistics 1985)

TABLE V-5 LEADING CAUSES OF MORBIDITY IN HOSPITALS, HEALTH CENTRES AND HEALTH SUBCENTRES

ICD CODEA	Diseases Causes	Number of Cases					Diseases Causes	Number of Cases	
		Apr 1971 to Mar 72	1980	1981	1982	1983		1984	1985
16	Diarhoeal	357	148	166	133	222	Diarhoeal	304	410
20-29	Tuberculosis	137	211	171	186	299	Tuberculosis	272	233
38	Septicemia	N/A	81	139	112	155	Septicemia		157
41							Measles	47	45
52	Malaria	100	251	354	344	421	Malaria	344	368
80									
95	Malignant neoplasm	184	131	133	155	179	Malignant neoplasm		41
149									
190-193	Malnutrition	119	62	74	84	76	Malnutrition	93	118
197									
200	Anaemias	46	94	141	81	132	Anaemias	88	111
220	Meningitis	144	233	275	249	271	Meningitis		294
250	Cardiopathy	80	261	228	202	200	Disease of Circulatory system		168
280-289									
321	Pneumonia	321	896	1095	843	1292	Pneumonia	976	1154
323							Bronchitis, Emphysema and asthma	72	
325							Other Respiratory diseases	154	85
340-349							Digestive ailments	63	52
351-359							Diseases of urinary system	13	132
370-379							Diseases of gynaecology	3	52
380-389							Abortions		
390-399							Delivery	86	58
410-411	Delivery	55	78	87	134	110	Normal Delivery		51
419									
420-429							Dermatosis	13	
430-439							Disease of musculo- skeletal system	6	
460-469							Ill-defined	77	75
470-479							Fractures	15	
500-509	Accidents, Violence, Toxication	136	144	163	132	189	Hemorrhage	14	
550							Trauma	8	
569									
	Others	1020	830	864	800	992	Others	1405	764
	Total Cases	3327	3636	4227	3839	4940		4464	4802
		2699	3420	3890	3455	4538		4053	4370

(Source: Discharge Statistics, Dept. of Health)

TABLE V-6 NO. OF INPATIENTS, OPERATIONS AND DELIVERIES IN HOSPITALS, 1984

Province	Hospital	Beds	Inpatient	Operation	Normal	Abnormal	Total
					Deliveries	Deliveries	
Western	Daru	110	874	23	270	13	283
Gulf	Kerema	83	951	10	151	29	180
Nat. Capital	PMGH	817	13,885	312	3,852	883	4,735
Milne Bay	Alotau	100	1,519	26	311	96	407
Oro	Popondetta	150	3,595	17	484	126	610
S. Highlands	Mendi	217	3,338	40	574	90	664
Enga	Sopas	85	N/A	N/A	N/A	N/A	N/A
W. Highlands	Mt. Hagen	212	6,539	78	1,313	132	1,445
Simbu	Kundiawa	200	5,034	140	805	98	903
E. Highlands	Goroka	300	9,691	129	1,580	404	1,984
Morobe	Angau	500	8,307	93	2,474	188	2,662
Madang	Madang	400	3,636	31	1,174	10	1,277
East Sepik	Wewak	312	6,437	51	1,114	141	1,255
West Sepik	Vanimo	200	1,154	11	181	44	225
Manus	Lorengau	100	1,376	13	294	38	332
New Ireland	Kovieng	122	1,939	18	480	41	521
East New Britain	Nonga	480	6,757	87	1,339	359	1,698
West New Britain	Kimbe	140	2,425	31	480	64	544
N. Solomons	Arawa	250	5,577	85	1,288	277	1,565
	TOTAL	4,778	83,034	1,195	18,164	3,126	21,290

N/A (Not Available)

(Source: Department of Health)

TABLE V-7 NO. OF INPATIENTS, OPERATIONS AND DELIVERIES IN HEALTH CENTRE AND HEALTH SUBCENTRE, 1985

	Beds	Inpatient	Operation	Normal Deliveries	Abnormal Deliveries	Total Deliveries
Western	360	3,785	39	620	74	694
Gulf	436	4,524	30	481	99	580
Central	473	3,104	63	533	66	599
Nat. Capital	0	-	-	-	-	-
Milne Bay	344	3,644	28	387	63	450
Oro	175	2,709	27	279	55	334
S. Highlands	831	16,005	172	2,224	331	2,555
Enga	704	9,802	141	914	266	1,180
W. Highlands	314	11,381	157	943	387	1,330
Simbu	384	12,300	82	1,190	275	1,465
E. Highlands	451	9,876	75	1,219	211	1,430
Morobe	631	5,385	63	766	118	884
Madang	784	11,703	101	1,523	176	1,699
East Sepik	471	11,913	57	681	133	814
West Sepik	546	885	84	489	162	651
Manus	108	777	3	89	8	97
New Ireland	425	5,697	30	1,054	76	1,130
East New Britain	416	13,001	93	2,512	338	2,250
West New Britain	405	7,034	58	1,375	70	1,445
N. Solomons	524	3,183	40	587	32	619
TOTAL	8,782	136,708	1,343	17,866	2,940	20,806

(Source: Department of Health)

TABLE V-8 MEDICAL STAFFING OF GOVERNMENTAL HOSPITALS, 1985

Province	Hospital	Med Off.	Nurs Off.	Nurs Aids	HEO	Hosp Ord.	Dent Off	Dent Thre	Med Tech	Med Lab Tech	Med Lab. Asst	Radi Grap	Disp
Western	Daru	2	21	15	1	0	0	0	0	0	4	0	0
Gulf	Kerema	3	17	10	1	7	0	0	0	0	2	1	1
Central		62	210	84	2	49	3	7	5	27	8	12	5
NCD	PMGH												
Milne Bay	Alotau	4	29	11	0	0	1	0	1	2	2	0	1
Oro	Popondetta	5	30	24	0	19	1	0	0	1	1	1	1
S. Highlands	Mendi	5	29	17	0	9	1	4	0	1	1	1	1
Enga	Sopas												
W. Highlands	Mt. Hagen	11	53	43	0	1	0	0	0	1	3	1	1
Simbu	Kundiawa	4	51	29	0	25	1	1	0	1	4	0	0
E. Highlands	Goroka	15	101	103	0	0	1	2	0	2	5	2	2
Morobe	Angau	22	136	136	0	52	1	5	1	5	6	2	4
Madang	Madang	11	80	73	1	0	1	7	0	2	3	2	2
East Sepik	Wewak	8	68	46	2	0	1	6	0	2	3	3	2
West Sepik	Vanimo	2	18	11	0	4	0	0	0	0	2	0	2
Munas	Lorengau	2	19	23	0	23	0	0	0	0	3	0	0
New Ireland	Kovieng	3	9	15	0	6	1	0	0	1	2	0	1
East New Britain	Nonga	13	80	49	1	22	1	0	1	2	6	3	2
West New Britain	Kimbe		26	29	0	3	0	0	0	1	3	1	1
N. Solomons	Arawa	5	63	59	0	3	1	0	1	0	0	0	0
TOTAL		182	1060	777	8	223	14	32	9	47	53	28	26

Note: Sopas Hospital is under a church health service (CHS)

(Source: Handbook on Health Services, 1985)

TABLE V-9 MEDICAL STAFFING IN GOVERNMENTAL PRIMARY HEALTH CARE FACILITIES, 1985

Province	Med Off.	Nurs Off.	Nurs Aid	HEO	H.I.	Aid Post Ord.	Hosp Ord.	Dent. Ther
Western	1	16	9	9	5	65	37	4
Gulf	0	20	16	13	5	33	26	2
Central	0	36	10	13	6	85	7	4
NCD	2	80	56	3	0	0	0	0
Milne Bay	1	39	22	13	7	85	74	7
Oro	1	27	15	10	4	81	28	12
S. Highlands	3	49	74	19	6	194	42	0
Enga	2	58	36	17	6	154	62	2
W. Highlands	0	36	27	13	9	155	28	6
Simbu	0	22	33	12	5	116	10	1
E. Highlands	2	35	76	23	9	142	0	6
Morobe	2	62	26	34	10	244	77	0
Madang	0	44	63	15	8	159	0	0
East Sepik	3	78	38	15	7	121	90	0
West Sepik	1	24	38	16	6	102	25	1
Manus	1	12	11	8	2	27	0	1
New Ireland	1	26	25	15	4	50	20	8
East New Britain	1	19	6	12	10	61	0	6
West New Britain	1	21	19	14	8	55	15	5
N. Solomons	1	58	27	12	8	80	0	0
TOTAL	23	762	627	286	125	1999	541	65

(Source: Deptment of Health Handbook, 1985)

TABLE V-10 MEDICAL STAFFING IN CHURCH HEALTH SERVICE FACILITIES, 1984

Province	Med Off.	Nursing Off.	Nurse Aid	H.E.O.	A.P.O.
Western	2	47	32	0	12
Gulf	2	29	32	2	14
Central	1	32	27	0	1
NCD	0	1	0	0	0
Milne Bay	1	57	59	0	6
Oro	0	13	13	0	2
S. Highlands	0	55	59	0	20
Enga	1	29	24	0	0
W. Highlands	4	38	36	0	15
Simbu	0	16	19	0	1
E. Highlands	0	24	23	1	8
Morobe	3	20	33	0	10
Madang	0	42	30	3	10
East Sepik	0	34	33	0	2
West Sepik	1	47	48	1	3
Manus	0	7	7	0	0
New Ireland	1	37	16	0	0
East New Britain	5	50	44	0	0
West New Britain	0	34	23	0	3
N. Solomons	1	29	16	0	2
TOTAL	22	641	574	7	109

(Source: Church Health Services Review, 1984)

TABLE V-11 MEDICAL SPECIALISTS BY PROVINCE, 1984

Province	Phys	Paed	Obst.	Surg.	Oral Surg.	Opht.	ENT	Dema	Psyc	Anae	Radi	Path	Haem	Total
Western														0
Gulf														0
Central														0
NCD	*3	2	1	3	1	1	1	1	1	1	*	1	1	17
Milne Bay														0
Oro														0
S. Highlands		*												0
Enga														0
W. Highlands		1	1	2										4
Simbu		*												0
E. Highlands	1	1	1	2		1				1		1		8
Morobe	1	2	1	2						1				7
Madang	1	1	1	1		1				1				6
East Sepik	1	1		1										3
West Sepik														0
Manus														0
New Ireland														0
East New Britain	1	1	*	1						1				4
West New Britain														0
N. Solomons				1										1
TOTAL	8	9	5	13	1	3	1	1	1	5	0	2	1	50

Asterisks (*) = 1 position vacant

(Source: Deptment of Health)

