

計 画	埋 蔵 量 単位 百万トン	品 位 (%)	摘 要
OK Tedi	300~400	0.85 (トン当り0.658 の金、0.0128の モリブデン)	PNG政府はコンソーシアム(BHP、AMOCO、 西独連合)と本開発につき最終的合意に達し8/年 3月 OK Tedi Mining Ltd が設立された。1984 年より2年間(金のみ)、1986~1989年(金 及び銅)、1989年以降(銅)の産出を計画して おり、8/年よりインフラ整備を開始予定。
Frieda	500	0.52 (トン当り0.298 の金)	74年以来 Mount ISA (豪)と日本側海嶺発フリ エダ社との間で探鉱調査を行ってきたが、1980 年よりCRA社(豪)及びノルトドイチエ (西独) が新たに参加した。 海嶺発フリエダ社は1978年までに500万豪 ドルの探鉱費を支出し40%の権益を確保した。1979 年以降7年以内にCRA社は900万豪ドル(25% 権益)、ドイチエ は5年間に200万豪ドル(6.25 %の権益)を探鉱費として支出予定である。本格的 な産出までになお10年間を要する。

その他にはマダン州のYandera地区(埋蔵量3億トン、品位0.42%)でBHP、Kernecott、Triaco社が試掘を開始しており、またManus島のArie地区、Mt. Kren地区、Misima島のUmuna地区等にも可成りの埋蔵量があることが確認されている。

PNGは75年11月銅輸出国政府間協議(CIPEC)に準加盟したほか現在第2次ロメ協定に正式に加盟している。

(ロ) 石油・ガス

PNGにおける石油・天然ガスの探鉱は1911年に開始され現在までに80坑を越える試掘が行われた。

石油については主に豪、米、日系の企業がGulf州、Western州、ニューギニア島北部、ガルフ湾において探鉱を行っているが現在のところ有望な商業油田は発見されていない。

天然ガスについては、パプア湾(陸域も含む)、西部国境沿いに次の7カ所でそれぞれ試掘されており埋蔵量も次のとおり推測されている。パプア盆地のガスはかなり有望といわれており、原油価格の上昇が続くならばこれらガス田の開発は活発化するものと思われる。

地 区	ガス推定可採埋蔵量	予定産出ガス量
(i) PASCA	28,000百万m ³	204,000m ³ /日
(ii) URAMU	5,700 "	680,000 "
(iii) BARIKEWA	850~8,500 "	2,500,000 "
(iv) BWATA	5,830 "	1,600,000 "
(v) IEHI	280~3,750 "	3,800,000 "
(vi) KURU	不 明	3,000,000 "
(vii) PURI	"	226,400 "

(イ) 金、銀

現在Sepik、Eastern Highland、Western Highland、Morobe及びNorthern州で小規模に産出されているが、ブーゲンビル銅鉱石生産の副産物として産出される量が圧倒的に多くなっている。

1979年度の生産量は次のとおり。

	(単位 kg)		
	ブーゲンビル	その他	計
金	19,703	358	20,061
銀	44,640	158	44,798

なお、1980年度も金の生産量は14,600kgと推定されており、金価格の暴騰により、金の輸出はPNG全輸出の26%に達したといわれる。PNGは世界第6位の金産出国に位置しており、将来OK Tedi、Frieda及びCentral HighlandsのPorgera地区の鉱山開発が進展すれば、金、銀の産出は急増するものと推測される。

(二) その他

モロベ州、イーストニューブリテン州、ニュー・アイルランド州等の各地でかなりの石灰石の埋蔵量が認められており、セメント産業育成の原料供給面での好材料となっている。

ニッケル(モロベ州、Lake Trist地区)、マンガン(セントラル州Rigo地区)、ボーキサイト、石炭等の資源もあるとされているが、開発するに至る量は存在しないものとみられる。

(5) 製造業

PNGにおいては製造業の占める比重は依然小さく、1979年度GDP比において10%以下、全被雇用者のうち製造業に従事するものは約12%(77年)を占めるにすぎない。

PNG政府は都市労働者の雇用増、第一次産品に依存している輸出構造の改善、輸入代替の観点より製造業の育成に力を入れているがPNG特有の土地問題が大きな障害になっていることは否めない。現

在の主たる製造業としては第一次産品加工工業(木製品及びプライウッド)の他、食料品、清涼飲料水、タバコ、鉄鋼、建設資材等がある。業種別生産高は次のとおり。

(1978年度)

食料品、飲料、タバコ	1 8 4.1	百万キナ
産業用金属、機械	6 0.1	”
木材加工	4 5.5	”
紙、印刷	1 2.3	”
化学製品、プラスチック	1 2.8	”
非鉄金属製品	1 0.8	”
その他	9 8.6	”
合 計	4 2 4.2	”
企業数	6 9 1	社
被雇用者数	1 9,8 8 1	人
	(女性 8 9 5)	人

(出所 労働省ハンドブック)

(6) 観光業

79年度においては32,684人(内日本人 2,484人)の外国旅行者があった。一方PNGの主要都市ホテル部屋数は大幅に不足しており、79年12月末現在 2,020室で国際的水準に達しているのはそのうち894室である。首都ポートモレスビーには894室の内約半分の459室がある。

PNG政府は現在観光振興に力を入れているが、新規ホテル業の運営のため資金、人的資源の不足より効果は十分とは言えないのが現状である。

4. 貿易

(1) 貿易概況

1980年度(1～12月)輸出は総額6億4,300万キナ前年度(7億400万キナ)比9%減となり、輸入は6億6,000万キナ前年度(5億5,700万キナ)比18%増となつたものと推定される。80年度の輸出が前年度に較べ減少したのは、銅、コブラ、コーヒー等のPNG主要輸出品の国際価格が低迷したことによるもので、一方輸入は石油価格の上昇による一般消費物資のインフレ率向にも拘らず消費需要が伸びたため増加したものである。この結果貿易収支は72年以降連続して黒字を計上していたにも拘らず80年度は1,700万キナの赤字(PNG銀行の暫定数字では250万キナの黒字)となつたものと推測される。

(2) 輸出

80年度の輸出を商品別にみると銅鉱石(金・銀が含まれる)が全体の50.4%を占め残りはコーヒー18.3%、木材7.3%、ココア6.8%、魚4.9%等の一次産品が占めている。

一方80年度輸出実績を国別にみれば、わが国は従来よりPNGにとって最大の輸出相手国となつており37.6%を占め、次いで西独26.9%、豪10.7%、のシェアとなつている。この3国でPNG全輸出の75.2%に達している。

(3) 輸入

輸入国別では、豪州からの輸入が圧倒的に多く、79年度において全体の49%を占め残りをわが国16.4%、シンガポール12.7%、米国4.5%等のシェアとなつている。商品別では76/77年度において機械及び輸送機器28%(自動車を中心)、食料品(18%)、鉱物燃料(石油)16%の順となつている。(なおPNG品目別輸入実績は統計上の不備により76/77年以降統計局より公表されていない)上記統計表次頁以降のとおり。

表(イ) PNGの品目別輸出

(単位 百万キナ)

	1978	1979	1980
コーヒー	107	125	118 (18.3%)
ココア	62	59	44 (6.8)
茶	7	7	8 (1.2)
コブラ	24	43	24 (3.7)
やし油	11	23	14 (2.1)
パームオイル	10	14	13 (2.0)
木材及び同製品	25	36	47 (7.3)
魚	25	21	32 (4.9)
ゴム	3	3	4 (0.6)
金	103	163	176 (27.3)
銀	5	12	10 (1.5)
銅	122	183	139 (21.6)
その他	13	15	14 (2.7)
計	517	704	643 (100)

(出所 PNG銀行四半期報)

表(回) P・N・Gの品目別輸入

(単位 百万キナ)

	74/75	75/76	76/77
食料品・動物	} 77.0	73.1	73.0 (18.6%)
飲料・タバコ		5.8	5.8 (1.5)
鉱物性燃料 潤滑油及び関連品	38.3	49.2	63.3 (16.1)
化学品	22.9	18.9	18.9 (4.8)
製造品	61.6	48.2	48.1 (12.2)
機械及び輸送機器	112.1	109.3	109.9 (28.0)
雑製造品	30.1	28.0	27.9 (7.0)
その他	15.4	10.4	46.4 (11.8)
計	357.4	342.9	393.3 (100)

(出所 P N G 銀行四半期報)

表(ハ) PNGの国別輸出

(単位 百万キナ)

	1978	1979	1980
豪 州	48	55	69 (10.7%)
日 本	157	252	242 (37.6)
米 国	34	34	11 (1.7)
西 独	135	187	173 (26.9)
英 国	29	46	26 (4.0)
スペイン	23	34	25 (3.8)
オランダ	10	24	16 (2.4)
そ の 他	81	72	81 (12.9)
計	517	704	643 (100)

(出所 PNG銀行四半期報)

表(二) PNGの国別輸入 (FOB)

(単位 百万キナ)

	1977	1978	1979
豪州	219	238	275 (49%)
日本	85	82	92 (16.4)
シンガポール	50	51	71 (12.7)
米国	16	24	25 (4.5)
NZ	12	14	20 (3.6)
香港	16	18	20 (3.6)
英国	15	15	17 (3.0)
その他	35	36	41 (7.2)
計	448	478	561 (100)

(出所 PNG銀行四半期報)

表(附) 主要産品の輸出価格指数

(72/73=100)

	ココア	コーヒー	茶	コブラ	ココナツ 油	パーム オイル	木材	魚	ゴム	銅	合計
1976	250.3	247.8	122.5	142.2	179.2	173.7	124.6	156.2	198.5	112.4	137.5
1977	563.7	498.7	214.3	261.1	232.1	244.3	154.9	217.8	231.4	108.2	182.5
1978	467.8	331.3	153.0	244.2	243.2	256.8	153.5	184.8	211.2	110.0	161.4
1979	427.0	328.0	158.3	412.5	359.4	292.9	218.2	207.1	288.3	175.9	218.5
1980 6月末	345.2	357.8	151.7	298.4	293.9	271.7	282.8	277.7	327.6	203.3	236.5

(出所 PNG銀行四半期報)

1) 豪州、NZとの通商貿易協定

PNGは76年豪州との間にPNG産品の豪州における無税関税措置を取極める通商貿易協定に調印した。(但し同協定は豪州産品のPNG関税は他国からの輸入品と同様に取扱われる)。又80年にはSPF地域貿易協定に調印したことによりNZに対するPNG産品の無税関税措置及び貿易自由アクセスを応り付けた。

(5) ロメ協定によるECとの通商

PNGは77年3月第一次ロメ協定に加盟し、最恵国待遇を受けEEC市場への適格輸出品の無税輸入が認められた。78年11月からはフルメンバーとして援助資金等すべての協力事項の適用を受けている。

PNGは既に1980年3月から5カ年間の第2次ロメ協定にも正式加盟しており、銅、コブラ、コーヒー、ココアの主要輸出品の輸入関税が引き続き撤廃されることによりEC市場での競争が更に強化され、第2次ロメ協定では輸出所得安定化機構(Stabex)が拡充されたことにより、PNGは輸出所得の補償が得られるものとなった。

(6) 国際収支、外貨準備高

(1)に述べた如く、72/73年銅の輸出が開始されて以来、PNGの貿易収支は黒字基調となっており、又豪州からの財政援助も81年以降5カ年間各年2億豪ドルが保証されている点から国際収支は一応安定しているものといえる。但し81年1月末現在外貨準備高は3億800万キナとなり80年1月末の時点の3億7,500万キナに較べ6,700万キナ減少し、遞減傾向にある。3億800万キナは現在の輸入水準では約5カ月分の輸入を賄うことができる。

PNGは72/73年以来銅価格の下落時は農産物価格の好調等により極めて幸運に推移してきたが80年は双方の市況が低迷したため国際収支が悪化した。

(7) 関税制度

PNGの輸入関税制度は次のとおりである。

(イ) 関税評価

関税は主としてFOB従価税率によつて課されるが一定の品目は計量に基づき固定税率に課せられる。

(ロ) 関税体系

関税法(1951年)及び一般関税法(1970)に基づき課税されるが後者によりPNGに輸入されるすべての財貨に対し、2.5%の課税がなされる。例外は免税組織によつて輸入される薬品及び教育用品、再販売を目的としないもの、及び(1974年以降)米、砂糖、かん詰、肉、小麦粉である。1981年現在、テレビ、乗用車等には50%の輸入関税が課せられている。

(ハ) 自由化

1959年9月に輸入許可制が廃止されて以来貿易の自由化がなされている。

5. 諸外国からの経済協力

(1) 豪州

PNGは旧宗主国たる豪州の財政援助に大きく依存しており豪の援助はPNG財政上、国際収支上も極めて重要な位置を占めているがその比重は60年代においてPNG政府歳入の60%であつたものが81年度予算においては27%と逡減してきている。

PNGは豪州よりの74/75年度より76/77年度に5億豪ドル(ウイトラム政権)、76/77年度より80/81年度において各年約2億豪ドル計10億6,000万豪ドル(フレーザー政権)の財政援助を受けたのに引き続き、80年12月チャン首相は豪政府(フレーザー政権)より81年以降5ヶ年間にわたる豪の財政援助の合意を取り付けた。各年度における豪の財政援助額(暫定的)は次のとおり。

1981-82年度 2億4,200万豪ドル

1982-83 "	2億 5,300 "
1983-84 "	2億 6,500 "
1984-85 "	2億 7,700 "
1985-86 "	2億 8,900 "

なお、本援助額はPNGの財政的自立を達成するため、各年実質的に5%の通減となるが、クローフォードANU学長の提言に基づき策定されたものであり、又豪政府は同提言により第3年度において豪の対PNG援助額の見直しを行う旨約束している。

豪州は上記財政援助の他PNG人訓練計画(79年度、150万豪ドル)により320名のPNG研修生を受入れ、在PNG高等弁務官の自由裁量による小規模援助(Discretionary Aid)により各年約2万7,500豪ドルを小規模プロジェクトに対し供与している。

(2) 豪州以外の外国援助

豪州以外には日本(わが国の経済協力についてはV、わが国との関係を参照)、NZ、英国よりの援助が主であつたが78年より西独の援助が開始された。NZよりは農業開発、教育、行政分野において78年270万米ドル、79年250万米ドルの技術協力、英国よりは天然資源開発、教育(PNG大学が主)分野に係る専門家派遣、留学生受入等の技術協力(78年、67万米ドル、79年34万米ドル)を受けた。西独は78年の西ニューブリテイン島Biala道路に係る350万キナ、80年ロウナNo 4水力発電に係る400万キナの借款の他、79年度においても総枠400万キナ。技術協力(ボランティア派遣、研修生の受入)をコミットした。米国は直接PNGに対する二国間援助は実施していないがUSAIDを通ずる南太平洋地域協力の一環としてIVSボランティアの派遣、研修生を訓練する等78年度約46万米ドル、79年度16万米ドルの技術協力を行っている。又80年PNGとの間で米国平和部隊の派遣取極が締結されたことにより81年度中には20数名の平和部隊が派

遣される予定である。カナダはCanadian University Service Overseasによるボランティアを派遣し、英連邦技術協力基金(CFTC)は79年度において21名の専門家及びF/Sコンサルタントの派遣を中心とする110万米ドルの技術協力を行った。その他には77年PNGがロメ協定に正式参加したことにより同協定に基づく経済技術協力(78年度170万米ドルのECローン、37万米ドルの技術協力)、がありS.P.Cインドネシアよりは研修正受入の技術援助、ノルウェーよりは79年度ワランゴイ水力発電に係る775万米ドルのグラントを受入れた。PNGにおいては各国よりのボランティア機関が経済開発に貢献しておりUNV(国連)、AVA(豪)、GVS(西独)、IVS(米)、OED(オーストリア)、VSO(英)、JOCV(日)よりのボランティア約400名(80年度)の他、教会によるボランティア活動も活発に行われている。

(3) UNDP

UNDPはPNGに対し68年より協力を開始しており、WHO、FAO、ITU、UNESCO等の国際機関を通じ、農村開発、ゴム栽培、ワニ飼育、上水道、電気通信、小規模工業等の分野に対し各年約200万米ドル相当の専門家(ボランティアを含む)訓練生受入、機材供与を行っている。77~81年の間にはPNG開発のプライオリティーに合せ総額890万米ドルの技術協力を予定(81年以降も各年約200万米ドルが合意されている)しているが、現在進行中の主なプロジェクトは電気通信訓練センター(ラエ)、ワニ皮産業育成(セビック・ウエスタン)、ゴム栽培(セントラル)、マラリヤ撲滅(全国)等である。

(4) 国際金融機関

PNGは従来より世銀グループ(IBRD、IDA)及びアジア開発銀行より大型プロジェクトに対し借款を受けており、80年度においてもIBRDよりハイランド・ハイウェイの改良工事に対し17百万米ド

ル、IDAよりハイランド・ハイウェイの改良拡張に対し13百万米ドル、ADBより、ワランゴイ水力発電に対し12.25百万米ドル及びラエ港建設に対し20百万米ドルの借款(L/Aベース)を受入れた。81年5月末の世銀グループ・アジア開銀よりの累次実績は次のとおり。

I B R D	8 8	百万米ドル	(8 件で1968年借款開始)
I D A	8 1.2	"	(9 件で1970年 ")
A D B	9 7.8 9	"	(10件で1971年 ")
合 計	2 6 7.0 9	"	

なお、ADB上記は借款の他1973年より総額1.33百万米ドルの技術援助(調査費用等)を行っている。

IV 社会その他

1. 教育

(1) 初等教育は6年制(7才より開始)で公立小学校とミッション系の私立学校により行われており、政府は公立小学校の拡充に努めているが学齡児の就学率は79年現在約56%と云われている。

(2) 中等教育としては公立中学校(Provincial High Schoolと称し4年制)と公立中学校を卒業後試験を経て認められる国立高等学校(National High Schoolと称し2年制-Sogeri、Keravat、Aiyura、Passamの4校)により行われている他、公立中学校の4年修了者を入学資格とするTechnical Collage(9校)により専門技術教育が行われている。

(3) 高等教育

国立PNG大学(医、文、理、農、教、法の6学部を有する総合大学、1965年設立、在ポートモレスビー)、及びPNG工科大学(1967年、Institute of Higher Technical Educationとして設立され、1973年工科大学となる在ラエ)の2大学があるほか、Secondary Teacher's Collage(ゴロカ)及びPrimary Teacher's Collage(8

校)Bulolo Forestry Collage(フロロ)、National Fisheries Training College(カビエレにあり1977年日本の無償援助で設立されたもので第一次産業省所管)、Vudal Agricultural College(キャラバット)、Administrative College(ポートモレスビー)等の専門学校がある。

(4) インターナショナルスクール

PNGには上記教育施設の他主に外国人子弟を対象にしたインターナショナルスクールが49校(Pre-school(4~5才の幼稚園)15校、小学校32校、中高校2校)があり、これらの学校では豪州のニューサウスウェールズ州の教育カリキュラムが使用されている。

(5) 各学校の生徒数・教員数等は1980年現在次のとおり。

			学 校 数	生 徒 数	PNG人	外国人
			教 員 数			
①	小 学 校	校	2,045	28,408	9,061	0
②	中 学 校	校	97	36,205	988	509
③	工 業 専 門 学 校	校	9	3,778	62	170
④	職 業 訓 練 学 校	校	88	3,992	178	83
⑤	国 立 高 等 学 校	校	4	1,562	5	91
⑥	教 員 養 成 専 門 学 校	校	9	1,957	51	107
⑦ インタナショナル・スクール						
		小学校	32	4,015	220	7
		中高校	2	863	0	62

なお、大学における学生数はPNG大学1,682名、PNG工科大学1,205名で計2,887名と発表されており、教授講師の数はそれぞれ200名で計400名程度と推定される。

2. 福祉、厚生、住宅

政府は国家開発目標の中で利益福祉の平等化を掲げており、厚生分

野ではWHO等の協力をもとに地方医療施設の充実に重点を置き、医療関係スタッフ(1979年現在の医療サービス関係者7,258名中医師177人)の増員及び訓練養成に力を注いでいる。

1980年国民年金基金制度が導入されたが、これは所得の12%(7%雇
用者、5%被雇用者負担)を積み立て、55才より、年金を支給開始と
するものであり、当面は公務員を中心に充実化される予定である。

また政府は都市部の大幅な住宅不足を解消する必要にせまられてい
るが、住宅委員会を機能充実させると共に、住宅政策として、低所得
者層に対する住宅の供給、国民の支払い能力範囲内の優良住宅の建
設、現地材料の活用、都市の過密とスラムの解消、不法入居者問題の
解決等を掲げている。

3. 交通

(1) 航空では国際線でAir Niugini(1973年11月に発足したPNGの国
営航空会社)は1981年5月末シドニー、ブリスベン、ケインズ、香
港、マニラ、ジャブラ、シンガポール、ホノルル、ホニアラの9ヶ
所に乗り入れておりカンタス航空はシドニー・ポートモレスビー便
(週2便)を運航している。また、国内線はAir Niuginiが国内17都市
を結ぶ定期便を運航しているほか、Talair(ゴロカ)、Douglas
Airways(ポートモレスビー)、North Solomon Air(キエタ)各社も
小型機による定期便又はチャーター便を運航している。

(2) 海運ではPNGにある大小50程度の港内のうち、対外貿易を行つて
いるのはポートモレスビー、ラエ、キエタ、ラバウル等の12港であ
る。外航船は本邦(2定期便)を始め豪、NZ、米、EC、香港等からこ
れら諸港に寄航しており、又比較的大型の沿岸航路船約50隻が国内
主要港間の貨物輸送に従事している。又、ウエワク、ラエ、ポート
モレスビー、マクン、ラバウルにある石油タンクに石油を供給する
ため大小のタンカーが就航している

- 3) 陸運では全国的に道路網が発達しておらず、主要都市間を直結する道路網の整備が急務となっている(パプア地域とニュー・ギニア地域を結ぶ幹線道路はない)。79年現在道路は全長で18,300kmしかなく、そのうち3%しか舗装されていない。ハイウェイはハイランドハイウェイ、ヒリタナハイウェイのみである。

V わが国との関係

1. 概況

わが国とPNGとの貿易・経済協力関係は近年益々拡大しつつあり特に73年以降はわが国は豪と1、2位を争う貿易相手国となっている(79年度は豪を抜いて1位となった)。PNGの一般家庭には日本製の車(シェア91%)、ラジオ、ステレオ等の電気製品が普及しており、この結果一般庶民の対日関心も急速に高まっている。又、1980年1月大平総理(当時)一行のPNG立寄りに代表される如く両国の主要人物交流を初めとし技術・文化を通じ両国国民の交流は一層活発化し、両国間の友好親善が深まりつつある。

PNGはわが国が、民間投資及び政府間経済・技術協力を通じPNGの経済社会開発に寄与することを期待しているが、他方わが国の巨大な経済力を背景とした企業進出、投資に対する警戒心も強く、わが国からの投資は飽くまで互惠の原則に立つて生産力増強、雇用の増大、技術移転等が現地の利益に寄与し、現地の規制に服する形で進めて欲しいとの要望を表明している。

2. 政治、外交関係

わが国は、75年1月、ポートモレスビーに総領事館を設置した。75年9月独立と同時に外交関係を樹立、同年12月に大使館を設置し、現在総領事館が併設されている。

他方、PNG側は、独立と同時にわが国に大使館を設置し、77年9月初代大使が赴任した。

3. 経済関係

1) 貿易

(1) 貿易動向

(i) 貿易額(千米ドル)

	1976	1977	1978	1979	1980
貿易総額	240,851	305,079	346,551	490,361	618,181
日本の輸出	69,296	97,798	119,554	123,232	167,974
日本の輸入	171,555	207,281	227,507	367,129	450,210

(日本通関統計速報)

山 貿易品目(1980年歴年百万米ドル)

(日本の輸出)

		シェア-%
乗用・貨物自動車	59.3	35.3
魚の調整品	22.8	13.6
タイヤ・チューブ等	8.8	5.3
メカニカル・ショベル (ブルドーザー用)	8.7	5.2
トラクター	6.7	4.0
部品・付属品	6.0	3.6
無線・電信・電話機器	3.5	2.1
その他	52.2	30.9
計	168.0	100

(日本の輸入)

		シェア-%
銅鉱石(金・銀を含む)	291.2	64.7
木材	47.7	10.4
採油用の種(主にコブラ)	26.7	5.7
木製品パルプウッド等	14.2	3.1
エビ	8.5	1.9
コーヒー	6.4	1.3
その他	55.3	13.1
計	450.0	100

(日本通関統計速報)

(ロ) PNGの対日貿易依存度(PNG貿易統計による)

(1979年度)

総貿易額 1265.7百万キナ

対日貿易額	3450	〃
対日貿易依存度	27.2	%

PNGにとってわが国は豪州の26%を上回る第1位の貿易相手国となった。

(イ) わが国の対PNG貿易依存度(1979年日本通関統計による)

総貿易額	2.36	億米ドル
対PNG貿易額	4億9,000万	米ドル
対PNG貿易依存度	0.2	%

(2) 投資

わが国の対PNG投資累計額は79年3月末現在148.1百万米ドルとなっており、わが国の対外投資総額(79年3月末268億米ドル)に占めるシェアは0.55%となる。

(3) 漁業取極

日・PNG間漁業取極の経緯・現状は次のとおり。

(イ) 76年12月末まで

日・豪漁業協定の延長合意に基づき、我が国漁船の3海里より12海里までの漁業水域内での操業及びラバウル他2港への寄港が認められた。

(ロ) 77年1月1日～78年3月31日

PNG政府の一方的行政措置により、数次にわたり操業・寄港許可の延長が認められた。

(ハ) 78年3月31日 PNG政府200海里漁業水域施行

(ニ) 78年3月31日～4月30日 水域設定に伴う暫定期間

(ホ) 78年5月1日～79年1月31日 78年5月16日締結した日・PNG暫定漁業取極により200海里水域内での操業及びポートモレスビー他3港への寄港が認められた。

(ヘ) 79年2月1日～79年8月31日 互いの条件が折り合わないため

め、漁業協定は締結されず日本漁船は入漁禁止となつた。

- ト) 79年9月以降 PNG政府と日本の民間業界との間で個別ライセンス方式(操業希望漁船がPNG政府に操業許可を申請し、入漁料等を支払つて操業ライセンスを取得する)がとられており、現在この方式により操業が行われている。

(4) 経済技術協力

わが国のPNGに対する経済技術協力は独立後着実に伸展しており、78年8月合意された第1次円借款35億円、80年7月合意された第2次円借款51.22億円及び基金、JICAを通じ本邦進出企業に関連ある公共インフラ等に融資された有償資金協力を初めとし、75年カビエレ漁業訓練大学に対する無償資金協力、JICAベースの専門家・調査団派遣、協力隊員の派遣、研修員受入等による技術協力を行つてきている。

(イ) 有償資金協力

- (i) 78年8月35億円(対象プロジェクトはワバク上水、ゴロカ下水、ワランゴイ水力発電)供与に関する書簡が交換された。本借款の中心プロジェクトであるワランゴイ水力については、本借款にてカバーされない建設費を79年12月ADBより12.25百万米ドル(内6百万米ドルは特別資金枠)及びノルウェーからの7.75百万米ドル(グラント)にて資金手当した。本プロジェクトは80年12月国際入札を了し81年5月建設が開始される予定である。なおゴロカ下水、ワバク上水両プロジェクトは1980年までに完成した。
- (ii) 80年8月51.22億円(ロウナNo.4水力発電)供与に関する書簡が交換された。本件プロジェクトは西独よりの借款(4百万キナ)供与が合意されているが、PNG政府は内部資金の不足及び水文調査の必要性を理由に80年9月末、本プロジェクト1.事を

約6カ月間延期する旨発表した。

(ロ) 無償資金協力

- (i) 75年に日・PNG間でカビエレ国立漁業訓練大学の建設及び関連資材に対するわが国よりの6億6千万円の無償援助が合意され、77年4月本大学の竣工式が行われた。その後もJICA専門家派遣を通じ本大学の技術指導に貢献している。
- (ii) 但し、PNG政府は1978年外国援助受入方針を策定し、グラントについては原則としてアンタイドについてのみ外国の援助を受入る等と厳しい条件になっているため1978年以降わが国よりの無償援助は実施されていない。

(ハ) 技術協力

(i) 開発調査等

5(a) プラリ河電力開発調査(75～77年)

PNG政府は国家的重要プロジェクトとして、プラリ河に大規模水力発電所を建設(出力180万kwを予定)し、その電力を利用して、アルミ精錬等の工業開発を行う構想を有しているが、本水力発電所建設計画に関し、75年2月より約33カ月にわたり、日豪PNG3政府の協力の下、JICA(日本工営委嘱)及びSMEC(Snowy Mountain Engineering Corporation)がフィジビリティ調査を実施した。政府間協議の後77年12月、F/Sレポートが完成した。同報告の結論はワボ(建設予定地で河口より直線100km)の電力開発は技術的に可能であるが、150万kw以上の継続的需要がなければならないとなっており、今後のプロジェクト開発着手時期はPNG政府の電力多消費型産業の誘致の成否にかかっている。

(b) PNG総合開発計画調査(74年6月)

73年10月の日豪閣僚委員会における豪側からの協力要請に

基づき、PNG経済の現状と開発計画におけるわが国の経済協力方針策定のための調査団が派遣された。

(c) マダン地区植林計画(76年4月)

マダンのゴゴール地区JANT社伐採跡地に6カ年にわたり、5,000haの植林を行う計画でわが国は76年4月JICAによる調査を経て、77年9月JICAより5,000haの内、当面3カ年分2,400haの植林を実施するために必要な3億3千万円弱の融資を行うことが決定された。(本融資はJICA投融資事業として本邦現地企業に融資されるもので対象はインフラ整備、植林等の試験事業で、間接的には現地住民の福祉、生活向上に役立つものとされる。PNGにはマダン植林の他、オープンベイ林業開発、パームオイル開発事業にも、融資実績がある。)

(d) 漁業基地建設調査(76年6月、9月、10～11月)

ラバウル、カビエンにおける漁業基地建設のため調査を行い、調査報告書は77年12月完成し、PNG政府に提出された。

(e) 漁業協力基本設計調査(77年4月)

PNGの漁業開発調査、研究施設の拡充(調査船の建造を含む)を図るための調査団をPNG政府の要請により派遣した。

(f) 医療協力予備調査(77年3月)

77年3月公衆衛生専門家による、PNGに対するプロジェクトによる医療協力の可能性を把握するために予備調査が行われた。

(ii) 78年以降の開発調査はPNG側がコンサルタントの選定権を留保したいとの方針を策定しているため、本格的なF/S調査等は実績としてない。

(iii) 研修員受入等(81年5月末までの累計実績)

(a) JICA研修員受入 91名

- (b) 専門家派遣 16名(81年5月現在5名の専門家派遣中、
(調査団員含まず)
- (c) 青年協力隊(79年8月E/N署名、81年5月現在8名を派遣
中)
- (d) 国費留学生受入れ 3名

4. 民間諸団体

日本・パプア・ニューギニア友好協会

(Japan-Papua New Guinea Goodwill Society)

昭和46年7月、外務省を主管官庁とする公益法人として設立。

名誉会長 瀬川 美能留(日本証券業協会会長)

会長 原文 兵衛(参議院議員)

副会長 田中 兼五郎(東部ニューギニア戦友会会長)

専務理事 梶塚 喜久雄

顧問 長井 実博

事務所 東京都台東区上野3-6-3

電話(03)836-4705

832-2496

このほかに、日本・南太平洋経済交流協会(通産省を主管官庁とする
公益法人)及び日本・パプアニューギニア協力会(任意団体)がある。

また、パプア・ニューギニア在留邦人による日本人会は次のとおり。

ポートモレスビー日本人会(会長 井谷孝之、丸紅、76年9月1日設
置)

ラバウル日本人会(会長 島田清次、ビスマルクの工業、77年1月1
日設置)

5. 要人往来

73年2月 ソマレ首席大臣

73年10月 キキ防衛・対外関係相
 74年12月 B.ジェフコット天然資源相
 75年11月 G.レア国家開発相
 76年4月 J.チャン蔵相
 76年7月 キキ副首相兼国防・外務・貿易相
 76年10月 B.ハロウェイ国会議長他
 76年11月 P.ルス矯正・アルコール販売許可相
 77年1月 キキ副首相兼国防・外務・貿易相及びジェフコット運輸兼
 建設・調達相
 77年12月 ソマレ首相
 78年7月 オレワレ外務・貿易相
 78年12月 ボンドロス国会副議長他
 79年3月 モミス地方自治大臣
 79年3月 ルス商業大臣
 79年12月 オレワレ副首相兼外務・貿易相
 80年7月 カプチン蔵相(大平総理葬儀参列)
 同 アオエ森林大臣
 81年1月 エバラ第1次産業相

75年9月 小島徹三独立式典出席特使(衆議院議員-当時)

78年8月 愛野興一郎外務政務次官

80年1月 大平総理一行

80年10月 大石厚生政務次官

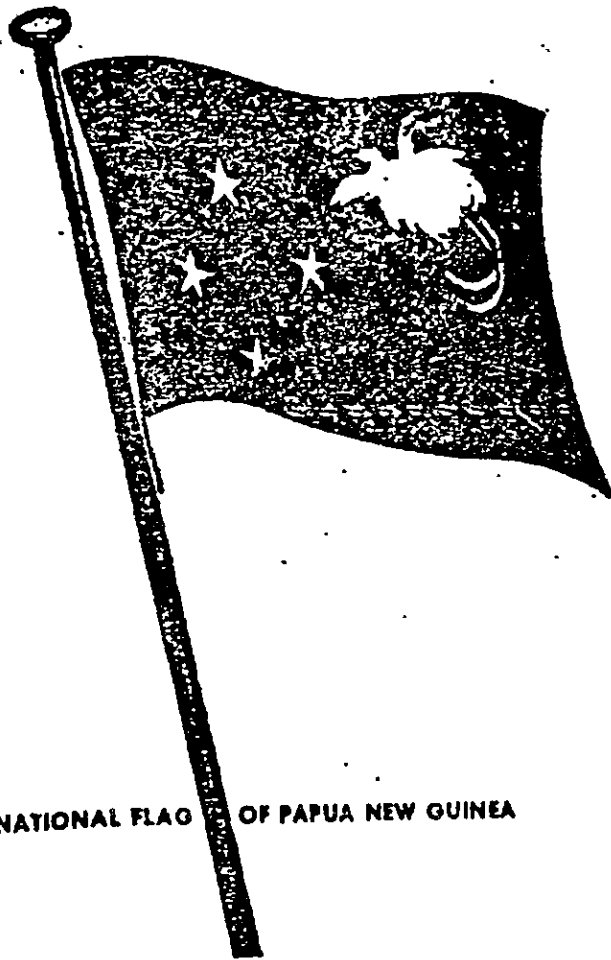
6. 在留邦人数(80年10月現在)

男 166人 女 79人 計245人

7. 日本人渡航者数

79年10月～80年9月 4455人

(付属 /)

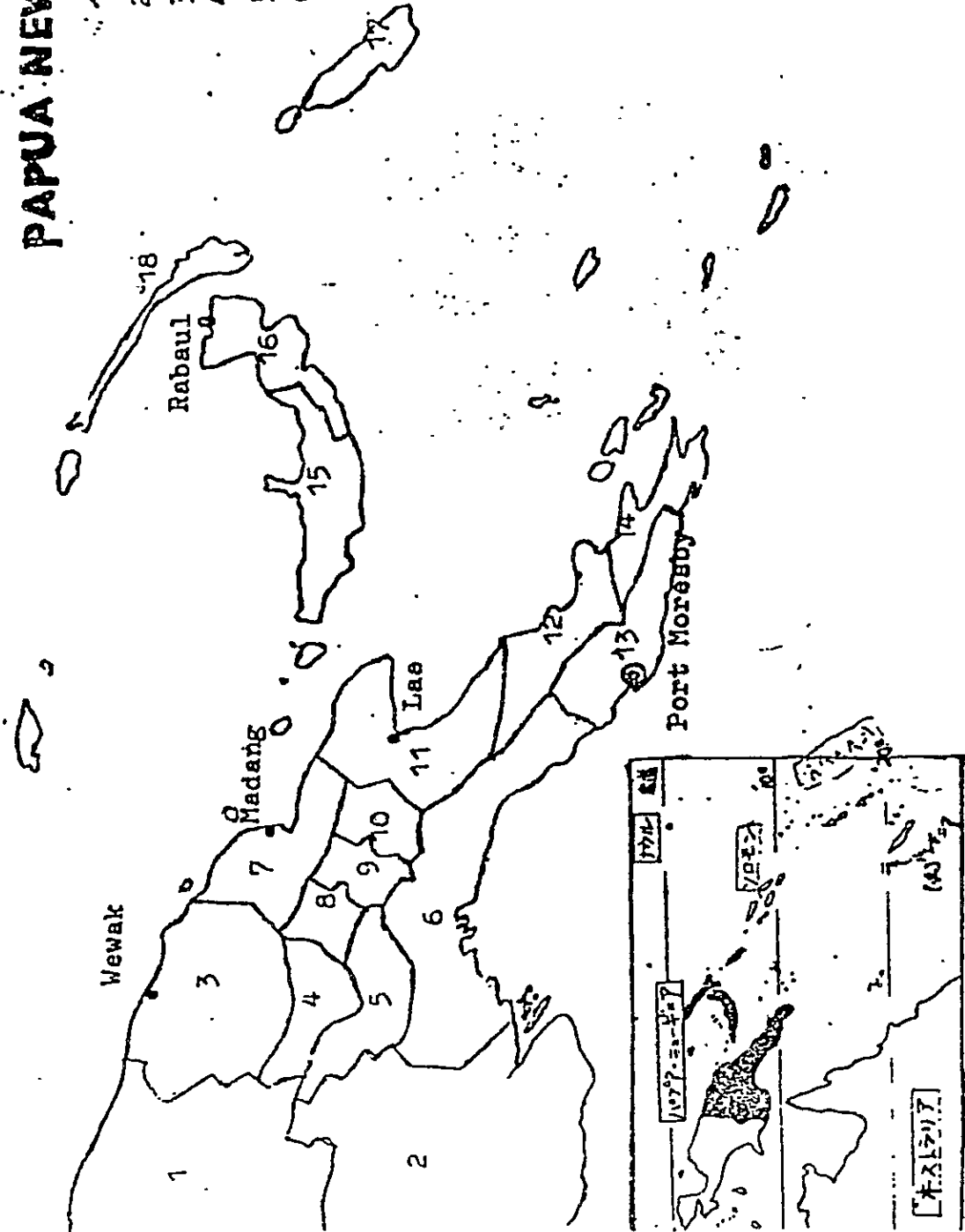


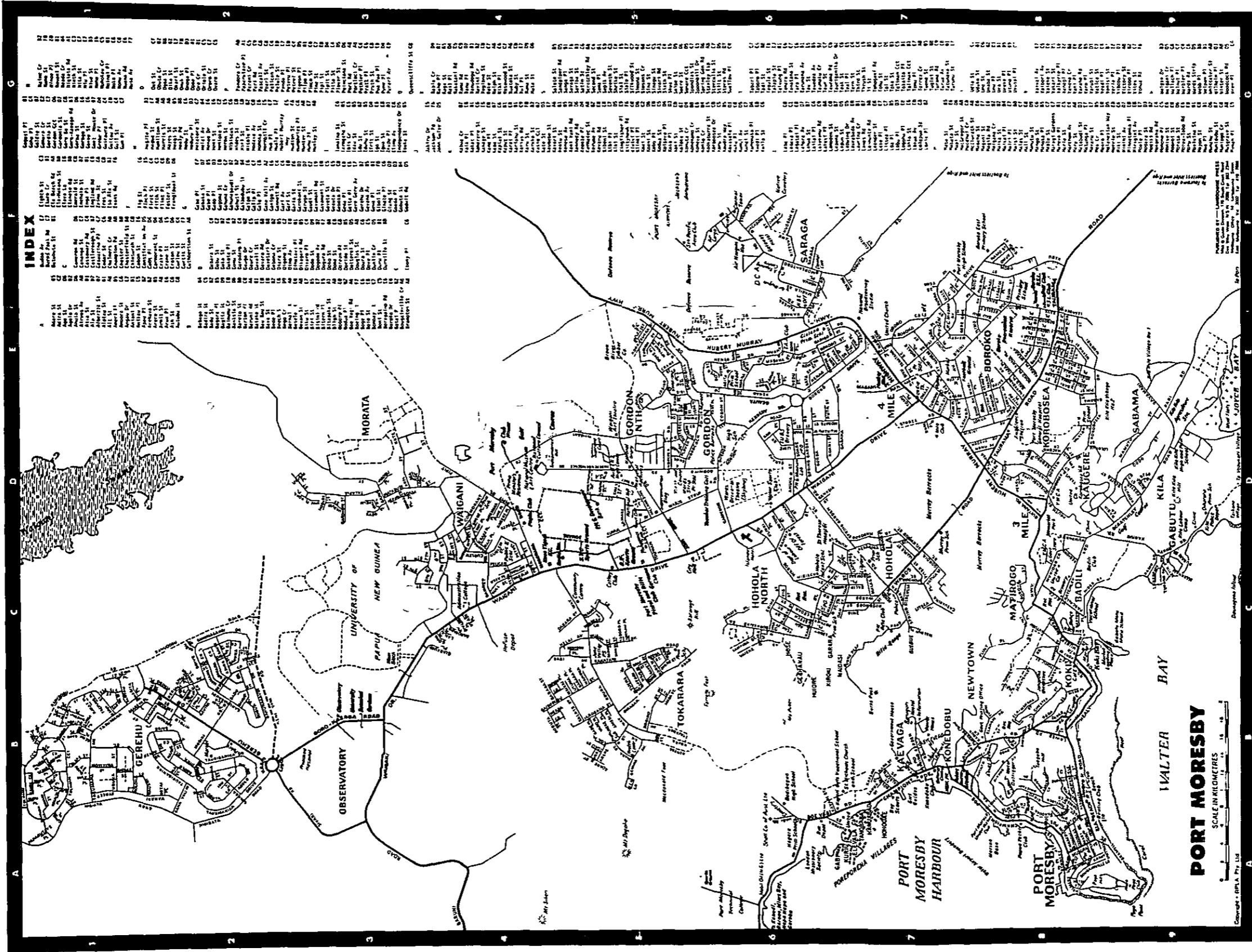
THE NATIONAL FLAG OF PAPUA NEW GUINEA

PAPUA NEW GUINEA

- 1 West Sepik
- 2 Western
- 3 East Sepik
- 4 Enga
- 5 South High
- 6 Gulf
- 7 Madang
- 8 West High
- 9 Chimbu
- 10 East High
- 11 Morobe
- 12 Northern
- 13 Central
- 14 Milne Bay
- 15 West New Britain
- 16 East New Britain
- 17 Bougainville
- 18 New Ireland
- 19 Manus

(1972)





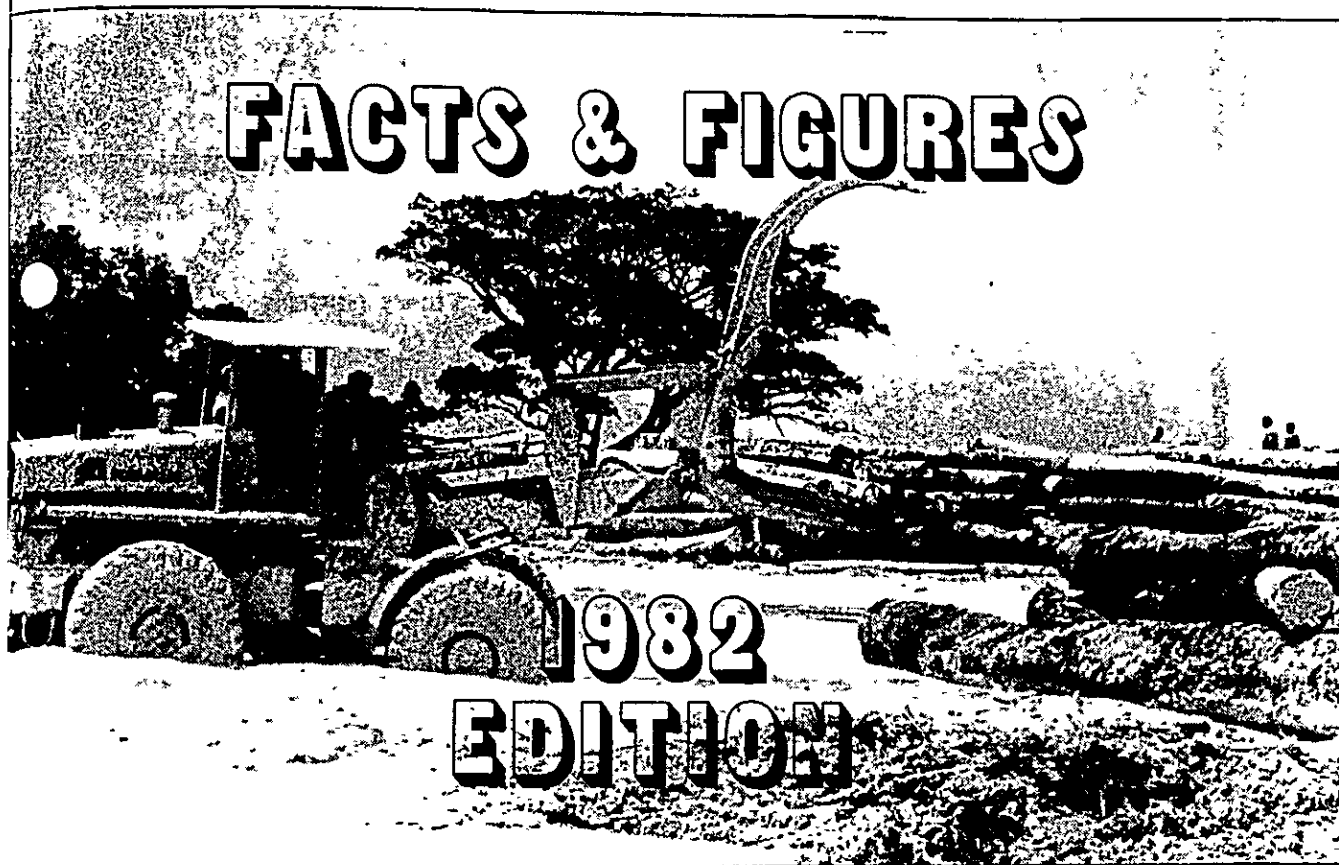
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PORT MORESBY
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 SCALE IN MILES
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OFFICE OF FORESTS
DEPARTMENT OF PRIMARY INDUSTRY



PAPUA NEW GUINEA

AREA:

46 MILLION HECTARES

POPULATION:

3 MILLION

GDP (1981):

K1750 MILLION (EST)

PER CAPITA INCOME:

K580 (EST)

TRADE (1981):

EXPORTS K570 MILLION

IMPORTS K690 MILLION

MAJOR EXPORTS:

COPPER ORE COFFEE TIMBER
COCOA COPRA FISH

MAJOR IMPORTS:

MACHINERY AND TRANSPORT
EQUIPMENT FOODSTUFFS, OIL,
MANUFACTURED GOODS

OPERABLE FOREST AREA

15 MILLION HECTARES

OPERABLE FOREST VOLUME:

500 MILLION CUBIC METRES

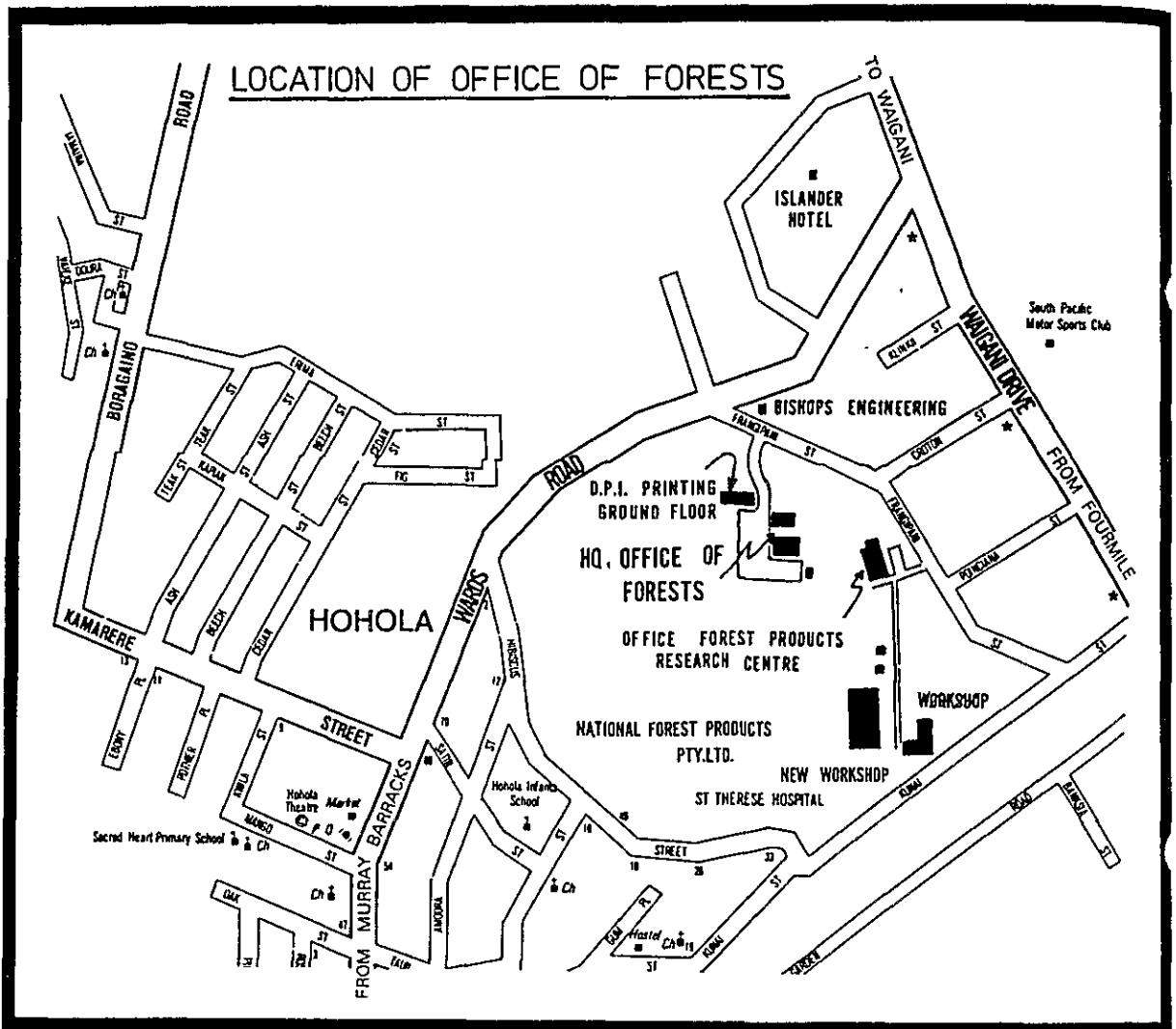
VALUE OF FOREST PRODUCTS

EXPORTS (1981):

K45 MILLION

CURRENCY:

1 KINA : US\$1.46
OR
AUS\$1.3



PAPUA NEW GUINEA
OFFICE OF FORESTS
DEPARTMENT OF PRIMARY INDUSTRY

FACTS
AND
FIGURES

1982 EDITION

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FOREWORD

"Facts and Figures" is an introductory booklet on forestry and the forest industry sector in Papua New Guinea. It is directed mainly to acquaint potential investors in the development of our forest resources, to possible buyers of our forest products, and to others concerned with forestry in general. This booklet has now firmly established itself as an annual publication, with information up-dated regularly where necessary.




The preceding year of this 1982 edition of "Facts and Figures" saw an important segment of our Revised National Forest Policy, announced in 1979, come to fruition. This was the setting up of two National Forest Development Corporations (FDCs), namely the Ulabo Timber Company (to harvest the Sagarai-Gadaisu timber stands in the Milne Bay Province) and the Kumusi Timber Company (Kumusi, Northern Province).

Both FDC projects are now successfully underway. Phase Two of the FDC programme is also well in train, and we should see two additional projects prepared for the starting signal by the end of this year. These are at Tonolei in the North Solomons Province and on Manus Island. The FDCs should make meaningful contributions to our developmental objectives of revenue generation, greater national ownership and regional economic development and political stability.

While we will continue to encourage the use of the FDC model for future timber operations, I would like to point out that the Papua New Guinea Government will still welcome investors from overseas for the larger integrated timber industry projects, where necessary technical, managerial and marketing skills from abroad are required. As an illustration of this, we saw the South Korean firm of Nam Yang Timbers begin its operations last year at Kapuluk on the north coast of the West New Britain Province. The exporting of logs from Kapuluk has begun, but our main focus of attention will be on Nam Yang Timbers' woodchipping operation — the chipmill is due to be in production by late 1983 — and its large reforestation programme.

I hope that readers of "Facts and Figures" will find it informative. For further reading on forestry matters in Papua New Guinea, please refer to 'Further References' on page 27, or write to our Publications Section in Boroko, Port Moresby.



A M D YAULIEB
Director

FORESTRY POLICY - GOALS AND OBJECTIVES

The major aims of Papua New Guinea's policy for the development of its forest resources have been enunciated in the National Goals and Directive Principles set out in the Constitution, in the Eight Aims, and in the National Development Strategy.

The Constitution requires that Papua New Guinea's natural resources be conserved and used for the collective benefit of all Papua New Guineans and be replenished for the benefit of future generations. It also calls for:-

- i. wise use to be made of natural resources in the interests of the development of Papua New Guinea and in trust for future generations;
- ii. the conservation and replenishment for the benefit of the people of Papua New Guinea and posterity of the environment and its sacred scenic and historical qualities; and
- iii. all necessary steps to be taken to give adequate protection to flora and fauna.

In addition, the Constitution requires the "strict control of foreign investment capital and wise assessment of foreign ideas and values so that these will be subordinate to the goal of national sovereignty and self reliance, and in particular for the entry of foreign capital to be geared to internal social and economic policies and to the integrity of the nation and people."

Accordingly, the vast timber resources of Papua New Guinea must be used for the benefit of the nation as a whole, in accordance with the principles set out above. The export segment of the forest industry has undergone marked structural changes over the past years due largely to changes in international market conditions. Because of these factors, a revision of Forest Policy was carried out recently.

Details of the revision of policy, are contained in the Revised National Forest Policy which was announced by the Minister for Forests in early June, 1979. The major thrust of the Revised Policy will be directed to the forest industry making a meaningful contribution to National developmental objectives relating to revenue generation, National Ownership, and regional economic development and political stability.

Some further details of the Policy are contained in the Chapter entitled "The National Investment Priorities Schedule (NIPS) and Foreign Investment Guidelines on pages 17, 18 & 19.

PAPUA NEW GUINEA FOREST RESOURCES

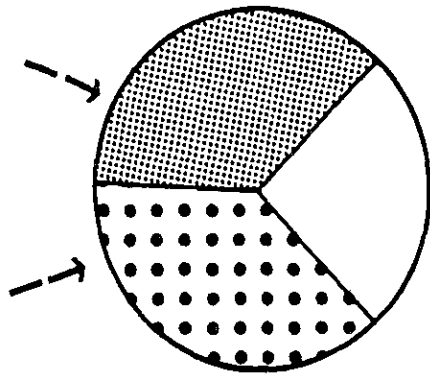
Total land area: ~~46~~⁴⁶ million hectares

Total closed forest area: 36 million hectares

15 mill ha (32.6%)
Operable Forest

15MILL. HA (32.6%)
OPERABLE FOREST

21 MILL. HA (45.6%)
INOPERABLE FOREST



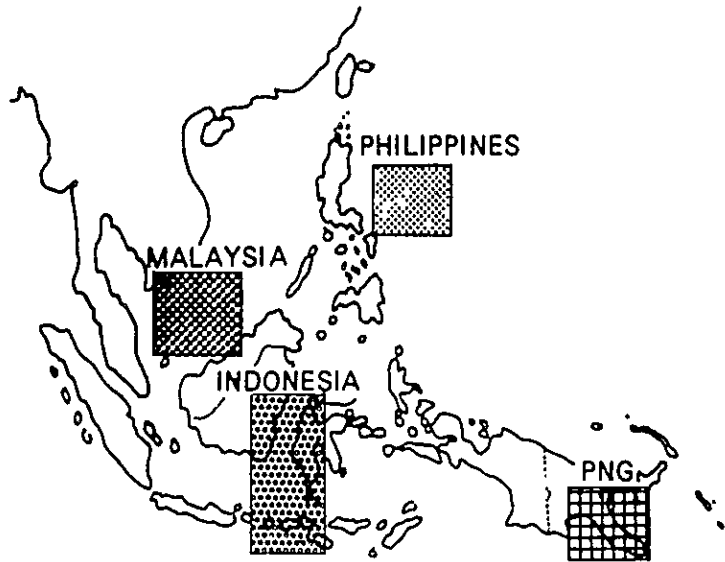
10MILL. HA
(21.7%)
NON-FOREST.

- 15 million hectares of the forest resource are presently regarded as operable or accessible for development.
- The Papua New Guinea forest resource is fairly evenly distributed throughout the country and it has the potential to benefit the many rural areas.
- The lowland rain forest (under 1000 metres altitude), rich in species, forms approximately half the forest cover and constitutes the major forest wealth.
- Papua New Guinea's forest resources, if properly managed, are a renewable natural asset.

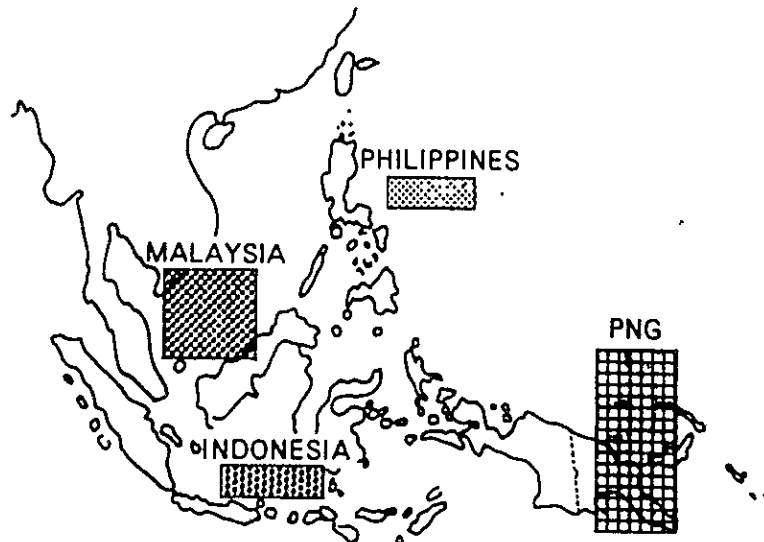
THE SIZE OF PAPUA NEW GUINEA'S FOREST RESOURCE COMPARED WITH THE RESOURCES OF THE MAJOR REGIONAL HARDWOOD EXPORTERS

Indonesia, Philippines and Malaysia account for 95% of South East Asian hardwood exports and 65% of world hardwood exports. Papua New Guinea's forest resources are nearly comparable in total size to these three major producers, but significantly greater in terms of forest resource per head:-

OPERABLE FOREST VOLUME

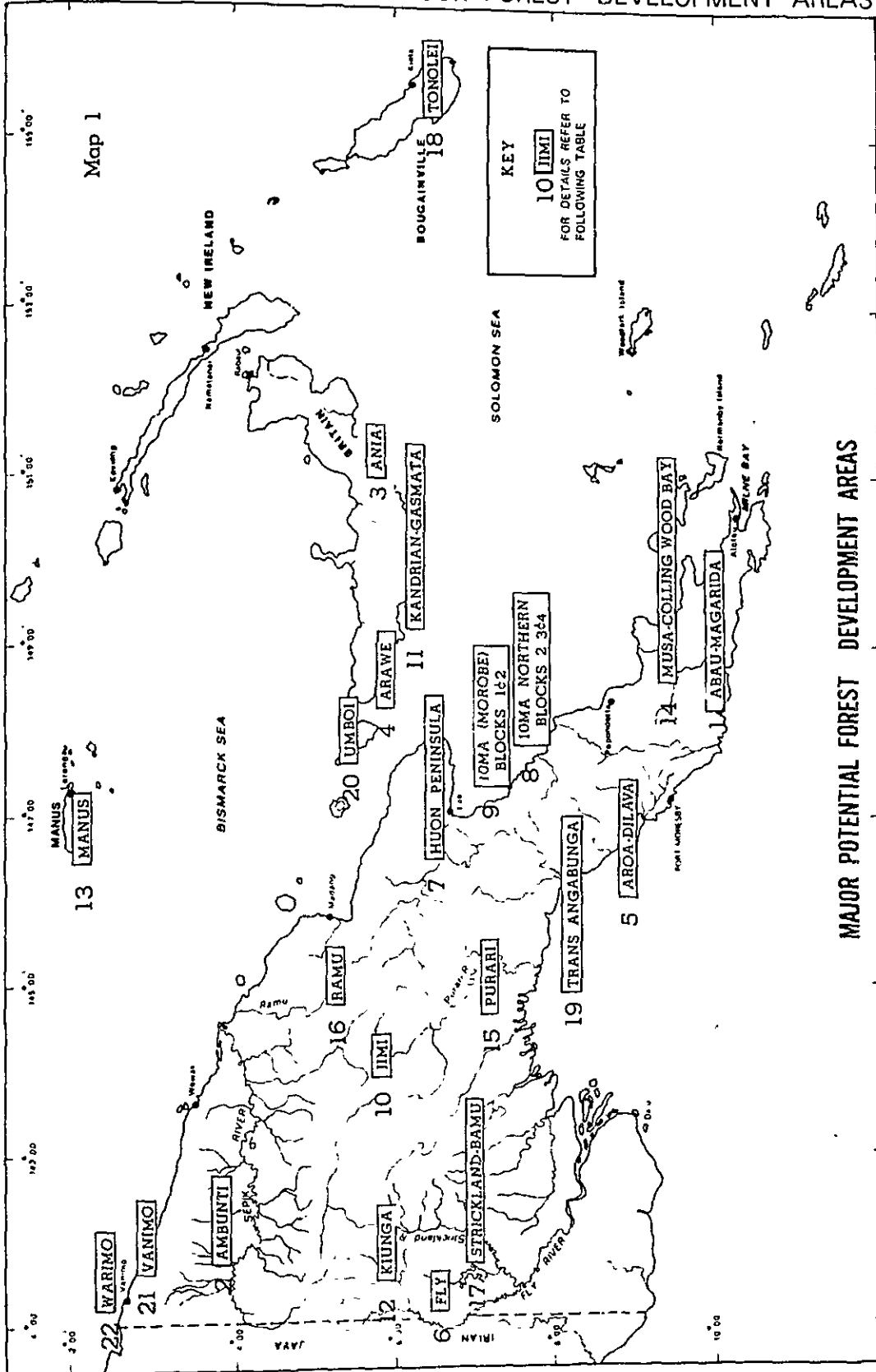


OPERABLE VOLUME PER CAPITA



Our forest resource would seem to have a greater potential to benefit Papua New Guineans. However a high resource per head implies a relatively small local market and heavy dependence on exports for growth in the industry.

THE LOCATION OF FUTURE MAJOR FOREST DEVELOPMENT AREAS



MAJOR POTENTIAL FOREST DEVELOPMENT AREAS (See Map on page 4)

FOREST RESOURCE

NO.	TIMBER AREA (PROVINCE)	TOTAL AREA (1000 ha)	OPERABLE AREA (1000 ha)	ESTIMATED VOLUME AVAILABLE		MAJOR SPECIES 40 CM +
				SAW/VENEER LOG 50CM+	PULPWOOD (MILL. M3)	
1.	* ABAU-MAGARIDA (CENTRAL)	89.0	68.0	3.0	4.0	TAUN 25%, HOPEA 6%, TERMINALIA 6%, AMBEROI 3%, ERIMA 3%.
2.	* AMBUNTI (EAST SEPIK AND WEST SEPIK)	226.8	-	9.1	-	NO DETAILS AVAILABLE.
3.	X Ø ANIA - (WEST NEW BRITAIN)	154.0	60.3	4.0	3.0	MALAS 23%, TAUN 13%, DILLENIA 9%, TERMINALIA 8%, CALOPHYLLUM 7%.
4.	* ARAWE (WEST NEW BRITAIN)	192.0	157.0	8.9	8.3	MALAS 15%, TAUN 15%, TERMINALIA 7%, CALOPHYLLUM 5%, CANARIUM 5%.
5.	* AROA-DILAVA (CENTRAL)	28.0	25.0	1.4	2.4	MERSAWA 11%, WHITE TULIP OAK 6%, WAU BEECH 5%, WHITE CHEESEWOOD 4%.
6.	* FLY (WESTERN)	1017.9	-	40.7	-	NO DETAILS AVAILABLE.
7.	* HUON PENINSULA (MOROBE)	57.0	28.0	5.4	5.0	<u>HARDWOOD FOREST (14000 ha)</u> PINK BIRCH 12%, PNG SASSAFRAS 10% BLACK PINE 7%, CELERY TOP PINE 7%, BEECH 7%, MASSOIA 6%, QUANDONG 5%.
						CONIFEROUS FOREST (14000 ha) HUON PINE 38%, PNG SASSAFRAS 9%, BLACK PINE 7%, CELERY TOP PINE 7%, BEECH 7%, QUANDONG 5%.

8.	* IOMA (NORTHERN) BLOCK 2	25.9	24.8	2.1	-	MERSAWA 17%, HOPEA 17%, EUCALYPTOPSIS 6%.
	X BLOCKS 3 & 4	114.4	54.5	3.6	-	MERSAWA 25%, HOPEA 10%, EUCALYPTOPSIS 7%, WATER GUM 5%, DILLENIA 3%.
TOTAL IOMA BLOCKS 2, 3 & 4		140.3	79.3	5.7		
9.	* IOMA (MOROBE) BLOCK 1	24.4	14.4	1.4	-	MERSAWA 55%, TAUN 9%, WATER GUM 5%, HOPEA 5%.
	* BLOCK 2	12.9	12.4	1.0		MERSAWA 17%, HOPEA 17%, EUCALYPTOPSIS 6%, FLANCHONELIA 5%.
TOTAL IOMA BLOCKS 1 & 2		37.3	26.8	2.4	-	
10.	Ø JIMI (WESTERN HIGHLANDS)	127.0	87.0	4.9	4.7	HOOP & KLINKI PINE 9%, GARO GARO 8%, PINK SATINWOOD 5%, CELTIS 6%, WAU BEECH 4%.
11.	* KANDRIAN - GASMATA (WEST NEW BRITAIN)	152.8	139.7	7.8	3.2	MALAS 24%, TAUN 15%, DILLENIA 5%, CALOPHYLLUM 4%, TERMINALIA 4%.
12.	* KIUNGA (WESTERN)	225.0	204.0	7.8	3.2	VATICA 18%, WATER GUM 5%, GARO GARO 4%, MALAHA 4%.
13.	+ * MANUS (MANUS)	45.0	38.0	4.7	3.3	CALOPHYLLUM 61%, WATER GUM 7%, LITSEA 6%, TAUN 6%, TERMINALIA 6%.
14.	* MUSA-COLLINGWOOD BAY (NORTHERN)	158.0	78.0	3.8	2.4	TAUN 9%, TETRAMELES 5%, PLAN- CHONELIA 5%, LABULA 5%.

15.	* PURARI (GULF)	1050.0	162.5	14.0	-	TAUN 9%, TERMINALIA 9%, BASSWOOD 5%, PINK SATINWOOD 5%.
16.	* RAMU (MADANG)	235.0	120.0	7.4	7.0	TAUN 11%, GARO GARO 6%, CELTIS 5%, KWILA 4%, TERMINALIA 4%.
17.	* STRICKLAND-BAMU (WESTERN)	1601.1	-	64.0	-	NO DETAILS AVAILABLE.
18. x +	ø TONOLEI (NORTH SOLOMONS)	60.0	47.0	2.6	2.3	TAUN 22%, TERMINALIA 21%, VITEX 6%, CALOPHYLLUM 4%, CAMPNOSPHERA 4%
19.	* TRANS ANGABUNGA (CENTRAL)	120.0	68.8	1.0	-	NO DETAILS AVAILABLE.
20. x ø	+ UMBOI (MOROBE)	95.0	55.0	4.3	4.0	TAUN 10%, MALAS 6%, ALBIZZIA 6%, TERMINALIA 5%, WHITE CHEESEWOOD 4%..
21.	ø # VANIMO (WEST SEPIK)	278.0	225.0	13.5	20.5	KWILA 24%, TAUN 13%, TERMINALIA 6%, MALAS 4%.
22.	* WARIMO EXTENSION (WEST SEPIK)	75.0	38.0	1.8	1.2	MERSAWA 8%, TAUN 6%, PENCIL CEDAR 5%, KWILA 4%, PINK SATINWOOD 4%.

NOTE:

- + SET ASIDE FOR NATIONAL LOGGING COMPANY
- ø TIMBER RIGHTS PURCHASE (TRP) COMPLETED
- * TRP NOT YET CARRIED OUT
- # UNDER NEGOTIATION
- x DEVELOPMENT PROPOSALS RECEIVED

It should be pointed that the Volumes quoted are Gross. Allowances must be made for defect, which varies between areas, environmental constraints, cultural reservations, land too steep for logging etc. In each case the allowances could result in a reduction of up to 30% of the saw veneer volume, and up to 50% of pulp volume, depending on the type of integrated industries projected. Details are available, by area, on application to the Office of Forests.

FOREST PRODUCTS OF PAPUA NEW GUINEA AND THEIR USES

The forests of Papua New Guinea contain a large variety of species of different characteristics, of which many are already acceptable for sawing or for veneer on international markets.

Despite the fact that the forests of Papua New Guinea carry a somewhat lower volume per hectare of commercial timber than do the forests in other South East Asian countries, the timber resources of Papua New Guinea are quite substantial and of considerable commercial potential. Markets can be supplied from Papua New Guinea forests with eminently satisfactory alternatives to all the well known South East Asian and African species with equal or better application.

Papua New Guinea has many timber species, as rosewood, walnut and calophyllum, that are suitable for furniture, veneer and cabinet work; many others are suitable for rotary peeling, for fancy face veneers and as well for core veneers. Speciality timbers of unique characteristics are available for the discriminating buyer for virtually all known end uses.

The Forest Products Research Centre can offer advice on all utilisation of the nation's forest products resource, from the timbers of the country to its minor forest products. A large store of information is available in published form. A short list of these publications appears on page 27. Information on timber strength properties, preservation requirements, seasoning and machining characteristics, and recommended end uses for individual timber species is readily available.

The application of recognised timber preservatives to Papua New Guinea species has also been studied in some detail. A cheap dip-diffusion method of preserving non-durable hardwoods for use away from the weather and out of contact with the ground has been developed in conjunction with the Australian Commonwealth Scientific and Industrial Research Organisation (CSIRO). Pressure treatment schedules for many Papua New Guinea timbers have also been developed for specific hazards.

It is difficult to recommend precisely on the use of species without the knowledge of particular end-user requirements. Thus buyers are invited when visiting Papua New Guinea to call on the Forest Products Research Centre at Hohola and discuss their particular needs with the Centre's expert staff, or to write to the Centre, C/- Post Office Box 1358, BOROKO, PNG.

The characteristics of the major commercial timber species in Papua New Guinea are listed in the following three pages.

SUMMARY OF CHARACTERISTICS OF MAJOR COMMERCIAL PAPUA NEW GUINEA SPECIES

TRADE NAME	SPECIES	DENSITY (KG/M ³) @12% M.C.	COLOUR	MAJOR END USES
Amberoi	<i>Pterocymbium beccarii</i>	350	white-cream	Veneer, Moulding, Interior Joinery.
Beech	<i>Nothofagus</i> spp.	820	red-brown	Joinery, Furniture, Flooring, Structural Sleepers.
Calophyllum	<i>Calophyllum</i> spp.	600	pink-brown	Veneer, Moulding, Interior Joinery, Furniture, Flooring.
Celtis	<i>Celtis</i> spp.	600-800	white	Sleepers, Structural, Interior Joinery.
Erima	<i>Octomeles sumatrana</i>	340	grey-brown	Veneer, Moulding, Interior Joinery.
Hopea	<i>Hopea</i> spp.	700-850	brown	Joinery, Flooring, Structural, Sleepers.
Kamarere	<i>Eucalyptus deglupta</i>	700	red-brown	Joinery, Furniture, Flooring, Structural Sleepers.
Kwila	<i>Intsia</i> spp.	750	dark-brown	Joinery, Furniture, Flooring.
Labula	<i>Anthocephalus chinensis</i>	420	cream	Veneer, Moulding, Interior Joinery.
Malas	<i>Homalium foetidum</i>	800	orange-brown	Joinery, Flooring, Structural Sleepers.

Marsava	Anisoptera thurifera	600	yellow-brown	Veneer, Moulding, Interior Joinery Furniture, Flooring, Structural.
Pencil Cedar	Palaquium spp.	550	pink-brown	Veneer, Joinery, Furniture, Moulding.
Spondias	Spondias dulcis	350	cream	Veneer, Moulding, Interior Joinery.
Taun	Pometia pinnata	680	pink-brown	Moulding, Joinery, Furniture, Flooring Veneer.
Terminalia, Brown	Terminalia brassii	450	pale-yellowish brown	Veneer, Moulding, Interior Joinery.
Terminalia (Pale-Brown Group)	Terminalia spp.	450-550	pale-brown	Veneer, Moulding, Interior Joinery.
Terminalia (Red-Brown Group)	Terminalia spp.	550-700	red-brown	Veneer, Moulding, Interior Joinery Furniture, Flooring.
Terminalia (Pale-Yellow Group)	Terminalia spp.	450-500	pale-yellow	Veneer, Moulding, Interior Joinery.
Terminalia (Yellow-Brown Group)	Terminalia spp.	720	brown	Veneer, Moulding, Furniture, Flooring Interior Joinery.
Water Gum	Syzygium spp.	720	brown	Joinery, Flooring, Structural, Sleepers.
White Cheesewood	Alstonia scholaris	350	white/cream	Veneer, Moulding, Interior, Joinery.

SPECIALTY TIMBERS

(FURNITURE, CABINET WORK, VENEER, DECORATIVE WALL PANELLING, BOAT BUILDING,
TURNERY)

TRADE NAME	SPECIES	DENSITY (KG/M ³) @ 12% m.c.	COLOUR
Aglaia	Aglaia spp.	700-800	red-brown
Amoora	Amoora cucullata	550	red-brown
* Klinki Pine	Araucaria hunsteinii	450	straw-brown
Oak	Castanopsis acuminatissima	600	pale-brown
Oak	Lithocarpus spp.	700	pink-brown
Rosewood	Pterocarpus indicus	600	golden brown/ red brown
Walnut	Dracontomelon dao	500	pale brown/ black stripes
Wau Beech	Elmerrillia papuana	480	golden-brown
Vitex	Vitex confassus	750	grey-brown

* Denotes: Conifer

Note: Dependent on the area, not all species are available in commercial volumes.

TIMBER INDUSTRY OF PAPUA NEW GUINEA

The Timber Industry has the potential of becoming one of the mainstays of the country's economy, in providing employment for an increasing work force, as a major foreign exchange earner and as a significant source of revenue for the Government.

There have been marked developments in the industry over the past 30 years. Exports of forest products have expanded from a value of A\$257,000 in 1951-52 to K44,775,100 in 1981. Royalty collected from timber operations has risen from K208,000 in 1958-59 to K3,253,578 in 1981.

At present, there are in operation about 72 sawmills, one plywood mill, three veneer mills and one woodchip mill. The wood processing industry is composed of 130 factories (Sawmills, joineries, furniture factories, etc.). It employs some 4,000 people and it pays about K5 million per year in wages, with an investment of some K30 million in land, buildings and plants.

The industry currently earns about K45 million in exports, which is approximately 8% of the total national export earnings. The major markets for these forest products are Japan, South Korea, Australia and Taiwan.

On the domestic front, the timber industry makes significant savings on imports of building materials. 58,000 cubic metres of sawn timber, 10,300 cubic metres of plywood, 1,300 cubic metres of pre fabricated housing, 838 cubic metres of furniture and 536 cubic metres of treated poles were used locally in 1980, with a total value of approximately K15.3 million.

SUMMARY - FOREST PRODUCTS EXPORTS 1981

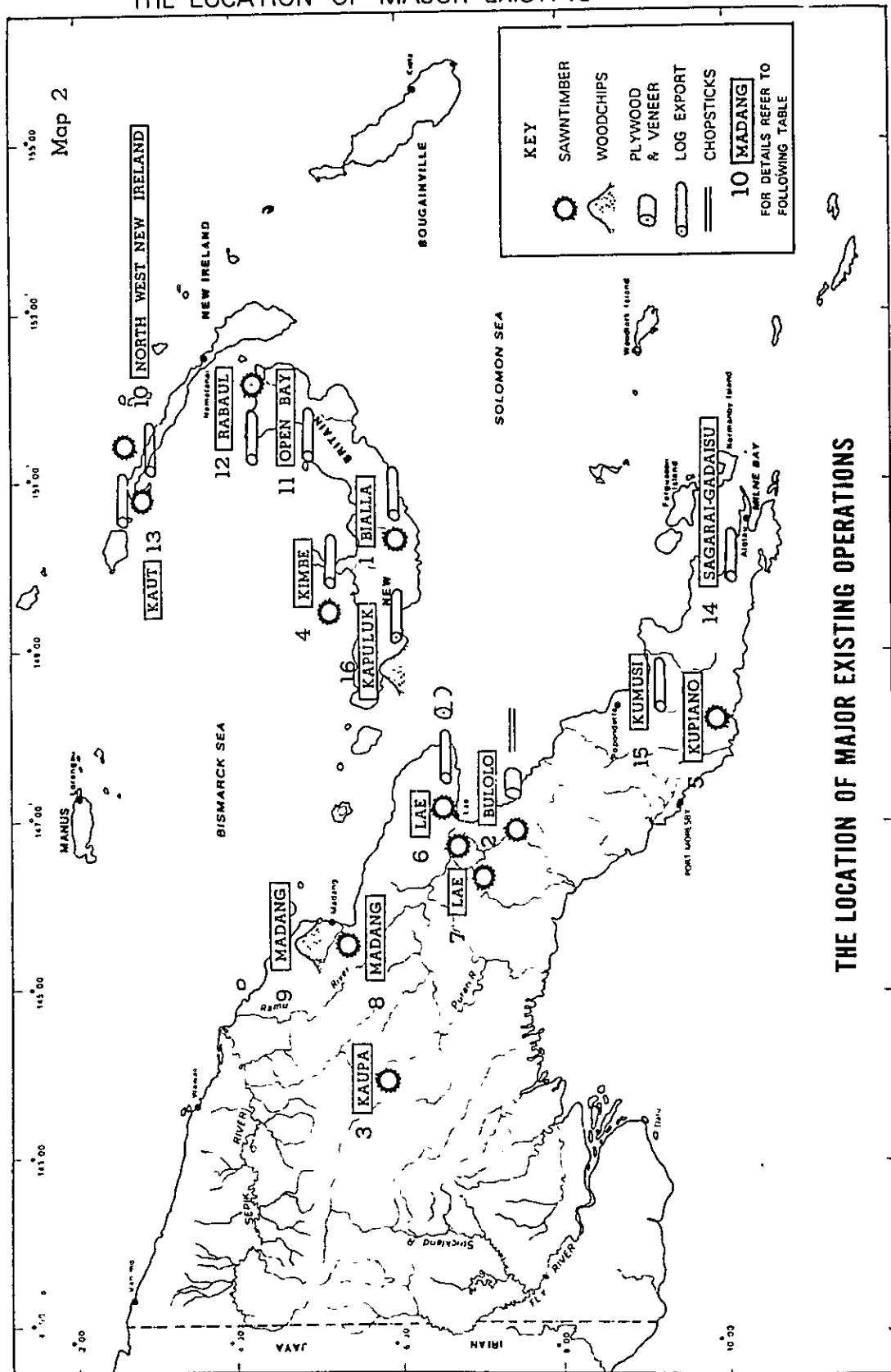
COMMODITY	QUANTITY ('000M3)		VALUE (K'000)		PERCENTAGE OF TOTAL VALUE	
	1981	(1980)	1981	(1980)	1981	(1980)
Logs	742.8	(641.9)	31263.3	(31192.9)	69.8	(63.9)
Woodchips	102.7*	(121.1)*	5460.6	(7092.2)	12.2	(14.5)
Sawn Timber	23.8	(45.2)	3609.4	(6182.3)	8.1	(12.7)
Plywood	7.8	(6.5)	3068.9	(2982.0)	6.9	(6.1)
Chopsticks	4.8	(5.4)	1270.2	(1135.4)	2.8	(2.3)
Veneer	0.4	(1.5)	68.8	(212.0)	0.1	(0.4)
Sandalwood	41.7+	(-)+	33.9	(23.3)	0.1	(0.05)
Other		(0.03)		(24.3)		(0.05)
TOTAL	779.6	(700.53)	44775.1	(48844.4)	100.0	(100.0)
	102.7*	(121.1)*				
	41.7+	(-)+				

* '000 Dry Tonnes, Not Cubic Metres. Note: 1 Kina = US\$1.46 or Aus \$1.30

+ '000 Tonnes, Not Cubic Metres

Total Subject To Rounding Errors.

THE LOCATION OF MAJOR EXISTING OPERATIONS



MAJOR EXISTING TIMBER OPERATIONS

MAP KEY NO. SEE PAGE 13.	COMPANY	ANNUAL LOG EXPORTS (INPUT VOLUME TO PROCESSING IN BRACKETS) IN CUBIC METRES	PRODUCTS	MAIN SPECIES UTILISED
1.	Shin Asahigawa	22,000 (6,000)	Log export, sawn timber	Taun, Kamarere Calophyllum, Malas.
2.	Papua New Guinea Forest Products	(59,000) (52,000) (17,000)	Sawn timber Plywood, veneer, chopsticks	Klinki Pine, Hoop pine, Taun, Red Cedar.
3.	Beechwood	(9,000)	Sawn timber	Beech, Papuacedrus, Sassafras, Podo- carpus.
4.	Stettin Bay Lumber Co.	214,000 (38,000)	Log export, sawn timber	Taun, Kamarere, Malas, Erima.
5.	ANG Timbers	(53,000)	Sawn timber	Taun, Hopea, Malaha, Mersawa, Pink Satinwood.
6.	Papua New Guinea Forest Products	(54,000) (15,000)	Sawn timber, veneer	Taun, Calophyllum, Mersawa, Hopea.
7.	Pacific Lumber Products	(2,500)	Sawn timber, mouldings, furniture	Taun, Calophyllum, Mersawa, Rosewood Kwila.
8.	Wewak Timbers	(33,000)	Sawn timber	Kwila, Taun.
9.	Jant	(270,000)	Woodchips	All species
10.	New Ireland Industries	28,000 (4,000)	Log export, sawn timber	Pencil Cedar, Taun, Calophyllum
11.	Open Bay Timber	64,000	Log export,	Taun, Kamarere, Calophyllum, Malas.
12.	Timbersales	35,000 (13,000)	Log export, sawn timber	Taun, Calophyllum, Pencil Cedar, Erima
13.	Channel Timbers	26,000 (5,000)	Log export, sawn timber	Calophyllum, Terminalia, Malas Taun, Kwila.
14.	Ulabo Timber Co.	120,000	Log export	Mersawa, Taun, Hopea, Terminalia Rosewood.
15.	Kumusi Timber Co.	120,000	Log export	Taun, Burckella, Celtis, Pencil Cedar, Massoia.
16.	Nam Yang Timbers	150,000	Log export, # Woodchips	Malas, Calophyllum, Taun, Spondias.

Note: # Chipmill expected to be established in 1983/84
For addresses of the above Companies see page 24.

FOREST LEGISLATION

Current laws of Papua New Guinea relating to forestry are contained in the Forestry Act, and the Forestry (Private Dealings) Act. These Acts place the responsibility of conservation and management of forests under the Minister for Forests, through the Office of Forests, in the Department of Primary Industry. These Acts, together with their subsidiary regulations, form the legal basis for the implementation of forest policy.

The field staff of the Operations Division of the Office of Forests transferred to the Provincial Government administration on 1 January 1978. Nonetheless the allocation of forest development areas and the issuing of timber permits will remain, with due consultation with relevant Provinces, with the National Government.

The Forests of Papua New Guinea are owned by the people. Forestry legislation provides for the exploitation of these forests in three ways: Timber Rights Purchase, Native Timber Authority, and Agreement under the Forestry (Private Dealings) Act.

Timber Rights Purchase - This is the method for large-scale exploitation. Under the Forestry Act, the Government acquires timber rights (the rights of felling, cutting, removing or disposing of the timber), if the customary owners are willing to dispose of the timbers growing on their land. Following a timber rights purchase a permit to remove timber can then be issued to a concessionaire on agreed terms and conditions including a payment of royalties, a portion (25 per cent) of which is given to the owners. The remainder of royalties collected goes to the Provincial Government concerned (exclusive of costs of collection to the National Government).

Native Timber Authority - Under the Forestry Regulation, forest inspectors are empowered to issue these authorities on payment of a fee of 50 toea to any person to purchase direct from customary owners. They relate to small volumes only.

Agreement under the Forestry (Private Dealings) Act - Under this Act, owners of timber by natural custom can dispose of their timber to any person provided the Minister for Forests is satisfied that, the interests of the owners are protected; there is no conflict with the national interest; and prospects for economic development are considered acceptable. Few Agreements have been approved up to date under the Act.

EXPORT LEGISLATION AND EXPORT PRICE CONTROL

Under the Government's - Export (Control and Valuation) Act, no Company can sell goods at an export price lower than the "proper export value" which is defined in the Act as "the amount that represents a return for the goods that is, in all circumstances, satisfactory in the national interest," of Papua New Guinea.

Besides the overall provision which covers the export of all forest products, export prices are prescribed for products by regulation. Unprocessed logs and woodchips are currently included as "prescribed goods". The current minimum guidelines prices for logs are listed below:-

SPECIES GROUPS FOR MINIMUM PRICES PER CUBIC METREBRERETON SCALED VOLUMES

(except sandalwood)

All conifers/Ebony/Cordia are banned from export as logs.

GROUP		PRICE/m ³	DIAMETRE	
		60cm&up	50-59cm	-50cm
One	Walnut Premium	K100	K50	K50
	Walnut Non - Premium	K 50	K50	
	Black Bean	K100	K50	
	Rosewood	K150	K50	
	Pencil Cedar	K 70	K55	
	Planchonella Red/White	K 70	K55	
Two	Taun, Amoora/Aqlaia, Kwila, Calophyllum	K 54	Less 15%	K25
	Wau Beech, Red Cedar, Mangrove Cedar, Silkwood, Balsa, Labula, Basswood, Mersawa (Anisoptera), Kamarere, Red Canarium.		K45.90	
Three	Nothofagus, Camptosperma, Dysox, Mango, Burckella, Vitex, Chrysophyllum, Malaha (Eucalyptopsis), Erima, Terminalia spp.	K 41	Less 15%	K25
			K34.85	
Four	Hopea, Yellow Hardwood, Milky Pine (White Cheesewood), Albizia, Quandong, Malas, Celtis, Celtis Light, Water Gum, Kandis, Cryptocarya, Spondias, Pink Satinwood (Buchanania), Dillenia, Canarium Grey, Amberoi, Antiaris. (All other spp. except Conifers/Ebony/Cordia).	K 35	Less 15%	K25
			K29.65	
Five	Chip pulp logs. All logs either/or	On Application		
	(1). Too small for other processing;			
	(2). Too high a defect/malformed etc.;			
	(3). Other species unacceptable for processing.			
Six	Sandalwood	K800 per metric tonne		

Operating date: 7/1/82

Issued by: Department of Foreign Affairs & Trade
on advise of the Office of Forests and the
Forest Industries Council of PNG
P O Box 3498
PORT MORESBY

PHONE: 21 4553

TELEX: NE 22226

THE NATIONAL INVESTMENT PRIORITIES SCHEDULE (NIPS) AND FOREIGN INVESTMENT GUIDELINES.

The National Investment Priorities Schedule (NIPS) is the official publication of the Government of Papua New Guinea which is prepared to inform potential investors and persons and bodies responsible for planning, promoting or encouraging investment of the priorities attached by the Government to investment in particular areas and fields.

The NIPS is published in accordance with the provisions of the National Investment and Development Act, and is revised each year. It lists activities in which the Government wishes to attract more investment, particularly foreign investment, and it sets out guidelines for new foreign investment. Certain activities are reserved for local enterprises. These are defined as Reserved Activities. Foreign investment is welcomed in all other activities, including forestry and integrated forest industries.

Forestry and Integrated forest industries.

The National Forest Policy acknowledges that direct foreign investment in the forestry sector will be required for many years to come if a reasonable rate of development is to be achieved. Nonetheless, foreign investment will be promoted selectively so that it complements investment undertaken by Papua New Guinea enterprises.

Priority areas for foreign investment will be the more capital intensive, higher technology projects, and projects dependent on an overseas marketing and/or managerial network.

Integrated timber projects should be designed to utilise the forest resources of the purchase areas so as to most benefit the people of the area, the Province and the nation; and provide fair returns to skills and capital provided. An acceptable project will include one or more of the following:-

1. Development of follow-up land use schemes such as agriculture or reforestation;
2. Providing infrastructure for the development of the region;
3. Production of sawn timber;
4. Veneer production;
5. Woodchipping in association with reforestation;
6. Other further processing of timber, for example:-
 - . kiln drying of sawn timber;

- . reconstituted wood products;
- . plywood;
- . furniture and furniture components for export;
- . wooden manufactures.

Guidelines for new foreign investment.

General guidelines are outlined in NIPS. Sectoral guidelines for new foreign investment in the forestry sector are detailed in the Revised National Forest Policy. The major guidelines contained in the Policy are:-

- (a) more efficient utilisation of existing and firmly proposed processing capacity.
- (b) the relaxation of conditions related to processing industries (most notably, improved access to log exports), a greater uniformity of operating conditions, and the more rigid and consistent enforcement of operating conditions once this degree of uniformity has been achieved.
- (c) the continued promotion of new investment by foreign firms with sound experience in timber processing and in the marketing of processed forest products.

In the evaluation of new foreign investment proposals, increased regard will be paid to the management experience and competence, the marketing organisation, and the financial capacity of the enterprise concerned.

- (d) the formation of a number of Papua New Guinea majority owned export logging enterprises, in accordance with guidelines on their financing, structure, management and operation. The commencement of these enterprises shall be in accordance with strict national forest development priorities.

Furthermore, it is intended that forestry operating agreements for loggers/processors will contain standard clauses relating to:-

- i) fostering the development of Papua New Guinean businesses associated with the timber project and directly connected with the main forestry operations;
- ii) the State's right to purchase, on a right of first refusal basis, up to 25% of the project company's annual permitted volume of log exports;
- iii) a 50% rebate of the export tax on logs subject to satisfactory performance in accordance with a defined (and negotiated) processing schedule.

These guidelines are intended to reduce the matters subject to negotiation between the proposed investor and the Government and so reduce the time involved in negotiations.

In addition to NIPS, any intending investor in forestry or wood based interprices in Papua New Guinea should consult the booklet "Guidelines For Forest Development Proposals", which is available from the Office of Forests, or from NIDA whose address is:-

Executive Director
NIDA
P O Box 5053
BOROKO
Papua New Guinea

Telex: NE 22123 NIDA
Phone: 25 8777

THE FOREST INDUSTRIES COUNCIL OF PAPUA NEW GUINEA

The Forest Industries Council (FIC) of Papua New Guinea, a statutory body funded entirely by the Papua New Guinea timber industry, was established in October 1973 to strengthen the promotion of Papua New Guinea timbers by co-ordinating Government and industry efforts in policy making, technical evaluation and marketing.

The Council consists of seven (7) members drawn from the industry and three (3) from Government. The Director of Forests is a member of the Council.

The FIC is involved in a very wide range of activities relating to the timber industry including training, shipping, technical and information services and market research.

Three major areas of the Council's work are:-

1. Liaison between the Timber Industries and the Papua New Guinea Government, to discuss policy and other matters relevant to the development of the industry in Papua New Guinea.
2. Promotion of Papua New Guinea timbers for export overseas and for domestic use.
3. Improvement in quality standards, encouraging grading to international standards and the institution and observation of reliable production and marketing methods.

Grading to Malaysia Grading Rules and inspection services are provided by the Council free of charge to producers and buyers, and the Council employs a full time timber grader.

The FIC provides a focal point for discussions between producers and potential and actual buyers and is consulted for information on all aspects of the PNG timber industry and its future potential.

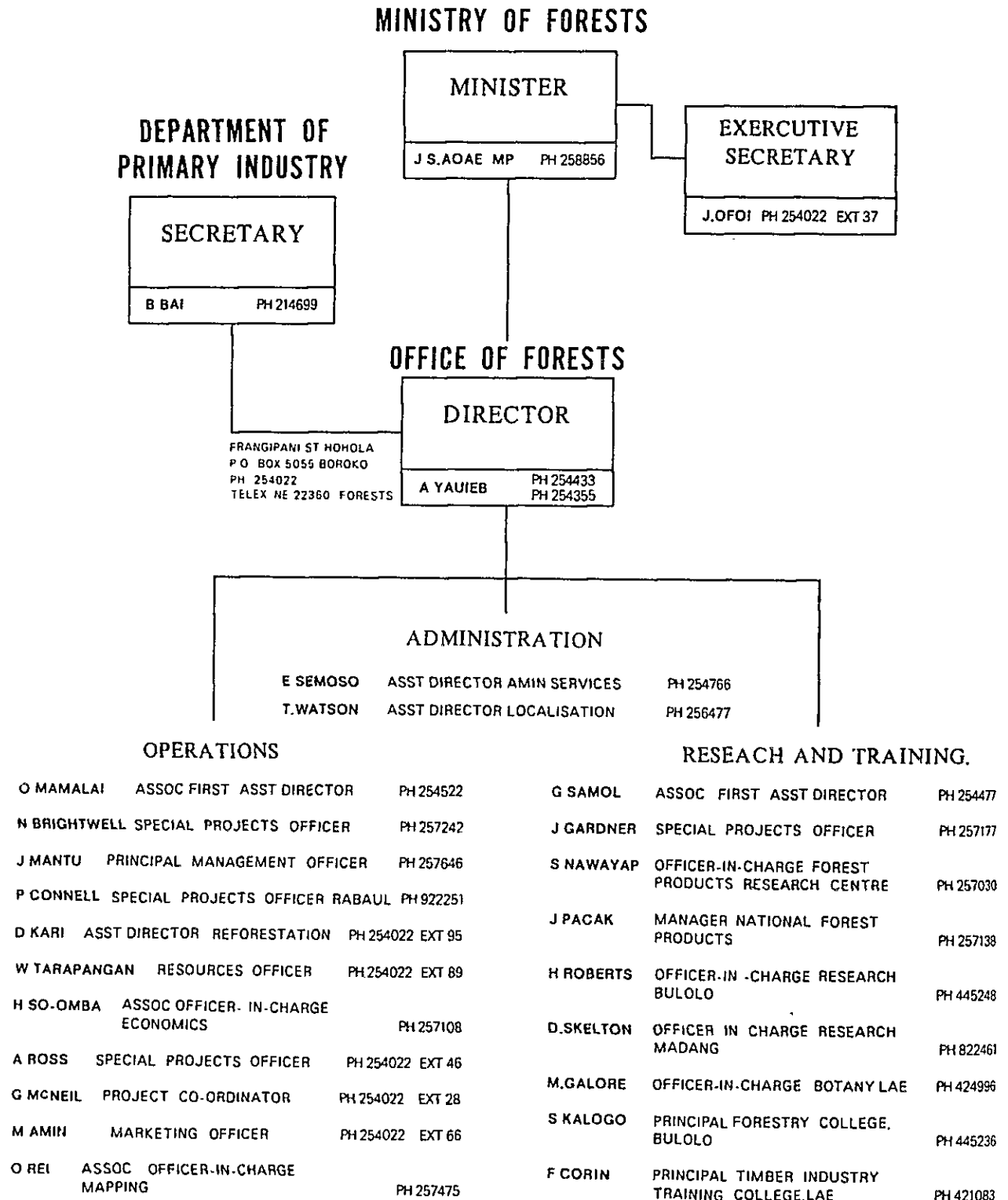
The FIC is a full member of SEALPA (South East Asia Lumber Producers Association) and acts as the PNG SEALPA Secretariat.

The Council's address is: The Executive Director
Forest Industries Council of Papua New Guinea
P O Box 1829
PORT MORESBY

Telephone: 214553/214627

Telex : NE 22226

MINISTRY OF FORESTS DIRECTORY



ADDRESSES OF PROVINCIAL FOREST OFFICES

<u>PROVINCE</u>	<u>FOREST OFFICER</u>	<u>ADDRESS</u>	<u>TELEPHONE</u>	<u>TELEX</u>
WESTERN	G. HARO	C/- POST OFFICE, DARU	65 9033	NE 65403
GULF	K. SEMESE	P O BOX 35, KERENA	68 1169 OR 68 1020	NE 28183
CENTRAL	N. HENAO	C/- FREE MAIL BAG, KONEDOBUBU	21 2511 OR 21 2565	NE 240
MILNE BAY	G. MAIYONA	C/- FREE MAIL BAG, ALOTAU	61 1000	NE 270
NORTHERN (ORO)	L. WAIRAF	P O BOX 69, POPONDETTA	29 7019	NE 29191
MOROBE	A. OIBI	P O BOX 638, LAE	43 1637 OR 43 1643	NE 42454
SOUTHERN HIGHLANDS	M. BASENKE	C/- FREE MAIL BAG, MENDI	59 1014	NE 52021
WESTERN HIGHLANDS	J. FAFAEK	P O BOX 267, MT. HAGEN	52 1333 OR 52 1899	NE 52007
ENGA	I. LARIVITA	P O BOX 216, WABAG	57 1172 OR 57 1181	NE 52016
SIMBU	P. POCHIMEL	C/- FREE MAIL BAG, KUNDIAWA	75 1155	NE 75605
EASTERN HIGHLANDS	A. APAJA	P O BOX 765, GOROKA	72 1737	NE 72550
MADANG	J. NOAH	P O BOX 2116, YOMBA	82 2266	NE 82572
EAST SEPIK	R. JIMLAKE	P O BOX 43, WEWAK	86 2200	NE 86111
WEST SEPIK	W. AO	P O BOX 166, VANIMO	87 1004 OR 87 1060	NE 87112
EAST NEW BRITAIN	C. KONDANG	P O BOX 406, RABAUL	92 2188 OR 92 1842	NE 92933
WEST NEW BRITAIN	D. LOGO	P O BOX 447, KIMBE	93 5231 OR 93 5232	NE 93106
NEW IRELAND	P. APINI	P O BOX 172, KAVIENG	94 2111	NE 94900
MANUS	K. HAMOU	P O BOX 94, LORENGAU	40 9088	NE 40802
NORTH SOLOMONS	B. ZANECKY	P O BOX 191, KIETTA	95 6169	NE 95829

USEFUL ADDRESSESPAPUA NEW GUINEA GOVERNMENT DEPARTMENTS

National Investment & Development Authority
 P O Box 5053
BOROKO
 Papua New Guinea

Tel: 25 8777
 Department of Primary Industry
 P O Box 2417
KONEDOBU
 Papua New Guinea

Tel: 21 4699

Office of Forests
 P O Box 5055
BOROKO
 Papua New Guinea

Tel: 25 4022

Forest Products Research Centre
 P O Box 1358
BOROKO
 Papua New Guinea

Tel: 25 6555

Department of Labour & Industry
 P O Box 5644
BOROKO
 Papua New Guinea

Tel: 27 1222

Department of Minerals & Energy
 P O Box 2352
KONEDOBU
 Papua New Guinea

Tel: 21 4011

Executive Officer
 Forest Industries Council of Papua New Guinea
 P O Box 3499
PORT MORESBY
 Papua New Guinea

Tel: 21 4553

Department of Works & Supply
 P O Box 1108
BOROKO
 Papua New Guinea

Tel: 25 6666
 National Housing Commission
 P O Box 1550
BOROKO
 Papua New Guinea

Tel: 25 3255

Department of Foreign Affairs
 & Trade
 Post Office Wards Strip
WAIGANI
 Papua New Guinea

Tel: 27 6111

National Planning Office
 Department of Prime Minister
 Post Office Wards Strip
WAIGANI
 Papua New Guinea

Tel: 27 6111

Department of Commerce
 Post Office Wards Strip
WAIGANI
 Papua New Guinea

Tel: 27 6111

Department of Finance
 Post Office Wards Strip
WAIGANI
 Papua New Guinea

Tel: 27 6111

USEFUL ADDRESSESPRIVATE SECTOR

A.N.G. Timbers Pty Ltd
P O Box 1984
PORT MORESBY
Papua New Guinea

Tel: 25 3966
Associated Chambers of Commerce
P O Box 3764
PORT MORESBY
Papua New Guinea

Tel: 21 4578
Beechwood Pty Ltd
P O Box 124
MT. HAGEN
Western Highlands

Tel: 52 1949
Channel Timbers Pty Ltd
P O Box 167
KAVIENG
New Ireland Province

Tel: 94 205
Employer's Federation of Papua New Guinea
P O Box 490
PORT MORESBY
Papua New Guinea

Tel: 21 4772
Forest Industries Association of
Papua New Guinea
P O Box 3498
PORT MORESBY
Tel: 21 4553

JANT Pty Ltd
P O Box 714
MADANG
Tel: 82 2700

Kumusi Timber Pty Ltd
Provincial Government Office
P O Box 132
POPONDETTA
Tel:

Nam Yang Timber (PNG) Pty Ltd
P O Box 772
PORT MORESBY
Tel: 21 1025/21 1064

New Ireland Industries
P O Box 168
KAVIENG
New Ireland Province

Tel: 94 2236

Open Bay Timber Co.
P O Box 1020
RABAU
East New Britain

Tel: 92 1622
Pacific Lumber Products Pty Ltd
P O Box 992
LAE
Morobe Province

Tel: 42 2068
Papua New Guinea Forest Products
P O Box 88
BULOLO
Morobe Province

Tel: 44 5201
Papua New Guinea Forest Products
P O Box 89
LAE
Morobe Province

Tel: 42 4944
Shin Asahigawa (N.G.) Pty Ltd
P O Box 1127
RABAU
East New Britain

Tel: 92 2449
Stettin Bay Lumber Co. Ltd
P O Box 162
KIMBE
West New Britain
Tel: 93 5266

Timbersales Pty Ltd
P O Box 338
RABAU
East New Britain
Tel: 92 7275

Ulabo Timber Co.
Post Office
ALOTAU
Tel:

Wewak Timbers Pty Ltd
P O Box 291
MADANG
Papua New Guinea
Tel: 82 2844

PAPUA NEW GUINEA OVERSEAS MISSIONSAUSTRALIACanberra:

Papua New Guinea High Commission
 Foster Crescent
 YARRALUMLA
 P O Box 572 Manuka ACT 2600
 Tel. 733322 (3062)

Brisbane:

Papua New Guinea Consulate
 Estates House
 127 Creek Street
 P O Box 220
 BRISBANE QLD 400
 Tel: 2217915 (307)

JAPANTokyo:

Papua New Guinea Embassy
 Mita Kokusai Building 3F 313
 4-2B Mita 1-Chome
 Minato-Ku
 TOKYO
 Tel: 4547801/02/03/04

PHILIPPINESManila:

Papua New Guinea Embassy
 Pacific Bank Building
 Ground Floor Ayala Avenue
 Makati, Metro Manila
 Tel. 880386/857630

UNITED KINGDOMLondon:

Papua New Guinea High Commission
 14 Waterloo Place
 LONDON SW1R 4AR
 LONDON
 Tel. 01 930 0922

JAKARTAIndonesia:

Papua New Guinea Embassy
 Pt S Widjojo
 Jl Jend Sudirman, Kav 57
 Indonesia
 JAKARTA.
 Tel. 583568/583569

Sydney:

Papua New Guinea Consulate
 P O Box 4201
 SYDNEY NSW 2001
 Tel. 295141 (302)

NEW ZEALANDWellington:

Papua New Guinea High Commission
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 Courtenay Place
 WELLINGTON 4

BELGIUMBrussels:

Papua New Guinea Embassy
 Avenue Des Ombrages 11 Bis
 1200 BRUSSELS
 Belgium
 Tel. 7710150/7710159

SOLOMON ISLANDSHoniara:

Papua New Guinea High Commission
 Church of Melanesia Building
 Mendana Avenue
 P O Box 626
 HONIARA
 Tel. 591

FIJISuva:

Papua New Guinea High Commission
 6th Floor
 Ratu Sukana House
 P.O Box 2447
 SUVA
 Tel. 24939, 25420

Singapore:

Singapore Office
 45 Goodman Road
 Singapore 1543
 Tel. 4472235/4472236/4472237

UNITED STATES OF AMERICAWashington:

Papua New Guinea Embassy
 1140 19th Street N.W.
 Suit 503
 Washington D.C. 2006
 Tel. (202) 6590856

New York:

Papua New Guinea Mission to the
 United Nations
 100 East 42nd Street 10th Floor
 NEW YORK USA 10017
 Tel. 683 6447 (212)

EMBASSIES AND HIGH COMMISSIONS IN PAPUA NEW GUINEA

	<u>P.O. BOX</u>	<u>TELEPHONE</u>
Embassy of the United States of America	3492 Port Moresby	21 1455
Australian High Commission	9129 Hohola	25 9333
British High Commission	739 Port Moresby	21 2500
Embassy of the Republic of Indonesia	7165 Boroko	25 3116
Embassy of Japan	3040 Port Moresby	21 1800
New Zealand High Commission	1144 Boroko	25 9444
Embassy of the Philippines	5916 Boroko	25 6577
Embassy of the People's Republic of China	1351 Boroko	25 9836
Embassy of France	3155 Port Moresby	25 3740
Embassy of the Federal Republic of Germany	73 Port Moresby	25 5955
Embassy of the Republic of Korea	381 Port Moresby	21 1509

FURTHER REFERENCES:

Further information on forestry in Papua New Guinea may be found in the following Publications which are available through the Office of Forests, P O Box 5055, BOROKO. Papua New Guinea.

1. GOVERNMENT POLICIES

- (a) White Paper Revised National Forest Policy 1979
- (b) Forestry Ordinance 1936-71 Forestry Regulation
- (c) Guidelines for Forest Development Proposals, November 1980
Office of Forests/NIDA, and
- (d) Australian Forests Policy in the Territory of Papua New Guinea.

2. FOREST PRODUCTS

- (a) Commercial Timbers of PNG, P.J. Eddowes/FPRC, 1978
- (b) Wood Utilisation Part 2 and 7
- (c) A short guide to substitute selling of PNG Timbers G. Gresham,
Forest Industries Council, 1977
- (d) Manual of Rural Wood Preservation.
- (e) Light Timber Framing for Papua New Guinea
- (f) Pole Buildings in Papua New Guinea.

3. SILVICULTURAL RESEARCH

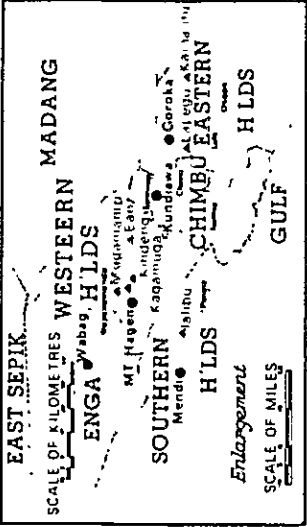
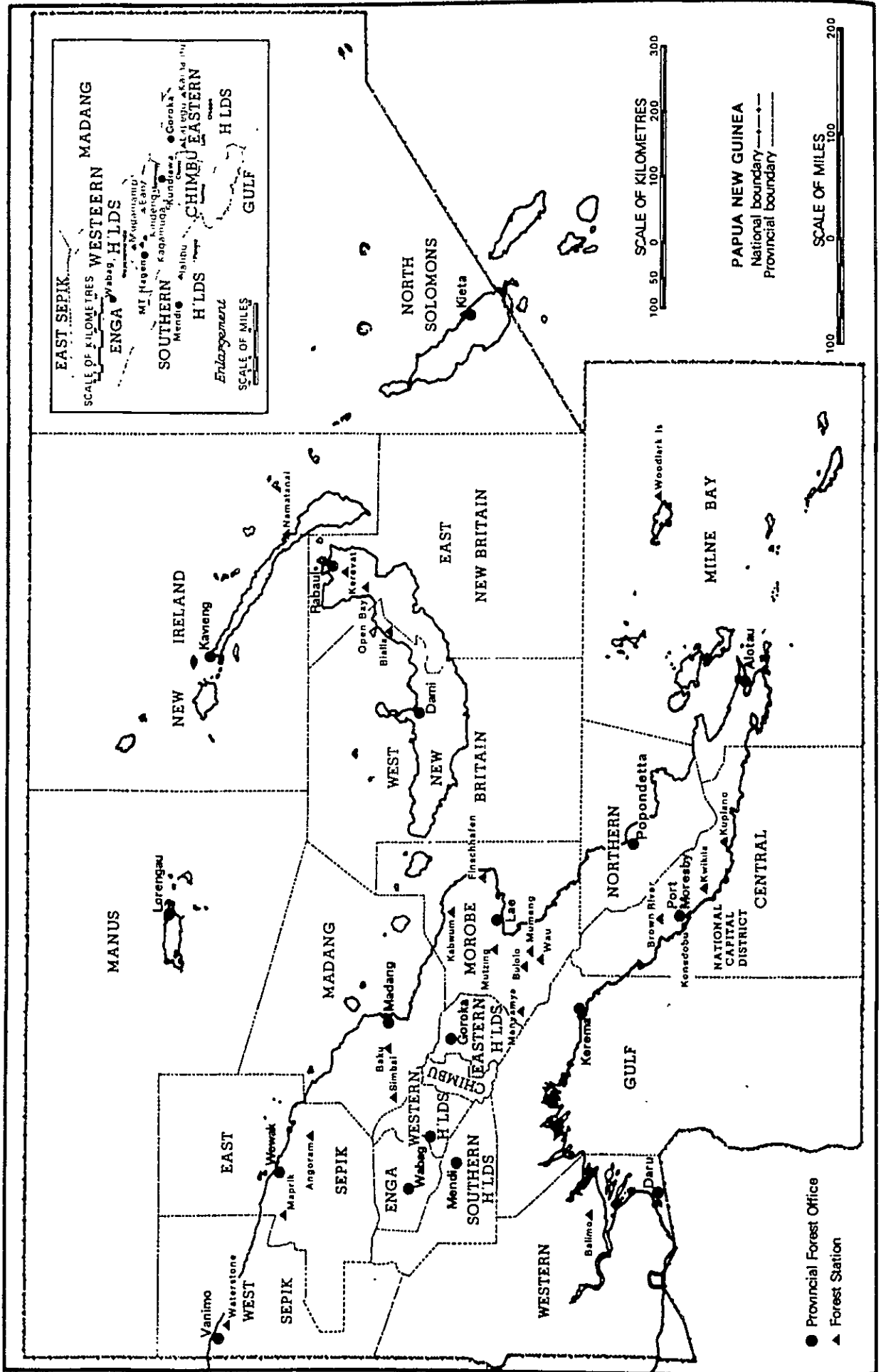
- (a) First PNG Silviculture Research Conference
- (b) Silviculture of Pinus in Papua New Guinea

4. STATISTICS

- (a) Compendium of Statistics (published yearly) Office of Forests
- (b) Facts and Figures (published yearly) Office of Forests
- (c) Timber Digest Report (published yearly) Office of Forests
- (d) Annual Report 1973-74 (published yearly) Office of Forests

ABBREVIATIONS USED

b.d.t./B.D.T.	Bone dry tonne (2204 lbs @ 0% m.c. wood chips = 1 metric tonne)
CM/cm	Centimetre
C.S.I.R.O.	Commonwealth Scientific and Industrial Research Organisation, Australia
D.P.I.	Department of Primary Industry of PNG (i.e. Agriculture, Fisheries)
E.E.C.	European Economic Community (i.e. the European Common Market)
F.A.O.	Food and Agriculture Organisation (of the U.N.)
F.I.C.	The Forest Industries Council of PNG
f.o.b./F.O.B.	Free on board
F.P.R.C.	Forest Products Research Centre (Office of Forest, PNG)
Ha/HA/ha	Hectare - an area approximately 2.4 acres
Kg/KG	Kilogram (i.e. 1000 grammes approximately 2.2 lbs)
K/Kina	Currency of PNG 1K = AUS\$1.30 = US\$1.46
M ³ /m ³	Cubic metre - Volume measure of logs and sawn timber
M.C./m.c.	Moisture content (the percentage weight of water in wood)
mm	Millimetre
N.I.D.A.	National Investment and Development Authority
N.I.P.S.	National Investment Priority Schedule
N.S.W.	New South Wales (Australia)
p.a.	Per annum
P.N.G	The Independent State of Papua New Guinea
S.E. Asian	South East Asian
S.E.A.L.P.A.	South East Asia Lumber Producer's Association
spp	Species (i.e. identifiably individual members of plant or animal families)
TRP	Timber Rights Purchase



SCALE OF KILOMETRES
100 50 0 100 200 300

SCALE OF MILES
0 100 200

PAPUA NEW GUINEA
National boundary
Provincial boundary

● Provincial Forest Office
▲ Forest Station

GUIDELINES FOR ENTERPRISES

IN THE

PAPUA NEW GUINEA

TIMBER INDUSTRY

OFFICE OF FORESTS
DEPARTMENT OF PRIMARY INDUSTRY
P O BOX 5055, BOROKO
PAPUA NEW GUINEA

PHONE: 254022

TELEX: NE 22360

GUIDELINES FOR ENTERPRISES

IN THE

PAPUA NEW GUINEA

TIMBER INDUSTRY

SECTION 3: GUIDELINES FOR ENTERPRISES INVOLVED IN TIMBER
PROCESSING - PAGE 1

SECTION 4: GUIDELINES FOR FOREIGN ENTERPRISES INVOLVED IN
LOG EXPORTING THOUGH NOT PROCESSING IN PAPUA
NEW GUINEA (LARGE SCALE OPERATIONS) - PAGE 9

SECTION 5 GUIDELINES APPROPRIATE TO FOREIGN ENTERPRISES
INVOLVED IN LIMITED LOG EXPORT - ROAD
CONSTRUCTION CONTRACTS - PAGE 12

ABRIDGED FROM SECTIONS 3, 4 AND 5 OF THE PAPUA NEW GUINEA
GOVERNMENT WHITE PAPER "REVISED NATIONAL FOREST POLICY",
MINISTRY OF FORESTS, HOHOLA, 1979.

SECTION 3- GUIDELINES FOR ENTERPRISES INVOLVED IN TIMBER PROCESSING

3.1 INTRODUCTION:

PURPOSE:

- (a) To encourage effective utilisation of EXISTING timber processing capacity in PNG.
- (b) To encourage experienced enterprises begin new viable timber processing operations in PNG.

These guidelines are for the LARGER (40 000 m³ plus per annum log harvest) PROCESSING OPERATIONS

3.2 THE TYPE OF ENTERPRISE PROMOTED

To seek investment in timber processing by firms - that demonstrate:

- (1) Record of efficient and profitable activities in timber processing activities, had experience in -
- (2) Forest products marketing, and have -
- (3) Financial capacity to undertaking proposed venture

Applicant for forest concession to supply details of:-

- (1) Past experience and current commitments
- (2) Affiliated companies
- (3) Financial worth
- (4) Principal officers and directors
- (5) Major stockholders

In accordance with "Guidelines for the Preparation of Forest Development Proposals".

3.3 FOREST AREA SUITABLE FOR A NEW TIMBER PROCESSING ENTERPRISE

Suitability of area based on:-

- (1) Area not allocated, or prior rights not granted to another enterprise

- (2) TRP completed, or likelihood of acquisition
- (3) Resource is suitable for proposed processing venture
- (4) Feasibility study shows that venture will be commercially viable
- (5) If log exports included, certain species are not suitable for local processing, and domestic market needs are met.
- (6) In other respects proposal consistent with Govt. policies and priorities.

3.4 MEASURES TO ENCOURAGE TIMBER PROCESSING

- (i) To consolidate and encourage existing sawn timber processing capacity
- (ii) To encourage new investment in timber processing conforming to 3.2 and 3.3 above.

(1) RELAXATION OF LOG EXPORT RESTRICTIONS if processing enterprises have--

- (a) Poor access to domestic markets
- (b) Concession(s) has (have) an inferior resource composition (see 3.5)

(2) A TAXATION INCENTIVE - 50 percent of profits from growth in value of exports of processed products over the average of the previous three years are a deduction against taxable income.

(3) ROYALTY - Any company can have its royalty rate revised if it regards its royalty rate excessive

(4) LOG EXPORT TAX - Increased to 10 percent of F.O.B.
But no increase for processors that utilize the extent of processing required

Processing no less than 30 percent of total log harvest.

. But higher than 30% if composition is high of species that can be readily sold overseas in sawn timber form (eg. TAUN KWILA, PENCIL CEDAR, CALOPHYLLUM).

(5) TRAINING GRANTS SCHEME - Government will assist Forest Industries Council in the Scheme.

(6) REFORESTATION - Enterprises that meet processing requirements will not be required generally to undertake reforestation (see also 3.10)

(7) UNIFORMITY IN PERMITS AND AGREEMENTS -

Policies toward taking action to recover damages or cancellation of permit/licence in default of processing obligations will be modified.

If agreed upon processing commitments are not followed (and at Govt's discretion).

- (a) The enterprise in default will not be eligible for the 50% log export duty rebate.
- (b) The enterprise will be required to reduce its log exports to keep to the processing-log export ratio.
- (c) A permit/licence shall be cancelled, and damages recovered in the event of a lengthy cessation of operations.

The above will not be imposed on permit/agreements not subject to review. Any timber enterprise may request changes to existing permits/agreements in light of above; if so, Govt. may seek to negotiate permit/agreements changes, to be made by mutual consent.

Enterprises may wish to keep present permits/agreement conditions intact.

Permits/agreements either existing or to be altered will be regarded as containing reasonable conditions, and henceforth all conditions will be enforced fully.

4.5 GUIDELINES FOR COMBINED LOG EXPORT--PROCESSING OPERATIONS UNDERTAKEN BY FOREIGN ENTERPRISES

Foreign enterprises may undertake projects involving log exports provided that

- (1) The project INCLUDES WOOD PROCESSING FACILITIES in accordance with extent of processing required (Processing no less than 30% of total Log Harvest - see (4) (A) to (D) below) .
or
- (2) The project INCLUDES WOOD PROCESSING FACILITIES as in guidelines of Section 4. (investment of at least K5 mill., activities as a large agricultural/ agro-industrial/ reforestation - project, or a wood-chipping facility).
or
- (3) The project is a limited log and export - road construction contract (see Section 5) and
- (4) The forest resources of the project area are suitable for a log export operation (ie. markets in vicinity are limited, limited resources for a long run operation).

THE EXTENT OF PROCESSING REQUIRED (see (1) above) will be negotiated on a case by case basis within the following guidelines:-

- (a) Processing no less than 30% of the total log harvest.

- (b) Proportion to be higher than 30% if operation has good access to domestic sawn timber market.
- (c) Proportion to be higher than 30% if composition is high of species that can be readily exported in sawn timber form (eg. TAUN, KWILA, PENCIL CEDAR, CALOPHYLLUM).
- (d) Processing capacity, with terms for possible future expansion (subject to a profitability test) to be negotiated at outset.

No automatic right to export logs, in particular log exports not allowed where;-

- (1) Forest resources are in vicinity of potential local markets and are limited (eg. Lae, Rabaul, Port Moresby).
- (2) Resource of area under consideration is limited, and unable to sustain a long run commercial operation.

3.6 INFRASTRUCTURE

Timber developers will be required to provide infrastructure required for the project. Details will be included with each concession agreement.

In some cases the Government may agree to construct certain facilities, and charge the investor for use thereof, or take up equity in the venture.

For national interest purposes Government may contribute to financing of required infrastructure.

3.7 EQUITY

The Government will negotiate the purchase at par of equity in projects which at project commencement appear to have good prospects. Long term equity options at market prices will be negotiated separately.

3.8 PAPUA NEW GUINEA ASSOCIATED ENTERPRISES

Each newly negotiated or reviewed agreement, or permit 10 year period or longer, with annual log harvest in excess of 40,000M³, will include provisions whereby the enterprise:

- (a) Adheres to a reasonable local business development programme
- (b) Employs a suitably qualified business development officer. Such officer to assist in implementing local business development programme ((a) above), and to liaise with Government.

3.9 TRAINING AND LOCALISATION:

- (a) Each negotiated agreement will include a requirement whereby the enterprise will adhere to an approved training and localisation programme.
- (b) The Government will assist the FIC by way of a subsidy in a "Timber Industry Training Grants Scheme".

3.10 REFORESTATION

Private timber companies will not generally be required to be involved in reforestation. With increased log exports the Government will become more involved in follow-up use of land, (i.e. agricultural projects or reforestation).

A foreign enterprise may CONTRACT to undertake large scale reforestation in return for log exports. Plantations so established will remain in the ownership of National and/or Provincial Government and/or landowners as negotiated.

Foreign enterprises who REQUEST to undertake reforestation (as part of timber project or separately) can do so provided that:

- (a) A study shows the project will be technically sound and economically viable,
- (b) Sufficient suitable land is available,
- (c) The enterprise has managerial and financial capacity to undertake the project,
- (d) The project will be in the national interest.

3.11 MARKETING

- A. In any newly or revised agreement or permit, an enterprise that exports logs will agree upon request to sell logs to the State or its marketing agent, at prices and on terms specified by the State provided that:
 - (a) The enterprise is given reasonable notice of the intended purchase
 - (b) No order (without the company's agreement) will exceed 25% of the enterprise's log export allowance over the period during which the order is to be filled
 - (c) The enterprise's processing operations will not be disrupted
 - (d) The enterprise's existing export commitments are not unduly delayed or disrupted
 - (e) The price for logs bought by the State or its agent shall be not less than the contract price arranged by the enterprise with the purchaser less any reasonable contract price arranged by the enterprise with the purchaser less any reasonable handling charges, and less any reasonable marketing agency fees.

- B. (a) The rate of growth in the volume of log exports will be strictly controlled by setting national priorities for the allocation of timber permits and log exports quotas.
- (b) Minimum guideline prices for log exports will continue to be imposed under the Export (Control and Valuation) Act.

(c) Marketing agreements or arrangements covering the sale of logs for all firms exporting logs will be subject to Government approval.

3.12 OTHER CONDITIONS AND GUIDELINES

ENVIRONMENTAL PROTECTION

Industrial/forest environmental protection provisions will be included in each agreement. Protection measures will be included in the forest working plan which will require approval of both National and Provincial Governments. The forest working plan will show areas to be excluded from logging.

**SECTION 4 - GUIDELINES FOR FOREIGN ENTERPRISES INVOLVED IN LOG EXPORTING,
AND NOT PROCESSING IN PAPUA NEW GUINEA (LARGE SCALE
OPERATIONS)**

4.1 INTRODUCTION

PURPOSE

Guidelines under which a foreign enterprise may undertake a large log export operation - not combined with local processing of saw/veneer logs - but combined with activities as agro-industrial projects or woodchipping, activities that require large amounts of capital and/or advanced technology that are not available to PNG owned enterprises.

4.2 THE TYPE OF ENTERPRISE PROMOTED

The enterprise submitting a proposal will have to demonstrate that it has managerial experience, financial capacity and marketing expertise to undertake both the log exporting operation and the associated activities.

- . The Government will need to be satisfied that logs will be sold at arms length or at arms length prices
- . Preference will be given to enterprises that can demonstrate a record of selling to non-affiliated enterprises, a record of active promotion of wood products into diverse markets and a record of efficient operations in comparable conditions elsewhere.
- . The enterprise will be asked to supply details of its company background in accordance with the Government's "Guidelines for the Preparation of Forest Development Proposals".

4.3 FOREST AREAS SUITABLE FOR A LARGE EXPORT OPERATION

IN ADDITION to requirements under Section 3.3, log export operations will be restricted to forest areas:

- . having resource size sufficient to sustain the operation until a tree plantation is ready for harvesting, or other follow-up development (integral part of the proposed venture - see 4.4) is able to sustain economic activity in the area
- . where the species mix is not suitable for a processing operation
- . not required to meet the needs of a domestic market in the vicinity.

4.4 SPECIFICATIONS FOR AN ACCEPTABLE LOG EXPORT OPERATION

In conjunction with log exporting, the enterprise will be required to undertake an activity which:

- (i) integrates well with a logging operation
- (ii) will sustain economic activity in the timber area on a permanent basis
- (iii) together with logging requires a total investment of at least K5 million
- (iv) is included as a priority or open activity in the National Investment Priorities Schedule (NIPS)
- (v) otherwise conforms with the policies of the National Government and the Provincial Government concerned.

Suitable associated activities with a logging operation would include one or a combination of:-

- . a large agricultural project
- . a large scale agro-industrial venture
- . a large scale reforestation project for the production of high quality saw-veneer logs
- . a large pulpwood reforestation project
- . a woodchipping facility

Approved enterprises will be those which, in the opinion of the Government, provide national benefits as least as great (net present value) as an alternative PNG log exporting enterprise.

4.5 MARKETING

Requirements as under Section 3.11 will apply

4.6 LOG EXPORT TAXES

Increased to 10% of f.o.b. value for all operations not meeting the processing guidelines specified in Section 3.5(4) (see also Section 3.4(4)).

4.7 DAMAGES

As the right to export logs will be granted in conjunction with an obligation on the enterprise to undertake a substantial associated project (Section 4.4), failure to complete that project as negotiated will usually incur a curtailment in allowable log exports or an appropriate imposition of monetary damages.

4.8 OTHER CONDITIONS

The conditions covering processing operations of Section 3 will apply as well to large scale log exporting enterprises, and in particular to:-

- . Infrastructure
- . Equity
- . Papua New Guinea enterprises
- . Training and localisation

4.9 Joint Ventures

In some cases the Government may approve a joint venture log exporting project, similar to a National Forest Development Corporation (FDC), and which involves a foreign minority shareholder that would meet guidelines outlined in Section 4.2 and would act as the management agent.

SECTION 5 - GUIDELINES APPROPRIATE TO FOREIGN ENTERPRISES INVOLVED IN LIMITED LOG EXPORT - ROAD CONSTRUCTION CONTRACTS

5.1 INTRODUCTION

PURPOSE

Guidelines to apply to log export projects of a limited size and of a limited period which involve a contract to construct priority roads in return for the right to export a specified volume of logs.

5.2 THE TYPE OF ENTERPRISE PROMOTED

Being generally of limited size and requiring only a short term timber permit, log export - road construction contracts will normally be tendered on the basis that:-

- (i) The enterprise should be able to demonstrate past performance, management and financial capacity, and that it is capable of building the road to design standards and within the timetable allowed.
- (ii) Subject to (i), the enterprise that tenders the lowest volume of export logs required in order to comply with all contract conditions will be selected.
- (iii) In instances where an existing timber enterprise which satisfies (i), and has a clear advantage to undertake the contract (eg. road will be within or adjacent to an existing concession area) the Government may negotiate directly with that enterprise alone.

5.3 FOREST AREAS AND PROJECTS SUITABLE FOR LOG EXPORT - ROAD CONSTRUCTION CONTRACTS

In addition to matters indicated in Section 3.3, log export - road construction projects will be confined to instances where:-

the proposed road is of clear priority and of significant National or Provincial benefit

- . the road would not otherwise be constructed as a normal part of the timber operation, or within the time period required
- . the road would not be constructed at less cost or more efficiently under a normal construction contract
- . the forest resource can sustain the amount of logging required using the criteria under Section 4.3.

5.4 BASIC CONDITIONS OF AN ACCEPTABLE LOG EXPORT - ROAD CONSTRUCTION CONTRACT

- (i) The term of the timber permit will normally be less than five (5) years.
- (ii) Normal royalties, log export taxes, and other standard timber permit conditions will apply.
- (iii) No specific conditions will normally be included (as under Sections 3.6 to 3.9), except those required under any law, or those contained in any separate agreement to which the enterprise may be a party.
- (iv) A log export - road construction contract will provide no exclusive right or any other prior right to the grant of any subsequent timber permit over the area logged or in the vicinity of the area.

5.5 LOG EXPORT ENTITLEMENT

The log export allowance will aim at providing a fair return to investment committed to road construction and logging. The allowance will be on the basis that an initial fixed log quota will be granted in order to facilitate the commencement of logging and road construction and an additional log quota will be granted for each kilometre of road completed and approved (after Government inspection) as complying with the specified design standards.

VI 「PNG第一次産業省予算（1972/83）及び森林局
より国家計画局へのプロジェクト申請書」について

1. 総予算額は1982年で2600万KINA（約90億円）うち援助予算が500万KINAで約2割を占めている。

2. 1983年は、前年比7割強の緊縮予算である。

3. 1982年の林業予算は次のとおり

	KINA
General Service	256,800
PNG Forestry College	394,700
Forestry Product Research	370,300
Forest Management Research	279,500
Other Forestry Services	366,000
	1,667,300
	（約5億8千万円）

（別添Ⅴ-1参照）

4. PNG森林局から国家計画局へ提出されているプロジェクト申請書によれば、5年間のTotal金額は約22,000千KINAであり、このうち資機材等の資本財が約11,000千KINAとなっており、実行コストは5年間で $22,000 - 11,000 = 11,000$ 千KINA（年平均220千KINA）となる。

BuloloのForest Research Stationの大部分をForestry Research Instituteに移すとすれば、全体としては森林局関係予算の大巾な増額を必要としないとなるので適切な申請内容であると評価することができるであろう。

（プロジェクト申請書は別添Ⅴ-2参照）

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241. DEPARTMENT OF PRIMARY INDUSTRY	1983	1982	1982
	(KINA)	(KINA)	(KINA)
APPROPRIATION-ESTIMATE			
SUMMARY BY EXPENSES ITEMS			
1. PERSONAL EMOLUMENTS	224,270	1,176,700	1,176,700
2. TRAVEL & SUBSISTENCE	63,260	377,675	377,675
3. UTILITIES	947,200	304	304
4. MATERIALS & SUPPLIES	1,597,200	1,500,000	1,500,000
5. PLANT & TRANSPORT HIRE	1,127,700	2,123,000	2,123,000
6. SPECIAL SERVICES	6,044,400	2,573,000	2,573,000
7. PURCHASE OF CAPITAL ASSETS	4,571	203,000	203,000
8. GRANTS & SUBSIDIES	1,000,000	1,657,300	1,657,300
9. OTHER	15,000,000	1,900,000	1,900,000
10. PERSONAL EMOLUMENTS(OVERTIME, WAGES, OTHER)	600,000	2,936,300	2,936,300
GROSS TOTALS			
10. PERSONAL EMOLUMENTS	1,124,270	7,157,900	7,157,900
11. IMPROVEMENT-IN-AID	1,000,000	5,746,000	5,746,000
NET TOTALS			
	2,124,270	12,903,900	12,903,900
K			
ESTIMATES - 1983	17,186,900		
ESTIMATED			
EXPENDITURE - 1982	19,344,500		
	3,157,600		
MANPOWER AND PTL UNITS			
NATIONALS	1124		
VOLUNTEERS	15		
OVERSEAS	245		
POST JUNTS	1517		
LABOURERS			

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241. DEPARTMENT OF PRIMARY INDUSTRY	1983	1982	1982
	(KINA)	(KINA)	(KINA)
APPROPRIATION-ESTIMATE			
FUNCTION 1 - POLICY AND ADMINISTRATION			
ACTIVITY 1 - GENERAL SERVICES (A.S. & F.)			
ITEM -			
1. PERSONAL EMOLUMENTS	550,000	505,500	512,000
2. TRAVEL & SUBSISTENCE	15,400	47,700	37,100
3. UTILITIES	119,800	71,400	142,100
4. MATERIALS & SUPPLIES	34,500	42,600	40,400
5. PLANT & TRANSPORT HIRE	16,300	16,500	14,500
6. SPECIAL SERVICES	-	-	-
7. PURCHASE OF CAPITAL ASSET	-	-	2,200
8. GRANTS & SUBSIDIES	11,500	4,500	5,000
9. OTHER	37,100	34,700	35,500
10. PERSONAL EMOLUMENTS(OVERTIME, WAGES, OTHER)			
GENERAL SERVICES (A.S. & F.)			
	786,400	727,900	802,400
ACTIVITY - GENERAL SERVICES (FORESTRY)			
ITEM -			
PERSONAL EMOLUMENTS		173,100	177,900
TRAVEL & SUBSISTENCE		7,700	7,700
UTILITIES		27,900	31,400
MATERIALS & SUPPLIES		11,200	15,200
PLANT & TRANSPORT HIRE		10,400	10,100
SPECIAL SERVICES		-	-
PURCHASE OF CAPITAL ASSETS		-	3,600
GRANTS & SUBSIDIES		6,400	6,400
OTHER		18,400	18,700
PERSONAL EMOLUMENTS(OVERTIME, WAGES, OTHER)			
GENERAL SERVICES (FORESTRY)			
		258,400	270,500

DEPARTMENT OF PRIMARY INDUSTRY	1983	1982	1982	1982
	APPROPRIATION (KINA)	EXPENDITURE (KINA)	APPROPRIATION (KINA)	ESTIMATED EXPENDITURE (KINA)
ACTIVITY 1 - POLICY AND REGISTRATION				
PERSONAL EMOLUMENTS AND TRAVEL SERVICES				
1. PERSONAL EMOLUMENTS	151,600	151,600	305,100	317,700
2. TRAVEL & SUBSISTENCE	22,000	22,000	54,200	105,000
3. UTILITIES	6,200	6,200	10,700	15,500
4. MATERIALS & SUPPLIES	-	-	4,200	130,300
5. PLANT & EQUIPMENT HIRE	-	-	-	62,300
6. SPECIAL SERVICES	-	-	24,500	53,600
7. PURCHASE OF CAPITAL ASSETS	40,000	40,000	1,000,000	313,400
8. DEPRECIATION	25,700	25,700	22,900	29,000
9. PERSONAL EMOLUMENTS (OTHERS), WAGES, OTHERS	11,000	11,000	22,300	177,500
TOTAL	272,200	272,200	1,450,500	1,252,900
ACTIVITY 2 - RING FINESTRY COLLECT				
PERSONAL EMOLUMENTS AND TRAVEL SERVICES				
1. PERSONAL EMOLUMENTS	1,715,600	1,715,600	2,456,600	2,325,000

DEPARTMENT OF PRIMARY INDUSTRY	1983	1982	1982	1982
	APPROPRIATION (KINA)	EXPENDITURE (KINA)	APPROPRIATION (KINA)	ESTIMATED EXPENDITURE (KINA)
FUNCTION 2 - TRAINING				
ACTIVITY 1 - AGRICULTURE TRAINING				
PERSONAL EMOLUMENTS AND TRAVEL SERVICES				
1. PERSONAL EMOLUMENTS	1,202,700	1,202,700	1,202,700	1,202,700
2. TRAVEL & SUBSISTENCE	12,000	12,000	12,000	12,000
3. UTILITIES	12,000	12,000	12,000	12,000
4. MATERIALS & SUPPLIES	2,000	2,000	2,000	2,000
5. PLANT & EQUIPMENT HIRE	-	-	-	-
6. SPECIAL SERVICES	-	-	-	-
7. PURCHASE OF CAPITAL ASSETS	-	-	-	-
8. DEPRECIATION	-	-	-	-
9. PERSONAL EMOLUMENTS (OTHERS), WAGES, OTHERS	60,300	60,300	60,300	60,300
TOTAL	1,307,000	1,307,000	1,307,000	1,307,000
ACTIVITY 2 - RING FINESTRY COLLECT				
PERSONAL EMOLUMENTS AND TRAVEL SERVICES				
1. PERSONAL EMOLUMENTS	174,600	174,600	174,600	174,600
2. TRAVEL & SUBSISTENCE	4,000	4,000	4,000	4,000
3. UTILITIES	4,000	4,000	4,000	4,000
4. MATERIALS & SUPPLIES	4,000	4,000	4,000	4,000
5. PLANT & EQUIPMENT HIRE	-	-	-	-
6. SPECIAL SERVICES	-	-	-	-
7. PURCHASE OF CAPITAL ASSETS	-	-	-	-
8. DEPRECIATION	-	-	-	-
9. PERSONAL EMOLUMENTS (OTHERS), WAGES, OTHERS	4,000	4,000	4,000	4,000
TOTAL	186,600	186,600	186,600	186,600
FUNCTION 2 - TRAINING				
ACTIVITY 1 - AGRICULTURE TRAINING				
PERSONAL EMOLUMENTS AND TRAVEL SERVICES				
1. PERSONAL EMOLUMENTS	2,456,600	2,456,600	2,456,600	2,456,600

241. DEPARTMENT OF PRIMARY INDUSTRY	1983	1982	1982
FUNCTION 3 - RESEARCH AND DEVELOPMENT	(KINA)	(KINA)	ESTIMATED EXPENDITURE (KINA)
ACTIVITY 1 - FOREST MANAGEMENT RESEARCH			
ITEM -			
1. PERSONAL EMOLUMENTS	141,200	178,400	163,400
2. TRAVEL & SUBSISTENCE	9,500	9,500	6,500
3. UTILITIES	11,500	11,500	4,100
4. MATERIALS & SUPPLIES	10,500	10,500	5,500
5. PLANT & TRANSPORT HIRE	20,000	20,600	20,600
6. SPECIAL SERVICES	-	-	-
7. PURCHASE OF CAPITAL ASSETS	-	-	-
8. GRANTS & SUBSIDIES	14,300	14,500	14,200
9. OTHER	3,000	3,300	55,100
10. PERSONAL EMOLUMENTS(OVERTIME, WAGES, OTHER)			
FOREST MANAGEMENT RESEARCH	244,100	279,500	269,700
ACTIVITY 2 - BOTANICAL RESEARCH SERVICES			
ITEM -			
1. PERSONAL EMOLUMENTS	69,100	61,400	63,300
2. TRAVEL & SUBSISTENCE	8,600	23,700	4,700
3. UTILITIES	18,000	21,400	25,700
4. MATERIALS & SUPPLIES	37,000	23,600	17,200
5. PLANT & TRANSPORT HIRE	-	-	-
6. SPECIAL SERVICES	6,500	156,400	156,400
7. PURCHASE OF CAPITAL ASSETS	4,200	8,200	50,700
8. GRANTS & SUBSIDIES	-	-	-
9. OTHER	17,300	3,600	5,400
10. PERSONAL EMOLUMENTS(OVERTIME, WAGES, OTHER)			
BOTANICAL RESEARCH SERVICES	152,700	306,300	375,000

241. DEPARTMENT OF PRIMARY INDUSTRY	1983	1982	1982
FUNCTION 3 - RESEARCH AND DEVELOPMENT	(KINA)	(KINA)	ESTIMATED EXPENDITURE (KINA)
ACTIVITY 1 - FOREST PRODUCTS RESEARCH			
ITEM -			
1. PERSONAL EMOLUMENTS	159,100	163,700	168,100
2. TRAVEL & SUBSISTENCE	5,200	7,200	6,000
3. UTILITIES	27,900	27,900	29,900
4. MATERIALS & SUPPLIES	27,900	32,900	17,400
5. PLANT & TRANSPORT HIRE	4,300	4,300	5,300
6. SPECIAL SERVICES	50,000	48,000	47,000
7. PURCHASE OF CAPITAL ASSETS	-	8,100	78,300
8. GRANTS & SUBSIDIES	-	-	-
9. OTHER	10,000	12,900	12,900
10. PERSONAL EMOLUMENTS(OVERTIME, WAGES, OTHER)	66,600	65,300	51,300
FOREST PRODUCTS RESEARCH	331,000	370,300	417,200
ACTIVITY 2 - BOTANICAL RESEARCH			
ITEM -			
1. PERSONAL EMOLUMENTS	28,600	164,200	196,700
2. TRAVEL & SUBSISTENCE	3,000	5,000	1,800
3. UTILITIES	2,500	17,800	3,500
4. MATERIALS & SUPPLIES	7,300	12,300	18,600
5. PLANT & TRANSPORT HIRE	9,000	13,300	22,300
6. SPECIAL SERVICES	-	11,000	3,700
7. PURCHASE OF CAPITAL ASSETS	-	-	-
8. GRANTS & SUBSIDIES	-	-	-
9. OTHER	-	13,000	11,000
10. PERSONAL EMOLUMENTS(OVERTIME, WAGES, OTHER)	27,200	72,700	96,200
BOTANICAL RESEARCH	77,600	309,300	353,600

241. DEPARTMENT OF PRIMARY INDUSTRY	1983	1982	1982
FUNCTION 3 - RESEARCH AND DEVELOPMENT	(KINA)	(KINA)	ESTIMATED EXPENDITURE (KINA)
ACTIVITY 5 - AGRICULTURE & FISHERIES DEVELOP.			
ITEM -			
1. PERSONAL EMOLUMENTS	75,000	495,800	512,700
2. TRAVEL & SUBSISTENCE	7,100	15,000	12,000
3. UTILITIES	3,000	4,000	4,500
4. MATERIALS & SUPPLIES	4,000	2,500	6,100
5. PLANT & TRANSPORT HIRE	-	-	-
6. SPECIAL SERVICES	-	-	-
7. PURCHASE OF CAPITAL ASSETS	-	-	-
8. GRANTS & SUBSIDIES	67,500	-	25,100
9. OTHER	-	-	-
10. PERSONAL EMOLUMENTS (OVERTIME, WAGES, OTHER)	3,500	7,100	21,800
GROSS TOTAL:	121,500	533,400	623,200
ACTIVITY 4 - LIVESTOCK & FISHERIES DEVELOP.			
ITEM -			
1. PERSONAL EMOLUMENTS	15,000	137,100	140,700
2. TRAVEL & SUBSISTENCE	11,000	141,700	206,500
3. UTILITIES	14,000	2,000	416,500
4. MATERIALS & SUPPLIES	27,300	2,000	291,300
5. PLANT & TRANSPORT HIRE	277,000	1,600	205,000
6. SPECIAL SERVICES	1,360,500	1,000	66,600
7. PURCHASE OF CAPITAL ASSETS	11,000	3,000	13,000
8. GRANTS & SUBSIDIES	21,000	23,000	126,000
9. OTHER	62,400	115,300	126,000
10. PERSONAL EMOLUMENTS (OVERTIME, WAGES, OTHER)	367,300	369,400	305,400
GROSS TOTAL:	5,533,100	5,735,500	6,704,600
ACTIVITY 6 - RESEARCH AND DEVELOPMENT			
ITEM -			
1. PERSONAL EMOLUMENTS	6,710,100	2,913,300	1,626,100
2. TRAVEL & SUBSISTENCE	41,000	80,000	120,000
3. UTILITIES	1,000	1,000	1,000
4. MATERIALS & SUPPLIES	1,000	1,000	1,000
5. PLANT & TRANSPORT HIRE	1,000	1,000	1,000
6. SPECIAL SERVICES	1,000	1,000	1,000
7. PURCHASE OF CAPITAL ASSETS	1,000	1,000	1,000
8. GRANTS & SUBSIDIES	1,000	1,000	1,000
9. OTHER	1,000	1,000	1,000
10. PERSONAL EMOLUMENTS (OVERTIME, WAGES, OTHER)	1,000	1,000	1,000

241. DEPARTMENT OF PRIMARY INDUSTRY	1983	1982	1982
FUNCTION 3 - RESEARCH AND DEVELOPMENT	(KINA)	(KINA)	ESTIMATED EXPENDITURE (KINA)
ACTIVITY 7 - CROP PRODUCTION, RESEARCH & SERVICES			
ITEM -			
1. PERSONAL EMOLUMENTS	2,045,500	2,510,200	2,521,000
2. TRAVEL & SUBSISTENCE	177,000	577,300	279,000
3. UTILITIES	115,400	136,300	151,100
4. MATERIALS & SUPPLIES	490,700	608,300	622,700
5. PLANT & TRANSPORT HIRE	550,300	106,100	699,250
6. SPECIAL SERVICES	550,900	648,200	722,700
7. PURCHASE OF CAPITAL ASSETS	81,000	920,100	530,000
8. GRANTS & SUBSIDIES	64,000	25,100	25,000
9. OTHER	125,900	202,000	202,700
10. PERSONAL EMOLUMENTS (OVERTIME, WAGES, OTHER)	901,600	933,900	947,000
GROSS TOTAL:	5,366,800	7,127,500	7,211,700
ACTIVITY 8 - SUPPORT SERVICES PROGRAMME			
ITEM -			
1. PERSONAL EMOLUMENTS	35,900	-	-
2. TRAVEL & SUBSISTENCE	11,000	-	-
3. UTILITIES	2,000	-	-
4. MATERIALS & SUPPLIES	14,000	-	-
5. PLANT & TRANSPORT HIRE	50,000	-	-
6. SPECIAL SERVICES	31,500	-	-
7. PURCHASE OF CAPITAL ASSETS	-	-	-
8. GRANTS & SUBSIDIES	-	-	-
9. OTHER	5,000	-	-
10. PERSONAL EMOLUMENTS (OVERTIME, WAGES, OTHER)	-	-	-
GROSS TOTAL:	195,400	-	-
SUPPORT SERVICES PROGRAMME RESEARCH AND DEVELOPMENT	5,562,200	7,127,500	7,211,700
ACTIVITY 9 - RESEARCH AND DEVELOPMENT	5,035,000	7,107,000	6,471,400
ACTIVITY 10 - SUPPORT SERVICES	195,400	-	-

241. DEPARTMENT OF PRIMARY INDUSTRY	1983	1982	1982
FUNCTION 5 - SERVICES TO PRIMARY INDUSTRY	APPROPRIATION (KINA)	APPROPRIATION (KINA)	ESTIMATED EXPENDITURE (KINA)
ACTIVITY 1 - PRODUCE INSPECTION			
ITEM -			
1. PERSONAL EMOLUMENTS	129,200	135,200	139,000
2. TRAVEL & SUBSISTENCE	6,900	9,900	9,900
3. UTILITIES	16,800	15,600	26,800
4. MATERIALS & SUPPLIES	10,400	10,400	10,400
5. PLANT & TRANSPORT HIRE	24,600	25,900	29,400
6. SPECIAL SERVICES	-	-	-
7. PURCHASE OF CAPITAL ASSETS	-	8,000	5,000
8. GRANTS & SUBSIDIES	5,900	7,900	2,900
9. OTHER	-	-	-
10. PERSONAL EMOLUMENTS/OVERTIME, WAGES, OTHER)	138,000	101,200	103,400
	331,800	304,700	331,000
92. APPROPRIATION-IN-AID	1,000	-	-
PRODUCE INSPECTION	330,800	309,700	327,500
ACTIVITY - CASH CROP MARKETING			
ITEM -			
PERSONAL EMOLUMENTS	-	131,400	110,500
TRAVEL & SUBSISTENCE	-	11,500	9,400
UTILITIES	-	10,400	10,400
MATERIALS & SUPPLIES	-	92,700	92,700
PLANT & TRANSPORT HIRE	-	8,700	8,700
SPECIAL SERVICES	-	-	-
PURCHASE OF CAPITAL ASSETS	-	-	-
GRANTS & SUBSIDIES	-	1,213,500	1,713,400
OTHER	-	-	-
PERSONAL EMOLUMENTS/OVERTIME, WAGES, OTHER)	-	119,300	121,400
	-	2,174,800	2,077,400
GRAND TOTAL:	-	1,650,000	1,741,000
APPROPRIATION-IN-AID	-	507,400	507,400
CASH CROP MARKETING	-	2,152,400	2,248,400

241. DEPARTMENT OF PRIMARY INDUSTRY	1983	1982	1982
FUNCTION - FOREST MANAGEMENT	APPROPRIATION (KINA)	APPROPRIATION (KINA)	ESTIMATED EXPENDITURE (KINA)
ACTIVITY 1 - ACQUISITION OF TIMBER RIGHTS			
ITEM -			
1. PERSONAL EMOLUMENTS	67,600	25,000	1,200
2. TRAVEL & SUBSISTENCE	1,250	2,500	2,500
3. UTILITIES	7,700	4,600	4,600
4. MATERIALS & SUPPLIES	1,300	4,200	4,200
5. PLANT & TRANSPORT HIRE	1,000	1,000	35,500
6. SPECIAL SERVICES	2,000	2,000	2,200
7. PURCHASE OF CAPITAL ASSETS	1,000	-	-
8. GRANTS & SUBSIDIES	1,000	5,000	5,000
9. OTHER	1,000	-	-
10. PERSONAL EMOLUMENTS/OVERTIME, WAGES, OTHER)	1,175,000	1,175,000	1,175,000
	51,700	1,175,000	1,175,000
ACQUISITION OF TIMBER RIGHTS	1,255,000	1,200,000	1,200,000
FOREST MANAGEMENT	1,255,000	1,200,000	1,200,000

261. DEPARTMENT OF PRIMARY INDUSTRY	1983	1982	1982
FUNCTION 5 - SERVICES TO INDUSTRY	(KINA)	(KINA)	ESTIMATED EXPENDITURE (KINA)
ACTIVITY 5 - (A) PATENT SERVICE			
ITEM --			
1. PERSONAL EMOLUMENTS	71.4	71.1	5.700
2. TRAVEL & SUBSISTENCE	1.1	1.1	2.500
3. UTILITIES	2.000	2.000	17.500
4. MATERIALS & SUPPLIES	2.000	2.000	12.500
5. PLANT & TRANSPORT HIRE	21.500	21.500	4.700
6. SPECIAL SERVICES	-	-	-
7. PURCHASE OF CAPITAL ASSETS	-	-	-
8. GRANTS & SUBSIDIES	-	-	-
9. OTHER	-	-	-
10. PERSONAL EMOLUMENTS (OVERTIME, WAGES, OTHER)	2.000	2.000	21.500
GROSS TOTAL:	100.000	100.000	100.000
NET APPROPRIATION-IN-AID	40.000	40.000	40.000

261. DEPARTMENT OF PRIMARY INDUSTRY	1983	1982	1982
FUNCTION 6 - FISHERIES ADMINISTRATION	(KINA)	(KINA)	ESTIMATED EXPENDITURE (KINA)
ACTIVITY 1 - PRODUCTION RESEARCH & INSPECT-SERVICES			
ITEM --			
1. PERSONAL EMOLUMENTS	1,109,700	1,162,800	1,162,800
2. TRAVEL & SUBSISTENCE	82,000	156,200	156,200
3. UTILITIES	126,500	215,000	151,000
4. MATERIALS & SUPPLIES	385,000	479,900	492,500
5. PLANT & TRANSPORT HIRE	55,000	84,000	41,000
6. SPECIAL SERVICES	45,000	141,500	157,500
7. PURCHASE OF CAPITAL ASSETS	122,200	354,400	315,000
8. GRANTS & SUBSIDIES	130,000	200,000	5,000
9. OTHER	152,000	290,000	290,000
10. PERSONAL EMOLUMENTS (OVERTIME, WAGES, OTHER)	331,500	332,500	342,500
GROSS TOTAL:	2,908,700	3,250,300	3,250,300
NET APPROPRIATION-IN-AID	1,500,000	2,606,400	2,606,400
PRODUCTION RESEARCH & INSPECT-SERVICES FISHERIES ADMINISTRATION	1,308,700	643,900	645,900
	1,508,700	645,900	645,900

241. DEPARTMENT OF PRIMARY INDUSTRY	1983	1982	1982
FUNCTION 7 - WILDLIFE MANAGEMENT	APPROPRIATION (KINA)	APPROPRIATION (KINA)	ESTIMATED EXPENDITURE (KINA)
ACTIVITY 1 - WILDLIFE MANAGEMENT			
ITEM -			
1. PERSONAL EMOLUMENTS	10,400	211,700	211,700
2. TRAVEL & SUBSISTENCE	25,000	22,500	27,300
3. UTILITIES	3,500	1,500	12,000
4. MATERIALS & SUPPLIES	20,000	86,500	85,500
5. PLANT & TRANSPORT HIPE	7,600	11,400	14,000
9. SPECIAL SERVICES	-	-	-
7. PURCHASE OF CAPITAL ASSETS	-	12,000	11,000
8. GRANTS & SUBSIDIES	10,000	50,200	77,300
10. OTHER	-	-	-
11. PERSONAL EMOLUMENTS (OVERTIME, WAGES, OTHER)	3,200	53,700	62,700
WILDLIFE MANAGEMENT	79,700	475,500	501,500
WILDLIFE MANAGEMENT	79,700	475,500	501,500
TOTAL DEPARTMENT OF PRIMARY INDUSTRY	14,386,800	20,809,000	17,599,600

M-2 プロジェクト申請書

NEW POLICY/PROJECT SUBMISSION - CONCEPT - 1983 NP1

1. PROJECT TITLE FOREST RESEARCH CENTER		3. DESIGNING NO. (INFO) 4102-02	
2. AGENCY P.I. - FORESTRY		4. DATE	
5. OUT OF (Total No) 5	6. STRATEGIC OBJECTIVE	7. SIGNATURE OF MINISTER/PREMIER	
PROJECT OBJECTIVES Realize Silvicultural and allied research activities to contribute in the near logical center to institute real connections at all levels with University of Technology, thus ensure greater co-operation between researchers and teachers.			
PROJECT DESCRIPTION The project has four parts. First the major part is the construction of the Institute building and housing for staff. Funding for this part is through Japanese aid. Second, after construction of the Institute, the relocation of the centre at Bulolo for mainly a seed collection activity, as Bulolo being suited to seed production for many species, seed orchards have been established there. And transfer all the equipment from Bulolo to the new building. Third, formal affiliation of the Institute with the Forestry Faculty of the University of Technology. If this successful at least some of the staff of the Institute will have teaching as well as research duties. Laboratory facilities also would be available for teaching and for research purposes. Fourth, the creation of a Librarian position, the transfer of a Biotechnology position from Operations to Research and Training and the creation of an additional position for Silviculture, Entomology, Pathology, Soils and Genetics. It is expected that the Japanese Govt will prepare plan and call for tenders for the construction of the buildings.			
LOCATION - Village		District <u>Elis</u> Province <u>WEST PAPUA</u>	
PROJECT IMPLEMENTATION TO START BY (month/year) <u>1/83</u>		COMPLETE BY (month/year) <u>6/83</u>	
BENEFITS/OUTPUT QUANTIFIABLE			
Annual Qty		Value (K'000)	
Benefits expected to start in (year)		Last up to (year)	
BENEFITS - NONQUANTIFIABLE - Incl Economic & Social Forest Research in Papua New Guinea has concentrated in problems of the Bulolo area. Future Forestry Development will be concentrated in Bulolo area to obtain better results. Forest Research functions mainly for silviculture, either plantation forestry or silviculture of establishment of natural forest for constant availability of forest resources for economic production. Alternative land-use would be researched in conjunction with agriculture.			
LAND & WORKS INFORMATION Works to be undertaken by W&S/Province/Others			
Type of facility required**	City/Location** (section/lot)	Land Acquired/Owned by	Additional Facilities
1. 11 High Government <u>H65</u> 10 Medium Government <u>H55</u> 5 Low Government <u>A40</u>	Porton 217 (Partially) Malabang	Govt's	A Internal paths B Internal roads C Lighting facilities D Sewage E Power F Water ** Enclose a map indicating location if can't be specified otherwise *** Equate to W&S Standard plan no. or describe @ to be filled in by W&S
2. Nursery (a) Overhead Pipes and Sprinklers Porton 423 (b) Small High Shades Malabang			
	3. Greenhouses	Fourrail	
		Stacks	
EQUIPMENT - List equipment costing above K100 in Item 7 attach separate sheet if necessary!		15 PROJECT COORDINATORS	
NO1 ITEM		Headquarters <u>D. Lusa</u> Phone <u>234023</u> Field <u>JOEL RARCHEB</u> Phone <u>257177</u>	
112. The project would span for two years, the first being devoted to construction, the second to transfer staff, equipment and collections. Final staffing of specialists will depend on the actual affiliation between the Institute and the University of Technology.		16 OTHER COMMENTS 4. <u>Research Building</u> Total area - 4500m ² (250m ² air conditioned) 3 air conditioned section for Entomology, Pathology and Library.	

INSTRUCTIONS FOR FILLING UP FORM NP-1

1. Write the name of the Department/Province/Agency sponsoring the project.
2. Give the project title.
3. Leave this space for the design number.
4. Give the objectives for this project by objective and also the total no. of projects proposed by the Department/Province/Agency under that objective.
5. Out of the Strategic Objectives, indicate the one to which the project relates. If the project serves more than one objective, name the one which is over-riding or more directly related than others.
6. Signature of the Minister/Premier must be obtained in this space. Also indicate the date.
7. Indicate the main objective(s) of the project.
8. Summarise the project briefly. If the space is not sufficient, give a brief summary in this space and use additional sheets to describe the project fully.
9. Specific locations should be given here. If the project has more than one location, write all locations in the space provided or using additional sheets.
10. Indicate proposed date of start and completion of work on the project, giving only month and year.
11. If the project cost/service/benefit can be quantified in physical terms, indicate it under 11.
12. If benefits cannot be quantified easily, summarise it briefly under 12. All social benefits, including no. of people and area affected should be listed in. Any social costs should also be mentioned.
13. Information relating to land and capital works is to be indicated here, if land is required and/or capital works are to be undertaken by Department of Works and Supply or any other agency. Details of facilities to be constructed very clearly and specifically, giving Works and Supply's plan number, if applicable - if not, a simple description of the facility should be given which could enable the Works and Supply to estimate the costs. If the location(s) of the land required cannot be specified clearly, use a detailed map showing the location of the land required. The date by which facilities are to be completed, should be given in month and year. Attach additional sheets if space on the form is insufficient. In filling this information, departments should send the Forms NP1 and NP2 to Department of Works and Supply who will fill in the costs (in K'000) for works components in ledger sheet No. 13 of NP1 and total Capital Works Costs in NP2.
14. List items costing over K'100 which is proposed to be purchased under Item 7 of Budget.
15. Write the name and phone no.(s) of the project co-ordinator(s) or contact person(s) in this space.
16. Use this space for giving any other comments.

NOTE: ADDITIONAL SHEETS MAY BE USED WHEREVER NECESSARY. MORE DETAILED INFORMATION GIVEN ON ADDITIONAL SHEETS (WHILE SUMMARY IS GIVEN IN NP-1) WILL FACILITATE PROJECT EVALUATION.

For instructions
 Director,
 P.O. Box 1234, Waigani

NEW POLICY/PROJECT SUBMISSIONS - 1987
 COSTS, MANPOWER & OTHER AGENCIES CONCERNED

AGENCY: D.P.I - FORESTS
 DIV No: 244 FUND No: 03 ACT No: 3 LOC CODE: (1, 2, 3) DESIGN No: 110202
 PROJ DESCRIPTION: FOREST RESEARCH DISTRICTS DEPT PRIORITY: 7 OBJECTIVE: CATEGORY: 1

COST ESTIMATES:		1983	1984	1985	1986	TOTAL COST
ITEM		(ALL FIGURES IN K'000)				
PERSONAL EMOLUMENTS	1) National					
	2) Overseas					
	3) Volunteer					
	ITEM 1 TOTAL		5.0	5.0	5.0	15.0
TRAVEL AND SUBSISTENCE	1) Internal					
	2) Patrol					
	3) Mileage	10.0	10.0	10.0	10.0	40.0
	4) Transfer					
	5) Other					
	ITEM 2 TOTAL	10.0	10.0	10.0	10.0	40.0
UTILITIES	1) Posts & Telegraphs					
	2) Water					
	3) Electricity	10.0	10.0	10.0	10.0	40.0
	4) Govt Printing Office					
	ITEM 3 TOTAL	10.0	10.0	10.0	10.0	40.0
MATERIALS AND SUPPLIES	1) Vocabulary Stores					
	2) Non-vocab Stores					
	3) Library & Subscriptions					
	4) Freight					
	5) Incidentals					
	ITEM 4 TOTAL	10.0	10.0	10.0	10.0	40.0
PLANT/EQUIPMENT HIRE	ITEM 5 TOTAL					
SPECIAL SERVICES	ITEM 6 TOTAL					
CAPITAL ASSETS	1) Tech & Scientific Equipment	200.0	200.0	150.0	150.0	700.0
	2) Office Equipment	50.0	50.0	50.0	50.0	200.0
	3) Office Furniture	50.0	50.0	50.0	50.0	200.0
	4) Others	10.0	10.0	5.0	5.0	30.0
		ITEM 7 TOTAL	310.0	300.0	255.0	255.0
GRANTS	ITEM 8 TOTAL					
OTHER	1) Overseas Travel					
	2) Hire of Govt Ships					
	3) Housing Rental (Overseas)					
	4) Air Charter					
	5) Other					
	ITEM 9 TOTAL					
EMOLUMENTS - OTHER	1) Overtime					
	2) Wages					
	3) Leave fares - Expatriate					
	4) Leave fares - National					
	ITEM 10 TOTAL					
	TOTAL ITEMS 2-10	500.0	300.0	200.0	200.0	1200.0
	TOTAL ITEMS 1-10	500.0	300.0	200.0	200.0	1200.0
11 CAPITAL WORKS TOTAL	11	100.0				100.0
12 DESIGN	12	40.0	16.1	16.1	16.1	88.3
13 MAINTENANCE	13					
14 LAND PURCHASE	14					
15 MAPPING & SURVEYS (A-10)	15					
16 PROJECT TOTAL ESTIMATE	16	865.0	316.1	216.1	216.1	1413.3
17 MANPOWER (Nos)	17					

Signature: _____
 Name: _____

1983		1984		1985		1986	
Net	Vol	Net	Vol	Net	Vol	Net	Vol

12 OTHER AGENCIES CONCERNED: Put cross (X) in the box below the Agencies concerned

MAP	NEPC AID	PSC	CSC	EQE	CPC	DUD	PG	OTHER
(Estab)	(Equip)	(Equip)	(Equip)	(Equip)	(Equip)	(Equip)	(Equip)	(Equip)

Attach a write-up indicating the advice obtained if any, from these Agencies if consulting service/computer system is required, give full details analysing the current situation and problem areas.

INSTRUCTIONS FOR FILLING UP FORM NP-2

1. This form has been designed to enable data entry into computer. Therefore, it should be filled up carefully and figures/letters should be written or typed only in the proper boxes provided. For typing, use 1/12 inch size letters which can be typed easily, leaving one space between the figures and one space between two horizontal lines.
2. The funds figures are to be written in 000 kina on the left side of decimal point and one figure (to represent, 00 kina) on its right side. Thus K'1,250,100 is to be written as follows:

1 2 3 0 . 1

Similarly, figures for manpower, say 241 nationals, 5 volunteers and 21 overseas contract officers will be written as follows:

	1982
1 National	2 4 1
2 Volunteer	5
3 Overseas	2 1
Total	2 6 7

3. Write Name of agency (Department/Office Province/institution on the top, followed by Division, Function and Activity No. under which the project falls. The space for Loc. code and Design no. be left blank; this will be filled by National Planning Office.
4. In the second line, after PROJECT DESCRIPTION write project title which should be limited to 40 letters including spaces. If the name of the project is longer, it should be partially abbreviated to limit the total size to 40 letters. This is followed by the priority order given by the agency to the project, within the objective (same as in form NP1). Objective code and category should be left blank as these will be filled by NPO.
5. Estimate manpower cost for the first year at K'1,200 per head for national or volunteer and at K'7,500 per head for overseas.
6. Costs for all items should include all expenditure, irrespective of whether met from government budget, aid or any other source. In the Total Cost column, give figures for the total cost of the project till it is completed. If the project completion goes beyond 1986, the Total Cost will be the sum of costs in 1983 - 1986 and those after 1986. If a project is continuous type, give four years' total under Total Cost column.
7. Figures for serial nos. 11 to 13, namely, Capital Works, Design and Maintenance Costs are to be filled in by Department of Works and Supply. Sponsoring departments should send Forms NP1 and NP2 to Works and Supply who will enter these figures, sign it, give comments if any and return the Forms to the sponsor. Provinces and Statutory bodies, whose Capital Works are not undertaken by Works and Supply, should fill in these figures themselves.
8. For filling serial nos 14 and 15, namely, land purchase and Mapping and Surveys (by National Mapping Bureau) costs, the Forms NP1 and NP2 should be sent to the Department of Lands, National Mapping and Environment (Lands Division). After all these costs have been entered, the sponsors should give Project Total Estimates and submit the forms to National Planning Office.
9. In serial no. 17, give manpower estimates in numbers for categories.
10. To indicate the other agencies concerned, put a cross (x) under the Agency Concerned in serial no. 18. If any other agencies, not listed here, are concerned with the project, write their names in serial no. 19, i.e. Comments.
11. Any other comments can be written in serial no. 19. Use additional plane sheets, if necessary.
12. The shaded areas to facilitate data entry into computer and should be filled more carefully.

Ⅶ 林業省，森林局の在PNG日本大使館
あて非公式要請（1981, 1/2月）



MINISTER FOR FORESTS

RECEIVED
17 JAN 1981
PORT MORESBY

P 11 12 595
HONOURARY
PAPUA NEW GUINEA

2-2-12

9 January 1981

His Excellency
The Ambassador for Japan
P O Box 3040
PORT MORESBY

Your Excellency,

As you are aware, Papua New Guinea is a country covered with forests. For the most part, the most valuable areas and usually the easiest to exploit, are what we class as the Coastal Lowland rainforest, situated for the most part along the extensive flat lands adjacent to the whole coast line.

We have been slowly developing industries based on this forest resource. Indeed, much of our trade in unprocessed logs, as a first step in developing the timber industry, in fact has been with Japan. We appreciate your Country's continuing interest in Papua New Guinea's development towards economic independence by assisting us in the matter of trade as well as aid.

Japan in the past has shown much interest in the multitudinous species (up to 200 commercially possible species have been identified) in Papua New Guinea and has done much in the way of research into end uses for our lesser known species at your own Negoro Forest Products Research Institute in Tokyo. Your researchers have visited Papua New Guinea on many occasions, and it has been our pleasure to be able to assist them in what is research of great potential mutual benefit to both our countries.

The silviculture of the tropical forest is however very complex - there is so much that we do not know. We in Papua New Guinea realise our forests are quite different to the Dipterocarpaceae forests of South East Asia - so much of the work done there is not relevant, except in the general sense, to Papua New Guinea.

We have a Research Division in my Office of Forests, but due to the constraints of time, finance, adequate personnel and facilities; the amount of work we have directed to unravelling the mystery behind the silviculture of the rainforest has been disappointingly small. Certainly we admit we are at the beginning of the acquisition of knowledge of this sphere of tropical forestry.

In view of the fact that all the development of our forest resources for the next 20 years must be in the lowland rainforest area, I have recently directed that the great majority of our silvicultural research effort, within the foreseeable future, will be directed to rehabilitating the lowland rainforest areas subject to either heavy clear felling ahead of industrial reforestation, for woodchip production; or selection felling to produce sawlogs and plylogs for both Papua New Guinea and Japanese industries, among others.

To do this we intend to establish a Forest Management Research Institute in Lae, from where it will be much easier to carry through a consistent and well directed programme of rehabilitation of the logged rainforest.

I intend to transfer the Chief Research Officer from Port Moresby to head this organisation, and transfer most, if not all of the staff presently living on the Bulolo Research Station to staff the Institute. This move also implies that the equipment and insect/fungi collections will transfer to Lae. This move will have added advantages, in that the Institutes' Research staff will be able to work in closer liaison both with my own Botany Division and the Lae National Herbarium and the University of Technology than is now possible.

Additionally, the Institute will be a research Centre offering facilities for special silvicultural project work by overseas experts, who will be invited to backup our own specialists in particular areas of research.

We are fortunate indeed that we have recently been advised that we have been given 10 acres of land suitable for the Institute, and associated housing; this area is made available adjacent to the University of Technology at Lae.

The Director of Forests has indicated that in the past your Embassy has expressed an interest in assisting in the establishment of such facilities as part of your general overseas Aid Programme for developing countries.

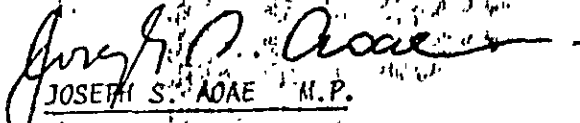
I am therefore now in the position where I can ask you whether you could be interested in joining with the Papua New Guinea Government in the establishment of such an important Institution in the near future. I am supremely confident that nothing but credit will reflect on those associated in this great endeavour of such immediate and long-term benefit to Papua New Guinea.

Lae is the ideal Centre for such an Institute, being the geographical centre of Papua New Guinea, served by the great transport system in the country; connected by road to coastal as well as Highland areas (where certain limited research will be continued) and adjacent or easily accessible to almost all of the silvicultural types requiring urgent research work.

I would be pleased if you could set your way clear to discuss with my Director any matter I have not touched on in this initial mention of our vision for the future.

Please be assured of my constant interest in your problems of resource supplies. I feel this area of assistance could be of great and continuing mutual assistance to both our countries.

Yours sincerely,


JOSEPH S. AOAE M.P.
Minister for Forests



DEPARTMENT OF PRIMARY INDUSTRY
OFFICE OF FORESTS

TELEGRAMS: FORESTS
TELEPHONE: 284022

OFFICE OF FORESTS.
P.O. BOX 5055.
BOROKO.
PAPUA NEW GUINEA

Your Excellency
The Ambassador for Japan
P O Box 3040
PORT MORESBY

Date 10 February 19
Our Reference 310-1-17
Action Officer
Designation.

Your Reference.
Date.

Your Excellency

RE: FOREST RESEARCH INSTITUTE - LAE

Following a discussion Shigeta/Gardner, Luton recently I offer the following explanation to clarify my Minister's recent letter of 9th January concerning aid donation towards the construction of the intended Forest Research Institute in Lae.

You are aware of the increasing urgency of this necessary Institute, and I thank your Excellency for your promptness in taking up this matter.

The Institute should be staffed, by and large, with the staff currently busy at Bulolo; with some additions. These include 2 entomologists, one silviculturist, two tree pathologists, technicians, an office clerk and a typist. To these will be added a Librarian, a Soils man, biometrician, possibly another silviculturist and the Director of the Institute who will transfer from Port Moresby. PNG understudy positions will be established for all technical positions although it will not be possible to fill all vacancies for some time. It will thus be necessary to provide 11 high covenant and 11 low covenant houses and to this it may be desirable to add at least one more house to cater for overseas researchers carrying out short special jobs. We can go into this in more detail with your architect. The whole major complex will need air conditioning.

The extensive forest insect and forest pathogen collections at Bulolo will be transferred to Lae. All transfer costs should form part of the Papua New Guinea Government input into the Institute.

2.

I have no fixed ideas on the buildings necessary but each separate research section will need laboratory space and facilities/equipment. Some equipment we already have - more will undoubtedly be needed and I thank you for your interest in supplying this need, as expressed by your Mr Shigeta. So we have the requirement of:-

<u>Requirement</u>	<u>Section</u>	<u>Tech. Staff</u>
Office & Laboratory, insectarium (including biological control room)	Entomology	2 + technician
Office & laboratory & herbarium	pathology	2 + technician
Office & laboratory	soils	2 + technician
Office, laboratory, greenhouse & nursery	silviculture	2 + technician
Office & computer terminal room	bi metrician	1 + U/study
Office	clerk/typist/ reception	
Library	librarian	
Photographic room		

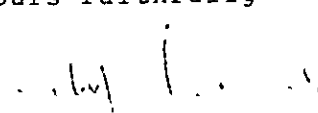
Small (30 occupants) Conference/Lecture room, the whole to be housed preferably in one complex with green house nursery located separately - an area for nursery, parking and roads.

I think the 10 acres to be made available (after the necessary Lands Department processing for a lease) will be adequate to create a first class Institute in an ideal environment, adjacent to the University of Technology, with which it will work in close co-operation. If you are happy with these ideas, I suggest you arrange for your architect to visit Lae as soon as possible to commence the basic drawings of the Institute.

I will be pleased if you continue to raise any problems with Mr J Gardner of my Office.

I look forward to our future co-operation with keen interest.

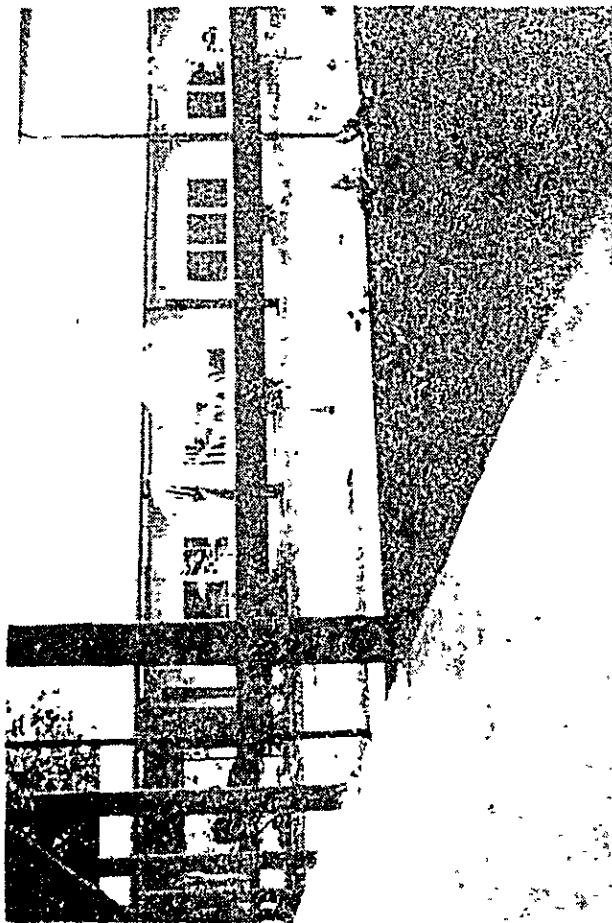
Yours faithfully


A M D YAUIEB
Director

VIII **TIMBER INDUSTRY TRAINING**

COLLEGE

COURSES 1982



T.I.T.C.

**TIMBER INDUSTRY
TRAINING COLLEGE**

POSTAL ADDRESS

P.O. BOX 2132

LAE, MOROBE PROVINCE

TELEPHONE

421083

424699

423886

Introduction

The Timber Industry Training College was established in 1978 as a joint venture between the Papua New Guinea and New Zealand Governments, with the aim of providing a high level of training for the Primary and Secondary sectors of the Timber Industry in Papua New Guinea and other South Pacific Countries.

The facilities provided rate amongst the finest in the world for training in the industry.

At present, besides the accommodation and service, lecture rooms and library facilities, there is a modern sawmill, a large sawdoctoring shop, a woodmachining workshop and several small sawmills.

The sawmill has two sawlines and is able to offer complete training in the operation and maintenance of a modern fully automated bandmill as well as a simple completely manually operated circular sawmill.

The sawmaintenance equipment and facilities are very complete and able to provide training in the making and maintenance of all types of saws at all levels.

The Woodmachining workshop is equipped with a planer-moulder, resaw and a full range of wood working machinery and grinding equipment. Timber drying and testing equipment is available.

A project of assistance and training for small sawmills is well established with two aid advisors available to give on site advice and assistance. Four types of small mills have been set up at the College for training and evaluation and these are being added to.

A pressure treatment plant will be operation' early in 1982.

As space is available courses are open to other countries of the Pacific and to date trainees have been received from Tonga, Niue, Vanuatu, Solomon Islands, and Kiribati.

COURSE PROGRAMME

Date	Course	Weeks
1 - 2 - 82	PETT COURSE	40 WEEKS
15 - 2 - 82	BANDSAW MAINTENANCE	4 WEEKS
1 - 3 - 82	WOOD MACHINING APPRENTICE BLOCK COURSE. 1	6 WEEKS
8 - 3 - 82	FOREST TYPE (MOVING SAW) SMALL SAWMILLS	3 WEEKS
8 - 3 - 82	OVERSEAS SAWMILLING COURSE	16 WEEKS
29 - 3 - 82	CHAINSAW OPERATION AND MAINTENANCE	2 WEEKS
19 - 4 - 82	CIRCULAR SAW MAINTENANCE	3 WEEKS
19 - 4 - 82	CIRCULAR SAWMILL OPERATION AND SAW MAINTENANCE	8 WEEKS
19 - 4 - 82	ADVANCED WOOD MACHINIST COURSE	3 WEEKS
19 - 4 - 82	TIMBER DRYING AND TREATMENT	2 WEEKS
10 - 5 - 82	BASIC WOOD MACHINING. PLANER MOULDERS AND GRINDERS	4 WEEKS
10 - 5 - 82	MEDDONS SAWMILLS	3 WEEKS
17 - 5 - 82	SAWDOCTORING APPRENTICE BLOCK COURSE. 1	6 WEEKS
7 - 6 - 82	SAWMILL FOREMAN. ADVANCED MANAGEMENT COURSE	3 WEEKS
14 - 6 - 82	ALASKAN SAWMILLS. SMALL CHAINSAW MILL COURSE	2 WEEKS
28 - 6 - 82	TIMBER GRADING COURSE	2 WEEKS
28 - 6 - 82	PFO'S TIMBER TREATMENT WORKSHOP	2 WEEKS
12 - 7 - 82	CIRCULAR SAWMILL OPERATION AND SAW MAINTENANCE	8 WEEKS
12 - 7 - 82	BANDSAW MAINTENANCE	4 WEEKS
12 - 7 - 82	JOINERY MACHINISTS. MACHINE OPERATION	4 WEEKS
12 - 7 - 82	SMALL SAWMILLS MANAGEMENT	2 WEEKS
26 - 7 - 82	CHAINSAW MAINTENANCE AND OPERATION	2 WEEKS
9 - 8 - 82	WOODMACHINING APPRENTICE BLOCK COURSE 2	6 WEEKS
9 - 9 - 82	DOLHAR SAWMILLS	3
30 - 8 - 82	PRESSURE TREATMENT PLANT OPERATORS	3 WEEKS
6 - 9 - 82	CARBIDE SAW MAINTENANCE	2 WEEKS
27 - 9 - 82	BASIC WOOD MACHINING. PLANER MOULDERS AND GRINDERS	4 WEEKS
27 - 9 - 82	SAWDOCTOR APPRENTICE BLOCK COURSE 2	6 WEEKS
11 - 10 - 82	GENERAL SMALL SAWMILLS COURSE	4 WEEKS
25 - 10 - 82	CHAINSAW MAINTENANCE AND OPERATION	2 WEEKS
8 - 11 - 82	CIRCULAR SAW MAINTENANCE	3 WEEKS
8 - 11 - 82	JOINERY MACHINISTS. MACHINE OPERATION	4 WEEKS

COURSE PROGRAMME

Course fees are K25.00 per week for tuition plus K12.00 week for full Board at the College.

A Consultancy Service is provided for the Industry at a nominal rate and also manufacture of bandsaw blades and most servicing work on all types of blades and cutters can be carried out. Income from this helps offset the operational costs of the College.

Visitors to the College are welcome, during normal working hours to inspect the training facilities and discuss training requirements.



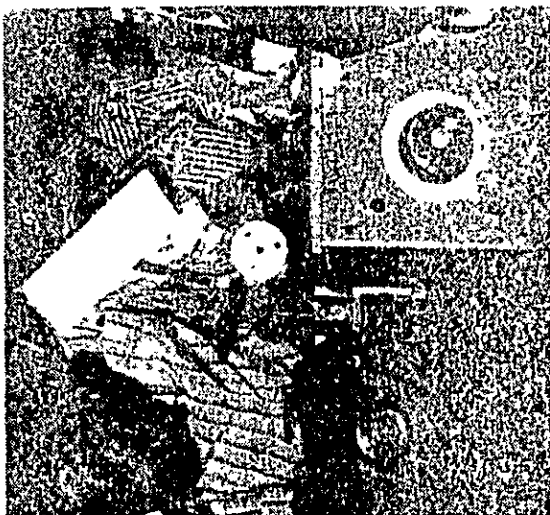
SAWDOCTORING COURSES

Bandsaw maintenance

15th February to 12th March

12th July to 6th August

Bandsaw tension and level (heat & roller), butt and crack welding by oxy-acetylene and T.I.G. methods, heat treatment, swaging and shaping (manual & pneumatic), grinding and grinding machines, grinding wheels and files, tooth profiles, high frequency induction hardening, stellite tipping, side grinding or equalising, tooth punching, sawshop equipment its operation and maintenance, trouble shooting, workshop calculation. Bandwheel brinding and mill alignment.



Sawdoctoring Courses continued

Sawdoctoring Courses continued

Circular Saw Maintenance

19th April to 7th May

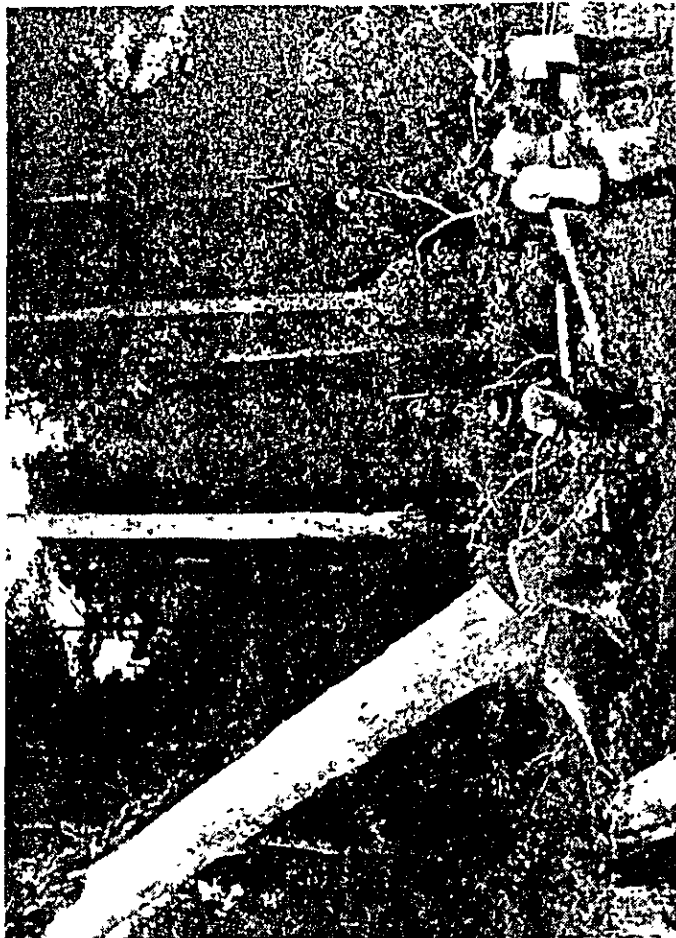
8th November to 26th November

Circular saw tension and level by hammer and roll methods, (emphasis on hammer method), tooth profiles, spring setting and swage setting, files and filing, grinding and grinding machines, hand gulleting, grinding wheels, inserted tooth saws, saw fitting and setting up, trouble shooting.

6th September to 17th September

Carbide Saw and Cutter Maintenance

Types of tungsten carbide, preparation of saw blade for tipping, brazing materials, equipment and its use for fixing tungsten carbide trips, method and procedures for fixing tips, grinding and types of grinding wheels, sharpening of cutters.



Sawdoctoring Courses continued

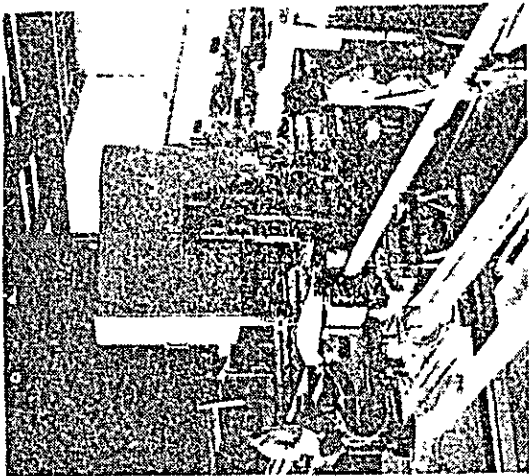
Chainsaw Maintenance and Operation

29th March to 8th April

26th July to 6th August

25th October to 5th November

The internal combustion engine, fuels and oils, precautions, maintenance, chain tension, lubrication, break in procedure, sharpening, chain repairs, trouble shooting, engine running, faults, safety and efficiency, precautions preparation and felling procedure, bucking and lumbing.



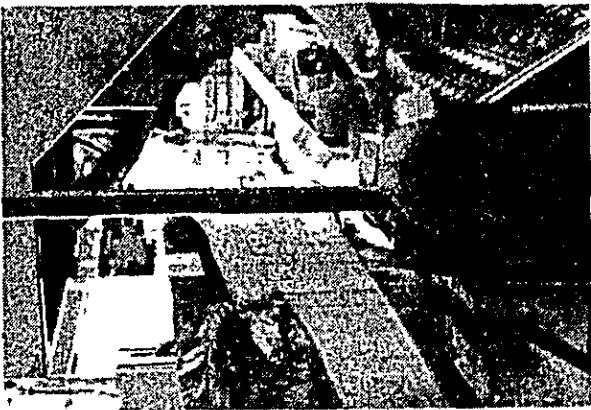
SAWMILLING COURSES

Sawmill Operation and Maintenance

Open to overseas trainees

8th March to 25th June

Types of sawmills their function and operation, conveying equipments, sawmilling machinery, log scaling, log turning and positioning equipments, circular headrig and its operation, bandsaw headrig and its auxillary equipment and its operation, timber conveying equipment, docking and trimming, general operation of all sawmilling equipments, timber sorting and stacking, dip defusion procedures, fitting saws setting guides etc, general maintenance on all sawmilling equipment.



Sawmilling Courses continued

Circular Sawmill Operation and Saw Maintenance

19th April to 11th June
12th July to 3rd September

Log scaling, bucking logs to mill lengths, operation of circular break-down, operation of manual log carriage, transfer systems, operation of breastbench, docking, grading and stacking, timber tally and conversion factors, mill alignment, sawmill maintenance and trouble shooting, circular saw tension and level, tooth profiles, spring and swage setting, files and filling, grinding and grinding machines, hand gulleting, grinding wheels, inserted tooth saws.

Sawmilling Courses continued

Sawmill Foremans Course

7th June to 25th June

Sawmill operation, log bucking, cutting patterns, defects in timber, conversion, saws and saw doctoring, mill maintenance log and timber yards, sawmill calculations, sawmill organisation and supervision. Defects and grading. Management structure in a sawmill. Foreman's role as a supervisor. Development of a capable work team. Basics of budgeting. Basic marketing procedure.

Sawmilling Courses continued

Timber Grading

28th June to 9th July

Introduction to grading and the Malaysian grading rules. Defects. Methods of determining grade. Bucking to improve grade. Headrig cutting to improve grade. Improving grade at the docking saws. Resawing for grade. Practical grading at the green chain and in the yard.

Pressure Treatment Plant Operators

30th August to 17th September

Pressure treatment plant equipment, PNG timber treatment specifications, safety, plant operation, maintenance and servicing of plant, chemicals used, solution strengths, treatment schedules, analysis of preservatives and sampling of treated timber, preparation of charges and handling of treated timber, keeping of records.

WOOD MACHINING COURSES

Basic Woodmachining—Planner Moulder and Grinders

10th May to 4th June

27th September to 22nd October

SAFETY: Types of cutters and cutter heads, types of machines, setting up machines and cutter heads, knives angles, balancing of knives, and their operation, knives grinding, cutting shape geometry and making templates for moulding knives, grinding wheels and types, calculations, jointing troubles shooting.

Wood Machining Courses continued

Joinery Machinists—Machine Operation

12th July to 6th August

8th November to 1st December

SAFETY: Setting up and running machines - spindle moulder, thicknesser, busbar, belt sander, bandsaw, circular saw, single and tenoner, chain and chisel mortise dowel bore, finger jointing - grading of knives and tools, working from a cutting list, joints used in joinery, jig making, hand power tools, maintenance, trouble shooting.

Advanced Woodmachining

19th April to 7th May

SAFETY: Advanced lectures and practical on all subjects of machine setting and operation, grinding, knife making, maintenance, calculations, tungsten carbide and fine knife cutters, finished surface requirements, trouble shooting.

Small Sawmills Courses.

Forest types (moving saw) course

Timber drying and treatment course

Meadows sawmill course

Alaskan (chainsaw type) sawmill course

Management course for small sawmill

Dolmar sawmill course

General small sawmills course

8th March to 26th March

19th April to 30th April

10th May to 28th May

14th June to 25th June

12th July to 23rd July

9th August to 27th August

11th October to 5th November

JICA

