

ヴァヌアツ国エスピリトサント島
試験造林事業開発計画調査団報告書

平成 3 (1991) 年 6 月

国際協力事業団

林開投

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序文

国際協力事業団は開発協力事業の一環として、ヴァヌアツ国エスピリトサント島試験造林事業開発計画調査を行うことを決定し、同国の社会・経済状態を把握し、開発協力事業に必要な事項を整理し、試験計画並びに事業計画を策定することを目的として、平成3年2月から3月に農林水産省林野庁指導部研究普及課技術開発推進室長二宮隆史氏を団長とする調査団を現地に派遣しました。調査団はヴァヌアツ国関係機関と協議を行うとともに現地調査を実施し、帰国後作業を経て、ここに本報告書完成の運びとなりました。この報告書が本事業の推進に寄与すると共に、両国の友好・親善の一層の発展に役立つことを願うものです。

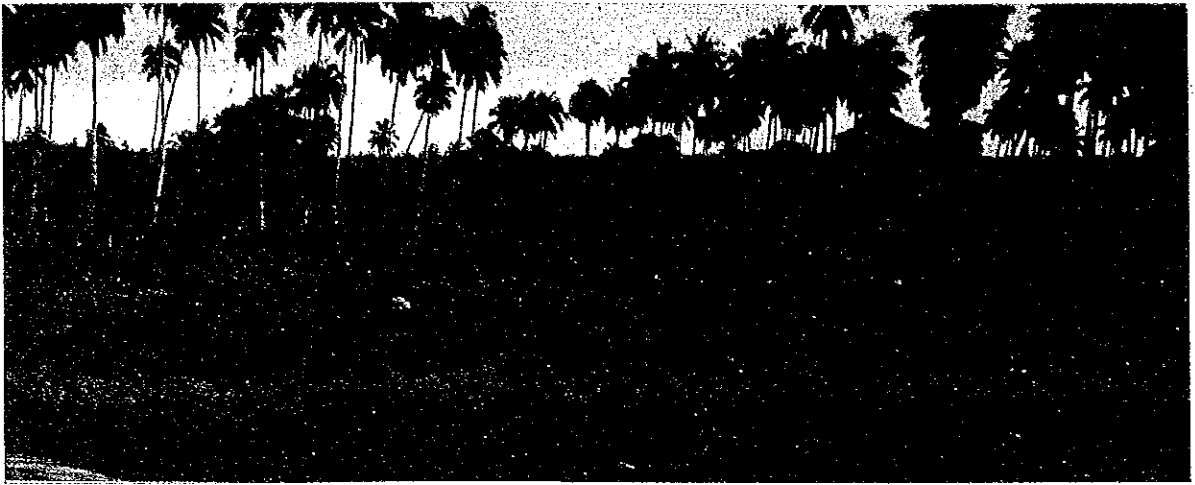
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平成3年5月

国際協力事業団

林業水産開発協力部長

宇津木 嘉夫



Matevulu College内試験予定地 Coral land : 1 ha



Matevulu College内試験予定地 Pico grass land : 3 ha



Matevulu College内試験予定地 Dark bush : 1 ha

図1 ヴァヌアツの位置図

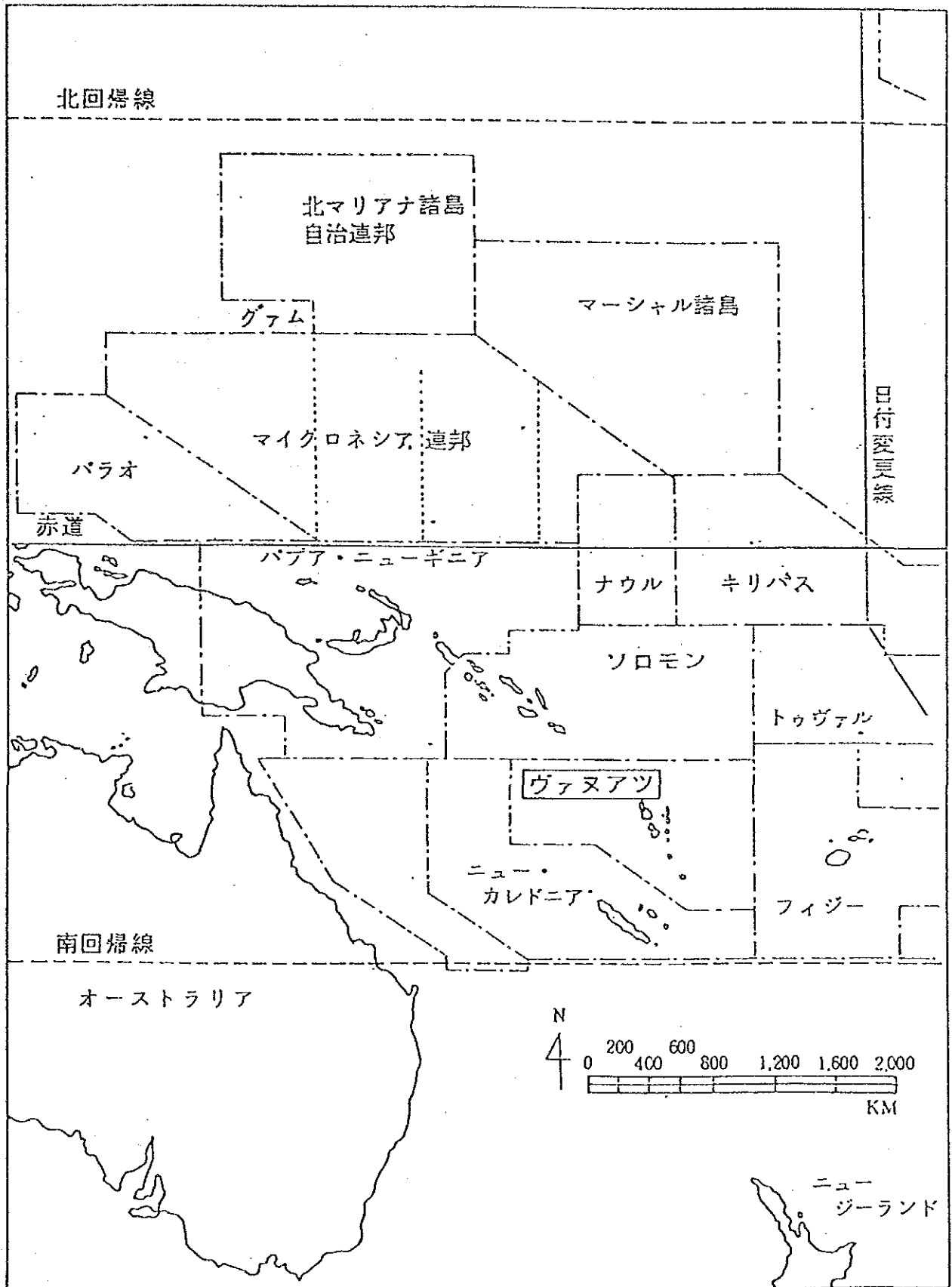
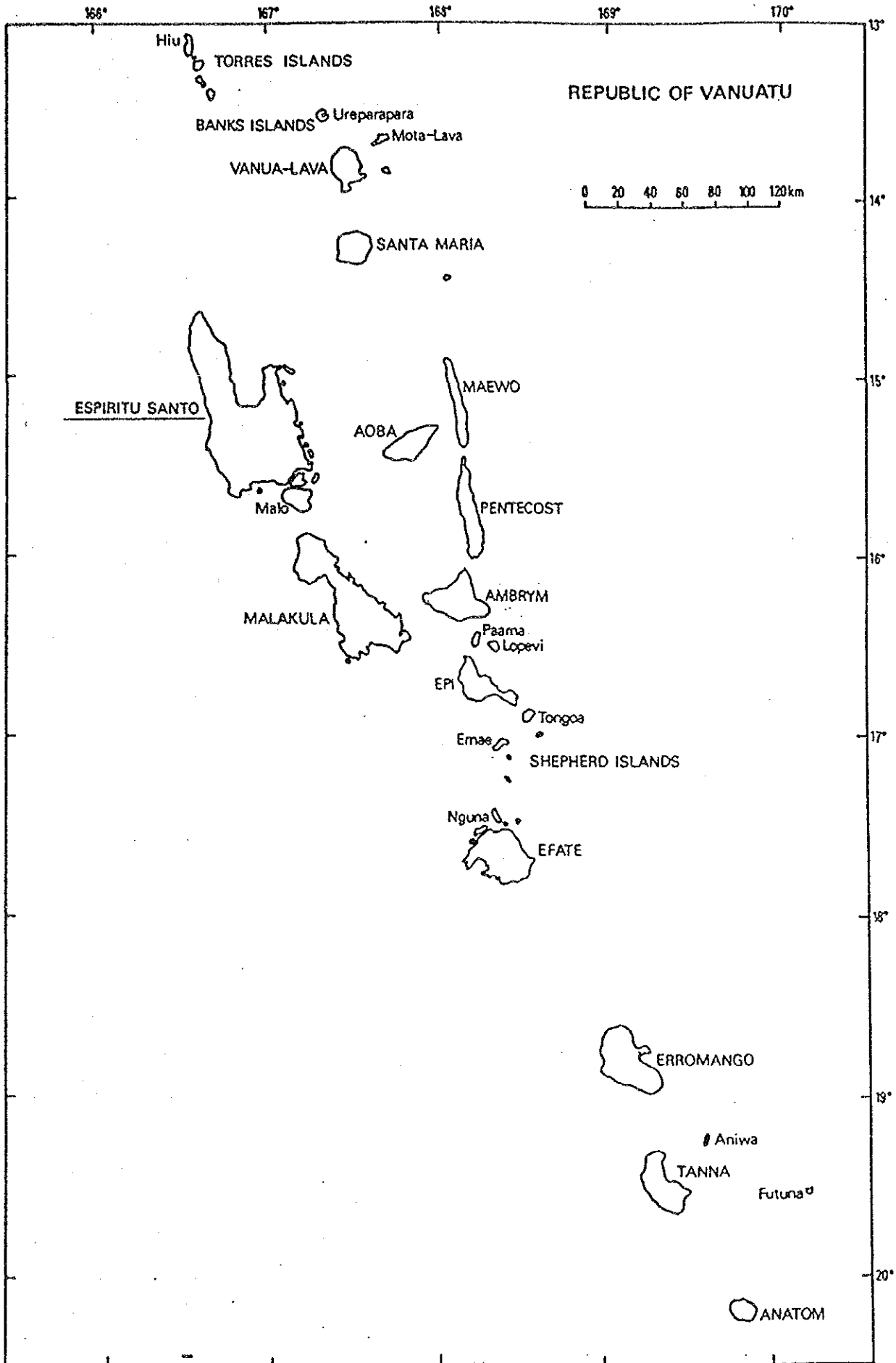


図2 ヴァヌアツ全国図



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1 調査の概要

1-1 調査団派遣の経緯

申請企業はバヌアツ国エスピリトサント島において紙パルプ用チップ生産のための早生樹種造林事業を計画しているが、同国においては対象樹種に関する試験は行われておらず事業化造林も行われていない。従って、適正樹種をはじめ造林に必要な施業技術等基礎的知見が明らかにされていない。

本調査は同国でのチップ生産を目的とした早生樹種の試験造林事業を実施するに当たって、同国の社会・経済状態を把握し開発協力事業に必要な事項を整理し、試験計画ならびに事業計画を策定することを目的とする。

1-2 団員構成

総括	二宮 隆史	農林水産省林野庁指導部研究普及課技術開発推進室長
協力企画	袴田 泰三	農林水産省経済局国際協力課海外技術協力官
事業計画	林 良次	(社)海外林業コンサルタンツ協会
造林	大澤 幸生	(社)海外林業コンサルタンツ協会
業務調整	藤井 知之	国際協力事業団林業水産開発協力部林業投融资課

1-3 調査日程

	月日	曜日	行程・用務先	宿 泊
1	2/24	日	東 京20:30 (NZ024) →→→	機 中 泊
2	25	月	→→07:55 ナディ⇒⇒⇒スバ 大使館、JICA	ス バ
3	26	火	スバ 08:45 (FJ252) → 9:15 ナディ 11:20 (NF105) →ポートヴィラ 13:00	ポ-トヴィラ
4	27	水	農林水産省、企画・情報省、通商産業省	〃
5	28	木	国土・鉱物・水資源省 ポ-トヴィラ 15:00 →→→ エスピリットサト 16:10	エスピリットサト
6	3/ 1	金	現 地 調 査	〃
7	2	土	現 地 調 査	〃
8	3	日	現 地 調 査	〃
9	4	月	ルガンビル市長、農林水産省地方事務所、森林局/EEC	〃
10	5	火	エスピリットサト8:30→→→ ポ-トヴィラ 9:20 JOCV事務所	ポ-トヴィラ
11	6	水	農林水産省、企画・情報省	〃
12	7	木	現地調査 ポ-トヴィラ 14:15 (FJ801) →ナディ 18:05 (NZ057) →オークランド 22:10	オ-克蘭ド
13	8	金	NZFP FOREST LTD.	〃
14	9	土	オ-克蘭ド11:10 (JL774) →→→17:55 東 京	

(注) →→→空路移動、 ⇒⇒⇒陸路移動

1-4. 面談者

フィジー国日本大使館	公 使	高橋康雄
	二等書記官	中島 敏
	二等書記官	仁田知樹
フィジー国 J I C A 事務所	職 員	水落俊一
バヌアツ国 J O C V 事務所	調整員	堀越 均
バヌアツ国政府関係者		

① Minister of Agriculture Livestock & Forestry

Mr. Jack T. Hopa

② Second secretaries Ministry of Agriculture Livestock & Forestry

Mr. Jeosephat Laau

③ Director of Foresry

Mr. Leonard Bule

④ Director of Land

Mr. Geoge Bogiri

⑤ Director of National Planning & Statistics Office

Mr. Jean Pierre

⑥ Director of Industries

Mr. Japin Tari

⑦ the Principal Environment Officer

Mr. Ernest Bani

⑧ Member of Parliament for Luganville

Mr. Kalo Nial

⑨ Mayor of Luganville

Mr. Paul Hakiwa

⑩ Secretary of Local Government

Mr. Joe Joseph

⑪ Seniro forester, Forestry Dept.

Mr. Edward Are

⑫ Regional Head of Agriculture Dept.

Mr. John Morrison

⑬ Project Manager, Snto Industrial Forestry Plantation

Mr. John Casey

P D L (Plantation Development LTD.)

Prject Leader

Mr. Andy Dick

N Z F P Forest Ltd.

Manager, Pacific Region

Mr. Barry R. Poole

伊藤忠商事 (株)

本社チップ部チップ一課

倉重猪知郎

ニュージーランド会社

小淵 昌之

2 総合所見

2-1 試験造林事業の意義

バヌアツ国は、約80の島々からなる島国で、陸地面積は12,189km²（新潟県とほぼ同じ）と小さく、資源的にも恵まれていない。天然資源としては森林資源と観光資源がわずかに存在するだけであり、総人口も約14万人と少なく、人的資源にも恵まれていない。また、経済的には、農業、特にココナツのプランテーションに大きく依存しており、コブラの輸出が国内産品輸出の約47%（1989年）を占めている。このため、バヌアツ政府としては、1980年の独立以来、コブラへの依存体質からの脱出及び経済的自立の達成を国家開発計画の最大の目標に掲げ、経済開発を進めてきており、今後は、畜産、林業の育成及び観光業の一層の発展を図ろうとしている。今年第2次国家開発計画（DP2 1987-91年）の最終年に当たっているが、DP2の目標の一つに「国家開発への民間部門の貢献度を高めていくこと」が掲げられているとともに、DP2の中の林業政策の目標の一つとして「輸出向け大規模産業造林の推進」が挙げられている。また、バヌアツ政府は現在第3次国家開発計画（DP3 1992-96年）を策定中であるが、担当部局からの聞き取り調査によると、DP3の中に「民間資本の導入」についても盛り込む予定になっている。

以上のことから、本試験造林事業は、正にバヌアツ国の開発政策に合致する事業といえる。

また、試験造林事業が計画されているエスピリット・サント島（以下「サント島」という。）の自然条件は、年平均降雨量が2306mmと比較的多く、土壌もかなり肥沃なことから造林に適していると考えられるが、これまでは、バヌアツ政府（森林局）及び英国の民間企業 British Petroleum（以下「B. P.」という。）によって製材生産を目的とする試験が小規模に実施されただけで、紙パルプ用チップの生産を目的とする早生樹種の試験の実績はない。更に、これらの試験地の管理が良くないため、試験データも十分に収集、保存されていないことから、バヌアツ国には造林技術に関するまとまった情報がほとんどない。このため、いきなり本格造林事業を実施するには、あまりにもリスクが大きいと考えられる。

従って、本格造林事業を実施する前に、綿密な試験計画に基づく試験造林事業を実施し、サント島の気候、土壌に適した造林技術を確立することが必要不可欠である。

2-2 開発協力効果

今回本邦企業が試験造林事業を計画しているサント島では、人口の70%が農業に従事しているといわれており、農業が主要産業となっている。農業の中でもココナツのプランテーションが大きなウェートを占めており、その他では牛の放牧が若干みられる程度である。農業以外の産業としては、製材所、肉牛生産会社、港湾荷役会社等があるだけで、地元住民が所得を得るべき雇用機会も限られている。特に、サント島の中心地であるルガンビル市（人口7千人）では、周辺諸島からの移民が増大する傾向にあるが、雇用機会が限られていることから、住民の50%が失業状態にあると

いわれている。

このような状況にあるサント島において、試験造林事業が実施されると、以下のよう
な開発協力効果が期待できる。

- ① サント島の自然条件に適した体系的な造林技術が確立される。
- ② 造林技術が周辺に普及することにより地元住民が植林するようになれば、住民
の現金収入が増え、生活水準が向上する。
- ③ 試験造林事業に続いて、本格造林事業が実施され、チップ工場が稼働すること
になれば、地元住民の雇用機会が増大し、所得も飛躍的に増大する。
- ④ 将来的にはチップ等の林産物の輸出が増大し、大幅赤字のパヌアツ国の貿易収
支の改善にもつながる。

上記のように、本件はサント島の地域開発及びパヌアツ国の経済発展を促進する可
能性が大きいことから、パヌアツ国政府及び州政府の本件に対する期待は非常に大き
い。

2-3 調査団からの提案及び試験事業計画の概要

本試験造林事業は、既に本邦企業の現地法人（PDL）により実施されている。そ
の概要は以下のとおりである。

本邦企業の試験造林事業計画の概要

1 事業候補地

パヌアツ国エスピリット・サント島

2 事業規模

事業面積 約146ha

事業費 約4600万円

3 対象樹種

適地適木試験は以下の9樹種16種（①～⑦については2産地ずつとする）に
ついて実施する。また、地拵え試験は以下の①②⑤⑦の4樹種について実施する。

- ①Acacia Mangium
- ②Acacia Crassicarpa
- ③Acacia Auriculiformis
- ④Eucalyptus Grandis
- ⑤Eucalyptus Deglupta
- ⑥Eucalyptus Pellita
- ⑦Eucalyptus Urophylla

⑧Casuarina Junghunniana

⑨Casuarina Grandis

4 試験期間

2年間（1991～1992年）

5 試験項目

- ①育苗試験（森林局の苗畑2haを使用）
- ②適地適木試験（8ha）
- ③地拵え試験（138ha）

6 事業実施体制

パートナー企業から派遣されたプロジェクト・リーダー一人がすべてを統轄する（現地人スタッフがいない）。ただし、IFPプロジェクト（EECの援助による森林局のプロジェクト）と情報や技術を共有する。作業員は日雇。一部の機材はIFPプロジェクトから借用。苗畑は森林局から借用。

7 試験事業終了後の造林計画

2年間の試験事業終了時点で、良い試験結果が得られていれば本格造林事業（7年間で1万ha）に段階的に移行する。試験結果が悪ければ試験事業を継続する。

今回の調査結果を踏まえ、試験造林事業から本格造林事業へのスムーズな移行に資するよう以下のとおり提言する（表2-1）。

① 試験内容の充実

造林に係るデータがほとんどないため、造林技術を確立するための基礎的試験を実施する必要がある。

具体的には、試験項目として、育苗試験（ポット用土試験）、植栽密度試験及び除草試験を追加する。

② 試験期間

試験期間が2年間では、将来の生長予測が不正確になる可能性が高く、また、病虫害に関するデータの収集は困難である。従って、試験期間は伐期に合わせて7年間とするのが理想的ではあるが、B. P. 試験地（1988年に約6ha植林）のデータの一部（対象樹種の①②④⑤に係るデータ）が活用できるので5年間とする。

③ 試験造林面積

試験項目の追加に伴い、試験造林面積を45ha拡大する必要がある。

④ 事業実施体制及び施設整備

現地人スタッフを置かないで、プロジェクトリーダー一人がすべてを統轄する体制では、造林適期やデータ収集時期をのがすおそれがあるため、試験担当マネージャーを設置するとともに、試験事業に必要な最低限の施設や資機材を揃える必要がある。また、試験事業終了後に本格造林事業にスムーズに移行するためにも、試験事業の段階から現地人スタッフの育成を考慮した事業実施体制を作っておくことが重要である。

これらを踏まえて調査団が作成した試験事業計画の概要は以下のとおりである。

試験事業計画の概要

1 事業候補地

バヌアツ国エスピリット・サント島

2 事業規模

事業面積 約200ha（試験造林面積は191ha）

事業費 約16,000万円

3 対象樹種

適地適木試験は以下の9樹種16種（①～⑦については2産地ずつとする）について実施し、2年目以降の試験はこれら9樹種から5樹種を選抜して実施する。なお、地拵え試験は以下の①②⑤⑦の4樹種について実施する。

- ①Acacia Mangium
- ②Acacia Crassicarpa
- ③Acacia Auriculiformis
- ④Eucalyptus Grandis
- ⑤Eucalyptus Deglupta
- ⑥Eucalyptus Pellita
- ⑦Eucalyptus Urophylla
- ⑧Casuarina Junghunniana
- ⑨Casuarina Grandis

4 試験期間

5年間（1991～1995年）

5 試験項目

- ①育苗試験（2ha）
- ②適地適木試験（8ha）
- ③植栽密度試験（45ha）
- ④除草試験（植栽密度試験と組み合わせて行う）
- ⑤地拵え試験（138ha）

6 事業実施体制及び施設整備

① 事業実施体制

以下の4人体制とする。

- ・プロジェクトリーダー（PDL社長）
- ・造林技術アドバイザー
- ・試験担当マネージャー（現地人）
- ・事務員

② 施設整備

以下の施設及び資機材を揃える。

- ・管理事務所
- ・幹部スタッフ用宿舎
- ・作業員用宿舎
- ・トラック、クラッシャー等

7 試験事業終了後の造林計画

5年間の試験事業終了後は、同事業の成果を活用し、1万ha（7年間）の本格造林事業を実施する。

P D L の事業計画の概要と調査団の見解

事項	P D L 計画	調査団見解
試験期間	2年間(1991.92年)	5年間(1991~1995年)試験データ把握のためには一定期間が必要であり、病虫害・災害に関するデータも短期間で得ることは困難である。試験結果が出るまでを期間とする。本試験事業では88年に開始されたBP試験地のデータも参考にする。想定されている伐期の7年に対して、5年間の試験期間を設定することとがでできる。
開発対象樹種	<p>パヌアツ國のデータが乏しいため、P D L では樹種を始めから絞り込まずに、これまでの経験に基づきある程度の幅を持たせた選択を行ない、次の9樹種を選んだ。</p> <p>①Acacia mangium, ②A. crassicarpa, ③A. auriculiformis, ④Eucalyptus grandis, ⑤E. deglupta, ⑥E. pellita, ⑦E. urophylla, ⑧Casuarina junghunniana, ⑨C. grandis, ⑩~⑰については2産地ずつ、計9樹種16種</p>	2年目の試験にはBP試験地と1年目試験の経過観察をもとにし5樹種を選択する。5樹種(5種)の中には3属とも含まれるように選択する。
試験項目	<p>①育苗試験 ・ナサイク、エコポット、ベーパーポットの比較 ・ポリバリア防除 ・病虫害防除 ・ポット用土の混合割合と、薬剤につき試験する。</p> <p>②適地適木試験(8ha) 主要対象地であるPico-Grassland, Light Bushに各々3haの試験地を設け9樹種の試験を、将来利用の可能性を探るためにCostal Land, Dark Bushに各々1haの試験地を設け苗畑での成績のよい6樹種(6種)を選び試験を行う。</p> <p>③地持え試験(138ha) 地持え試験を主に行なう。地持えにクラッシュャー(Marden Roller), 牛、及び牧草を利用する。2年目の試験でも主要な項目となっている。</p>	<p>P D L の試験計画の中で不足していると考えられる基礎的な試験を追加し、保管管理の良通しを得る。育苗試験)</p> <p>1) 現状では計画的に行なわれないポット用土試験を系統的に行なうこととする。病害が期待できる屑炭や、ココブラ屑、また牛糞などを材料とする。</p> <p>2) 植栽密度試験 将来、適切な施肥方法を確立するための基礎データ収集を目的とし、除草試験と組み合わせて種々の調査を行なう。</p> <p>3) 除草試験 育苗から伐採の間で最もココスト(及び労務)がかかると考えられ、その方法は本事業の成否に大きな影響を与え、受入側のサント島にとつては雇用問題と関係することとする。</p>
試験面積	<p>1年目 ①Dark bush : 1ha ②Right bush : 50ha ③Pico-grass land : 44ha ④Coral land : 1ha 計 98ha</p> <p>2年目 Right bush : 50ha 合計 146ha</p>	P D L の計画の146haに加えて植栽密度/除草試験を行なう45haの試験地を主要対象地となるPico-grass land に設定し、計191haを試験面積とする。
実施体制 施設器材	試験期間中はNZ F P から派遣されたP D L プロジェクトリーダーがすべてを管理する。技術や情報の共有化を図るとI F P と連携しながら調査を進める。森林局の苗畑を利用し、I F P から器材の協力を得る。	早急にリサチ部門の専門家を派遣すること、事務所及び試験事業に必要な施設、器材を整備し試験事業を行なう環境を整えることが必要である。また本格事業への移行をスムーズに行なうためにも、常動現地スタッフの育成を図ることが重要である。

3 バヌアツ国の概要

3-1 バヌアツ国の概要

3-1-1 自然条件

- ① バヌアツ国は、約80の島々からなる島国で、南緯13°～23°、東経166°～172°の範囲にあり、ソロモン諸島の南東、フィジーの西方800km、ニューカレドニアの北東400kmに位置している。
- ② 総陸地面積は、12,189km²で、新潟県の面積にほぼ等しい。エスピリット・サント島が最も大きく、約3,200km²で、全体の26.3%を占めている。また、主要12島で全体の93.3%を占めている。
- ③ 各島は、ニュージーランドから北上してニューカレドニア、バヌアツ、ソロモン諸島を経て、パプア・ニューギニアに至る環太平洋造山帯に属しており、火山性隆起島がさらに造山運動で押し上げられてできた島である。
土壌は、サンゴ礁の風化土と火山灰性土壌に植物の腐食土が堆積した褐色土壌であり、熱帯地方に多く見られる赤色土壌に比べかなり肥沃である。
- ④ 気候的には、北部地域（トレス群島からバンクス群島）は熱帯性、南部地域（エロマンガ島以南）は亜熱帯性の気候であるが、一般に島の東側では降雨量が多く、西側は降雨量が比較的少ない。
11月～4月が気温も高く、降雨量も多い雨季に当たり、5月～10月が降雨量が少ない乾季に当たる。雨季にはサイクロンが発生し、大きな被害をもたらす。サイクロンの被害は北部地域より中南部地域のほうが大きい。1939～89年の間に75個のサイクロンがバヌアツ国を襲ったが、このうちサント島を直撃したのは7個にすぎない。首都ポートビラにおける年間降雨量は年平均2205mm、平均気温は24.8℃である。また、サント島（ルガンビル）における年間降雨量は2306mm、平均気温は25.5℃である。

3-1-2 社会条件

- ① バヌアツ国は、1980年に独立し、1981年に国連に加盟した（第155番目）。
- ② 総人口は、約14万人（1989年）である。全国は11の地方に分かれているが、首都ポートビラのあるエファテ地方に約31千人（うちポートビラに約19千人）、第二の都市ルガンビルのあるサント／マロ地方に約26千人（うちルガンビルに約7千人）となっており、偏った人口分布になっている（表3-1）。
総人口の約97%は、“ni-Vanuatuan”（バヌアツ人）と称するメラネシア系の原住民である。残りは、ヨーロッパ系、華僑、ベトナム系で、そのほとんどが都市部ないしその周辺に居住している。

③ 人口の大部分は” ni-Vanuatū ”であるが、多くの島に分かれているため、多種多様な文化が形成されており、言語も118以上あるとされている。

公用語は英語、仏語とピジン英語の一種であるビスラマ語の3つである。

④ 宗教は、キリスト教が広く普及している。

⑤ 土地は、憲法により、原住民の慣習的所有者及びその子孫に帰属すると規定され（憲法第73条）、原住民である国民のみが土地に対する永久の所有権をもつと定められている（同第75条）。これらの土地の多くは、登記されていないため、その境界や所有者の範囲が明確となっていない。このため、事業を実施する場合、政府レベルで事業実施のゴーサインが出ても、慣習的土地所有者と土地のリース交渉を行う段階になると、所有者間で揉めごとが起こり、事業がうまく進まないケースが多くなっている。

3-1-3 政治、行政

① 政治体制は、大統領を国家元首とする民主共和制である。大統領の任期は5年で、国民議会議員（46名）と11の地方政府の長からなる大統領選出議員会による選任を受ける。

バヌアツは、世界に例を見ない「英仏共同統治（コンドミニウム）制度」から独立したため、英仏両様の政治体制を受け継いでおり、英国式の議会制民主制度とフランス式の大統領制共和制度とが混在している。

② 議会の多数党の党首が首相となる。現在の首相は、1980年の独立以来多数を占めているバヌア・アク党党首のウォルター・リニである。

③ 外交面では、旧宗主国である英国、フランスへの依存度を軽減すべく外交関係の多様化を推進してきており、主要西側先進国に加え、中国、ソ連とも外交関係を開設している。

3-1-4 経済条件

① 人口の8割が自給自足経済下でヤム、タロ等の根栽作物を栽培しており、貨幣経済に参加しているのは人口の2割に過ぎない。また、都市部と農村部、都市部における外国人とバヌアツ人との二重の経済格差が存在することが大きな特色である。

1985年における国民一人当たり所得は、都市部では農村部の10倍以上であり、都市部でも外国人はバヌアツ人の15倍以上と見積もられている。1988年におけるGDP寄与率をみると、人口の3%に過ぎない外国人がGDPの30%を占め、貨幣経済に参加している20%の人口でGDPの9割を生産している。

② 主要産業としては、ココナッツのプランテーションと観光業が挙げられるが、近年、コブラの国際市場価格の低迷とココナッツ樹の老齢化により、ココナッツのプランテーションが牧場に転換されつつあり、コブラの輸出も減少傾向にある。また、近年、オーストラリア、ニュージーランドの景気が悪化したことから、観光客も減少してきている。これらに替わって、今後発展が期待される分野は、畜産と林業である。特に、林業については、森林資源がカスタマリー制度による障害、アクセスの悪さ、林業従事労働力不足のため、ほとんど開発されず残されていたが、近年、林業開発に関心が集まっており、今後発展が期待される。

③ 貿易収支は恒常的に大幅赤字を計上しており、1989年には56億バツの入超となっている。輸出が一次産品を主力にしているため、国際経済環境に左右されやすく、いずれの品目も急速かつ大幅な増加は困難なため、赤字幅は拡大傾向にある(表3-2)。

輸出品目は、コブラ、牛肉、木材等の一次産品で占められている。近年、コブラのシェアが低下しつつあり、牛肉、木材のシェアが上昇傾向にある(表3-3)。

輸入品目は、近年、機械・輸送機器、基礎的製造品のシェアが増大しつつある。また、食料品・家畜が全体の約15%と比較的多くなっているのが目立つ(表3-4)。主たる貿易相手国は、輸出ではオランダ、日本、ベルギーで、1989年にはこの3カ国で全体の約64%を占めている(表3-5)。輸入ではオーストラリア、ニュージーランド、日本が上位を占めている。1989年には、オーストラリアが約39%、ニュージーランドが約13%、日本が約12%を占めている(表3-6)。

④ 主要外貨獲得源が一次産品の輸出と観光のみに依存しているため、国際収支、財政は非常に脆弱な体質となっている。

対バヌアツ国のODAは、英国、フランス及びオーストラリアを中心とした二国間援助が9割強と大きな比重を占め、国際機関の比重は小さい。また、形態別にみると、技術協力を中心に無償資金協力を含めた贈与がその大部分を占めている。なお、国際機関からの援助のうち5割はECによるものである。

3-2 国家開発計画と林業の位置付け

バヌアツ国は、1980年に独立したが、世界に他に例をみない「英仏共同統治(コンドミニウム)制度」から独立したため、法制上、行政上、教育・保健その他公共サービス上のあらゆる分野で二重のシステムが存在し、非常に非効率的であった。このため、バヌアツ政府は、経済的自立の達成を長期的目標として掲げ、この目標を達成するための経済開発を3つの局面すなわち①過渡期・再建期(1982~86年)

②経済発展能力の強化期(1987~91年)、③経済的自立の達成期(1992

～96年)に分けて実施することとした。政府は、1982年に国家計画統計局(National Planning and Statistics Office)を設立し、過渡期・再建期をカバーする計画として、第1次国家開発計画(Development Plan I 1982~86年)を策定した。

DP1の主たる目標は、コブラ依存体制の打開であった。

現在は、経済発展能力の強化期をカバーする第2次国家開発計画(DP2 1987~91年)に基づいて経済開発が進められている。DP2の目標は、

- ① 適切かつ受容可能なレベルのサービスの供与に基づく天然資源の開発により、経済的自立の度合いをより高めていく。
- ② バヌアツ人のより一層の開発への参加とコントロールを高めつつ、人的資源の開発を加速化する。
- ③ 確実かつ安全的経済成長を達成していくための手段として、国内天然資源の活用度を高める。
- ④ より公正な地域・農村部開発のパターンを確立する。
- ⑤ 国全体の利益のため、国家開発への民間部門の貢献度を高めていく。
- ⑥ バヌアツ固有の環境・文化伝統が経済開発と社会変化により被害を蒙ることのないよう注意する。
- ⑦ 議会制民主主義に基づき、安定した政治環境を継続していく。

であり、この目標を達成するため、5年間に約293億バツ(2.93億ドル)の開発資金の投入が計画されている。このうち、15.5%に相当する約46億バツが農林漁業の分野に当てられることになっており、林業には約5億バツが当てられる計画である(表3-7)。

また、バヌアツ国の林業政策は、DP2の中で以下の5点を目的に進めることとされている。

- i 製材品などの林産物の国内消費を自給すること
- ii 余剰の林産物の輸出を推進すること
- iii 林業・林産の分野にできる限り現地人の参加を奨励すること
- iv 森林資源を効率的に開発して、将来のための長期的経営計画を策定すること
- v 代替エネルギー源としての森林資源を研究開発すること

これらの林業政策の目的を具体的に実行するために、以下の目標が定められている。

- ア 地元消費用の人工造林の推進(Local Supply Plantation(LSP)プログラムの推進)
- イ 輸出向け大規模産業造林の推進(Industrial Forestry Plantation(IFP)プログラムの推進)
- ウ 合理的な天然資源の維持増進のための適切な森林開発
- エ 技術開発のための試験研究の推進

なお、第3次国家開発計画(DP3 1992~96年)については、現在策定中であるた

め、その内容は明らかでないが、企画・情報省国家計画統計局からの聞き取り調査によると、地方開発政策の重点事項として、①地方への資本の配分、②天然資源の開発、③インフラ整備等を計画している。また、民間資本の導入についてもDP3に盛り込む予定である。

表3-1 地方別面積、人口

(單位：畝、人)

区 域	面 積 (1986年)	人 口 (1989年)
Banks/Torres	882 (7. 2%)	5, 985 (4. 2%)
Santo/Malo	4, 248 (34. 9)	25, 581 (17. 9)
Ambae/Maewo	699 (5. 7)	10, 958 (7. 7)
Pentecost	499 (4. 1)	11, 341 (7. 9)
Malakula	2, 053 (16. 8)	19, 298 (13. 5)
Ambrym	666 (5. 5)	7, 191 (5. 0)
Paama	60 (0. 5)	1, 696 (1. 2)
Epi	446 (3. 7)	3, 628 (2. 5)
Shepherds	86 (0. 7)	3, 975 (2. 8)
Efate	923 (7. 6)	30, 868 (21. 6)
Tafea	1, 628 (13. 4)	22, 423 (15. 7)
計	12, 189 (100. 0)	142, 944 (100. 0)

出所：National Planning & Statistics Office (NPSO)

表 3-2 貿易収支

(単位：百万バツ)

	輸 出			輸 入			収支差
	国内輸出	再輸出	計	国内用輸入	再輸出用輸入	計	
1985年	1970	1282	3252	6385	993	7378	△4126
1986	970	871	1841	5905	200	6105	△4264
1987	1502	440	1942	7450	188	7638	△5696
1988	1558	508	2066	7066	295	7361	△5295
1989	1612	951	2563	7882	336	8218	△5655

出所：NPSO

表 3-3 輸出内訳

(単位：百万バツ)

	1985	1986	1987	1988	1989
コブラ	1392	461	719	953	750 (29.3%)
牛肉	186	149	252	243	262 (10.2)
木材	136	63	208	106	204 (8.0)
ココア	133	196	207	117	174 (6.9)
その他	123	101	116	139	222 (8.7)
小計	1970	970	1502	1558	1612 (62.9)
再輸出	1282	871	440	508	951 (37.1)
計	3252	1841	1942	2066	2563 (100)

出所：NPSO

表 3 - 4 輸入内訳

(単位：百万バツ)

	1985	1986	1987	1988	1989
機械・輸送機器	1387	1503	1918	1797	2452 (29.8%)
基礎的製造品	1083	1062	1624	1430	1437 (17.5)
食料品・家畜	1210	1089	1022	1263	1213 (14.8)
その他製造品	972	820	983	851	934 (11.4)
鉱物・燃料	651	573	634	584	640 (7.8)
化学品	395	364	450	421	540 (6.6)
飲料・タバコ	295	252	204	368	331 (4.0)
その他	392	242	615	352	335 (4.1)
小計	6385	5905	7450	7066	7882 (95.9)
再輸出用輸入品	993	200	188	295	336 (4.1)
計	7378	6105	7638	7361	8218 (100)

出所：NPSO

表3-5 主要輸出国

(単位：%)

	1985	1986	1987	1988	1989
オランダ	48.0	33.7	28.0	49.2	28.6
日本	15.5	18.8	26.9	16.2	18.5
ベルギー	17.1	4.0	6.8	4.2	16.7
オーストラリア	2.2	4.1	2.4	4.6	10.1
フランス	10.2	25.7	12.2	10.3	9.6
ニューカレドニア	1.3	2.5	3.3	3.5	7.7
その他	5.7	11.2	20.4	12.0	8.8
計	100.0	100.0	100.0	100.0	100.0

出所：NPSO

表3-6 主要輸入国

(単位：%)

	1985	1986	1987	1988	1989
オーストラリア	35.9	36.4	34.6	43.4	39.1
ニュージーランド	10.9	9.6	14.0	10.5	13.0
日本	12.2	13.0	12.8	9.4	11.6
フィジー	6.7	4.9	6.1	6.9	9.3
フランス	8.3	7.5	4.7	4.9	5.4
香港	4.4	3.7	3.1	3.9	3.7
ニューカレドニア	4.0	5.8	4.6	4.1	3.0
その他	17.6	19.1	20.1	16.9	14.9
計	100.0	100.0	100.0	100.0	100.0

出所：NPSO

表3-7 DP2部門別・資金源別投資計画

単位：百万円

	1987			1988			1989			1990			1991			計					
	援助	政府	計	援助	政府	計	援助	政府	計	援助	政府	計	援助	政府	計	援助	政府	計			
計画遂行・モニタリング	30.4	1.5	32.0	50.8	4.3	55.1	47.8	4.2	52.0	47.8	4.2	52.0	47.8	4.2	52.0	42.7	4.3	47.0	219.6	18.5	238.1
人口、雇用、人的資源開発	538.0	-	538.0	795.2	8.1	803.3	778.2	18.0	796.2	693.6	22.5	716.1	591.1	24.9	616.0	3,496.1	73.5	3,569.6			
土地所有制度・開発	30.5	0.4	30.9	80.8	20.1	100.9	28.9	22.1	51.0	16.7	21.6	38.3	7.6	21.3	28.9	164.5	85.6	250.1			
地域成長・開発	107.6	80.0	187.6	176.2	22.2	198.4	170.9	-	170.9	186.0	-	186.0	217.4	-	217.4	858.1	102.2	960.3			
農業・牧畜	626.6	2.3	628.9	821.0	3.2	824.3	829.1	3.2	832.4	451.0	4.3	455.2	416.0	4.4	420.4	3,143.7	17.4	3,161.1			
林業	37.9	0.9	38.8	74.7	2.7	77.4	93.6	1.7	95.3	72.6	1.8	74.4	186.5	1.8	188.3	465.3	9.0	474.2			
漁業	428.3	0.7	429.0	239.2	2.0	241.2	123.4	2.0	125.4	96.4	4.2	100.5	63.6	3.5	67.1	950.8	12.3	963.2			
鉱物・開発	26.8	1.7	28.5	37.3	3.3	40.7	49.3	3.8	53.1	35.9	3.1	39.0	19.5	1.5	21.0	168.8	13.4	182.2			
工業・貿易	5.1	0.1	5.2	9.8	0.6	10.3	139.1	33.9	173.1	4.9	0.1	5.0	37.5	9.4	46.9	196.5	44.0	240.4			
協同組合・農村部企業	156.1	17.3	173.4	136.1	16.2	152.3	119.7	18.6	138.3	120.6	20.0	140.6	105.6	7.9	113.5	638.1	79.9	718.0			
観光	8.8	2.5	11.3	31.5	5.0	36.5	24.5	5.0	29.5	8.3	2.3	10.5	-	-	73.0	14.8	88.2				
金融、銀行、財務	149.6	103.0	252.6	391.8	-	391.8	335.0	-	335.0	57.6	-	57.6	44.6	-	44.6	978.7	103.0	1,081.7			
社会福祉・コミュニティ開発	10.9	1.3	12.2	4.9	1.3	6.2	4.7	1.3	6.0	2.4	1.3	3.7	2.1	1.4	3.4	24.8	-	26.2			
保健サービス	329.8	-	329.8	295.9	-	295.9	197.4	-	197.4	121.7	-	121.7	162.6	-	162.6	1,107.4	-	1,107.4			
教育・研修	497.8	12.7	510.5	1,353.8	30.0	1,383.8	1,096.2	34.5	1,130.7	651.2	9.4	660.6	490.0	6.5	496.5	4,089.0	93.1	4,182.1			
文化	2.3	0.1	2.3	16.6	6.3	22.9	5.9	3.3	9.2	1.5	0.1	1.5	76.5	0.1	76.6	102.8	9.8	112.6			
公序・公安	201.7	1.5	203.2	239.5	-	239.5	239.2	-	239.2	230.2	-	230.2	230.2	-	230.2	1,140.8	1.5	1,142.3			
海運	435.9	-	435.9	1,170.8	2.7	1,173.5	236.5	3.3	239.8	72.5	3.3	75.8	196.5	3.3	199.8	2,112.2	12.6	2,124.8			
空運	236.7	0.2	236.9	751.1	5.5	756.6	103.7	10.3	114.0	165.6	10.3	175.9	108.8	22.9	131.7	1,365.8	49.3	1,415.1			
陸運	74.0	-	74.0	341.6	8.1	349.7	263.9	18.9	282.8	266.0	30.0	296.0	239.5	44.0	283.5	1,185.0	100.9	1,285.9			
郵便・通信	37.7	4.5	42.3	357.3	7.0	364.3	385.5	16.4	401.8	226.8	23.5	250.3	155.3	31.8	187.1	1,162.6	83.2	1,245.8			
エネルギー	15.5	-	15.5	88.2	1.7	89.9	36.6	2.5	39.1	24.0	3.8	27.8	12.1	3.0	15.1	176.3	10.9	187.3			
上・下水道	104.0	12.0	116.0	219.2	23.2	242.4	499.2	26.3	525.6	504.8	31.0	535.8	353.7	26.0	379.6	1,680.9	118.5	1,799.4			
住宅	1.0	-	1.0	24.2	8.7	32.9	83.2	6.4	89.6	258.2	6.6	264.8	328.2	7.1	335.3	694.8	28.8	723.6			
環境・自然保護	9.0	-	9.0	19.8	0.3	20.0	4.1	0.3	4.4	-	0.3	0.3	-	0.3	0.3	32.9	1.0	34.0			
その他政府サービス	174.4	4.3	178.6	473.6	35.5	509.1	656.3	56.9	713.2	257.0	59.9	316.9	179.6	129.7	309.4	1,740.9	286.3	2,027.2			
計(%)	4,276.3 (94.5)	246.8 (5.5)	4,523.2 (100.0)	8,200.8 (97.4)	218.1 (2.6)	8,418.9 (100.0)	6,551.8 (95.7)	293.0 (4.3)	6,844.9 (100.0)	4,573.2 (94.6)	263.4 (5.4)	4,836.6 (100.0)	4,357.2 (92.5)	354.8 (7.5)	4,722.1 (100.0)	27,969.4 (95.3)	1,376.2 (4.7)	29,345.6 (100.0)			

出所：Executive Summary of the Second National Development Plan (NPSO)

但 表の数値はラウンディングのため必ずしも一致しない。

4 投資環境

4-1 経済

ヴァヌアツ国の経済の特色を概観すれば、つぎのとおりである。

(1) 自給自足経済と貨幣経済が共存する二重構造

自給自足経済は人口の約8割を占める農村部の現地人により営まれ、ヤム、タロなどの根栽作物をつくっている。換金作物としてはコブラを産する程度である。貨幣経済は、エファテ島にあるポートビラ（首都）とエスピリト・サント島にあるルーガンビル（2都市）を中心とする都市部において営まれており、これに参加しているのは人口の2割に過ぎない。都市部と農村部、都市部における外国人と現地人との二重の経済格差が存在することが大きな特色である。

1988年における GDPは10,120百万 VT であり、国民一人あたり所得は77,980 VT と暫定的に推計されている。しかし、都市部の外国人 (expatriates) の一人あたり所得が721,630 VT であったのに対して、現地人 (ni-Vanuatu) のそれは46,437 VT にすぎず、両者の差は15倍以上である。GDP 寄与率で見ると、人口の3%にすぎない外国人が国民所得の30%を占めている。また、人口の約20%が貨幣経済に参加し、GDP の約90%を生産している。（表4-1参照）

表4-1 GDPの推移

単位：百万VT(1983年価格)、%

	1985		1986		1987		87/86
	10,966	100	10,751	100	10,821	100	
GDP計	10,966	100	10,751	100	10,821	100	6.51
農林牧畜漁業	2,771	25.3	2,606	24.2	2,591	23.9	Δ 0.58
工業	940	8.6	1,025	9.5	1,282	11.8	25.07
サービス業	7,255	66.2	7,121	66.2	6,948	64.2	Δ 2.43
内 貿易、観光	3,753	34.2	3,518	32.7	3,599	33.3	2.30
内 金融	967	8.8	1,128	10.5	1,087	10.0	Δ 3.63
内 政府サービス	1,629	14.9	1,721	16.0	1,614	14.9	Δ 6.28

出所：GOV. of Vanuatu; Vanuatu Facts and Figures 1990 ほか

(2) 主要産業は、農林畜産などの第1次産業と、観光や金融などのサービス部門の第3次産業

第1次産業の主たる産品は、コブラ、ココア、牛肉、木材などである。輸出品目も、この四大産品がほとんどである。これらの一次産品の輸出は、産地の気象と国際市場価格に大きく左右される。サイクロンが襲来した年や国際市場価格が暴落した年は生産や輸出が伸びない。今後発展が期待されている分野は、肉用牛の飼育などの畜産と早生樹種の植林などの林業であるといわれている。

(表4-2参照)

表4-2 主要農産物の推移

品目	単位	1985	1986	1987	1988	1989
コブラ						
生産量	トン	38,806	41,394	36,369	29,552	24,906
生産者価格	VT/トン	39,730	24,356	23,645	32,406	31,026
ココア						
生産量		814	1,197	1,243	813	1,573
FOB価格	VT/トン	163,391	163,743	166,533	143,911	110,616

出所: GOV. of Vanuatu; Vanuatu Facts and Figures 1990 ほか

サービス部門は、1987年のGDPの64%を占めている。なかでもホテル、レストランなどの観光業は33%とサービス部門の過半を占め、一次産品輸出とならんで重要な外貨獲得源となっている。オーストラリアからの観光客が過半数を占めている。日本からの観光客の増加が期待されているが、定期直行便がないのが難点だとされている。(表4-3参照) また金融業は、tax haven, offshore banking center, inter-national shipping register などの政策によって繁栄し、GDPの10%を占めるに至っている。

表 4 - 3 観光客の推移

	単位	1985	1986	1987	1988	1989
訪問者数	人	24,521	17,515	14,642	17,544	23,865
うち観光客	%	77	75	63	71	73
国 別	%					
オーストラリア		61	53	45	55	58
ニューカレドニア		14	15	15	10	12
日 本		2	8	3	3	3
ニュージーランド		5	3	10	8	8
フランス		2	3	2	2	1
その他		16	17	26	22	17

出所: GOV. of Vanuatu; Vanuatu Facts and Figures 1990 ほか

広大な海域を擁し、水産資源は豊富であると考えられるが、現地人は自給自足経済にのみ従事しており、産業としての水産業は South Pacific Fishing Company (SPFC, かつては日本資本) の漁業部門の停止 (1986年) によって、GDP 寄与率はゼロとなっている。

鉱物などの天然資源に恵まれていないヴァヌアツ国の経済は、今後とも一次産品の輸出と観光などのサービス部門の発展に依存せざるを得ず、これらとともに先進国の経済動向に左右されやすい産業である。(表 4 - 2、表 4 - 3 参照)

(3) 貿易収支の恒常的な大幅赤字

ヴァヌアツ国の輸出品目が国際経済環境に影響されやすいコブラなどの一次産品であるのに対して、輸入品目は食料、輸送機器、製造品などの生活必需品であり、恒常的に大幅な輸入超が続いている。

ヴァヌアツ国の国際収支は、この貿易収支の赤字を、観光を主体としたサービス収支の黒字と、先進国の無償援助や技術協力からなる公的移転収支の黒字

で相殺して、経常収支では黒字とした上で、offshore bankingによる長期資本収支を中心とする資本収支の黒字を加えて総合収支を黒字とするパターンである。

観光や無償援助などの公的贈与は先進国側の経済動向に影響されるので、経常収支は年により変動が大きい。また政府は公共投資にあたっては無償援助やソフトローンの公的借款に依存する政策をとっており、商業融資をできるだけ限定しているために、資本収支は経常収支にくらべて規模は小さい。

4-2 貿易

ヴァヌアツ国の貿易収支の最近の年次別推移を表4-4に示す。貿易収支は恒常的に大幅赤字を計上している。1989年の輸出額は2,563百万VT、輸入額は8,218百万VT、貿易収支の赤字額は5,655百万VTであった。主要輸出品目は表4-5に示すように、コブラ、ココア、牛肉及び木材という一次産品であり、これらの輸出額の伸びは国際的な市況すなわち国際経済の動向に左右されやすい。いずれの輸出品目も大幅な輸出の増加を急速に望むことは困難である。輸入品は表4-6に示す。国内消費輸入のなかに占める食料と飲料の割合は、1985年までは約4分の1を占めていたが、海外からの援助資金によるプロジェクトの進行に伴い、原材料、機械・輸送機器、基礎製造品などの輸入が増加したために、シェアを低下しつつある。

表4-4 ヴァヌアツ国の貿易収支

単位:百万VT

	輸出(FOB)			輸入(CIF)			収支差
	国内輸出	再輸出	計	国内用輸入	再輸出用輸入	計	
1985	1,970	1,282	3,252	6,385	993	7,378	△4,126
1986	970	871	1,841	5,905	200	6,105	△4,264
1987	1,502	440	1,942	7,450	188	7,638	△5,696
1988	1,558	508	2,066	7,066	295	7,361	△5,295
1989	1,612	951	2,563	7,882	336	8,218	△5,655

出所:GOV. of Vanuatu(1991); Vanuatu Facts and Figures 1990

表4-5 主要輸出品の推移

単位:百万VT

金額	コブラ	ココア	牛肉	木材	牛皮	貝	コーヒー	その他	計
1985	1,392	133	186	136	23	24	21	55	1,970
1986	461	196	149	63	17	26	7	51	970
1987	719	207	252	208	26	27	9	54	1,502
1988	953	117	243	106	34	35	4	65	1,558
1989	750	174	262	204	36	59	-	127	1,612

単位:トン

数量	コブラ	ココア	牛肉	木材	牛皮	貝	コーヒー	その他	計
1985	34,930	814	806	17,423	209	47	87	255	54,571
1986	42,293	1,197	588	7,859	176	24	22	262	52,421
1987	31,846	1,243	1,047	19,283	178	42	44	277	53,960
1988	31,681	813	1,011	6,999	264	58	19	145	40,990
1989	23,620	1,573	997	12,676	248	69	-	313	39,446

出所:GOV. of Vanuatu(1991) ; Vanuatu Statistical Bulletin 1990 3rd Quarter

表4-6 主要輸入品の推移

単位:百万VT

	1985	1986	1987	1988	1989
食料・家畜	1,210	1,089	1,022	1,263	1,213
飲料・タバコ	295	252	204	368	331
原材料 (燃料を除く)	68	67	226	88	65
鉱物燃料	651	573	634	584	640
動植物性油脂	39	37	25	31	33
化学品	395	364	450	421	540
基礎製造品	1,083	1,062	1,624	1,430	1,437
機械、輸送機器	1,387	1,503	1,918	1,797	2,452
その他製造品	972	820	983	851	934
その他	286	138	364	233	237
計	6,385	5,905	7,450	7,066	7,882

出所:GOV. of Vanuatu(1991) ; Vanuatu Statistical Bulletin 1990 3rd Quarter

主要貿易相手国を表4-7に示す。輸出ではオランダが最大手である。これはコブラを長期契約によって輸入していることによる。次いで日本、フランスの順である。日本への輸出の大半は牛肉であり、次いでコブラ、貝殻、木材である。輸入ではオーストラリアが40%近いシェアを毎年占めて最大手である。ニュージーランド、日本がこれにつづいている。日本からの輸入の大半は自動車、船舶などの輸送機器である。表4-8において国別輸出額の推移、表4-9において国別輸入額の推移を示す。

表4-7 主要貿易相手国

単位:%

	輸 出					輸 入				
	1985	1986	1987	1988	1989	1985	1986	1987	1988	1989
オーストラリア	2	4	2	4	10	36	36	35	43	39
フィジー	-	-	-	-	-	7	5	6	7	9
フランス	10	26	12	6	10	8	8	5	5	5
日 本	15	19	27	15	18	12	13	13	9	12
オランダ	48	34	28	52	28	-	-	-	-	-
ニューカレドニア	1	2	3	3	8	4	6	5	4	3
ニュージーランド	1	-	-	-	1	11	10	14	11	13
その他	23	15	28	20	25	22	21	22	21	19
計	100	100	100	100	100	100	100	100	100	100

注:輸出は国内輸出のみ(再輸出は含まれない) また輸入は国内用輸入のみ(再輸出用輸入は含まれない)

出所:GOV. of Vanuatu(1991); Vanuatu Facts and Figures 1990

表4-8 国別輸出額の推移

単位:百万VT(FOB)

輸入国	1985	1986	1987	1988	1989
ベルギー	337	39	102	65	270
オランダ	946	327	421	767	461
フランス	200	249	183	160	155
ニューカレドニア	26	24	50	54	124
シンガポール	19	22	2	29	3
日 本	305	182	404	252	298
オーストラリア	43	40	36	71	163
台 湾	4	18	16	-	-
その他	90	69	288	160	138
計	1,970	970	1,502	1,558	1,612

出所:GOV. of Vanuatu(1991); Vanuatu Statistical Bulletin 1990 3rd Quarter

表4-9 国別輸入額の推移

単位:百万VT(CIF)

輸出国	1985	1986	1987	1988	1989
オーストラリア	2,295	2,151	2,581	3,069	3,083
日本	779	768	956	662	917
ニュージーランド	699	568	1,041	744	1,025
フィジー	425	286	456	488	733
フランス	528	443	351	344	427
ニューカレドニア	256	345	339	288	233
シンガポール	252	233	247	267	257
香港	283	221	234	277	295
その他	868	838	1,245	927	912
計	6,385	5,905	7,450	7,066	7,882

出所:GOV. of Vanuatu(1991); Vanuatu Statistical Bulletin 1990 3rd Quarter

4-3 税制

ヴァヌアツ国においては、所得税、法人税、資産税、相続税、贈与税、キャピタルゲイン税、売上税、源泉所得税などはない。国家財政は間接税に頼っている。すなわち、輸出入関税、空港・港使用料、ビジネスライセンス料、観光売上税（ホテルやレストランの売上の10%）、さらには tax haven によってもたらされる各種手数料収入などである。

関税については、政府は、農業、工業、観光の開発指定地域を定めて、関税減免措置を検討中である。この措置をうけられる開発プロジェクトのタイプはつぎのとおりである。

(1) 外貨獲得タイプ

地元の原材料を使って製品を輸出すること、輸入原材料を使って製品を輸出すること、観光によって外貨を得ることなど

(2) 地元または輸入の原材料を使って、輸入品の代替製品をつくって、外貨を節約するタイプ

- (3) バランスよく地域を開発させるプロジェクト
- (4) 50人以上の地元労働者を雇用するプロジェクト

これらのタイプのプロジェクトは、つぎのような関税の減免措置をうけられる。

- (1) 事業の開始段階における資本財の輸入関税の免除。予備の部品や維持修理用具についても一定期間の輸入関税免除
- (2) 地元で調達できない原材料を使って、輸出製品をつくる場合の原材料あるいは製品の輸入関税の免除
- (3) 特定の農業用器具機械の輸入関税免除
- (4) 専門行政部局の要請による特定品目の関税減免。

ヴァヌアツ国の国家財政は、このような輸入関税やサービス税などの間接税による収入と、海外からの贈与によって賄われている。1988年歳入総額は4,059百万 VT、うち課税収入が4,039百万 VT、外国からの贈与が20百万 VT となっている。

4-4 金融事情

ヴァヌアツ国の金融制度の最大の特徴は、バハマ諸島やバーミユダ諸島と同じように、独立以前の1970年以来、offshore banking centerとして確立されていることである。法人税などがない tax haven としての地位と、為替管理がないことが、その主要な存立基盤である。ヴァヌアツ国の主要な金融機関はつぎのとおりである。

(1) ヴァヌアツ中央銀行 (Central Bank of Vanuatu)

1980年11月に立法化され、1981年より運営を開始した国立中央銀行。通貨を発行するほか、国内の通貨の安定と金融の平常化のための基本的な機能を果たしている。しかし、公定歩合操作は行っていないので、統一的な金利体系がヴァヌアツ国にはなく、各金融機関がそれぞれ独自に預金・貸付金利を定めている。

(2) ヴァヌアツ開発銀行 (Vanuatu Development Bank)

資本の乏しい現地人に中小規模の事業資金を供給することを主要な目的として、1979年に設立され、タンナ、マラクラ、サントの3島に支店を設けている。1987年末で、2,703プロジェクトに対して総額954百万VTの貸付けを行っている。農業資材の購入などのために、最高限度額1百万VTまで貸付ける“Micro Loans”という制度を実施している。この制度は、年利6%、貸付期間2年となっている。この銀行は、Caisse Centrale de Cooperation Economique, European Investment Bank, Asian Development Bankなどの国際金融機関と密接な関係をもって、資金調達を円滑にしている。

(3) ヴァヌアツ協同組合貯蓄銀行 (Vanuatu Co-operative Saving Bank, VCSB)

農村地域において貯蓄を推進するために、1975年に設立された。1987年末で19,200の預金者、預金総額341百万VTとなっている。またこの銀行は、開発銀行の貸付金の回収や政府関係の給与の支払いなどの業務を行なっている。1986年12月に銀行業務のライセンスを得たが、その機能はいまだ有効に働かず、現在、貯蓄銀行が集めた預金は農村地域に還流せず、大半は商業銀行に再預金されている。

(4) 商業銀行

つぎの4商業銀行が国内向けだけでなく、非居住者、法人そして金融機関と取引している。

- ・ Australia and New Zealand Banking Group Ltd, Port Vila
- ・ The Honkong and Shanghai Bank
- ・ Westpac Banking Corporation
- ・ Banque Indosuez Vanuatu Ltd.

これらの商業銀行は主に都市部の近代部門を取引の対象としている。この国の近代部門はほとんど対外経済活動と直接的に結びついており、これらの銀行は国内通貨のみならず外貨による預金や貸付が認められており、さらに報告書を政府に提出すれば非居住者やoffshore bankingとの取引ができる。

1987年末におけるヴァヌアツ国における預金総額のうち、term deposits が72%、demand deposits が24%、saving deposits が4%となっており、外国通貨による預金は国内通貨による預金よりも多く、73%を占めている。

これら4商業銀行のほか、7つの国際信託銀行(international trust company)、6つの法律事務所、7つの会計事務所があつて、約1,200の国内と offshore の法人に役務を提供している。

1989年末における商業銀行の総資産額は30,608百万 VT、国内居住者による預金額は15,957百万 VT、また国内居住者への貸付額は4,936百万 VT であつた。1989年末における1~3月預金金利は4~8%、貸付金利は8~17%であつた。

4-5 為替制度

ヴァヌアツ国の通貨の単位はバツ(Vatu, 略称 VT)である。1988年2月5日までは、バツは IMF の SDR とリンクしていたが、現在は、ヴァヌアツ中央銀行で定める special basket によって決められている。

この国は為替管理を行なっていないので、銀行はバツのほか国際的に広く通用しているいかなる通貨も受け付け、信託基金は必要ある時に自由に世界のどこへでも移すことができる。

4-6 社会

人口の大部分を占めるのは、ni-Vanuatu と称する現地人であり、そのほとんどがメラネシア系であり、一部の島にはポリネシア系住民が存在するといわれている。したがって、ヴァヌアツ国は基本的にはメラネシア社会であるが、80以上の島々によって分離されているために、ポリネシア系の混った多種多様な文化が形成されている。

100年以上にわたるキリスト教の伝道は、現地人の宗教意識、生活文化さらに政治的なイデオロギーに大きな影響を与えたが、それにもかかわらず、メラネシア系やポリネシア系の風俗習慣は根強く残っている。

メラネシア系文化の共通の特長のひとつである“どれだけ多くの豚を保有しているかが権威付けの象徴である”ことが、ヴァヌアツ国の各島において伝統的に存在する。この国の公用語は Bislama と称するヴァヌアツ国特有のピジン英語、それに英語とフランス語の3つであるが、国内に118以上の言語（ほとんどがメラネシア系、一部の南部の島にポリネシア系）があるとされている。

メラネシア社会がポリネシア社会と違う最大の特長は、ポリネシア社会では世襲的酋長制 (paramount chief) をとっていて、身分的位階秩序が存在するのに対して、メラネシア社会では、その時々“ビクマン Bigman” が指導者となるというビクマン体制がとられていて、身分階級が未分化であることである。

同じメラネシア系であるといっても、ポリネシアの影響が濃いフィジーの伝統的社会における指導者は世襲的酋長であるのに対し、パプア・ニューギニアやソロモン諸島における伝統的社会では、世襲的酋長制をもっておらず、年長者のなかから力の強い智恵のある者がビクマンに選ばれて、村落社会の意思決定をリードしていく、という社会構造となっている。

ヴァヌアツ国の中では、たとえば南東から北西にのびている諸島のなかで、首都 Port Vila のあるエフェテ島では母方の血統を通じて継承される世襲的酋長制がとられているが、その南東にあるエロマンガ島では戦いに勝った強い男が酋長 (chief) になる習慣であるという。ヴァヌアツ国の大部分の諸島は、世襲的酋長制をもたないメラネシア社会でもって構成され、その基本的単位は外婚集団である父系の

クラン氏族グループである。土地の共有制は、このクランを原則として行なわれる。しかし、婚資はカバ (kava) やタバ (Tapa) などを用いるところが多いことなど、ポリネシア文化の影響をかなり受けている。

4-7 土 地

パプア・ニューギニア (PNG) やソロモン諸島などの他のメラネシア諸国と同じく、ヴァヌアツ国においては、土地は現地人の生活と密接に結びついており、経済上のみならず、精神上の人々のよりどころである。19世紀後半以降渡来してきたヨーロッパ人入植者は、このようなヴァヌアツ国の慣習的土地制度を無視して、タバコ、アルコール、マスケット銃などと引きかえに、現地人より土地を手に入れ、ココナツ農園などを経営し、あるいは市街地をつくっていった。1930年に、英仏共同統治政庁は土地登記に関する法律を制定して、これらの土地の権利を近代的ヨーロッパ的に規定した。近代化の波にさらされていない多くの現地人は、だまし取られるようにして土地を失ってしまったといわれる。このことが、1980年の独立に際しての憲法の制定にあたり、土地の権利についての現地人優先主義が強く反映した要因となった。

現在のヴァヌアツ国憲法によれば、ヴァヌアツ国のすべての土地はヴァヌアツ国現地人の慣習的所有者およびその子孫 (indigenous custom owners and their descendants) に帰属すると規定され (憲法第73条)、さらに現地人である国民のみが土地に対する永久の所有権 (perpetual ownership) をもつと定められている (同第75条)。また、政府のみが慣習的所有者から土地を買い上げることができ、人口過密な島からの現地人 (または現地人社会) にその所有権を譲り渡すことができるとされている (同第81条)。

Land Leases Act によれば、土地のタイトルはリースホールド (Leasehold) の形でのみ登記されて、土地台帳に記載される。リース期間は最大限で75年 (住宅地は50年) であり、リース料などは5年ごとに更新される。土地のリースは担当大臣

の認可があって始めて登記され、法律によって保護される。したがって、このリースされた土地は、リースの権利を他者に転売すること、相続すること、分割することも可能であり、担保の対象物件となりうる。リース期限の切れた土地は、改修改良されたところも含めて、無条件に自動的に慣習的土地所有者に戻される。

独立前において Freehold として外国人が所有していた土地は、国土の約 5 分の 1 を占めていた。1980年 2月現在のその内訳はつぎの通りであった。

フランス人（及び企業）	54%
Ni-Vanuatu（及び企業）	19%
政府有	9%
イギリス人（及び企業）	8%
キリスト教会	5%
フランス政府	5%

これらはすべてリースホールドの国有地となり、現在その 60%ほどが登記されている。登記されているリースホールド地のほとんどは、Port Vila と Luganville の市街地の土地である。また現地人（ni-Vanuatu）及びその企業がもっているリースホールド地の 80% は、これらの都市の市街地のなかにある。

現在、Port Vila と Luganville の 2 都市の市街地はすべて国有地となっており、つぎの部局によって管理経営されている。

- ・ Port Vila Urban Land Corporation
- ・ Luganville Urban Land Corporation

慣習的土地は、慣習的な権利があると主張する現地人によって保有されている土地であり、農村部に多く、登記されていない土地である。その慣習的土地所有の形態は、島によって異なっている。すなわち、北部の島々においては、部族ごとの共有であって、その部族に属する者は自由に土地を利用することができるのに対して、ポリネシア色の濃い南部の島においては、身分による階級制度が確立しており、土地も身分に応じて配分され、使用方法も定まっているといわれる。

ヴァヌアツ国における土地に関する行政は、Ministry of Lands, Geology, Mines

and Local Water Supply に属し、つぎの部局によって行われている。

Department of Lands
Department of Land Surveys
Land Referee Office
Lands Records Office

ヴァヌアツ国の土地の権利関係に関係する法律の主なものは、つぎの通りである。

- ・ Land Reform Act
- ・ Land Leases Act
- ・ Alienated Land Act
- ・ Rural Land Act
- ・ Land Referee Act

植林事業を営む場合は、ココナツ農園あるいは牧場経営と同じく、一定の土地を確保しなければならず、Land Reform Act に基づいて、現地人の慣習的所有者より土地をリースすることとなる。政府土地局 (Department of Lands) は助言はするが、個々の折衝は当事者同士によって行なわれる。現地人の慣習的所有者にアプローチするためには、あらかじめ担当大臣より Certificate of Registered Negotiator を受けなければならず、さらに、慣習的所有者と結ばれた契約は、担当大臣によって承認され、かつ Land Records Office に登録されていなければ法的には有効でない (Land Reform Act 第 6、7 条)。

権利関係等は契約内容によって規定される。その土地にリース前からある資源のリース後の権利の所在、リース後に天然に発生した資源に関する権利の所在、道路設置など開発を行う上で開発者に求められる条件等々は、各事業ごと慣習的所有者との間の契約によって決定される。

ヴァヌアツ国における地域開発の最大の障害は、慣習的土地の所有をめぐるの現地人間の紛争であるといわれている。ユブラなどの農業開発やリゾートなどの観光開発のプロジェクトの構想がもち上り、政府レベルでは賛成されても、いざ地域レベルでの交渉事になると、決して土地所有や権利関係をめぐるいざこざが現地人の間で起こって、プロジェクトがうまく推進されないケースが多くある。

サント島は、ヴァヌアツ国最大の島であって、しかも火山灰土壌という熱帯においては肥沃な地域であるために、大規模農業開発あるいは植林事業を営むのにふさわしいところである。第二次大戦中、この島は連合軍の基地となり、23万のアメリカ軍が駐留して、道路、港湾、病院、兵舎、飛行場などを建設した。そのために、従来からサント島に居住していた現地人だけでなく、付近の島々から移ってきた現地人まで動員されて、これらの建設に従事した。戦争が終っても、インフラストラクチュアや生活環境が整備されているために、多くの現地人がそのままサント島に居残った。1980年のヴァヌアツ国独立の際に、政府に反旗を翻して、北部諸島の独立を図ったグループの指導者である Jimmy Stephens は、フランス人の血が流れており、他島から渡って来た現地人だといわれている。彼のような外来の現地人の方が物事に積極的に取組み、地域のリーダーとなっている例が多くあり、外国人の土地所有に強く反対して来たが、彼らが果して慣習的土地所有者であるか、具体的な地域開発プロジェクトの構想がもち上るたびに、問題となっている。

ヴァヌアツ国の多くの地域においては、部族間の慣習的土地の境界、慣習的土地所有者の範囲などが明確でないのが現状である。

比較のために、章末に参考資料として、近隣メラネシア諸国の土地の権利関係、リース、事業造林などの制度を紹介する。

4-8 労働事情

1989年5月におけるヴァヌアツ国の人口は143千人であった。人口増加率は1967～79年では年率3.6%、1979～86年では年率3.1%であった。この年率が続くとすると、20年で人口は2倍となり、2004年には人口が252千人になると予測される。1979年における非現地人の総人口に占める割合は約6%であり、うち51%がヨーロッパ系であり、73%が都市部に居住していた。

1986年における人口密度は、全国レベルで11.5人/㎡、農村部 1.55人/㎡、都市部 (Port Vila と Luganville) 449人/㎡であった。都市部における人口の増加は著しく、1991年には556人/㎡ (全国レベルでは13.6人/㎡) になると予測されている。

経済活動に従事できる年齢層は15～64才層であり、その層は総人口の52%にあたる74千人 (1989年) であった。経済活動人口はその85%にあたる63千人と推計され、その83%が農村部で自給自足農業に従事していると推定されている。

都市部における職業分野別就業人口 (1979年と1986年) を表4-10に示す。

表4-10 都市部における職業別就業人口

単位:人、%

職業分野	1979		1986	
	人数	構成比	人数	構成比
農林水産業	1,510	17.7	574	7.0
鉱業	7	0.1	15	0.2
製造業	450	5.3	387	4.7
電力・水道業	54	0.6	118	1.4
建設業	732	8.6	703	8.5
商業・観光業	1,434	16.9	1,580	19.2
運輸通信業	740	8.7	850	10.3
金融業	297	3.5	551	6.7
その他	3,286	38.6	3,464	42.0
計	8,510	100	8,242	100

出所:Rep. Vanuatu; 2nd National Development Plan(1987-1991)

“その他”の大部分は政府機関の就業者であって約4割を占めている。次いでホテル、レストラン、観光客相手の商店などの観光関係の就業者が多い。1986年の職業階層別都市部就業人口を表4-11に示す。専門職、技術者、管理職などでは外国人の占める比率が高い。この傾向は公務員の場合は特に顕著である(表4-12)。就業許可(work permit)をもって従事している外国人の民間セクターにおける階層別就業人口の割合を表4-13に示す。5割近い外国人は、専門職や管理職についていることがわかる。賃金を得ている現地人労働者は、1983~86の年平均の推定では約15千人であり(表4-14を参照)、経済活動人口の約4分の1であった。残る4分の3は潜在的失業状態にあるものと考えられている。

表4-11 職業階層別都市部就業人口(1986)

単位:人、%

職業階層	現地人	外国人	計	構成比 %
専門、技術	805	297	1,102	13.4
経理、管理	123	104	227	2.8
一般事務	1,041	103	1,144	13.9
販売一般	672	195	867	10.5
サービス一般	1,896	93	1,989	24.1
農林水産一般	490	41	531	6.4
製造運輸一般	2,102	118	2,220	26.9
軍人その他	160	2	162	2.0
計	7,289	953	8,242	100.0
構成比	88.4%	11.6%	100%	

出所:Rep. Vanuatu; 2nd National Development Plan(1987-1991)

表4-12 公務員の職業階層別人口 (1985)

単位:人、%

職業階層	現地人	外国人	空席	計
専門、技術/上級	122	245	36	403
"/中級	1,479	41	130	1,650
"/下級	58	0	1	59
経理、管理/上位	80	17	8	105
"/係長	32	1	17	50
熟練・半熟練	1,220	27	153	1,400
一般労務	5	-	-	5
計	2,996	331	345	3,672
構成比 %	81.6	9.0	9.4	100.0

出所: Rep. Vanuatu; 2nd National Development Plan(1987~1991)

表4-13 民間企業における階層別
外国人就業人口の割合 (1987)

単位: %

職業階層	構成比 %
専門、技術	27.1
経理、管理	17.0
一般事務	8.5
販売一般	18.7
サービス一般	9.4
農林水産一般	2.6
製造運輸一般	16.7
計	100.0

出所: Rep. Vanuatu; 2nd National Development Plan(1987~1991)

表4-14 現地人就業人口 (1983~1986推定)

分野	人数	構成比 %
公務員	3,300	21.6
日給ベース公務員	640	4.2
都市部民間企業	5,800	38.0
プランテーション	2,300	15.1
プランテーションを除く農村部	2,800	18.3
地方公務員・協同組合	430	2.8
計	15,270	100.0

出所: Rep. Vanuatu; 2nd National Development Plan(1987~1991)

4-9 教育

ヴァヌアツ国の教育制度は、初等教育6年（6才から）と中等教育（中学4年、高校2年）よりなる。初等教育は義務教育制ではないが、費用はすべて国の負担で行われている。初等教育の施設、設備は、すでに就学年令児の全員を受入れることができるが、1986年で就学率は85%となっている。

この国の教育制度の最大の特長は、旧植民地時代の慣習をそのまま継いで、英語教育とフランス語教育の二重構造になっていることである。最初に入り込んで布教活動をしたミッシヨナリがイギリス系（主としてプロテスタント）かフランス系（主としてカソリック）かにより、学校で教える言葉が違い、極端に言えば、部落ごとに違っているといわれる。表4-15に初等教育の学校数と生徒数の1980年と1986年を比較したものを示す。世の中の趨勢を反映して、英語による初等教育が優位に立っていることが一目瞭然である。フランスは劣勢をはね返すために、そのODAの多くをフランス語教育につぎ込んでいるといわれる。政府は初等教育教員を同一教育機関（Vanuatu Teacher's College）で養成して、Bislama語の使用により統一的な初等教育（英語とフランス語をともに教えるけれども）を実施することを推進している。

表4-15 ヴァヌアツ国の初等教育

単位：校、人、%

用いる言語	1980		1986		増加率 86/80	
	学校数	生徒数	学校数	生徒数	学校数	生徒数
英語 (構成比 %)	97 (63.8)	11,303 (49.7)	153 (58.2)	16,591 (62.8)	157.7	146.8
フランス語 (構成比 %)	57 (37.0)	11,451 (50.3)	110 (41.8)	9,831 (37.2)	193.0	85.9
計 (構成比 %)	154 (100.0)	22,754 (100.0)	263 (100.0)	26,422 (100.0)	170.8	116.1

出所：Rep. Vanuatu; 2nd National Development Plan(1987~1991)

4-10 企業活動

ヴァヌアツ国内で事業を行うには、かならず政府から Business Licence を取得し、毎年 annual fee を納めなければならないこととなっている。ただし、総合輸出入業、総合卸し小売業、旅行業、タクシー、バス、レンタカー、国内船など10業種は、ヴァヌアツ国民のみに限られている (Business Licences Regulation Act による)。ヴァヌアツ国内に事務所をかまえて、ヴァヌアツ国外において営業活動を行う企業は、exempted company と呼ばれて、Companies Regulation に基づいて、政府から設立認可を受ける必要はあるが、Business Licence を取得する必要はない。外国の企業がヴァヌアツ国内で事業を行うことができるが、Companies Regulation に基づいて登録を済ませ、かつ企業を代表するヴァヌアツ国居住者2名を指名しておかなければならない。

外国人がヴァヌアツ国内の企業活動に従事する時は、政府から Work Permits と Residency Permit を取得する必要がある。

4-11 投資環境評価

投資環境としてのヴァヌアツ国は、つぎのような得失をもつと考えられる。

長所としては、

(1) 安定した政治

1980年の独立以来、同じ首相の下に同じ政党が政権を維持している。

(2) 南太平洋地域の中央に位する立地条件

オーストラリア、ニュージーランド、日本などから程よい距離にある。

(3) 肥沃な土壌

事業対象地に目されているエスピリト・サント島は一般に火山性土壌であり、熱帯地域では土地生産性が高い。

一方、短所としては

- (1) 面積、人口ともに、国が小さい。
- (2) 軟弱な経済基盤
- (3) 未熟な行政

有能な現地人行政官が育っていない。イギリスとフランスの共同統治領 (Condo-minium) であった名残がまだある。

- (4) 難しい土地取得

必要とする土地を慣習的土地所有者と交渉して円満にリースすることは、長期にわたる忍耐強い仕事の連続が要求される。

などがあげられよう。

《参考資料》

近隣メラネシア諸国の土地の権利関係、リース、事業造林などの制度

(1) フィジー (1970年独立)

フィジーの土地所有は、現地人所有地 (Native Land)、国有地 (Crown Land)、自由保有地 (Freehold Land) の3種に大別できる。国土に占める割合は、それぞれ 82%、10%、8%である。

Native Landは、Native Land Trust Act に基づいて、Native Land Trust Board (NLTB) という政府機関によって一元的に管理されている。フィジー国憲法によれば、国家目的のために政府が買上げる以外に、Native Land は他に売却されることはできない。また、Native Land の約3分の1は Native Reserve として指定され、土地所有者であるフィジー人だけが利用でき、他者はこの土地を利用することはできない。すなわち、Native Reserve 以外の Native Land だけが、NLTB を通じて、他者が借受けて利用することができる。

NLTBによる Native Land のリースの期間は、一般的に農業用30年、住宅、商業、産業は60~99年であり、リース率は、土地のunimproved capital valueの6%以内とし、10年ごとに再評価され更新されることとなっている。

NLTB が徴収したリース料は、つぎのような基準で配分されている。

- 25% NLTBの運営経費
- 5% Head of the Vanua へ
- 10% Head of the Yavusa へ
- 15% Head of the Mataqali へ
- 45% Rank and file members of the Mataqali へ

フィジー現地人社会を構成する基本単位は Mataqali とよばれる血縁集団で、これが Native Land の所有単位をなしている。各 Mataqali の構成人員は1人から数百人、所有面積は1ha 未満から数千ha と千差万別である。現在は約6,600の mataqali が存在して Native Land を所有している。

各 Mataqali の所有面積、境界などはすでに確定されており、NLTB が各 Mataqali の土地台帳、境界図面などを管理している。また NLTB の資料によれば、各 Mataqali ともに10以上の generation が祖先にさかのぼって明らかであるという。

Mataqali の上位の社会構成単位は、Yavusa とよばれる村落共同体である。Yavusa を構成する Mataqali の数や構成人員も千差万別である。Yavusa が集ってできる上位の社会構成単位が Vanua であり、その上が Matanitu である。フィジーは14の Matanitu からできており、それぞれの Head がフィジーを支配する Great Council of Chiefs を構成する。

NLTB の President はフィジー総督 (Governor General) であり、Chairman of the Board は内務大臣 (Minister for Fijian Affairs and Rural Development) である。Board members は10名で、うち5名は Great Council of Chiefs により任命され、3名は Provincial Councils から提出された候補者リストから Fijian Affairs Board によって任命され、いずれもフィジー人である。残りの2名は総督によって任命される政府代表であるが、かならずしもフィジー人でなくてもよい。

NLTB は、全株を自己保有している Native Land Development Corporation Ltd. (NLDC) という実働隊の役割を果す民間法人をもっている。NLDC は首都スバ地域における貸ビル経営、住宅地開発などを行って、フィジー最大の土地デベロッパーであると同時に、砂糖キビや pigeon peas の生産などを行うフィジー最大の農業経営体である。NLDC の Chairman は、NLTB の Chairman of the Board である内務大臣がなっており、5名の Directors の構成は、森林大臣 (Minister of State for Forests)、国土開発大臣 (Minister for Urban Development)、General Manager of NLTB などである。

ビチレブ島西部においてカリビアマツ (*Pinus caribaea*) の事業造林を推進している Fiji Pine Commission (FPC) は、Fiji Pine Commission Act という法律にもとづく政府機関であり、NLTB から一元的に Native Lands をリースしている (ほとんどが60年のリース)。FPC の Board Members は10名をもって構成され、Chairman は

大蔵次官 (Permanent Secretary for Finance)、Deputy Chairmanは内務次官 (Permanent Secretary for Fijian Affairs and Rural Development) であり、membersには森林局長 (Conservator for Forests)、NLTBの General Manager、現地のMatanituの chief などが入っている。

自由保有地 (Freehold Land) は、近代的土地所有概念の権利関係がはっきりしている土地のことであり、都市部に多い。

(2) パプアニューギニア (Papua New Guinea, PNG) (1975年独立)

PNG の土地所有は、非譲渡地 (慣習的土地)、国有地、自由保有地に3大別され、国土に占める割合は、それぞれ95%、4%、1%である。

慣習的土地 (Customary Land) は、慣習に基づき、現地人の個人、家族または共同体 (クラン) により保有されている土地である。慣習的土地は、政府のみが国家目的に基づいてこれを買収することができる。また、慣習的土地のリースはすべて現地人と政府の間にだけ限定されている。したがって、民間が慣習的土地を農業用または植林用に開発しようとする場合は、土地所有者である現地人と直接に取引して買収またはリースを受けることはできなく、政府を通じてLeasehold の形でのみ土地を得ることができる。リース期間は、PNG 国民に対しては60年 (最高99年)、外国人に対しては一般的に40年となっている。年間リース料は土地評価額の5%が原則である。政府は PNG の経済開発のために、現地人を説得してリース契約を結び、多くの慣習的土地をリースしている。

PNG の自由保有地 (Freehold Land) は、独立以前に外来者にその権利が認められた土地、もしくは植民地時代の Land Tenure Conversion Ordinance に基づいて慣習的土地から転換された土地である。この自由保有地のみが近代的土地権利関係をもって、自由に土地の処分ができ、担保の対象物件になりうる土地である。しかし、現在の PNG 憲法によれば、PNG 国民のみが自由保有地を入手することができ、また不当な手段によって慣習的土地所有者から取り上げた自由保有地は、PNG の権利の主張が認められて、政府のリース地などに切り換えられることができるとしている。

PNG の土地制度に関係する法律のもっとも基本的なものは Land Act である。この法律に、現地人が直接に土地を譲渡もしくはリースすることを禁ずる、政府が現地人より土地を正当にリースされる、政府機関の Land Board のみが政府リース地を公正に民間にサブリースする、ことなどが盛り込まれている。このほか、土地に関してつぎのような法律がある。

Land Acquisition Act

Land Registration Act

Land Tenure Conversion Act

Land Titles Commission Act

Land Dispute Settlement Act

ニューギニア本島北部のマダン地区の林業開発事業は、PNG における大規模林業開発プロジェクトの古いもののひとつである。この事業は、森林伐採搬出・木材チップ生産と植林の2事業に分れ、それぞれ別の PNG 法人によって実行されている。前者は日本の製紙会社など5社の合弁企業であり、後者はこの企業とPNG 政府の合弁企業である。先ず PNG 政府と地元の慣習的土地所有者との間にリース契約を結ぶ。地元住民との交渉にあたるのは、政府のRegional Officeの patrol officerが、forestry officer の協力を得て、主としてこれにあたる。リース地域がまとまれば、政府が林業開発地域として広告し、テンドーを募る。落した民間企業は政府との間に、開発基本契約を結んで、政府より伐採許可の交付を受ける。植林事業についても同様である。

これらの民間企業がリースを受けた土地が、Leasehold として alienated されて、近代的な土地の権利が確立されているかどうかは、政府と土地所有者である地元住民との間に結ばれたリース契約、および政府と開発実行主体である民間企業との間に結ばれた基本契約（サブ・リース契約）の内容いかんによると考えられている。なお、近代的借地権が確立されるためには、民間企業はLeaseholdの登記を行うことが必要であると考えられる。

(3) ソロモン諸島 (1978年独立)

ソロモン諸島の土地所有は、慣習的土地 (Customary Land) と権利譲渡地 (Alienated Land) に2大別され、後者はさらに国有地と民有地に分れる。国土に占める割合は、それぞれ87%、9%、4%である。

慣習的土地については、外国人は政府と同様に、土地に関するいかなる権利をもつことはできない。権利譲渡地については、ソロモン国民と政府のみが永久財産 (Perpetual Estate, Freehold に相当する) を所有することができ、このPerpetual Estate をリースすることができる。したがって、外国人はソロモン国民もしくはソロモン政府から、それらのもつ Perpetual Estate のリースを受けることができるが、Customary Land のリースを受けることはできない。

慣習的土地の権利譲渡地への変更は、土地所有者への説明、測量、境界査定、調査、調整などの多くの作業を伴うので、少なくとも7ヶ月、通常は5年以上かかる。かくして、慣習的土地の所有者は Perpetual Estate の所有者として登記されることになるが、所有者集団によって選ばれた信託人 (trustees) の名前で登記されることもある。登記された大部分の旧慣習地は、外国系投資家にリースされている。国民の所有する登記済み権利譲渡地の67%はサンタ・イサベル島にある。そこでは慣習的土地の4分の1が登記済みとなり、立木伐採権などが交付されることできるようになった。

権利譲渡地の97%は、首都ホニアラにある土地登記所 (Land Registry) に所有者、境界などが明確に記録されており、慣習によってではなくて、法律によって保護され

ている。残りの3%は、登記手続きのため目下調査中のものである。

1977年までは、一たん登記された旧慣習地はふたたび元の慣習的土地所有の形態に戻ることができなかったが、現在は政府がこれを元に戻すことができるとされている。外国人は、慣習的土地を所有またはリースを受けることはできないが、登記済み権利譲渡地を最高75年までリースを受けることができる。登記済み地の16%は、現在外国人（外資系企業を含む）によってリースされている。これには、かつて外資系企業や教会などによって所有されていた Perpetual Estate を含んでいる。1977年に法律（Land and Titles Act）が改定されて、外国人によって所有されていた Perpetual Estate は、すべて政府所有の fixed term estate となり、開発するという条件をつけた75年間のリース地になった。

ソロモン諸島における土地の関する基本法は、Land and Titles Act である。伝統的な林産物利用以外の目的による森林開発はすべて、森林法(Forest and Timber Act)によって規制されている。この法律によって、慣習的土地、権利譲渡地ともに、政府が立木伐採のライセンスを認可する権限をもっている。慣習的土地の森林開発においては、政府の行政指導の責任において、土地所有者と民間企業との間に伐採権の契約(Timber Rights Agreement)が結ばれる。

大面積の慣習的土地を事業的に林業開発するためのひとつの方式として、North New Georgia Timber Corporation (NNGTC) Act という法律が1980年に公布されている。これによれば、ニュージョージア島北部の慣習的土地所有者達が共同してつくった NNGTC だけが、土地所有権と切り離して、代表して林木権をもち、直接に外国企業と森林開発についての交渉を行い、政府の承認を得て、立木伐採権を交付することができる。この方式によれば、土地の所有関係をひとまず棚上げにして、大規模の森林開発事業を、長期にわたり企業ベースで実施できるが、そのためには特別立法が必要である。

5 林業概要

5-1 林業行政組織

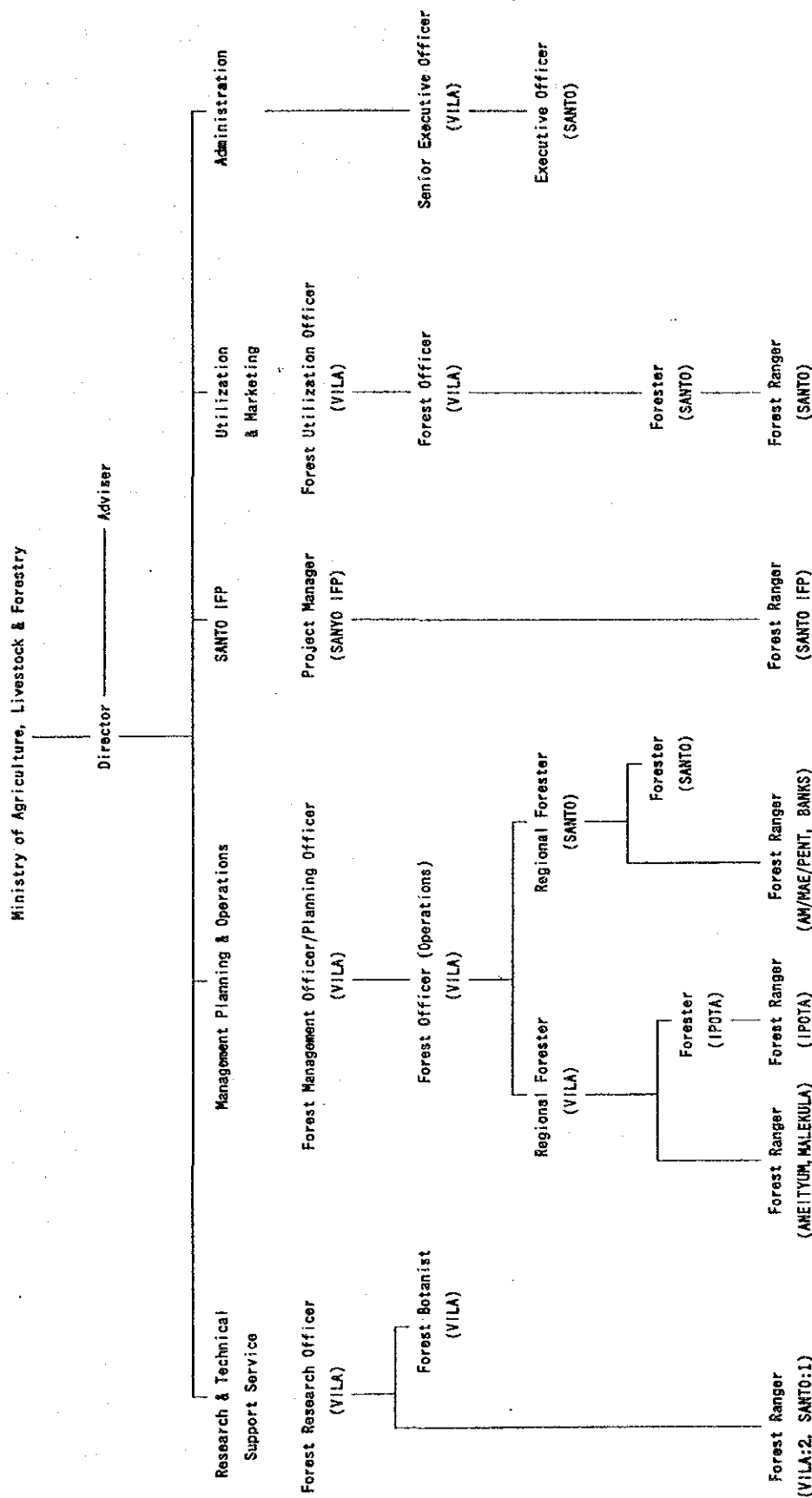
ヴァヌアツ国の森林・林業行政は、農林水産省 (Ministry of Agriculture, Forestry and Fisheries) に属する森林局 (Department of Forestry) で行なわれている。森林局のスタッフは、局長 (Director 現地人) の下に、顧問 (Adviser to Director 外国人)、研究担当官 (Forest Research Officer 現地人)、経営担当官 (Forest Management Officer 外国人)、利用担当官 (Forest Utilization Officer 外国人と現地人) など15人がポートビラにある本局に勤務し、地方には、営林局長 (Regional Forester) などが、サント島に5人、その他の地域に8人、1990年現在合せて28人となっている。図5-1は森林局の組織図である。

さらに、1989年より始まったEECの技術協力によるサント島の産業造林プロジェクト (Industrial Forest Plantation、略称IFP) があり、森林局長の下に、Project Manager (外国人) と Forest Ranger (現地人) がサント島に勤務している。

林業行政組織の最大の問題は、人材の不足である。大学卒の現地人林務官はわずかに1人であり、オーストラリア、イギリスなどからの外国人の専門家 (1991年調査時5人) によって、かろうじて林業行政が執務実行されているのが現状である。若い有為な現地人の林業技術専門官を養成することが急務とされている。そのためには、ヴァヌアツ国には林業技術などを教育する専門機関はないので、海外からの技術協力あるいは文化振興による奨学金を得て、パプア・ニューギニアあるいはオーストラリア、ニュージーランド、さらにはかつての宗主国であるイギリスやフランスで林業専門教育を受けることとなる。

ヴァヌアツ国の林業の振興を図るために、土地所有者である現地住民に植林、森林保護、アグロ・フォレストリーなどの林業技術を教育普及することが急務とされているが、人材不足のために全くなされていない。

図 5-1 森林局組織図



注：() 内は勳務地

出所：Vanuatu Government Department of Forestry Annual Report 1990

5-2 林業政策と法規

ヴァヌアツ国政府の林業政策は、第2次国家開発計画（1987～1991年の5年計画）において、つぎのように示されている。

- ① 製材品などの林産物の国内消費を自給すること
- ② 余剰の林産物の輸出を推進すること
- ③ 林業・林産の分野にできる限り現地人（Ni-Vanuatu）の参加を奨励すること
- ④ 森林資源を効率的に開発して、将来のための長期的経営計画を策定すること
- ⑤ 代替エネルギー源としての森林資源を研究開発すること

以上のような林業政策の目的を具体的に実行するために、つぎの目標が定められている。

- ① 地元消費用の人工造林の推進
Local Supply Plantation (L S P)プログラム
- ② 輸出向大規模産業造林用の人工造林の推進
Industrial Forestry Plantation (I F P)プログラム
- ③ 合理的な天然資源の維持増進のための適切な森林開発
- ④ 適地適木、造林保育、病虫害防除などの技術開発のための試験研究の推進

ヴァヌアツ国の林業関係の法規はつぎの2つである。

- 1, Forestry Act
- 2, Forestry Order

Forestry Actは1982年に制定されて以来、何回か修正を加えられ、現在は8章37条で構成されている。各章の内容の概略はつぎのとおりである。

第1章 総則 (Preliminary) 用語の定義など

第2章 行政 (Administration)

林業行政を管轄する大臣の義務、責任、権限など。

第3章 植林契約 (Forestry Plantation Agreements)

国が行う植林事業について、国と土地所有者との間にかわす契約の内容など。

第4章 伐採事業 (Utilization Operations)

伐採事業を行うには木材ライセンス (Timber Licence) を国から受ける必要があること、木材ライセンスを申請する前に土地所有者の合意を取り付けること、銀行保証や預託に関する事、及び木材利用施設 (Wood using plant) の登録に関する事。

第5章 保全 (Conservation)

溪流より10m以内の保全など、森林や土壌の保全、生態系や景観の維持に関する事。

第6章 防火 (Protection from fire)

火入れの禁止、消火活動の義務付けなど。

第7章 予算 (Financial)

すべての商業伐採に植林負担金 (Reforestation charge) が賦課されること、植林負担金などを原資として林業基金 (Forestry fund) が設けられ、地元消費のための植林費用にあてられることなど (慣習的土地所有者は林業基金より無利子の融資を受けて植林費にあて、木材収穫の際に返還することができる。1983年に商業用に12,200 m³伐採されて、210万 VTの植林負担金が徴収されている)。

第8章 雑則 (General and Transitional)

罰則、林務行政官の権限、政令 (Order) に関する事。

Forestry Orderは政令にあたるもので、6章30条よりなっている。その内容は、主として木材ライセンス (Timber Licence) に関する具体的な行政事項である。

5-3 森林資源

ヴァヌアツ国の森林資源の実態は、オーストラリア政府の技術協力によって、現在実施中の全国森林資源調査 (National Forest Resource Inventory, 1989～1992) によって明らかになる。この調査は、オーストラリアのAIDABが資金援助をして、クイーンズランド州森林局とCSIRO熱帯作物部がヴァヌアツ国政府に協力して、1989年より1992年まで4年計画で、国全体の森林の区分、樹種構成、森林蓄積などを調査して、森林資源計画のためのデータベースとするものである。エファテ島とサント島の現地調査はすでに完了しているが、それらの調査結果は1992年末にならないと公表されないこととなっている。現在、すべてのデータ、資料はクイーンズランド州森林局にあって、分析説明が進められている。

全国土の75%にあたる約90万haが天然林の状態にあると考えられるが、その多くの森林は、傾斜が急などのため伐木集運材が難しく、経済的価値はないと考えられている。経済的価値があると思われる5万haの天然林に対して行った森林調査によれば、haあたり15～25m³の有用樹種の蓄積があるとされている。

過去の伐採利用によって蓄積が減少したエロマンガ島のKauri (*Agathis macrophylla*) は、島の南西部にある約3千haをErromango Kauri Reserveとして保護保存することとなった。この地域を人為の加わらない天然林として残すために、森林局は土地所有者である現地住民とリース契約をかわし、狩猟などの従来からの慣行利用は認めるが、道路開設や伐採は制限されることとなった。

注：AIDAB - Australian International Development Assistance Bureau

CSIRO - Commonwealth Scientific and Industrial Research Organization

ヴァヌアツ国の森林植生は、基本的には熱帯降雨林地帯に属して、低地常緑降雨林 (Low-land evergreen rainforests) と山地降雨林 (Montane rainforests) の2つに大別できる。

低地常緑降雨林は広葉樹がほとんどであり、一部 *Agathis*, *Podocarpus* などの針葉樹を含んでいる。主要な広葉樹の樹種はつぎのとおりである。

Antiaris toxicaria (Milktree、クワ科)

Dracontomelon vitiense (Nakatambol、ウルシ科)

Garuga floribunda (Namalaus、カンラン科)

Kleinhovia hospita (Namatal、アオギリ科)

Endospermum medullosum (Whitewood、トウダイクサ科)

Castanospermum australe (Blackbean、マメ科)

Dysoxylum amoeroides (Stinkwood、センダン科)

Syzygium malaccensis (Yellow-wood、フトモモ科)

山地降雨林においては、針葉樹類の出現頻度が高くなる。

また、海岸地域にはマングローブ林・海岸林 (Mangrove forests and beach forests) があり、比較的雨量の少ない島の西部には疎林・草原 (Savannah and grasslands) が発達している。また、焼畑耕作、伐採などの人為の加わった二次林 (Secondary forests) が各地に存在している。

ビスマルク諸島、ソロモン諸島、ヴァヌアツ諸島などのメラネシア地域の熱帯降雨林の最大の特長は、東南アジア地域の熱帯降雨林に比べて構成樹種が少ないことである。下層植生はもとより、林冠を構成する上層大径木についてもいえる。また、東南アジア特有の経済的有用樹種であるフタバガキ科の樹木は少なく、有用樹種は多岐にわたっている。

5-4 林産物生産

ヴァヌアツ国の森林はすべて慣習的土地所有者である現地人 (Ni-Vanuatu) によって所有されている。その森林開発は、政府森林局の指導監督の下に、製材業者と慣習的土地所有者との間に交される契約に基づいて実行されている。

1983年より1989年までの企業別年次別丸太生産量の推移を、輸出用と国内消費用に分けて、それぞれ表5-1と表5-2に示す。

表5-1 ヴァヌアツ国の輸出用丸太生産

単位: m

企業名	1983	1984	1985	1986	1987	1988	1989
Santo島							
Island Development Co.		8,669					
Saravanua Timber, Ltd.		824	505				
Hog Harbour Coleu Devel.			5,499	6,637	8,089		3,374
Sen Avtar Logging Co.						5,001	
Tamol Vanua Logging Co.					4,731		
Efate島							
Vate Timber Co Ltd.	210	3,165	4,200		7,514		
Island Development Co.		18			687		
Efate Bush Co.	3,820	2,114	1,756				
Mamelin Societe		1,979	2,480				
Mele Trustees Ltd.		10,418	7,490		5,111		6,980
Eilbee Development Ltd.			200		1,449		
Malekula島							
Norvat Timbers Ltd.			16				
Erromango島							
Monterro 87 Ltd.					906		
計	4,030	27,184	22,146	6,637	23,716	5,001	15,085

出所: Vanuatu Government Department of Forestry Annual Report 1990

表5-2 ヴァヌアツ国の国内消費用丸太生産

単位: m

企業名	1983	1984	1985	1986	1987	1988	1989
Torres島							
Hiu Island Timber Co.	685						
Santo島							
Island Development Co.注1	628	655	966	1,275	669	1,716	2,299
Forest Products (Van)	592	557	1,355	1,265	1,680	2,292	1,339
Hog Harbour Coleu Devel. Thinning Unit			239	371	1,417		
Resources Devel. Ltd. (Melcoffee Sawmill)						3,516	4,283
Aore島							
Hibiscus Brands Ltd.						735	517
Aore High School							160
Malekula島							
Norvat Timbers Ltd.	1,677	3,432	2,787	2,164			
Metenessel Estates					978	171	368
North Island Timber Co.							4,053
Pentecost島							
Mobile Sawmill		83					
Efate島							
Efate Bush Co. 注2	607	662	852	546	169	234	304
Mamelin Societe 注3	194	421	560	930	1,483	1,015	1,445
Island Development Co 注4	1,347	1,807	1,577	1,753	6,923	7,564	4,734
Vate Timber Co. Ltd.	1,841	555	1,341	2,536	24		
Raymond Valette 注5	131	588	170	299			
Elibee Development Ltd.			604	643	680	381	421
Erromango島							
Monterro 注6				1,041	1,213	225	
Tanwa島							
KITOW	285	533	224	139	285	50	
計	7,987	9,293	10,795	12,962	15,521	17,899	21,540

注: 企業間で丸太が転売されることがある。

注1 1988年 Santo Veneers and Timbersとかわる。 注2 1987年 Efawoodとかわる。

注3 Vanuatu Local Timberとかわる。

注4 1988年 Pacific Island Timber Tradingとかわる。

注5 1987年 Island Development Loggingとかわる。 注6 Monterro 87 Ltdとかわる。

出所: Vanuatu Government Department of Forestry Annual Report 1990

1989年には輸出用15,085 m³（うちサント島 8,105 m³）国内消費用 21,54 m³（うちサント島 7,912 m³）、計36,625 m³の丸太が生産されている。現在、12の企業体が伐採・製材・加工を営んでいる。今後20年の国内消費用木材を供給するだけの資源はあると考えられている。

政府の林業政策によって、過去数年間は地元加工が増加の傾向を示して、全体的に林産物生産はわずかながらも増加している。1990年に地元産業の育成を推進するために、未加工丸太の輸出が禁止された。

ここ2年の間に、外国資本による輸出用木材生産設備への投資が活発に行なわれた。なかでも、エファテ島の Pacific Veneers と サント島の Santo Veneers and Timbers による合板製造設備の完成は注目すべきものがある。マレクラ島とエロマンガ島の林産物生産は軌道にのっていないと考えられる。

ヴァヌアツ国において、建築用、家具用などに広く利用されている郷土産木材樹種は、つぎの13種である。Kauri だけが針葉樹で、あとの12種は広葉樹である。

(通称名)	(学名)
Whitewood	<i>Endospermum medullosum</i>
Milktree	<i>Antiaris toxicaria</i>
Black Bean	<i>Castanospermum australe</i>
Namalaus	<i>Garuga floribunda</i>
Natora	<i>Intsia bijuga</i>
Nakatambol	<i>Dracontomelon vitiense</i>
Blue water	<i>Pterocarpus indicus</i>
Nakavika	<i>Syzygium spp.</i>
Stinkwood	<i>Dysoxylum amoeroides</i>
Nakoka	<i>Bischofia javanica</i>
Natapoa	<i>Terminalia catappa</i>
Tamanu	<i>Callophyllum neo-ebudicum</i>
Kauri	<i>Agathis macrophylla</i>

Whitewood (*Endospermum medullosum*) は、近年ヴァヌアツ国において、建築用材や家具用材としてもっとも利用されている樹種である。これには、ニュージールランド政府の技術協力による、政府森林局への木材防腐施設の供与に負うところが大きい。いまだ明確に木材の特性がわかっていないことと、現実的なグレーディングが定まっていなかったために、建築用材としての効果的な利用がなされていない。

ヴァヌアツ国においては、わずかばかりの木材樹種のみ利用開発されて、未利用樹種の利用開発は遅れているのが現状である。これは木材の性質の解明が遅れていることと、森林において散在していることから、量的にまとまらないために地元製材所が使いたがらないことによる。かなりのスケールの森林開発と木材乾燥施設の拡充によっては、これらの樹種の利用開発が推進されるものと期待される。

現在実施中のNational Forest Inventory の成果が明らかになれば、建築、合板、家具などに用いられる可能性の高い未利用樹種がかなり存在することが期待されている。なかでも*Myristica fatua* は、ロータリ・ベニアなどへの利用の可能性を大きく秘めている。

森林局の1990年報によれば、ヴァヌアツ国の木材産業を発展させるためには、つぎのような問題点の解明が必要であると考えられる。

- ① 樹種の木材としての物理的特性の解明
- ② ユーザーに対する利用法のPR
- ③ 最適利用のための産業規格の導入
- ④ マーケット開拓に向けて全国的組織の結成
- ⑤ 輸入国におけるマーケット事情などの情報の提供
- ⑥ 森林資源に関する十分に正確な情報の提供

また、年率3%を超える人口の増加に伴う家庭用燃料の需要増が予想され、一部の地域では燃料用木材の不足が将来起こるのではないかと懸念されている。これについても、National Forest Inventory の調査結果が期待され、地元使用の

建築材とともに薪炭材の需要増加に対処する施策を講じることが必要であると考
えられている。

5-5 林産物の輸出入

表5-3に、ヴァヌアツ国の主要林産物（丸太、フリッチ、製材および単板）
の過去3年間の輸出量およびそれらの輸出額を示す。1989年には林産物の輸出総
額は184,645千VT となっている。

表5-3 ヴァヌアツ国の林産物輸出

単位:千VT

	丸 太		フリッチ		製 材		単 板		計
	数量	金額	数量	金額	数量	金額	数量	金額	金額
1987	19,502	157,106	0	0	1,163	16,853	16	1,121	175,081
1988	5,919	46,443	118	2,655	1,938	47,923	411	12,253	109,274
1989	11,472	95,125	248	6,277	1,762	48,685	310	34,558	184,645

出所:Vanuatu Government Department of Forestry Annual Report 1990

かつての輸出品目の王者であったSandalwood (Santalum album、ビヤクダンの
類) は、最近では1987年に204 トン (23,620千VT) 輸出されている。

1983年～1989年の林産物の輸入金額はつぎの通りである。

1983年	62.8 百万VT
1984年	60.3 百万VT
1985年	106.0 百万VT
1986年	79.0 百万VT
1987年	191.7 百万VT
1988年	73.5 百万VT
1989年	62.6 百万VT

輸入される林産物は、建築用、家具用などのために、製材、合板、集成材、積層材など多岐にわたっており、サイクロンの襲来や経済の発展に伴うホテルやリゾートの改修や新規開発によるところが大きい。地元の製材業が継続的に事業を運営し、事業規模を拡大すれば、国内生産が輸入にとって代る余地はかなりあるものと思われる。1988年と1989年の林産物の輸入の減少傾向から、このことが実証される。

5-6 人工造林

過去における伐木造材のほとんどは、農業用に転換されることとなっている地域の森林で行なわれたために、天然更新もしくは人工造林への移行の経営はとられたことはなかった。人口増加の圧力が小さく、長期の保続経営にふさわしい商業用優良樹種が存在する南部諸島（アネイティム、エロマンガなどの島々よりなる）において、天然更新作業の試験が実行されたことはあった。天然更新の研究は、政府森林局の最大の政策のひとつであることには変わりはない。

ヴァヌアツ国政府の最大の林業政策は、人工造林の推進である。国家財政の過半を外国からの援助に頼っているこの国は、人工造林プロジェクトのほとんどは、イギリス、ニュージーランド、オーストラリア、E E Cなどの技術協力によって推進している。

政府ベースの人工造林計画は、つぎの2つのプロジェクトによって実施されている。

(1) 地元消費用造林 Local Supply Plantation (L S P)

(2) 産業造林 Industrial Forestry Plantation (I F P)

表5-4及び表5-5はそれらの現況を示している。1990年末において、地元消費用造林では広葉樹 948ha、針葉樹 45ha、計 993ha、産業造林では広葉樹345ha、針葉樹 846ha、計 1,191ha、両者合わせて、広葉樹 1,293ha、針葉樹 891ha、総計 2,184haの人工造林面積となっている。このうちサント島の人工造林面積は、

地元消費用ではすべて広葉樹で4地域 194ha、産業造林では広葉樹1地域 25ha、計 219ha となっている。

表5-4 ヴァヌアツ国の人工造林の現況（地元消費用）単位：ha,年

営林局	島	地域	面積	植栽年	
Cordia alliodora Banks/Torres	Ureparapata Mota Lava	Dives Bay	5	76,77	
		Central	20	82-85	
		Valua	5	80	
	Vanua Lava	Leion Bay	97	79-85	
		Mesevut	26	79-82	
	Santo	Santo	Hog Harbour	29	80-82
			Vanalo	130	75-85
			Beleroux	13	82,83
			Navota Farm	22	77-83
	Ambae/Maewo /Pentecost	Ambae	Narugu	27	80-84
			Wailebutaga	12	80-82
		Maewo	Naumumu	5	80-85
			Naone	47	80-85
		Pentecost	Naisu	80	75-82
			Surukavian	100	84
Malekula	Malekula	Lemalda	40	80-84	
		Vao	25	79-84	
		Wiaru	25	82-86	
		Hatbol	19	76,80	
		Unua 4	51	77-85	
		Unua 1	61	80-85	
		S.W. Bay	51	80-85	
Epi	Epi	Sakau	26	80-82	
Efate	Efate	Lelepa	32	80-82	
		計	948		
Pinus caribaea	Erromango	Dillons Bay	45	82-85	
		計	45		

出所：Vanuatu Government Department of Forestry Annual Report 1990

表5-5 ヴァヌアツ国の人工造林の現況（産業造林）単位：ha,年

営林局	島	地域	面積	植栽年
Cordia alliodora	Erromango	Ipota	320	80-89
		Santo	25	90
			計	345
Pinus caribaea	Aneityum	Umetch	206	80-87
		Uje	389	78-88
		Port Patrick	251	79-86
			計	846

出所：Vanuatu Government Department of Forestry Annual Report 1990

いずれも、広葉樹では *Cordia alliodora* (中南米原産)、針葉樹では *Pinus caribaea* (同じく中南米原産) という早期育成の外来樹種の導入によって速かに森林資源の培養を図ろうとしている。

ヴァヌアツ国における事業規模の人工造林の歴史は1975年に始まる(表5-4と表5-5の植栽年を参照)。独立前の1970年以来、諸島を通じて15か所、郷土樹種と外来樹種を合わせて40種ほどを試験植栽しており、それらの試験結果、製材用、合板用としてつぎの3種が造林樹種として適当であるとされた。

広葉樹では *Cordia alliodora* (中南米原産、ムラサキ科)

Swietenia macrophylla (中南米原産、センダン科)

針葉樹では *Agathis macrophylla* (郷土産、ナンヨウスギ科)

紙パルプのための木材チップ、地元消費用の燃料材としては、つぎの早生樹種が適当であるとされてきた。いずれも広葉樹の外来樹種である。

Eucalyptus deglupta (パプアニューギニア原産、フトモモ科)

Gmelina arborea (ビルマ産、クマツヅラ科)

最近では、他の熱帯地域の試験造林の結果から考慮して、*Acacia mangium*などのアカシア類や *Eucalyptus urophylla*, *E. grandis* などのユーカリ類が有望視されている。

現在、ヴァヌアツ国において、事業規模でもっとも広く植林されているのは *Cordia alliodora* である。この樹種はメキシコ、ホンジュラス、ブラジルなど、中南米に広く分布する製材用樹種であり、フィジーでは主要造林6樹種のひとつとなっている。フィジーの例では、溪間部の湿潤地でも山腹上部の肥沃でない土壌条件のところでも造林が容易であり、造林適用範囲は広いが、林令を重ねるにしたがって成長は緩かになっている。

ヴァヌアツ国における人工造林のひとつの障害はサイクロンによる被害であるが、この樹種はほかの造林樹種よりも抵抗力があるという。ただ、*Cordia*材のサイクロンによって生じた材質に対する影響は、今後の研究に待たなければならない。

1980年の独立以来今日に至るまでのヴァヌアツ国における人工造林の主要プロ

プロジェクトは、つぎのとおりである。いずれも海外援助による政府森林局プロジェクトである。

① ペンテコスト島における I F P

イギリス政府の技術協力によって1983年～1988年にわたって、*Cordia alliodora*を主要造林樹種として6千haの事業造林を行う計画であった。総予算額145百万VTでスタートしたこの事業は、100 haの*C. alliodora*の造林、接近道路の建設、事務所建物の建設が終え、事業費22百万VTを使ったところで、1988年にイギリスの援助は打ち切られた。

プロジェクト中止の最大原因は、土地の所有・権利関係に関するいざこざがたえずあったことである。目標である6,000 ha造林は当初からそもそも無理であったという。このプロジェクトは1985年にI F PよりL S Pに格下げされて、現在、全L S P造林地について、ケース・バイ・ケースで検討中である。

なお、造林木は*Phellinus noxious*という病原菌におかされて、広範囲にわたって枯損木を生じた。

② エロマンガ島における I F P

ニュージーランド政府の技術協力によって1982年以来、*Cordia alliodora*を主要造林樹種として3,500haの事業造林を行う計画である。*C. alliodora*の320 haの造林を終えたところで、総予算額29.5百万VTを費消した。この樹種のほか、いろいろな樹種の試験造林も行われて成果を得ている。

当初の計画どおり造林が進まなかったのは、用地のリースを巡って現地人土地所有者との合意がつかなかったことによる。またスタッフが適切に配置されていなかったこともひとつの理由であった。森林局による経営分析結果では、このプロジェクトはかなりの収益性をもたらすと記されているが、将来性については疑問がもたれている。

③ アネイティム島における I F P

ニュージーランド政府の技術協力によって1982年以来続けられているプロジェクトであり、針葉樹の*Pinus caribaea* var. *hondurensis*の3千ha造林

計画である。総予算額21.1百万VTのうち20.7百万VTを使い果たして、846haの造林を完成した。

このプロジェクトの最大の問題点は、事業の進行に伴って、やはり土地の権利関係をめぐるトラブルが多発したことである。たとえ計画どおり造林が進行したとしても、このプロジェクトは収益性の面では問題があるとされている。また山火事の発生が大きな障害となっている。

現在は、防火帯の保護や山崩れの防止などを主とする造林地維持管理を行っている。最近では、地元部落がバンド鋸を購入して製材に乗出し、小規模ながら伐採事業を始めているので、将来は大規模LSPとして発展させることを検討中である。

④ サント島におけるIFP

EECの援助によって、1989年より5年計画のパイロット・プロジェクトとしてスタートした。アグロ・フォレストリーなどの試験研究の要素をも盛り込んだ525haの試験造林を目標としている。主要造林樹種としては、*Cordia alliodora*を中心として、*Swietenia macrophylla*、*Agathis macrophylla*などを見込んでいる。パルプ原木用の造林樹種も検討中である。1990年に25haの植林を終え、地拵え、下刈などの技術、費用に関する情報を収集分析している。牛などの放牧による地拵え作業や下刈作業の代替あるいは補完など、アグロ・フォレストリーの試験研究を5年間のパイロット期間に行なうこととしている。

このプロジェクトはまだスタートしたばかりであるので、プロジェクト実行に大きな支障を与える問題点は生じていない。5年間のパイロット事業の成果がよければ、ほかの資金源などを求めて、現在、政府がリースしている6,000haの事業造林に発展することが十分考えられる。

外国の民間資本などによる民間ベースの造林事業は、いまだ具体化したプロジェクトはない。British Petroleum社の子会社であるBP Forests社が、企業ベースの大規模造林事業の可能性について、かなり綿密な調査を行

った。このプロジェクトは、本邦企業とニュージーランドのパートナー企業のヴァヌアツ国における合弁会社である現地法人に引き継がれた。現地法人と森林局との間に、紙パルプ原料としてふさわしい造林樹種を究明するために、5年間のパイロット試験造林において、技術情報や試験結果の共有などの協力関係をもつ旨の memorandum of understanding が交されている。また、森林局によれば、日本のいくつかの民間会社が、同じような造林プロジェクトに興味をいんでいる。1984年にはアジア開発銀行 (Asian Development Bank) が紙パルプ原木用人工造林プロジェクトの可能性を調査した。

EEC の援助による森林局のサント島 IFP プロジェクトから得られる多くの情報は、民間資本のみ、もしくは民間資本と森林局、土地所有者との合弁によって、産業用大規模造林事業を推進することの可能性について、貴重な手掛かりを与えることとなろう。

5-7 林業試験研究

ヴァヌアツ国森林局には試験研究部門 (Research and Technical Support Section) があって、3人のスタッフがいるが、中核となる研究者がいないために、独立以前からの固定試験地 (Permanent Sample Plots) のデータの収集整理分析、主要樹種の材積表や収穫予想表の作成、造林候補地の土壌調査、林木の選抜育種などの試験研究が必要であるとされているにもかかわらず、ほとんど実行されていない現状にある。明確な援助効果が目に見えてこない試験研究プロジェクトに対しては、先進諸国が協力をおしむことが、この国の林業試験研究が発展しない大きな原因となっている。サント島における IFP プロジェクトにおいても、試験研究担当の Manager が要請されているが、いまだ欠員のままである。

人工造林を事業的規模で推進するためには、森林土壌、適地適樹種、地拵えー植栽ー下刈ー保育、成長予測などの技術が解明され、それらを総合した技術体系が確立されていることが望ましいが、ヴァヌアツ国においてはこれからの問題となっている。

6 調査対象地域の概要

6-1 自然条件

6-1-1 位置、地形

エスピリツ・サント島はヴァヌアツ国最大の島で、南緯 $15^{\circ}40'$ ～ $14^{\circ}38'$ 、東経 $166^{\circ}30'$ ～ $167^{\circ}15'$ に位置し、南北約122km、東西約72km、面積約32万haである。

西海岸沿いに山脈が南北に連なり、その最高峰TAWEMASANA山は標高1,879mである。北部の東西に半島が突出しBig Bayを形成し、島の中央部を起点とし南から北へ流れるJourdain川がBig Bay湾内に注いでいる。この川の西部が未開発の山岳地帯、東部が比較的平坦な地形となっている。図6-1に地図を示す。

6-1-2 地質、土壌

(1) 地質

サント島の地質は2つの地帯、すなわち西部山岳地と東部平坦地に大別できる。西部山岳地は、新第三紀中新生下部の火山岩からなる峻険な南部と、やや峻険な中新生中部の岩石からなる北部に分けられる。その南部は、険しい尾根とV字谷が形成されている。北部の分水界は比較的平坦である。

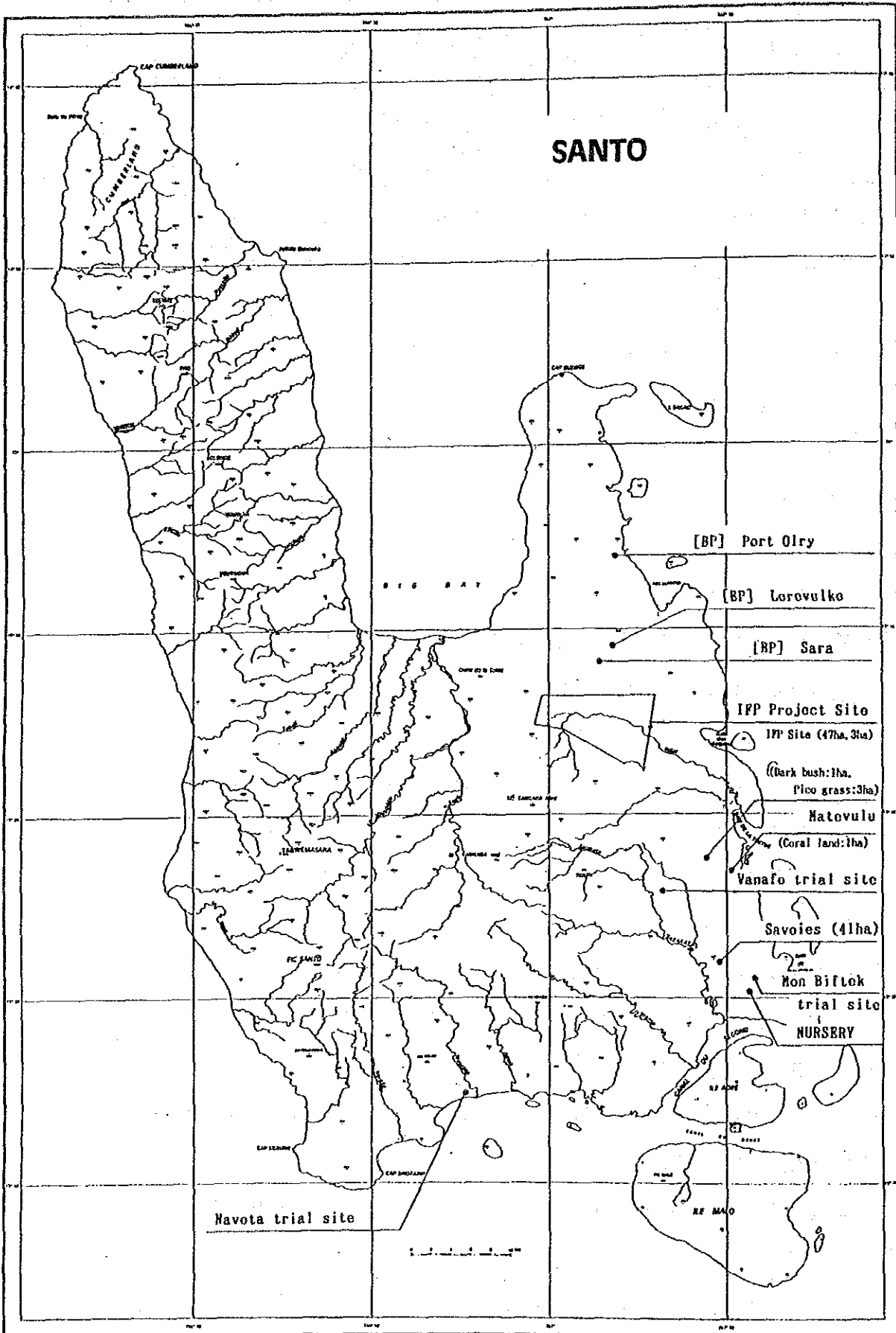
一方、東部平坦地は比較的新しく第四紀層に属するサンゴ礁石灰岩の隆起地形である。

Sanakata川及びWambu川には火成岩の基岩が貫入している。

(2) 土壌

西部は主として火成岩からなり凝灰岩、角礫岩、集塊岩、溶岩等の塩基性岩類及び中性岩類である。東部は比較的新しい隆起地表で水成岩よりなり、沖積層及び隆起サンゴ性石灰を含む凝灰岩質石けん石を主としている。東部の土壌は火山灰性土壌とサンゴ礁の風化土でおおわれ肥沃である。PHは6.0～8.0程度である。東部の一部山岳地は表土が浅くサンゴ質岩石が露出するが平坦部はA層が深く関東ロームに類似する。

図6-1. エスピリツ・サント島の地図



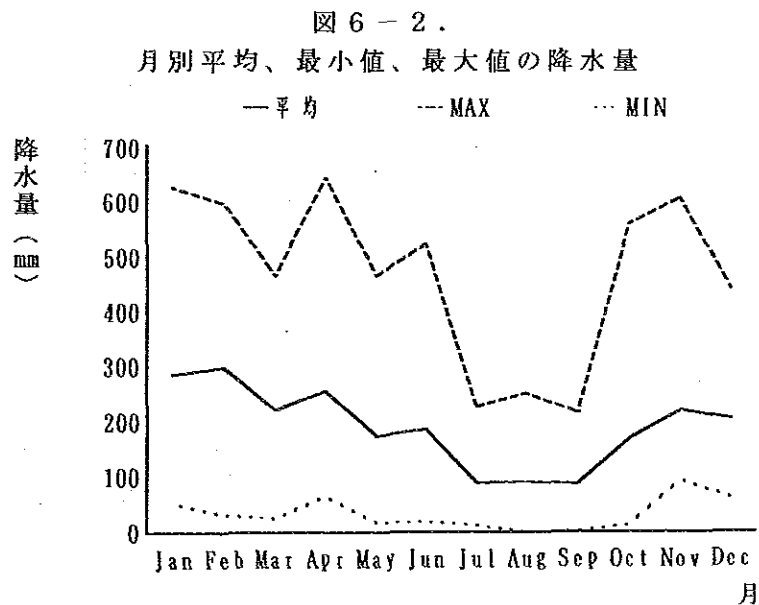
6-1-3 気 象

以下、各種データは VANUATU Meteorological Service の観測データを基に整理したものである。

(1) 降水量

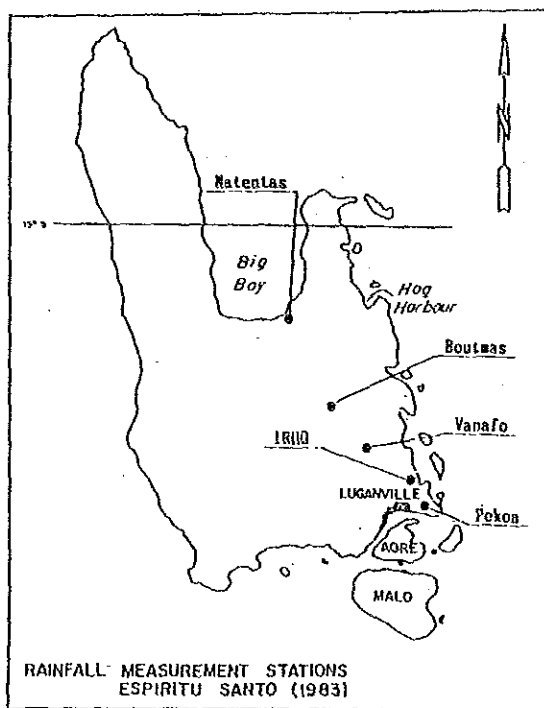
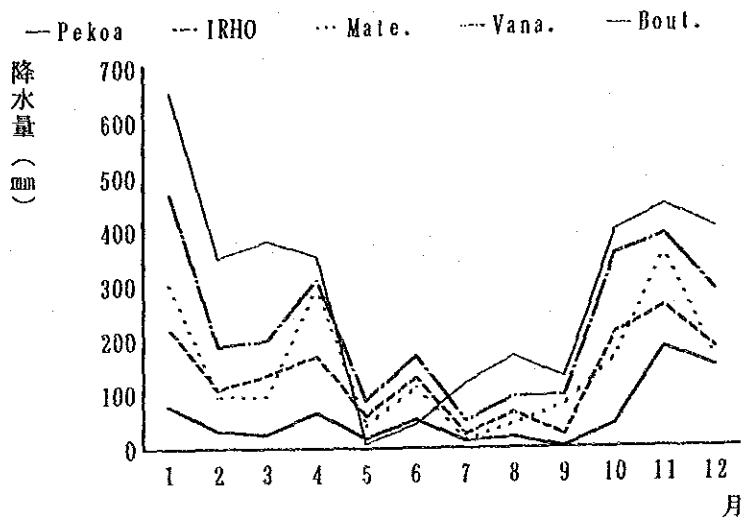
LUGSNVILLE郊外のPEKOA空港での観測によると、1973～1990年の年平均降水量は 2,305.6mmであり、その間の最低が1983年の685.1mm、最高が1988年の3,480.4mmである。雨期は12月から4月、乾燥期は6月から9月とされている。降水の多くは短期間の強い驟雨である。

1973～1990年の17年間の月別の平均と各月における最小値及び最大値を拾いだしまとめたものが図6-2である。



また、1,000m以上の山脈を持つという地形的特徴の影響で、島内でも海岸部と山間部では降水量が異なっており、海岸から離れるに従い降水量は多くなる傾向にある。1983年における島内5ヵ所の測定データを図6-3に示す。

図 6 - 3
島内 5 ヲ所の測定データ



1982~1990年の月別平均降雨日数は以下のとおりある。

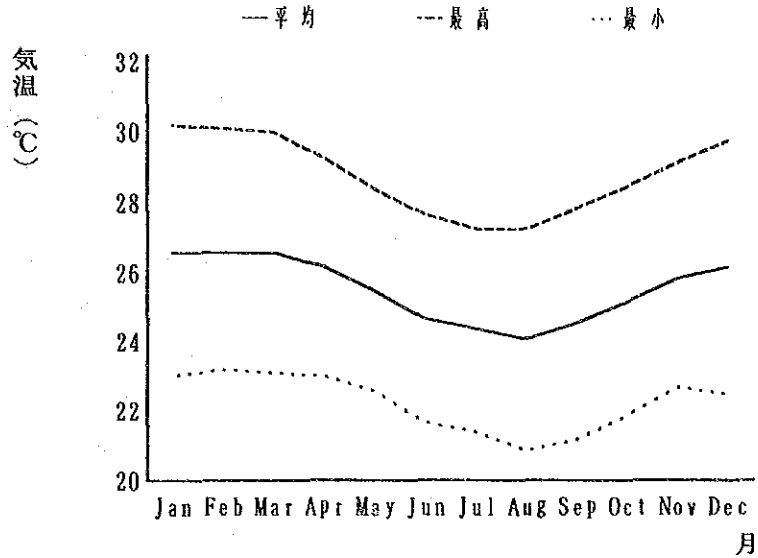
表 6 - 1. 月別平均降雨日数

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	計
降雨日数	16	17	17	17	16	13	9	9	9	11	15	15	164

(2) 気 温

年平均気温25.5℃、最高気温28.8℃、最低気温22.2℃となっている。
1973～1990年の月別平均気温は次の通りである。

図 6 - 4 . 月別平均、最高、最低気温



(3) 相対湿度及び日照時間

表 6 - 2 . 相対湿度 (1980~1990) 及び日照時間

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	計	平均
相対湿度 (%)	84	85	85	86	85	84	79	79	79	80	83	83	—	83
日照時間	174	179	165	171	162	148	136	174	172	176	204	211	2,073	173

(4) サイクロン

11月～4月が熱帯サイクロンの季節であり、サント島を襲うサイクロンは南太平洋のソロモン及びサンゴ海周辺で発生し、次第に勢力を強めて南下するものである。サント島を含むヴァヌアツ国北部地域はサイクロン帯からはずれているために、定期的に来襲を受ける中南部地域に比較すると被害は少ない。

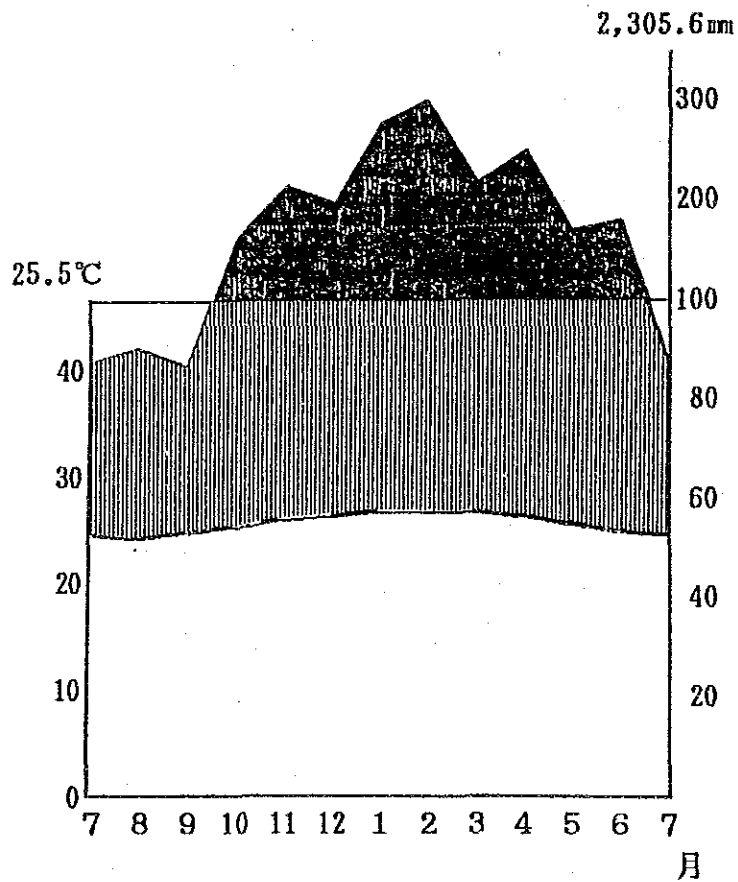
1939～1989年の51年間にヴァヌアツ国を襲ったサイクロンは75個が観測されているが、そのうち北部地域を通過したものは22個、サント島に被害をもたらしたものの7個、

さらにその中で、1948年1月、1972年2月、1987年2月、1988年1月に来襲した4つのサイクロンが大きな被害をもたらしている。それぞれの頻度を計算すると0.7年、2.3年、7.3年、12.8年に1回程度となる。

(5) 気象図形

Pekoa Airport (15° 31' S, 167° 13' E) のデータを用いた気象図形は次のとおりである。

図6-5. 気象図形



6-1-4 植生

東海岸沿い及び南部には、ココヤシのプランテーション、牧場が数多く見受けられる。そのほかの東部平坦部及び西部山岳地は森林に覆われている。森林は比較的疎林で、特徴的なことは蔓茎類に広く覆われている点である。

植生については現在オーストラリアの援助により「National Forest Resource Inventory」調査が行われており、その完成（1992年後半の予定、サント島については1990年中に調査終了済）が強く待たれている。（5-3 参照）

現地林業関係者は植生を、Dark bush, Light bush, Pico grass land, Coral landの4つに分類している。Dark bushは過去にほとんど人の手が入らなかった天然林である。大径木（直径30～40cm以上）が、ha当りに20本以上残っている。また蔓茎類に広く覆われている。Light bushは焼畑などが過去に行われた跡地で大径木は少ないが、蔓茎類に覆われていることが多い。Pico grass landはローカル名が「Pico grass」と呼ばれるナス科の雑草が優先する草原である。Coral landはコブラ・プランテーションが広く営まれている地域である。

植生は、土壌条件や地形の違いばかりではなく、人の手による開発の度合いによって違いが起こっていると考えられ、Dark bush はほとんど開発が行われて来なかった土地であり、Light bush, Pico grass land, Coral land の順に開発が盛んになる。

土壌条件の面ではDark bushは深く肥沃であり、Light bush, Pico grass land, Coral landの順に浅くなりやせていく。反対に作業条件（伐開、地拵え）の面ではCoral landが最も容易で低コストであり、Pico grass land, Light bush, Dark bushの順に必要コストが増大する。現地合弁法人はPico grass land, Light bushを主要対象地としている。

6-1-5 近隣諸国との自然条件の比較

自然条件の比較のために、フィジーのナンディ、PNGのラバウル、ソロモンのホニアラ、西サモアのアピア及びニューカレドニアのノメアの各種データを下表に示す。

表6-3. 近隣諸国の自然条件

	サント島(Pokoia)	フィジー(ナンディ)	PNG(ラバウル)	ソロモン(ホニアラ)	西サモア(アピア)	ニューカレドニア(ノメア)
緯度	南緯 15° 31'	南緯 17° 45'	南緯 4° 15'	南緯 9° 25'	南緯 9° 25'	南緯 22° 16'
経度	東経 167° 13'	東経 177° 27'	東経 152° 10'	東経 159° 58'	西経 159° 58'	東経 166° 27'
気候区分	熱帯サバハ気候	熱帯サバハ気候	熱帯多雨気候	熱帯サバハ気候	熱帯多雨気候	熱帯サバハ気候
降水量	2,306mm	1,890mm	2,012mm	2,097mm	2,928mm	1,083mm
平均気温	25.5℃	25.6℃	27.3℃	26.6℃	26.4℃	22.8℃
平均湿度	83%	-	-	76%	77%	76%
土壌	鉄質土変成土壌	富栄養変成土壌	貧栄養変成土壌	富栄養変成土壌	富栄養変成土壌	富鉄性粘土集積低飽和赤色土壌

出所：サント島以外は、理科年表による。

6-2 社会・経済条件

6-2-1 人口

サント・マロ州の人口は1989年のセンサスによると25,542人である。そのうちサント島の人口は21,636人、ルーガンビル市の人口が6,965人となっている。以下に過去のデータとあわせて示す。

表6-4. サント・マロ州の人口

(単位:人)

	1967		1979		1983		1989	
	人口	比率	人口	比率	人口	比率	人口	比率
サント・マロ州	12,785	100.0	19,423	100.0	22,795	100.0	25,542	100.0
サント島	10,423	81.5	16,547	85.2	19,750	86.6	21,846	85.5
ルーガンビル市	2,564	20.0	4,945	25.5	6,359	27.9	6,965	27.3
その他	7,859	61.5	11,602	59.7	13,391	58.7	14,881	58.3
マロ島	1,594	12.5	2,306	11.9	2,656	11.7	2,879	11.3
アオリ島	610	4.8	332	1.7	263	1.2	502	2.0
ツツバ島	158	1.2	238	1.2	278	1.2	315	1.2

出所: National Planning and Statistics Office 1989 Census

サント島への周辺諸島からの労働を求めての移入は古くから行われてきたが、近年その傾向が激しくなっている。特にルーガンビル市への集中傾向が強く、上記のとおり67年から89年にかけて構成比が20%から27%へ増加している。このデータは市内だけのものであり、市の中心から半径10km以内の人口について見てみると13,054人であり、その構成比は、サント・マロ州全体に対して51.1%に、サント島全体に対して59.8%となる。

ルーガンビル市長への聞き取り調査によると、同市の人口の半分にあたる3,000人から4,000人が失業しているといわれており、その対策のため、企業の進出は歓迎される環境にある。

6-2-2 産業

人口の70%が農業に従事しているといわれ、農業が主要な産業である。しかし、生産物の種類は多くなく、コブラ生産が大きなウェートを占めており、多くの野菜や米などは外からの輸入に頼っている。農林水産省の地方事務所では、今後土地生産性を高める方向で開発を行うことと、コブラからバニラ、トウガラシ、コーヒー等への転換を目指している。

8つの製材所のうちの3つの製材所と、港湾荷役会社、造船所、肉牛生産会社の6つが、サント島における大きな企業である。製材所では、Whitewood, Milktreeなどの在来の樹種を輸出及び国内消費向けに伐出、製材している。一部では合板生産設備が建設され、付加価値を高める努力がなされている。肉牛生産は今後サント島の重要な産業として育っていくことが期待されている。島国であるために伝染病が存在しないこと、土壌が肥沃であり、牧草地を開発すれば無施肥でも良好な牧草生産が行えることなど、その可能性は大きいといえる。

商業の分野については、ルーガンビル市がヴァヌアツ国北部地域の中心となっており、主に中国系の住民が占めている。サント島内ばかりではなく、他の島々の住民とも交易しているが、ルーガンビル市以外では現在でも伝統的な生活様式が守られていることが多く、船で商品運び、コブラで代金を回収するという、物々交換的な方法も取られている。

6-2-3 道路・交通

太平洋戦争中、米軍によりルーガンビル市を中心にした道路網が建設された。その東海岸を北上する道路と南海岸沿いに西海岸に至る道路の2つが基幹道路となっており、それに沿った地域に人口が多く集まっている。その後、フランスなどの援助により縦貫道や横断道が整備されている。また、現在では、地主が伐採業者と土地のリース契約を結ぶ際に、道路建設を義務付ける条項をいれることが多くなっており、結果的に伐採が進むにつれ、より細かな道路網が作られるようになっている。交通機関としては個人経営のタクシーが85台あるだけで、路線バスなどの公共交通機関は整備されていない。そのため遠隔地で事業を行う場合にはバスサービス等を行う必要もある

6-3 森林資源の状況

6-3-1 森林区分

サント島において行われてきた植林は次のとおりである。

表6-5. サント島における過去の植林研究

地区	年度	面積(ha)	樹種	目的
Navota Farm	71		EC, ED, ET, SM, CAC, SF	試験
	72		AGO, KI, TI, ND, COA	
	73		PC, EC	
	74		PCH	
Mon Biftek	72		AGO, KI, GA, TI, SM, ND, COA, ED	試験
	73		TC, CAA, IB, EC	
	72		SM, ND, COA, AGO, ED	
	73		SV, ARC, ALF, ANC, CAA, AGO	
Vanafo	75	20	TC, GA, ED, COA, TI	試験
Port Olry		1.8		試験
Lorevulko	88	1.8	ACC, ACM, COA, ED, GA, EG	
Sara		2.1		
Vanafo	75-82	130	COA	L.S.P.
Navota Farm	77-83	22	COA	L.S.P.
Hog Harbour	80-82	29	COA	L.S.P.
Beleroux	82, 83	13	COA	L.S.P.

ACC:Acacia crassicarpa, ACM:Acacia mangium, AGO:Agathis obtusa, ALF:Albizzia falcata, ANC:Anthocephalus chinensis, ARC:Araucaria cunninghamii, CAA:Castanospermum australe, COA:Cordia alliodora, EC:Eucalyptus camaldulensis, ED:Eucalyptus deglupta, EG:Eucalyptus grandis, GA:Gaolima arborea, IB:Intsia bijuga, KI:Khaya ivorensis, ND:Nuclea diderichii, SM:Swietenia macrophylla, SV:Serianthes vitiensis, TB:Terminalia bellerica, TC:Terminalia calamansanai, TI:Terminalia ivorensis
L.S.P. : Local Supply Plantations Project

以上のようにこれまでのところ行われてきた植林はわずかに300ha程度に過ぎない。

6-3-2 利用状況

上記のように人工林が少ないため、現在製材等に利用されているのは天然林から伐出された丸太である。サント島には八つの製材所があり、土地所有者と伐採契約をむすび、伐採から運材そして製材までを行っている。

サント島全体での伐出量を下表に示す。(樹種等は5-3参照)

表6-6. サント2島の伐出量

	1983	1984	1985	1986	1987	1988	1989	Total
国内向	1,220	1,212	2,680	2,911	3,766	4,008	3,638	19,435
輸出向	0	9,493	6,004	6,637	8,089	5,001	8,105	43,329
Total	1,220	10,705	8,684	9,548	11,855	9,009	11,743	62,764

出所 : VANUATU Government Department of Forestry Annual Report 1990

6-4 周辺造林地の状況

6-4-1 ナボタファーム、モンビフテック、バナフォ試験地

ナボタファーム、モンビフテック、バナフォの3試験地は70年代に植栽が行なわれ、その概要については6-3-1で表に示したとおりである。また国際協力事業団が1978年に行なった「ニューヘブリデス森林造成開発協力基礎二次調査」報告書の中でも試験設計や成長の様子について述べられている。

ナボタファーム、モンビフテック試験地では、皆伐植栽試験と Line Planting試験が行なわれ、バナフォ試験地ではサイクロンの風害対策としての林分配置試験が行なわれている。上記調査が行なわれた時点では管理・測定・記録は良くやられていたようであるが、しかし、その後1980年の独立を境に、十分な管理・測定・記録が行なわれなくなったばかりでなく、過去のデータも散逸し、現在では試験地に関するデータ、特に管理記録や生長に関するデータは何も残っていない。

たとえば、今調査において、バナフォ試験地のサイクロンによる被害を受けた林分や伐採後の二次林を見ることができたが、何年のどのサイクロンによる被害なのか、いつ伐採が行なわれたのかといった記録が残されていないほか、さらに、試験のために防風林帯として残されていた残存林が伐採され耕作地として使われていたり、75～82年に行なわれたLSPプロジェクトのために伐採され、そこに造林が行なわれているにもかかわらず、それらに関する記録がないなど、試験地として効果をあげえない状況にある。それは他の2つの試験造林地についても同様であった。

6-4-2 BP試験地

BPが1988年に将来の用材生産の事業化を目指して試験造林を行ったものである。その後、方針の変更の為BP自身は撤退し、試験造林は1年だけで終了した。その後、本試験事業主体者である本邦企業に情報や、権利関係が引き継がれている。

BP試験は試験の目的が用材生産であり、1年だけで試験造林が終了し、また試験項目が少ないなど、直接的に本試験事業と重なるものではないが、現地法人により管理や3ヵ月に1回の測定がなされており、データの乏しいサント島では生長量に關す

る貴重な情報源となっている。

試験地は図6-1のように3カ所に分かれている。樹種は、*Acacia crassicaarpa*, *Acacia mangium*, *Cordia alliodora*, *Eucalyptus deglupta*, *Eucalyptus grandis*, *Gmelina arborea*の6樹種であり、本試験事業で取り上げている9樹種のうち4樹種が含まれている。植栽間隔は3m×3mで、1つのプロットに90本(9列×10列)植えられており、そのうち中心部の30本が測定対象である。

平均樹高成長量と生存率を以下に示す。

図6-6. 平均樹高成長量

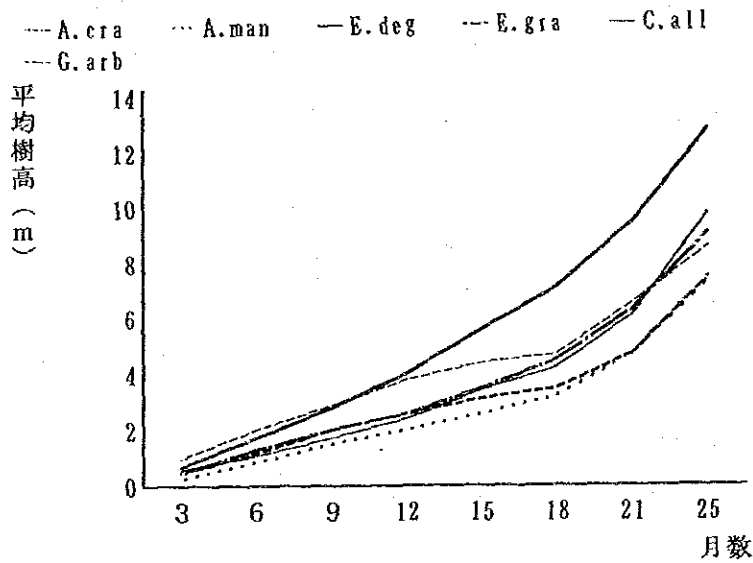
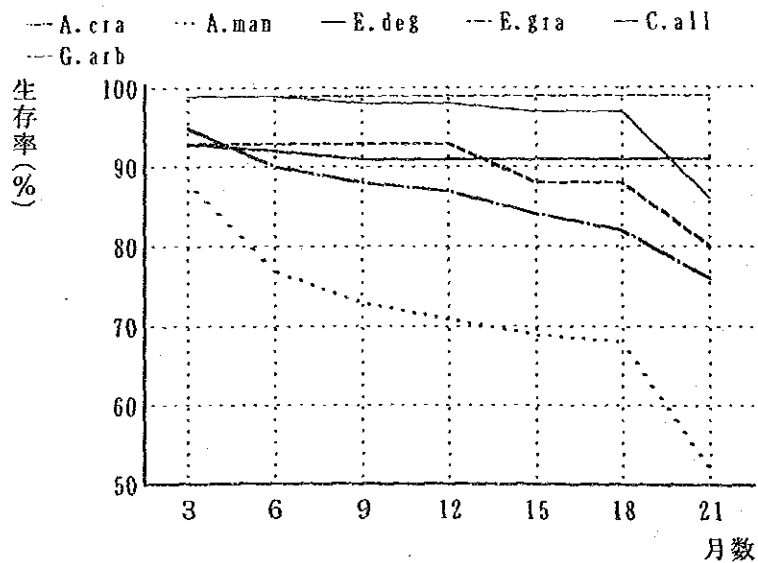


図6-7. 生存率



6-4-3 I F P (Industrial Forest Plantation)プロジェクト

5-6 ④で述べたように、1989年から5年間の予定でI F Pプロジェクトが行われている。技術面では、地拵えに関して特徴的な方法が試みられている。牛の放牧により、地拵え作業や下刈り作業の代替あるいは補完させたり、牧草を利用することで、伐開後の雑草の繁茂を押さえるといった試みが行われている。

7 開発計画

7-1 開発事業の意味

6-4で述べたように、サント島では過去何回か試験造林が行われてきたが、その管理記録や測定の結果が残されていないため、せっかく設定された試験地は十分な成果を残していない。またパルプ用早生樹種に関する試験は過去行われたことはなく、以上のような経過からサント島における植林に関するデータは何もないに等しい状況である。このためサント島の自然的社会的条件に即応した造林技術を開発することには大きな意義が認められる。さらに、本試験造林事業が所期の成果をあげれば、開発協力効果も期待でき、自然環境を保全しつつ地域住民の雇用の増大（5年間で延べ約18,000人と予想される）、所得の向上、またヴァヌアツ国経済に資するところが大きいと考えられる。

7-2 試験事業

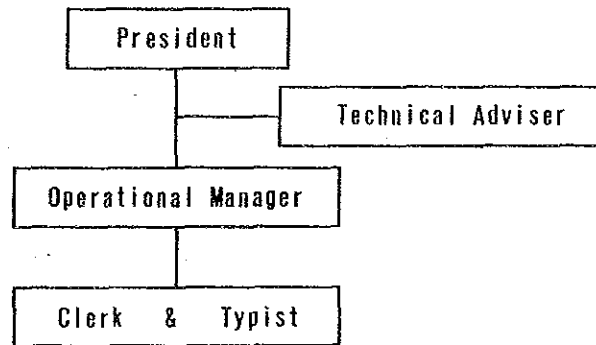
7-2-1 試験事業実施体制

本邦企業とニュージーランド企業がヴァヌアツ国に合弁企業を置き、その現地法人が実施主体となる。

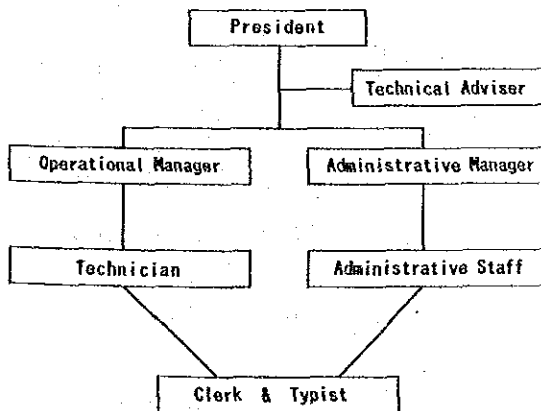
現在、現地法人のスタッフはプロジェクト・リーダーが一人だけで全ての業務を行っているが、今後事業の拡大に伴い、熱帯地域の林業に精通した専門家を造林技術アドバイザー (Technical Adviser) として派遣し、かつ現場の仕事を運営し、現地作業員を管理する現地人の現場マネージャー (Operational Manager) を早急に置くことが必要である。現場マネージャーの必要性は、本試験事業の主旨や本格事業へのスムーズな移行を考慮すると大きなものであり、その採用と教育・訓練は重要である。

本試験事業では最小規模の要員で管理経営にあたることとした
その実行組織図は図7-2-1のとおりである。

図7-2-1. 試験事業実行組織図



通常の場合、本試験事業のような規模の事業を行うにあたっては、最低でも左図の



ように、社長の下に技術顧問を置き、その下に、現場部門にマネージャーと技術者を、総務部門にマネージャーと事務員を置き、それに一般事務員を加えた程度の人員が必要であるが、本試験事業の場合、社長自身が総務部門を管轄することとし、上記のような、非常に小さな体制とした。

7-2-2 土地手当

試験造林は2カ年にわたって行われるが、そのうち1年目の96haの土地手当は終了しており、表7-2-1のとおりとなっている。

表7-2-1. 1年目の試験の土地手当

地 区	面積	植 生
IFP site (Shark Bay)	47ha	Light bush
	3ha	Light bush
Savoies	41ha	Pico-grass land
Matevulu collage	1ha	Coral land
	1ha	Dark bush
	3ha	Pico-grass land

2年目の95haのうち地拵え試験地50haは、Light bushに、植栽密度試験地45haは、Pico-grass landに確保される予定である。

7-2-3 試験事業計画

現地法人は既に自己資金により1年目の試験を独自にこの1990年後半から開始している。本試験事業計画は、その1年目の試験項目（適地適木試験、地拵え試験）に2年目試験としてポット用土試験、植栽密度試験、除草試験を追加し構成する。

(1) 試験事業の内容・目的

これまで述べてきたとおり、エスピリット・サント島では人工造林の実績が少なく、特にパルプ用早生樹種の造林は行われたことがなく、また、造林試験も過去に数度行われてはいるものの、管理、運営、測定、記録が行われてこなかったために、有用なデータは残されてはいない。つまり、造林事業の実施に当たって参考となるデータがほとんど皆無という状況下に本事業は置かれていることになる。そこで本試験事業では、基礎的なデータの収集を目的として適地適木試験、植栽密度試験、ポット用土試験を、また技術面に加えコスト面の検討も大きな目的として地拵え試験と除草試験を実施し、造林事業を行うに当たって必要となる各種のデータを収集する。ここで現状や試験目的・内容をまとめ表7-2-2に示す。

表 7-2-2. 試験事業を取り巻く現状及び試験の目的・内容

現 状	事業実施上の問題点	試験のねらい	試験内容
<p>6章で述べたように、エスピリツ・サント島では過去何度か試験を目的とする造林が行われてきた。しかし、独立時の混乱等もあり、試験地の管理や測定が不十分で、またその管理記録、測定記録が失われてしまっているために、試験地として効果をあげえない状態にある。わずかに利用できるデータが得られている試験は、88年に用材を目的とする小面積の試験造林がB.P.社によって行われた。その後、その権利関係とともにデータが本邦企業に引き継がれ、管理・測定が行われている。また、試験造林以外では、L.S.P.の一環として、用材生産を目的として、<i>Cordia alliodora</i>の造林が、過去4回行われている。</p> <p>以上のように、サント島では十分な試験造林は行われてきておらず、また事業造林についても用材生産を目的とするものだけでなく、パルプチップ生産を目的とした造林事業は行われたことがない。</p>	<p>何より1番大きな問題は、現状に述べたように、サント島（同国全体としても）における林業に関するデータが著しく不足している点にある。特に、本試験事業が目的とするパルプ用チップ生産のための造林の実績は皆無に近いものである。数少ない用材用造林のデータも、参考にはなるものの、用いる樹種や実施方法が異なっており、直接利用できないものではない。</p> <p>そこで、本試験事業では、上記のように、データが著しく不足している状況を前提とし、基礎的なデータの収集を目的として、適地適木試験、植栽密度試験、育苗試験を行うとともに、それと並行的に本格的な事業を見据え、技術面に加えコスト面の検討も大きな目的とする、地帯試験と除草試験をある程度まとまった面積で行うものとする。</p>	<p>1. 適地適木試験 サント島に見られる Dark bush, Light bush, Pico grass land, Coral land の4つの植生それぞれに適する樹種を決定する。</p> <p>2. 植栽密度試験 生長データの収集を目的とし、単位面積当たり最大の収穫量を得るために適当な植栽密度を検討する。</p> <p>3. 育苗試験 苗木の発芽、生長が良好かつ均一になり、また fungus などの病害を減少させるような、ポットの種類や土壌混合割合を探る。</p> <p>4. 地帯試験 育苗・造林の中で費用負担の最も大きな作業の1つである地帯えに関して、技術面に加えコスト面も検討する。各種の伐開方に牧草や牛等の利用を組み合わせながら、効果的かつ効率的な作業方法を探る。</p> <p>5. 除草試験 除草も地帯えと同様に費用負担が大きいので、コスト面の検討が重要となる。2の植栽密度試験と組み合わせる実施し、効果的かつ効率的な作業方法を探る。</p>	<p>試験造林年度：1年目 試験地、面積：Dark bush...1ha, Light bush...3ha Pico grass...3ha, Coral land...1ha 計 8ha</p> <p>対象樹種：Light & Pico...9樹種16種 Dark & Coral...常緑成林のよい6種</p> <p>試験造林年度：2年目 試験地、面積：Light bush...45ha (1プロット...1ha) 対象樹種：1年目の試験結果をもとに5樹種を選択 試験地：2.5x2.5m, 3x3m, 2x4m, 2.5x4m</p> <p>* 5の除草試験と組み合わせて行う。</p> <p>試験年度：1年目, 2年目 【1年目試験】試験項目：ポット種類試験、用上試験 対象樹種：9樹種16種 【2年目試験】試験項目：用上試験 対象樹種：植栽密度試験と同じ5樹種 2年目試験では苗木生産とは切離し、用上試験を種苗的、業的に行う。</p> <p>試験地：各樹種1トレイ (130本) ごとに土壌の混合割合を変え、30トレイずつ試験する。</p> <p>試験造林年度：1年目, 2年目 試験地、面積：(1年目) Light...47ha, Pico...41ha (2年目) Pico...50ha 対象樹種：E. deglupta, E. urophylla, A. mangium, A. crassicaarpa 1年目, 2年目ともに以上4樹種 使用樹種等：クワツヤ、牧草、牛、豚草種など</p> <p>試験造林年度：試験地、面積・対象樹種：2の適地適木試験と同じ 試験方法：(人功)全刈り除草、蘇刈り除草、疎刈り除草 (機械)1方向中耕除草、2方向中耕除草 植栽密度：2.5x2.5m...入方3方法、3x3m...入方3方法+2方向中耕との組合せ 2x4m & 2.5x4m...1方向中耕 以上1樹種当り9プロットを設ける。</p>

(2) 試験対象樹種

パルプ用事業造林に適する樹種は、a. 成長がよいこと、b. 造林適地が広範囲であること、c. 病虫害や気象害に強いこと、d. 樹形が通直であること、e. パルプ特性が優れていること等の条件を備えていることが必要である。

ヴァヌアツ国における過去のデータが乏しいため、現地法人では始めから樹種をしぼり込まずに、ある程度の幅を持たせた樹種選択を行い、これまでの経験に基づき、パルプ特性に優れ、ヴァヌアツ国の気象条件に適するものとして *Eucalyptus* 類、*Acacia* 類、*Casuarina* 類の中から以下の樹種を選び、1990年後半から1年目の試験を開始している。

1. *Acacia mangium*
2. *Acacia crassicarpa*
3. *Acacia auriculiformis*
4. *Casuarina junghuhniana*
5. *Casuarina grandis*
6. *Eucalyptus deglupta*
7. *Eucalyptus urophylla*
8. *Eucalyptus grandis*
9. *Eucalyptus pellita*

1, 2, 3, 6, 7, 8, 9については2産地の物を用意し計9樹種16種を用いて適地適木試験を行い、地拵え試験では周辺諸国やBP試験地で実績があり、また成績がよいことが期待される *Acacia mangium*、*Acacia crassicarpa*、*Eucalyptus deglupta* の3樹種に、*Eucalyptus urophylla* を加えた4樹種を用いることとしている。

2年目以降の試験ではBP試験地と1年目試験の経過観察に基づき、上記9樹種を順位付けし上位5樹種を選んで（但し *Casuarina* が1つは必ず入るようにする）試験する予定である。

(3) 1年目試験の内容

ここではまず現地法人及びI F Pで行われている育苗・造林技術について述べ、
ついで現地法人の1年目の試験計画を説明することとする。なお、育苗試験につい
ては計画的な試験が行なわれていないので育苗技術の説明のみとする。

1. 育苗

① 種子の入手

種子はすべてオーストラリアから入手している。表7-2-3がその一覧表である。

表7-2-3. 種子の原産地、性質

SEEDLOT No.	SPECIES	No. of PARENT	ORIGIN				VIABLE SEEDS/10g	Pre- Treat.	
			LOCALITY		LAT.	LONG.			ALT.
16485	<i>Acacia auriculiformis</i>	7	KINGS PLAINS	QLD	15° 42'	145° 06'	100m	490	*
16684	<i>Acacia auriculiformis</i>	15	BENSBAH R WESTERN P	PNG	8° 55'	141° 15'	20	No Test	*
13682	<i>Acacia crassicaarpa</i>	11	ORIMBO RIVER PROV	PNG	8° 50'	143° 10'	20	416	*
15646	<i>Acacia crassicaarpa</i>	16	WEMENEVER	PNG	8° 56'	141° 17'	20	308	*
15644	<i>Acacia mangium</i>	14	ORIMBO	PNG	8° 50'	143° 08'	10	435	*
15677	<i>Acacia mangium</i>	21	IRON RANGE	QLD	12° 43'	143° 14'	40	586	*
15923	<i>Casuarina grandis</i>	unknown	TOMA	PNG	9° 00'	148° 00'	-	3,625	
16872	<i>Casuarina junghuhniana</i>	unknown	BOTANIC GARDEN	IND	-	-	-	No Test	
15311	<i>Eucalyptus deglupta</i>	4	PHILIPPINES		7° 38'	126° 06'	--	2,075	
15615	<i>Eucalyptus deglupta</i>	unknown	GESHES CLON ORCHARD	PNG	-	-	-	34,000	
15244	<i>Eucalyptus grandis</i>	46	22KM NE ATHERTON	QLD	17° 06'	145° 35'	1,050	3,610	
14838	<i>Eucalyptus grandis</i>	7	WNW CARDWELL	QLD	18° 14'	143° 00'	620	8,600	
13999	<i>Eucalyptus pellita</i>	10	71-72KM NE WENLOCK	QLD	12° 43'	143° 08'	100	570	
16120	<i>Eucalyptus pellita</i>	9	6KM S KERU TO MATA	PNG	8° 36'	141° 45'	30	2,749	
14532	<i>Eucalyptus urophylla</i>	31	MT LEWOTOB, FLORES	IND	8° 31'	122° 45'	398	6,200	
16682	<i>Eucalyptus urophylla</i>	85	MT EGOH, FLORES IS.	IND	8° 38'	122° 27'	415	3,800	

SEEDLOT No. : by CSIRO (Commonwealth Scientific and Industrial Research Organization)

QLD : ケーブルランド PNG : パプアニューギニア IND : インドネシア

* : 発芽処理 沸騰水(100°C)に1分間浸す。

②用土の採取、配合

森林土壌は苗畑の近くにあるモンピフテック試験地から表土を採集し、ふるいにかけた後、トラックを借りあげ運んでいる。現在、ポット用土としてはその表土のみを使用している。試験開始当初には、表土と砂そしてコーヒー豆の殻を混ぜたものを使っていたが、発芽不良やfungusの被害が多発したため、その後コーヒー豆殻と砂の混合をやめ表土のみを使うようになっている。

③育苗ポットへの土入れ

現在育苗ポットとして、ポリエチレンバック、エコポット、ペーパーポットの3種類を用いている。

ポリエチレンバックは一般に広く用いられている黒いチューブポットで直径7cm深さ20cmのものである。エコポットは2枚の凹みを持ったプラスチック板を合わせて使うもので2枚1組で6本を育苗できる。一つの穴の大きさは5cm角深さ12cmで、山出し後の生長に大きく影響をおよぼす根系の発達が良好である。ペーパーポットは広げると直径5cm深さ10cmの育苗穴ができるペーパーポットを、大きさ60cm×40cmのプラスチック（または木製）トレイに入れて使用する。1トレイで130本を育苗できる。エコポットと同様に根系の発達が良好である。また土入れや、播種、除草等の育苗作業、山出しのための運搬作業等をトレイ単位で行えるために非常に効率的である。

今後はペーパーポットを主に用いていくが、まだ不確実な部分も多いため、経過を観察しながらさらに検討していく予定である。

土入れが終わるとトレイ（ポット）は高床式苗床へ並べられる。

④まきつけ

種子の大きなアカシア類は発芽処理後2粒ずつ直接ポットへまかれる。播種後1ヵ月目に根粒菌を接種する。種子の小さなユーカリ類ではトレイごとに300~400粒分の種子と鋸屑を混ぜ合わせてまかれる。

⑤ 日覆い

播種後苗が5cm位の大きさになるまでの間、遮蔽率50%の寒冷紗による日覆いをする。これはまた雨滴の直撃を防ぐ役割も果たしている。

⑥ 間引及び補植

一つのポットから複数の苗が出ている場合は、1本を残して間引きする。間引きした苗は補植に用いる。

⑦ 施肥

育苗期間中1回、NPK(10:6:5)を水にとかしてじょうろでまく。施肥量は1本につき3gずつとする

⑧ 保護

Damping-offの被害が問題となっている。キャプタン剤を予防及び蔓延阻止のために週1回散布している。そのほか用土の混合割合を変え表土だけにするなどの対策を施している。

Ⅱ. 植林・保育

① 地拵え

非常に独特な地拵えを行っており、1年目の試験の主要な項目となっており、次の現地法人の1年目の試験計画でまとめて述べることとする。

② 植え付け

植栽ラインに沿ってスコップで植穴(幅、深さ30cm)を掘り植え付ける。植栽密度は3m×3m(1,111本/ha)、4m×2.5m(1,000本/ha)の2つが用いられている。

③下刈り

ブッシュナイフを用いた手刈りで行うこととしている。B P 試験地の結果から下刈りは2.5年間必要である。回数については不明で、現地法人の担当者の予想は12回から30回と非常に広がった。しかしPNGなどの例では全期間中 4,5回程度となっており、この回数については費用に大きく影響するので、今後の試験の経過が注目される。

④つる切り

つるの侵入を見つけたときにこまめに除去することが大切である。下刈りが行われている間はその都度つる切りも行う。下刈り期間後は防火や牛の侵入を防ぐための定期的な巡回時に行う。

⑤保護

山火事防止と牛の侵入が最も問題となると予想される。また病虫害については未知の部分が大きいので、定期巡回を徹底することで、被害の防止と早期発見に努める。

II. 現地法人の1年目の試験計画

1年目の試験地と試験項目を次にあげる

表7-2-4. 1年目の試験地と試験項目

No.	試験地名	面積	植生	樹種	試験項目
1	IFP site (Shark Bay)	47ha	Light bush	Ed, Eu, Am, Ac	地拵え試験
2	Savoies	41ha	Pico-grass	Ed, Eu, Am, Ac	地拵え試験
3	IFP site (Shark Bay)	3ha	Light bush	9樹種16種	適地適木試験
4	Matevulu PDL site	1ha	Coral land	高知成樹の良い6樹種 (うち1つはCasuarina)	適地適木試験
5	Matevulu PDL site	1ha	Dark bush	高知成樹の良い6樹種 (うち1つはAcacia)	適地適木試験
6	Matevulu PDL site	3ha	Pico-grass	9樹種16種	適地適木試験

① 地拵え試験

地拵え試験の第一の特徴は、地拵えの早めの実施と低コストな除草管理を可能にすることを目的として伐開後の雑草のコントロールに牧草を利用している点にある。地拵えを早めに行うことで計画的な植林事業が可能となり、かつ保育作業の中で最も大きな費用を必要とする除草作業の省力化が期待されている。

牧草は暖地型のイネ科4種、マメ科3種が取り上げられ、いろいろな組合せが試みられている。これに伐開方法を組み合わせて試験が組み立てられている。

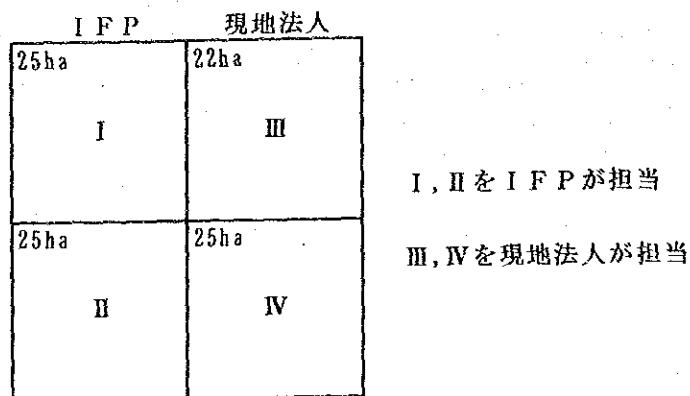
つぎの特徴はクラッシャー[Marden Roller]を利用した伐開である。ブルドーザーは高めに(1m程度)に設定した排土板により小径木(直径15cm程度まで)を押し倒し、後部に装着したクラッシャーにより倒した小径木を破砕し、雑草をなぎ倒していく。排土板を地際に設定する一般的な方法に比べ、表土を持ち去ることが少なく、さらにクラッシャーにより雑草木を細かくして土壌に鋤込む効果もある。また伐開により発生する末木枝条の量が少ないために整理の時間が少なくすみ作業効率が低い。

以下にそれぞれの試験の概要を述べる。

・ No.1 IFP site(Shark Bay) Light bush

IFPプロジェクトサイト内に試験地が設定されており、隣合ったIFPが担当する50haと現地法人が借り受けて担当する47haの計97haで試験が行われる。IFP担当の50haには用材用の樹種が、現地法人担当の47haにはパルプ用の樹種が植えられる。伐開方法としては4方法が行われ、牧草の組合せは7通りである。

図7-2-2. IFP試験地の見取図(その1:地拵えによる分類)



地拵え方法

第Iブロック(Partial Clear)

- 1,ブルドーザーの排土板を地際に設定し、雑草類と小径木(15cm以下)のみを押し倒す。末木枝条を整理した後に、
- 2,牧草を蒔き、
- 3,トラクター(チェーンハロー付き)により覆土を行う。

第IIブロック(Total Clear)

- 1,ブルドーザーの排土板を地際に設定し全ての雑草木を押し倒す。大きくてそのままでは押し倒せない木はリッパーにより根のまわりを掘った後に押し倒す。末木枝条整理後、
- 2,牧草を蒔き、
- 3,トラクター(チェーンハロー付き)により覆土を行う。

第IIIブロック

- 1,ブルドーザーの排土板を1m程度の高さに設定し小径木(15cm以下)のみを押し倒すと共に、後部に装着したクラッシャーにより伐倒した小径木を破碎し雑草をなぎ倒す。次に、
- 2,牧草を蒔き、
- 3,破碎された末木枝条類が残っておりチェーンハローが効かないため、ブルドーザーのクラッシャーにより覆土を行う。

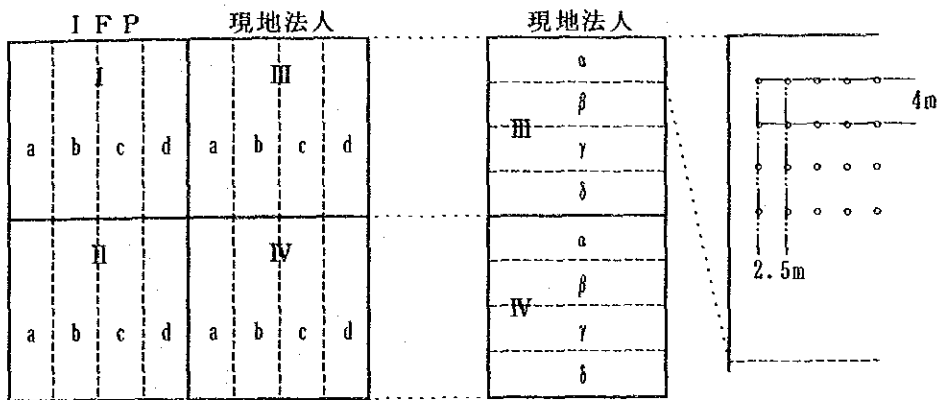
第IVブロック

- 1, 100頭の牛を1週間放牧することにより雑草、蔓類を除去する。表土は牛の土を掻く力により攪乱される。
- 2, 牧草を蒔き、
- 3, 排土板、クラッシャー付ブルドーザーにより小径木を伐倒、破碎すると共に覆土を行う。

図7-2-3. I F P 試験地の見取図

(その2:牧草の種類による分類)

(その3:植栽樹種及び植栽間隔)



牧草の種類、播種量

表7-2-5. 牧草の種類、播種量

ブロック	牧草の種類と播種量 (kg/ha)							ha当りの費用 (vt)	
	S.S.	Set	Ham	G.L.	C.S.	D.O.			
I	a	3.0	2.0		1.5	1.0		7,825	S.S.: Sil Sorghum
	b	3.0		4.0	1.5	1.0		10,425	Set: Setaria grass
	c	3.0			2.0	1.5		7,690	Ham: Hamal grass
	d				2.5	1.5		8,165	G.L.: Green Leaf Desmodium
II	a	3.0	2.0		1.5	1.0		7,825	C.S.: Cook Stylo
	b				2.5	1.5	1.0	8,165	D.O.: Desmodium ovalifolium
	c	3.0		4.0	1.5	1.0		10,425	
	d	3.0			2.0	1.5		7,690	
III	a				2.5	1.5		8,165	
	b	5.0			2.0	1.5		8,150	
	c	5.0		4.0	1.5	1.0		10,885	
	d	5.0	2.0		1.5	1.0		8,285	
IV	a				2.5	1.5		8,165	
	b	5.0			2.0	1.5		8,150	
	c	5.0	2.0		1.5	1.0		8,285	
	d	5.0		4.0	1.5	1.0		10,885	

植栽樹種

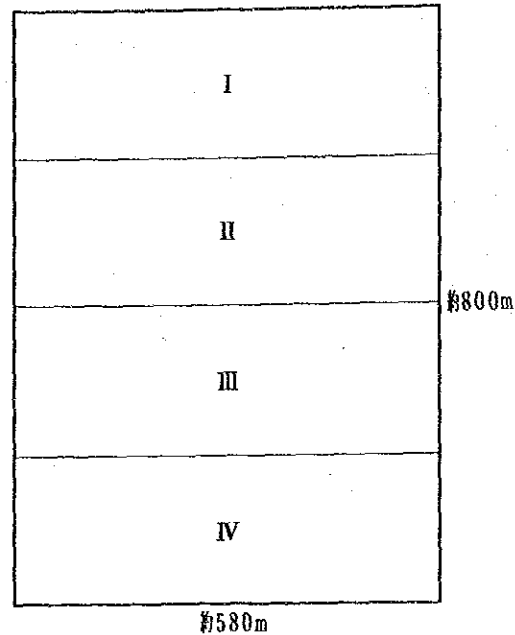
- | | |
|----------------------------|---------------------------|
| II-a: Eucalyptus urophylla | W-a: Eucalyptus urophylla |
| II-β: Acacia mangium | W-β: Acacia mangium |
| II-γ: Acacia crassicarpa | W-γ: Acacia crassicarpa |
| II-δ: Eucalyptus deglupta | W-δ: Eucalyptus deglupta |

植栽間隔 2.5 m × 4.0 m (1,000本/ha)

・ No2 Savoies site Pico-Grass land

伐開4方法、雑草コントロール4方法、4樹種を組合せた試験が行なわれる。

図7-2-4. Savoies試験地の見取図(その1:地拵えによる分類)



地拵え方法

第Iブロック

- 1, ブルトーザーの排土板を1m程度の高さに設定し小径木(15cm以下)のみを押し倒すと同時に、後部に装着したクラッシャーにより伐倒した小径木を破碎し雑草をなぎ倒す(パーシャルクリア)。
- 2, 除草剤(ランドアップ)によるスポット除草を行なう。

第IIブロック

- 1, チェーンソーによる伐倒と、クラッシャーによる伐倒を組み合わせた全刈りを行なう。
- 2, 除草剤(ランドアップ)によるスポット除草を行なう。

第IIIブロック

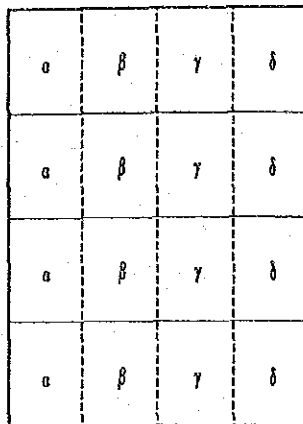
- 1, クラッシャーによるパーシャルクリア
- 2, 牧草(Green Leaf Desmodium[2.5kg] & Cook Stylo[1.5kg])を蒔く。
- 3, 牛を放牧し覆土を行う。
- 4, 除草剤(ランドアップ)によるスポット除草を行なう。

第IVブロック

- 1, クラッシャーによるパーシャルクリア
- 2, 牧草 (Green Leaf Desmodium[2.5kg] & Cook Stylo[1.5kg]) を蒔き、
- 3, トラクター+チェーンハローにより覆土を行う。
- 4, 除草剤 (ランドアップ) によるスポット除草を行なう。

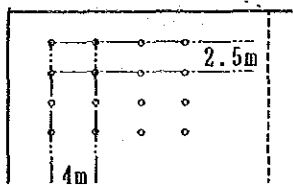
図 7-2-5. Savoies 試験地の見取図

(その2: 樹種及び植栽間隔分類)



植栽樹種

- α : *Acacia crassicaarpa*
- β : *Acacia mangium*
- γ : *Eucalyptus urophylla*
- δ : *Eucalyptus deglupta*



植栽間隔

2.5m × 4.0m (1,000本/ha)

②適地適木試験

Dark bush, Light bush, Pico grass land, Coral landの4つの地域で、9樹種16種の樹種適正試験を行う。

本試験事業が主に対象とするのはLight bush, Pico grass landであるが、Dark bush, Coral landについても将来の利用の可能性を探ることを目標にしている。

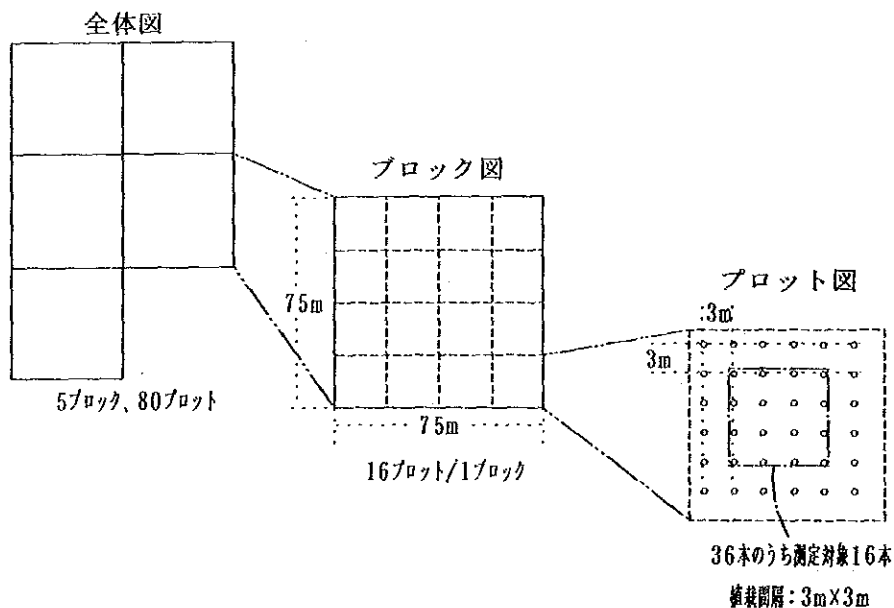
とくに主要産業であるコブラ・プランテーションが広く行われているCoral landは、その多くがアクセスの良い所に開かれていること、道路などの社会資本が充実していること、手入れが行われているので造林地へ転換が容易なことなどメリットが多い地域である。さらにサント島にとっても、コブラの市況が低迷している現状のもと、その偏った産業構造からの転換、多様化の道を探しているところでもあり、その将来性は大きいと予想される。

・IFP site (3ha, Light bush) 及び Matevulu PDL site (3ha, Pico grass land)

Light bushと Pico grass landにそれぞれ3haの試験地を設定している。9樹種16種の生長量や枯損、病虫害等を詳しく観測測定することを目的とする。

地拵えをトータルクリア方式で行った後、1種ずつプロットごとに植える。1プロットは6本×6本(18m×18m)で成り、内側の4本×4本の16本を測定する。16プロットを1ブロック(4プロット×4プロット)とし、5回繰返して5ブロック作る。その見取図を図7-2-6に示す。

図7-2-6. 試験地の見取図



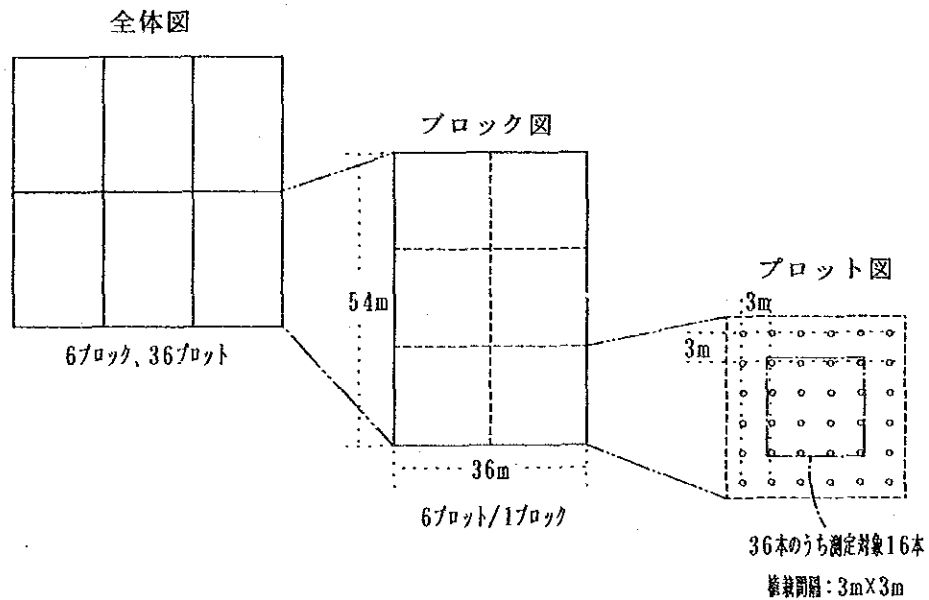
・Matevulu PDL site (Coral land 1ha, Dark bush 1ha)

Coral land と Dark bush にそれぞれ 1ha の試験地を設定し、両地域での造林の可能性を探ることとする。

9 樹種のうち苗畑での成績の良い順に 6 樹種を選択する。Coral land では Casuarina を、Darkbush では Acacia を必ず 1 樹種は入れるようにする。

地拵えをトータルクリア方式で行った後、1 樹種ずつプロットごとに植える。1 プロットは 6 本×6 本 (18m×18m) で成り、内側の 4 本×4 本の 16 本を測定する。6 プロットを 1 ブロック (4プロット×4プロット) とし、6 回繰返して 6 ブロック作る。その見取図を図 7-2-7 に示す。

図 7-2-7. 試験地の見取図



(4) 2年目の試験

I. 試験項目と試験目的

2年目の試験項目として、現地法人が計画している50haの地拵え試験に加えて、ポット用土試験、植栽密度試験及び除草試験を行う。

ポット用土試験は現在苗畑で問題になっているfungus等の病気や苗木成長の不揃いを土壌の混合割合を工夫することで改善していき、最良の割合を確立することを目的とする。

植栽密度は、造林木の生長に大きな影響を与え、また、雑草の生長にも影響し、それに伴い保育作業の中で最も費用負担が大きい除草の作業量を左右する。本試験事業では、植栽密度試験に除草試験を加えて行い、単位面積あたり最大の収量をもたらし、かつ保育経費がより低コストになるような最適密度を決定する。さらに病虫害の観察を行い、その対策法を探るなど、展示林的な試験地と位置付け、今後の事業活動のためのデータの収集を行う。

II. 試験設計

①地拵え試験

1年目の結果を参考に2年目の内容を決定する。他にあまり例のない方法であり、1年目の試験結果をもとにして十分な検討を行うことが非常に重要である。

②ポット用土試験

基本的には造林試験とは分けて行い、造林試験用の育苗には現在実績のある表土のみを用いる。

配合する素材としては、林地の表土、砂、牛糞、屑炭、コブラ屑を用いる。現在病気や成長不良等の問題のある樹種を主として用い、1トレイ（130本分）ごとに配合の割合を変えて試験する。

③植栽密度試験

植栽密度の決定は森林の仕立て方の基本要素で、育林目的、保育作業条件等を考慮しなければならない。また育苗から伐採の間で最もコストがかかると考えられる除草の作業量に影響を与えることから、除草試験と組み合わせて考えていく必要がある。

この試験項目については、今後の事業化に必要な基礎的データを収集することを目的とする。

1年目の試験で用いられる植栽密度は3.0×3.0m (1,111本/ha) と2.5×4.0m (1,000本/ha) であり、これらに2方法を加えた次の4方法の密度試験を行う。

- 2.5×2.5m (1,600本/ha)
- 3.0×3.0m (1,111本/ha)
- 2.0×4.0m (1,250本/ha)
- 2.5×4.0m (1,000本/ha)

プロットの大きさと数は次の除草試験の項で述べる。

④除草試験

前述の通り、育苗から伐採の間で最もコストと労働力が必要な作業が除草作業であると考えられ、その作業方法は事業の収益性と雇用に大きく影響を与えることとなる。サント島においては雇用の創出が求められているが、一方では労働力のキャパシティーが限られており、人力除草と機械除草のそれぞれの試験を行ない、技術、費用、労働力のデータを収集することは非常に有益である。

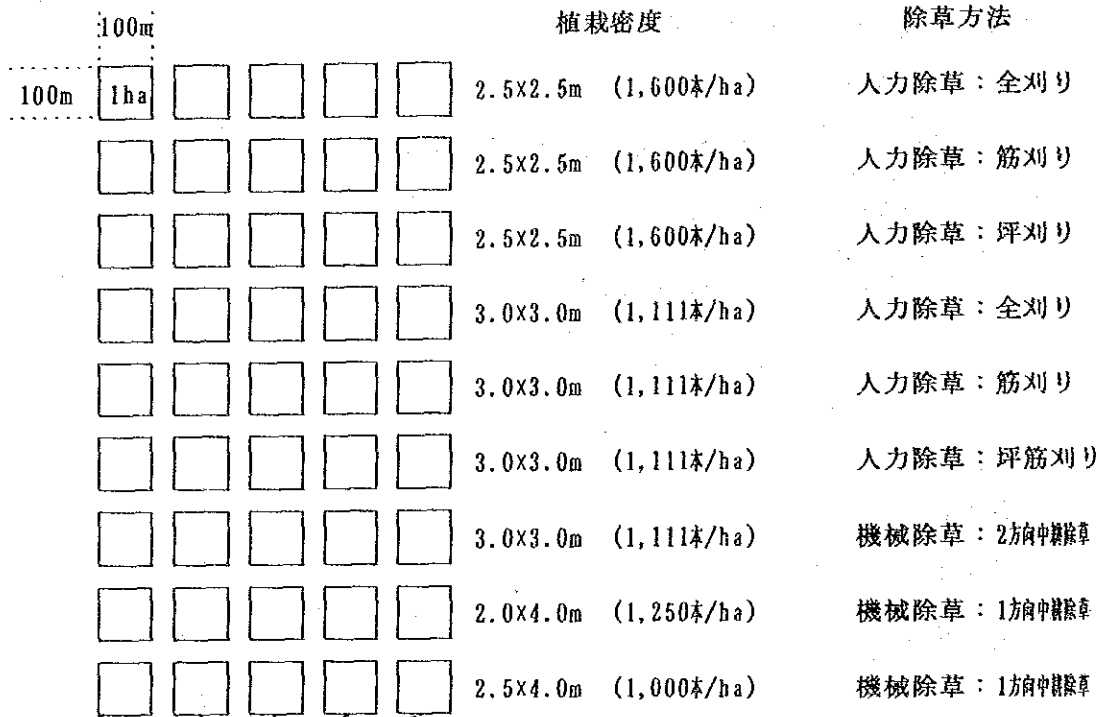
試験方法等を植栽密度と合わせて表7-2-6に示す。

表7-2-6. 植栽密度及び試験方法

除草方法 植栽密度	人 力 除 草			機 械 除 草		計
	全刈り	筋刈り	坪刈り	1方向 中耕除草	2方向 中耕除草	
2.5×2.5m	○	○	○			3
3.0×3.0m	○	○	○		○	4
2.0×4.0m				○		1
2.5×4.0m				○		1
計	2	2	2	2	1	9

上記の9方法を5樹種につき行ない計45プロット(45ha)を設けることとする。1つのプロットの大きさは、100×100m(1ha)とする。

図7-2-8. 植栽密度(除草)試験地の見取図



1列に1樹種を当てる。5樹種5列を設ける。

(5) 保育管理の観察

各試験においては、それぞれの目的とする試験を行うほか、除草などの保育管理や、病虫害についても経過観察を行うこととする。

7-2-4 試験事業実施計画

(1) 試験事業規模

試験事業規模は次の通りである。

1991年（初年度）	
育苗本数	152,500本
山出し本数	107,590本
植栽面積	96ha
1992年（2年度）	
車両・施設等整備	
育苗本数	191,000本
山出し本数	120,050本
植栽面積	95ha
1991～1995年	
保育・管理	
測定	

(2) 試験事業実施スケジュール

本試験事業の年度別実施のスケジュールは、表7-2-7のとおりである。

表7-2-7. 試験事業実施スケジュール

		年度	1991	1992	1993	1994	1995
(準備)	土地手当		—				
	申請許可		—				
	建物施設整備			—			
	車両・機械等整備			—			
(育苗)	種子入手・蒔きつけ		—				
	ポット育苗			—			
	苗木山出し			—			
(造林)	地拵え		—				
	植え付け			—			
	保育・保護		—				
(測定)	測定						

(3) 育苗計画

苗木の生産は、造林事業に必要な優良苗木を計画的に自給することを目的とする。育苗は試験期間については現状のまま森林局及びI F Pの苗畑で行なうものとする。

育苗方法については現在、現地法人が用いているものを基本的に踏襲し、より効率的かつ低コストな技術を養成することに努めるものとする。

1. 育苗本数

造林計画に基づき、山行き率と補植率を考慮した年次別苗木生産量は、表7-2-8のとおりである。山行き率は優良苗木の選択と枯損を見込んで70%とし、造林地での補植率は10%とする。

2年目の試験は1年目試験とB P試験の経過観察から選択した5樹種を用いて行うこととする。また育苗試験は5樹種に関して各樹種30トレイずつ行い、その数を含めて計算する。

表7-2-8. 育苗本数

樹種	1991	1992
<i>Acacia auriculiformis</i>	1,200本	
<i>Acacia crassicarpa</i>	36,400本	(42,160本)
<i>Acacia mangium</i>	37,050本	(42,160本)
<i>Casuarina grandis</i>	1,000本	
<i>Casuarina junghunniana</i>	1,000本	(22,360本)
<i>Eucalyptus deglpta</i>	37,050本	(42,160本)
<i>Eucalyptus grandis</i>	1,200本	
<i>Eucalyptus pellita</i>	1,200本	
<i>Eucalyptus urophylla</i>	36,400本	(42,160本)
合計	152,500本	191,000本

2年目試験に用いる樹種は未定であるが、ここでは便宜上、表の様に仮定し、この後の計算に用いることとする。

1. 育苗方法

現在現地法人が用いている方法を基本とする。

① 種子の入手

種子はすべてオーストラリアから入手する。

② 用土の採取、配合

用土は苗畑の近くにあるMonbifstek試験地から表土を採集し、ふるいにかけて後、ベルトコンベアを使ってトラックへ積込み、運搬する。

配合割合は、用土試験では計画的に種々の配合を試みるが、その他の試験には現在実績のある森林土壌の表土のみを用いることとする。

③ 育苗ポット

現在育苗ポットとしてペーパーポットを用いている。

土入れが終わるとトレイ（ポット）は高床式苗床へ並べる。

④ まきつけ

種子の大きなアカシア類は発芽処理後2粒ずつ直接ポットへまく。播種後1ヵ月目に根粒菌を接種する。種子の小さなユーカリ類ではトレイごとに300~400粒分の種子と鋸屑を混ぜ合わせてまく。

⑤ 日覆い

播種後苗が5cm位の大きさになるまでの間、遮蔽率50%の寒冷紗による日覆いを行う。

⑥ 間引及び補植

一つのポットから複数の苗が出ている場合は、1本を残して間引きする。間引きした苗は補植に用いる。

⑦ 施肥

育苗期間中1回、NPK(10:6:5)を水にとかしてじょうろでまく。施肥量は1本につき3gずつとする

⑧ 保護

Damping-offの被害が問題となっている。キャプタン剤を予防及び蔓延阻止のために週1回散布する。

II. 育苗標準工程

苗木は、作業員の技能の熟練度、指導者の適正な労務管理と育苗作業の工程管理の方法によって、良質・健全なものを低コストで生産できるものである。本試験事業においても、良質・健全な苗木を安価に生産することが目標である。この目標達成のため、現地調査の結果と社会的環境、労働事情を総合的に判断して育苗作業標準工程を作成した。この工程表は表7-2-9、表7-2-10、表7-2-11のとおりである。

表7-2-9. 育苗標準工程人工数

作業種	苗木千本当り 工程	1年目の総工程		2年目の総工程		備 考
		育苗本数:152.5千本	育苗本数:191.0千本	育苗本数:152.5千本	育苗本数:191.0千本	
用土採取運搬						用土:0.25m ³
作業員	0.05人日	7.63人日	9.55人日			採取、運搬、積降し:0.2人/m ³ (機械力使用)、0.25m ³ ×0.2人
トラックドライバー	0.05人日	7.63人日	9.55人日			一般作業員の1.57倍
ポット土入れ ・種子まきつけ	0.50人日	76.25人日	95.50人日			2,000ポット/日 普通し、用土の混合、トレイ組立、ポット詰め、 トレイの苗床への運搬、種子の準備、まきつけ、澆水等
開引き、挿植	1.00人日	152.50人日	191.00人日			1,000ポット/日
管理作業						
ポット苗への澆水	1.40人日	213.50人日	267.40人日			0.12h/日、育苗期間中の無雨日数:70日、0.12×70/6h=1.4人日
除草	2.08人日	317.20人日	397.28人日			5回、2.5h/人・回、2.5×5/6h=2.08人日
日覆	0.03人日	4.58人日	5.73人日			0.19h/人日、0.19/6h=0.03人日
薬剤散布	0.67人日	102.18人日	127.97人日			0.25h/人日×16回=4.00、4.00/6h=0.67人日
計	5.78人日	881.47人日	1,103.98人日			

表 7 - 2 - 1 0 . 育苗標準工程資材費等 (苗木千本当り)

作業種	工程	単 価	金 額	備 考
用土採取運搬				
トラック燃料代	0.25H	388円/H	97円	2トントラック、5×0.05 燃費:1時間あたり1ℓ
ベルトコンベア燃料費	0.25H	124円/H	31円	
計			128円	
ポット土入れ・種子まきつけ				
ポット代				
ペーパーポット代	7.7ブック	740円/ブック	5,698円	①NZ\$8.92, Rate:NZ\$1=82.5円
プラスチック・トレイ代	7.7個	814円/個	6,268円	①NZ\$9.87, Rate:NZ\$1=82.5円
計			11,966円	
種子代金				
A. auriculifor-	71g	30円/g	2,130円	種子数: 490粒/10g, 1000×3.5÷490/10
A. crassicarpa	97g	100円/g	9,700円	種子数: 362粒/10g, 1000×3.5÷362/10
A. mangium	68g	80円/g	5,440円	種子数: 511粒/10g, 1000×3.5÷511/10
E. grandis	14g	40円/g	560円	種子数: 3610粒/10g, 1000×5÷3610/10
E. pellita	18g	80円/g	1,440円	種子数: 2749粒/10g, 1000×5÷2749/10
E. deglupta	1.5g	150円/g	225円	種子数: 34000粒/10g, 1000×5÷34000/10
E. urophylla	8g	110円/g	880円	種子数: 6200粒/10g, 1000×5÷6200/10
C. junghunniana	10g	50円/g	500円	種子数: 3600粒/10g, 1000×3.5÷3600/10
C. grandis	10g	50円/g	500円	種子数: 3600粒/10g, 1000×3.5÷3600/10
管理作業				
追肥 肥料代	3Kg	120円/Kg	360円	追肥1回, NPK(10:6:5),
病害防除 薬品代	0.037ℓ	2,800円/ℓ	104円	Captan剤, 250倍希釈, 散布量5ℓ/m ² , 5/250=0.02ℓ/m ² 0.4m×0.6m=0.24m ² /トレイ, 0.24×7.7トレイ×0.02

表 7 - 2 - 1 1 . 育苗標準工程資材費等 (全試験期間)

作業種	千本当りの金額	1年目の総工程		2年目の総工程		備 考
		数 量	金 額	数 量	金 額	
用土採取運搬	128円/千本	152.50千本	19,520円	191.00千本	24,448円	
ポット代	11,966円/千本	152.50千本	1,824,815円	191.00千本	2,285,506円	
種子代金						
A. auric.	2,130円/千本	1.20千本	2,556円			
A. crass.	9,700円/千本	36.40千本	353,080円	42.16千本	408,952円	
A. mangi.	5,440円/千本	37.05千本	201,552円	42.16千本	229,350円	
E. grand.	560円/千本	1.20千本	672円			
E. pelli.	1,440円/千本	1.20千本	1,728円			
E. deglu.	225円/千本	37.05千本	8,336円	42.16千本	9,486円	
E. uroph.	880円/千本	36.40千本	32,032円	42.16千本	37,100円	
C. jungh.	500円/千本	1.00千本	500円	22.36千本	11,180円	
C. grand.	500円/千本	1.00千本	500円			
追肥 肥料代	360円/千本	152.50千本	54,900円	191.00千本	68,760円	
病害防除 薬品代	104円/千本	153.50千本	15,964円	191.00千本	19,864円	
計			2,516,155円		3,094,646円	

(4) 造林計画

造林についても基本的には、現在、現地法人が用いているものを踏襲し行うこととする。試験の方針に沿いながら、より効率的かつ低コストな技術を養成することに努める。またより良い結果を得ることができるように定期的な測定を確実に行うことが重要である。

1. 植栽本数

2年目の試験は1年目の試験とB P試験の経過観察から選択した5樹種を用いて行うので合計で表すこととする。

1年目、2年目の植栽本数を、表7-2-12に示す。

表7-2-12. 植栽本数

樹種	1991	1992
<i>Acacia auriculiformis</i>	720本	
<i>Acacia crassicarpa</i>	22,936本	(23,994本)
<i>Acacia grandis</i>	720本	
<i>Acacia mangium</i>	23,152本	(23,994本)
<i>Casuarina grandis</i>	576本	
<i>Casuarina junghunniana</i>	576本	(11,494本)
<i>Eucalyptus deglpta</i>	23,152本	(23,994本)
<i>Eucalyptus grandis</i>	720本	
<i>Eucalyptus pellita</i>	720本	
<i>Eucalyptus urophylla</i>	22,936本	(23,994本)
	96,208本	107,470本

2年目の樹種別の植栽本数は未定であるが、便宜上表の様に仮定し、この後の計算を行うものとする。

I. 造林方法

①地拵え

地拵えは、植え付け予定地にある雑草木を除去して、植え付けを容易にし、かつ苗木の活着と育成を良好にするために行う作業である。また地拵えは、そのやり方により経費に大きく影響するので、実行に当っては慎重な配慮が必要となる。

前述のように現地法人は非常に特徴的な方法を試みている。2年目の試験のうち地拵え試験を行う50haの試験地では、1年目の地拵え試験の結果をもとにさらに種々の方法を組み合わせて試験を行うものとする。その中でも特にクラッシャーによる伐開（以下、クラッシャークリアとする）と牧草による雑草コントロールとを組み合わせた方法についてより詳しい試験を行う。

牧草の利用は、地拵えを早めに終了させた後考えられる雑草の侵入を、牧草を導入することによりコントロールしようという試みである。しかし完全に雑草を押さえ込むことは困難であり、そのまま放置すれば雑草の侵入を許し、再び刈り払いを行う必要が生じ、かえって労力・経費が増大することになる。そこで本試験事業では、牛を放牧することにより牧草とともに雑草を食べさせ、初期成長の立上りが雑草に比べて早い牧草の優先を保つようにする。

牧草の播種は14人を1組として行う。その班構成は班長、播種係り11名、種子準備係り（種子と鋸屑を混ぜ合わせる）2名である。

一方地拵え試験以外の植栽密度試験では、すべての雑草木を除去する（以下、トータルクリアとする）方法をとる。

②植え付け

地拵えに牧草を使うため、そのまま植え付けを行うと植え付けられた苗木と牧草の間で競争が起こることになる。それを防ぐために、植え付け開始前に、まず植え付け基線を設け、植え付け位置を確定した後、その1つ1つに除草剤の散布を行う。散布範囲は直径1m程度とし、苗木への影響を避けるため、植え付け7日前に行う。

植え付け穴の大きさは直径30cm深さ30cm程度する。スコップによって穴を掘った後、ペーパーポットを一つ一つ土が崩れないように丁寧に取り分けて植え付ける。

③保育

・下刈り

下刈りは植栽後造林木が一定の高さになるまでの間、造林木が周囲の雑草類によって被圧され、成長が抑制されるのを防ぐため、雑草類を刈り払ってやる作業である。造林木の生長に関する最も重要な要因となるのが下刈り作業であり、特にサント島のように高温多雨な地域においては雑草の成長は著しいため、その重要性は非常に大きいといえる。また大きな労力を必要とすることから造林コストを大きく左右する要因でもあり、その事業に最も適した作業の方法、程度で行う必要がある。

下刈りの時期は造林木が雑草木類の被圧状態になる前に行うことが大切である。下刈りは生長の早いユーカリ類では、2, 4, 7, 11, 16ヵ月目の5回、そのほかでは、2, 4, 6, 9, 12, 15, 19, 23ヵ月目の8回行うものとする。方法はトラクターを使った1方向中耕除草を原則とするが、除草試験においては、手刈りによる全刈り、筋刈り、坪刈り、さらにトラクターによる2方向中耕除草も行う。

・つる切り

蔓茎類の繁茂の著しいサント島では、下刈り終了後のつる切りは造林木の生長を阻害させないためにも重要である。林冠が封鎖すれば林縁部を除いてつるはほとんど発生・蔓延しないので、林冠が封鎖するまでの間巡視の際など発生の都度除去することに努める。

・枝打ち、除伐、間伐

本試験造林はパルプ用木材チップ生産が目的であり枝打ち、除伐、間伐は行わない。

④保護

造林の拡大に伴い、森林被害の発生原因もまた増大することから造林地の保護には万全を期す必要がある。特に放牧牛による食害、昆虫害、山火事が予想されるので、フェンスや、林道、防火帯などのオープンスペース、防火施設等を充実させ、常に林地の観察を怠ることなく諸害の早期発見に努め、また適切な防除対策を確立していくことが必要である。とくにサント島では牛肉生産が重要な産業として位置付けられており、牛の放牧はますます盛んになっていくことが予想されるので、フェンスの設置や巡視を行うと共に、話し合いを通じて周辺住民の理解を得ることが必要である。さらに、造林後2、3年を経過し、造林木が十分に大きくなった段階で、造林地を放牧に開放し、それにより造林地の除草を行ったり、また地拵えの初めの段階に放牧を行ってもらい作業の省力化を図るなど、周辺住民との良好な相互関係を作っていくことは、造林地の保護ばかりでなく、事業全体にとり非常に有益なことである。

II. 造林標準工程

造林作業工程は以下の各表の通りである。

表7-2-13. 造林作業工程人工数—地拵え作業 (その1, 1haあたり)

作業種	作業内容	人工数				備考
		Coral land	Pico grass	Light bush	Dark bush	
地拵え クランチャークリア	雑草木伐倒、枝条整理 作業員(作業補助)	0.33	0.37	0.50	0.71	1日当 C:3ha, P:2.7ha, R:2ha, D:1.4ha 賃金(1,500vt):-一般労働者(525vt)の2.86倍 雇長の賃金:-一般労働者の賃金の1.14倍 手まき 3.5ha/日・チーム 1/3.5=0.29 3.5ha/日, 1/3.5x2.86
	ブル・オペレーター	0.94	1.06	1.43	2.03	
	牧草播種 雇長1名	0.33	0.33	0.33	0.33	
	播種11名、準備2名	3.77	3.77	3.77	3.77	
	覆土(クランチャー)	0.83	0.83	0.83	0.83	
	計	6.20	6.36	6.86	7.67	
パーシャルクリア	雑草木伐倒、枝条整理 作業員(作業補助)	0.59	0.67	0.91	1.43	1日当 C:1.7ha, P:1.5ha, R:1.1ha, D:0.7ha 賃金(1,500vt):-一般労働者(525vt)の2.86倍 雇長の賃金:-一般労働者の賃金の1.14倍 手まき 4.5ha/日・チーム 1/4.5=0.22 4.5ha/日, 1/4.5x2.86
	ブル・オペレーター	1.69	1.91	2.60	4.09	
	牧草播種 雇長1名	0.29	0.29	0.29	0.29	
	播種11名、準備2名	2.86	2.86	2.86	2.86	
	覆土(トラクター+ハロー)	0.64	0.64	0.64	0.64	
	計	6.07	6.37	7.30	9.31	
トータルクリア	雑草木伐倒、枝条整理 作業員(作業補助)	0.91	1.11	1.63	3.33	1日当 C:1.1ha, P:0.9ha, R:0.6ha, D:0.3ha 賃金(1,500vt):-一般労働者(525vt)の2.86倍 雇長の賃金:-一般労働者の賃金の1.14倍 手まき 5.0ha/日・チーム 1/5.0=0.2 5ha/日, 1/5x2.86
	ブル・オペレーター	2.60	3.17	4.66	9.52	
	牧草播種 雇長1名	0.23	0.23	0.23	0.23	
	播種11名、準備2名	2.60	2.60	2.60	2.60	
	覆土(トラクター+ハロー)	0.57	0.57	0.57	0.57	
	計	6.91	7.68	9.69	16.25	

表7-2-14. 造林作業工程人工数—地拵え作業 (その2, 試験地全体)

地拵え種別	haあたりの標準工程	1年目		2年目		総人工数
		面積	人工数	面積	人工数	
クランチャークリア						
Coral land	6.20人日/ha					
Pico grass	6.36人日/ha	20.5ha	130.38人日	25.0ha	159.00人日	289.38人日
Light bush	6.86人日/ha	47.0ha	322.42人日			322.42人日
Dark bush	7.67人日/ha					
パーシャルクリア						
Coral land	6.07人日/ha					
Pico grass	6.37人日/ha	20.5ha	130.58人日	25.0ha	159.25人日	289.83人日
Light bush	7.30人日/ha					
Dark bush	9.31人日/ha					
トータルクリア						
Coral land	6.91人日/ha	1.0ha	6.91人日			6.91人日
Pico grass	7.68人日/ha	3.0ha	23.04人日	45.0ha	345.60人日	368.64人日
Light bush	9.69人日/ha	3.0ha	29.07人日			29.07人日
Dark bush	16.25人日/ha	1.0ha	16.25人日			16.25人日
計		96.0ha	656.65人日	95.0ha	663.85人日	1322.50人日

表7-2-15. 造林作業工程人工数一苗木運搬、植え付け、保育・保護 (試験地林)

種 別	ha当りの 標準工数	1 年 目		2 年 目		備 考
		面積(ha)	人 工 数	面積(ha)	人 工 数	
苗木運搬						
トラックドライバー	0.16	96.0	15.4	95.0	15.2	10,000本/日、ドライバーの賃金:-般労働者の賃金の1.57倍
補助し作業員	0.20	96.0	19.2	95.0	19.0	補助し作業員2人
計			34.6		34.2	
植え付け						
測量、植付け基線設定	5.00	96.0	480.0	95.0	475.0	
スチット除草	3.00	96.0	288.0	95.0	285.0	1人当り:300-400割
樹穴回りの、植え付け	1.33	96.0	127.7	95.0	126.4	750本/m・d
施肥	0.17	96.0	16.3	95.0	16.2	施肥率:10%, 1000本x0.1÷600本/m・d
計			912.0		902.6	
下刈り						
トラクター						ディスクハロ、 オペレーターの賃金:-般労働者の賃金の2.86倍
1方向中継除草						
1-カリ 1年目	2.29			4.0	9.2	5.0ha/日 2,4,7,11月 4回 1:5.0x4x2.86=2.29
2年目	0.57			4.0	2.3	5.0ha/日 16月 1回 1:5.0x1x2.86=0.57
その他 1年目	2.29			6.0	13.7	5.0ha/日 2,4,6,9月 4回 1:5.0x4x2.86=2.29
2年目	2.29			6.0	13.7	5.0ha/日 12,15,19,23月 4回 1:5.0x4x2.86=2.29
2方向中継除草						
1-カリ 1年目	4.58			2.0	9.2	2.5ha/日 2,4,7,11月 4回 1:2.5x4x2.86=4.58
2年目	1.14			2.0	2.3	2.5ha/日 16月 1回 1:2.5x1x2.86=1.14
その他 1年目	4.58			3.0	13.7	2.5ha/日 2,4,6,9月 4回 1:2.5x4x2.86=4.58
2年目	4.58			3.0	13.7	2.5ha/日 12,15,19,23月 4回 1:2.5x4x2.86=4.58
手刈り						
全刈り						
1-カリ 1年目	19.00	46.2	877.8	29.0	551.0	2,4,7,11月 4回 割6,5,4,4人/ha 計19人
2年目	4.00	46.2	184.8	29.0	116.0	16月 1回 4人/ha 計4人
その他 1年目	22.00	49.8	1095.6	31.0	682.0	2,4,6,9月 4回 割6,6,5,5人/ha 計22人
2年目	14.00	49.8	697.2	31.0	434.0	12,15,19,23月 4回 割4,4,3,3人/ha 計14人
間刈り						
1-カリ 1年目	15.00			4.0	60.0	2,4,7,11月 4回 割5,4,3,3人/ha 計15人
2年目	3.00			4.0	12.0	16月 1回 3人/ha 計3人
その他 1年目	18.00			6.0	108.0	2,4,6,9月 4回 割5,5,4,4人/ha 計18人
2年目	12.00			6.0	72.0	12,15,19,23月 4回 割3,3,3,3人/ha 計12人
刈り						
1-カリ 1年目	13.00			4.0	52.0	2,4,7,11月 4回 割4,4,3,2人/ha 計13人
2年目	2.00			4.0	8.0	16月 1回 2人/ha 計2人
その他 1年目	15.00			6.0	90.0	2,4,6,9月 4回 割4,4,4,3人/ha 計15人
2年目	8.00			6.0	48.0	12,15,19,23月 4回 割2,2,2,2人/ha 計8人
計			2,855.4		2,310.8	
つる刈り						
1-カリ 2年目	1.25	46.2	57.8	43.0	53.8	22月 1回 1.25人/ha
3年目	2.50	46.2	115.5	43.0	107.5	28,34月 2回 1.25人/ha x2
4年目	1.25	46.2	57.8	43.0	53.8	40月 1回 1.25人/ha
その他 3年目	2.50	49.8	124.5	52.0	130.0	29,35月 2回 1.25人/ha x2
4年目	2.50	49.8	124.5	52.0	130.0	41,47月 2回 1.25人/ha x2
計			480.1		475.1	
道敷地						
1年目試地	1.50	96.0	144.0			毎年:0.30人日 5年目 0.30x5
2年目試地	1.20			95.0	114.0	毎年:0.30人日 4年目 0.30x4
計			144.0		114.0	
合 計			4,426.1		3,836.7	割計 : 8,262.8

表7-2-16. 造林作業工程人工数—フェンス張り (試験地全体)

試験地	フェンス長	1m当り人工数	総人工数	備 考
一年目試験地 IFP 47ha	2,000m	0.11人日	220.0人日	
IFP 3ha	750m	0.11人日	82.5人日	
Savoies 41ha	2,760m	0.11人日	303.6人日	
Matevulu 3ha	750m	0.11人日	82.5人日	
Matevulu 1ha	432m	0.11人日	47.5人日	
Matevulu 1ha	432m	0.11人日	47.5人日	
小 計	7,124m		783.6人日	
2年目試験地 地格え試験地 50ha	3,000m	0.11人日	330.0人日	
植栽密度試験地 45ha	3,000m	0.11人日	330.0人日	
小 計	6,000m		660.0人日	
計	13,124m		1,443.6人日	

表7-2-17. 造林作業工程人工数—測定作業 (試験地全体)

試験地	面積	測定回数	入工(人日/回)	総人工数	備 考
一年目試験地					測定:250本/人日
IFP 47ha	18	76.80	1,382.40	32ブロックに分かれる, 3プロット/ブロック設置, 1プロット:0.2ha	
IFP 3ha	18	5.12	92.16	80ブロックに分かれる, 1プロット/ブロック設置, 1プロット:16本(12m×12m)	
Savoies 41ha	18	38.40	691.20	16ブロックに分かれる, 3プロット/ブロック設置, 1プロット:0.2ha	
Matevulu 1ha	18	2.30	41.47	36ブロックに分かれる, 1プロット/ブロック設置, 1プロット:16本(12m×12m)	
Matevulu 1ha	18	2.30	41.47	36ブロックに分かれる, 1プロット/ブロック設置, 1プロット:16本(12m×12m)	
Matevulu 3ha	18	5.12	92.16	80ブロックに分かれる, 1プロット/ブロック設置, 1プロット:16本(12m×12m)	
2年目試験地					
地格え試験地 50ha	14	76.80	1,075.20	32ブロックに分かれる, 3プロット/ブロック設置, 1プロット:0.2ha	
植栽密度試験地					
2.5×2.5 15ha	14	57.60	806.40	15ブロック, 3プロット/ブロック設置, 1プロット:0.2ha	
3.0×3.0 20ha	14	53.33	746.62	20ブロック, 3プロット/ブロック設置, 1プロット:0.2ha	
2.0×4.0 5ha	14	15.00	210.00	5ブロック, 3プロット/ブロック設置, 1プロット:0.2ha	
2.5×4.0 5ha	14	12.00	168.00	5ブロック, 3プロット/ブロック設置, 1プロット:0.2ha	
BP試験地					
3か所 6ha	20	7.56	151.20	63プロット, 1プロット:30本測定	
計				5,498.28	

表7-2-18. 造林作業工程資材費等 (試験地全体)

作業種	工法	単価	1年目通算分		2年目通算分		備考
			数量	金額	数量	金額	
地替え							ブルド-ザ-等のマシンオペレーション時間は1日5時間とする。
除草本伐間、枝条整理							
クラツツヤークリア肥料							
Coral Land	1.6H/ha	3,082円/H	0.0ha	0円	0.0ha	0円	3.0ha/日、5H/3.0ha=1.6H/ha
Pico Grass	1.9H/ha	3,082円/H	20.5ha	120,044円	25.0ha	146,395円	2.7ha/日、5H/2.7ha=1.9H/ha
Light Bush	2.5H/ha	3,082円/H	47.0ha	362,135円	0.0ha	0円	2.0ha/日、5H/2.0ha=2.5H/ha
Dark Bush	3.6H/ha	3,082円/H	0.0ha	0円	0.0ha	0円	1.4ha/日、5H/1.4ha=3.6H/ha
パーシタルクリア肥料							
Coral Land	2.9H/ha	3,082円/H	0.0ha	0円	0.0ha	0円	1.7ha/日、5H/1.7ha=2.9H/ha
Pico Grass	3.3H/ha	3,082円/H	20.5ha	208,497円	25.0ha	254,265円	1.5ha/日、5H/1.5ha=3.3H/ha
Light Bush	4.5H/ha	3,082円/H	0.0ha	0円	0.0ha	0円	1.1ha/日、5H/1.1ha=4.5H/ha
Dark Bush	7.1H/ha	3,082円/H	0.0ha	0円	0.0ha	0円	0.7ha/日、5H/0.7ha=7.1H/ha
トータムクリア肥料							
Coral Land	4.5H/ha	3,082円/H	1.0ha	13,869円	0.0ha	0円	1.1ha/日、5H/1.1ha=4.5H/ha
Pico Grass	5.5H/ha	3,082円/H	3.0ha	50,853円	0.0ha	0円	0.9ha/日、5H/0.9ha=5.5H/ha
Light Bush	8.3H/ha	3,082円/H	3.0ha	76,742円	45.0ha	1,151,127円	0.6ha/日、5H/0.6ha=8.3H/ha
Dark Bush	16.7H/ha	3,082円/H	1.0ha	51,469円	0.0ha	0円	0.3ha/日、5H/0.3ha=16.7H/ha
計			96.0ha	883,609円	95.0ha	1,551,787円	
雑草の種子代							
1年目 G. L. D.		2,889円/kg	190.7kg	550,932円			
C. Stylo		1,934円/kg	120.3kg	232,660円			
S. Sorgh.		285円/kg	176.4kg	50,274円			
Setaria		1,290円/kg	23.6kg	30,444円			
Hamal g.		1,451円/kg	47.0kg	68,197円			
2年目 G. L. D.	2.5Kg/ha	2,889円/kg			50ha	361,125円	
C. Stylo	1.5Kg/ha	1,934円/kg			50ha	145,050円	
計				932,507円		506,175円	
雑草の富士							
ブル+クラツツヤークリア	1.4H/ha	3,082円/H	67.5ha	291,249円	50.0ha	215,740円	3.5ha/日、5H/3.5ha=1.4H/ha
トラクタ+チェーンロー	1.3H/ha	1,541円/H	28.5ha	57,094円	45.0ha	90,149円	4.0ha/日、5H/4.0ha=1.3H/ha
計			96.0ha	348,343円	95.0ha	305,889円	
フェンス類							
ワイヤ代		69円/m	7,124m	491,556円	6,000m	414,000円	56vt/m
支柱代		87円/m	7,124m	619,788円	6,000m	522,000円	70vt/m
埋込費		33円/m	7,124m	235,092円	6,000m	198,000円	27vt/m
計				1,346,436円		1,134,000円	
苗木運搬費	0.0005H/本	388円/H	96208本	18,664円	107470本	20,849円	10,000本/日(5H)、5H/10,000本
灌水代							
スロット施肥 薬品代	0.785cc/本	7,530円/cc	96208本	568,690円	107470本	635,261円	直径1mの円形に散布 0.5 x 3.14 = 0.785㎡ 散布量: 11/1,000㎡、0.785㎡: 1,000㎡
下刈り							
1方向中輪除草							
ユ-カリ 1年目	4H/ha	1,541円/H			4.0ha	24,656円	5.0ha/日(5H)、4日: 5H/5.0x4
2年目	1H/ha	1,541円/H			4.0ha	6,164円	5.0ha/日(5H)、1日: 5H/5.0x1
その他 1年目	4H/ha	1,541円/H			6.0ha	36,984円	5.0ha/日(5H)、4日: 5H/5.0x4
2年目	4H/ha	1,541円/H			6.0ha	36,984円	5.0ha/日(5H)、4日: 5H/5.0x4
2方向中輪除草							
ユ-カリ 1年目	8H/ha	1,541円/H			2.0ha	24,656円	2.5ha/日(5H)、4日: 5H/2.5x4
2年目	2H/ha	1,541円/H			2.0ha	6,164円	2.5ha/日(5H)、1日: 5H/2.5x1
その他 1年目	8H/ha	1,541円/H			3.0ha	36,984円	2.5ha/日(5H)、4日: 5H/2.5x4
2年目	8H/ha	1,541円/H			3.0ha	36,984円	2.5ha/日(5H)、4日: 5H/2.5x4
計						209,576円	
計				4,098,249円		4,363,537円	合計: 8,461,786円

V. 施設計画

V-1. 建物施設

本試験計画における管理・運営に必要な再小規模の建物を整備する。これは、表7-2-19のとおりである。

表7-2-19. 試験事業に必要な建物施設

名 称	数 量	単 価	金 額	備 考
管理事務所(兼 車庫、倉庫)	1棟 100㎡	39,060円/㎡	3,906,000円	木造平屋建 31,500vt/㎡
作業員用宿舎	2棟 110㎡	17,360円/㎡	3,819,200円	機器木造平屋建、炊事、トイレ共用 14,000vt/㎡
幹部スタッフ用宿舎	3棟 60㎡	45,880円/㎡	8,258,400円	木造平屋建 37,000vt/㎡
計	6棟 500㎡		15,983,600円	

V-2. 機械・機器施設

本試験事業に必要な機械・機器施設は、表7-2-20のとおりである。

表7-2-20. 必要な機械・機器施設

名 称	数 量	単 価	金 額	備 考
1年目				
ピックアップトラック	1台	2,200,000円	2,200,000円	ダブルキャブ、4WD
クラッシュャー	1台	2,684,000円	2,684,000円	中古
小 計			4,884,000円	
その他器具、スベア			976,800円	小計の20%
計			5,860,800円	
2年目				
トラック	1台	2,540,000円	2,540,000円	2トン 4WD
ピックアップトラック	1台	2,200,000円	2,200,000円	ダブルキャブ、4WD
ベルトコンベア	1台	220,000円	220,000円	
チェーンソー	3台	21,000円	63,000円	案内板長50cm
背負式人力噴霧器	5台	30,000円	150,000円	タンク容量:16ℓ
コンピューター	1台	900,000円	900,000円	
複写機	1台	548,000円	548,000円	
小 計			6,621,000円	
その他器具、スベア			1,324,200円	小計の20%
計			7,945,200円	
合 計			13,806,000円	

7-2-5 試験事業の事業費及び資金計画

(1) 事業費

I. 事業費算出の前提条件

次の前提条件に従って、事業費を算出した。

①販売の対象とするのは、まとまった面積の造林が行われる地拵え試験地(138ha)

の、*E. deglupta*, *E. urophylla*, *A. crassicarpa*, *A. mangium*の4樹種とする。

②事業費の積算は、収穫の終わる9年目までの事業収支を積算した。

③為替レートは1991年3月上旬の調査時点を基準とし、以下の通りとした。

1 vatu = 1.24円, 1 NZ\$ = 82.50円, 1 A\$ = 105.80円, 1 US\$ = 134.20円

④労働賃金は地元の慣行賃金に従って算定した。

⑤生産物の販売市場は全量日本とする。

II. 育苗費

育苗に要する労務、経費等は育苗作業標準工程により算出計上した。その所要労務数及び経費は、表7-2-21のとおりである。

III. 造林費

造林に要する労務、経費等は造林作業標準工程により算出計上した。その所要労務数及び経費は、表7-2-22のとおりである。

IV. 借地料

1 ha当り500バツである。年次別借地料を表7-2-23に示す。

V. 苗畑・建物・機械に係る経費（施設費）

i. 建物施設費

6棟 (500 m²) … 15,983千円

i. 機械・器具費 … 13,806千円

以上、施設費を総括して表7-2-24に示す。

Ⅶ. 一般管理費

i. 管理部門人件費

本事業の管理・監督に係る人件費は、試験期間中は 図7-2-1に示した組織計画に従って計算した。

・試験期間

社長	1名	US\$ 50,000/年
技術顧問	1名	US\$ 40,000/年
マネージャー	1名	US\$ 20,000/年
事務員	1名	US\$ 7,500/年
計		US\$117,500/年

ii. 福利厚生費

福利厚生費は、医療費、各種保険料、交通費等を含め、人件費の5%を計上した。

以上 i, ii を合わせて表7-2-25に示す。

iii. 保守管理費

保守管理費は、苗畑、造林地、関連施設及び車両・機械等の維持管理並びに修繕費を計上した。その額は建設、調達価格の2%とし、取得時年次から償却年数の間計上した。償却年数経過後は更新するものとする。

この保守管理費は、次の表7-2-26のとおりである。

iv. 燃料・オイル費

主な作業に要する燃料・オイル費は既に育苗・造林作業工程の中で計算されているので、ここでは一般管理・運営事務、その他で使われるものについて算定するものとする。その必要経費は表7-2-27のとおりである。

v. 事務費等

耐用年数1年以内の事務用品、消耗品、電話・郵便等の通信連絡費、旅費及びその他の雑費として、上記 i～iv の合計の20%を計上した。

以上、一般管理費の総括を表7-2-28に示す。

また、事業費総括は表7-2-29のとおりである。

表7-2-2-1. 育苗作業費支出計画

種 別	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	計
苗木本数 (千本)	152.5	191.0									343.5
労務費 (5.78人日/千本)	881	1,104									1,985
労務費 (651円/人日、単位:千円)	574	719									1,293
資材費 (千円)	2,516	3,095									5,611
計	3,090	3,814									6,904

表7-2-2-2. 造林作業費支出計画

種 別	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	計
植栽面積 (ha)	96	95									191
労務費	3,048	3,793	1,566	1,179	1,074	37	37	37	37		10,808
地帯元	429	432									861
フェンス張り	510	430									940
苗木運搬、植込付	616	610									1,226
下刈	1,285	1,608	470								3,363
つる切り		38	142	225	120						525
選抜等	19	37	37	37	37				37		315
測定作業	189	638	917	917	917						3,578
資材費	4,099	4,278	86								8,461
地帯元	884	1,551									2,435
牧草の種子代	933	506									1,439
牧草の圃土	348	306									654
フェンス用資材	1,346	1,134									2,480
苗木運搬	19	21									40
除草 薬品代	569	635	86								1,204
下刈		123									209
計	7,147	8,069	1,852	1,179	1,074	37	37	37	37		19,269

表7-2-23. 借地料計算

(単位:ha,千円)

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	計
管理面積 (基準額の1.1倍)	106ha	210ha	210ha	210ha	210ha	210ha	186ha	100ha	58ha		
借地料 (1ha当りの額:620円)	66	130	130	130	130	130	115	62	36		929

表7-2-24. 施設費

(単位:千円)

種別	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	計
建物施設費		15,983									15,983
機械・器具費	5,861	7,945				2,640	7,501				23,947
計	5,861	23,928				2,640	7,501				39,930

表7-2-25. 管理部門人件費及び福利厚生費

(単位:千円)

種別	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	計
管理部門人件費	15,768	15,769	15,768	15,768	15,768	10,400	10,400	10,400	10,400		120,440
福利厚生費	788	788	788	788	788	520	520	520	520		6,020
計	16,556	16,556	16,556	16,556	16,556	10,920	10,920	10,920	10,920		126,460

注: 退職給付(後)は技術顧問は含めないこととする。

表7-2-26. 保守管理費

(単位:千円)

種別	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	計
建物施設			319	319	319	319	319	319	319		2,233
機械・機器		117	117	117	117		52	52	52		624
1年目			158	158	158			150	150		932
2年目											
計		117	594	594	594	477	371	521	521		3,789

表7-2-27. 燃料・オイル必要経費

(単位:千円)

名称	台数	燃料種類	燃料消費量	オイル消費量	年間の消費量	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	計
ピカ777	2	軽油	6km/l		2750km	217	724	724	724	724	724	362	362	362		4,561
森林器具		ガソリン	1l/日		240日	19	64	64	64	64	32	32	32	32		403
計						236	788	788	788	788	394	394	394	394		4,964

注: 1年目については60%として、試験稼働7後の6年目からは50%として計上した。 燃料単価 軽油:76円/l ガソリン:124円/l オイル:211円/l

表7-2-28. 一般管理費総括表

(単位:千円)

種別	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	計
管理部門人件費(含.福利費)	16,556	16,556	16,556	16,556	16,556	10,920	10,920	10,920	10,920		126,460
保守管理費		117	594	594	594	477	371	521	521		3,789
燃料・オイル	236	788	788	788	788	394	394	394	394		4,964
小計	16,792	17,461	17,938	17,938	17,938	11,791	11,685	11,835	11,835		135,213
事務費等(小計の20%)	3,358	3,492	3,567	3,587	3,587	2,358	2,337	2,367	2,367		27,040
計	20,150	20,953	21,525	21,525	21,525	14,149	14,022	14,202	14,202		162,253

表7-2-29. 事業費等總括表

(單位:千円)

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	計
育苗費	3,090	3,814									6,904
造林費	7,147	8,069	1,652	1,179	1,074	37	37	37	37		19,269
借地料	66	130	130	130	130	130	115	62	36		929
施設費	5,861	23,928				2,640	7,501				39,930
一般管理費	20,150	20,953	21,525	21,525	21,525	14,149	14,022	14,202	14,202		162,253
計	36,314	56,894	23,307	22,834	22,729	16,956	21,675	14,301	14,275		229,285

(2) 収入計画

試験造林地からの収入は、1樹種当りの造林面積がまとまっている地拵え試験地の138haから得るものとし、残りの53haは収入の対象としないものとする。

販売は立木販売するものとして計算する。隣国フィジーでのパルプチップのFOB価格を用い、売上額から伐採・運搬・加工費を差し引いたものを販売収入額とした。

生産量や伐採・加工・販売に要する経費、また利用材積等は、造林木の成長量や特性によって大きく変化するが、パルプ生産を目指した人工造林の実績が皆無の為、聞き込み調査の他同種の報告書を参考にして算定した。

対象樹種の想定成長量等を表7-2-30に、販売収入額を表7-2-31に示す。

表7-2-30. 対象樹種の想定成長量等

	伐期	年平均成長量	容積密度	FOB価格
<i>Eucalyptus deglpta</i>	7年	30m ³ /ha	400kg/m ³	A\$155/ton ... 6,560円/m ³
<i>E. urophylla</i>	8年	25m ³ /ha	600kg/m ³	A\$155/ton ... 9,839円/m ³
<i>Acacia crassicarpa</i>	8年	25m ³ /ha	500kg/m ³	A\$155/ton ... 8,200円/m ³
<i>Acacia mangium</i>	8年	25m ³ /ha	600kg/m ³	A\$155/ton ... 9,839円/m ³

表 7-2-3 1. 販売収入額 (收穫予想、伐出・加工費用)

項目	1991	1992	1993	1994	1995	1996	1997	1998	1999	計
伐採面積										
E. deglupta ha							22.0	12.5	12.5	34.5
E. urophylla ha								22.0	12.5	34.5
A. crassicarpa ha							22.0	22.0	12.5	34.5
A. mangium ha							22.0	78.5	37.5	138.0
計										
收穫予想										
E. deg (単位:ha) 樹種:7年 收穫量:210t/ha							4,620	2,625	2,500	7,245
E. uro (単位:ha) 樹種:8年 收穫量:200t/ha								4,400	2,500	6,900
A. cra (単位:ha) 樹種:8年 收穫量:200t/ha								4,400	2,500	6,900
A. man (単位:ha) 樹種:8年 收穫量:200t/ha							4,620	15,825	7,500	27,945
計										
伐採・運搬・加工費用										
E. deg (単位:千円) 伐採費用:898円/ha							4,140	2,352	2,240	6,492
E. uro (単位:千円) 伐採費用:898円/ha								3,942	2,240	6,182
A. cra (単位:千円) 伐採費用:898円/ha								3,942	2,240	6,182
A. man (単位:千円) 伐採費用:898円/ha							4,140	3,942	2,240	6,182
計								14,178	6,720	25,038
運搬費用 (平均運搬距離50kmと仮定:760円/ton)										
E. deg (単位:千円) 系統量:1.0ton/ha 運搬費用:760円/ha							3,511	1,995	2,280	5,506
E. uro (単位:千円) 系統量:1.2ton/ha 運搬費用:912円/ha								4,013	2,090	5,768
A. cra (単位:千円) 系統量:1.1ton/ha 運搬費用:836円/ha								4,013	2,280	6,293
A. man (単位:千円) 系統量:1.2ton/ha 運搬費用:912円/ha							3,511	13,699	6,850	23,860
計								4,745	7,441	12,186
加工費用										
E. deg (単位:千円) 加工費用:1.027円/ha							4,745	4,519	2,568	7,087
E. uro (単位:千円) 加工費用:1.027円/ha								4,519	2,568	7,087
A. cra (単位:千円) 加工費用:1.027円/ha								4,519	2,568	7,087
A. man (単位:千円) 加工費用:1.027円/ha							4,745	16,253	7,704	28,702
計							12,395	44,130	21,074	77,600
費用合計										
E. deglupta (単位:ha) 伐採・運搬・加工費用							4,343	2,468	2,350	6,811
E. urophylla (単位:ha) 伐採・運搬・加工費用								4,136	2,350	6,486
A. crassicarpa (単位:ha) 伐採・運搬・加工費用								4,136	2,350	6,486
A. mangium (単位:ha) 伐採・運搬・加工費用							4,343	14,876	7,050	26,269
計										
チップ売上額										
E. deglupta (単位:千円) 6,560円/ha							28,490	16,190	23,122	44,680
E. urophylla (単位:千円) 9,839円/ha								40,694	19,270	63,816
A. crassicarpa (単位:千円) 8,200円/ha								33,915	23,122	53,185
A. mangium (単位:千円) 9,839円/ha							28,490	40,694	23,122	63,816
計							28,490	131,493	65,514	225,497
販売収入額 (売上-費用)										
							16,094	87,363	44,440	147,897

(3) 資金計画

I. 収支計画

前述の表7-2-31：販売収入計画に対して、支出計画の表7-2-29：事業費等総括表を比較すると、収益の得られるのは単年度で14年次(2004年)以降である。その収支の単純比較は、表7-2-32のとおりである。

II. 資金調達計画

資金調達は、国際協力事業団の融資制度の利用を期待して、事業開始からの5か年間の所要資金を算定した。この資金は、同事業団による貸付け限度額の3億円以内であり、自己資金と合わせて運用する。また6年目以降は自己資金で運営することとする。

表7-2-33. 資金調達計画

(単位:千円)

年次	支出額	融資対象額	借入額	自己資金
1 (1991)	36,314	36,314	36,000	314
2 (1992)	56,894	56,894	56,000	894
3 (1993)	23,307	23,307	23,000	307
4 (1994)	22,834	22,834	22,000	834
5 (1995)	22,729	22,729	22,000	729
計	162,078	162,078	159,000	3,078

III. 借入金返済・利子支払計画

本試験事業の実行に当っては、国際協力事業団の融資制度による借入金を受けることとする。この借入金の金利は次のように見積もった。その内訳は、わが国企業が国際協力事業業団から低利(0.75%)で借り入れた場合でも、現地合弁企業へ送金するための銀行保証料0.50%、海外投資保険料0.55%、送金手数料0.20%の支払を考慮して年利2.00%で計算した。

借入金の償還は、5年据置き後10年均等返済とした。

表7-2-34. 借入金返済・利子支払計画

(単位:千円)

年次	借入金	残高	返済額	利子
1 (1991)	36,000	36,000		720
2 (1992)	56,000	92,000		1,840
3 (1993)	23,000	115,000		2,300
4 (1994)	22,000	137,000		2,740
5 (1995)	22,000	159,000		3,180
6 (1996)		143,100	15,900	3,180
7 (1997)		127,200	15,900	2,862
8 (1998)		111,300	15,900	2,544
9 (1999)		95,400	15,900	2,226
10 (2000)		79,500	15,900	1,908
11 (2001)		63,600	15,900	1,590
12 (2002)		47,700	15,900	1,272
13 (2003)		31,800	15,900	954
14 (2004)		15,900	15,900	636
15 (2005)		0	15,900	318
計	159,000		159,000	28,270

(4) 減価償却費の算出

減価償却の方法には定率法と定額法があるが、本事業の試算では計算の簡素化から、耐用年数経過後の残存価格をゼロとし、耐用年数を償却期間とする定額法を採用した。耐用年数は、建物・工作物等施設の恒久的建造物を20年とし、車両・機械等は5年とした。償却期間が9年目(1999年)を超える場合は、9年目までの年数を償却期間とする。

減価償却費の算出額は、表7-2-35のとおりである。

(5) 損益予測

損益予測は、表7-2-36のとおりである。

(6) 資金運用計画

1年次は自己資金のみを運用する。2～5年次についても、国際協力事業団の借入金の利子支払のため、また不足分についての自己資金の投入が必要である。さらに借入れの据置き期間終了後の6年次からは元金の返済が始まる。

販売収入が得られるのは、試験造林地からは7年目からの3年間である。これを表7-2-37に示す。

表7-2-32. 收支計画表

(単位:千円)

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	計
販売収入額							16,094	87,363	44,440		147,897
支出合計額	36,314	56,894	23,307	22,834	22,729	16,956	21,675	14,301	14,275		229,285
年次毎収支差	-36,314	-56,894	-23,307	-22,834	-22,729	-16,956	-5,581	73,062	30,165		-81,388
累計収支差	-36,314	-93,208	-116,515	-139,349	-162,078	-179,034	-184,615	-111,553	-81,388		

表7-2-35. 減価償却費

(単位:千円)

種別	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	計
建物施設費		1,997	1,998	1,998	1,998	1,998	1,998	1,998	1,998		15,993
機械・器具費	1,172	2,761	2,761	2,761	2,762	2,249	3,160	3,160	3,161		23,947
計	1,172	4,758	4,759	4,759	4,760	4,247	5,158	5,158	5,159		39,930

表 7-2-36. 損益予測

(単位:円)

目 別	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	計
販売収入							16,094	87,363	44,440							147,897
事業費 (除く施設費)	30,453	32,966	23,307	22,834	22,729	14,316	14,174	14,301	14,275							129,355
減価償却費	1,172	4,758	4,758	4,759	4,760	4,247	5,158	5,158	5,159							39,530
営業損益	-31,625	-37,724	-26,066	-27,593	-27,489	-18,563	-3,238	67,904	25,006							-81,388
支払利率	720	1,840	2,300	2,740	3,180	3,180	2,862	2,544	2,226	1,908	1,590	1,272	954	636	318	28,270
当期損益	-32,345	-39,564	-30,366	-30,333	-30,669	-21,743	-6,100	65,360	22,780	-1,908	-1,590	-1,272	-954	-636	-318	-109,658
累積損益	-32,345	-71,909	-102,275	-132,608	-163,277	-185,020	-191,120	-125,760	-102,980	-104,888	-106,478	-107,750	-108,704	-109,340	-109,658	

表 7-2-37. 資金運用計画

(単位:円)

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	記号	計
借入金 JICA	36,000	56,000	23,000	22,000	22,000											(注)	159,000
自己資金	1,034	2,734	2,607	3,574	3,909	36,036	24,343	87,363	44,440	66,657	48,849	31,359	2,667	16,536	16,218	109,658	147,897
販売収入						16,094	16,094	87,363	44,440	66,657	48,849	31,359	14,187				
前期繰越							40,437		99,058	66,657	48,849	31,359	16,854	16,536	16,218		306,897
合計	37,034	58,734	25,607	25,574	25,909	36,036	40,437		99,058	66,657	48,849	31,359	16,854	16,536	16,218		306,897
当 事業費	36,314	56,894	23,307	22,834	22,729	16,956	21,675	14,301	14,275							(注)	229,285
支払利子	720	1,840	2,300	2,740	3,180	3,180	2,862	2,544	2,226	1,908	1,590	1,272	954	636	318		28,270
借入金返済						15,900	15,900	15,900	15,900	15,900	15,900	15,900	15,900	15,900	15,900		159,000
合計	37,034	58,734	25,607	25,574	25,909	36,036	40,437	32,745	32,401	17,808	17,490	17,172	16,854	16,536	16,218		416,555
累積 (繰入額)								54,618	66,657	48,849	31,359	14,187				-109,658	-109,658

7-3 本格事業

本報告書では、5年間の試験事業終了後、6年目(1996年)から本格事業を開始するものとし、試験事業期間と合わせて1つの事業として評価等を行う。

以下に想定する本格事業について述べる。

7-3-1 本格事業の目的

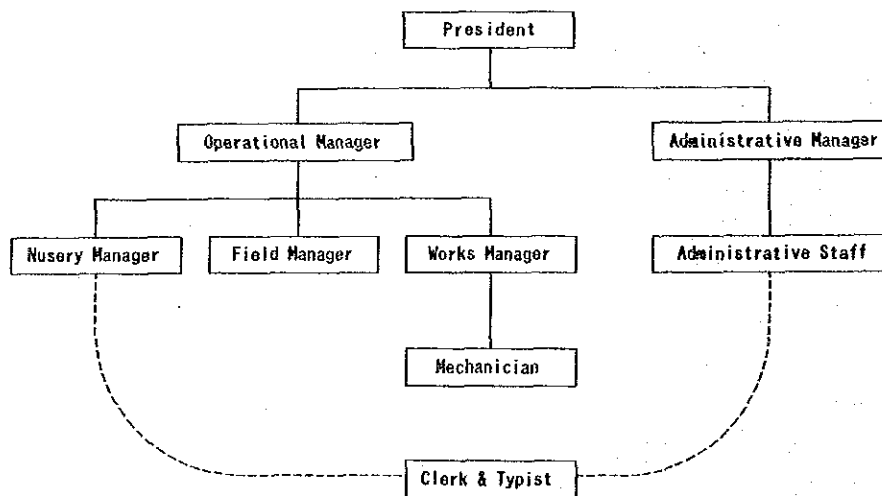
今後も紙パルプ・メーカーの上質紙系製紙原料用としての広葉樹チップの需要は増大し続け、そのほとんどが輸入チップで賄わざるを得ないものと予想されている。しかし、既存輸出国はそのほとんどが原生林からの出材であり、昨今の環境保護論の観点より今後の供給能力の増大には非常な困難が予想される。従って人工林の植林事業の実施が不可欠となると考えられるが、既存輸出国ではコスト面での採算性に疑問がある。以上より、他国に比較し競争力が見込まれるヴァヌアツ国において植林事業を行い、低コストで、安定したチップ生産を目指すものとする。

7-3-2 本格事業実施体制

試験事業の実施体制をさらに拡充し、事業部門と管理部門とを分離し、また事業部門をさらに、苗畑部門、造林部門及び整備部門に分け、それぞれに現地人スタッフを置き、より地域と密着した形で事業を進める。今回は最小規模の要員で管理経営にあたることを想定した。

その実行組織図は、図7-3-1のとおりである。

図7-3-1. 実行組織図



7-3-3 土地手当

前述のとおり、土地の問題はヴァヌアツ国においては非常にデリケートな問題であり、また事業の性格上、周辺住民との良好な関係の維持が不可欠であるので、土地手当については十分な時間をかけ注意深く行う必要があると考えられる。従って試験期間中から本格事業を見越して早めの土地手当を行う。

ここでは Pico grass land 及び Light bush に植林を行うものと想定する。

7-3-4 本格事業実施計画

(1) 本格事業規模

本格事業規模は次のとおりである。

1996年

植林事業開始準備

苗畑造成

管理施設建設

施設機材購入

育苗開始

1997年

植林開始

2001年

港湾施設・チップ工場建設

2003年

伐採・収穫開始、チップ生産・輸出開始

表 7-3-1 . 年次別植林・伐採面積

植林面積

(単位:ha)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	計
E. deglu.	400	800	1,200	1,200	1,200	1,200	1,200	1,200		8,400
A. crass.	100	200	300	300	300	300	300	300	300	2,400
計	500	1,000	1,500	1,500	1,500	1,500	1,500	1,500	300	10,800

伐採面積

(単位:ha)

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	計
E. deglupta	400	800	1,200	1,200	1,200	1,200	1,200	1,200			8,400
A. crassica.		100	200	300	300	300	300	300	300	300	2,400
計	400	900	1,400	1,500	1,500	1,500	1,500	1,500	300	300	10,800

(2) 事業実施スケジュール

年次別事業実施計画は次のとおりである。

表 7-3-2. 年次別事業実施計画

作業種類	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
〔準備作業〕																	
土地手当																	
申請許可	—																
建物施設整備																	
設備機材購入	—							—									
林道建設																	
〔育苗作業〕																	
ポット育苗		—	—	—	—	—	—	—									
〔植林作業〕																	
植え付け		—	—	—	—	—	—	—									
保育・保護																	
〔収穫作業〕																	
伐木・運搬									—	—	—	—	—	—	—	—	—
〔チップ生産〕																	
チップ工場建設							—	—									
港湾施設建設							—	—									
チップ生産									—	—	—	—	—	—	—	—	—

(3) 対象樹種

現時点で最も有望視されている、Eucalyptus deglpta と Acacia crassicarpa の 2 つを対象とする。表 7-3-3 に 2 樹種の想定する成長量等を示す。

表 7-3-3. 対象樹種の想定成長量等

	伐期	年平均成長量	容積密度	FOB価格
Eucalyptus deglpta	7年	30m ³ /ha	400kg/m ³	A\$155/ton ... 6,560円/m ³
Acacia crassicarpa	8年	25m ³ /ha	500kg/m ³	A\$155/ton ... 8,200円/m ³

(4) 育苗計画

育苗は試験事業期間中は森林局及びI F Pの苗畑で行うが、事業造林にあたっては独自の苗畑を設置し行う。

I. 育苗本数

造林計画に基づき、山行き率70%、植率10%を見込んで年次別苗木生産本数を計算する。これは表7-3-4のとおりである。

表7-3-4. 年次別苗木生産本数

(単位:千本)

	1996	1997	1998	1999	2000	2001	2002	2003	2004	計
E. deg.	629	1,257	1,886	1,886	1,886	1,886	1,886	1,886		13,202
A. cra.	157	314	471	471	471	471	471	471	471	3,768
計	786	1,571	2,357	2,357	2,357	2,357	2,357	2,357	471	16,970

II. 育苗方法

育苗方法は試験事業に準ずることとする。

III. 育苗標準工程

表7-3-5. 育苗標準工程人工数 (苗木千本当り)

作業種	苗木千本当りの工程	備考
用土採取運搬		用土:0.25m ³
作業員	0.05人日	採取、運搬、積降し:0.2人/m ³ (機械力使用)、0.25m ³ ×0.2人
トラックドライバー	0.05人日	一般作業員の1.57倍
ポット土入れ・種子まきつけ	0.50人日	2,000ポット/日 篩返し、用土の混合、トレイ傾立、ポット詰め、トレイの苗床への運搬、種子の準備、まきつけ、灌水等
開引き、補植	1.00人日	1,000ポット/日
管理作業		
ポット苗への灌水	1.40人日	0.12h/日、育苗期間中の無降雨日数:70日、0.12×70/6h=1.4人日
除草	2.08人日	5回、2.5h/人・回、2.5×5/6h=2.08人日
日覆	0.03人日	0.19h/人日、0.19/6h=0.03人日
薬剤散布	0.67人日	0.25h/人日×16回=4.00、4.00/6h=0.67人日
計	5.78人日	

表7-3-6. 育苗標準工程資材費等 (苗木標準)

作業種	工程	単位	金額	備考
用土採取運搬				
トラック燃料代	0.25H	388円/H	97円	2トントラック、5x0.05 燃料費:1時間あたり18
ベルトコンベア燃料費	0.25H	124円/H	31円	
計			128円	
ポット土入れ・種子まきつけ				
ペーパーポット代	7.7パック	736円/パック	5,667円	0NZ\$8.92, Rate:NZ\$1=82.5円
プラスチック・トレイ代	7.7個	814円/個	6,268円	0NZ\$9.87, Rate:NZ\$1=82.5円
計			11,935円	
種子代金				
A. mangium	97g	100円/g	9,700円	種子数: 362粒/10g、1000x3.5=362/10
E. deglupta	1.5g	150円/g	225円	種子数:34000粒/10g、1000x5=34000/10
管理作業				
追肥 肥料代	3Kg	120円/Kg	360円	追肥1回、NPK(10:6:5),
病害防除 薬品代	0.0374	2,800円/4	104円	Captan剤、250倍希釈、散布量54/㎡、5/250=0.024/㎡ 0.4m x 0.6m = 0.24㎡/トレイ、0.24 x 7.7トレイ x 0.02
計			464円	

(5) 造林計画

1. 植栽本数

年次別植栽本数を表7-3-7に示す。

表7-3-7. 年次別植栽本数

年次	E. delupta	A. crassicarpa	計
1997	400,000本	100,000本	500,000本
1998	800,000本	200,000本	1,000,000本
1999	1,200,000本	300,000本	1,500,000本
2000	1,200,000本	300,000本	1,500,000本
2001	1,200,000本	300,000本	1,500,000本
2002	1,200,000本	300,000本	1,500,000本
2003	1,200,000本	300,000本	1,500,000本
2004	1,200,000本	300,000本	1,500,000本
2005		300,000本	300,000本
計	8,400,000本	2,400,000本	10,800,000本

II. 造林方法

試験事業と同様な方法を基本とするが、地拵えにはクラッシャーを用い、大径木を残し雑草木を伐倒、粉碎し、その後牧草を蒔き雑草をコントロールする方法を、下刈りにはトラクター（ディスクハロー付）による1方向中耕除草を用いる。

1 団地を 100ha (1km×1km)としフェンスで囲いこむ。団地と団地の間は作業道を兼ねた防火帯を50m幅でおく。

III. 造林作業標準工程

1 ha当りの造林作業標準工程は以下の各表のとおりである。

表 7-3-8. 造林作業標準工程

作業内容	人工数	備考
地拵え		
雑草木伐倒、枝条整理 作業員(作業補助)	0.50	1日当り:2.0ha 1÷2.0=0.50
ブルドーザー運転手	1.43	一般労働者の2.86倍 0.50×2.86=1.43
牧草蒔種		1日当り:3.5ha/チーム
隊長	0.33	一般労働者の1.14倍 0.29×1.14倍=0.33
作業員(蒔種11名、準備2名)	3.77	1÷3.5=0.29 0.29×13名=3.77
覆土ブルドーザー運転手	0.83	0.29×2.86倍=0.83
計	6.83	
フェンス張り	4.40	100haを1団地とする、周囲の長さ:1km×4=4km, ∴40m/ha 1m当りの人工数:0.11人日 40×0.11=4.40人日/ha
苗木運搬		
トラック運転手	0.16	10000本/日, 一般労働者の1.57倍, 1000÷10000×1.57
機降り作業員	0.20	機降り作業員2名, 1000÷10000×2人=0.20
計	0.36	
植え付け		
測量、植え付け基線設定	5.00	
スポット除草	3.00	1人当り:300~400本/日
植穴掘り、植え付け	1.33	1人当り:750本/日 1÷750
補植	0.17	補植率:10% 1人当り:600本/日 1000本×0.1÷600
計	9.50	
下刈り トラクター運転手		
E. deglupta 1年目	2.29	5ha/日、4回 1ha÷5ha×4回×2.86倍
2年目	0.57	1回 1ha÷5ha×1回×2.86倍
A. crassica. 1年目	2.29	5ha/日、4回 1ha÷5ha×4回×2.86倍
2年目	2.29	4回 1ha÷5ha×4回×2.86倍
つる切り		
E. deglupta 2年目	1.25	1.25人/ha, 1回
3年目	2.50	1.25人/ha, 2回
4年目	1.25	1.25人/ha, 1回
A. crassica. 3年目	2.50	1.25人/ha, 2回
4年目	2.50	1.25人/ha, 2回
保護管理、通視等	毎年 0.30	

表7-3-9. 造林標準作業工程資材費等 (ha当り)

作業内容	工程	単価	金額	備考
地掃え				
雑草木伐倒、枝葉整理燃料代	1.9H	3,082円/H	5,856円	
牧草の種子代				
G.L.Desmodium	2.5kg	2,889円/kg	7,223円	
Cook Style	1.5kg	1,934円/kg	2,901円	
計			10,124円	
牧草の覆土 燃料代	1.4H	3,082円/H	4,315円	
フェンス張り				
ワイヤー代	40m	69円/m	2,760円	
支柱代	40m	87円/m	3,480円	
補助棒代	40m	33円/m	1,320円	
計			7,560円	
苗木運搬燃料代	0.5H	388円/H	194円	
植え付け				
スポット除草 薬品代	0.785t	7,530円/t	5,911円	
下刈り 燃料代				
E. deglupta 1年目	4H	1,541円/t	6,164円	5ha/日. 4回 5÷5×4
2年目	1H	1,541円/t	1,541円	5ha/日. 4回 5÷5×1
A. crassic. 1年目	4H	1,541円/t	6,164円	5ha/日. 4回 5÷5×4
2年目	4H	1,541円/t	6,164円	5ha/日. 4回 5÷5×4

表 7 - 3 - 1 0 . 經過年次別造林標準作業工程 (E. deg'lupta)

(ha当り、単位:円)

作業内容	植付以前年度	植付当年	2年次	3年次	4年次	5年次	6年次	7年次	計
地盤え									4,446
労働費	4,446								4,446
資材費	20,295								20,295
計	24,741								24,741
フィンス張り									2,864
労働費	2,864								2,864
資材費	7,560								7,560
計	10,424								10,424
苗木運搬		234							234
労働費		194							194
資材費		428							428
植込付付		6,185							6,185
労働費		5,911							5,911
資材費		12,096							12,096
計		12,096							12,096
下刈り		1,491	371						1,862
労働費		6,164	1,541						7,705
資材費		7,655	1,912						9,567
計		7,655	1,912						9,567
つる切り			814	1,628	814				3,256
労働費			814	1,628	814				3,256
資材費			814	1,628	814				3,256
計			814	1,628	814				3,256
保樹管理、運搬等		195	195	195	195	195	195	195	1,365
労働費		195	195	195	195	195	195	195	1,365
資材費計	7,310	8,105	1,380	1,823	1,009	195	195	195	20,212
労働費計	27,855	12,269	1,541						41,665
計	35,165	20,374	2,921	1,823	1,009	195	195	195	61,877

表 7 - 3 - 1 1 . 經過年次別造林標準作業工程 (A. crassicaarpa)

(ha当り、単位:円)

作業内容	植付以前年度	植付当年	2年次	3年次	4年次	5年次	6年次	7年次	8年次	計
地盤え										4,446
労働費	4,446									4,446
資材費	20,295									20,295
計	24,741									24,741
フィンス張り										2,864
労働費	2,864									2,864
資材費	7,560									7,560
計	10,424									10,424
苗木運搬		234								234
労働費		194								194
資材費		428								428
植込付付		6,185								6,185
労働費		5,911								5,911
資材費		12,096								12,096
計		12,096								12,096
下刈り		1,491	1,491							2,982
労働費		6,164	6,164							12,328
資材費		7,655	7,655							15,310
計		7,655	7,655							15,310
つる切り				1,628	1,628					3,256
労働費				1,628	1,628					3,256
資材費				1,628	1,628					3,256
計				1,628	1,628					3,256
保樹管理、運搬等		195	195	195	195	195	195	195	195	1,560
労働費		195	195	195	195	195	195	195	195	1,560
資材費計	7,310	8,105	1,686	1,823	1,823	195	195	195	195	21,527
労働費計	27,855	12,269	6,164							46,288
計	35,165	20,374	7,850	1,823	1,823	195	195	195	195	67,815

(6) 施設、機械、道路計画

1. 施設

1-1. 管理施設

本格造林事業における管理・運営に必要な最小規模の建物を計画する。

表 7-3-12. 管理施設

名 称	数 量	単 価	金 額	備 考
管理事務所	1棟 80㎡	45,880円/㎡	3,670,400円	木造平屋建、37,000vt/㎡
車庫・倉庫	1棟 200㎡	25,420円/㎡	5,084,000円	木造平屋建、20,500vt/㎡
整備工場	1棟 100㎡	25,420円/㎡	2,542,000円	木造平屋建、20,500vt/㎡
作業小屋	1棟 100㎡	2,480円/㎡	248,000円	簡易木造平屋建、2,000vt/㎡
用土小屋	1棟 20㎡	4,960円/㎡	99,200円	簡易木造平屋建、4,000vt/㎡
作業員宿舎	4棟 110㎡	17,360円/㎡	7,638,400円	簡易木造平屋建、効率、トイレ共用、14,000vt/㎡
幹部用宿舎	4棟 60㎡	45,880円/㎡	11,011,200円	木造平屋建、37,000vt/㎡
計	14棟 1180㎡		30,293,200円	

1-2. 苗畑施設

試験造林では森林局の苗畑を使用し、新たには設置しないが、事業化造林においては当然独自の苗畑が必要になるので、以下にその計画を述べる。

1-2-1. 苗畑建設予定地

事業予定地が決定していないので今のところ未定であるが、設置にあたっては、事業造林地から近いこと、ポット用土の採取場から近いこと、水量の安定した沢又は川があり十分な用水が確保できること、苗畑では薬品を使用することから使用した水が直接川に流れ込むようなことがないこと、労働者が安定して得られること、サイクロン来襲地であるので周囲の植生、地形に防風効果の期待できるような所であること等に配慮し予定地を決定する必要がある。

1-2-2. 苗畑施設設計

① 苗畑規模

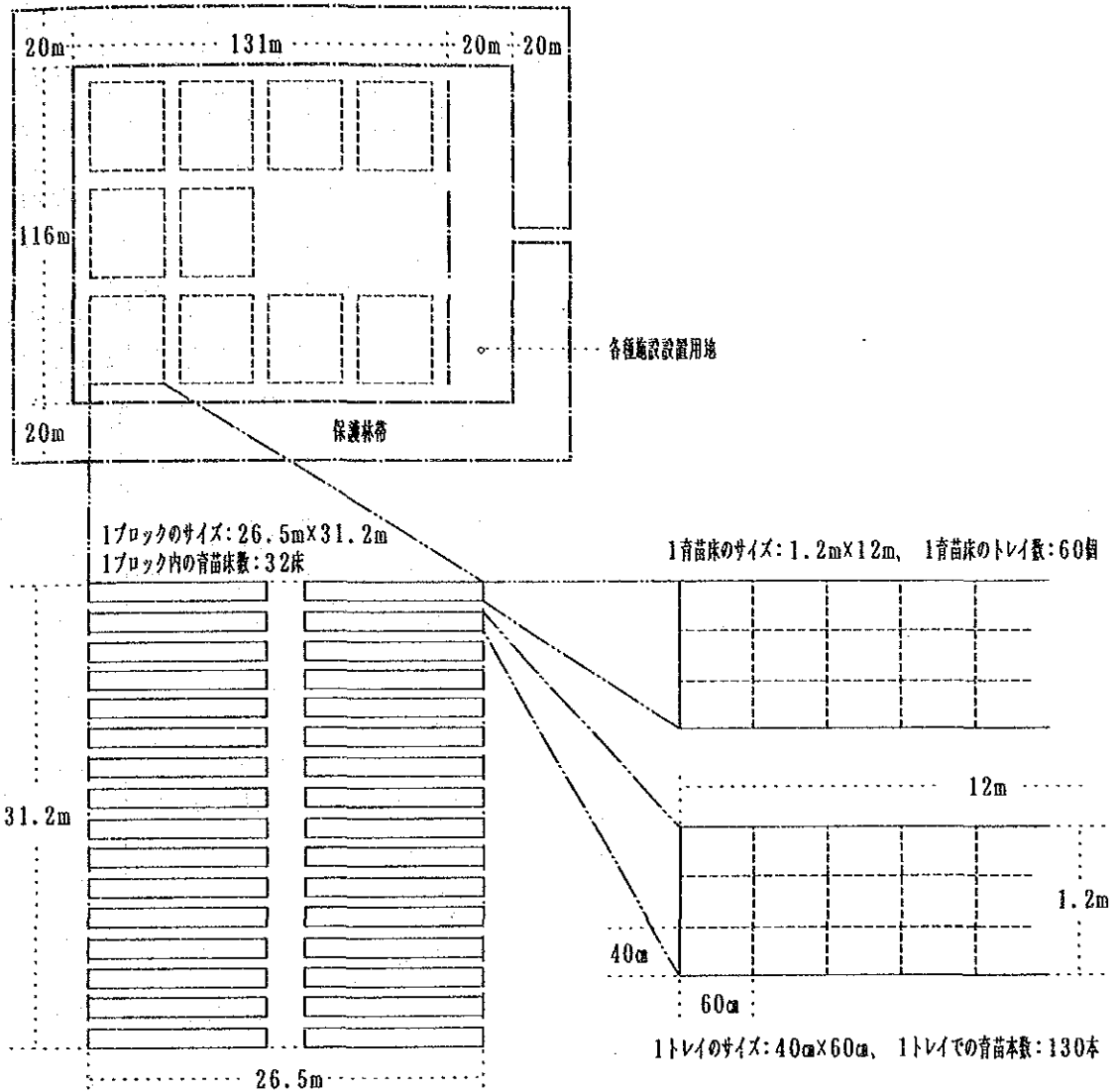
苗畑の規模は、造林計画に基づいて、必要な苗木の生産が効率的に実行できるように計画する。表7-3-4のとおり最大年間育苗本数は 2,357千本である。苗畑内には、苗木生産に必要な育苗床のほか、管理事務所、倉庫、車庫、作業場、休憩所等の施設を設置する。苗畑の規模は表7-3-13のとおり。

表 7-3-13. 苗畑の規模

名 称	面 積	摘 要
圃場(ポット圃)及び予備地	15,196㎡	年回転率1回、道路を含む
付帯施設用地	2,320㎡	建物敷地、野外作業場等
保護樹帯	12,280㎡	
計	29,796㎡	

苗畑の見取図は、図7-3-2のとおりである。

図7-3-2. 苗畑の見取図



②用地造成

立木を伐倒後、傾斜の修正、整地を実施する。また苗畑用地の周囲には支柱に有刺鉄線を張り、その内側に挿木の容易なナヨアブラギリ、ハビスカス等を植え生け垣を作り、放牧牛の侵入を防ぐものとする。

この用地造成に要する経費は、表7-3-14のとおり算定した。

表7-3-14. 用地造成費

種別	作業種	作業量	工程	所要数量	単価	金額
整地	伏風、枝条整理、地均し					
	フルトザー・オペレーター	15,196㎡	7,000㎡/人日	2.17人日	1,862円/人日	4,041円
	作業員(作業補助)	15,196㎡	7,000㎡/人日	2.17人日	651円/人日	1,413円
	フルトザー燃料	15,196㎡	7,000㎡/5H	10.85H	3,082円/H	33,440円
	地均し(手直し)	15,196㎡	5人日/ha	7.60人日	651円/人日	4,948円
	計					43,842円
道路作設	苗圃内道路 幅員5m					
	フルトザー・オペレーター	1,200m	100m/人日	12人日	1,862円/人日	22,344円
	フルトザー燃料	12日	5H/日	60H	3,082円/H	184,920円
	作業員(作業補助、手直し)	1,200m	50m/人日	24人日	651円/人日	15,624円
	計					222,888円
柵設置	有刺鉄線による柵					
	作業員	1,352m	35m/人日	38.63/人日	651円/人日	25,148円
	材料費					
	有刺鉄線(3段)	1,352m		1,352m	69円/m	93,288円
	支柱	1,352m	1本/8m	169本	694円/本	117,286円
	補助支柱	支柱169本	3本/支柱1本	507本	89円/本	45,123円
	生け垣	1,352m	3本/m	4,056本		
	作業員(播種採取、運搬、植付)	4,056本	350本/人日	11.59人日	651円/人日	7,545円
	運転(トラクタドライバー)	4,056本	10,000本/人日	0.41人日	1,023円/人日	419円
(トラクタ燃料)	4,056本	10,000本/5H	2.03H	388円/H	788円	
	計					289,597円
その他	雑費			5人日	651円/人日	3,255円
計						559,582円

③育苗施設

圃場の大きさは131m×116mで面積は15,196㎡である。圃場及び育苗床の配置は図7-3-2に示したとおりである。

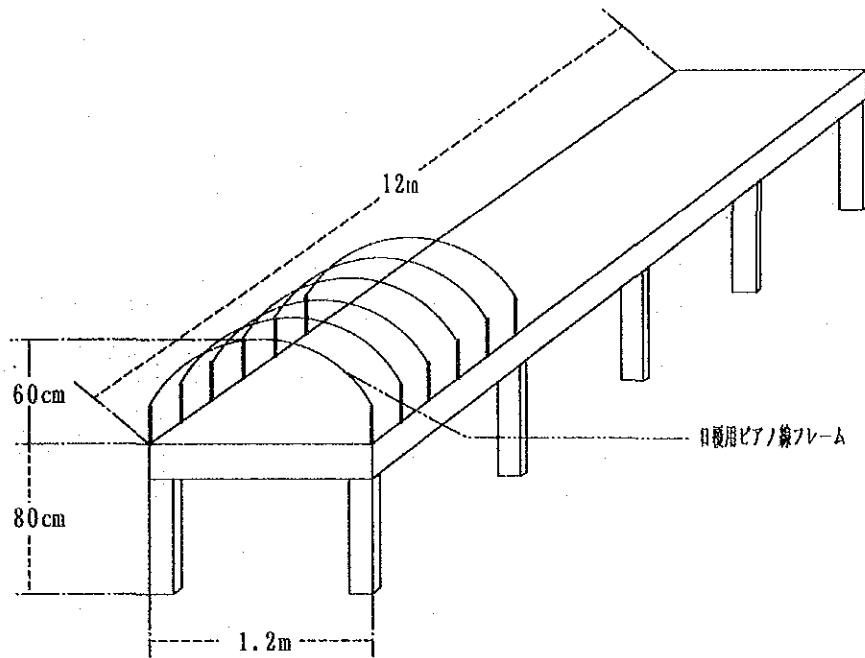
圃場は、道路により12ブロックに分ける。降水量が多い地域であるので、十分排水には配慮し、道路脇には溝を切る。12ブロックのうち10ブロックでポット育苗床を設置し育苗を行なう。残りの2ブロックは作業場として使うとともに、事業が拡張された場合の予備地とする。

1ブロックは16床とし、排水を考慮して、育苗床を直接地面に設置するのではなく高床式のものとする。1床は幅1.2m、長さ12m、高さ80cm、床と床の間隔を0.8mとする。1床には130本育苗可能なトレイを60個(3×12個)並べる。

播種後、苗高が5cmほどになるまでのあいだ、保護と成長促進のために遮光率50%の寒冷沙による日覆いを行なう。

ポット育苗床及び日覆いの見取図は図7-3-3のとおりである

図 7-3-3. ポット育苗床及び日覆の見取図



ポット育苗床1床の設置に要する経費は @24,673vt=30,595円となる。

表 7-3-15. ポット育苗床設置費

種別	摘要	工程	単価	金額
製材	足: 4inch x 4inch x 12feet	7.9本	1,587円/本	12,537円
	横板: 1-1/4 x 4 x 12feet	10.5本	446円/本	4,683円
	天板: 3/4 x 4 x 12feet	19.7本	273円/本	5,378円
釘		1.00Kg	620円/Kg	620円
日覆用金	7Kg/10m	10Kg	123円/Kg	1,230円
寒冷紗	50%, 1Roll: 1.8m x 50m	12m	496円/m	5,952円
労賃		0.3人/床	651円/人日	195円
計				30,595円

④灌水施設

育苗はポットで行なわれ、かつ育苗床が高床式であるので、地中からの通水がまったくないために降雨のない日の灌水は不可欠である。過去の降雨の測定記録により育苗期間中の無降雨日数は多く見積もって70日程度であると考えられる。また、fungusによる被害が予想されることから、灌水量には十分注意し苗木の状態をよく観察しながら行なうものとする。

灌水施設は、苗畑近くの川を掘り取水貯水槽を設置し、揚水ポンプで高架式貯水槽に送・貯水する。高架式貯水槽から苗畑の作業道沿いに配管し、1ブロックにつき2個の立上栓（計24個）で受水し、じょうろ等で人力で灌水する。

灌水量の必要量は、降雨のない日が続く乾燥するとき、1日当り5mmを供給できることを目標とする。

最大灌水量計算

灌水面積：1育苗床 $1.2\text{m} \times 12\text{m} = 14.4\text{m}^2$
 1ブロック $14.4\text{m}^2 \times 16\text{床} \times 2 = 460.8\text{m}^2$
 10ブロック（全育苗床） $460.8\text{m}^2 \times 10\text{ブロック} = 4,608\text{m}^2$
 灌水量： $0.005\text{m} \times 4,608\text{m}^2 = 23.4\text{m}^3 \approx 24\text{ton}$
 貯水量：高架式貯水槽の水は従業員の生活用水等としても使用されるのでそれを合せて、1日の消費量を貯水可能とする50m³とする。

これらの灌水施設費用は次のように算定した。

取水貯水槽（材料、工事費込）	372,000円
揚水ポンプ（取水・揚水配管材料工事費込）	1,240,000円
高架式貯水槽（高さ6m、容量50m ³ ）	2,480,000円
配管（工事費込）	868,000円
計	4,960,000円

II. 機械

事業化造林に必要な造林・苗畑用機械施設は表7-3-16の通りである。

表7-3-16. 事業化造林に必要な造林・苗畑用機械施設

名 称	数 量	単 価 (千円)	全 額 (千円)	備 考
ブルドーザー	8台	37,400	299,200	D7、マルチシャンクリッパ、鉄土板
クラッシャー	8台	6,210	49,680	Marden Roller
トラクター	8台	8,993	71,944	97HP、ディスクハロー、チェーンハロー
トラック	3台	3,130	9,390	4ton
ピックアップ	6台	2,200	13,200	4WD
背負式動力噴霧器	4台	66	264	タンク容量：22ℓ
背負式人力噴霧器	60台	30	1,800	タンク容量：16ℓ
チェーンソー	30台	21	630	案内板長50cm
その他器具、スベア			89,222	合計の20%
計			535,330	

II. 道路及び防火帯建設計画

本事業において計画する道路は、次の通りである。

- ・ 幹線林道 : 既設道路に接続し、林内施業の骨格的路線ある。
- ・ 作業道 : 幹線林道から分岐し、林内作業の効率化を図る。
- ・ 作業道兼防火帯 : 造林予定地の周囲に設け、幹線林道、作業道につなげる。

林道の年次別建設計画及び建設費用を以下に示す。

表 7-3-17. 年次別林道建設計画

(単位:m)

	1996	1997	1998	1999	2000	2001	2002	2003	2004	計
幹線林道	24,150	24,150								48,300
作業道	10,500	10,500	36,750	18,375	18,375					94,500
作業道兼防火帯	15,100	30,200	45,300	45,300	45,300	45,300	45,300	45,300	9,060	326,160
計	49,750	64,850	82,050	63,675	63,675	45,300	45,300	45,300	9,060	468,960

表 7-3-18. 年次別林道建設計画

(単位:百万円)

	1996	1997	1998	1999	2000	2001	2002	2003	2004	計
幹線林道	82	82								164
作業道	35	35	124	62	62					318
作業道兼防火帯	41	82	122	122	122	122	122	122	24	879
計	158	199	246	184	184	122	122	122	24	1,361

建設単価 : 幹線林道 3,375円/m 作業道 3,375円/m 作業道兼防火帯 2,700円/m

7-3-5 事業費及び資金計画

(1) 事業費

1. 事業実施計画の前提条件

本事業は、次の前提条件に従って、事業実施計画案を策定した。

- ① 対象樹種は、パルプ生産を目的とした短伐期収穫の早成樹種として、Eucalyptus deglupta, Acacia crassicarpaの2樹種を計画した。
- ② 事業予定位置はルガンビル市から北に約40kmのShark bay周辺のLight bush地域とする。
- ③ 事業の積算は、試験期間を5年とし、その造林規模は191haとする。さらにその後事業化造林を行うものとし22年間の事業収支を積算した。
- ④ 為替レートは1991年3月上旬の調査時点を基準とし、以下の通りとした。
1 vatu = 1.24円, 1 NZ\$ = 82.50円, 1 A\$ = 105.80円, 1 US\$ = 134.20円
- ⑤ 労働賃金は地元の慣行賃金に従って算定した。
- ⑥ 生産物の販売市場は全量日本とする。

I. 育苗費

育苗に要する労務、経費等は育苗作業標準工程により算出計上した。その所要

労務数及び経費は、表7-3-19のとおりである。

Ⅲ. 造林費

造林に要する労務、経費等は造林作業標準工程により算出計上した。その所要労務数及び経費は、表7-3-20、7-3-21のとおりである。

Ⅳ. 借地料

1 ha 当たり500バツである。年次別借地料を表7-3-22に示す。

Ⅴ. 苗畑・建物・機械に係る経費（施設費）

i. 苗畑・建物敷地造成費（本格事業時、1996年）

敷地面積：29,796 m²（うち圃場・建物施設用地面積：17,516 m²）

造成費用：560,000円（千円未満四捨五入）

ii. 建物施設費

試験事業時（1991年）：6棟（500 m²）… 15,983千円

本格事業時（1996年）：14棟（1,180 m²）… 30,293千円

iii. 機械・器具費

試験事業時（1991年）… 13,806千円

本格事業時（1996年）… 535,330千円

iv. 育苗施設（本格事業時、1996年）

苗床設置費… 9,790千円

灌水施設費… 4,960千円

以上、施設費を総括して表7-3-23に示す。

Ⅵ. 一般管理費

i. 管理部門人件費

本事業の管理・監督に係る人件費は、試験期間中は7-2-1に、本格事業時は7-3-2に示した組織計画に従って計算した。

・試験期間

社長	1名	US\$ 50,000/年
技術顧問	1名	US\$ 40,000/年
マネージャー	1名	US\$ 20,000/年
事務員	1名	US\$ 7,500/年
計		US\$ 117,500/年

・本格事業時

社長	1名	@US\$ 50,000/年	US\$ 50,000/年
マネージャー	2名	@US\$ 40,000/年	US\$ 80,000/年
ユニットマネージャー	4名	@US\$ 25,000/年	US\$ 100,000/年
メカニック	1名	@US\$ 10,000/年	US\$ 10,000/年
事務員	2名	@US\$ 7,500/年	US\$ 15,000/年
計			US\$ 255,000/年

ii. 福利厚生費

福利厚生費は、医療費、各種保険料、交通費等を含め、人件費の5%を計上した。以上 i, ii を合わせて表7-3-24に示す。

iii. 保守管理費

保守管理費は、苗畑、造林地、関連施設及び車両・機械等の維持管理並びに

修繕費を計上した。その額は建設、調達価格の2%とし、取得時年次から償却年数の間計上した。償却年数経過後は更新するものとする。

この保守管理費は、次の表7-3-25のとおりである。

iv. 燃料・オイル費

主な作業に要する燃料・オイル費は既に育苗・造林作業工程の中で計算されているので、ここでは一般管理・運営事務、その他で使われるものについて算定するものとする。その必要経費は表7-3-26のとおりである。

v. 事務費等

耐用年数1年以内の事務用品、消耗品、電話・郵便等の通信連絡費、旅費及びその他の雑費として、上記 i~iv の合計の20%を計上した。

以上、一般管理費の総括を表7-3-27に示す。

また、事業費総括は表7-3-28のとおりである。

表 7-3-19. 育苗作業費支出計画

その1: 試験事業

箇 月	1991	1992	1993	1994	1995	計画累計
育苗作業 (千本)	152.5	191.0				343.5
労務費 (5,78円/千本)	881	1,104				1,985
光熱費 (651円/人日、職・研)	574	719				1,293
資材費 (千円)	2,516	3,095				5,611
ト	3,090	3,814				6,904

その2: 本産事業

箇 月	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	本産累計	合 計	
育苗費 <i>E. deglupta</i> (千本)	629	1,257	1,886	1,886	1,886	1,886	1,886	1,886											13,202	
<i>A. crassicaarpa</i> (千本)	157	314	471	471	471	471	471	471	471										3,768	
ト	786	1,571	2,357	2,357	2,357	2,357	2,357	2,357	471										16,970	17,314
労務費 (5,78円/千本)	4,543	9,098	13,623	13,623	13,623	13,623	13,623	13,623	2,722										96,101	100,096
光熱費 (651円/人日)	2,957	5,923	8,869	8,869	8,869	8,869	8,869	8,869	1,772										53,866	65,159
資材費 (千円)																				
種子代 <i>E. deg.</i> (225円/千本)	142	283	424	424	424	424	424	424											2,969	
<i>A. cra.</i> (9,700円/千本)	1,523	3,046	4,569	4,569	4,569	4,569	4,569	4,569	4,569										36,552	
ホト ホト (5,667円/千本)	4,454	8,903	13,357	13,357	13,357	13,357	13,357	13,357	2,669										96,168	
ト	4,927	9,847	4,432	4,432	4,432	4,432	4,432	4,432	886										42,252	
光熱費 (592円/千本)	465	930	1,395	1,395	1,395	1,395	1,395	1,395	279										10,044	
ト	11,511	23,009	24,177	24,177	24,177	24,177	24,177	24,177	8,403										187,985	193,596
ト	14,468	28,932	33,046	33,046	33,046	33,046	33,046	33,046	10,175										251,851	258,755

注: トは本産事業の育苗費で3年目の繰上金(30%とする)を指す。

表 7-3-20. 造林作業費支出計画計算書

その 1 : 労務費

年度	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	累計
1997年度付 E. deg. : 400ha	2,924	3,242	552	729	404	78	78	78										8,985
A. cra. : 100ha	731	811	169	182	182	20	20	20										2,155
1998年度付 E. deg. : 800ha		5,848	6,484	1,104	1,458	807	156	156	156									16,168
A. cra. : 200ha		1,462	1,621	337	365	39	39	39	39									4,306
1999年度付 E. deg. : 1,200ha			8,772	9,726	1,656	2,138	1,211	234	234	234								24,255
A. cra. : 300ha			2,193	2,432	506	547	547	59	59	59								6,461
2000年度付 E. deg. : 1,200ha				8,772	9,726	1,656	2,188	1,211	234	234	234							24,255
A. cra. : 300ha				2,193	2,432	506	547	547	59	59	59							6,461
2001年度付 E. deg. : 1,200ha					8,772	9,726	1,656	2,188	1,211	234	234	234						24,255
A. cra. : 300ha					2,193	2,432	506	547	547	59	59	59						6,461
2002年度付 E. deg. : 1,200ha						8,772	9,726	1,656	2,188	1,211	234	234	234					24,255
A. cra. : 300ha						2,193	2,432	506	547	547	59	59	59					6,461
2003年度付 E. deg. : 1,200ha							8,772	9,726	1,656	2,188	1,211	234	234	234				24,255
A. cra. : 300ha							2,193	2,432	506	547	547	59	59	59				6,461
2004年度付 E. deg. : 1,200ha								8,772	9,726	1,656	2,188	1,211	234	234	234			24,255
A. cra. : 300ha								2,193	2,432	506	547	547	59	59	59			6,461
2005年度付 E. deg. : 0ha																		0
A. cra. : 300ha																		0
E. deg. 計	2,924	9,090	15,808	20,331	22,016	23,227	23,787	24,021	15,405	5,757	4,101	1,913	702	468	234			169,784
A. cra. 計	731	2,273	3,983	5,144	5,678	6,063	6,284	6,343	6,402	4,248	1,836	1,330	783	236	177	118	59	51,686
計	3,655	11,363	19,791	25,475	27,694	29,290	30,071	30,364	21,807	10,005	5,937	3,243	1,485	704	411	118	59	221,472

その 2 : 資材費

年度	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	累計
1997年度付 E. deg. : 400ha	11,142	4,908	616															16,665
A. cra. : 100ha	2,786	1,227	616															4,629
1998年度付 E. deg. : 800ha		22,284	9,815	1,233														33,332
A. cra. : 200ha		5,571	2,454	1,233														9,258
1999年度付 E. deg. : 1,200ha			33,426	14,723	1,849													49,998
A. cra. : 300ha			8,357	3,681	1,849													13,887
2000年度付 E. deg. : 1,200ha				33,426	14,723	1,849												49,998
A. cra. : 300ha				8,357	3,681	1,849												13,887
2001年度付 E. deg. : 1,200ha					33,426	14,723	1,849											49,998
A. cra. : 300ha					8,357	3,681	1,849											13,887
2002年度付 E. deg. : 1,200ha						33,426	14,723	1,849										49,998
A. cra. : 300ha						8,357	3,681	1,849										13,887
2003年度付 E. deg. : 1,200ha							33,426	14,723	1,849									49,998
A. cra. : 300ha							8,357	3,681	1,849									13,887
2004年度付 E. deg. : 1,200ha								33,426	14,723	1,849								49,998
A. cra. : 300ha								8,357	3,681	1,849								13,887
2005年度付 E. deg. : 0ha																		0
A. cra. : 300ha																		0
E. deg. 計	11,142	27,192	43,857	49,382	49,998	49,998	49,998	49,998	16,572	1,849								349,986
A. cra. 計	2,786	6,798	11,427	13,271	13,887	13,887	13,887	13,887	13,887	5,530	1,849							111,096
計	13,928	33,990	55,284	62,653	63,885	63,885	63,885	63,885	30,459	7,379	1,849							461,082

表7-3-2.1. 造林作業費支出計画

その1: 試験事業

年度	1991	1992	1993	1994	1995	総計
植栽面積 (ha)	96	95				191
総費	3,048	3,793	1,566	1,179	1,974	10,660
植栽	429	432				861
7/10刈り	510	430				940
苗木運搬・植付	616	610				1,226
下刈	1,285	1,608	470			3,363
刈り	38	38	142	225	120	525
伐草	19	37	37	37	37	167
調査作業	189	638	917	917	917	3,578
新設費	4,099	4,276	86			8,461
植栽	884	1,551				2,435
苗木運送料	933	506				1,439
苗木の運送料	348	306				654
7/10刈り	1,346	1,134				2,480
苗木運送料	19	21				40
伐草	569	635				1,204
下刈		123	86			209
計	7,147	8,069	1,652	1,179	1,074	19,121

その2: 本林事業

年度	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	総計	
植栽面積 (ha)		400	800	1,200	1,200	1,200	1,200	1,200	1,200	300								8,400	
A. crassicaarpa (ha)		100	200	300	300	300	300	300	300	300								2,400	
計		500	1,000	1,500	1,500	1,500	1,500	1,500	1,500	300								10,800	
総費	3,655	11,363	19,791	25,475	27,694	29,290	30,071	30,364	21,807	10,005	5,937	3,243	1,485	704	411	118	59	221,472	
調査費	13,928	33,990	55,284	62,653	63,865	63,885	63,885	63,885	30,459	7,379	1,849							461,082	
計	17,583	45,353	75,075	88,128	91,579	93,175	93,956	94,249	52,266	17,384	7,786	3,243	1,485	704	411	118	59	682,554	
総計																			701,675

表7-3-2. 借地料計算

その1：試験事業
(単位:ha,千円)

	1991	1992	1993	1994	1995	計算計
管理面積 (茶畑の1.1倍)	166	210	210	210	210	
借地料 (1ha当り0円:620円)	66	130	130	130	130	586

その2：本林事業

(単位:ha,千円)

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	計算計	合計
管理面積 (茶畑の1.1倍)	750	1,836	3,400	5,008	6,658	8,308	9,958	11,168	10,508	8,968	7,318	5,668	4,018	2,368	718	388	58		
借地料 (1ha当り0円:620円)	471	1,138	2,108	3,105	4,128	5,151	6,174	6,924	6,515	5,560	4,537	3,514	2,491	1,468	445	241	36	54,006	54,592

表7-3-23. 施設費

その1：試験事業 (単位：千円)

年 月	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	計
畜畑造成費															
建物施設費		15,983									541,190	7,945			15,983
機械・器具費	5,861	7,945									14,750				13,806
育苗施設費											122,000	122,000	122,000		
道路・防火帯建設費								246,000	184,000	184,000	677,940	129,945	122,000	24,000	
計	5,861	23,928													29,789

その2：本格事業 (単位：千円)

年 月	1996	1997	1998	1999	2000	2001	2002	2003	2004
畜畑造成費	560								
建物施設費	30,293	7,945							
機械・器具費	541,190								
育苗施設費	14,750								
道路・防火帯建設費	158,000	199,000	246,000	184,000	184,000	677,940	129,945	122,000	24,000
計	744,793	206,945	246,000	184,000	184,000	677,940	129,945	122,000	24,000

(単位：千円)

年 月	2005	2006	2007	2008	2009	2010	2011	2012	計
畜畑造成費									560
建物施設費									30,293
機械・器具費		116,836					116,836		1,339,443
育苗施設費			7,501						29,500
道路・防火帯建設費									1,361,000
計		116,836	7,501				116,836		2,790,585

表7-3-2-4. 管理部門人件費及び福利厚生費

その1：試験事業 (単位:千円)

年度	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	採算計	累計
管理部門人件費	15,768	15,768	15,768	15,768	15,768	15,768	15,768	15,768	15,768	15,768	15,768	15,768	15,768	15,768	15,768	15,768	15,768	15,768	15,768	15,768	15,768	15,768	15,768	78,840
福利厚生費	788	788	788	788	788	788	788	788	788	788	788	788	788	788	788	788	788	788	788	788	788	788	788	3,940
計	16,556	16,556	16,556	16,556	16,556	16,556	16,556	16,556	16,556	16,556	16,556	16,556	16,556	16,556	16,556	16,556	16,556	16,556	16,556	16,556	16,556	16,556	16,556	82,780

その2：本格事業 (単位:千円)

年度	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	採算計	累計						
管理部門人件費	34,221	34,221	34,221	34,221	34,221	34,221	34,221	34,221	34,221	34,221	34,221	34,221	34,221	34,221	34,221	34,221	34,221	34,221	34,221	34,221	34,221	34,221	34,221	581,757	
福利厚生費	1,711	1,711	1,711	1,711	1,711	1,711	1,711	1,711	1,711	1,711	1,711	1,711	1,711	1,711	1,711	1,711	1,711	1,711	1,711	1,711	1,711	1,711	1,711	29,087	
計	35,932	35,932	35,932	35,932	35,932	35,932	35,932	35,932	35,932	35,932	35,932	35,932	35,932	35,932	35,932	35,932	35,932	35,932	35,932	35,932	35,932	35,932	35,932	35,932	610,844

表7-3-2-5. 保守管理費

その1：試験事業 (単位:千円)

年度	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	採算計	累計
建物施設			319	319	319	319																		957
機械・機器		117	117	117	117	117																		468
2年分			158	158	158	158																		474
計		117	594	594	594	594																		1,899

その2：本格事業 (単位:千円)

年度	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	採算計	累計					
建物施設	319	925	925	925	925	925	925	925	925	925	925	925	925	925	925	925	925	925	925	925	925	925	925	14,479
機械・器具	158	10,823	10,982	10,982	10,982	158	10,823	10,982	10,982	10,982	158	2,336	2,486	2,486	2,486	150	2,336	2,486	2,486	2,486	2,486	2,486	2,486	109,292
育苗施設		295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	2065
道路・防火帯		3,160	7,140	12,060	15,740	19,420	21,860	24,300	26,740	27,220	27,220	27,220	27,220	27,220	27,220	27,220	27,220	27,220	27,220	27,220	27,220	27,220	27,220	348,180
計	477	15,203	19,342	24,262	27,942	20,503	33,903	36,502	38,942	39,127	28,303	30,481	30,631	30,631	30,631	27,975	30,161	30,631	30,631	30,631	30,631	30,631	30,631	486,915

表7-3-28. 事業費等総括表

その1: 試験事業

	(単位:千円)									
	1991	1992	1993	1994	1995	計				
育苗費	3,090	3,814				6,904				
造林費	7,147	8,069	1,652	1,179	1,074	19,121				
借地料	66	130	130	130	130	586				
施設費	5,861	23,928				29,789				
一般管理費	20,150	20,953	21,525	21,525	21,525	105,678				
計	36,314	56,894	23,307	22,834	22,729	162,078				

その2: 本格事業

	(単位:千円)									
	1996	1997	1998	1999	2000	2001	2002	2003	2004	
育苗費	14,468	28,932	33,046	33,046	33,046	33,046	33,046	33,046	10,175	
造林費	17,583	45,353	75,075	88,128	91,579	93,175	93,956	94,249	52,266	
借地料	471	1,138	2,108	3,105	4,128	5,151	6,174	6,924	6,515	
施設費	744,793	206,945	246,000	184,000	184,000	677,940	129,945	122,000	24,000	
一般管理費	46,318	65,742	70,708	76,612	81,028	72,102	88,182	91,300	94,228	
計	823,633	348,110	426,937	384,891	393,781	681,414	351,303	347,519	187,184	

	本格事業計									
	2005	2006	2007	2008	2009	2010	2011	2012	計	
育苗費	17,384	7,786	3,243	1,485	704	411	118	59	251,851	258,755
造林費	5,560	4,537	3,514	2,491	1,468	445	241	36	682,554	701,675
借地料		116,836	7,501	82,064	82,064	82,064	116,836	81,500	54,006	54,582
施設費	92,259	79,270	81,884	82,064	82,064	82,064	78,877	81,500	2,760,796	2,790,585
一般管理費									1,346,202	1,451,880
計	115,203	208,429	96,142	86,040	84,236	82,920	196,072	81,595	5,095,409	5,257,487

(2) 収入計画

試験造林地からの収入は、1樹種当りの造林面積がまとまっている地拵え試験地の138haから得るものとし、残りの53haは収入の対象としないものとする。

販売は立木販売するものとして計算する。隣国フィジーでのパルプチップのFOB価格を用い、売上額から伐採・運搬・加工費を差し引いたものを販売収入額とした。

生産量や伐採・加工・販売に要する経費、また利用材積等は、造林木の成長量や特性によって大きく変化するが、パルプ生産を目指した人工造林の実績が皆無の為、聞き込み調査の他同種の報告書を参考にして算定した。

対象樹種の想定成長量等を表7-3-29に、販売収入額を表7-3-30に示す。

表7-3-29. 対象樹種の想定成長量等

	伐期	年平均成長量	容積密度	FOB価格
<i>Eucalyptus deglpta</i>	7年	30m/ha	400kg/m ³	A\$155/ton ... 6,560円/m ³
<i>Eucalyptus urophylla</i>	8年	25m/ha	600kg/m ³	A\$155/ton ... 9,839円/m ³
<i>Acacia crassicarpa</i>	8年	25m/ha	500kg/m ³	A\$155/ton ... 8,200円/m ³
<i>Acacia mangium</i>	8年	25m/ha	600kg/m ³	A\$155/ton ... 9,839円/m ³

表 7-1-3-30. 販売収入額 (收穫予想、伐出・加工費用)

年 目	1991	1992	1993	1994	1995	1996	1997	1998	1999	計
平の 1 : 試験事業										
伐採・運搬・加工費用										
伐採面積										
E. deglupta	ha						22.0	12.5	12.5	34.5
E. urophylla	ha						22.0	22.0	12.5	34.5
A. crassicaarpa	ha						22.0	22.0	12.5	34.5
A. mangium	ha						22.0	76.5	37.5	138.0
計							4,620	2,625	2,500	7,245
收穫予想										
E. deg	株:7年 材積:210m ³ /ha						4,620	4,400	2,500	6,900
E. uro	株:8年 材積:200m ³ /ha							4,400	2,500	6,900
A. cra	株:8年 材積:200m ³ /ha							4,400	2,500	6,900
A. man	株:8年 材積:200m ³ /ha						4,620	15,825	7,500	27,945
計							4,140	2,352	2,240	6,492
伐採・運搬・加工費用										
E. deg	伐採費用:896円/㎡						4,140	3,942	2,240	6,182
E. uro	伐採費用:896円/㎡							3,942	2,240	6,182
A. cra	伐採費用:896円/㎡							3,942	2,240	6,182
A. man	伐採費用:896円/㎡						4,140	14,178	6,720	25,038
計							3,511	1,995	2,280	5,506
運搬費用 (平均距離50km以下:760円/ton)										
E. deg	系材出量:1.0ton/㎡ 運搬費用:760円/㎡						3,511	4,013	2,280	6,283
E. uro	系材出量:1.2ton/㎡ 運搬費用:912円/㎡							3,678	2,090	5,768
A. cra	系材出量:1.1ton/㎡ 運搬費用:836円/㎡							4,013	2,280	6,293
A. man	系材出量:1.2ton/㎡ 運搬費用:912円/㎡						3,511	13,689	6,650	23,850
計							4,745	2,686	2,568	7,441
伐採加工費用										
E. deg	伐採加工費:1.027円/㎡						4,745	4,519	2,568	7,087
E. uro	伐採加工費:1.027円/㎡							4,519	2,568	7,087
A. cra	伐採加工費:1.027円/㎡							4,519	2,568	7,087
A. man	伐採加工費:1.027円/㎡						4,745	16,253	7,794	28,792
計							12,396	44,130	21,074	77,600
費用合計							4,343	2,468	2,350	6,811
利用材積 (伐採0.94材積率を以て算出)										
E. deglupta							4,343	4,136	2,350	6,486
E. urophylla								4,136	2,350	6,486
A. crassicaarpa								4,136	2,350	6,486
A. mangium							4,343	14,876	7,050	26,269
計							28,490	16,190	23,122	44,680
チップ売上額										
E. deglupta	6,560円/㎡							40,694	19,270	53,185
E. urophylla	8,839円/㎡							33,915	23,122	63,816
A. crassicaarpa	8,200円/㎡							40,694	23,122	63,816
A. mangium	9,839円/㎡						28,490	131,493	65,514	225,497
計							16,094	87,363	44,440	147,897
販売収入額 (売上-費用)										

表 7-3-30. 販売収入額 (収穫予想、伐出・加工費用)

その2: 本格専業

項目	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	標準値	備 考
伐採面積												
E. deglupta ha	400	800	1,200	1,200	1,200	1,200	1,200	1,200	300	300	8,400	
A. crassiparva ha		100	200	300	300	300	300	300	300	300	2,400	
計	400	900	1,400	1,500	1,500	1,500	1,500	1,500	300	300	10,800	
収穫予想												
E. deg 伐採:7年 収穫:210m/ha	84,000	168,000	252,000	252,000	252,000	252,000	252,000	252,000	40,000	40,000	1,764,000	
(単位:㎡) A. cra 伐採:8年 収穫:200m/ha	84,000	20,000	40,000	60,000	40,000	40,000	40,000	40,000	40,000	40,000	360,000	
計	84,000	188,000	292,000	312,000	292,000	292,000	292,000	292,000	40,000	40,000	2,124,000	
伐採・運搬・加工費用												
E. deg 伐採:896円/㎡	75,264	150,528	225,792	225,792	225,792	225,792	225,792	225,792	53,760	53,760	1,580,544	
(単位:円) A. cra 伐採:896円/㎡	75,264	17,920	35,840	53,760	53,760	53,760	53,760	53,760	53,760	53,760	430,080	
計	75,264	168,448	261,632	279,552	279,552	279,552	279,552	279,552	53,760	53,760	2,010,624	
運搬費用 (平均距離50kmと仮:760円/ton)												
E. deg 伐採:1.0ton/㎡ 運搬:760円/㎡	63,840	127,680	191,520	191,520	191,520	191,520	191,520	191,520	50,160	50,160	1,340,640	
A. cra 伐採:1.1ton/㎡ 運搬:836円/㎡	63,840	16,720	33,440	50,160	50,160	50,160	50,160	50,160	50,160	50,160	401,280	
計	63,840	144,400	224,960	241,680	241,680	241,680	241,680	241,680	50,160	50,160	1,741,920	
チップ加工費												
E. deg チップ加工:1.02円/㎡	86,268	172,536	258,804	258,804	258,804	258,804	258,804	258,804	61,620	61,620	1,811,628	
(単位:円) A. cra チップ加工:1.02円/㎡	86,268	20,540	41,080	61,620	61,620	61,620	61,620	61,620	61,620	61,620	492,960	
計	225,372	505,924	786,475	841,656	841,656	841,656	841,656	841,656	165,540	165,540	6,057,132	
費用合計												
	225,372	505,924	786,475	841,656	841,656	841,656	841,656	841,656	165,540	165,540	6,057,132	
利用材額 (経年94%を補償する)												
E. deglupta	79,000	158,000	237,000	237,000	237,000	237,000	237,000	237,000	56,430	56,430	1,659,000	
A. crassiparva	79,000	18,810	37,620	56,430	56,430	56,430	56,430	56,430	56,430	56,430	338,580	
計	79,000	176,810	274,620	293,430	293,430	293,430	293,430	293,430	56,430	56,430	1,997,580	
チップ売上額												
E. deglupta 6,550円/㎡	518,240	1,036,480	1,554,720	1,554,720	1,554,720	1,554,720	1,554,720	1,554,720	462,726	462,726	10,883,040	
(単位:円) A. crassiparva 8,200円/㎡	518,240	154,242	308,484	462,726	462,726	462,726	462,726	462,726	462,726	462,726	3,701,808	
計	518,240	1,190,722	1,863,204	2,017,446	2,017,446	2,017,446	2,017,446	2,017,446	462,726	462,726	14,584,848	
販売収入額 (売上-費用)	292,868	684,798	1,076,728	1,175,790	1,175,790	1,175,790	1,175,790	1,175,790	297,186	297,186	8,527,716	
	292,868	684,798	1,076,728	1,175,790	1,175,790	1,175,790	1,175,790	1,175,790	297,186	297,186	8,527,716	

(3) 資金計画

1. 収支計画

前述の表7-3-30：販売収入計画に対して、支出計画の表7-3-28：事業費等総括表の単純比較は、表7-3-31のとおりである。

1. 資金調達計画

資金調達は、国際協力事業団の融資制度の利用を期待して、事業開始からの5年間の所要資金を算定した。この資金は、同事業団による貸付け限度額の3億円以内であり、自己資金と合わせて運用する。

表7-3-32. 資金調達計画

(単位:千円)

年次	支出額	融資対象額	借入額	自己資金
1 (1991)	36,314	36,314	36,000	314
2 (1992)	56,894	56,894	56,000	894
3 (1993)	23,307	23,307	23,000	307
4 (1994)	22,834	22,834	22,000	834
5 (1995)	22,729	22,729	22,000	729
計	162,078	162,078	159,000	3,078

II 借入金返済・利子支払計画

本事業の実行に当っては、国際協力事業団の融資制度による借入金を受けることとする。この借入金の金利は次のように見積もった。その内訳は、わが国企業が国際協力事業団から低利(0.75%)で借り入れた場合でも、現地合弁企業へ送金するための銀行保証料0.50%、海外投資保険料0.55%、送金手数料0.20%の支払を考慮して年利2.00%で計算した。借入金の償還は、5年据置きの10年均等返済とした。

表7-3-33. 借入金返済・利子支払計画

(単位:千円)

年次	借入金	残高	返済額	利子
1 (1991)	36,000	36,000		720
2 (1992)	56,000	92,000		1,840
3 (1993)	23,000	115,000		2,300
4 (1994)	22,000	137,000		2,740
5 (1995)	22,000	159,000		3,180
6 (1996)		143,100	15,900	3,180
7 (1997)		127,200	15,900	2,862
8 (1998)		111,300	15,900	2,544
9 (1999)		95,400	15,900	2,226
10 (2000)		79,500	15,900	1,908
11 (2001)		63,600	15,900	1,590
12 (2002)		47,700	15,900	1,272
13 (2003)		31,800	15,900	954
14 (2004)		15,900	15,900	636
15 (2005)		0	15,900	318
計	159,000		159,000	28,270

表 7 - 3 - 3 1 . 収支計画表

その 1 : 試験事業

(単位:千円)

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
販売収入額														
支出合計額	36,314	56,894	23,307	22,834	22,729									162,078
年次毎収支差	-36,314	-56,894	-23,307	-22,834	-22,729									-162,078
累計収支差	-36,314	-93,208	-116,515	-139,349	-162,078									

その 2 : 本格事業

(単位:千円)

	1996	1997	1998	1999	2000	2001	2002	2003	2004
販売収入額		16,094	87,363	44,440				292,868	684,798
支出合計額	823,633	348,110	426,937	384,891	393,781	881,414	351,303	347,519	187,184
年次毎収支差	-823,633	-332,016	-339,574	-340,451	-393,781	-881,414	-351,303	-54,651	497,614
累計収支差	-985,711	-1,317,727	-1,657,301	-1,997,752	-2,391,533	-3,272,947	-3,624,250	-3,678,901	-3,181,287

	2005	2006	2007	2008	2009	2010	2011	2012	本格累計	合 計
販売収入額	1,076,728	1,175,790	1,175,790	1,175,790	1,175,790	1,175,790	297,186	297,186	8,675,613	8,675,613
支出合計額	115,203	208,429	96,142	86,040	84,236	82,920	196,072	81,595	5,095,409	5,257,487
年次毎収支差	961,525	967,361	1,079,648	1,089,750	1,091,554	1,092,870	101,114	215,591		3,418,126
累計収支差	-2,219,762	-1,252,401	-172,753	916,997	2,008,551	3,101,421	3,202,535	3,418,126		

IV. 減価償却費の算出

減価償却の方法には定率法と定額法があるが、本事業の試算では計算の簡素化から、耐用年数経過後の残存価格をゼロとし、耐用年数を償却期間とする定額法を採用した。耐用年数は、建物・工作物等施設の恒久的建造物を20年とし、車両・機械等は5年とした。但し、償却期間が22年目を超える場合には、22年目までの年数を償却期間とする。

減価償却費の算出額は、表7-3-34のとおりである。

V. 損益予測

損益予測は、表7-3-35のとおりである。

VI. 資金運用計画

1～5年次の国際協力事業団の借入金の利子支払い及び不足分については自己資金の投入が必要である。さらに借入れの据置き期間終了後の6年次からは元金の返済が始まるとともに、事業化造林への投資が必要になる。販売収入が得られるのは、試験造林地からは7年目から3年間、本格事業造林地からは13年目以降である。

これを表7-3-36に示す。

7-4 試験事業及び本格事業のフィージビリティ

本事業の内部収益率 (FIRR on Investment) を算出すると、以下のように7.66%となる。

表7-4-1. 本事業の内部収益率

(FIRR=0.0766357, 単位:円)

年次	便 益	費 用	内部蓄積	現在価値
1 (1991)		36,314	-36,314	-33,729
2 (1992)		56,894	-56,894	-49,083
3 (1993)		23,307	-23,307	-18,676
4 (1994)		22,834	-22,834	-16,994
5 (1995)		22,729	-22,729	-15,712
6 (1996)		823,633	-823,633	-528,836
7 (1997)	16,094	348,110	-332,016	-198,086
8 (1998)	87,363	426,937	-339,574	-188,098
9 (1999)	44,440	384,891	-340,451	-175,160
10 (2000)		393,781	-393,781	-188,177
11 (2001)		881,414	-881,414	-391,222
12 (2002)		351,303	-351,303	-144,829
13 (2003)	292,868	347,519	-54,651	-20,927
14 (2004)	684,798	187,184	497,614	176,982
15 (2005)	1,076,728	115,203	961,525	317,635
16 (2006)	1,175,790	208,429	967,361	296,817
17 (2007)	1,175,790	96,142	1,079,648	307,690
18 (2008)	1,175,790	86,040	1,089,750	288,462
19 (2009)	1,175,790	84,236	1,091,554	268,373
20 (2010)	1,175,790	82,920	1,092,870	249,570
21 (2011)	297,186	196,072	101,114	21,447
22 (2012)	297,186	81,595	215,591	42,473
計	8,675,613	5,257,487	3,418,126	0

表 7 - 3 - 3 4 . 減価償却費

(単位:千円)

目 別	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
苗畑造成費						32	33	33	33	33	33
建物施設費		799	799	799	799	2,580	2,581	2,581	2,581	2,581	2,581
機械・器具費	1,172	2,761	2,761	2,761	2,762	109,827	109,827	109,827	109,827	109,827	109,827
育苗施設費						9,294	21,731	38,131	51,273	65,426	75,593
道路・防火帯建設費						7,900	17,850	30,150	39,350	45,450	51,550
計	1,172	3,560	3,560	3,560	3,561	129,633	152,022	180,722	203,064	223,317	239,584

(単位:千円)

目 別	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	計
苗畑造成費	33	33	33	33	33	33	33	33	33	33	33	560
建物施設費	2,581	2,581	2,581	2,581	2,581	2,581	2,581	2,582	2,582	2,582	1,782	46,276
機械・器具費	109,827	109,827	109,827	109,827	24,956	24,867	24,867	24,867	24,868	59,919	58,418	1,353,249
育苗施設費	86,684	96,885	101,551	101,553	101,553	101,554	101,554	101,554	101,554	101,555	101,555	1,361,000
道路・防火帯建設費	57,650	63,750	64,950	64,950	64,950	64,950	64,950	64,950	64,950	64,950	64,950	898,200
計	256,775	275,076	278,942	278,944	194,073	183,985	193,985	193,986	193,987	229,039	226,738	3,659,285

表 7-3-35. 損益予測

(単位:千)

項目	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
販売収入							16,094	87,363	44,440		
事業費 (除く施設費)	30,453	32,966	23,307	22,834	22,729	78,840	141,165	180,937	200,891	209,781	203,474
減価償却費	1,172	3,560	3,560	3,560	3,561	129,633	152,022	190,722	203,064	223,317	239,584
営業損益	-31,625	-36,526	-26,867	-26,394	-26,290	-208,473	-277,093	-274,296	-359,515	-433,098	-443,058
支払利息	720	1,840	2,300	2,740	3,180	3,180	2,862	2,544	2,226	1,908	1,590
当期損益	-32,345	-38,366	-29,167	-29,134	-29,470	-211,653	-279,955	-276,840	-361,741	-435,006	-444,648
累積損益	-32,345	-70,711	-99,878	-129,012	-158,482	-370,135	-650,090	-926,930	-1,288,671	-1,723,677	-2,168,325

(単位:千)

項目	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	計
販売収入		292,868	684,798	1,076,728	1,175,790	1,175,790	1,175,790	1,175,790	1,175,790	297,186	297,186	8,675,613
事業費 (除く施設費)	221,358	225,519	163,184	115,203	91,593	88,641	86,040	84,236	82,920	79,236	81,595	2,466,902
減価償却費	256,775	275,076	278,942	278,944	194,073	193,985	193,985	193,986	193,987	229,039	226,738	3,659,426
営業損益	-478,133	-207,727	242,672	682,581	890,124	893,164	895,765	897,568	898,883	-11,089	-11,147	2,549,426
支払利息	1,272	954	636	318								28,270
当期損益	-479,405	-208,681	242,036	682,263	890,124	893,164	895,765	897,568	898,883	-11,089	-11,147	2,521,156
累積損益	-2,647,730	-2,856,411	-2,614,375	-1,932,112	-1,041,988	-148,824	746,941	1,644,509	2,543,392	2,532,303	2,521,156	

表7-3-36. 資金運用計画

(単位:千円)

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
(収入) 借入金 JICA	36,000	56,000	23,000	22,000	22,000						
自己資金	1,034	2,734	2,607	3,574	3,909	842,713	350,778	358,018	358,577	411,589	898,904
販売収入							16,094	87,363	44,440		
前期より繰越											
合 計	37,034	58,734	25,607	25,574	25,909	842,713	366,872	445,381	403,017	411,589	898,904
(支出) 事業費	36,314	56,894	23,307	22,834	22,729	823,633	348,110	426,937	384,891	393,781	881,414
支払利息	720	1,840	2,300	2,740	3,180	3,180	2,862	2,544	2,226	1,908	1,590
借入金返済						15,900	15,900	15,900	15,900	15,900	15,900
合 計	37,034	58,734	25,607	25,574	25,909	842,713	366,872	445,381	403,017	411,589	898,904
当期収支(次期へ繰越)											

(単位:千円)

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	記帳	合 計
(収入) 借入金 JICA	368,475	71,505	0									(収入)	159,000
自己資金		292,868	684,798	1,076,728	1,175,790	1,175,790	1,175,790	1,175,790	1,175,790	297,186	297,186	3,674,417	8,675,513
販売収入				481,078	1,426,365	2,393,746	3,473,394	4,563,144	5,654,698	6,747,568	6,848,682		
前期より繰越													
合 計	368,475	364,373	684,798	1,557,806	2,602,175	3,569,536	4,649,184	5,738,934	6,830,488	7,044,754	7,145,868		8,834,613
(支出) 事業費	351,303	347,519	187,164	115,203	208,429	96,142	86,040	84,236	82,920	196,072	81,595	(収入)	5,257,487
支払利息	1,272	954	636	318									28,270
借入金返済	15,900	15,900	15,900	15,900									159,000
合 計	368,475	364,373	203,720	131,421	208,429	96,142	86,040	84,236	82,920	196,072	81,595		5,444,757
当期収支(次期へ繰越)			481,078	1,426,385	2,393,746	3,473,394	4,563,144	5,654,698	6,747,568	6,848,682	7,064,273	-3,674,417	3,369,856

8 自然環境及び社会環境へ及ぼす影響

本調査時に見ることができた対照的な2つの風景は、開発と自然環境との関わり合いを象徴的な形で表していたと言える。途中立ち寄った隣国のフィジー国は、ヴァヌアツ国比較して1人当りのGNPが約1.8倍であり、開発が奥地まで進み、広く畑が開かれており、より発展を遂げている。しかし、観光を大きな産業と位置付け、自然を売り物としているにもかかわらず、島を流れる川の水は土砂により焦茶色を呈しており、海は流れ込む川の水で汚されていた。対照的に、サント島では、開発、発展という点では遅れをとっているものの、大小の川のそこを流れる水の透明度の高い美しさ、そして海の美しさは非常に印象的なものであった。サント島を取り巻く自然は、今はまだ人間の活動によって汚されていない。地球的に見ても、残されている数少ない(貴重な)1つであると言えるであろう。

ヴァヌアツ国政府も、その美しい海を中心とした豊かな自然を利用した観光に力を入れており、開発に対してはガイドラインを設けて規制を行っている。

ヴァヌアツ国において大規模な開発を行う場合、事業申請者は自然環境に及ぼす影響に関して"General Guidelines for the Production of Environmental Impact Statement"、及び事業の種類によってそれぞれ定められた"Specific Guidelines"にそって作成した環境影響報告書(Environmental Impact Statement, EIS)を、内務省環境室に対して提出することが義務付けられている。

環境影響報告書は、事業申請者がその事業内容を説明し、また事業と環境との関わりを明らかにするために作成されるもので、提出された報告書を基にして、3か月に1回開かれる地方開発委員会(Rural Land Development Committee)が審査を行ない、関係閣僚による閣議で承認された後に事業を開始することが認められる。地方開発委員会の審査の基本的な姿勢は、「ヴァヌアツ国の環境にとって獲るものよりも失うものが多いような開発は許さない。」というものであり、事業申請者には、最小の環境のロスで事業の目的を果たすことができるような計画が求められている。

林業開発に関しては、過去に人の手が過大に入っていない原生林とも呼べる "Dark Bush" 地域 の開発については厳しく規制が課せられており、EIS の提出が必要であるが、本試験事業が主に対象としている "Light Bush" と "Pico-grass Land" 地域に関しては、すでに長い間にわたり開発が行われてきた地域であり、厳しい規制の対象とはなっていない。また "Dark Bush" に属する試験地(1ha) はマテブル大学敷地内にあり、研究目的として認められ既に試験が進んでいる。

以上の様に本試験事業では、EIS を提出し、地方開発委員会に諮る必要がないものの、昨今の環境を取り巻く情勢下では、環境保護への配慮は不可欠なものである。前述のとおり、ヴァヌアツ国政府は海を中心とした豊かな自然を利用した観光に力を入れており、特に海洋の汚染をもたらす土壌の流失に関して注意を払う必要がある。

本試験事業でも、河川と開発地との距離を置いたり、団地と団地の間に自然植生を積極的に残し、また同一年度に1個所に集中した開発を行わないなど、開発の進め方や団地の配置を十分検討し、できるだけリスクが小さくなるように努めなければならない。さらに事業計画上での対応だけでなく、技術的な取組みも必要である。例えば本試験事業で試験が行われる地拵え時の牧草の利用は、土壌流失の防止にも効果的であろう。環境保全を目的とした技術の開発に係る試験は本試験事業では直接的には行わないが、各試験地の経過観察を行っていく中で参考となるデータを収集していく体制を作っておくことは有意義であろう。

《参考文献》

- Forestry Act
- Forestry Orders
- Constitution Chapter 12 - Land -
- Land Leases
- Land Reform
- The Employment Act
- General Guidelines for the Production
of Environmental Impact Statement

F o r e s t r y A c t

REPUBLIC OF VANUATU

THE FORESTRY ACT NO. 14 OF 1982 AS AMENDED BY
FORESTRY AMENDMENT ACT NO. 14 OF 1985 AND FORESTRY AMENDMENT ACT
NO. 5 OF 1986

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REPUBLIC OF VANUATU

THE FORESTRY ACT NO. 14 OF 1982 AS AMENDED BY
AMENDMENT ACT NO. 14 OF 1985 AND FORESTRY AMENDMENT ACT
NO. 5 OF 1986

To provide for the development and control of Forestry operations and for other purposes incidental thereto.

BE IT ENACTED by the President and Parliament as follows:-

PART 1 - PRELIMINARY

1. In this Act, unless the context otherwise requires:-

"Board Mill" includes any mill for producing reconstituted board from wood particles other than veneer.

"clearing operations" means the cutting of trees or the clearing of native vegetation.

"forest officer" means the Director of Agriculture, any forest officer or any other officer carrying out the duties of a forest officer under this Act;

"Minister" means the Minister for the time being responsible for matters relating to the proper management, control, development, utilisation and preservation of forest and timber resources",

"Owner" in relation to land includes a number of owners and one or more persons with a right in custom to exclusive use of land and any association, corporation, co-operative or other body of persons representing such number of owners or such persons;

"Fund" means the Forestry Fund;

"Paper Mill" includes any mill for the manufacture of paper from wood or other pulp.

"Plywood Mill" includes any mill for producing plywood by gluing sheets of veneer.

"Pulp Mill" includes any mill for the reduction of wood to pulp.

"rural land" means any land outside the boundaries of a municipality;

"Sawmill" includes any portable sawmill and any other device used for the longitudinal sawing of timber;

"stream" means any part of any watercourse which at any time contains running water more than one half of one metre in width;

"tree" includes any trees, palm, shrub, bush, sapling, seedling or reshoot of any kind or age;

"utilisation operations" means the felling of trees for sale as logs, for sawmilling, wood-chipping or fibre board manufacture or any other operations prescribed as utilisation operations under this Act;

"Veneer Mill" includes any mill for slicing or rotary peeling wood into thin sheets without using saws;

"Wood Preservation Plant" includes any plant for the impregnation or coating of wood with chemical or other substance intended to protect the wood from attack by fungus or insects;

"Wood Using Plant" means a board mill, paper mill, wood preservation plant, and includes any plant operation which uses or processes wood as a raw material, but excludes joinery shops, carpenters shops, furniture factories and other shops or factories of a similar nature.

PART 2 - ADMINISTRATION

Responsibilities
of Minister and
power of
delegation.

2. (1) The Minister shall be responsible for the proper management and development of the forest resources of Vanuatu.
- (2) The Minister may from time to time either generally or particularly delegate any of his powers and functions under this Act to any forest officer or any officer holding or acting in any office of the Public Service.

- (3) Subject to any general or specific directions given by the Minister, the forest officer or the officer to whom any powers or functions are delegated may exercise those powers or functions in the same manner and with the same effect as if they had been conferred on him directly by this Act and not by delegation.
- (4) Every forest officer or officer purporting to act in accordance with a delegation under this section shall, in the absence of proof to the contrary, be presumed to be acting in accordance with the terms of the delegation.
- (5) Any delegation under this section may be made to a specified person or to persons of a specified class, or to the holder or holders for the time being of a specified office or specified classes of offices.
- (6) Every delegation shall be revocable in writing at will and no delegation shall prevent the exercise of any power or function by the Minister.

Provision of services by Minister

3. The Minister may provide services for the felling of trees and the sawing or other conversion of timber from plantations and may make reasonable charges therefor.

PART 3 - FOREST PLANTATION AGREEMENTS

Forest plantation agreements.

4. (1) For the purpose of assisting any owner of land to plant trees thereon the Government may enter into a forest plantation agreement with the owner.
- (2) The Minister may execute forest plantation agreements on behalf of the Government.
- (3) Every forest plantation agreement shall contain:-
 - (a) sufficient details in order to identify the land that is to be planted with trees; and
 - (b) a forest management plan for the plantation on the land which shall state;

- (i) the species of tree to be planted;
- (ii) the measures to be adopted for the establishment and protection of the plantation;
- (iii) the extent to which grazing by animals and agricultural activity shall be permitted in the plantation;
- (iv) measures that shall be taken for the protection of places on the land which may be considered sacred or of national or cultural importance.

and which may be reviewed by the Minister every five years; and

(c) covenants by the owner of the land that:-

- (i) he will permit forest officers to cause the land referred to in the Forest Plantation Agreement to be planted with the species of trees specified in the forest management plan;
- (ii) he will carry out such work on the land as the Minister may direct for the purpose of promoting the growth of or for protecting the trees;
- (iii) he will not lease or otherwise dispose of the land or the trees or cut down the trees without first having obtained the prior consent in writing of the Minister.
- (iv) in the event of the accidental destruction at any time of the whole or any part of the plantation he will permit the Minister to replace or restore the plantation or carry out or follow such directions as may be considered by the Minister to represent the best interests of the owner and the Government.
- (v) from the proceeds of sale of timber from the plantations he

will repay to the Government all moneys expended by it in the establishment and maintenance of the plantation and revenue received and pay the reforestation charge as defined by the Forest Plantation Agreement

Records of moneys spent by Government under Forest Plantation Agreements.

5. The Minister shall cause records to be kept of all moneys spent by the Government and revenue received under each forest plantation agreement and a statement setting out the details of the amounts so recorded and signed by the Minister shall be prima facie evidence of such details.

Priority of payments out of proceeds of sale of timber.

6. (1) When any timber from any plantation established under section 4 is sold the proceeds of sale shall be applied:-

(a) first in payment of the reforestation charge;

(b) secondly in repayment of the moneys spent by the Government in respect of the part of the plantation from which the timber was felled for sale.

- (2) If such timber is used by the owner instead of being sold it shall be considered to have been sold and the owner shall make the payments specified in paragraph (a) and (b) of sub-section (1). The amount payable under this subsection shall not exceed the market value at stump of the timber used.

Failure to make payments under Forest Plantation Agreement

7. Where the owner of land the subject of a forest plantation agreement fails to make a payment stipulated in the agreement or contravenes or fails to comply with any covenant or condition of the agreement the whole of any moneys then owing by him to the Government under the terms of the Agreement shall become immediately due and payable and be recoverable by the Government.

Government to be satisfied as to custom owners.

8. (1) The Government shall not enter into a forest plantation agreement unless it is satisfied that the other party to the agreement properly represents the owners.

- (2) In the event of the owner of a plantation being changed through proper judicial, legal or customary recourse, of the current financial balance for the plantation pertaining to an existing Forest plantation agreement, and the new owner shall thereby be given the option either to terminate the agreement and thereby to reconcile in full within a specified time any moneys owing to the Government, or to endorse the continuance of the existing agreement.

PART 4 - UTILISATION OPERATIONS

- Requirement to obtain Timber Licence.
9. (1) Subject to section 10 no person may carry out utilisation operations without first obtaining a timber licence.
- (2) A person who contravenes subsection (1) commits an offence.
- Exempted Operations.
10. (1) A person who fells timber on his own land to provide timber for his own use shall not require a timber licence.
- (2) The Minister, upon application in writing in the prescribed form being made to him may exempt from this Part any utilisation operations if he considers that neither the extent of the operations nor the affect on the interests of Vanuatu justifies the application to such operations of the provisions of this Part.
- (3) An exemption granted under subsection (2) may be granted for such period as the Director shall specify.
- Agreements for utilisation operations.
11. (1) Any person who intends to apply for a timber licence and who is not the owner of the land on which the utilisation operations are to be carried out shall prior to such application enter into an agreement in writing with the properly authorised representatives of the owners. Such agreement shall be in a language acceptable to the parties and shall be in the

prescribed form, and shall be exempt from the provisions of section 6 and 7 of the Land Reform Regulation No 31 of 1980 or any provisions replacing such provisions

In the case of public land, the applicant for a licence shall enter into an agreement with the Government.

- (2) Every such agreement shall be submitted to the Minister for approval within thirty days of its execution. No such agreement shall be approved by the Minister unless he is satisfied that it complies with the provisions of subsection (1) and that it adequately protects the interests of the owner of the land and any agreement not so approved shall have no legal effect.
- (3) The Minister shall keep a register of all agreements approved by him under subsection (2).
- (4) An agreement approved by the Minister under subsection (2) shall cease to have legal effect on the expiry or non renewal of the timber licence authorising the utilisation operations provided for in the agreement.
- (5) Every application for a timber licence shall be made to the Minister in writing in the prescribed form and shall be accompanied where applicable, by a copy of the agreement between the applicant and the owner of the land.

Granting of timber licence. 12.

- (1) The Minister may grant a timber licence to any person or renew a timber licence.
- (2) The grant of a timber licence shall be subject to the payment of the reforestation charge and such fees and other charges as the Minister may determine.
- (3) A timber licence shall:-
 - (a) be valid for such period not exceeding ten years, as shall be specified in the licence;

exceeding ten years, as shall be specified in the licence; and

(b) be subject to such general conditions as may be prescribed and to such special conditions as the Minister may impose in respect of that licence.

Consent
required for
transfer of
licence

13. No timber licence shall be transferable except with the authority in writing of the Minister.

Deposit and
Bankers Guarantee

14.(1) It shall be a condition of every timber license that the applicant shall deposit with the Forest Service, before the licence is issued a sum of money or a bankers guarantee, or other such guarantee to the satisfaction of the Minister, estimated by the Minister to be equal to a sum not less than three months royalty and reforestation charge. The deposit or banker's guarantee shall be used to pay for royalty due to the owner of the land, and may be applied to meet reforestation charges, or other fees or charges, including fines, due and payable by the licensee.

(2) When a deposit or banker's guarantee becomes exhausted or expires, the licensee shall deposit a like sum or guarantee with the Forest Service. If a deposit or banker's guarantee is not renewed, the license shall be automatically suspended until such deposit or guarantee is replaced or renewed.

Joint ventures
for utilisation
operations.

15. The Minister with the approval of the Council of Ministers, for the purpose of carrying out utilisation operations on land in respect of which a timber licence has been granted, may on behalf of the Government enter into a joint venture with the properly

authorised representatives of the owner of such land and the holder of the licence if he is not the owner of the land to which it relates. A joint venture entered into under this section may take the form of a joint company, partnership or other form of joint venture association.

Failure to comply with conditions of a timber licence.

16. (1) Any holder of a timber licence who fails to comply with any of the conditions to which the licence is subject commits an offence.

(2) Where any person is convicted of an offence against section 9 (1) or against subsection (1) of this section the Court may in addition to any other penalty order that any timber cut and any equipment used in the commission of the offence be forfeited and any such timber and equipment shall thereupon become the property of Vanuatu.

Suspension or cancellation of timber licence.

17. The Minister may when the holder of a timber licence has been convicted of an offence against this Act suspend or cancel the timber licence.

Compounding of offences.

18. (1) Where in the opinion of the Minister the holder of a timber licence has committed an offence against section 16 (1) he may impose a penalty of not more than 10,000 vatu on the offender and a penalty equal to double the market value of any timber cut by the licence holder in the commission of the offence.

(2) A licence holder who objects to a penalty imposed upon him in accordance with subsection (1) may appeal to the Court therefrom within 14 days of notification to him of imposition of the penalty.

(3) If a licence holder has not appealed to the Court within the time provided for in subsection (2) nor paid the penalty imposed under subsection (1) within 30 days of notification to him thereof the Minister may call for and shall be paid the penalty under the terms of the banker's guarantee provided for in section 14.

Power
of Minister
to register
wood using plant.

- 19.(1) The Minister may upon application in writing therefor and payment of the prescribed fee grant a certificate of registration in respect of a wood using plant.
- (2) Registration of a wood using plant shall be:
- (a) valid for such period not exceeding one year as shall be specified in the certificate of registration and may be renewed;
 - (b) subject to such conditions as may be set out in the certificate of registration.
- (3) Any person who operates, or being the owner allows to be operated, any wood using plant which has not been registered contravenes any of the conditions of registration commits an offence.
- (4) Whenever required by the Minister the owner of a wood using plant shall furnish in the prescribed manner such information as is required from him concerning the intake and output of timber of all classes and species from such wood using plant.
- (5) Any owner of a wood using plant who fails to furnish information when required to do so pursuant to this section or knowingly furnishes information which is not correct commits an offence.

PART 5 - CONSERVATION

Restriction
of clearing
operations
near streams.

20. Any person who carries out any clearing operations using any bulldozer, grader, tractor or similar machine on any land within (b) ten metres of any stream without first obtaining written authority from the Minister commits an offence.

Management,
control and
protection of
land for certain
purposes.

21. If the Government considers that any land should not be subject to utilisation or clearing operations in order to:-
- (a) prevent soil erosion or serious interference with stream flow; or
 - (b) preserve the ecology of the area in which the land is situate; or
 - (c) conserve the land as an area or part

of an area of particular scenic, cultural, historic or national interest; or

- (d) preserve the land for use by the public for recreation purposes,

the Minister may by order forbid or restrict such clearing or utilisation operations and provide for the management, control and protection of such land.

Power of Minister to give directions prohibiting or limiting clearing operations and appeals from such directions.

22. (1) Where the Minister is of the opinion that any clearing operations which are in progress or which he believes are to be commenced on any land are likely to cause serious soil erosion or to interfere seriously with stream flow, he may in writing direct the person carrying out operations or who he believes intends to carry out such operations -
- (a) to cease such operations forthwith; or
 - (b) not to start such operations; or
 - (c) to carry out such operations only in accordance with the conditions specified in the direction.
- (2) Any person aggrieved by such direction may appeal in writing to the Supreme Court and the Court may affirm, vary or quash the direction. Such decision of the Court shall be final. In no circumstances shall an appeal result in a stay of any such direction.
- (3) Where any clearing operations is in progress or is to be commenced on any land containing any merchantable timber which is proposed to be cleared, the Minister may in writing direct the person carrying out the clearing operations or who he believes intends to carry out such operations to cease such operations forthwith until such timber has been properly felled and salvaged in accordance with directions given by the Minister.

Failure to comply

23. Any person who contravenes an order made under section 21 or a direction made under

with orders
made under
section 21
or directions
made under
section 22.

section 22 commits an offence.

PART 6 - PROTECTION FROM FIRE

Restrictions
as to fires
in rural areas.

24. No person shall on any rural land light or maintain any fire or leave any fire burning or permit any fire to be lit or maintained or left burning so as to create a likelihood of damage to land or any property.

Power to order
extinguishment
of fires in
rural areas.

25. Where a fire is burning on any rural land and a forest officer, policeman or public officer is of the opinion that such fire is likely to cause damage to any other land or property he may direct any person who has lit or maintained such fire to immediately take all reasonable steps to extinguish such fire.

Failure to
comply with
direction is
an offence.

26. A person who fails to comply with a direction under section 25 commits an offence.

PART 7 - FINANCIAL

Forestry Fund.

27. (1) There shall be a fund to be called the Forestry Fund which shall be kept by the Treasury.
- (2) In each financial year there shall be paid into the Fund:-
- (a) a sum equivalent to the gross amount received by the Minister
 - (i) as repayments under forest plantation agreements; and
 - (ii) as reforestation charges; and
 - (iii) as penalties under section 18;
 - (b) such other moneys as Parliament may appropriate to the Fund; and
 - (c) such other moneys as may be granted to the Government of Vanuatu for the purposes of this Act.

(3) The moneys in the Fund shall be used for:-

- (a) the establishment and maintenance of forest plantations under forest plantation agreements; and
- (b) other afforestation and reforestation works.

Reforestation
Charge.

28. (1) There shall be a reforestation charge payable on all timber cut during the course of utilization operations.
- (2) The reforestation charge provided for in subsection (1) shall be such percentage of the market value at stump of the timber cut, sold or utilized as may be prescribed.
- (3) The market value at stump shall be assessed by the Minister.

PART 8 - GENERAL AND TRANSITIONAL

Power to require
production of
timber licence.

29. Any holder of a timber licence who when so required by a forest officer or by a member of the Police Force fails without lawful excuse to produce such licence within reasonable time commits an offence.

Powers of
Entry of
forestry
officers

30. (1) Every forest officer together with such other persons, vehicles and equipment as he considers necessary may enter at any time into and upon any building or land for the purposes of:-
- (a) carrying out any work or exercising any power or making any inspection authorised to be carried out, exercised or made by a forest officer under this Act;
 - (b) ascertaining whether the provisions of this Act with respect to the prevention or extinguishing of fires are being complied with; or
 - (c) taking or directing to be taken all lawful steps for preventing or extinguishing fires.
- (2) Except for the purposes mentioned in paragraphs (b) and (c) of subsection (1) no forest officer shall enter any premises used exclusively as a dwelling house without the consent of the occupier.

Assaulting
etc. forest
officers to be
an offence.

31. Any person who assaults, obstructs or threatens any forest officer in the execution of his duty commits an offence.

General
penalty for
offences.

32. Any person guilty of an offence against this Act for which no penalty is expressly imposed shall be liable to a fine of VT 100,000 or to imprisonment for a term not exceeding six months or to both such fine and imprisonment.

Power to
forest officers
to require
persons to give
name and address.

33. (1) A forest officer may require any person to give his name and address who he reasonably suspects of having committed an offence against this Act and if any person so required fails to give his name and address or gives a name and address which the officer has reason to believe is false he may arrest such person without warrant.

(2) The provisions of section 17 of the Criminal Procedure Code Act No. 21 of 1981 or any provisions replacing them shall apply to the disposal of any person arrested in accordance with subsection (1).

Orders.

34. (1) The Minister may make Orders providing for the proper management, development and utilisation of the forest resources of Vanuatu and otherwise for the implementation of the purposes of this Act.

(2) Without derogating from the generally of subsection (1), the minister may in such orders provide for:-

- (a) Rules for the naming, inspection and grading of timber for local use and export;
- (b) A uniform method of measurement of round and sawn timber;
- (c) The percentage of the market value at stump of any timber cut to be paid by way of reforestation charge;
- (d) The brands to be used by forest officers for branding timbers;
- (e) The returns to be furnished by

sawmillers;

- (f) The protection of valuable species of trees including the forbidding of the cutting down of specific trees or species of tree with or without consents;
- (g) The banning of or control of the import or export of logs or timber;
- (h) Anything that may be prescribed under this Act;
- (i) Penalties not exceeding 50,000 VT for breaches of any orders.

Transitional.

35.(1) Without prejudice to the other provisions of this Act any persons who on the coming into force of this Act is:-

- (a) carrying on utilisation operations with or without a licence granted under the Joint Forestry Regulation No. 30 of 1964; or
- (b) who is a party to an agreement giving him a right to carry out utilisation operations,

may apply within three months of the commencement of this Act for a timber licence.

- (2) Any person to whom subsection (1) applies who carries on utilisation operations more than three months after the commencement of this Act without having obtained a timber licence shall be guilty of an offence.
- (3) Any agreement referred to in subsection (1) shall cease to have legal effect if no licence has been obtained in respect of the operations provided for in the agreement within the period provided for in that subsection.

Repeal.

36. The Joint Regulation No. 30 of 1964 is repealed.

Commencement.

37. This Act shall come into force on such day as the Minister shall declare by Order published in the Gazette.

Forestry Orders

REPUBLIC OF VANUATU

THE FORESTRY (ORDERS)
ORDER No. 32 of 1982.

To provide orders for Forestry purposes.

IN EXERCISE of the powers contained in this section 34 of the Forestry Act No. 14 of 1982, I hereby make the following Order:

Part 1 - Preliminary

Interpretation.

1. In this Order,
"Act" means the Forestry Act No. 14 of 1982;

"Agreement" means agreements for utilization operations made under s.11 of the Act;

"Applicant" means a person who applies or intends to apply for a timber licence to conduct utilization operations;

"Licensee" means a person who has been granted a timber licence;

"Log" means timber which has not been sawn along the length of the log to produce one right angle.

Part 2 - Utilization of Timber Other Than Coconut Timber

2. APPLICATION FOR A TIMBER LICENCE.

An application for a timber licence made under the Act shall be in the form of the third schedule.

3. FORM OF AGREEMENTS FOR UTILISATION OPERATION.

Every agreement between an applicant or a timber licensee under s.11 of the Act and the owner of the land shall be in the form of the second schedule and shall contain a boundary description and map sufficiently accurate to be acceptable to the Director.

4. FORM OF TIMBER LICENCE.

A timber licence other than a coconut timber licence issued under the Act shall be in the form of the fourth schedule.

5. CONDITIONS OF TIMBER LICENCE.

A timber licence other than a coconut timber licence shall be issued subject to the following conditions:-

- (a). The licence shall only be for utilization operations carried out on land in respect of which agreements made in accordance with the Order subsist;

- (b). The licensee shall keep a separate felling register for each agreement, and shall not later than the next working day after felling any tree, allot the next available number to the log cut from such trees, or where more than one log is cut from any tree, separate consecutive numbers to each such log, and shall correctly enter in the register within three days of felling a tree:-
- (i) the number of each log;
 - (ii) the date felled; and
 - (iii) the species of tree.
- (c) The licensee shall correctly enter into the felling register by the last working day of the month following the month in which the tree was felled the following :-
- (i) the length of the log;
 - (ii) the circumference of the log measured at the midpoint underbark or the diameter measured twice at right angles at each end of the log;
 - (iii) the sound volume of each log after allowance has been made for defects in accordance with the standard procedures;
 - (iv) the royalty payable to the owner in respect of each log;
 - (v) the reforestation charge payable in respect of each log.
- (d) The licensee shall not later than 7 days following the events hereinbelow specified, enter in the register the following:-
- (i) the date on which each log was removed from the owner's property;
 - (ii) if the log was sawn up in Vanuatu, the date of sawing;
 - (iii) if the log was exported from Vanuatu, the date of export.
- (e) The licensee shall hammer mark the number of each log on both ends thereof and shall hammer mark the number of all logs cut from a tree the stump of each tree felled, not later than the next working day after the tree has been felled.
- (f) The licensee shall produce the felling register to any forest officer when requested to do so.

- (g) The licensee shall as soon as practicable and not later than 90 days after felling, remove all logs from the land of the owner except logs that are unmerchantable because of some defects exceeding fifty per cent of the volume.
- (h) The licensee shall not fell any tree of any species designated by the Director on the licence as a reserved species.
- (i) The licensee shall not fell any tree marked or branded by any forest officer as a seed tree.
- (j) The licensee shall cut such minimum volume of logs in each year that the licence is current as is specified in the agreement made between him and the owner of the land.
- (k) The licensee shall pay to the Director all reforestation charges payable on timber felled in any month by the last working day of the following month.
- (l) The licensee shall comply with the labour laws of Vanuatu.

6. BANKER'S GUARANTEE.

The Banker's guarantee shall be in the form of the fifth schedule.

7. DEDUCTION FROM GUARANTEE.

Where any reforestation charge or penalty imposed by the Director under s.18(1) of the Act, is not paid within 30 days of a demand in writing by the Director, the Director may deduct an amount equal to such charge or penalty from the guarantee.

8. LICENSE TO BE SUSPENDED IF GUARANTEE IS EXHAUSTED.

If a banker's guarantee is exhausted, the Director shall suspend the licence until the banker's guarantee is restored to the amount imposed by the Director under s.14(2) of the Act.

9. REPORT OF OPERATIONS.

(1) Within one month of the date of issue of the licence and before the 31st of January in each calendar year thereafter the licence shall submit to the Director report of operations carried out in the current year in the form of the sixth schedule.

(2) The licensee shall also submit to the Director before the 31st day of January, 30th day of April, 31st day of July, and the 31st day of October in each year a report of operations carried out in the preceding quarter and a plan of operations to be carried out in the proceeding quarter

in the form of the sixth schedule.

10. EXEMPTION FROM TIMBER LICENCE.

Every application for exemption from the requirement to obtain a timber licence for the utilization operation shall be in the form of the first schedule.

11. REFORESTATION CHARGES.

- (1) The reforestation charge provided for in s.28 of the Act shall be fifty per cent of the market value at stump of the timber sold cut or utilized as the case may be.
- (2) A rebate of thirty percent of the charge on each log may be credited to licensee who paid the charge on proof of the log being sawn in Vanuatu to produce at least one right angle.

12. REGISTRATION OF SAWMILLS.

- (1) An application for registration or renewal of a sawmill registration under s.19 of the Act shall be in the form of the seventh schedule, and shall be accompanied with the appropriate fee.
- (2) The annual fee for the registration or renewal of registration of a sawmill shall be VT 5,000.
- (3) The Registration Certificate of a sawmill shall be in the form of the eighth schedule.
- (4) The Director shall cause the particulars of registration of sawmills to be entered in a register in the form of the ninth schedule.
- (5) The registration or renewal of registration of every sawmill shall expire on the 30th day of June next after it takes effect.

13. RETURNS BY SAWMILLERS.

- (1) The form contained in schedule ten is prescribed for the purpose of subsections (4) and (5) of s.19 of the Act.
- (2) The form shall be duly completed in respect of each calendar month and delivered to the nearest Forest Officer within 14 days after the end of the month to which it relates.

14. CLEARING OPERATIONS

- (1) Where the Minister manages or controls land pursuant to s.21 of the Act, he may enter into a lease with the owner's thereof in the form of the eleventh schedule.
- (2) Every direction given by the Director in relation to clearing operations pursuant to s.22 of the Act shall be in the form of the twelfth schedule.

PART 3 - UTILIZATION OF COCONUT TIMBER

15. APPLICATION OF PART 2

The provisions of Part 2 of this Order shall apply to this Part except sections 3, 4, 5 and 11.

16. FORM OF AGREEMENT FOR COCONUT TIMBER UTILIZATION OPERATION

Every agreement between an applicant and an owner of coconut trees shall be in the form of the Thirteenth Schedule and shall contain a boundary description and map sufficiently accurate to be acceptable to the Director.

17. FORM OF COCONUT TIMBER LICENCE

A coconut timber licence issued under the Act shall be in the form of the Fourteenth Schedule.

18. CONDITIONS OF COCONUT TIMBER LICENCE

A coconut timber licence shall be issued subject to the following conditions :-

- (a) The licence shall only be for utilization operations carried out on land in respect of which agreements made in accordance with the Order subsist;
- (b) The licence shall keep a separate record for each agreement and shall within three days of felling any coconut tree enter
 - (i) the number of coconut trees felled.
 - (ii) the number of merchantable stems produced.
 - (iii) the date they were felled.
- (c) The licence shall correctly enter into the record by the last working day of the month following the month in which the coconut trees were felled the following
 - (i) the royalty payable to the owner of the coconut trees.
 - (ii) the reforestation charge payable.
- (d) The licensee shall produce the record to any forest officer when requested to do so.
- (e) The licensee shall as soon as practicable and not later than 90 days after felling:
 - (i) remove all merchantable logs from the property of the land owner.
 - (ii) cut up and pile or burn all unmerchantable logs.

- (f) The licensee shall cut such minimum volume of logs in each year that the licence is current as is specified in the agreement made between him and the owner of the coconut trees.
- (g) The licensee shall pay to the Director all reforestation charges payable on merchantable coconut timber felled in any month by the last working day of the following month.
- (h) The licensee shall comply with the labour laws of Vanuatu.

19. REFORESTATION CHARGES

- (1) The reforestation charge provided for in s.28 of the Act shall be ten percent of the market value at stump of all merchantable coconut trees.
- (2) No reforestation charge shall be payable on any unmerchantable coconut trees.

PART 4 - PERMIT TO CUT UP TO TEN TREES

20. PERMIT TO CUT UP TO TEN TREES

A permit to cut up to ten trees may be issued by a Forest Officer to a holder of a valid timber or coconut timber licence on land which is not currently subject to a utilization operation agreement under this Order provided that the trees to be cut are either:

- (i) liable to fall down and damage any building, structure, or garden spoil a surrounding area; or
- (ii) required to be removed from land already being cleared for agricultural purposes; or
- (iii) required to be removed for the purpose of widening realigning or extending permanent roads.

21. FORM DURATION AND FEE OF PERMIT

- (a) A permit issued under this part shall be in the form of the fifteenth schedule and shall be valid for, and the operation carried out pursuant to it shall be completed within 30 days of the date of its issue.
- (b) The fee for the permit shall be 2,000 Vatu.

PART 5 - EXPORT OF LOGS

22. No person may assemble logs for export without first having obtained a Log Export Permit.

23. No person may export logs without permission from the Director.
24. All applications for Log Export permits shall be in the form of the Sixteenth Schedule.
25. A log export permit shall be in the form of the Seventeenth Schedule.
26. The fee for a Log Export Permit shall be 10 vatu per m3 that the applicant intends to export as shown in the Sixteenth Schedule.
27. The Director shall require the applicant to deposit 20 vatu for every intended cubic metre of logs to be exported against the cost of removing debris from the area where the logs are assembled prior to shipment.
28. The Director shall withhold permission to export logs until he is satisfied that the suppliers of the logs have been paid in full for all logs accepted by the Export Permit holder.

PART 6 - MISCELLANEOUS

29. REPEAL AND SAVINGS

- (a) The Forestry; (Orders) Order No. 32 of 1982 is hereby repealed.
- (b) All licences issued, licence applications made, licence exemptions granted, agreements executed and any other lawful act done under or pursuant to the Forestry (Orders) Order No. 32 of 1982 shall remain in force under the terms in which they were issued, made, granted, executed or done, under this Order.

30. COMMENCEMENT

This Order shall come into force on the date of its publication in the Gazette.

MADE at Port Vila this 17th day of February, 1984

JACK TUNGON HOPA
Minister of Agriculture,
Forestry and Fisheries

FIRST SCHEDULE

REPUBLIC OF VANUATU

DEPARTMENT OF FORESTRY

APPLICATION FOR EXEMPTION FROM THE REQUIREMENT
TO OBTAIN A TIMBER LICENCE

Name of person who intends to carry out utilization operations:

Address of person who intends to carry out utilization operations:

Name and Address of Owner of Land on which utilization operation is to be carried out:

Location of Land on which utilization operation are to be carried out:

Type of utilization operation to be carried out:

Proposed commencement date:

Proposed completion date:

Maximum volume or quantity of timber to be cut:

(a) in any year of operation

(b) in total

Species of timber to be cut:

Signature: *

Date: / / .

SECOND SCHEDULE
REPUBLIC OF VANUATU
DEPARTMENT OF FORESTRY

Agreement Between
(A person who intends to apply for or extend a Timber Licence).

and
(The owners of the land on which utilization operations are to be carried out).

This Agreement is made the day of19

between
.....(owners of the land).

and(Applicant).

1. The owners of the land agree to allow the applicant to cut trees of the following species.

.....
.....
.....
.....
.....

which are above a circumference of metres when measured at 1.30m above the ground, on the land of the owner situated at on land title as described in the boundary description and map attached to the agreement commencing on the day of 19..... and finishing on the day of 19.....

2. The applicant agrees:-

a) To pay the owner of the land royalty at the following rates:

For speciesVT per m3.

For speciesVT per m3.

For speciesVT per m3.

For speciesVT per m3.

To be calculated on the sound roundwood volume under bark.

b] (i) To make payment of royalty at for every sound tree felled, on or before the last working day of the month following the month in which the tree was felled.

(ii) At the end of five years from the date of this agreement where the Agreement is still subsisting, the owner may by registered letter where possible serve notice on the applicant not less than three months before the end of the said five year period, of proposed new royalty rates. Upon receipt of this notice, the applicant shall within one month thereafter serve a counter notice on the owner indicating his acceptance or refusal of the new rates.

(iii) An agreement between the owner and the applicant, as to the new rates shall be in writing signed by both parties and attached to this document as part of it.

(iv) If such agreement has not been made within three months after a notice has been served on the applicant, the matter will be referred to the Director of Forestry as arbitrator whose decision will be binding on both parties.

c] To pay the owner of the land not less thanVT in each year of the agreement, or for the period of the agreement if less than a year, whether or not that amount of royalty is payable. This payment shall be made in advance, within 14 days of approval of this agreement. Subsequent payments shall be made on the anniversary of the approval of this agreement.

d] To cut only trees of the species shown in Paragraph 1.

e] To cut only trees above the circumference shown in Paragraph 1.

f] To fully utilize all timber cut (i) up to 50% log defect (ii) down to 2.4 metres in length and (iii) down to 40 centimetres centre diameter.

g] To cut not more thanm3 and not less than m3 of logs on the land of the owner in every 12 months of the licence, or for the period of the agreement if less than 12 months.

h] Not to cut any fruit or food trees and to seek the permission of the owner of the land in writing before cutting any of the following species.

.....
.....
.....
.....
.....
.....
.....

i] To pay damages in the form of cash compensation or as otherwise may be agreed by both parties to the owner or occupier of the land, as the case may be, in the event of the following:

- (i) Damage to existing roads;
- (ii) Damage to fences (including wire, posts or gates)
- (iii) Pasture space lost due to excessive logging debris;
- (iv) Pollution or siltation to water for human or animal consumption;
- (v) Damage to food trees or gardens planted by the owner or occupier of the land;
- (vi) Cost of labour and equipment employed to recover cattle escaped due to damage to fences or action of the logging company.
- (vii) Other damage to the property of the owner or occupier of the land through deliberate action or negligence.

j] To give the owner free access to felling register or other records of trees removed from the area of operations.

k] To apply sound logging practices to minimise environmental disturbance and minimise damage to the remaining timber stand.

3. a] The applicant agrees that the logs, and any timber cut from them, remain the property of the owner until royalty has been paid on said logs pursuant to paragraph 2(a) and (b).

b] The applicant further agrees that no money resulting from a letter of credit-in payment for said logs shall be used for any other purpose until all royalties have been paid to the owner, and by means of a copy of this document to so instruct his bank.

4. The applicant agrees to comply with the attached special conditions numbered

5. The owners of the land and the applicant agree that in the event of any dispute between them arising from this agreement the matter shall be referred to for arbitration.

6. The owners of the land and the applicant agree that the boundaries of the logging areas are to be marked conspicuously on the ground prior to the commencement of utilization operations. This marking shall be carried out by the owner/applicant.

7. If the applicant does not compensate the owner or occupier of the land for any damage caused by him to the property of the owner or occupier of the land for any damage caused by him to the property of the owner or

occupier within 30 days of written notice to do so being delivered by the Department of Forestry, the amount agreed to or assessed by the arbitrator named in paragraph 3 may be deducted from the deposit or Banker's Guarantee and remitted to the owner or occupier as the case may be.

8. Notwithstanding paragraph 7, the owner of the land shall be entitled to claim against the applicant for damages caused by the said applicant.

9. The applicant shall ensure that persons employed or otherwise engaged by him to take timber for the purposes of this agreement do not contravene the conditions of this agreement.

Name of owner of Land
.....
.....
.....

Signature Date

Name of Witness

Signature Date

.....
Director of Forestry

Date / /19.....

NOTES

1. One signed copy of this agreement is to be written in the Bislama language.
2. This agreement is to be completed in the presence of a Forest Officer.
3. Three copies of this agreement and locality map must be forwarded to the Director, Department of Forestry within 30 days of Signing.
4. This agreement shall have no effect until approved by the Director.
5. Upon approval the Director will return one copy to the applicant and one copy to the owner of the land.
6. Any errors or deletions are to be initialled by all parties, liquid paper or "white out" correction fluid is not to be used.

I(Forest Officer) certify that I have explained this agreement to all parties concerned and that in my opinion they fully understand the rights and obligations attached to signing this agreement.

Signature

Position

Date

Special conditions attached to Agreement made the

between(owners of
the land), and(applicant),

on land situated at

1. Falling of trees and log extraction shall not be carried out within...metres of any existing gardens, dwellings or water supplies or rivers.

2. Seed trees fruit trees, shade trees or other trees marked with paint are not to be felled.

3. Care shall be taken in falling and skidding logs to avoid damage to remaining trees.

4. Whitewood and Milktree logs shall be removed for processing as soon as practicable after felling.

5. The land owner reserves the right to stop operations in wet weather to minimise erosion damage to roads and tracks, subject to consultation with officers of the Department of Forestry.

6. Where sawmilling operations take place on the land sawdust and timber offcuts shall be separated and stacked neatly for later disposal.

7. Any litter such as old oil drums, scrap parts or tyres shall not be left on the area.

8. On the completion of operations log landings and sawmill sites shall be levelled to the satisfaction of the landowner.

9. A legume cover crop of shall be planted on log landings and sawmill sites to enrich and stabilize the soil.

10. The area shall be worked in sections as shown on the attached map. Logging of each section will be completed to the satisfaction of the landowner before falling starts on any unlogged section.

11. The logged area shall be replanted with trees of.....(species) at a stocking of trees per hectare (a spacing of ...m x ...m), the location of planting to be agreed on before logging commences and detailed on the attached map.

12. The company shall be responsible for all costs of initial establishment of the planting programme, care and maintenance of the plantations for the duration of the logging project as specified in the company's project proposal.

13. All weather roads, to be surfaced with coral, and logging tracks shall be located and constructed to specified standards as shown on the attached map.

14. The landowner reserves the right to require improvement or repair of roads to allow continued access when logging operations are completed.

15. Royalty payments shall be made into account No.....
of at
on or before the last day of the month following the month
in which trees were felled.

16. Logging operations are to commence
day/month/year

This contract shall be rendered void if operations do not commence by this date.

Additional Conditions

Name of owner of Land

Signature Date

Name of Applicant

Signature Date

.....
Director of Forestry

Date / / 19.....

THIRD SCHEDULE

REPUBLIC OF VANUATU

DEPARTMENT OF FORESTRY

APPLICATION FOR A TIMBER LICENCE

Name and address of applicant:

Name and address of owner(s) of land on which utilization operations are to be carried out:

Date(s) of approval by Director of contract(s) with owner(s):

Area of utilization operations under licence:

Island: Description of area:

Species to be cut:

Maximum volume to be cut under the licence (Log Volume):

Maximum volume to be cut in each year (Log volume):

Proposed date of commencement:

Proposed date of completion:

Location and address of sawmill at which logs are to be sawn:

Type of timber to be used and anticipated markets:

Equipment to be used - (a) For Logging:
(b) For Sawing:

State if equipment to be used is presently owed or leased by the applicant:

Applicants financial resources:

Name of Applicant's Bankers:

Signature of Applicant.

FOURTH SCHEDULE
REPUBLIC OF VANUATU
DEPARTMENT OF FORESTRY
TIMBER LICENCE

THIS LICENCE is granted to _____ (company) _____ (Director)
of _____ (address) for the
purpose of cutting _____ (type of produce) on land
belonging to persons with whom the licensee has entered into agreements
which have been approved by the Director pursuant to section 11(1) of the
Act, on the island of _____, for the period commencing on
the _____ day of _____ 19 _____ and ending on
the _____ day of _____ 19 _____ .

Maximum volume of timber, log volume,
to be cut under this licence: m3.

Minimum volume of timber, log volume
to be cut in each calendar year of this
licence: m3.

Location and address of sawmill at which
timber under this licence is to be sawn:

Amount of Banker's guarantee to be established: Vt

Reforestation charge for the year to
31st December next after date of issue: Vt

Minimum sum payable as reforestation
charge for the year to 31st December
next after date of issue: Vt

Signature of Minister

Date of Issue.

Notes: 1. The Banker's guarantee referred above must be
established within 30 days of the date of issue of this
licence otherwise the licence shall be null and void.

2. The reforestation charge and the minimum sum
payable as reforestation charge for each calendar year
of the licence commencing the first day of January next
after date of issue of this licence shall be fixed by
the Minister at the commencement of each such year.

Conditions of Licence Prescribed by Order

Paragraphs 5, 6, 7, 8, and 9 to be transcribed here.

Conditions of Licence Imposed by the Director

In addition to the foregoing conditions the Director hereby imposes the following conditions in respect of this licence :-

FIFTH SCHEDULE

REPUBLIC OF VANUATU

DEPARTMENT OF FORESTRY

Constitution Chapter 12 -Land-

CONSTITUTION

- (b) make provision for the detention of a person without trial for more than 1 month unless such person is an enemy alien.
- (2) Regulations made by the Council of Ministers in accordance with Article 69 shall be such as are reasonably necessary in the circumstances of the emergency to which they relate and as are justifiable in a democratic society.

COMPLAINTS TO SUPREME COURT CONCERNING EMERGENCY REGULATIONS

- 72. Any citizen aggrieved by reason of regulations made by the Council of Ministers in accordance with Article 69 may complain to the Supreme Court which shall have jurisdiction to determine the validity of all or any of such regulations.

CHAPTER 12

LAND

LAND BELONGS TO CUSTOM OWNERS

- 73. All land in the Republic of Vanuatu belongs to the indigenous custom owners and their descendants.

BASIS OF OWNERSHIP AND USE

- 74. The rules of custom shall form the basis of ownership and use of land in the Republic of Vanuatu.

PERPETUAL OWNERSHIP

- 75. Only indigenous citizens of the Republic of Vanuatu who have acquired their land in accordance with a recognised system of land tenure shall have perpetual ownership of their land.

NATIONAL LAND LAW

- 76. Parliament, after consultation with the National Council of Chiefs, shall provide for the implementation of Articles 73, 74 and 75 in a national land law and may make different provision for different categories of land, one of which shall be urban land.

COMPENSATION

- 77. Parliament shall prescribe such criteria for the assessment of compensation and the manner of its payment as it deems appropriate to persons whose interests are adversely affected by legislation under this Chapter.

DISPUTES

- 78. (1) Where, consequent on the provisions of this Chapter, there is a dispute concerning the ownership of alienated land, the Government shall hold such land until the dispute is resolved.
- (2) The Government shall arrange for the appropriate customary institutions or procedures to resolve disputes concerning the ownership of custom land.

LAND TRANSACTIONS

- 79. (1) Notwithstanding Articles 73, 74 and 75 land transactions between an indigenous citizen and either a non-indigenous citizen or a non-citizen shall only be permitted with the consent of the Government.
- (2) The consent required under subarticle (1) shall be given unless the transaction is prejudicial to the interests of—
 - (a) the custom owner or owners of the land;
 - (b) the indigenous citizen where he is not the custom owner;

CONSTITUTION

- (c) the community in whose locality the land is situated; or
- (d) the Republic of Vanuatu.

GOVERNMENT MAY OWN LAND

80. Notwithstanding Articles 73 and 74 the Government may own land acquired by it in the public interest.

REDISTRIBUTION OF LAND

81. (1) Notwithstanding Articles 73 and 74 the Government may buy land from custom owners for the purpose of transferring ownership of it to indigenous citizens or indigenous communities from over-populated islands.
- (2) When redistributing land in accordance with subarticle (1), the Government shall give priority to ethnic, linguistic, customary and geographical ties.

CHAPTER 13

DECENTRALISATION

LEGISLATION FOR DECENTRALISATION

82. The Republic of Vanuatu, conscious of the importance of decentralisation to enable the people fully to participate in the government of their Local Government Region, shall enact legislation necessary to realize that ideal.

LOCAL GOVERNMENT COUNCILS

83. The legislation shall provide for the division of the Republic of Vanuatu into Local Government Regions and for each region to be administered by a Local Government Council on which shall be representatives of custom chiefs.

CHAPTER 14

AMENDMENT OF THE CONSTITUTION

BILLS FOR AMENDMENT OF CONSTITUTION

84. A bill for an amendment of the Constitution may be introduced either by the Prime Minister or any other member of Parliament.

PROCEDURE FOR PASSING CONSTITUTIONAL AMENDMENTS

85. A bill for an amendment of the Constitution shall not come into effect unless it is supported by the votes of no less than two-thirds of all the members of Parliament at a special sitting of Parliament at which three-quarters of the members are present. If there is no such quorum at the first sitting, Parliament may meet and make a decision by the same majority a week later even if only two-thirds of the members are present.

AMENDMENTS REQUIRING SUPPORT OF REFERENDUMS

86. A bill for an amendment of a provision of the Constitution regarding the status of Bislama, English and French, the electoral system, or the parliamentary system, passed by Parliament under Article 85, shall not come into effect unless it has been supported in a national referendum.

Land Leases

LAWS OF THE REPUBLIC OF VANUATU

REVISED EDITION 1988

CHAPTER 163

LAND LEASES

Act 4 of 1983
Act 32 of 1985
Act 10 of 1987

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LAND LEASES

To provide for the creation and disposition of leases of land, for their registration and for matters connected therewith.

PART I

PRELIMINARY

INTERPRETATION

1. In this Act unless the context otherwise requires—

“Act” means the Land Reform Act, Cap. 123;

“corporation” means any body corporate whether incorporated in Vanuatu or elsewhere;

“the Court” means the Supreme Court;

“dealing” includes disposition and transmission;

“Director” means the Director of Land Records appointed under section 3;

“disposition” means any act *inter vivos* by a proprietor whereby his rights in or over his registered lease, sublease or mortgage are affected, but does not include an agreement to transfer, sublease or mortgage;

“easement” means a right attached to the land comprised in a registered lease which allows the proprietor thereof to either use the land comprised in another registered lease in a particular manner or to restrict its use to a particular extent, but does not include a profit;

“encumbrance” means a liability to which a registered lease is subject and includes a sublease, mortgage, easement, restrictive agreement and a profit;

“file” means place in the relevant parcel file;

“guardian” means a person who, according to law, is empowered to act on behalf of a person who is incapable, by reason of mental infirmity, of so acting;

“improvements” includes the reclaiming of land from the sea, clearing levelling or grading of land, drainage or irrigation of land, reclamation of swamps, surveying and making boundaries, erection of fences of any description, landscaping of land, planting of long-lived crops, trees or shrubs, laying-out and cultivation of nurseries, buildings and structures of all descriptions which are in the nature of fixtures, fixed plant and machinery, roads, yards, gates, bridges, culverts, ditches, drains, soakaways, cesspits, septic tanks, water tanks, water, power and other reticulation systems, dips and spray races for livestock;

“instrument” includes any deed, judgment, decree, order or other document requiring or capable of registration under this Act;

“interest” in relation to land includes a lease, sublease, mortgage, easement, restrictive agreement and profit; and “person interested” has a corresponding meaning;

“land” includes land above the mean high water mark, all things growing on land and buildings and other things permanently affixed to land but does not include any minerals (including oils and gases) or any substances in or under land which are of a kind ordinarily worked for removal by underground or surface working;

“Land Leases Register” means the Land Leases Register established under section 4;

“lease” means the grant with or without consideration, by the owner of land of the right to the exclusive possession of his land, and includes the right so granted and

- the instrument granting it, and also includes a sublease but does not include an agreement for lease;
- “lessee” means the proprietor of a lease or his successor in title;
- “lessor” means the person who has granted a lease or his successors in title;
- “licence” means a permission by the proprietor of a registered lease which allows the licensee to do some act in relation to that lease which would otherwise be a trespass but does not include an easement or a profit;
- “mortgage” means an interest in a registered lease given as security for the payment of money or money’s worth, and includes a sub-mortgage and the instrument creating a mortgage;
- “parcel” means an area of land separately delineated by a survey plan prepared by or under the direction of the Director of Surveys;
- “periodic tenancy” means a tenancy from year to year, half year to half year, quarter to quarter, month to month, week to week or the like;
- “personal representative” means the executor of a will or administrator of an estate;
- “profit” means the right to go on land comprised in a registered lease held by another and take a particular substance from that land whether it is the soil or products of the soil and includes the taking of wild animals;
- “proprietor” means:
- (a) in relation to a registered lease the person named in the register as the proprietor thereof; and
 - (b) in relation to a mortgage of a registered lease the person named in the register as the person in whose favour the mortgage is made;
- “the register” means the leaf of the Land Leases Register kept in respect of a registered lease;
- “to register” means to make an entry in the Land Leases Register under this Act and “registered”, “unregistered” and “registration” shall be construed accordingly;
- “registrable”, in relation to an instrument, means required to be registered or capable of registration under this Act;
- “Referee” means the Lands Referee appointed under the Lands Referee Act Cap. 148;
- “statutory trusts” means the trusts declared by section 91;
- “survey plan” means the plan prepared under section 10;
- “transfer” means the passing of an interest by act of the parties and not by operation of law and also the instrument by which such passing is effected;
- “transmission” means the passing of an interest from one person to another by operation of law on death or insolvency or otherwise howsoever;
- “trust” means any settlement, disposition, act of delivery, declaration, acknowledgment or conduct by which a person (known as trustee) holds or has vested in him property (which is called trust property) for the immediate, prospective, contingent or conditional benefit of a beneficiary or beneficiaries (being a person or persons, whether living or unborn or being a lawful purpose or object) but shall not include a unit trust, or other collective investment scheme;
- “valuable consideration” includes marriage, but does not include a nominal consideration;
- “will” includes a codicil and any other testamentary instrument.

PART II

LAND RECORDS OFFICE AND DIRECTOR'S POWERS

LAND RECORDS OFFICE

2. There shall be maintained in Port Vila a Land Records Office in which shall be kept—
- (a) a register to be known as the Land Leases Register;
 - (b) parcel files containing the instruments and certified copies of survey plans which support entries in the register;
 - (c) a book to be known as the presentation book, in which there shall be kept a record of all applications numbered consecutively in the order in which they are presented to the Land Records Office;
 - (d) an index, in alphabetical order, of the names of the proprietors of registered leases showing the numbers of the titles in which they are interested; and
 - (e) an index, in alphabetical order, and file of powers of attorney.

APPOINTMENT OF DIRECTOR AND OTHER OFFICERS

3. (1) There shall be appointed a Director of Land Records who shall perform the duties and exercise the powers given to him by this Act and who shall be responsible for administering the Land Records Office in accordance with this Act.
- (2) There may be appointed a Deputy Director of Land Records and such other officers as may be necessary for carrying out the provisions of this Act.
- (3) The Deputy Director shall have all the powers and may perform all or any of the duties conferred or imposed on the Director by this Act or by any orders made thereunder.
- (4) The Director may in writing authorise any other officer appointed under subsection (2) to exercise or to perform any of the powers or duties conferred on the Director by this Act or by any orders made thereunder, and may at any time revoke or vary any such authorisation.
- (5) The Director, Deputy Director and every other officer who shall be appointed pursuant to this section shall be public officers.

THE LAND LEASES REGISTER

4. (1) The Land Leases Register shall comprise a register maintained in both the English and French languages in respect of each lease required to be registered by this Act.
- (2) Each register shall be divided into three sections as follows—
- (a) the property section, containing a brief description of the lease together with particulars of its appurtenances; and
 - (b) the proprietorship section, containing the name, postal address in Vanuatu of the proprietor and a note of any caution or restriction affecting his right of disposition; and
 - (c) the encumbrances section, containing a note of every encumbrance affecting the lease required by this Act or any other law, to be registered.

MANNER OF REGISTRATION

5. Registration shall be effected by an entry in the register in such form as the Director may from time to time direct and by the cancellation of the entry, if any, which it replaces.

NEW EDITIONS OF REGISTER

6. The Director may at any time open a new edition of a register showing only subsisting entries and omitting therefrom all entries which have ceased to have any effect.

CANCELLATION OF OBSOLETE ENTRIES

7. The Director may cancel any entry in the register which he is satisfied has ceased to have any effect.

GENERAL POWERS OF DIRECTOR

8. The Director may exercise the following powers in addition to any other powers conferred on him by this Act—
- (a) he may require any person to produce any instrument or other document or plan relating to the registered interest and that person shall produce the same;
 - (b) he may summon any person to appear and give any information or explanation respecting a registered interest, and such person shall appear and give such information or explanation;
 - (c) he may refuse to proceed with any registration if any instrument, or other document, or plan, information or explanation required to be produced or given is withheld or any act required to be performed under this Act is not performed;
 - (d) he may administer oaths or take a declaration in lieu thereof, and may require that any proceeding, information or explanation affecting registration shall be verified on oath or by declaration;
 - (e) he may order that the costs, charges and expenses incurred by him or by any person in connection with any investigation or hearing held by him for the purposes of this Act shall be borne and paid by such persons and in such proportions as he may think fit;
 - (f) he may, at his discretion, dispense, with the production of any signature, or the supply of any information or any advertisement or notice required by this Act; and
 - (g) he may state any case or reserve any question for consideration by the Court.

INDEMNITY OF OFFICERS

9. The Director shall not, nor shall any other officer of the Land Records Office, be liable to any action or proceedings for or in respect of any act or matter done or omitted to be done in good faith in the exercise or intended exercise of his powers under this Act or any order made thereunder.

PART III**PLANS, COMBINATION AND SUBDIVISION AND PARTY WALLS****LAND SURVEY PLANS**

10. (1) The Director of Land Surveys upon application, and on payment of the prescribed fee, shall prepare or cause to be prepared in respect of each parcel, the subject of a lease required to be registered a survey plan, the original copy of which shall be retained by him, and certified copies of which signed by the parties to the instruments shall be attached to the original instrument of lease to be presented for registration and to the copies of the instrument to be retained by the lessor and the lessee.
- (2) The plan shall bear a distinguishing number and shall be referenced to the cadastral plan.

CORRECTION OF LAND SURVEY PLANS

11. If it appears to the Director that there is any error in a survey plan he may, after taking such steps as he thinks fit to bring to the notice of any person shown by the register to be interested his intention so to do and giving every such person an opportunity to be heard, require the Director of Land Surveys to correct the error:

Provided that the Director may without such notice, require the Director of Land Surveys to correct the survey plan whenever such correction does not materially affect the interest of any person.

COMBINATION AND SUBDIVISION

12. (1) Where registered leases granted by the same lessor, free from any registered encumbrances other than the agreements and liabilities contained or implied in the lease, of contiguous parcels are held by the same proprietor, upon application by him accompanied by a surrender of the existing leases in the prescribed form and a new lease in the prescribed form the Director shall effect combination by closing the register relating to the surrendered leases and opening a new register in respect of the new lease.
- (2) Subject to section 49(2) upon application by the proprietor of a registered lease for the division of the land comprised in his lease into two or more parcels accompanied by a surrender of the existing lease in the prescribed form and new leases in the prescribed form the Director shall effect the division by closing the register relating to the surrendered lease and opening new registers in respect of the new leases resulting from the division:

Provided that—

- (a) a proprietor of a lease shall not be entitled to subdivide the land comprised in his lease without the written consent of the Director of Land Surveys;
- (b) any person aggrieved by a decision of the Director of Land Surveys refusing consent under paragraph (a) may appeal to the Court which may make such order as it thinks just.

PARTY WALLS

13. (1) Where any wall or structure lies along the boundary of two parcels which are comprised in separate registered leases, that wall or structure shall be deemed to be severed vertically in two and the land comprised in each lease shall include the appropriate vertical part thereof.
- (2) Either of the two proprietors of the leases may apply to the Director for the registration of the wall or structure as a party wall or party structure; and the Director may, after giving notice of the application to the other proprietor and affording him an opportunity to be heard, register it as such.
- (3) Where a wall or structure is registered as a party wall or party structure, each proprietor shall have such rights to support and use over the part thereof which is not comprised in his parcel as may be requisite.

PART IV

EFFECT OF REGISTRATION

INTEREST CONFERRED BY REGISTRATION

14. Subject to the provisions of this Act, the registration of a person as the proprietor of a lease shall vest in that person the leasehold interest described in the lease together with all implied and expressed rights belonging thereto and subject to all implied and expressed agreements, liabilities and incidents of the lease.

RIGHTS OF PROPRIETOR

15. The rights of a proprietor of a registered interest, whether acquired on first registration or subsequently for valuable consideration or by an order of the Court shall be rights not liable to be defeated except as provided in this Act, and shall be held by the proprietor together with all rights, privileges and appurtenances belonging thereto, free from all other interests and claims whatsoever, but subject—

- (a) to the encumbrances and to the conditions and restrictions shown in the register;
- (b) unless the contrary is expressed in the register, to such of the liabilities, rights and interests as are declared by this Act not to require registration and are subsisting:

Provided that nothing in this section shall be taken to relieve a proprietor from any duty or obligation to which he is subject as trustee.

VOLUNTARY TRANSFER

16. Every proprietor who has acquired a registered interest by transfer without valuable consideration, shall hold it subject to any unregistered rights or interests subject to which the transferor held it and subject also to the provisions of any law relating to bankruptcy or the winding up of companies, but save as aforesaid, such transfer shall in all respects have the same effect as a transfer for valuable consideration.

OVERRIDING INTERESTS

17. Unless the contrary is expressed in the register, the proprietor of a registered lease shall hold such lease subject to such of the following overriding liabilities, rights and interests as may, for the time being, subsist and affect the same, without their being noted on the register—

- (a) rights of way, rights of water, easements and profits subsisting at the time of first registration of that lease under this Act;
- (b) natural rights of light, air, water and support;
- (c) rights to sites of trigonometrical stations and navigational aids conferred by any law;
- (d) rights of compulsory acquisition, resumption, entry, search and user conferred by any law;
- (e) the interest of a tenant in possession under a sublease for a term of not more than 3 years or under a periodic tenancy;
- (f) any charge for unpaid rates or other moneys, which, without the condition of registration under this Act, are expressly declared by law to give rise to a charge on land;
- (g) the rights of a person in actual occupation of land save where enquiry is made of such person and the rights are not disclosed; and
- (h) rights and powers relating to electric supply lines, telegraph and telephone lines or poles, pipelines, aqueducts, canals, weirs, dams, roads and ancillary works conferred by any law:

Provided that the Director may direct registration of any of the liabilities rights and interests hereinbefore defined in such manner as he may think fit.

ENTRIES TO CONSTITUTE ACTUAL NOTICE

18. Every proprietor acquiring any registered interest shall be deemed to have had notice of every entry in the register relating to the interest and subsisting at the time of acquisition.

PART V

SEARCHES AND CERTIFIED COPIES

SEARCHES

19. Any person upon application in the prescribed form and upon payment of the prescribed fee, may search any register or parcel file or both during the hours of public business.

CERTIFIED COPIES OF REGISTERS AND DOCUMENTS

20. On application in the prescribed form and on payment of the prescribed fee, the Director shall furnish to any person a copy of any register, plan, filed instrument or document certified by the Director to be a true copy.

EVIDENCE

21. (1) Every document purporting to be signed by the Director shall, in all proceedings be presumed to be so signed until the contrary is proved.
- (2) Every copy or extract from a document certified by the Director to be a true copy or extract shall, in all proceedings, be received as prima facie evidence of the contents of the document.
- (3) Every entry or note in or on any register shall, subject to the provisions of sections 99 and 100, be received in all proceedings as conclusive evidence of the matter or transaction which it records.
- (4) No process for compelling the production of the register or of any filed instrument, plan or document shall issue from the Court except with the leave of the Court which leave shall not be granted if a certified copy will suffice and any such process, if issued, shall bear thereupon a statement that it is issued with the leave of the Court.

PART VI

DISPOSITIONS—GENERAL

INSTRUMENTS INEFFECTUAL UNTIL REGISTERED

22. (1) No registered lease or mortgage shall be capable of being created or disposed of except in accordance with this Act. Every attempt to create or dispose of a registered lease or mortgage or to create, extinguish, transfer, vary or affect, any right or interest in a registered lease or mortgage otherwise than in accordance with this Act shall be ineffectual to create, or dispose of a registered lease or mortgage or to create, extinguish, transfer, vary or affect any right or interest in the lease or mortgage.
- (2) Subject to the provisions of subsection (3) every instrument creating or disposing of a registered lease or mortgage shall be registered.
- (3) It shall not be necessary to register—
- (a) any lease for a period not exceeding 3 years unless it is required to be registered under section 35;
- (b) any transfer, mortgage, or other instrument disposing of any lease being a lease for a period not exceeding 3 years which is not registered or required to be registered under section 35;
- (c) any will;
- (d) any appointment of a personal representative;

- (e) any appointment of a trustee in bankruptcy or any receiving order in bankruptcy; or
 - (f) any order of a court unless the registration thereof or of the effect thereof is specifically required by this Act.
- (4) If requested so to do, the Director shall register such instrument as is mentioned in subsection (3)(d) or (e) and may register any other instrument mentioned in subsection (3) save a will which shall not be capable of registration.
- (5) Nothing in this section shall be construed so as to prevent any unregistered instrument from operating as a contract.
- (6) The death of any person by or on behalf of whom any instrument of dealing has been executed shall not affect the validity thereof and any such instrument may be presented for registration as if the death had not occurred.

PROTECTION OF PERSONS DEALING IN REGISTERED INTERESTS IN LAND

23. (1) No person dealing or proposing to deal for valuable consideration with a proprietor of a registered interest shall be required or in any way concerned—
- (a) to inquire or ascertain the circumstances in or the consideration for which such proprietor or any previous proprietor was registered; or
 - (b) to see to the application of any consideration or any part thereof; or
 - (c) to search any register kept under any previous law.
- (2) Where the proprietor of such an interest is a trustee, he shall in dealing therewith, be deemed to be the absolute proprietor thereof and no disposition by such trustee to a bona fide purchaser for valuable consideration shall be defeasible by reason of the fact that such disposition amounted to a breach of trust.

EXONERATION OF THE DIRECTOR

24. Where by this Act any person is exonerated from enquiring as to any matter of fact relating to a registered interest, or to a power of dealing therewith, or is protected from the effect of notice of any such matter or fact, then, in registering any instrument relating to that interest, the Director shall not be concerned to make any enquiry or search in relation to that interest which such person need not have made nor shall the Director be affected by any notice with which such person need not have been affected.

ADDITIONAL FEE FOR DELAYED REGISTRATION

25. Where an instrument is presented for registration more than 3 months after the date of the instrument, then as well as the registration fee an additional fee equal to the registration fee shall be payable.

POWER TO COMPEL REGISTRATION

26. (1) If he is satisfied that any person has failed to register any instrument which is required to be registered under this Act, the Director may by notice in writing order such person to present such instrument for registration and thereupon the registration fee, including any additional fee payable under section 25 shall become due and shall be payable whether the instrument is presented for registration or not.
- (2) Any person who without just cause fails to comply with an order of the Director under subsection (1) within 1 month of the service of the notice, shall be liable on conviction to a fine not exceeding VT500,000.

PRIORITY OF REGISTERED INSTRUMENTS

27. (1) Subject to section 28, interests appearing in the register shall have priority according to the order in which the instruments or applications which led to their registration were presented in registerable form to the Land Records Office, irrespective of the dates of the instruments or applications and notwithstanding that the actual entry in the register may be delayed.
- (2) All instruments or applications sent by post or under cover and received during the hours of business shall be deemed to have been presented simultaneously immediately before the closing of the office on that day.
- (3) Where more than one instrument or application are presented on the same day, or at so short an interval from each other that in the opinion of the Director there is doubt as to their order of priority, the Director may refuse registration until he has heard and determined the rights of the parties interested thereunder.

STAY OF REGISTRATION

28. (1) Any person proposing to deal for value with the proprietor of a registered interest may, with the consent in writing of such proprietor, and on stating the particulars of the proposed dealing, lodge with the Director an application for a stay of registration in the prescribed form.
- (2) If, as shown by the register, the proprietor is free to deal with his interest the Director shall make an order certifying that the proprietor is so free and staying registration of any instrument affecting the interest for 2 months from the date of the order, and such order shall be registered.
- (3) If, within the said period of 2 months, a properly executed instrument effecting the proposed dealing is lodged for registration such instrument shall have priority over any other instrument lodged for registration after the date of the order and shall be registered notwithstanding any caution lodged with, or any copy of a writ of execution or judgment decree or order of any court served on the Director after the date of the order.

MERGER OF REGISTERED INTERESTS

29. Where, upon the registration of a dealing, the interests of—
- (a) lessor and lessee; or
- (b) mortgagor and mortgagee; or
- (c) the proprietor of a lease which is burdened with an easement, profit or restrictive agreement and the proprietor of a lease which benefits therefrom,
- vest in the same proprietor, such interests shall not merge unless a surrender or discharge is registered or there is a declaration of merger which may be contained in the instrument evidencing the dealing.

CORPORATIONS

30. (1) In favour of any person dealing with a registered interest a corporation shall be deemed to have the same powers of acquisition and disposition as a natural person of full age and legal capacity.
- (2) This section shall apply to all corporations, whether sole or aggregate, whether created directly by Act, Order or otherwise, and notwithstanding any stipulation, restriction or qualification imposed in the constitution of the corporation or elsewhere.
- (3) Nothing in this section shall be held to diminish the personal liability of any individual or group of individuals controlling or responsible for the management of a corporation for acting in excess of its corporate powers.

- (4) Where a corporation holds a registered interest in a fiduciary capacity this section shall not be held to extend the powers of the corporation in respect of that interest nor otherwise to affect the liability of the corporation to the beneficiaries for acting in excess of these powers.
- (5) An application for registration of an instrument whereby a corporation acquires a registered interest shall be accompanied by such evidence of incorporation or such other evidence as the Director may require.

PART VII

LEASES

LEASES

31. Subject to the provisions of this Act and of any other law, the owner of land may lease the land or part of it to any person for a definite term.

TERM OF A LEASE

32. (1) A lease, shall not be granted for a term in excess of 75 years, and if granted for a lesser term with provision for extension shall not be capable of being extended beyond 75 years.
- (2) A lease granted in excess of, or extended beyond, such term, shall be deemed to be for a term of 75 years.

PERIODIC TENANCIES

33. (1) Where in any lease the term is not specified and no provision is made for the giving of notice to determine the tenancy, the lease shall be deemed to have created a periodic tenancy.
- (2) Where the owner of land or proprietor of a lease permits the exclusive occupation of the land or any part thereof by any other person at a rent but without any agreement in writing, that occupation shall be deemed to constitute a periodic tenancy.
- (3) The period of a periodic tenancy created by this subsection shall be the period by reference to which the rent is payable, and the tenancy may be determined by either party giving to the other notice, the length of which shall be not less than the period of the tenancy and shall expire on one of the days on which rent is payable.
- (4) No periodic tenancy shall be capable of registration but for the avoidance of doubt a periodic tenancy is hereby declared to be an interest for the purposes of section 93.

COMMENCEMENT OF LEASES

34. (1) Where the period of a lease is expressed as commencing on a particular day, that day shall be included in computing that period.
- (2) Where no day of commencement is named, the period shall be deemed to commence on the date of first execution of the lease, and that day shall be included in computing the period.
- (3) Where the period is a year or a number of years, in the absence of an express agreement to the contrary, the lease shall last during the whole anniversary of the day on which such period commences.

REGISTRATION OF LEASES

35. A lease for a term exceeding 3 years or which contains an option whereby the lessee may require the lessor to grant him a further term or terms which, together with the original term, exceeds 3 years shall be in the prescribed form and shall be completed by—
- (a) opening a register in respect of the lease in the name of the lessee; and
 - (b) filing the lease.

LESSOR'S CONSENT TO DEALING WITH LEASE

36. Upon the registration of a lease containing an agreement by the lessee that he will not dispose of the land leased or any part thereof or interest comprised therein without the written consent of the lessor, the agreement shall be noted in the register of the lease, and no dealing with the lease shall be registered until the written consent of the lessor verified in accordance with section 78 has been produced to the Director.

HOLDING OVER

37. (1) Where a person, having lawfully entered into occupation of any land as lessee, continues to occupy that land with the consent of the lessor after the determination of the lease, he shall, subject to any written law and in the absence of any evidence to the contrary, be deemed to be a tenant holding the land on a periodic tenancy on the same conditions as those of the lease, so far as those conditions are appropriate to a periodic tenancy.
- (2) For the purposes of this section, the acceptance of rent in respect of any period after the determination of the lease shall, if the former tenant is still in occupation and subject to any agreement to the contrary, be taken as evidence of consent to the continued occupation of the land.

PURPOSE AND DEVELOPMENT CONDITIONS TO BE SPECIFIED

38. Every lease shall specify—
- (a) the purpose and use for which the land is leased; and
 - (b) the development conditions, if any.

RENT REVIEW

39. (1) Notwithstanding anything to the contrary contained in any lease, the rent reserved under all leases may be reviewed in accordance with the provisions of this section and in the following manner—
- (a) either the lessor or lessee as the case may be, may initiate the review by serving upon the other party a written notice to review;
 - (b) such notice shall specify:
 - (i) the proposed rent (hereinafter referred to as the "new rent"), and
 - (ii) the date from which the new rent is required to be paid, which date shall not be earlier than 5 years from any of the following events—
 - (a) the date of the lease; or
 - (b) the date of the last rent review under this section; or
 - (c) the date from which there took effect a direction from the Referee that the rent should continue unchanged;
 whichever is the later;
 and shall be served on the other party not less than 3 months before the date from which the new rent is required to be paid;
 - (c) The party upon whom the notice to review is served shall within 2 months from receipt of the notice:

- (i) signify in writing to the other party acceptance of the new rent; or
 - (ii) negotiate with the other party a written agreement for a new rent other than that proposed in the notice to review; or
 - (iii) serve a counter notice on the other party requesting that the Referee reviews the rent;
- (d) If the party upon whom a notice to review was served fails within the time specified in paragraph (c) to either signify his acceptance of the new rent or negotiate a written agreement for a new rent or serve a counter notice, in accordance with paragraph (c)(i), (ii) or (iii), as the case may be, the party who initiated the review may, within a period of 1 month thereafter, refer the rent to the Referee for review.
- (2) In reviewing the rent, the Referee shall have regard to the fair open market rental value of the land at the relevant review date as if the full term of the lease had yet to run and shall also have regard to all the terms, conditions and agreements of the lease (other than those relating to the rent) on the assumption that the environment of the leased land is in all respects as it is or may reasonably be expected to be as at the date from which the new rent is to become payable, but disregarding—
- (a) any effect on rent of the fact that the lessee or any person claiming through or under him is in occupation of the leased land; and
 - (b) the value of any improvements on or to the leased land made or carried out, or in respect of which valuable consideration was provided, by the lessee or his predecessors in title.
- (3) This section shall not apply to—
- (a) subleases;
 - (b) leases under which the sole consideration therefor is expressed to be a premium payable at the commencement of the lease;
 - (c) leases under which the rent is expressed to be an amount per annum determined by reference to the gross takings of an undertaking on the leased land except that any minimum rent reserved may be reviewed under this section.

AGREEMENTS IMPLIED IN LEASES ON THE PART OF THE LESSOR

40. Save as otherwise expressly provided in the lease and subject to any written law there shall be implied in every lease the following agreements by the lessor with the lessee binding the lessor—
- (a) that, so long as the lessee pays the rent and observes and performs the agreements and conditions contained or implied in the lease and on his part to be observed and performed, the lessee shall peaceably and quietly possess and enjoy the leased land during the period of the lease without any interruption from or by the lessor or any person rightfully claiming through him;
 - (b) not to use or permit to be used any adjoining or neighbouring land of which he is the owner or lessee in any way which would render the leased land unfit or materially less fit for the purpose for which it was leased;
 - (c) where part only of a building is leased, or where a dwelling house is leased and furnished, to keep the roof, main walls, main drains, the common passages and common installations in good repair;
 - (d) where any dwelling house, flat or room is leased furnished, that such house, flat or room is fit for habitation at the commencement of the tenancy;
 - (e) that if at any time the leased land or any part thereof is destroyed or damaged by earthquake, hurricane, cyclone, fire, civil commotion or accident not attributable to the negligence of the lessee, his servants or his licensees so as to render the

leased land or any part thereof wholly or partially unfit for occupation or use, the rent or a just proportion thereof according to the nature and extent of the damage sustained shall be suspended and cease to be payable until the leased land has again been rendered fit for occupation and use; but that if the leased land has not been so rendered fit for occupation and use within 6 months of its destruction or damage as aforesaid, the lessee may at his option, and on giving 1 month's written notice of his intention so to do, determine the lease; and

- (f) such other agreements as the Minister may have prescribed by Order prior to the execution of the lease.

AGREEMENTS IMPLIED IN LEASES ON THE PART OF LESSEE

41. Save as otherwise expressly provided in the lease and subject to any written law, there shall be implied in every lease the following agreements by the lessee with the lessor binding the lessee—

- (a) to pay the rent reserved by the lease at the times and in the manner specified therein;
- (b) to pay all rates, taxes and other outgoings which are at any time payable in respect of the leased land during the continuance of the lease unless the same are payable exclusively by the lessor by virtue of any law;
- (c) except where part only of a building is leased, or where a dwelling-house is leased furnished, to keep all buildings comprised in the lease and all boundary marks in good repair;
- (d) where part only of a building is leased or where a dwelling-house is leased furnished, to keep the leased land except the roof, main walls, main drains, the common passages and common installations in good repair;
- (e) where the lease is of furnished premises, to keep the furniture in as good a condition as it was at the commencement of the period, fair wear and tear only excepted, and to replace such articles as are lost, destroyed or so damaged as to be beyond repair with articles of equal value to those so lost, destroyed or damaged;
- (f) to permit the lessor or his agent with or without workmen or others at all convenient times and after reasonable notice to enter on the leased land and examine its condition;
- (g) to repair or otherwise make good any defect or breach of agreement for which the lessee is responsible and of which notice has been given by the lessor to the lessee, within such reasonable period as may be specified in the notice;
- (h) not to dispose of the leased land or any part thereof or interest comprised therein without the previous written consent of the lessor but such consent shall not be unreasonably withheld;
- (i) not to permit or suffer any part of the leased land to be used for any purpose other than that for which it was leased without the previous consent of the lessor but such consent shall not be unreasonably withheld;
- (j) on determination of the lease peaceably and quietly to deliver up vacant possession of the leased land and all improvements thereon; and
- (k) such other agreements as the Minister may have prescribed by Order prior to the execution of the lease.

MEANING OF "IN GOOD REPAIR"

42. Where an agreement is contained or implied in any lease to keep a building or a particular part of a building "in good repair", it shall, in the absence of an express provision to the contrary, mean in such a state of repair as that in which a prudent

owner might reasonably be expected to keep his property, due allowance being made for the age, character and locality of the building or such part thereof at the commencement of the lease:

Provided that there shall not be read into such an agreement any undertaking to put any building into a better state of repair than that in which it was at the commencement of the lease.

LESSOR'S RIGHT OF FORFEITURE

43. (1) Subject to the provisions of section 45 and to any provision to the contrary in the lease, the lessor shall have the right to forfeit the lease if the lessee commits any breach of, or omits to perform any agreement or condition on his part expressed or implied in the lease.
- (2) The right of forfeiture may be—
- (a) exercised, where neither the lessee nor any person claiming through or under him is in occupation of the land, by entering upon and remaining in possession of the land; or
- (b) enforced by a reference to the Referee.
- (3) The right of forfeiture shall be taken to have been waived if—
- (a) the lessor accepts rent which has become due since the breach of the agreement or condition which entitled the lessor to forfeit the lease or has by any other positive act shown an intention to treat the lease as subsisting; and
- (b) the lessor is, or should by reasonable diligence have become, aware of the commission of the breach:

Provided that the acceptance of rent after the lessor has commenced a reference to the Referee under subsection (2) shall not operate as a waiver.

EFFECT OF FORFEITURE ON SUBLEASES

44. The forfeiture of a lease determines every sublease and every other registered interest relating to that lease, but—
- (a) where the forfeiture is set aside by the Referee on the grounds that it was procured by the lessor in fraud of the sublessee; or
- (b) where the Referee grants relief against the forfeiture under section 46;
- every such sublease and other interest shall be deemed not to have determined.

NOTICE BEFORE FORFEITURE

45. Notwithstanding anything to the contrary contained in the lease, no lessor shall be entitled to exercise the right of forfeiture for the breach of any agreement or condition in the lease, whether expressed or implied, until the lessor has served on the lessee and every other person shown by the register to have an interest a notice in writing which—
- (a) shall specify the particular breach complained of; and
- (b) if the breach is capable of remedy, shall require the lessee to remedy the breach within such reasonable period as is specified in the notice; and
- (c) in any case other than non-payment of rent may require the lessee to make compensation in money for the breach;
- and the lessee has failed to remedy the breach within a reasonable time thereafter, if it is capable of remedy, and to make reasonable compensation in money if so required.

RELIEF AGAINST FORFEITURE

46. (1) A lessee or other person upon whom a notice has been served under section 45, or against whom the lessor is proceeding, by reference to the Referee or by re-entry, to enforce his right of forfeiture, may apply to the Referee for relief; and the Referee may grant or refuse relief, as the Referee having regard to the proceedings and the conduct of the parties and the circumstances of the case, thinks fit, and, if he grants relief, may grant it on such terms as he thinks fit.
- (2) The Referee, on application by any person claiming as sublessee or mortgagee of the land or part of the land comprised in the lease forfeited or sought to be forfeited, may make an order vesting the leased land or such part in such sublessee or mortgagee for the remainder of the term of the lease or any less period, upon such conditions as the Referee in the circumstances thinks fit:
- Provided that nothing in this subsection shall apply in the case of a forfeiture arising from a breach to which the sublessee is a party, or from the breach of an express agreement or condition against subleasing, parting with the possession of or disposing of the land leased.
- (3) This section shall have effect notwithstanding any stipulation or agreement to the contrary and whether the lease is registered or not.

VARIATION OF AGREEMENTS AND CONDITIONS OF A LEASE

47. (1) Subject to the provisions of this Act and any other written law, the agreements and conditions contained or implied in any registered lease may be varied, negatived or added to, by an instrument in the prescribed form executed by the lessor and lessee for the time being and registered before the expiration of the current term of the lease.
- (2) Any variation of rent under a lease shall be notified to the Director by the lessor. No variation shall have effect unless so notified and registered by the Director in the register.

SUBLEASES

48. (1) Subject to the provisions of this Act and to any provisions in his lease affecting his right to do so, a proprietor of a registered lease may sublease for any period which is less than the remainder of the period of his lease by an instrument in the prescribed form.
- (2) Save as otherwise expressly provided in this Act, the provisions of this Act affecting leases, lessors and lessees, shall apply to subleases, sublessors and sublessees, with such adaptations as are necessary.
- (3) If a lease is determined by operation of law or by surrender under any law relating to bankruptcy or winding up, such determination shall determine the sublease.
- (4) In addition to the agreements specified by this Act to be implied in leases, there shall be implied in every sublease under this Act an agreement by the sublessor that he will, during the continuance of the sublease, pay the rent reserved by the lease under which the sublessor holds, and observe and perform the agreements and conditions thereof.
- (5) Where a sublessee has paid to the sublessor's lessor the rent or any part of the rent payable by the sublessor under the lease under which the sublessor holds, the sublessee shall be entitled to set off any sum so paid against the rent payable by him to the sublessor in respect of the sublease.

SURRENDER OF LEASES

49. (1) Where the lessor and the lessee agree that the lease shall be surrendered it shall be surrendered in the following manner, that is to say—
- (a) an instrument shall be prepared in the prescribed form;
 - (b) the instrument shall then be executed by the lessee and lessor;
 - (c) the Director shall then cancel the registration of the lease; and
 - (d) the instrument shall then be filed.
- (2) No lease which is subject to a mortgage or sublease shall be surrendered without the consent in writing of the proprietor of the mortgage or sublease and upon registration of the surrender the mortgage or sublease shall cease to have effect.

DETERMINATION OF LEASES

50. (1) Where a registered lease has expired or been determined the lessor may apply in writing to the Director to cancel the registration.
- (2) An application under this section shall be supported by such evidence of the determination as the Director may require and the Director on being satisfied of the matters set forth in the application shall cancel the registration of the lease.

PART VIII**MORTGAGES****FORM AND EFFECT OF MORTGAGES**

51. (1) A proprietor may by an instrument in the prescribed form, mortgage his registered lease to secure the payment of an existing or a future or contingent debt or other money or money's worth.
- (2) The mortgage shall be completed by its registration as an encumbrance and the registration of the person in whose favour it is created as the mortgagee and by filing the instrument.
- (3) A mortgage shall not operate as a transfer but shall have effect as a security only.

SUPPLEMENTARY PROVISIONS RELATING TO MORTGAGES

52. (1) A proprietor of a registered lease may not create any security for the payment of money enforceable against that lease other than a mortgage under and in accordance with this Part.
- (2) The proprietor of a registered lease may create one or more mortgages in respect of such lease which shall rank according to the order in which they are presented for registration.
- (3) A security for the payment of money, purporting to be enforceable against a registered lease otherwise than by way of a mortgage under the provisions of this Act, or a mortgage which is not registered, may give rise to a personal liability but shall not be enforceable under this Part.

FURTHER ADVANCES

53. (1) A prior mortgagee shall have a right to make further advances to rank in priority to a subsequent mortgage, if, and only if—
- (a) an arrangement to that effect has been made with the subsequent mortgagee;
or
 - (b) the mortgage imposes an obligation to make such further advances; or

- (c) the mortgage was made expressly for securing a current account up to a specified limit, in which case the right shall extend only up to such limit.
- (2) Where a mortgage imposes an obligation to make further advances or is made expressly for securing a current account up to a specified limit, the Director shall, when registering it, include in the relevant memorandum the words "subject to further advances" or words to that effect.

VARIATION OF MORTGAGES

54. (1) Subject to the provisions of this Act the terms of a mortgage may be varied by an instrument in the prescribed form made between the parties for the time being to the mortgage but no such variation shall affect the rights of the proprietor of any subsequent mortgage registered before registration of the variation unless he has consented thereto in writing endorsed on the instrument of variation and verified in accordance with section 78.
- (2) Notwithstanding the provisions of section 27, where more than one mortgage is created in respect of a lease their respective priorities may be varied by a written agreement between the mortgagees. Such agreement shall be filed with the Director and shall be noted in the register relating to the lease.

DISCHARGE OF MORTGAGE

55. (1) The Director shall, if required by the mortgagee, or on proof of the satisfaction in whole or in part of a mortgage, in either case, in the prescribed form, register the discharge in whole or in part of the mortgage.
- (2) Where a mortgagor is desirous of wholly satisfying a mortgage, and the mortgagee, or if there are two or more mortgagees, any of the mortgagees, is or are dead or cannot be found, the mortgagor may pay the moneys owing into the Court, and upon proof of such payment the Director shall register the discharge of the mortgage, and thereupon the mortgage shall cease to have effect.

OBLIGATIONS IMPLIED IN MORTGAGES

56. (1) There shall be implied in every mortgage unless the contrary is expressed therein, on the part of the mortgagor, the following obligations—
- (a) to pay to the mortgagee the principal sum secured, and interest (if any) thereon, at the appointed time and rate;
 - (b) to pay the rent and perform the obligations incident to the lease comprised in the mortgage;
 - (c) not, by any disposition, to subdivide or dispose the leased land or any part thereof or any interest comprised therein without the previous written consent of the mortgagee but such consent shall not be unreasonably withheld.
- (2) A mortgage may provide for the payment of interest at a higher rate than that appointed if the interest at the appointed rate is not paid within a specified period after the same shall have become due; but so that the higher rate shall not exceed the appointed rate by more than 3 per centum per annum.
- (3) A mortgage may provide for the mortgagee to remedy a breach of an agreement by the mortgagor to pay the rent reserved under the lease.

MORTGAGEE'S CONSENT TO TRANSFER ETC.

57. Where a mortgage contains an agreement, express or implied, by the mortgagor with the mortgagee that he will not by any disposition subdivide or dispose of the leased land or any part thereof or any interest comprised therein without the written consent of the mortgagee, the agreement shall be noted in the register relating to the lease and no such subdivision, or other disposition, shall be registered until the written consent

of the mortgagee verified in accordance with section 78 has been produced to the Director.

ACTION FOR RECOVERY OF DEBT

58. Any principal sum or interest due under a mortgage may, subject to the provisions of section 59(4), be recovered by action in any competent court.

ENFORCEMENT OF MORTGAGES

59. (1) Except as provided in section 46 a mortgage shall be enforced upon application to the Court and not otherwise.
- (2) Upon any such application, the Court may make an order—
- (a) empowering the mortgagee or any other specified person to sell and transfer the mortgaged lease, and providing for the manner in which the sale is to be effected and the proceeds of the sale applied;
 - (b) empowering the mortgagee or any other specified person to enter on the land and act in all respects in the place and on behalf of the proprietor of the lease for a specified period and providing for the application of any moneys received by him while so acting; or
 - (c) vesting the lease in the mortgagee or any person either absolutely or upon such terms as it thinks fit but such order shall, subject to subsection (5), not take effect until registration thereof.
- (3) The Court shall, in exercising its jurisdiction under this section, take into consideration any action brought under section 58 and the results thereof.
- (4) After the Court has made an order under paragraphs (a) or (c) of subsection (2) or while an order under paragraph (b) of subsection (2) is in force, no action may be commenced or judgment obtained under section 58 in respect of the mortgage except with the leave of the Court and subject to such conditions (if any) as the Court may impose.
- (5) Any order made by the Court under this section shall for the purposes of subsection (4) be effective from the time when it is made.

PART IX**TRANSFERS****TRANSFER**

60. (1) A proprietor may, subject to the provisions of this Act, transfer his registered lease or mortgage to any person, with or without consideration, by an instrument in the prescribed form.
- (2) The transfer shall be completed by registration of the transferee as proprietor of the lease or mortgage and by filing the instrument.
- (3) A transfer shall dispose of the registered lease or mortgage transferred for the whole remaining portion (at the time when the disposition purports to take effect) of the period for which the lease or mortgage was registered.

RESTRICTION ON TRANSFER

61. (1) A transfer shall not be expressed to take effect on the happening of any event or on the fulfilment of any condition or at any future time.
- (2) Any condition or limitation purporting to restrain absolutely a transferee or any person claiming under him from disposing of the interest transferred shall be void.

- (3) A proprietor of a registered interest may not dispose of the interest for the whole remaining portion (at the time when the disposition purports to take effect) of the period for which the interest was registered, otherwise than by way of transfer in accordance with the provisions of this Act.

MATTERS IMPLIED IN TRANSFER

62. (1) On the transfer of a registered lease there shall be implied—
- (a) except in so far as the transfer may otherwise specify, a warranty, on the part of the transferor, that the rent and obligations incident to the lease have been paid and performed up to the date of transfer;
 - (b) on the part of the transferee, an agreement with the transferor that so long as the lease subsists, the transferee and the persons deriving title under him shall pay the rent and shall perform the obligations incident to the lease and shall keep the transferor indemnified against all consequences and liabilities arising out of the non-payment of the rent or the non-performance of any of the obligations.
- (2) On the transfer of a registered lease subject to a mortgage, there shall be implied—
- (a) except in so far as the transfer may otherwise specify, a warranty, on the part of the transferor, that nothing has been done or omitted up to the date of transfer (including the payment of any moneys payable under the mortgage) which would render the mortgage liable to be enforced; and
 - (b) on the part of the transferee, an undertaking with the transferor that so long as the mortgage subsists the transferee and the persons deriving title under him shall pay all money payable thereunder, shall perform the obligations contained therein, and shall keep the transferor indemnified against all consequences and liabilities of or arising out of the non-payment of the said moneys or the non-performance of any of the said obligations.

ENTITLEMENT OF A TRANSFEREE OF A MORTGAGE

63. Upon registration of a transfer of a mortgage, the transferee shall be entitled to all of the rights, powers and remedies of the mortgagee expressed or implied in the mortgage including the right to recover any debt, sum of money or damages thereunder; and all the interest of the transferor in any such debt, sum of money or damages, shall vest in the transferee.

REGISTRATION OF TRANSFER OF MORTGAGE

64. A mortgagor shall not be bound to account to any person who has acquired an interest in the mortgage unless the instrument whereby such person became entitled has been registered and the mortgagor has been notified in writing of the registration by such person.

TRANSFER OF LEASE SUBJECT TO SUBLEASE

65. A transfer of a lease which is subject to a sublease shall be valid without the sublessee acknowledging the transferee as sublessor, but nothing in this section shall—
- (a) affect the validity of any payment of rent made by the sublessee to the transferor; or
 - (b) render the sublessee liable on account of his failure to pay rent to the transferee or any breach of agreement to pay rent;
- before notice is given to the sublessee by the transferee, in the case of a registered lease of registration of the transfer and in the case of an unregistered lease, of the transfer.

TRANSFER OF PART

66. No part of the land comprised in a registered lease shall be transferred unless the proprietor has first subdivided the land comprised in the lease and new registers have been opened in respect of each subdivision in accordance with section 12(2).

PART X

EASEMENTS, RESTRICTIVE AGREEMENTS, PROFITS AND LICENCES

EASEMENTS

67. (1) The proprietor of a registered lease may, by an instrument in the prescribed form, grant an easement over the land comprised in his lease to the lessee of other land for the benefit of that other land.
- (2) Any proprietor transferring or subleasing a registered lease may in the transfer or sublease grant an easement for the benefit of the lease transferred or subleased, over land retained by him, or reserve an easement for the benefit of land retained by him.
- (3) The instrument creating the easement shall specify clearly—
- (a) the nature of the easement, the period for which it is granted and any conditions, limitations or restrictions intended to affect its enjoyment; and
 - (b) the land burdened by the easement and, if required by the Director, the particular part thereof so burdened; and
 - (c) the land which enjoys the benefit of the easement;
- and shall if so required by the Director, include a plan sufficient in the Director's estimation to define the easement.
- (4) The grant or reservation of the easement shall be completed by its registration as an encumbrance in the register of the lease burdened and in the property section of the register of the lease which benefits and by filing the instrument.
- (5) An easement granted by the proprietor of a registered lease shall be capable of subsisting only during the subsistence of the lease.

RESTRICTIVE AGREEMENTS

68. (1) Where an instrument other than a lease or mortgage contains an agreement (hereinafter referred to as a "restrictive agreement") by one proprietor restricting the building on or the use or other enjoyment of the land comprised in his registered lease for the benefit of the proprietor of any other registered lease and is presented to the Director, the Director shall note the restrictive agreement in the encumbrances section of the register of the lease burdened by the restrictive agreement, either by entering particulars of the agreement or by referring to the instrument containing the agreement and shall file the instrument.
- (2) Unless it is noted in the register a restrictive agreement shall not bind the proprietor of the lease burdened by it.
- (3) The note of a restrictive agreement in the register does not give the agreement any greater force or validity than it would have had if it had not been registrable under this Act and had not been noted.
- (4) In so far as the restrictive agreement is capable of taking effect not only the proprietors themselves but also their respective successors in title shall be entitled to the benefit and subject to the burden of it respectively, unless the instrument otherwise provides.

PROFITS

69. (1) The proprietor of a registered lease may, by an instrument in the prescribed form, grant a profit.
- (2) The instrument shall indicate clearly—
- (a) the nature of the profit and the period for which it is to be enjoyed;
 - (b) whether it is to be enjoyed in gross, or as appurtenant to any other registered lease; and
 - (c) whether it is to be enjoyed by the grantee exclusively, or by him in common with the grantor.
- (3) The grant of a profit shall be completed—
- (a) by its registration as an encumbrance in the register of the lease which it affects;
 - (b) where it is appurtenant to another registered lease by its registration in the property section of the register of the lease concerned; and
 - (c) by filing the instrument.
- (4) A profit which is not appurtenant to a registered lease may be dealt with as though it were such a lease.
- (5) A profit granted by the proprietor of a registered lease shall be capable of subsisting only during the subsistence of the lease.

RELEASE AND EXTINGUISHMENT OF EASEMENTS RESTRICTIVE AGREEMENTS AND PROFITS

70. (1) Upon presentation of a duly executed release in the prescribed form, the registration of the easement, restrictive agreement or profit shall be cancelled and thereupon the easement, restrictive agreement or profit shall become extinguished.
- (2) On the application of any person affected thereby, the Director may cancel the registration of an easement, restrictive agreement or profit upon proof to his satisfaction that—
- (a) the period of time for which it was intended to subsist has expired; or
 - (b) the event upon which it was intended to determine has occurred; or
 - (c) it has been abandoned.

EXTINGUISHMENT AND MODIFICATION OF EASEMENTS, RESTRICTIVE AGREEMENTS AND PROFITS

71. (1) The Court has power, on the application of any proprietor of a registered lease affected by an easement, restrictive agreement or profit, by order wholly or partially to extinguish or modify the easement, restrictive agreement or profit (with or without payment by the applicant of compensation to any person suffering loss in consequence of the order), on being satisfied that—
- (a) by reason of changes in the character of the property or the neighbourhood or other circumstances which the Court deems material, the easement, restrictive agreement or profit ought to be held to be obsolete; or
 - (b) the continued existence of the easement, restrictive agreement or profit impedes the reasonable use of the land for public or private purposes without securing practical benefits to other persons or as the case may be, will unless modified so impede such user; or
 - (c) the proposed extinguishment or modification will not adversely affect the person entitled to the benefit of the easement, restrictive agreement or profit.

LICENCES

72. (1) Without prejudice to section 93 a licence shall not be capable of registration.

- (2) A licence relating to the use or enjoyment of the land comprised in a registered lease is ineffective against a bona fide purchaser for valuable consideration unless the licensee has protected his interest by lodging a caution under section 93.

PART XI

CO-PROPRIETORSHIP

CO-PROPRIETORSHIP

73. (1) Every instrument required to be registered under this Act whereby an interest would become vested in more than five persons shall, notwithstanding anything to the contrary contained therein, operate to vest the interest in the first five persons named in the instrument as joint proprietors on the statutory trusts.
- (2) An instrument required to be registered under this Act made in favour of two or more persons shall declare whether such persons are joint proprietors or proprietors in common and in the case of proprietors in common, the share of each such owner.

PROPRIETORSHIP IN COMMON

74. (1) Where a registered interest is vested in proprietors in common, the proprietors shall be entitled to undivided shares in the interest in such proportion as may be registered and on the death of any of the proprietors in common his share shall be administered as part of his estate.
- (2) No proprietor in common of a registered interest shall dispose of his undivided share in favour of any person other than another proprietor in common of the same interest except with the consent in writing of the remaining proprietor or proprietors of the interest; but such consent shall not be unreasonably withheld.

JOINT PROPRIETORSHIP

75. (1) Where a registered interest is vested in joint proprietors, the joint proprietors shall hold on the statutory trusts.
- (2) Where two or more persons are joint proprietors of such a registered interest—
- (a) a disposition of that interest shall be made only by all the joint proprietors; and
- (b) on the death of a joint proprietor the interest shall vest in the surviving proprietor or proprietors.

PART XII

INSTRUMENTS AND AGENTS

FORM OF INSTRUMENTS

76. (1) Every disposition of a registered interest shall be effected by an instrument in the prescribed form or in such other form as the Director may in any particular case approve.
- (2) When a lease or mortgage is registered, and a duplicate or triplicate thereof is produced to the Director, particulars of registration shall be noted thereon, and the duplicate and triplicate shall be returned to the person who presented them, but such note shall not be taken to involve the Director in liability for any inaccuracy which may exist in any such duplicate or triplicate.

- (3) Instruments shall contain a true statement of the amount or value of the purchase price or loan or other consideration (if any), and an acknowledgement of the receipt of the consideration.

EXECUTION OF INSTRUMENTS

77. (1) Every instrument evidencing a disposition shall be executed by all persons shown by the register to be proprietors of the interest affected and by all other parties to the instrument:

Provided that the Director may dispense with execution by any particular party (other than a donee under a disposition by way of gift) where he considers that such execution is unnecessary.

- (2) An instrument shall be deemed to have been executed only—
- (a) by a natural person, if signed by him or his duly authorised attorney;
 - (b) by a corporation—
 - (i) if sealed with the common seal of the corporation affixed thereto in the presence of and attested by its clerk, secretary or other permanent officer and by a member of the board of directors, council or other governing body of the corporation, or in the presence of and attested by two members of such board, council or other governing body; or
 - (ii) in the case of a corporation, if signed by such persons as are authorised in that behalf by any law or by the statute or charter of the corporation or in the absence of any express provision, by the persons duly appointed in writing for that purpose, evidence of which has been produced to the satisfaction of the Director.

VERIFICATION OF EXECUTION

78. (1) Subject to subsection (5), a person other than a body corporate, executing an instrument required to be registered under this Act shall appear before an authorised officer for the purposes of this section and, unless he is personally known to the authorised officer, he shall be accompanied by a credible witness for the purpose of establishing his identity.
- (2) The authorised officer shall satisfy himself as to the identity of the person appearing before him and ascertain whether he freely and voluntarily executed and appeared fully to understand the instrument and shall complete a certificate to that effect.
- (3) Authorised officers for the purpose of this section are—
- (a) within Vanuatu—
 - (i) the secretary to any local government council;
 - (ii) a magistrate;
 - (iii) the Registrar of the Supreme Court;
 - (iv) the Registrar and Receiver General;
 - (v) persons for the time being registered as legal practitioners;
 - (vi) Notaries Public;
 - (vii) Commissioners for Oaths;
 - (viii) managers for the time being of any bank or branch thereof;
 - (ix) surveyors in the Department of Surveys;
 - (x) such other persons or class of persons as the Minister may by notice published in the *Gazette* approve;
 - (b) in any foreign country—
 - (i) consular officers or proconsular officers of Vanuatu;
 - (ii) Notaries Public;

- (iii) such other persons or class of persons as the Minister may by notice published in the *Gazette* approve.
- (4) Every certificate of verification required for the purpose of this section shall be in the following form which may be printed on or otherwise incorporated in any instrument presented for registration—

"I certify that the above-named
 appeared before me at on this
 day of 19.....

*being identified to me by
 of
*(or) being personally known to me and, that *he/*she/*they freely and voluntarily signed and appeared fully to understand this instrument.

**delete the underlined alternatives inapplicable.*
 Signature, name, designation and seal/stamp of office of person completing certificate."

- (5) The Director may dispense with verification under this subsection—
 - (a) if he considers that it cannot be obtained or can be obtained only with difficulty and he is otherwise satisfied that the document has been properly executed; or
 - (b) in cases in which to his knowledge the document has been properly executed, and shall record on the document his reasons for dispensing with verification.

STAMPS

79. No instrument required by law to be stamped shall be accepted for registration unless it is duly stamped.

DISPOSAL OF INSTRUMENTS

- 80. (1) All instruments accepted by the Director shall be retained in the Land Records Office for as long as they support a current entry in the register and for 6 years thereafter.
- (2) On the expiry of 6 years after an entry in the register has been superseded or has ceased to have effect, the Director may destroy any instrument which supported the entry.

PERSONS WHO ARE MENTALLY INFIRM

- 81. (1) If the Director has reason to believe that any person whose name is entered on the register is incapable by reason of mental infirmity of acting, he shall refuse to register any instrument to which that person is expressed to be a party or affecting any right or interest owned by or vested in that person unless the instrument is executed or approved in writing by the guardian of that person.
- (2) Where any person claims to be the guardian of a person whose name is entered on the register and who in the opinion of the Director is incapable by reason of mental infirmity of acting, the Director shall require him to produce an order of a court of competent jurisdiction appointing him, or recognising him as such guardian.
- (3) On the hearing of an application under subsection (2) the Court may make an order—
 - (a) declaring that the applicant is the guardian of the person in question; or
 - (b) appointing some other person to be such guardian.

POWERS OF ATTORNEY

82. (1) The Director shall, subject to the provisions of this section, maintain an index of powers of attorney in such form and manner as he may deem fit.
- (2) Upon the application of the donor or the donee of a power of attorney which contains any power to dispose of any registered interest in land, such power shall be entered in an index of powers of attorney and the original, or with the consent of the Director, a copy thereof certified by the Director, shall be filed.
- (3) Every such power shall be in the prescribed form and shall be executed and verified in accordance with sections 77 and 78 except where the Director in any particular case otherwise permits.
- (4) The donor of a power of attorney recorded under this section may at any time give notice to the Director in the prescribed form or in such other form as the Director may approve, that the power has been revoked.
- (5) Any interested person may give notice in writing to the Director that a power of attorney which has been registered under this section has been revoked by the death, bankruptcy or disability of the donor, accompanied by such evidence as the Director requires.
- (6) Subsections (4) and (5) shall not apply to any power of attorney given for valuable consideration during any time during which it is by virtue of the terms thereof, irrevocable.
- (7) If, owing to the length of time since the execution of a power of attorney or for any other reason the Director considers it desirable, he may require evidence that the power has not been revoked and may refuse to register any disposition by the donee of the power of attorney until satisfactory evidence is produced.

EFFECT OF REGISTERED POWERS OF ATTORNEY

83. (1) A power of attorney which has been recorded under section 82 and of which no notice of revocation has been received under that section shall be deemed to be subsisting as regards the Director and any person acquiring any interest in land affected by the exercise of the power, for valuable consideration and without notice of revocation and in good faith, or any person deriving title under such a person.
- (2) Any person making any payment or doing any act in good faith in pursuance of a power of attorney recorded under section 82, shall not be liable in respect of the payment or act by reason only that before the payment or act the donor of the power had died or become subject to a disability or become bankrupt, or had revoked the power, if the fact of death, disability, bankruptcy or revocation was not at the time of the payment or act known to the person making or doing the payment or act.

PART XIII

TRANSMISSION AND TRUSTS

TRANSMISSION ON DEATH OF SOLE PROPRIETOR OR PROPRIETOR IN COMMON

84. (1) If a sole proprietor or a proprietor in common of a registered interest dies, his personal representative, on application to the Director in the prescribed form accompanied by proof of his authority to act, shall be entitled to require the Director—
- (a) to register him by transmission as proprietor in place of the deceased with the addition after his name of the words "as executor of the will

- of deceased" or "as administrator of the estate of deceased" as the case may be; or
- (b) to register some other specified person as proprietor or proprietor in common of the deceased's interest.
- (2) For the purpose of subsection (1) authority to act shall consist of a grant of probate of the will, a grant of letters of administration or an order of a court.

EFFECT OF TRANSMISSION ON DEATH

85. Subject to any restriction on his power of disposing of the registered interest contained in his appointment, if any, the personal representative or the person beneficially entitled on the death of the deceased proprietor, as the case may be, shall hold the interest subject to any liabilities, rights or interests which are unregistered but are nevertheless enforceable and subject to which the deceased proprietor held the same, but for the purpose of any registered dealing he shall be deemed to have been registered as proprietor thereof with all the rights conferred by this Act on a proprietor who has acquired a registered interest for valuable consideration.

WILLS

86. A registered interest in land may be disposed of by a valid will, that is to say, a will which is valid under the law in force in Vanuatu.

TRANSMISSION ON BANKRUPTCY

87. (1) A trustee in bankruptcy shall, upon production to the Director of a certified copy of the order of the Court adjudging a proprietor bankrupt, or directing that the estate of a deceased proprietor be administered according to the law of bankruptcy, be registered as proprietor of any registered interest of which the bankrupt or deceased proprietor is proprietor in his place, and a copy of the order shall be filed.
- (2) A trustee in bankruptcy shall be described in the register "as trustee of the property of, a bankrupt".
- (3) The trustee in bankruptcy shall, hold any interest of which he is registered as proprietor subject to any restrictions contained in any law relating to bankruptcy or in any order of the Court and subject to any liabilities, rights or interests which are unregistered but are nevertheless enforceable and subject to which the bankrupt or deceased proprietor held the same, but for the purpose of any dealing in such interest the trustee in bankruptcy shall have all the rights and be subject to all the limitations conferred by this or any other law on a proprietor who has acquired the interest for valuable consideration.

TRANSMISSION IN OTHER CASES

88. Where any person has become entitled to any registered interest under any law or by virtue of any order or certificate of sale made or issued under such law, the Director shall, on the application of any interested person supported by such evidence as he may require, register the person entitled as proprietor of that interest.

TRUSTS

89. (1) A person acquiring a registered interest in a fiduciary capacity may be described by that capacity in the instrument of acquisition and, if so described, shall be registered with addition of the words "as trustee", but the Director shall not enter particulars of any trust on the register.
- (2) An instrument which declares or is deemed to declare any trust, or a certified copy thereof, may be deposited with the Director for safe custody; but such instrument or copy shall not form part of the register or be deemed to be registered.

- (3) Where the proprietor of a registered interest is a trustee, he shall hold the same subject to any unregistered liabilities, rights or interests to which it is subject by virtue of the instrument creating the trust, but for the purpose of any registered dealings for valuable consideration he shall be deemed to be the absolute proprietor thereof, and no person dealing with the interest shall be deemed to have notice of the trust, nor shall any breach of the trust create any right to indemnity under this Act.

SURVIVOR OF TRUSTEES

90. Whenever two or more proprietors are registered jointly as trustees, and the survivor of such proprietors would not be entitled to exercise alone the powers which were vested in them, the Director shall enter a restriction to that effect.

STATUTORY TRUSTS

91. (1) For the purpose of this Act, a registered interest held upon the statutory trusts shall be held upon trust to sell the same with power to postpone such sale as the trustee thinks fit and to stand possessed of the net proceeds of sale, after payment of costs, and of the net rent and profits until sale, after payment of all outgoings, upon such trusts and subject to such powers and provisions as may be requisite for giving effect to the rights of the persons beneficially interested in the interest.
- (2) A registered lease held upon the statutory trusts may subject to the provisions of section 12 be divided by the trustees among the beneficiaries under the trust, and on any such division the trustees may provide for the payment either in cash or by way of a mortgage of equality money.
- (3) Any beneficiary under a trust who objects to the exercise of the powers granted by subsection (2) may, either before such exercise or within 6 months thereafter, apply to the Court, which may make such order as it thinks just and may order rectification of the register under section 100.
- (4) The trusts and powers set out in this section shall be deemed to be incorporated in any instrument which operates expressly to vest any registered interest in any person upon the statutory trusts or whereby any person expressly declares that he holds upon the statutory trusts any registered interest already vested in him.

TRANSMISSION ON DEATH OF A JOINT PROPRIETOR

92. On proof of the death of any person registered as the joint proprietor of a registered interest, the Director shall register the survivor or survivors as proprietor or proprietors of the interest and he or they shall thereupon become the transferee or transferees of such interest.

PART XIV

CAUTIONS

LODGING OF CAUTIONS

93. (1) Any person who—
- (a) claims any interest in land under an unregistered instrument or otherwise;
 - (b) claims a benefit under a trust affecting a registered interest;
 - (c) claims a licence affecting a registered interest; or
 - (d) has presented a bankruptcy or winding up petition against the proprietor of a registered interest;

may lodge with the Director a caution in the prescribed form forbidding the registration of any person as transferee of, or any instrument affecting, that interest, either absolutely or conditionally.

- (2) A note of every caution shall be entered on the register and the Director shall take such steps as he thinks fit to bring the caution to the notice of the registered proprietors of interests affected by it.
- (3) Every caution shall specify an address in Vanuatu of the cautioner and the cautioner may at any time prior to the receipt by the Director of an application for the removal of the caution under section 97, by notice in writing to the Director, appoint an address in Vanuatu in lieu of the address specified in the caution, whereat notices relating to the caution or proceedings in respect thereof may be served on the cautioner.
- (4) Every notice relating to any caution and any proceedings in respect thereof shall be deemed to be duly served if served at the address in Vanuatu specified under subsection (3).

EFFECT OF CAUTIONS

94. So long as any caution remains in force the Director shall not, except in accordance with the provisions of the caution or with the consent in writing of the cautioner or his legal representative enter on the register any change in proprietorship (except a transmission under section 84, 87, 88 or 92) or any dealing (except a dealing which is shown to the satisfaction of the Director not to be to the prejudice of the person for whose protection the caution has been lodged) affecting the interest or licence in respect of which the caution is lodged; but no instrument already lodged and acceptable for registration shall be affected by any caution lodged subsequently.

DIRECTOR'S CAUTION

95. The Director may enter a caution to prohibit any dealing with any registered interest belonging or supposed to belong to a person under a disability or absent from Vanuatu or to prohibit dealings with any interest in any case in which it appears that an error has been made in the register or in any instrument, or to prevent any fraud or improper dealing.

DURATION OF CAUTIONS

96. (1) Subject to the provisions of this section, a caution, other than a caution entered by the Director, shall lapse, as to any interest affected by any transfer or other dealing, except—

- (a) a transmission under sections 84, 87 or 88;
- (b) a transfer or dealing to which the cautioner or his legal representative has lodged with the Director his consent in writing; or
- (c) a transfer or dealing which is shown to the satisfaction of the Director not to be to the prejudice of the person for whose protection the caution has been lodged;

upon the expiration of 30 days after notice given by the Director to the cautioner that a transfer or dealing has been lodged for registration, which notice shall be given whenever any transfer or dealing is lodged.

- (2) Notwithstanding the provisions of subsection (1) but subject to the provisions of section 97(3) the Director may at any time and from time to time and on such conditions as he deems fit extend the operation of a caution or revive a lapsed caution; and if the cautioner serves upon the Director a certified copy of pending court proceedings the Director shall extend the operation of the caution until the outcome of these proceedings.

- (3) If a cautioner dies, the caution may be withdrawn or a consent to registration under subsection (1)(b) may be given by his personal representative.

APPLICATION FOR REMOVAL OF CAUTION

97. (1) The cautioner or his legal representative, may at any time apply to withdraw the caution.
- (2) Any person adversely affected by any caution may apply to the Director for the removal of the caution.
- (3) The Director on his own motion may, or on the application of any interested person, shall, give notice to the cautioner requiring him to withdraw his caution or substantiate his claim, and if the cautioner does not comply with the notice or file with the Director a certified copy of pending court proceedings within 30 days from the date of the notice the Director shall remove the caution from the register.
- (4) A caution which has been removed in pursuance of subsection (2) shall not be renewed by or on behalf of the same person in respect of the same claim.
- (5) Any person lodging any caution with the Director or allowing any caution to remain without reasonable cause shall be liable to pay such compensation as the Court thinks just to any person who sustains damage or who has incurred costs or expenses thereby.

DEFINITION

98. In this part the expression "pending court proceedings" means pending proceedings in the Court as a result of which the validity or invalidity of the claim of the cautioner appears likely to be determined.

PART XV

RECTIFICATION AND INDEMNITY

RECTIFICATION BY THE DIRECTOR

99. (1) Subject to section 100(2), if it appears to the Director that any register does not truly declare the actual interest to which any person is entitled under this Act or is in some respect erroneous or imperfect, the Director after taking such steps as he thinks fit to bring to the notice of any person shown by the register to be interested his intention so to do, and giving every such person an opportunity to be heard, may as from such date as he thinks fit, rectify the register:

Provided that it shall not be necessary for the Director to take steps to bring the rectification to the notice of any person shown by the register to be interested nor to give any such person an opportunity to be heard in formal matters and in the case of errors and omissions not materially affecting the interests of any person.

- (2) Upon the written application of any proprietor accompanied by such evidence as the Director may require, the change of name or address of that proprietor shall be recorded in the register.
- (3) The Director shall rectify the register to give effect to an order of rectification of the register made by the Court.

RECTIFICATION BY THE COURT

100. (1) Subject to subsection (2) the Court may order rectification of the register by directing that any registration be cancelled or amended where it is so empowered

by this Act or where it is satisfied that any registration has been obtained, made or omitted by fraud or mistake.

- (2) The register shall not be rectified so as to affect the title of a proprietor who is in possession and acquired the interest for valuable consideration, unless such proprietor had knowledge of the omission, fraud or mistake in consequence of which the rectification is sought, or caused such omission, fraud or mistake or substantially contributed to it by his act, neglect or default.

INDEMNITY

- 101. (1)** Subject to the provisions of this Act and of any law relating to the limitation of actions any person suffering damage by reasons of—
- (a) any rectification of the register under this Act;
 - (b) any mistake or omission in the register which cannot be rectified under this Act; or
 - (c) any error in a copy of or extract from the register or any copy of or extract from any document or plan in each case certified under this Act;
- shall be entitled to be indemnified by the Government.
- (2) No indemnity shall be payable under this section—
- (a) to any person who has himself caused or substantially contributed to the damage by his fraud or negligence or who derives title, otherwise than under a registered disposition made bona fide for valuable consideration, from a person who so caused or substantially contributed to the damage;
 - (b) in respect of any loss or damage occasioned by the breach of any trust; and
 - (c) in respect of any damage arising out of any matter in respect of which the Director is exonerated from enquiry under section 24.

AMOUNT OF INDEMNITY

- 102. (1)** Where an indemnity is awarded in respect of the loss of any registered interest it shall not exceed—
- (a) where the register is not rectified, the value of the interest at the time when the mistake or omission which caused the damage was made; or
 - (b) where the register is rectified, the value of the interest immediately before the time of rectification.
- (2) Every award of indemnity shall include interest thereon at 5 per centum per annum from the date of the award up to the date of payment.

PROCEDURE FOR CLAIMING INDEMNITY

- 103.** Any person who considers that he has a right to indemnity under the provisions of section 101 may apply to the Court which shall hear and determine the matter and subject to the provisions of section 102 shall make such award, if any, including costs and expenses as it thinks fit.

RECOVERY OF INDEMNITY PAID

- 104.** Where any moneys are paid by way of indemnity, the Government may recover by action before the Court the amount so paid, or such lesser amount as the Court thinks fit, from any person who has caused or substantially contributed to the loss by his fraud or negligence or may enforce any express or implied agreement or other right which the person who is indemnified would have been entitled to enforce in relation to the matter in respect of which the indemnity had been paid.

ERRORS IN SURVEY

105. (1) As between the Government and a registered proprietor no claim to indemnity shall arise and no suit shall be maintained on account of any surplus or deficiency in the area or measurement of any land disclosed by a survey showing an area or measurement differing from the area or measurement disclosed on any subsequent survey or from the area or measurement shown in the register or filed survey plan.
- (2) As between a registered proprietor and any person from or through whom he acquired the interest, no claim to indemnity shall be maintainable on account of any surplus or deficiency in the area or measurement above or below that shown in any other survey or above or below the area or measurement shown in the register or any filed survey plan after a period of 6 months from the date of registration of the instrument under which the proprietor acquired his interest.

PART XVI

APPEALS

APPEALS AGAINST THE DIRECTOR

106. Any person aggrieved by a decision of the Director given in pursuance of his powers under this Act, may, within 6 months from the notification of the decision appeal to the Court which may confirm, quash or vary the decision as it thinks just, and may under section 100 order rectification of the register:

Provided that no appeal shall lie under this section where the decision of the Director has been given in conformity with the determination by the Court of a case or question stated or reserved by him in connection with the same matter for its consideration under section 8(g).

PART XVII

MISCELLANEOUS

PRESUMPTION AS TO AGE

107. The parties to any instrument affecting a registered interest shall, until the contrary is proved, be presumed, to be of the age of 18 or more at the date thereof. A person under the age of 18 years shall not be registered as the proprietor of a lease or of any interest therein.

SERVICES OF NOTICES

108. A notice under this Act shall be deemed to have been served on or given to any person—
- (a) if served on him personally;
 - (b) if left for him at his last known place of residence or business in Vanuatu;
 - (c) if sent by registered post to him at his last known postal address in Vanuatu;
 - (d) if the person is absent from Vanuatu the notice may be served upon any attorney in Vanuatu appointed by him, and if the person is dead, the notice may be served upon his personal representative;
 - (e) if it is impracticable to serve notice in any of the manners specified in paragraphs (b) to (d) above, the notice may be served in such manner as may be directed by an order of a court;

- (f) notwithstanding anything in paragraphs (a) to (e)—
- (i) it shall be the duty of any person seeking to serve the notice to do everything reasonably practical to ensure the contents of the notice come to the knowledge of the person affected thereby;
 - (ii) a court may in any case make an order directing the manner in which any notice is to be served or dispensing with the service thereof.

OFFENCES

109. (1) Any person who knowingly misleads or deceives any person authorised by or under this Act to require information in respect of any registered interest shall be guilty of an offence and shall be liable on conviction to imprisonment for a term not exceeding 1 year or to a fine not exceeding VT100,000 or to both.
- (2) Any person who—
- (a) fraudulently issues or makes or fraudulently procures the issue or making of any document relating to a registered interest in land or any registration, or any erasure or alteration in any document as aforesaid or in any register; or
 - (b) removes from the Land Records Office any register or any part of any register or any instrument or plan filed in the Land Records Office; or
 - (c) causes any defacement, obliteration, mutilation or unauthorised entry or alteration to be made on or in any register or filed instrument,
- shall be guilty of an offence and shall be liable on conviction for a term of imprisonment not exceeding 3 years or to a fine not exceeding VT300,000 or to both.
- (3) If any person, after the delivery to him of a summons to attend before the Director or to produce any document, neglects or refuses without reasonable cause to attend in accordance with the summons, or to produce any document which he is required by the summons to produce or to answer upon oath or otherwise any question which is lawfully put to him by the Director under the powers conferred by this Act, he shall be guilty of an offence and liable on conviction for a term of imprisonment not exceeding 1 month, or to a fine not exceeding VT10,000 or to both:
- Provided that no prosecution under this subsection shall be instituted without the written consent of the Attorney General.

PART XVIII

FEES AND RULES

FEES

110. (1) The fees specified in the Schedule to this Act shall be paid in respect of the matters specified therein and the Director may refuse registration until the fees are paid.
- (2) Unpaid fees payable to the Director shall constitute a civil debt recoverable by the Director in the appropriate court.

RULES

111. The Minister may by order make rules not inconsistent with this Act generally to give effect to the purposes and provisions of this Act and to prescribe all matters that may be prescribed, and in particular and without prejudice to the generality of the foregoing, may—
- (a) prescribe agreements to be implied in leases on the part of the lessor or lessee;

- (b) prescribe forms to be used under this Act including standard forms of leases of the following classes—
- Class A: Agricultural leases
 - Class B: Residential leases
 - Class C: Commercial leases
 - Class D: Industrial leases
 - Class E: Special leases.

PROVISIONS OF THIS ACT TO PREVAIL

- 112.** Where a provision of this Act conflicts with a provision of any other written law except the Constitution, the provisions of this Act shall prevail.

SCHEDULE

(section 110(1))

REGISTRATION FEES

1. Amount of fees

- | | |
|---|------|
| (a) Creation of a lease | 2% |
| (b) Transfer of a lease | 2% |
| (c) Creation and transfer of a mortgage | 0.5% |
| (d) Combination and subdivision | 5% |

2. Reduction of fees

The amounts set out in paragraph 1 are reduced:

- (a) to 1% in respect of leases granted to lessees respecting any land of which the lessee was registered as owner or lessee on the 29th day of July 1980 in the Registry of Land Titles established by Joint Regulation 3 of 1930;
- (b) to 0.5% in respect of mortgages, created before the 30th day of July, 1980 and registered in the Registry of Land Titles established by Joint Regulation No. 3 of 1930.

3. Payment of ad valorem fees

- (a) Subject to agreement otherwise between the parties to an instrument, the payment of these fees shall be made by the transferee, lessee or mortgagor, or the person taking the benefit of any other registrable instrument.
- (b) The Government and any local government council or municipal council shall be exempted from payment of any fees which would otherwise be payable by it.
- (c) The fee to be charged for transfers shall be based on the total price expressed in the instrument of transfer, or if no price is stipulated, upon the value of the interest transferred at the date of transfer as declared to the Director by the parties to the instrument.
- (d) The fees to be charged on leases shall be assessed on the value of any premium and on the term in years multiplied by the highest ascertainable annual rent. Where the rent or any part thereof is not ascertainable at the time of registration, a fee of VT50,000 shall be payable in respect of the said unascertainable rent in addition to any other fee payable.

LAND LEASES

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-
- (e) Where a mortgage has been created and the amount of the advance made or to be made is not specified in the instrument, the fee payable shall be assessed on the maximum sum up to which advances may be made as evidenced by a certificate from the mortgagee. Any sum or sums subsequently advanced to the mortgagor on the same security, which increase the amount of the advance beyond the sum in respect of which fees have been paid shall be declared to the Director within 1 month from the date thereof by a further certificate by the mortgagee, and an additional fee at the rate prescribed in paragraph 1(c) shall be paid in respect of each such increase.
 - (f) The fee payable on combinations and subdivisions shall be based on the aggregate value of the parcels. If a subdivision involves the payment of equality money, the same shall be subject to a fee of 5% as prescribed in paragraph 1(d).
 - (g) Whenever, in respect of an instrument presented for registration, the Director deems it desirable, he may require a valuation to be made by the Referee. If the valuation is in excess of the price or the declared value, the cost of the valuation shall be borne by the party liable for the fee. Otherwise the cost shall be borne by the Government.
 - (h) For the purposes of computing fees, sums shall be rounded up to the next unit of VT100.
 - (i) The fees prescribed shall be payable in advance.
 - (j) If an application is cancelled or withdrawn no part of any fee shall be refunded and if such application is subsequently relodged, a further fee shall be payable.
-

SUBSIDIARY LEGISLATION

LAND LEASES GENERAL RULES

Order 3 of 1984
Order 9 of 1986

ARRANGEMENT OF RULES

RULE

1. Interpretation
 2. Hours of public business of Land Records Office
 3. Amendments, corrections, erasures, etc.
 4. Lodgment for registration
 5. Fees
 6. Evidence of incorporation
 7. Execution of instruments by corporations
 8. Attestation of instrument
 9. Persons interested in instruments may not attest
 10. Deposit of deeds in archives
-

SUBSIDIARY LEGISLATION
LAND LEASES GENERAL RULES

To provide rules for the administration and operation of the Land Records Office.

INTERPRETATION

1. In these rules reference to "Act" shall mean the Land Leases Act, Cap. 163.

HOURS OF PUBLIC BUSINESS OF LAND RECORDS OFFICE

2. The hours during which the Land Records Office shall be open to the public shall, except on public holidays, be from 9 a.m. to 11.00 a.m. and from 2 p.m. to 4.00 p.m. on Mondays to Fridays inclusive.

AMENDMENTS, CORRECTIONS, ERASURES, ETC.

3. (1) The Director may refuse to register any instrument which because of erasures or alterations or otherwise howsoever he considers may not be in the condition in which it was originally executed by the parties thereto.
 - (2) If any instrument at the time of its presentation for registration contains any amendment, alteration or correction, which has not been initialled in the margin by the person or persons executing it and by the authorised officer or attesting witness or witnesses, the Director may refuse to accept it for registration.
 - (3) Where all the parties to any instrument which has been accepted by the Director for registration but not registered by him, require to make any amendment, alteration or correction therein, the Director may permit them to do so either by re-executing the document when amended, altered or corrected, or by initialling each and every such amendment, alteration or correction.

LODGMENT FOR REGISTRATION

4. (1) Every application (other than an application lodged for registration by post where section 27(2) of the Act applies) shall be lodged by presenting the same manually at the public counter of the Land Records Office during the hours that such Office is open to the public, and the Director shall note the day and hour of presentation on every application accepted by him for registration for the purpose of determining the priority thereof.
 - (2) It shall be lawful for the Director to refuse to accept any application for registration of any matter—
 - (a) when the fee assessed by the Director to be payable in accordance with these Rules in respect thereof has not been paid;
 - (b) if the relevant instrument and documents do not accompany the application, unless such instruments, or documents are proved to the Director's satisfaction to be already in the Land Records Office;
 - (c) if the application, instrument or document contains any apparent material defect or omission;
 - (d) if any instrument is not duly stamped as required by the Stamp Duties Act, Cap. 68 or any amendment or re-enactment thereof;
 - (e) in any case falling within the scope of rule 3(1) or 3(2); or
 - (f) where the application or any instrument is not in due form or duly attested.

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[Subsidiary]

FEES

5. (1) The following fees shall be payable:

	VT
For certified copies of the register or of any filed document, per folio	100
Land Records Office inspection fee, per file or document	100
For application for registration of stay of registration	1,000
For application for registration of surrender of lease/sublease	500
For application for registration of discharge of mortgage	500
For application for registration of release of easement, restrictive agreement, profit	500
For application for registration of power of attorney	1,000
For application for registration of revocation of power of attorney	500
For application for registration of transmission	1,000
For application for registration of caution	1,000
For approval/registration of a document not in statutory form, in addition to any other authorised fee	1,000
For application for a change of name	500
For application for the registration of a variation of a lease or mortgage	1,000
For registration of an easement or profit or restrictive agreement or any variation thereof	1,000
For any other application for which no fee has been prescribed and for which the Director considers a fee should be paid	1,000

(2) If more than one separate matter shall be included in the same application the appropriate fee prescribed in subrule (1) shall be paid for each such matter, and in the event of doubt as to what is a separate matter the question shall be determined by the Director whose decision shall be final and shall not be questioned in any proceedings whatsoever.

(3) In cases where two or more owners of separate parcels of land combine in one instrument to deal with their respective parcels, the same registration fee shall be payable in respect of such instrument as would have been payable if each owner had executed a separate instrument.

(4) The fees specified in this rule and under section 110 of the Act shall be paid notwithstanding the rejection by the Director of any application.

(5) The Director may in his discretion remit or refund any prescribed fee or any part thereof.

(6) No fees under this rule shall be payable by or on behalf of the Government.

(7) A double fee is payable in respect of a delayed registration (as provided by section 25 of the Act).

(8) No fees under this rule shall be payable for an application notifying a change of address.

EVIDENCE OF INCORPORATION

6. An application for registration of a dealing whereby a corporation acquires an interest shall be accompanied by a certificate of incorporation or by a copy of the statute, charter etc., creating the corporation, duly certified as a true copy by a permanent officer or solicitor of the corporation, or by such other evidence of incorporation as the Director may require (as provided by section 30(5) of the Act).

LAND LEASES

[CAP. 163.]

[Subsidiary]

EXECUTION OF INSTRUMENTS BY CORPORATIONS

7. The normal requirements for the execution of instruments are set out in section 77 of the Act. In the case of corporations, the position in the corporation of the person signing the instrument or of the witnesses to the sealing must be stated. Where an instrument is signed or sealed other than in accordance with section 77(2)(b)(i) it must be supported by a copy or extract of the corporations creating statute, charter, etc. containing the provisions in respect thereof duly certified that it is a true copy or extract by a permanent officer or solicitor for the corporation.

ATTESTATION OF INSTRUMENT

8. (1) The following persons, during such times as they are in Vanuatu, shall be authorised officers for the purposes of section 78(3)(a)(x) of the Act—
- all officers holding the office of Assistant Land Officer or Land Officer in the Department of Lands;
 - the general managers and all officers holding the office of Land Officers in the Port Vila and Luganville Urban Land Corporations;
 - the secretary of the Santo Land Council;
- (2) Consular and pro-consular officers in any foreign country shall be the authorised officers for the purposes of section 78(3)(b)(iii) of the Act.

PERSONS INTERESTED IN INSTRUMENTS MAY NOT ATTEST

9. No authorised officer or other person authorised by section 78 of the Act to complete a certificate of verification shall complete any such certificate in relation to, or vary the execution of any instrument in or by which such officer or person acquires or disposes of any interest.

DEPOSIT OF DEEDS IN ARCHIVES

10. The Director may in his discretion lodge in the public archives any documents of title which he does not consider necessary to retain in any land registry.

LAWS OF THE REPUBLIC OF VANUATU

CAP. 163.]

LAND LEASES

[Subsidiary]

SUBSIDIARY LEGISLATION
LAND LEASES PRESCRIBED FORMS

Order 4 of 1984
Order 10 of 1986
Order 11 of 1986

The forms set out in the Schedule hereto are hereby prescribed for the particular purposes of the Act specified on each form.

LAND LEASES

[CAP. 163.

[Subsidiary]

SCHEDULE

REPUBLIC OF VANUATU

LR. Form 1

LAND LEASES ACT CAP. 163

APPLICATION FOR REGISTRATION

SECTION 1.

DO NOT WRITE HERE . THIS IS FOR OFFICIAL USE ONLY

APPLICATION No :
TIME AND DATE OF RECEIPT :
..... HOURS the :
day of 19..... :

COMPLETE SECTIONS BELOW AFTER READING
NOTES ON THE FOLLOWING PAGE

SECTION 2.

WRITE TITLE NUMBER(S) AFFECTED

1 : 4 : 7
2 : 5 : 8
3 : 6 : 9

SECTION 3.

LIST DEALING(S) IN ORDER OF PRIORITY TO BE REGISTERED

1 : 5
2 : 6
3 : 7
4 : 8

SECTION 4.

LIST INSTRUMENT(S) AND OTHER DOCUMENTS ENCLOSED

1 : 4
2 : 5
3 : 6

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LAND LEASES

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SECTION 5.

FULL NAMES OF APPLICANT(S) IN BLOCK CAPITALS

1	: 4
2	: 5
3	

SECTION 6.

ADDRESS(ES) AND TELEPHONE NUMBER(S) IN VANUATU

1	: 4
2	: 5
3	

SECTION 7.

SINGLE NAME AND ADDRESS AND TELEPHONE NUMBER IN VANUATU FOR COMMUNICATIONS WHERE THERE IS MORE THAN ONE APPLICANT

I tender herewith cash/cheque for VT..... in payment of registration fees.

I/We apply for the registration of the dealings listed in Section 3.

Signature(s)

NOTES

- Applications may be presented:
 - by hand delivered to the Land Records Office, Port Vila; or
 - by post addressed to the Land Records Office, P.O. Box 57, Port Vila.
- Priority is not established until the application with all supporting documents is accepted by the Director of Land Records.
- The correct fees must accompany the application, otherwise it will be rejected.
- Instruments presented with an application should bear the seal of the Controller of Stamp Duties together with his stamp indicating either:
 - that the instrument is not liable to stamp duty; or
 - that stamp duty has been paid.
- On the first occasion application is made by or on behalf of a company or other incorporated body for it to be registered as proprietor of an interest, a copy of the certificate of incorporation certified by the Registrar of Companies or other evidence of incorporation satisfactory to the Director of Land Records must be produced.
- In the case of application by more than one person a single address for communication should be entered in section 7 of the form.

LAND LEASES

[CAP. 163.]

REPUBLIC OF VANUATU
REPUBLIQUE DE VANUATU

[Subsidiary]
LR. Form 2

LAND LEASES ACT CAP. 163
LOI No 4 DE 1983 SUR LES BAUX FONCIERS

APPLICATION FOR A CERTIFIED COPY OF A REGISTER OR FILED DOCUMENT
DEMANDE D'UNE COPIE CERTIFIEE D'UN REGISTRE OU D'UN DOCUMENT CLASSE

(Section 20)

TITLE No.....

TITRE No.....

TO: The Director of Land Records
AU: Conservateur de l'Enregistrement et des Hypothèques

Please supply a certified copy of

- *(a) the register in *English/*French in respect of the lease comprised in the above-mentioned title;
- *(b) the register in *English/*French in respect of the sublease comprised in the above-mentioned title and dated the day of 19.....
- *(c) the following registered instrument/document (*English/*French version) affecting the above-mentioned title.

Prière de délivrer une copie certifiée

- *(a) du registre en *anglais/*français relatif au bail compris dans le titre ci-dessus mentionné
- *(b) du registre en *anglais/*français relatif au sous-bail compris dans le titre ci-dessus mentionné et daté le 19.....
- *(c) de l'instrument/document enregistré suivant (*anglais/*français) affectant le titre ci-dessus mentionné.

Please date and sign
Prière de dater et signer

DATED at this day of
19.....

FAIT à le 19.....

Signature of Applicant }
Name }
Address }

Signature du demandeur }
Nom }
Adresse }

*Delete whichever is inapplicable.
*Rayer la mention inutile.

CAP. 163.]

LAND LEASES

[Subsidiary]

REPUBLIC OF VANUATU

LR. Form 3

LAND LEASES ACT CAP. 163

APPLICATION FOR STAY OF REGISTRATION
(Section 28)

TITLE No.....

TO: The Director of Land Records

I/We (full name(s))

of (address(es) in Vanuatu)

propose to deal with (full name(s))

the registered proprietor(s) of the following interest in the above-mentioned title, namely:

particulars of the said dealing being as follows:

(set out here details of the proposed dealing: it is necessary to show that the dealing is for value)

and with the consent of the registered proprietor(s) (as is hereby evidenced by his/her/their execution hereof) HEREBY APPLY for a stay of registration of any instrument affecting the above-described interest for a period of 2 months.

DATED at this day of
19.....

*Signed by the above-named
applicant(s) in the
presence of: }

Signature of witness

Name of witness

Address

*Signed by the above-named
registered proprietor(s) in
the presence of: }

Signature of witness

Name of witness

Address

**In the case of execution by a corporation substitute in this part the usual form of words recording the due affixing of this seal.*

ORDER BY DIRECTOR

The land register showing the above-named registered proprietor(s) to be free to deal with his/her/their interest, I do hereby certify that he is/she is/they are so free and stay registration of any instrument affecting the above interest for 2 months from today.

Registered at hours this day of
19.....

Director of Land Records.

LAND LEASES

[CAP. 163.

[Subsidiary]

REPUBLIC OF VANUATU

LR. Form 4

LAND LEASES ACT CAP. 163

LEASE

(Sections 31 and 35)

CLASS

TITLE No

(Please read notes in the margin and on the last page before completing this form).

LESSOR(S)

Full name(s)
description(s)
and address(es)
in Vanuatu

LESSEE(S)

Full name(s)
description(s)
and address(es)
in Vanuatu

Delete this paragraph if
inapplicable

1. The Lessor(s) has/have received from the Lessee(s) the sum of
(amount in words and figures)
..... (VT.....) for the grant of this
Lease.

*Delete whichever
asterisked phrase if
inapplicable

2. The Lessor(s) lease(s) to the Lessee(s) the land—*comprised in the
above-mentioned title*

OR

*shown edged green in the attached plan certified by the Director
of Surveys and signed by the persons signing this instrument* for
the term of years commencing on the
..... day of 19.....

*Delete as appropriate

3. The Lessee(s) shall pay to the Lessor(s) *yearly/*quarterly/
*monthly rent of (amount in words and figures)
..... (VT.....)
reviewable in accordance with the provisions of the Act and pay-
able on the (date of rent is to be paid).

4. This Lease is granted subject to the provisions of the Land Leases
Act and of any Rule relating to leases made thereunder and to
those agreements and conditions specified in the Schedule hereto.

Delete if Lessee is a single
person or corporation. If
paragraph is not deleted,
delete whichever
asterisked phrase is
inapplicable.

5. The Lessee(s) holds this Lease as *joint proprietors/*proprietors in
common in the following undivided shares:—

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LAND LEASES

[Subsidiary]

SCHEDULE

(The purpose and use for which the land is leased and the development conditions, if any, in addition to those set out in any Rule under the Act, MUST be set out below).

Dated at this day of 19.....

Signed by the Lessor(s) }

in the presence of Signature of witness

Name of witness

Address

I certify that the above-named appeared before me at this day of 19..... *being identified to me by of (or) being personally known to me and that *he/*she/*they freely and voluntarily signed and appeared fully to understand this instrument.

*Delete the underlined alternatives inapplicable Signature, name, description and seal/stamp of office of person completing certificate.

Signed by the Lessee(s) }

In the presence of Signature of witness

Name of witness

Address

I certify that the above-named appeared before me at this day of 19..... *being identified to me by of (or) being personally known to me and that *he/*she/*they freely and voluntarily signed and appeared fully to understand this instrument.

*Delete the underlined alternatives inapplicable Signature, name, description and seal/stamp of office of person completing certificate.

LAND LEASES

[CAP. 163.

{Subsidiary}

NOTES

1. *Alterations.* Do not rub out or write over any words. If you have made a mistake draw one line through it (so that it can still be read) and write or type clearly above it the new words. Everyone who signs the instrument should also sign again at the side near the alteration.
2. *Signing.* Both parties to the instrument must sign. If a party consists of more than one person and they cannot get to a person authorised to complete the verification certificate at the same time or place it will be necessary for separate verification certificates to be prepared, completed and attached to this instrument. In such cases the persons completing the separate certificates should also sign at the end of the instrument. Persons authorised to complete verification certificates in Vanuatu include Secretaries to Local Government Councils, Magistrates, Barristers, Solicitors, Notaries Public, Commissioners for Oaths and Managers of Banks. A full list is contained in the Act.
3. *Execution by corporations.* The form should be changed by crossing out the words "Signed by etc. . . ." and substituting the usual form of words recording the affixing of the corporation's seal. No verification is required.

Approved this day of 19.....

.....
Minister responsible for Lands.

REGISTERED at hours this day of
..... 19.....

.....
Director of Land Records.

SUBLEASE
(Section 48)

CLASS

TITLE No

(Please read the notes in the margin and on the last page before completing this form).

SUBLESSOR(S)

Full name(s)

SUBLEESSEE(S)

Full name(s)
description(s)
and address(es)
in Vanuatu

Delete this paragraph if
inapplicable

*Delete as appropriate

*Delete as appropriate

Delete if sublessee is a
single person or
corporation. If the
paragraph is not deleted,
delete whichever
asterisked phrase is
inapplicable.

1. The Sublessor(s) has/have received from the Sublessee(s) the sum of (amount in words and figures) (VT.....) for the grant of this Sublease.
2. The Sublessor(s) sublease(s) to the Sublessee(s) *the land comprised in the above-mentioned title/*that part of the land comprised in the above-mentioned title shown on the attached plan no. certified by the Director of Surveys and signed by the persons signing this instrument for the term of years commencing on the day of 19.....
3. The Sublessee(s) shall pay to the Sublessor(s) the *yearly/*quarterly/*monthly rent of (amount in words and figures) (VT.....) reviewable in accordance with the provisions of the Act and payable on the (date(s) rent is to be paid).
4. This Sublease is granted subject to the provisions of the Land Leases Act and of any Rule relating to subleases made thereunder and to those agreements and conditions specified in the Schedule hereto.
5. The Sublessee(s) hold this Sublease as "joint proprietors*/*proprietors in common in the following undivided shares:—

LAND LEASES

[CAP. 163.

[Subsidiary]

SCHEDULE

(The purpose and use for which the land is leased and the development conditions, if any, in addition to those set out in any Rule under the Act, MUST be set out below).

Dated at this day of
..... 19.....

Signed by the Sublessor(s) }
}

In the presence of etc. . . .

Signed by the Sublessee(s) }
}

In the presence of etc. . . .

NOTES (as on LR. Form 4).

REGISTERED at hours this day of
..... 19.....

Director of Land Records.

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LAND LEASES

[Subsidiary]

REPUBLIC OF VANUATU

LR. Form 6

LAND LEASES ACT CAP. 163

VARIATION OF CONDITIONS OF A LEASE/SUBLEASE
(Section 47)

TITLE No

(Please read the notes on back page before completing this form).

1. The agreements and conditions contained or implied in the Lease/ Sublease of the land comprised in the above-mentioned title dated the day of 19..... are HEREBY VARIED as shown in the Schedule to this instrument.

SCHEDULE

2. The date of effect of this variation is the day of 19.....
3. In this instrument:
 - (1) in the case of a variation of conditions of a lease, the expression "the Lessor(s)" means the person(s) who granted the Lease or his/their successor(s) in title who shall be named as such and the expression "the Lessee(s)" means the person(s) for the time being registered as the proprietor(s) of the Lease;
 - (2) in the case of a variation of conditions of a Sublease, the expression "the Sublessor(s)" means the person(s) for the time being registered as the proprietor(s) of the interest out of which the Sublease was granted and the expression "the Sublessee(s)" means the person(s) for the time being registered as the proprietor(s) of the Sublease.

Dated at this day of 19.....

Signed by the Lessor(s)/Sublessor(s) }
In the presence of etc. . . .

Signed by the Lessee(s)/Sublessee(s) }
In the presence of etc. . . .

NOTES (as on LR. Form 4).

REGISTERED at hours this day of 19.....

Director of Land Records.

LAND LEASES

[CAP. 163.

[Subsidiary]

REPUBLIC OF VANUATU

LR. Form 7

LAND LEASES ACT CAP. 163

SURRENDER OF LEASE/SUBLEASE
(Section 49)

TITLE No

(Please read the notes in the margin and on back page before completing this form).

**Delete the underlined words if inapplicable*

1. I/We (full name(s))

*In consideration of the sum of (amount in words and figures)
..... (VT.....)
paid to me/us by the Lessor(s)/Sublessor(s) the receipt of which is
hereby acknowledged

HEREBY SURRENDER

the Lease/Sublease comprised in the above-mentioned title and dated the day of 19.....

2. I/We (full name(s))

being the Lessor(s)/Sublessor(s) hereby accept(s) this Surrender.

3. In this instrument:

- (1) in the case of a surrender of a Lease, the expression "the Lessor(s)" means the person(s) who granted the Lease or his/their successor(s) in title who shall be named as such and the expression "the Lessee(s)" means the person(s) for the time being registered as the proprietor(s) of the Lease;
- (2) in the case of a surrender of a Sublease, the expression "the Sublessor(s)" means the person(s) for the time being registered as the proprietor(s) of the interest out of which the Sublease was granted and the expression "the Sublessee(s)" means the person(s) for the time being registered as the proprietor(s) of the Sublease.

DATED at this day of 19.....

Signed by the Lessee(s)/Sublessee(s) }

In the presence of etc. . . .

Signed by the Lessor(s)/Sublessor(s) }

In the presence of etc. . . .

CAP. 163.]

LAND LEASES

[Subsidiary]

CONSENT

I/We (full name(s))

being registered as mortgagee(s)/sublessee(s) of the Lease/Sublease of the land comprised in the above-mentioned title

HEREBY CONSENT TO THIS SURRENDER

Signed by the said

}

In the presence of etc. . . .

NOTES (as on LR. Form 4).

REGISTERED at hours this day of 19.....

.....
Director of Land Records.

LAND LEASES

[CAP. 163.

[Subsidiary]

REPUBLIC OF VANUATU

LR. Form 8

LAND LEASES ACT CAP. 163

MORTGAGE

(Section 51)

TITLE No

(Please read notes in the margin and on back page before completing this form).

MORTGAGOR(S) (full name(s))

being registered as the proprietor(s) of (a) lease(s)/sublease(s) of the land comprised in the above-mentioned titles.

MORTGAGEE(S) (full name(s) and address(es) in Vanuatu)

- 1. The Mortgagor(s) hereby acknowledge(s) the receipt from the Mortgagee(s) of a loan of (amount in words and figures) (VT.....)

Delete whichever alternative is inapplicable

*OR

The Mortgagee(s) has/have agreed to make certain advances on the current account of the Mortgagor(s) up to a limit of (amount in words and figures) (VT.....)

- 2. The Mortgagor(s) HEREBY COVENANT(S) with the Mortgagee(s) in the manner set out in the First Schedule hereto.
- 3. To secure to the Mortgagee(s) the repayment of the loan/advances and the payment of interest thereon in the manner and at the rate set out in the First Schedule hereto, the Mortgagor(s) HEREBY MORTGAGE(S) its/his/her/their interest in the above-mentioned title(s), subject to the provisions of the Act except as far as these may be modified in this Instrument.

*Delete this clause if inapplicable

- 4. *The Mortgagee(s) HEREBY COVENANT(S) with the Mortgagor(s) in the manner set out in the Second Schedule hereto.

*Delete if mortgagee is a single person or corporation. If the clause is not deleted, delete the asterisked phrase inapplicable.

- 5. The Mortgagees declare that they hold this mortgage as *joint proprietors/*proprietors in common in the following undivided shares:—

LAWS OF THE REPUBLIC OF VANUATU

CAP. 163.]

LAND LEASES

[Subsidiary]

FIRST SCHEDULE

SECOND SCHEDULE

DATED at this day of
..... 19.....

NOTE—RULE UP ALL BLANK SPACES BEFORE SIGNING

Signed by the Mortgagor(s) }

In the presence of etc. . . .

Signed by the Mortgagee(s) }

In the presence of etc. . . .

NOTES (as on LR. Form 4).

REGISTERED at hours this day of
..... 19.....

.....
Director of Land Records.

LAND LEASES

[CAP. 163.

[Subsidiary]

REPUBLIC OF VANUATU

LR. Form 9

LAND LEASES ACT CAP. 163

VARIATION OF TERMS OF MORTGAGE
(Section 54)

TITLE No

(Please read the notes on back page before completing this form).

1. The terms of the Mortgage dated the day of 19....., and made between (full name(s)) and (full name(s)) mortgaging the:

(give details of registered interest(s) in the above-mentioned title(s) which is/are the subject of the mortgage).

are from the day of 19.....

HEREBY VARIED as follows: (set out below details of variation of terms).

2. In the instrument the expression "the mortgagor(s)" means the person(s) registered for the time being as the proprietor(s) of the interest mortgaged and the expression "the mortgagee(s)" means the person(s) registered for the time being as proprietor(s) of the mortgage, by and under the mortgage described in clause 1.

DATED at this day of 19.....

Signed by the Mortgagor(s) }

In the presence of etc. . . .

Signed by the Mortgagee(s) }

In the presence of etc. . . .

CAP. 163.]

LAND LEASES

[Subsidiary]

CONSENT

(to be completed if appropriate)

I/We (full name(s))

being registered as mortgagee(s) by a subsequent mortgage of the interest(s) described in clause 1 of this instrument HEREBY CONSENT(S) to this INSTRUMENT OF VARIATION.

DATED at this day of 19.....

Signed by the said

}

In the presence of etc. . . .

NOTES (as on LR. Form 4).

REGISTERED at hours this day of 19.....

.....
Director of Land Records.

LAND LEASES

[CAP. 163.

[Subsidiary]

REPUBLIC OF VANUATU

LR. Form 10

LAND LEASES ACT CAP. 163

DISCHARGE OF MORTGAGE
(Section 55)

TITLE No(S)

(Please read the notes on back page before completing this form).

I/We (full name(s))

being registered as the proprietor(s) of the Mortgage of:— (give details of the interest(s) in the above-mentioned title(s) which is/are the subject of the Mortgage).

created by an instrument dated the day of 19.....

HEREBY DISCHARGE the said mortgage wholly/in relation to (if discharge is total, delete "in relation to": if not, delete "wholly" and give details below of the interest(s) and titles which are discharged).

DATED at this day of 19.....

Signed by the Mortgagee(s) }

In the presence of etc. . . .

NOTES (as on LR. Form 4).

REGISTERED at hours this day of 19.....

.....
Director of Land Records.

TRANSFER OF LEASE/SUBLEASE
(Section 60)

TITLE No

(Please read the notes in the margin and on back page before completing this form).

TRANSFEROR(S) *(full name(s))*

TRANSFeree(S) *(full name(s) and address(es) in Vanuatu)*

1. The Transferor(s) has/have received from the Transferee(s) the sum of *(amount in words and figures)* (VT.....) being the consideration for this Transfer.
 2. The Transferor(s) HEREBY TRANSFER(S) to the Transferee(s) the registered lease/sublease dated the day of 19..... of the land comprised in the above-mentioned title, subject to the provisions of the Act unless these are varied in this Instrument.
- | | |
|--|--|
| <p>(a) <i>Delete this clause if inapplicable</i></p> <p>(b) <i>Delete this clause if inapplicable</i></p> <p>(c) <i>Delete if consideration in clause 1 represents full value</i></p> <p>(d) <i>Delete if transferee is a single person or corporation. If the clause is not deleted, delete the asterisked phrase inapplicable.</i></p> | <p>3. (a) This Transfer is also subject to the agreements and reservations set out in the First Schedule to this Instrument.</p> <p>4. (b) The rights and easements set out in the Second Schedule to this Instrument are included in this Transfer.</p> <p>5. (c) The value of the interest transferred is hereby declared to be <i>(amount in words and figures)</i> (VT.....).</p> <p>6. (d) The Transferees hold the interest as *joint proprietors/
*proprietors in common in the following undivided shares:</p> |
|--|--|

FIRST SCHEDULE
(Rule a line across this space if inapplicable)

LAND LEASES

[CAP. 163.

{Subsidiary}

SECOND SCHEDULE

(Rule a line across this space if inapplicable)

DATED at this day of
..... 19.....

Signed by the Transferor(s)

}

In the presence of etc. . . .

Signed by the Transferee(s)

}

In the presence of etc. . . .

NOTES (as on LR. Form 4).

REGISTERED at hours this day of
..... 19.....

.....
Director of Land Records.

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LAND LEASES

[Subsidiary]

REPUBLIC OF VANUATU

LR. Form 12

LAND LEASES ACT CAP. 163

TRANSFER OF A MORTGAGE
(Section 60)

TITLE No(S)

(Please read the notes in the margin and on back page before completing this form).

TRANSFEROR(S) (full name(s))

TRANSFeree(S) (full name(s) and address(es) in Vanuatu)

1. The Transferor(s) in consideration of the sum of (*amount in words and figures*) (VT.....) the receipt of which is hereby acknowledged, HEREBY TRANSFER(S) to the Transferee(s) the mortgage shown as entry number(s) in the encumbrances section(s) of the register(s) in respect of the Lease(s)/Sublease(s) of the land comprised in the above-mentioned title(s) under and subject to the provision of the Act.
2. The Transferor(s) hereby declare(s) that the amount of principal and interest owing by the mortgagor(s) at the date hereof is (*amount in words and figures*) (VT.....)
3. The Transferee(s) declare(s) that they hold the said mortgage as *joint proprietors/*proprietors in common in the following undivided shares:—
4. In this instrument the expression "the mortgagor(s)" means the person(s) for the time being registered as the proprietor of the interest(s) subject to the mortgage described in clause 1.

**Delete if transferee is a single person or corporation. If the clause is not deleted, delete the asterisked phrase inapplicable.*

DATED at this day of 19.....

Signed by the Transferor(s) }

In the presence of etc. . . .

Signed by the Transferee(s) }

In the presence of etc. . . .

LAND LEASES

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[Subsidiary]

**Delete this clause if transferee does not require mortgagor to acknowledge.*

**I/We (full name(s))*

the Mortgagor(s) hereby acknowledge(s) that the amount declared in clause 2 of this instrument is the amount due and owing by me/us.

Signed by the Mortgagor(s) }

In the presence of etc. . . .

NOTES (as on LR. Form 4).

REGISTERED at hours this day of 19.....

.....
Director of Land Records.

LAND LEASES ACT CAP. 163

GRANT OF EASEMENT
(Section 67)

TITLE No
(of the land burdened)

(Please read the notes in the margin and on back page before completing this form).

GRANTOR(S) (full name(s))

GRANTEE(S) (full name(s))

1. The Grantor(s) is/are registered as the proprietor(s) of the lease/a sublease of the land comprised in the above-mentioned title.
2. The Grantee(s) is/are registered as the proprietor(s) of the lease/a sublease of the land comprised in Title No
3. The Grantor(s) acknowledge(s) the receipt from the Grantee(s) of the sum of (amount in words and figures) (VT.....) being the consideration for this Grant.
4. The Grantor(s) HEREBY GRANT(S) to the Grantee(s) the following easement, as appurtenant to the land described in clause 2 above, to be enjoyed for the period of years from the day of 19.....

**Specify the nature of the easement and the conditions affecting its enjoyment. The particular part of the land burdened must be described and the Director may require a plan adequate to define the easement.*

DATED at this day of 19.....

Signed by the Grantor(s) }

In the presence of etc. . . .

Signed by the Grantee(s) }

In the presence of etc. . . .

NOTES (as on LR. Form 4).

REGISTERED at hours this day of 19.....

Director of Land Records.

LAND LEASES

[CAP. 163.

[Subsidiary]

REPUBLIC OF VANUATU

LR. Form 14

LAND LEASES ACT CAP. 163

GRANT OF PROFIT
(Section 69)

TITLE No
(of the land burdened)

(Please read the notes in the margin and on back page before completing this form).

GRANTOR(S) (full name(s))

GRANTEE(S) (full name(s))

1. The Grantor(s) is/are registered as the proprietor(s) of the lease/a sublease of the land comprised in the above-mentioned title.
2. The Grantor(s) acknowledge(s) the receipt from the Grantee(s) of the sum of (amount in words and figures) (VT.....) being the consideration for this Grant.
3. The Grantor(s) HEREBY GRANT(S) to the Grantee(s) the profit in the land comprised in the above-mentioned title described in the Schedule hereto, to be enjoyed for the period of years from the day of 19.....

**Delete whichever of the phrases underlined is inapplicable.*

4. The profit is to be enjoyed *in gross/*as appurtenant to the land comprised in the lease/a sublease of the land comprised in title No..... of which the Grantee(s) is/are the registered proprietor(s).

**Delete this clause if the profit is appurtenant to other land or the Grantee is a single individual or corporation. If the clause is not deleted, delete the asterisked phrase which is inapplicable.*

5. The Grantees declare that they hold the profit as *joint proprietors/ *proprietors in common in the following undivided shares:

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LAND LEASES

[Subsidiary]

SCHEDULE

In setting out details of the profit it is necessary to—

- (1) state whether the rights are to be exercised exclusively by the Grantee or in common with the Grantor;*
- (2) specify the manner and means of entry on the land if any restrictions are intended;*
- (3) specify any other conditions the parties have agreed on; and*
- (4) express the consideration if this takes the form of rent, royalties or the like.*

Dated at this day of 19.....

Signed by the Grantor(s) }

In the presence of etc. . . .

Signed by the Grantee(s) }

In the presence of etc. . . .

NOTES (as on LR. Form 4).

REGISTERED at hours this day of 19.....

.....
Director of Land Records.

LAND LEASES

[CAP. 163.]

[Subsidiary]

REPUBLIC OF VANUATU

LR. Form 15

LAND LEASES ACT CAP. 163

RELEASE OF EASEMENT/RESTRICTIVE AGREEMENT/PROFIT
(Section 70)

TITLE No

(Please read the notes in the margin and on back page before completing this form).

I/We (full name(s))

**Delete whichever is
inapplicable*

being the person(s) now entitled to the benefit of the easement */
restrictive agreement*/profit* shown as entry number in the
encumbrances section of the register in respect of the *lease*/sublease
of the land comprised in the above-mentioned title HEREBY RE-
LEASE the said *easement*/restrictive agreement*/profit.

Dated at this day of
..... 19.....

Signed by the said }
.....

In the presence of etc. . . .

NOTES (as on LR. Form 4).

REGISTERED at hours this day of
..... 19.....

.....
Director of Land Records.

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LAND LEASES

[Subsidiary]

REPUBLIC OF VANUATU

LR. Form 16

LAND LEASES ACT CAP. 163

POWER OF ATTORNEY
(Section 82)

TITLE No(S)

(Please read notes on back page before completing this form).

I/The (full name of individual or corporation)

of (address in Vanuatu)

HEREBY APPOINT(S) (full name of individual or corporation)

of (address in Vanuatu)

to be my/its attorney and generally in relation to my/its interest in the above-mentioned title(s) to do anything and everything that I myself/the said could do and for me/it and in my/its name to execute all such instruments and do all such acts, matters and things as may be necessary or expedient for the carrying out of the powers hereby given. (If the power is to be limited to particular acts only, delete everything after the words attorney above and set out below what powers are to be conferred.)

Dated at this day of 19.....

Signed by the donor

}

In the presence of etc. . . .

NOTES (1 and 3 as on LR. Form 4).

- 2. Verification certificate. Persons authorised to complete the verification certificate in Vanuatu include Secretaries to Local Government Councils, Magistrates, Barristers, Solicitors, Notaries Public, Commissioners for Oaths, and Managers of Banks. A full list is contained in the Act.

REGISTERED at hours this day of 19.....

.....
Director of Land Records.

LAND LEASES

[CAP. 163.

[Subsidiary]

REPUBLIC OF VANUATU

LR. Form 17

LAND LEASES ACT CAP. 163

NOTICE OF REVOCATION OF A POWER OF ATTORNEY
(Section 82)

TITLE No(S)

(Please read notes on back page before completing this form).

I/The (full name of individual or corporation)

of (address)

HEREBY GIVE(S) NOTICE that the Power of Attorney dated the
..... day of 19.....
(Registered Power of Attorney number) and granted by
me/it to (full name) of
(address in Vanuatu) has
been revoked by me/it.

DATED at this day of
..... 19.....

Signed by the donor

}

In the presence of etc. . . .

NOTES (as on LR. Form 16).

REGISTERED at hours this day of
..... 19.....

.....
Director of Land Records.

APPLICATION FOR REGISTRATION OF TRANSMISSION
(Section 84)

TITLE No

(Please read notes in the margin and on back page before completing this form).

1. (Give full name of deceased)
was, at the date of his/her death registered as the proprietor of
(give details of registered interest in the above-mentioned title held by
deceased)
.....
.....

2. I/We (full name(s))
of (address(es) in Vanuatu)
am/are the personal representatives of the said deceased.

*Delete as appropriate

3. Annexed to this application is the—
*(a) grant of probate of the will of the deceased; or
*(b) grant of letters of administration of the estate of the deceased;
or
*(c) order of the Supreme Court—together with a copy thereof.

4. I/We hereby require you to register me/us by transmission as the
proprietor(s), as personal representative(s), of the interest de-
scribed in clause 1 above.

*Delete whichever
alternative is inapplicable.

*OR

*Delete whichever
alternatives are
inapplicable.

I/We hereby require you to register the accompanying instrument of
transfer made by me/us in favour of (full name(s) and address(es) in
Vanuatu), as proprietor*/joint proprietors*/proprietors in common* of
the interest described in clause 1 above. The proprietors in common are
to hold in the following shares (Delete if inapplicable).

DATED at this day of
..... 19.....

Signed by the
personal representative(s)

}

In the presence of etc. . . .

LAND LEASES

[CAP. 163.]

[Subsidiary]

NOTES

1. *Alterations.* Do not rub out or write over any words. If you have made a mistake draw one line through it (so that it can still be read) and write or type clearly above it the new words. Everyone who signs the instrument should also sign again at the side near to the alteration.
2. *Signing.* If there is more than one personal representative and they cannot get to a person authorised to complete the verification certificate at the same time or place, it will be necessary for separate verification certificates to be prepared, completed and attached to this instrument. In such cases the persons completing the separate certificates should also sign at the end of the instrument. Persons authorised to complete verification certificates in Vanuatu include Secretaries to Local Government Councils, Magistrates, Barristers, Solicitors, Notaries Public, Commissioners for Oaths, and Managers of Banks. A full list is contained in the Act.

REGISTERED at hours this day of
..... 19.....

.....
Director of Land Records.

CAP. 163.]

LAND LEASES

[Subsidiary]

REPUBLIC OF VANUATU

LR. Form 19

LAND LEASES ACT CAP. 163

CAUTION
(Section 93)

TITLE No

To: Director of Land Records

**Delete such of the words
underlined as are
inapplicable.*

TAKE NOTICE that I/We (full name(s))

of (address(es) in Vanuatu)

claiming in respect of the above-mentioned title (state by reference to the appropriate subsection in the Act the grounds on which the claim is founded and the nature of the interest claimed).

HEREBY FORBID the registration without my*/our* written consent of any person as transferee of*/any dealing or instrument affecting* that interest unless the conditions in the Schedule hereto have been fulfilled*, until this caution is withdrawn by me*/us* or is otherwise removed or lapses in accordance with the Act.

I/We APPOINT (specify address in Vanuatu at which notice relating to caution or proceeding in respect thereof may be served on the cautioner)

as the place at which notices and proceeding relating to this caution may be addressed to or served upon me*/us*.

LAND LEASES

[CAP. 163.

[Subsidiary]

SCHEDULE

DATED at this day of
..... 19.....

**Signed by the above-named
Cautioner(s) in the
presence of }

Signature of witness

Name of witness

Address

***In the case of a corporation, substitute in this part the usual form of words recording the affixing of its seal.*

REGISTERED at hours this day of
..... 19.....

.....
Director of Land Records.

WARNING: "Any person lodging any caution with the Director or allowing any caution to remain without reasonable cause shall be liable to pay such compensation as the Court thinks just to any person who sustains damage or who has incurred costs or expenses thereby". (section 97(5) of Land Leases Act Cap. 163).

CAP. 163.]

LAND LEASES

[Subsidiary]

REPUBLIC OF VANUATU

LR. Form 20

LAND LEASES ACT CAP. 163

CONSENT

(Sections 36, 41(h), 48(2), 56(1)(c) and 57)

(Please read notes in the margin and on back page before completing this form).

TITLE No

I/We (full name(s))

being registered as lessor(s)/sublessor(s) of the land comprised in the above-mentioned title

*OR

**Delete whichever alternatives are inapplicable.*

being registered as the mortgagee(s) of the lease/sublease of the land comprised in the above-mentioned title

HEREBY CONSENT to the registration of

Here give details of dealings to which consent is given including names of parties.

DATED at this day of 19.....

Signed by the giver(s) of the consent in the presence of etc.

}

NOTES (as on LR. Form 16).

LAND LEASES

[CAP. 163.]

[Subsidiary]

LR. Form 21

REPUBLIC OF VANUATU
REPUBLIQUE DE VANUATU

LAND LEASES ACT CAP. 163
LOI NO. 4 DE 1983 SUR LES BAUX FONCIERS

APPLICATION FOR INSPECTION OF A REGISTER
DEMANDE DE CONSULTATION D'UN REGISTRE
(Section 19)

TITLE No(s)
TITRE(s) No

To: Director of Land Records
Au: Directeur de L'Enregistrement et des Hypothèques

I/Je soussigné
(full names) (nom et prénoms)

of
résidant à
.....
(address) (adresse)

hereby apply to inspect the register relating to the land comprised in the above mentioned title number(s)
demande à consulter le registre afférant au fonds de terre objet (des) titre(s) No.

I enclose VT in respect of the fee(s) payable.
Veuillez trouver ci-joint la somme de VT en règlement des droits exigibles.

DATED at this day of
..... 19.....

FAIT à le 19.....

Signature of applicant
Signature du demandeur

Land Reform

LAWS OF THE REPUBLIC OF VANUATU

REVISED EDITION 1988

CHAPTER 123

LAND REFORM

JR 31 of 1980
Act 6 of 1981
Act 10 of 1983
Act 32 of 1985

ARRANGEMENT OF SECTIONS

SECTION

PART I

Interpretation

1. Interpretation

PART II

Encumbrances

2. Encumbrances

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Alienated Land

3. Entitlement of alienator to remain on land
4. Referrals to Supreme Court on identity of alienator
5. Applications to Islands Court where identity of custom owners in dispute

PART IV

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6. Certificate of registered negotiator
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PART V

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8. Minister to have general management and control of certain land

PART VI

Public Land

9. Vesting of state land
10. Use of public land by custom owners
11. Notice by Minister of use of public land
12. Declaration of land as public land
13. Right of alienator to remain in occupation of land

PART VII

Registered Leases

14. Guarantee of registered lessee

PART VIII

Rights of Entry

15. Right of entry of officials and valuers

PART IX

Land Corporations

16. Establishment of corporate bodies by the Minister

PART X

Roads

17. Public roads

PART XI

Use of Force and Damage

18. Prohibition of use of force
19. Prohibition of damage or destruction of improvements

PART XII

Regulations and Offences

20. Regulations
21. Offences
22. Saving and transfer of mortgages
23. Saving of rights of lessees and tenants

SCHEDULE—Corporate Bodies

Part 1—Functions

Part 2—Powers

LAND REFORM

To make interim provision for the implementation of Chapter 12 of the Constitution.

PART I

INTERPRETATION

INTERPRETATION

1. In this Act unless the context otherwise requires—

“alienator” means a legal or natural person or persons who immediately prior to the Day of Independence and whether or not their rights were registered in the Registry of Land Titles provided for in the Anglo/French Protocol of 1914—

- (a) had freehold or perpetual ownership of land whether alone or jointly with another person or persons; or
- (b) had a right to a share in land by inheritance through will or operation of law where no formal transfer of that land had taken place; or
- (c) had a life interest in land; or
- (d) had a right to land or a share in land at the end of a life interest; or
- (e) had a beneficial interest in land;

Provided that—

- (i) (a) where there is more than one alienator in respect of a piece of land they shall be included in the expression “the alienator” for the purposes of the provisions of this Act;
- (b) one alienator may represent himself and the other alienator or alienators by agreement among them for the purposes of this Act;
- (c) the Minister may appoint an alienator to represent his co-alienator or alienators for the purposes of this Act;
- (ii) a person shall not be an alienator of land unless—
 - (a) there is a person in physical occupation of it being an alienator or a licensee, tenant or lessee of an alienator; and
 - (b) the land and improvements thereon have in the opinion of the Minister been up to the Day of Independence maintained in reasonably good repair and condition; and, where applicable
 - (c) rates or taxes due in respect of the land are not in arrears for 6 months or more on the Day of Independence;
- (iii) a person shall be an alienator within the meaning of this definition if the Minister is satisfied that he has been unable to satisfy any of the conditions in paragraph (ii) because of the deliberate act or omission of another person or persons;
- (iv) a person shall be an alienator within the meaning of this definition if he has been substituted for an alienator with the consent of the Minister in accordance with section 8(2)(a);

“custom owners” means the person or persons who, in the absence of a dispute, the Minister is satisfied are the custom owners of land;

“custom group” means a person or persons who claim custom ownership of disputed land;

“disputed land” means land the ownership of which is claimed by more than one custom group;

“encumbrance” includes a mortgage, a lease, licence to use land for payment, a right of way or any customary or other rights over land not being rights of ownership of that land;

“land” includes improvements thereon or affixed thereto and land under water including land extending to the sea side of any offshore reef but no further;

“the Minister” means the Minister for the time being responsible for land or any Minister acting on his behalf;

“state land” means all land in Vanuatu which on the 1st day of January 1980 was owned in freehold or perpetual ownership by the British Government, the French Government, the Condominium or a Municipality.

PART II

ENCUMBRANCES

ENCUMBRANCES

2. Subject to section 22 land shall be held subject to encumbrances created before or after the coming into operation of this Act.

PART III

ALIENATED LAND

ENTITLEMENT OF ALIENATOR TO REMAIN ON LAND

3. Every alienator shall be entitled to remain on land occupied by him on the Day of Independence until such time as either he enters into a lease of the land or a part thereof with the custom owners of the land or receives payment for improvements to or on that land:

Provided that where such land is undeveloped land, an alienator, without prejudice to his right to enter into a lease of that land, shall not be entitled to remain on such land.

REFERRALS TO SUPREME COURT ON IDENTITY OF ALIENATOR

4. (1) In any case where there is doubt as to who is an alienator in respect of land or to what proportion of a valuation of improvements an alienator is entitled, the matter shall be referred to the Supreme Court for decision either by an alienator, the custom owners or the Minister.
- (2) A decision of the Supreme Court under subsection (1) shall be final and shall not be the subject of an appeal to the Court of Appeal.
- (3) The Chief Justice may make rules of procedure for the purposes of this section.

APPLICATIONS TO ISLAND COURT WHERE IDENTITY OF CUSTOM OWNERS IN DISPUTE

5. (1) In any case where there is doubt as to who are the custom owners of land occupied by an alienator one of the custom groups who claim the land may apply to an Island Court established in accordance with section 1 of the Island Courts Act, Cap. 167 to decide on the ownership of the land.

LAND REFORM

[CAP. 123.]

- (2) Where no claim has been made to custom ownership of land or the custom groups who dispute ownership have not made an application to the Court in accordance with subsection (1) the Minister may make such application in respect of such land.

PART IV

NEGOTIATIONS AND AGREEMENTS RELATING TO CUSTOM LAND

CERTIFICATE OF REGISTERED NEGOTIATOR

6. (1) No alienator or other person may enter into negotiations with any custom owners concerning land unless he applies to the Minister and receives a certificate from the Minister that he is a registered negotiator.
- (2) A certificate issued in accordance with subsection (1) shall—
- (a) state the names of the applicant and of the custom owners;
 - (b) give brief details of the land in respect of which negotiations are registered; and
 - (c) state the object of the negotiations.
- (3) If negotiations are completed without compliance with subsection (1) the Minister may refuse to approve the agreement between the custom owners and the unregistered negotiator and if he is an alienator may declare the land unsettled land.

VOID AGREEMENTS

7. All agreements between persons who are not indigenous citizens and custom owners relating to land shall be void and unenforceable in law unless they have been—
- (a) approved by the Minister; and
 - (b) registered in the Land Records Office.

PART V

MANAGEMENT OF LAND

MINISTER TO HAVE GENERAL MANAGEMENT AND CONTROL OF CERTAIN LAND

8. (1) The Minister shall have general management and control over all land—
- (a) occupied by alienators where either there is no approved agreement in accordance with sections 6 or 7 or the ownership is disputed; or
 - (b) not occupied by an alienator but where ownership is disputed; or
 - (c) not occupied by an alienator, and which in the opinion of the Minister is inadequately maintained.
- (2) Where the Minister manages and controls land in accordance with subsection (1) he shall have power to—
- (a) consent to a substitution of one alienator for another;
 - (b) conduct transactions in respect of the land including the granting of leases in the interests of and on behalf of the custom owners;
 - (c) take all necessary measures to conserve and protect the land on behalf of the custom owners.

PART VI

PUBLIC LAND

VESTING OF STATE LAND

9. (1) On the Day of Independence all state land shall vest in the Government and be public land and be held by it for the benefit of the Republic of Vanuatu and section 11 shall apply to such of that land as is not included in an Order under subsection (2) of this section as if a notice under section 11(1) had been given by the Minister 6 months before the Day of Independence.
- (2) The Minister, on the advice of the Council of Ministers, may by Order declare that any land described in the Order ceases to be public land.
- (3) In accordance with Article 81 of the Constitution the Minister may, on the advice of the Council of Ministers, by Order vest any public land in indigenous citizens or communities referred to in the Order for such payment by them and on such terms and conditions as may be referred to in the Order.
- (4) When an Order is made under subsection (3) it shall provide for payment of compensation to the custom owners by the Government and the amount of such compensation shall be set out in the Order.

USE OF PUBLIC LAND BY CUSTOM OWNERS

10. Until such time as the Government may require to use undeveloped public land for development or other public purposes the land may be used by the custom owners for any purpose except that the consent of the Minister shall be required for—
- (a) the construction of any building;
- (b) the planting of any crops not requiring annual replanting; or
- (c) any other improvements of a permanent nature.

NOTICE BY MINISTER OF USE OF PUBLIC LAND

11. (1) The Minister shall give the custom owners not less than 6 months notice of the intention of the Government to use public land described in the notice for development or public purposes.
- (2) The Government shall agree compensation with the custom owners for the use of the land and loss of any improvements thereon which, depending on the nature of the intended use of the land, may be in the form of—
- (a) a lump sum payment which may be paid in instalments over not more than 30 years;
- (b) the transfer to them of other public land;
- (c) the provision of free services at specially agreed rates by the Government; public utilities or municipalities;
- (d) shares in a company established by the Government alone or with other persons for developing the land;
- (e) an agreed share of net income received by the Government from the land.
- (3) In addition to the compensation referred to in subsection (2) the Government may give the custom owners such minority representation on bodies that may manage the land as shall be agreed.
- (4) The Government may at any time pay a sum to custom owners in commutation of the custom owners share of income under subsection (2)(e).

LAND REFORM

[CAP. 123.]

DECLARATION OF LAND AS PUBLIC LAND

12. The Minister may at any time on the advice of the Council of Ministers and after consultation with the custom owners declare any land to be public land:

RIGHT OF ALIENATOR TO REMAIN IN OCCUPATION OF LAND

13. Every alienator occupying public land shall have a right to remain in occupation of that land from the time it becomes public land until he enters into a lease of the land or a part thereof with the Government or he receives payment for improvements to or on the land.

PART VII

REGISTERED LEASES

GUARANTEE OF REGISTERED LESSEE

14. (1) When a lease is registered in a register in the Land Records Office the registration of that lease shall be evidence of the validity of the lease and the details thereof.
- (2) If a person registered as a lessee is proved in a court not to be the lessee and such person was not registered as a lessee through fault or fraud on his part he will be entitled to receive compensation from the Government for any loss suffered by him as a result of the finding of the Court.

PART VIII

RIGHTS OF ENTRY

RIGHT OF ENTRY OF OFFICIALS AND VALUERS

15. Persons bearing the written authority of the Minister shall have a right to enter upon any land occupied by an alienator in order to carry out the functions vested in the Minister by section 8.

PART IX

LAND CORPORATIONS

ESTABLISHMENT OF CORPORATE BODIES BY THE MINISTER

16. (1) The Minister may by Order establish corporate bodies for the better carrying out of the effect of the purposes of this Act.
- (2) A corporate body established in accordance with subsection (1) may be vested with the functions and powers referred to in the Schedule as may be specified in the Order establishing it or an Order amending the Order.
- (3) Subject to subsection (4), the Minister may delegate any of his duties or functions under this Act to a corporate body established under this section.
- (4) The Minister may not delegate his powers to consent to transactions between custom owners and other persons.

PART X

ROADS

PUBLIC ROADS

17. (1) Public roads in existence or under construction on the Day of Independence shall vest on that Day in the Government on behalf of the people.
- (2) No person other than the Minister may close a public road or take a toll from persons using a public road.

PART XI

USE OF FORCE AND DAMAGE

PROHIBITION OF USE OF FORCE

18. (1) No custom owners or members of a custom group whether or not such persons believe they own such land shall enter on land by force or attempt to eject any persons occupying that land by force.
- (2) No alienator shall use force against custom owners peaceably entering the land occupied by him.
- (3) Any person who contravenes this section shall be liable on conviction to imprisonment for 10 years or a fine of VT200,000 or to both.

PROHIBITION OF DAMAGE OR DESTRUCTION OF IMPROVEMENTS

19. (1) No person whether an alienator or custom owner and whether or not he believes himself to be the owner of the improvement shall wilfully damage or destroy any improvement on land without the consent in writing of the Minister.
- (2) A person who contravenes subsection (1) shall be liable on conviction to imprisonment for 10 years or a fine of VT200,000 or to both.

PART XII

REGULATIONS AND OFFENCES

REGULATIONS

20. (1) For the better carrying into effect of this Act the Minister may by Order make regulations not inconsistent with this Act.
- (2) Without derogating from the generality of subsection (1) the Minister in such regulations may provide—
- (a) for anything that may be prescribed;
 - (b) for fees payable on registering transactions in the Land Records Office;
 - (c) for the manner of applying to make entries in registers in the Land Records Office;
 - (d) for the forms to be used for applications under this Act and the fees payable on such applications.
 - (e) for the occasions when and the manner of carrying out surveys of land.

OFFENCES

21. (1) Any person who obstructs any person in carrying out his duties or functions under this Act commits an offence.
- (2) Any person who commits an offence under this section or contravenes any provision of this Act shall where no other penalty is provided be liable on conviction to a term of imprisonment of 3 years or a fine of VT60,000 or to both.

SAVING AND TRANSFER OF MORTGAGES

22. (1) Subject to the Constitution and subsections (2) and (3) the rights of mortgagees and other persons who have lent money with land given as security for repayment of the money lent by them shall continue in full force and effect from the Day of Independence.
- (2) When an alienator enters into a lease of land with the custom owners or Government in accordance with section 3 or 13 any mortgages entered into by him at any time prior to the lease in respect of that land shall be deemed to have been made in respect of that lease and shall be construed with such adaptations as shall be necessary.
- (3) When an alienator receives any payment or enters into an agreement to receive any payment for improvements to or on land in accordance with sections 3 or 13 the payment or agreement shall be charged in order of priority with payment of the amounts due under any mortgages entered into by him at any time prior to the payment or the agreement.

SAVING OF RIGHTS OF LESSEES AND TENANTS

23. The rights and obligations of lessees and tenants subsisting on the Day of Independence shall remain in full force and effect for the full term of their tenancies and leases.

SCHEDULE

(section 16)

CORPORATE BODIES

PART I

FUNCTIONS

A corporate body formed under this Act may—

- (a) manage land, plantations or residential properties;
- (b) act as an agent for the Government or any other body or person;
- (c) carry on business as an investment manager;
- (d) manage any kind of business enterprise;
- (e) engage in any business relating to land including its development for residential, industrial or commercial purposes;

- (f) undertake the business of farmers, ranchers, cultivators of timber, sawmillers and timber merchants;
- (g) undertake the business of builders or civil engineers;
- (h) process any crops grown on land including copra, cocoa and rice.

PART II

POWERS

A corporate body formed under this Act shall have power for the purpose of carrying out its functions to—

- (a) hold, buy and sell real or personal property including houses for employees of the corporate body;
- (b) lease land to or from any person;
- (c) sue and be sued in its corporate name;
- (d) promote or finance any undertaking;
- (e) subject to such specific or general conditions as the Minister may make borrow money by the issue of debentures or in any other manner including overdraft;
- (f) lend money and guarantee loans;
- (g) establish or participate in any pension schemes for the benefit of its employees and their dependents;
- (h) carry out programmes of research;
- (i) charge fees;
- (j) employ any persons, firms or bodies;
- (k) enter into agreements, leases, conveyances or transfer of land on behalf of the Government or any custom owners and a recital in any such agreement, lease, conveyance or transfer that the corporation is acting on behalf of the Government or custom owners as the case may be shall be sufficient to indemnify any other party to such agreement, lease, conveyance or transfer;
- (l) invest funds not immediately required for the purposes of its functions in bank deposits and such other investments as may be authorised by the Minister.
- (m) such other powers as may be incidental to the above mentioned powers or necessary to enable the corporate body to carry out its functions.

SUBSIDIARY LEGISLATION

LAND REFORM (RURAL ALIENATED LAND) REGULATIONS

Order 9 of 1980

ARRANGEMENT OF REGULATIONS

REGULATION

1. Application
2. Form of certificate of registered negotiator
3. Fees
4. Time for lodging applications
5. Minister may extend time
6. Minister may accept applications made out of time
7. Minister may require further and better particulars
8. Verification of particulars in application
9. Applicant to answer truthfully all questions

SCHEDULE

Part 1—Form A—Application for a certificate pursuant to section 6(1) of the Act

Part 2—Form B—Request for an extension of time to apply for a certificate pursuant to section 6(1) of the Act

Part 3—Fees payable on an application for a certificate pursuant to section 6(1) of the Act

SUBSIDIARY LEGISLATION

LAND REFORM (RURAL ALIENATED LAND) REGULATIONS

To provide for the manner and form of application for a certificate of registered negotiator in respect of rural alienated land and matters connected therewith.

APPLICATION

1. These Regulations apply with respect to—
 - (a) land which, on the day these Regulations come into force, is situated outside the municipal boundaries of Port Vila and Luganville; and
 - (b) land which, on the day these Regulations come into force, is situated within the municipal boundaries of Port Vila and Luganville, but is subsequently excluded from the said municipal boundaries.

FORM OF CERTIFICATE OF REGISTERED NEGOTIATOR

2. With respect to such land as specified in regulation 1, an application for a Certificate of Registered Negotiator under section 6(1) of the Land Reform Act, Cap. 123 shall be in Form A contained in Part 1 of the Schedule.

FEEES

3. The fee payable on an application form shall be as set out in Part 3 of the Schedule.

TIME FOR LODGING APPLICATIONS

4. Subject to regulations 5 and 6, an application supported by some evidence of payment of the prescribed fee shall be lodged with the Minister—
 - (a) with respect to land described in regulation 1(a), within 3 months of the day these Regulations come into force; and
 - (b) with respect to land described in regulation 1(b), within 3 months of the declaration that the land is excluded from a municipal boundary.

MINISTER MAY EXTEND TIME

5. (1) The Minister may, on request by a person intending to apply under these Regulations, extend the time prescribed in regulation 4 for a further period.
(2) A request for an extension of time shall be in Form B contained in Part 2 of the Schedule.

MINISTER MAY ACCEPT APPLICATIONS MADE OUT OF TIME

6. (1) Subject to subregulation (4), the Minister may, if he is satisfied that reasonable cause has been shown, accept an application made out of time.
(2) An application made out of time shall be supported by a statement giving the applicant's reasons for applying out of time.
(3) The Minister may place such terms or conditions on acceptance of a late application as he thinks fit.
(4) A late application with respect to a parcel or parcels of land may not be accepted if the Minister has already given a Certificate under section 6(1) of the Land Reform Act, Cap. 123 in relation to such parcel or parcels of land.

MINISTER MAY REQUIRE FURTHER AND BETTER PARTICULARS

7. The Minister may with respect to any matter contained in an application, require the applicant to appear before him for an interview, or to provide further or better particulars, including supporting documentary evidence.

VERIFICATION OF PARTICULARS IN APPLICATION

8. A person authorised in writing by the Minister may, for the purpose of establishing the accuracy or otherwise of statements made in an application—
- (a) enter upon the land the subject of the application with such persons, vehicles and things as he thinks fit;
 - (b) inspect the land and any improvements, produce, plant and equipment on the land; and
 - (c) examine and record the details of any accounts, records, documents and papers relating in any way to the land or any improvements, plant or equipment on the land, or produce from the land.

APPLICANT TO ANSWER TRUTHFULLY ALL QUESTIONS

9. Failure by an applicant to answer truthfully and to the best of the applicant's ability to questions and matters of fact raised in Form A shall render the application invalid.
-

SCHEDULE

(regulation 2)

Part 1

FORM A

REPUBLIC OF VANUATU

Land Reform Act, Cap. 123

APPLICATION FOR A CERTIFICATE PURSUANT TO SECTION 6(1) OF THE ACT

Section A. Questions relating to the applicant

1. Full name of applicant:
2. Applicant's postal address in Vanuatu:
-
3. (a) In the case of a natural person;
 - (i) applicant's place and date of birth:
 -
 - (ii) applicant's nationality:
 - (iii) applicant's country of residence:
 - (iv) applicant's occupation:
 - (v) what is your residential status in Vanuatu?
 - (vi) is there any legal impediment on your ability to enter Vanuatu (if so, give details):
 -
 -
- (b) In the case of a corporation;
 - (i) applicant's country of incorporation:
 - (ii) applicant's business:
 - (iii) applicant's principal place of business:

Section B. Questions relating to the land

Instructions: The applicant should submit a separate application with respect to each separate parcel of land for which the applicant wishes to apply. If parcels of land the subject of the application physically adjoin, then a single application may embrace all such adjoining parcels. If, however, the applicant wishes to make application with respect to parcels of land which do not adjoin, then

LAND REFORM

[CAP. 123.

[Subsidiary]

separate applications should be submitted with respect to each non-adjointing parcel. The applicant is invited to indicate the land the subject of the application by attaching to the application a map showing boundaries, etc.

- 4. Name of the land the subject of the application:
- 5. Location of the land, being—
 - District:
 - Island:
- 6. Official description of the land, being—
 - Registered title number(s):
 - Plan number(s):
 - Other descriptions:
- 7. Are you applying for—
 - (a) all the land the subject of a registered title under paragraph 6?
 - (b) part only of the land the subject of a registered title under paragraph 6?; or
 - (c) land which is not the subject of a registered title?

(Answer "Yes" to (a) (b) or/and (c), as appropriate.)

Section C. Questions relating to claims with respect to the land

Instructions: Applications for a Certificate of Registered Negotiator may be made under the Land Reform Act, Cap. 123 by an alienator or other person. "Alienator" is defined in section 1 of the Land Reform Act. The applicant is required to provide details of other claims with respect to the land.

Details of the applicant's claim

- 8. Do you claim to be an alienator with respect to the land the subject of the application?
- 9. If the answer to paragraph 8 is yes, do you claim that immediately prior to the Independence, you—
 - (a) had freehold or perpetual ownership of the land either alone or jointly with another person or persons?
 - (b) had a right to a share in the land by inheritance through will or operation of law where no formal transfer of that land had taken place?
 - (c) had a life interest in the land?

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- (d) had a right to the land or a share in the land at the end of a life interest?
 - (e) had some other beneficial interest in the land?
- (Answer "Yes" to one of (a)-(e), as appropriate).

10. (a) If I answered "yes" to paragraph 9(a), state—
- (i) whether you claim to have had freehold or perpetual ownership alone, or jointly with another person or persons:
 - (ii) if jointly, state the name and address of such other person or persons:
- (b) If you answered "yes" to paragraph 9(e), state the nature of the beneficial interest:

11. (a) If the answer to paragraph 8 is "no", do you claim to have an interest in the land?
- (b) If so, state the nature of the interest:

Details of any other claims

12. (a) If the answer to paragraph 8 is "yes", do you know of any other person or persons who may claim to be an alienator with respect to the land?
- (b) If so—
- (i) state the name, address and nature of the claim of such person or persons:
 - (ii) has there been an agreement between you and such person or persons as to who will be the alienators' representative for the purposes of the Land Reform Act, Cap. 123.
- if so, state the name and address of the alienators' representative:

13. Do you know of any person (including any non-natural person) who has a mortgage on the land?

14. If the answer to paragraph 13 is "yes" state the nature of the mortgage, the mortgagee's name and address, and the mortgagor's name and address:

15. Do you know of any person (including any non-natural person) who has a lease of the land or any part thereof?

16. If the answer to paragraph 15 is "yes", state the nature and terms of the lease, the name and address of the lessee, and the name and address of the lessor:

17. Do you know of any person (including any non-natural person) who has a licence to use the land or any part thereof for payment?

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- 18. If the answer to paragraph 17 is "yes", state the nature of the licence, and the name and address of the licensee:
- 19. Do you know of any person (including any non-natural person) who has a right of way on or along or over the land or any part thereof?
- 20. If the answer to paragraph 19 is "yes", state the nature of such right of way, and the name and address of such person:
- 21. Do you know of any customary rights on or over the land or any part thereof (such customary rights not being rights of ownership of the land)?
- 22. If the answer to paragraph 21 is "yes", state what such rights are:
- 23. Do you know of any person (including any non-natural person) who has any other rights in or over the land or any part thereof (such rights not being rights of ownership)?
- 24. If the answer to paragraph 23 is "yes", state what such rights are, and the name and address of such person:

Section D. Questions relating to occupation of the land

- 25. Are you in actual physical occupation of the land the subject of the application?
- 26. If the answer to paragraph 25 is "yes"—
 - (a) is such occupation over all or part only of the land?
 - (b) if part only, state which part:
- 27. If the answer to paragraph 25 is "no", is there any other person (including any non-natural person) in actual physical occupation of the land?
- 28. If the answer to paragraph 27 is "yes"—
 - (a) is the person in occupation an alienator? (If so, state the name and address of the alienator):
 - (b) is the person in occupation a licensee? (If so, state the name and address of the licensee, and the name and address of the licensor):
 - (c) is the person in occupation a tenant or lessee? (If so, state the name and address of the tenant or lessee, and the name and address of the person from whom the tenancy or lease is held):

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29. If the answer to paragraph 27 is "yes"—
- (a) is such occupation over all or part only of the land?
 - (b) if part only, state which part:

Section E. Questions relating to maintenance of the land and improvements on or to the land

30. What is the area of the land the subject of the application? hectares
31. What is the cleared area? hectares
32. What area has been planted to cash crops? hectares
33. With respect to cash cropping on the land, you are required to answer the following—
- (a) *Coconuts*
 - (i) what area is planted to coconut? hectares
 - (ii) what is the age of the coconut trees?
 - (iii) what was the production—in 1978? tonnes
 - in 1979? tonnes
 - (b) *Cocoa*
 - (i) what area is planted to cocoa? hectares
 - (ii) what is the age of the cocoa trees?
 - (iii) what was the production—in 1978? tonnes
 - in 1979? tonnes
 - (c) *Coffee*
 - (i) what area is planted to coffee? hectares
 - (ii) what is the age of the coffee trees?
 - (iii) what was the production—in 1978? tonnes
 - in 1979? tonnes
 - (d) *Other cash crops*
 - (i) what area is planted to other cash crops? hectares
 - (ii) what are they?
 - (iii) what was the production—in 1978? tonnes
 - in 1979? tonnes
34. With respect to animal husbandry on the land, you are required to answer the following—
- (a) *Fencing*
 - (i) what area has been fenced to grazing? hectares
 - (ii) what is the length of fencing? kilometres
 - (iii) what is the type of fencing?
 - (iv) what is the state of fencing?

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(b) Pasture Improvement

- (i) what area has been pasture improved? hectares
- (ii) provide details of the type and nature of pasture improvement:

(c) Stocking

- (i) what is the number of cattle?
(Indicate the number of bulls, breeding cows, bullocks, spayed cows, steers, heifers and calves)
- (ii) what is the nature and number of other commercial stock?

(d) Production

- (i) what commercial stock was sold—in 1978?
- in 1979?

(e) Water Systems

- (i) list the structural improvements for watering or irrigation purposes:

35. List other structural improvements, including—

- (a) residences:
- (b) workers' quarters:
- (c) crop husbandry and processing facilities:
- (d) animal husbandry and processing facilities:

36. List plant and equipment used in connection with the development of, or production from the land:

Section F. Development Proposals

In this section you are asked to state your proposals for development of the land in the event of agreement being negotiated with the custom owners. These should include—

1. Proposed provision for maintenance of existing cash crops, rehabilitation of plantings, and replantings or new plantings of cash crops;
2. Proposed provision for maintenance of existing animal stock numbers and any increase in stock numbers;
3. Proposed improvements in connection with crop and animal husbandry and processing of crop and animal production;
4. Proposed or possible sources which might be available for financing development proposals.

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Section G. Participation by Custom Owners

In this section you are asked to state your views or proposals with respect to participation of the custom owners in the ownership and management of the business conducted on the land, in the event of an agreement being negotiated with the custom owners.

Section H. Application and Declaration

Instructions: Applicants are required to answer truthfully and to the best of their ability all questions and matters of fact in Form A. Failure to answer truthfully and to the best of the applicant's ability will render the application invalid. Your attention is drawn to section 21 of the Land Reform Act, Cap. 123 which provides that any person who contravenes any of the provisions of the Act (which includes these Regulations) will be liable on conviction to a term of imprisonment or a fine or both. Applicants must complete the following application and declaration.

I, (name) of (address) hereby apply for a Certificate of Registered Negotiator under Section 6(1) of the Land Reform Act, Cap. 123 and I declare that the statements made by me in Sections A, B, C, D and E of this form are, to the best of my knowledge and ability, complete and correct.

.....
Date

.....
Signature of Applicant

.....
Signatory's Office
(where the applicant is a corporation).

(regulation 5)

Part 2

FORM B

REPUBLIC OF VANUATU

Land Reform Act, Cap. 123

REQUEST FOR AN EXTENSION OF TIME TO APPLY FOR A CERTIFICATE PURSUANT TO SECTION 6(1) OF THE ACT

I, (name), of (address) hereby request an extension of time to lodge an application for a Certificate of Registered

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Negotiator under Section 6(1) of the Land Reform Act, Cap. 123. The following information is provided in support of this request.

1. Answer either (a) or (b):
 - (a) I am a natural person whose nationality is
and whose country of residence is
 - (b) I am a corporation whose country of incorporation is
..... and whose principal place of
business is

2. My postal address in Vanuatu is

3. The details of the land in respect of which I intend to lodge an application for a Certificate of Registered Negotiator under section 6(1) of the Act are as follows—
 - (a) Name of the land:
 - (b) Location of the land, being—
 - District:
 - Island:
 - (c) Official description of the land, being—
 - Registered title number(s):
 - Plan number(s):
 - Other description:
 -

4. My claim with respect to the land or interest in the land is:
.....
.....

5. To the best of my knowledge and belief, the only person or persons (including any non-natural person) who have any other rights in or over the land or any part thereof (such rights not being customary rights of ownership) is/are:

.....
Date

.....
Signature of Applicant

.....
Signatory's Office
(where the applicant is a corporation).

Part 3

Land Reform Act, Cap. 123

FEES PAYABLE ON AN APPLICATION FOR A CERTIFICATE PURSUANT TO
SECTION 6(1) OF THE ACT

Area of land the subject of the application	VT
Not more than 10 hectares	2,000
More than 10 and not more than 100 hectares	4,000
More than 100 and not more than 500 hectares	10,000
More than 500 and not more than 1,000 hectares	20,000

Plus VT5,000 for every 500 hectares or part thereof over 1,000 hectares.

SUBSIDIARY LEGISLATION

LAND REFORM (RURAL LAND CORPORATION) REGULATIONS

Order 14 of 1980

ARRANGEMENT OF REGULATIONS

REGULATION

1. Interpretation
 2. Establishment of the Corporation
 3. Functions of the Corporation
 4. Powers of the Corporation
 5. Delegation of functions to general manager
 6. Composition of the Corporation
 7. Allowances for members
 8. Secretary to the Corporation
 9. Meetings of the Corporation
 10. General manager and employees of the Corporation
 11. Funds of the Corporation
 12. Funds to be held in trust
 13. Guarantee of loans
 14. Control of borrowing
 15. Accounts and audits
 16. Annual report
 17. Submission of estimates for purpose of grants
 18. Contracts
 19. Evidence of sealing of documents
 20. Previous contracts
 21. Minister's delegation of powers
 22. No personal liability to members or employees
 23. Minister's directives
-

SUBSIDIARY LEGISLATION

LAND REFORM (RURAL LAND CORPORATION) REGULATIONS

To provide for the establishment of the Rural Land Corporation, for the functions of that Corporation, for that Corporation to have general management and control over certain rural land and for matters connected therewith.

INTERPRETATION

1. In these Regulations unless the context otherwise requires—

“the Corporation” means the Rural Land Corporation established under regulation 2;

“financial year” means the financial year of the Corporation which shall be the same as that of the government financial year;

“Minister” means the Minister for the time being responsible for land or any Minister acting on his behalf.

ESTABLISHMENT OF THE CORPORATION

2. (1) There is hereby established a body corporate to be known as the Rural Land Corporation.
- (2) The Corporation shall have perpetual succession and a common seal and may sue and be sued in its Corporate name.

FUNCTIONS OF THE CORPORATION

3. The Corporation may exercise any of the following functions—

- (a) manage land, plantations or residential properties;
- (b) act as an agent for the Government or any other body or person;
- (c) carry on business as an investment manager;
- (d) manage any kind of business enterprise;
- (e) engage in any business relating to land including its development for residential, industrial or commercial purposes;
- (f) undertake the business of farmers, ranchers, cultivators of timber, sawmillers and timber merchants;
- (g) undertake the business of builders or civil engineers;
- (h) process any crops grown on land including copra, cocoa and rice.

POWERS OF THE CORPORATION

4. The Corporation shall have the following powers—

- (a) hold, buy and sell movable or immovable property including houses for employees of the Corporation;
- (b) lease land to or from any person;
- (c) promote or finance any undertaking;
- (d) subject to such specific or general conditions as the Minister may make, borrow money by the issue of debentures or in any other manner including overdraft;
- (e) lend money and guarantee loans;

- (f) establish or participate in any pension scheme for the benefit of its employees and their dependents;
- (g) carry out programmes of research;
- (h) charge fees;
- (i) employ any persons, firms or bodies;
- (j) enter into agreements, leases, conveyances or transfer of land on behalf of the Government or any custom owners and a recital in any such agreement, lease, conveyance or transfer that the Corporation is acting on behalf of the Government or custom owners as the case may be shall be sufficient to indemnify any other party to such agreement, lease, conveyance or transfer;
- (k) invest funds not immediately required for the purposes of its functions in bank deposits and such other investments as may be authorised by the Minister;
- (l) such other powers as may be incidental to the above mentioned powers or necessary to enable the Corporation to carry out its functions.

DELEGATION OF FUNCTIONS TO GENERAL MANAGER

5. (1) The Corporation may, by resolution or otherwise, delegate to the general manager with or without restrictions or conditions, as the Corporation thinks fit, such of its powers and functions as it deems expedient for the efficient discharge of the day to day operations of the Corporation.
- (2) Nothing in subregulation (1) shall permit the delegation of the power—
- (a) to make major decisions of policy in connection with the functions of the Corporation;
 - (b) to authorise expenditure exceeding such amount as may, from time to time, be fixed by the Corporation.

COMPOSITION OF THE CORPORATION

6. (1) The Corporation shall consist of a chairman, a deputy chairman and not less than two nor more than eight other members all appointed by the Minister.
- (2) Subject to subregulation (1) members of the Corporation shall hold office for a period of 1 year and shall be eligible for reappointment.
- (3) A member of the Corporation may resign by not less than 30 days notice in writing to the Minister.
- (4) The Minister may remove a member from office by notice published in the *Gazette*.

ALLOWANCES FOR MEMBERS

7. Members of the Corporation who are not public officers shall be paid such allowances and expenses as the Minister may determine after consultation with the Minister responsible for finance.

SECRETARY TO THE CORPORATION

8. (1) There shall be a secretary to the Corporation who shall be an employee thereof and appointed by the Corporation in accordance with regulation 10.
- (2) The secretary or a person acting in that office shall attend all meetings of the Corporation and prepare minutes thereof.
- (3) The secretary shall—
- (a) keep in safe custody the seal and all documents of the Corporation;
 - (b) receive all process served on the Corporation and carry out such other duties as the Corporation or chairman shall direct.

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MEETINGS OF THE CORPORATION

9. (1) Subject to subregulation (2), meetings of the Corporation shall be held at such times and places as the chairman or in his absence, the deputy chairman may from time to time appoint.
- (2) The first meeting shall be convened by the Minister.
- (3) The quorum at meetings shall be three members.
- (4) The chairman or in his absence the deputy chairman shall preside at every meeting of the Corporation.
- (5) The proceedings at any meeting shall not be invalidated by any vacancies in the membership provided the number of such vacancies does not exceed two.
- (6) The Corporation may invite any persons to participate in meetings but they shall have no vote.
- (7) Decisions of the Corporation shall be made by a majority vote of members present and voting, the chairman or the deputy chairman (as the case may be) shall have a casting vote.
- (8) If a member has any pecuniary interest, direct or indirect, in any contract or proposed contract or other matter relating to the Corporation he shall as soon as practicable disclose to the chairman of the Corporation the fact and nature of his interest.
- (9) Subject to such rules as the Minister may make by Order, the Corporation may make internal rules regulating its procedures for the chairmanship, calling, conducting and adjournment of meetings of the Corporation.

GENERAL MANAGER AND EMPLOYEES OF THE CORPORATION

10. (1) Subject to subregulation (2), the Corporation may from time to time, appoint, at such remuneration and upon such terms and conditions as it may think fit—
- (a) a general manager who shall be the chief administrative officer of the Corporation and all its operations;
- (b) the secretary to the Corporation; and
- (c) such other officers and employees as it may consider necessary for the proper and efficient discharge of the functions of the Corporation.
- (2) The appointment of the general manager shall require the prior approval of the Minister.

FUNDS OF THE CORPORATION

11. The funds of the Corporation shall consist of—
- (a) grants from the Government out of monies appropriated by Parliament for such purposes;
- (b) grants from other sources;
- (c) monies borrowed by the Corporation;
- (d) monies received by the Corporation in any other way in the course of the discharge of the functions.

FUNDS TO BE HELD IN TRUST

12. Any surplus funds generated by the Corporation in the course of carrying out its functions and powers shall be held by it in trust for those parties properly entitled thereto.

GUARANTEE OF LOANS

13. The Government may guarantee any loans to the Corporation.

CONTROL OF BORROWING

14. The Minister responsible for finance shall prescribe—
- (a) the aggregate maximum indebtedness that the Corporation may incur without his consent in writing; and
 - (b) the maximum individual sums that the Corporation may likewise borrow.

ACCOUNTS AND AUDITS

15. (1) The Corporation shall keep proper accounts and other records in respect of its receipts and expenditure and shall cause to be prepared an annual statement of account in respect of each financial year.
- (2) The accounts of the Corporation shall be audited annually by independent and properly qualified auditors approved in writing by the Minister responsible for finance and appointed by the Corporation.
- (3) As soon as is reasonable after the end of each financial year the Corporation shall transmit to the Minister and Minister responsible for finance audited accounts together with any report made by the auditors thereon and such explanations as the Corporation may consider appropriate.

ANNUAL REPORT

16. (1) The Corporation shall make an annual report of its activities to the Minister not less than 45 days before the commencement of the annual budget session of the Parliament.
- (2) A copy of the audited accounts for the previous financial year provided for in regulation 15 and provisional accounts for the current financial year shall be attached to the report.
- (3) The Minister shall submit the annual report together with such comments as he may have thereon to Parliament during the annual budget session.

SUBMISSION OF ESTIMATES FOR PURPOSE OF GRANTS

17. If the Corporation shall need a grant referred to in regulation 11(a) so that the Government may determine the amount thereof for inclusion in the budget, the Corporation shall not less than 90 days before commencement of the financial year during which the grant is required submit to the Minister responsible for finance estimates of expenditure and receipts for that year and of unexpended funds carried forward.

CONTRACTS

18. A contract which if made between natural persons would by law be—
- (a) required to be sealed shall be made varied or discharged by the Corporation under seal;
 - (b) required to be in writing signed by the parties may be made varied or discharged on behalf of the Corporation in writing signed by a person acting with its express or implied authority;
 - (c) valid if made by parol only may be made varied or discharged by parol on behalf of the Corporation by any person acting with express or implied authority.

EVIDENCE OF SEALING OF DOCUMENTS

19. The fact that a document bears the seal of the Corporation shall be prima facie evidence in any court or legal proceeding that the document has been properly executed on behalf of the Corporation.

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PREVIOUS CONTRACTS

20. All contracts and agreements in connection with, or in relation to the land or any business conducted thereon and subsisting before the coming into force of these Regulations shall have no effect against or in favour of the Corporation.

MINISTER'S DELEGATION OF POWERS

21. For the purpose of carrying out its functions, the powers contained in section 8 of the Land Reform Act, Cap. 123 are hereby delegated to the Corporation.

NO PERSONAL LIABILITY TO MEMBERS OR EMPLOYEES

22. No personal liability shall attach to any member or employee of the Corporation in respect of anything done or not done in good faith, and without negligence under the provisions of these Regulations.

MINISTER'S DIRECTIVES

23. The Minister may from time to time after consultation with the Corporation issue directives to the Corporation and the Corporation shall be obliged to carry out such directives.
-

The Employment Act

REPUBLIC OF VANUATU

Price : 50 VT

THE EMPLOYMENT ACT

No. 1 of 1983

Arrangement of Sections

PART 1 — LABOUR ADVISORY BOARD

1. Labour Advisory Board.

PART 2 — APPOINTMENT, POWERS AND DUTIES OF OFFICERS

2. Commissioner of Labour.
3. Powers of Commissioner and labour officers.
4. Dangerous and insanitary premises.
5. Commissioner and labour officers to carry identity documents.

PART 3 — GENERAL

6. Effects of custom, agreement etc.
7. Forced or compulsory labour.
8. Prohibition of sex discrimination in employment.

PART 4 — CONTRACT OF EMPLOYMENT

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10. Contracts exempt from stamp duty etc.
11. Transfer of contract.
12. Duty of employer to provide work.
13. Sanitary facilities etc.
14. Probationary period.
15. Period of contract.

PART 5 — REMUNERATION

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17. Receipts for remuneration.
18. Acceptance by employee of pay is no bar to subsequent proceedings.
19. Guarantees as regards remuneration.
20. Period of limitation.
21. Deductions from remuneration.

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59. Repatriation of employee's family.
60. Proportional payment of travel costs.
61. Means of transport.
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PART 13 — MISCELLANEOUS

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65. Employment Agencies.
66. Crimping.
67. Duty of employer to notify Commissioner of certain redundancies.

68. Works stores.
69. Control of prices in certain stores.
70. Minister's power to prescribe housing standards.
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72. Employers may be required to submit returns.
73. Employer's register.
74. Statistical returns.
75. Employers may make regulations.
76. Application of the Act to public service.
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78. Offences.
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82. Commencement.

REPUBLIC OF VANUATU

THE EMPLOYMENT ACT

No 1 of 1983

An Act to provide for the general principles relating to contracts of employment and matters incidental thereto.

BE IT ENACTED by the President and Parliament as follows :-

PART 1 — LABOUR ADVISORY BOARD

Labour Advisory Board

1. (1) There shall be established for the purposes of this Act a Labour Advisory Board (hereinafter referred to as the Board).
- (2) The Board shall consist of not more than 15 members appointed by the Minister of whom 5 shall be public servants and an equal number of not more than 5 members each representing in the opinion of the Minister the employers of labour and employees respectively.
- (3) Every member of the Board shall be appointed for such period and on such terms and conditions as the Minister shall determine.
- (4) It shall be the function of the Board to consider and advise the Minister upon any matter affecting employment and labour relations referred to it by the Minister, and to exercise and perform such other duties in such manner and subject to such conditions as the Minister shall determine.
- (5) Subject to any rules under this Act the Board shall regulate its procedure in such manner as it shall think fit.

PART 2 — APPOINTMENT, POWERS AND DUTIES OF OFFICERS

Commissioner of Labour

2. There shall be a Commissioner of Labour (hereinafter referred to as 'the Commissioner'), a deputy commissioner of labour and such other officers (to be known as 'labour officers') as shall be necessary or expedient for the purposes of this Act who shall be public servants.

Powers of Commissioner and labour officers

3. (1) For the purpose of satisfying himself that the provisions of this Act are being duly observed the Commissioner or any labour officer may at all reasonable times -
 - (a) enter, inspect and examine any land, building, camp, wharf, vessel or vehicle, or any place whatsoever where or about which any employee is housed or employed or where he has reason to believe that any employee is housed or employed;

- (b) enter, inspect and examine any hospital or dispensary, or any sanitary arrangements used or intended to be used by employees or any water supply available for the use of employees, and take samples from the said water supply, and inquire and ascertain whether in any such hospital, dispensary or place of employment suitable medicines and remedies are provided for the use of employees;
- (c) inspect kitchens and places in which food provided for the use of employees is stored, prepared or eaten, and inspect, and take samples of, such food;
- (d) require any employer to produce any employees employed by him and any documents or records relating to the employment of such employee;
- (e) take or remove for the purposes of analysis samples of material and substances used or handled, provided the employer or any person acting on his behalf is notified of any samples or substances so taken or removed;
- (f) interrogate, alone or in the presence of witnesses, the employer or any employee on any matter connected with the carrying out of the provisions of this Act, and may request information of any other person whose evidence he considers to be necessary;
- (g) inquire from any employer or any person acting on his behalf regarding any matter connected with the carrying out of any of the provisions of this Act.
- (h) require every employer to post and keep posted at some conspicuous place easily accessible to the employees, any notice served on him by the Commissioner;

Provided that the Commissioner or a labour officer -

- (i) shall not enter or inspect a private dwelling-house without the consent of the occupier thereof;
 - (ii) on the occasion of a visit or inspection, shall notify the employer or his representative of his presence, unless he has reason to believe that such notification may be prejudicial to the performance of his duties;
 - (iii) if so required by the employer, shall be accompanied during any inspection or examination by the employer or his representative.
- (2) The Commissioner or a labour officer may at all reasonable times inspect and take samples of and require any additions or replacements to be made to any drugs or dressings provided for the use of employees under any law or contract of service.
 - (3) The Commissioner or a labour officer may copy or make extracts from any document or records in the possession of an employer which relate to any employee.

Dangerous and insanitary premises

- 4. (1) If, in the opinion of the Commissioner or a labour officer, any land, building, camp or vessel where or about which any employee is living or where any employee is employed and which is provided for the use of any such employee is insanitary or is in such condition as to be dangerous to health or unfit for occupation or use by the employee, the Commissioner or labour officer may in writing direct the person for the

time being responsible for the management of the same to discontinue such occupation or use until such repair or reconstruction or other work as may be specified in the direction has been carried out and certified by the Commissioner or labour officer to be fit for occupation or use.

- (2) Where the Commissioner or labour officer gives any direction under subsection (1) the person to whom the direction is addressed, if he is of the opinion that the terms of such direction are harsh or unreasonable or that the requirements of the direction cannot be carried out within the period required, may, after giving notice thereof to the Commissioner, appeal to a magistrates' court nearest to the place where such land, building, camp or vessel is situated.
- (3) Every such appeal shall be made within thirty days from the date on which the said direction was communicated to such person.

Commissioner and labour officers to carry identity documents

5. The Commissioner or any labour officer, while exercising any powers or duties under this Act, shall carry on his person an identity document in a prescribed form and shall produce such document on request to any person to whom any inquiry or demand is addressed by him, and it shall be lawful for any person to refuse anything required of him by the Commissioner or labour officer until such identity document has been produced.

PART 3 - GENERAL

Effects of custom, agreement etc.

6. Nothing in this Act shall affect the operation of any law, custom, award or agreement which ensures more favourable conditions in any respect to the employees concerned than those provided for in this Act.

Forced or compulsory labour

7. (1) No person shall exact, procure, or employ forced or compulsory labour.
- (2) The expression 'forced or compulsory labour' in subsection (1) means all work or service which is exacted from any person under the threat of any penalty and for which that person has not offered himself voluntarily except -
 - (a) any work or service exacted in the course of compulsory military service for work of purely military character;
 - (b) any work or service which forms part of the normal civic obligations of citizens;
 - (c) any work or service exacted from any person as a consequence of a conviction by a court; provided that such work or service shall be carried out under the supervision and control of a public authority and that no person shall be hired to, or placed at the disposal of, private individuals, companies or associations;
 - (d) any work or service exacted in cases of emergency, that is to say, in the event of war, or of a calamity or threatened calamity such as fire, flood, famine, earthquake, violent epidemic or animal disease, invasion by animal or vegetable pests, and, in general any circumstances that would endanger the existence or the well-being of the whole or part of the community;

- (e) any minor communal services of a kind performed by members of a community in the direct interest of such community and which is therefore a normal civic obligation incumbent upon members of such community; provided that before exaction of such minor services consultation shall have been had with the members of the community or their representatives in regard to the need for such services.

Prohibition of sex discrimination in employment

- 8. (1) Where a woman is employed on like work with a man in the same employment she shall be entitled to remuneration at the same rate as that man.
- (2) A woman is to be regarded as employed on like work with men if her work and theirs is of the same or a broadly similar nature, and the differences, if any, between the things she does and the things they do are not of practical importance in relation to terms and conditions of employment.
- (3) Subsection (1) shall not apply in relation to a variation between the woman's contract and the man's contract if the employer proves that the variation is genuinely due to a material difference (other than the difference of sex) between her case and his.

PART 4 - CONTRACT OF EMPLOYMENT

Form of contract

- 9. A contract of employment may be made in any form, whether written or oral;
Provided that a contract of employment for a fixed term exceeding six months or making it necessary for the employee to reside away from his ordinary place of residence shall be in writing and shall state the names of the parties, the nature of employment, the amount and the mode of payment of remuneration, and, where appropriate, any other terms and conditions of employment including housing, rations, transport and repatriation.

Contracts exempt from stamp duty etc.

- 10. Contracts of employment shall be exempt from stamp duty and any other taxes or levies.

Transfer of contract

- 11. The transfer of any contract of employment from one employer to another shall not be binding upon the employee except with the employee's consent which in the case of a written contract must be in writing;
Provided that if a change occurs in the ownership of an undertaking as a result of a sale thereof as a going concern, inheritance, formation of a company or similar cause every contract of employment valid at the time of the change taking place shall remain in force between the employee and the new employer.

Duty of employer to provide work

- 12. Except in the case of, and during, an emergency which prevents him

from doing so, every employer shall provide the employee with work in accordance with the contract during the period for which the contract remains in force and on such number of working days as is expressly or impliedly provided for in that contract. If the employer fails to provide work as aforesaid he shall pay to the employee, in respect of every day on which he shall so fail, remuneration at the same rate as if the employee had done the day's work.

Sanitary facilities etc.

13. (1) Where an employee is required to work in a building the employer shall provide adequate lighting and ventilation in the building and shall at or near the place of work, provide and maintain for the use of the employees, so far as it shall be practicable in the circumstances of the undertaking, adequate -
- (a) sanitary and washing facilities;
 - (b) facilities for the taking of meals;
 - (c) supply of drinking water; and
 - (d) where necessary adequate -
 - (i) arrangements for the nursing of children of employees;
 - (ii) residential accommodation;
 - (iii) arrangements for the health, safety and welfare of the employees.

Probationary period

14. (1) Every contract of employment for an unspecified period shall be subject to a probationary period of 15 days. This period may be increased to a maximum of six months, including renewals, by agreement between the parties to the contract.
- (2) During the probationary period a contract of employment may be terminated by either party without notice at any time.

Period of contract

15. The maximum duration of employment that may be stipulated or implied in any contract shall in no case exceed three years;
- Provided that in the case of a married man if he is to be unaccompanied by his family at the place of employment during the term of the contract the maximum duration so stipulated or implied -
- (a) if the distance between the employee's ordinary place of residence and the place of employment exceeds 50 kilometres shall not exceed twelve months; and
 - (b) if the employee's ordinary place of residence is outside Vanuatu, shall not exceed two years.

PART 5 - REMUNERATION

Remuneration

16. (1) All monetary remuneration of an employee shall be paid in legal tender; provided that, subject to the written approval of a labour officer, remuneration may be paid by bank cheque in cases in which payment in this manner is customary or is reasonable because of special circumstances or with the consent of the employee.

- (2) Subject to the written approval of a labour officer a part of the remuneration may be paid in the form of allowances in kind in industries or occupations in which such payment is customary or desirable because of the nature of industry or occupation concerned; before granting his approval the labour officer shall satisfy himself that -
 - (a) such allowances are appropriate for the personal use and benefit of the employee and his family;
 - (b) the value attributed to such allowances is fair and reasonable.
- (3) Payment of remuneration or any part thereof in intoxicating liquor or noxious drugs is prohibited in all circumstances.
- (4) The payment of remuneration where paid in cash shall be made on working days only at or near the place of work, unless some other arrangement known to the employees is more appropriate in any individual case.
- (5) Payment of remuneration in taverns or similar establishments and, where necessary to prevent abuse, in shops or stores for the retail sale of goods and in places of amusement is prohibited except in the case of persons employed therein.
- (6) Remuneration shall be paid not later than eight days after the end of the period to which it relates.
- (7) Remuneration shall be paid at regular intervals not exceeding 15 days to every employee whose remuneration is calculated by the hour, the day or the week and monthly to any other employee; provided that where remuneration is paid twice monthly the employer may pay allowances and accessories to wages once each month.
- (8) In case of termination of contract, remuneration and allowances, including where appropriate, payments in lieu of holidays, shall be paid as soon as the service has ceased.
- (9) The preceding subsections shall not apply in relation to the remuneration payable to any employee who is not ordinarily resident in Vanuatu and who has been recruited in some other country for the purpose of his employment in Vanuatu.

Receipts for remuneration

17. (1) Payment of remuneration shall be recorded on a document prepared or certified by the employer or his representative and initialled by each payee;
 Provided that if the employee is unable to sign his name he shall mark the document with his thumbprint.
- (2) The documents mentioned in subsection (1) shall be preserved by the employer for a period of not less than 3 years in the same way as other accountancy documents and shall be presented to a labour officer on demand.
- (3) Except where otherwise authorised by the Commissioner the employer shall give an individual pay voucher to the employee at the time of payment of remuneration if the employee request such a voucher.
- (4) Such voucher shall be in any form that it is convenient for the employer to adopt but shall state the names of the employer and of the employee and give details of the way in which the remuneration has been calculated.

Acceptance by employee of pay is no bar to subsequent proceedings

18. (1) No statement such as "received in full settlement of all claims" made by the employee, whether during the period of his contract or after its termination, shall have the effect of waiving any rights he may have under the said contract.
- (2) The acceptance without protest or reservation by an employee of a pay document shall not be held to imply renunciation on his part of the claim for all or any part of remuneration which may be due to him and such acceptance shall not be held to imply the settlement of all claims.

Guarantees as regards remuneration

19. (1) No sum due to a contractor undertaking any public works shall be the subject of a garnishee order nor shall payment thereof be stopped to the prejudice of the employees to whom remuneration is due.
- (2) Remuneration due to the employees shall be paid in priority over those due to suppliers.

Period of limitation

20. No proceedings may be instituted by an employee for the recovery of remuneration after the expiry of one year from the end of the period to which the remuneration relates.

Deductions from remuneration

21. (1) Except as provided in this section and subject to any collective agreement binding on the employer and the employee, no employer shall make any deduction or make any agreement with an employee for any deduction from the employee's remuneration for, or in respect of, any fine or of bad or negligent work or damage to the materials or other property of the employer;

Provided that subject to a prior written approval of a labour officer, a deduction may be made in respect of any loss or damage to materials or other property of the employer caused by the wilful misconduct or negligence of the employee.

- (2) Deductions may be made from the remuneration of an employee only in respect of all or any of the following -
- (a) any sums advanced by the employer to the employee, in anticipation of the regular period of payment of his remuneration;
 - (b) the actual cost to the employer of any materials, tools or implements supplied to the employee by the employer at the employee's request for use by him outside the course of his employment;
 - (c) an amount, approved by a labour officer, being the fair value of any rations or the fair rent for any accommodation provided by the employer for the employee;
 - (d) at a written request of an employee -
 - (i) the cost of any articles purchased by him on credit from the employer;
 - (ii) The cost of any food provided by the employer and prepared or consumed on his premises;

provided that such cost shall not exceed the lowest price at which the employer sells such articles or food to members of the public;

(e) the amount of any membership fees or similar dues paid over by the employer at the employee's request to any trade union registered under the Trade Unions Act 1983.

(f) any sum in respect of any other matter as may be prescribed;

Provided that, except in the case of an attachment or assignment of remuneration ordered by the court, the total amount of the deductions referred to in this section may not exceed one-third of the total amount of the employee's remuneration in any pay period.

- (3) Notwithstanding anything contained in subsections (1) and (2) an employer may at the request of an employee make deductions from the employee's remuneration and pay to the appropriate authority, person or account any subscription which the employee has agreed to contribute to any provident or pension fund or similar scheme approved by the Commissioner.

PART 6 - HOURS OF WORK AND OVERTIME PAY

Days and hours of work

22. (1) Subject to the provisions of this Part no employee shall be required to work in any undertaking more than 44 hours or 6 days in any week or more than 8 hours in any day exclusive of the time allowed for meals and tea.

(2) The limit of hours of work provided for in subsection (1) may be exceeded -

(a) in case of accident, actual or threatened, or in case of urgent work to be done to machinery or plant, or in case of an emergency, but only so far as may be necessary to avoid serious interference with the ordinary working of the undertaking;

(b) in those processes which by their nature are required to be carried on continuously by a succession of shifts; provided that the working hours shall not exceed 56 in a week on the average.

(3) In case of a general interruption of work due to holidays or accidents to plant, interruption of power, light or water, or similar occurrences causing serious material damage to an undertaking, hours of work in the day may be increased for the purpose of making up the hours of work which have been lost;

Provided that -

(a) hours of work which have been lost shall not be made up on more than 30 days in the year and shall be made with a reasonable lapse of time;

(b) the increase in hours of work in the day shall not exceed one hour;

(c) hours of work in the day shall not exceed ten; and

(d) the employer shall as soon as practicable notify the labour officer of any increase of hours of work mentioned in this subsection.

Work on public holidays

23 (1) Except where he voluntarily undertakes so to do no employee shall be required to work on a Sunday or public holiday.

(2) Subsection (1) shall not apply in relation to persons employed in -

(a) undertakings engaged in the transport of passengers or goods by road, sea or air, including the handling of passengers or goods at docks, quays, wharves, warehouses or airports;

- (b) undertaking of public utility including provision of water or gas, generation or supply or electricity, postal and telecommunication services, sewerage and similar services;
 - (c) hotels, guest houses, bars, restaurants, clubs and similar establishments;
 - (d) theatres and places of public amusement;
 - (e) establishments for the treatment and care of the sick, infirm, destitute or mentally unfit;
 - (f) newspaper and radio broadcasting undertakings;
 - (g) animal husbandry;
 - (h) any other work approved, on the application of an employer, by a labour officer for the purpose of this subsection, having regard to the requirements of the proper management of the undertaking and the convenience of the public.
- (3) An employee working on a Sunday or public holiday in pursuance of subsection (2) shall be granted an equivalent period of time off work on another day.

Meal and tea breaks

24. Every employee who is at work for more than 6 consecutive hours on one day shall be granted a break of one hour for a meal and a tea break of 20 minutes or two tea breaks of 10 minutes each.

Weekly day of rest

25. Every employee shall be entitled to a weekly rest of 24 consecutive hours which shall normally fall on a Sunday except where another day has been fixed by agreement between employee and employer or in any trades where it is usual to take another day;
- Provided that in any undertaking where work is continuous and where simultaneous taking of the day of rest by all the staff would be to the prejudice of either the public or the proper working of the undertaking the employer may grant the weekly day of rest by rotation or may divide it into two half-days. In any such case the allocation of the weekly day of rest shall be posted up at the place of work.

Overtime pay

26. (1) In respect of work carried out in excess of the normal hours of work mentioned in section 22(1) an employee shall be paid overtime at the following rates -
- (a) for work on public holidays or Sundays : at a minimum rate equal to one-and-a-half times the normal hourly rate;
 - (b) for work carried out in excess of the normal weekly hours of work -
 - (i) for the first four hours : at a minimum rate equal to one-and-a-quarter times the normal hourly rate;
 - (ii) in excess of four hours : at a minimum rate equal to one-and-a-half times the normal hourly rate;
 - (c) for work (other than work as a nightwatchman) carried out at night between 8 p.m. to 4 a.m. in excess of the normal weekly hours of work: a minimum rate equal to one-and-three-quarter times the normal hourly rate.

- (2) Subsection (1) shall not apply to persons engaged in domestic service of the employer.

Classes of employees to whom sections 22-26 do not apply

27. Nothing in sections 22 to 26 inclusive shall apply to or in relation to -
- (a) any undertaking in which only members of the employer's family are employed;
 - (b) offices in which staff is engaged in connection with the administration of public authority;
 - (c) persons occupying positions of management or employed in a confidential capacity;
 - (d) such other classes of persons as may be prescribed.

Meaning of "Hours of Work"

- 28 In this Part the expression 'hours of work' means the time during which an employee is at the disposal of the employer and does not include rest periods during which he is not at the disposal of the employer.

PART 7 - ANNUAL LEAVE AND SICK LEAVE

Annual leave

29. (1) Every employer shall grant an employee who has been in continuous employment with him for twelve consecutive months annual leave on full pay at the rate of one working day for each month of employment.
- (2) The rate of the annual leave provided for in subsection (1) shall be increased to two working days after 20 years, four working days after 25 years and to six working days after 30 years service in the same undertaking, whether continuous or not;
- Provided that this subsection shall not apply in relation to employees in agricultural undertakings.
- (3) For the purpose of this section there shall be included in the period of continuous employment any periods of absence from work caused by -
- (a) an accident at work duly certified by a recognised medical practitioner;
 - (b) illness arising from employment duly certified by a recognised medical practitioner;
 - (c) maternity leave up to a period of twelve weeks;
 - (d) illness duly certified by a medical practitioner up to a period of three months.

Manner in which annual leave to be taken

30. (1) The annual leave shall be taken in one period or if the employer and the employee so agree, in not more than two separate periods.
- (2) If the employer and the employee so agree, the annual leave or either of its parts, may be taken wholly or partly in advance before the employee has acquired entitlement thereto.
- (3) The date of the annual leave shall be fixed by the employer, who shall in so far as it shall be practicable in the circumstances of the undertaking, comply with the employee's request in this respect.

Remuneration during annual leave

31. The employer shall pay to the employee during the annual leave remuneration at least equal to the employee's average remuneration for the twelve months preceding the commencement of the leave;
Provided that such remuneration unless the parties otherwise agree need not include any bonuses, overtime pay, expatriation allowances or reimbursement of expenses.

Entitlement when contract terminated

32. If a contract of employment terminates before the employee has acquired entitlement to annual leave, an allowances calculated on the basis of the entitlement provided for in section 29 shall be paid in the place of leave;
Provided that if the contract has been broken by the employee such allowance shall only be payable on condition that the employee has completed at least six months service, and, that in the case of hourly or daily paid employees one month service shall mean not less than 22 days' work carried out within the month.

Duration of entitlement

After leaving the service of his employer any employee may avail himself of his annual leave and travel, if any, within six months counting from the date on which he ceased to work for that employer;
Provided that travel shall only be paid for by the employer if the employee actually makes the journey.

Sick leave

34. (1) Subject to subsection (2), every employee who has been in continuous employment with the same employer for more than twelve months shall be entitled in every year to 21 working days' leave on full pay on grounds of illness.
- (2) An employee who absents himself from work on grounds of illness shall, except where the employer is aware of the nature of the illness, as soon as practicable notify the employer of the illness and if he remains ill -
- (a) within the municipal boundaries of Port Vila or Luganville for more than 2 days;
- (b) in any other area for more than 4 days,
- shall forward to the employer a medical certificate of illness.
- (3) A medical certificate issued for the purpose of showing good and sufficient cause for absence from work shall not be valid in respect of any period in excess of four days before the day on which the employee had been examined by the medical practitioner issuing the certificate.
- (4) The employer may, at his own expense, cause an employee who is absent from work on grounds of illness to be examined by a medical practitioner.

PART 8 - EMPLOYMENT OF WOMEN AND YOUNG PERSONS

Prohibition of employment of women at night

35. (1) Subject to subsection (2), women shall not be employed during the night in any undertaking, except where the night work -

- (a) has to do with raw materials or materials in course of treatment which are subject to rapid deterioration;
 - (b) is necessitated by an emergency which it was impossible to foresee and which is not of a recurring character;
 - (c) is that in a responsible position of management held by a woman who is not ordinarily engaged in manual work;
 - (d) is that of nursing and of caring for the sick, or other health or welfare work, including work in pharmacy;
 - (e) is carried on in a theatre or other place of public amusement;
 - (f) is carried on in connection with a hotel, guest house, bar, restaurant, club, or similar establishment;
 - (g) is carried on in connection with the transport of passengers by sea or air;
 - (h) is carried on in connection with postal and telecommunication services or broadcasting;
 - (i) is authorised by the Minister by order in conformity with international conventions.
- (2) The Minister may by order suspend the prohibition of the employment of women during the night when in case of serious emergency the public interest so demands.
- (3) In this section 'night' means the period between seven o'clock in the evening and six o'clock in the morning.

Maternity leave

36. (1) An employer shall allow a woman employee to leave her work upon production by her of a medical certificate stating that her confinement is likely to take place within six weeks, and shall not permit her to work during the six weeks following her confinement.
- (2) While absent from work in pursuance of subsection (1) a woman employee shall be entitled to be paid not less than half of the remuneration she would have earned had she not been so absent.
- (3) An employer shall allow a woman employee who is nursing a child half an hour twice a day during her working hours for this purpose; such interruptions of work shall be counted as working hours and shall be remunerated accordingly.

Restriction on dismissal of women employees

37. No employer shall give notice of dismissal to a woman employee who is absent in pursuance of section 36 or who remains absent as a result of illness certified by a medical practitioner to arise out of pregnancy or confinement and rendering her unfit for work;
- Provided that such additional absence from work shall not exceed three weeks.

Prohibition of employment of persons under 12

38. No person under the age of 12 shall be employed in any capacity, except on light work suitable to his capacity in an agricultural undertaking owned and managed by the family of which he is a member.

Employment of persons under 14

39. A person under the age of 14 shall not be employed except on light work of an agricultural or domestic character in which members of the employer's family are employed with him, or on agricultural light work carried on collectively by the local community.

Employment of persons under 15

40. A person under the age of 15 shall not be employed on work -
- (a) in any industrial undertaking except in employment approved by the Commissioner;
 - (b) on any ship.

Employment of persons under 18

41. (1) A person under the age of 18 shall not be employed during the night in any industrial undertaking, except that, if such person is over the age of 16, he may be so employed subject to the written consent of a labour officer.
- (2) In subsection (1) 'night' means a period of at least seven consecutive hours falling between ten o'clock in the evening and six o'clock in the morning.

Employment of persons under 18 on ships

42. A person under the age of 18 shall not be employed on any kind of work on a ship unless certified by a medical practitioner to be fit for such work;

Provide that in urgent cases a labour officer may permit the engagement of a person under the age of 18 without prior medical examination, and in such case the employer shall at his own expense have such a person medically examined at the first place of call at which there is a medical practitioner, and should such practitioner not attest such person as fit for the work, the employer shall at his own expense return such person as a passenger to the port or place where he was engaged, or to his home, whichever is the nearer.

Register of young persons

43. Every employer in an industrial undertaking and every master of a ship shall keep a register of all persons under the age of 18 employed in such undertaking or on such ship, and shall enter therein the names of such persons, the dates of their birth and the dates when their employment begins and ceases; such register shall be open to inspection by a labour officer.

Presumption

44. In any proceedings in respect of an offence under sections 38 to 43 inclusive the Court may determine the age of the person.

PART 9 — SAFETY PRECAUTIONS AND MEDICAL FACILITIES

Employers to provide safe working conditions

45. (1) Every employer shall take appropriate steps as soon as possible to remedy any working conditions which may be dangerous for the health or welfare of his employee.

- (2) The Commissioner may issue a written notice to any employer recording any offences or dangerous conditions discovered and fixing the period within which they shall be eliminated.

Notification of accidents

46. Every employer shall as soon as possible inform a labour officer, giving all relevant details, of any accident at work or illness arising from work that has occurred in his undertaking.

First-aid and medical treatment

47. (1) Every employer shall at his own expense provide for his employees and members of their families living with them, medical aid in accordance with such scale as the Minister may prescribe as suitable in the circumstances or any undertaking;
Provided that the provision of medical aid for members of the employee's family shall only be required where they are resident on the employer's property with his consent.
- (2) In the event of an injury to, or sickness of, an employee occurring on the premises of an undertaking the employer shall, if necessary, make such arrangements as may be practicable to move the injured or sick person to the nearest hospital, clinic or similar place.
- (3) Every employer shall have permanently available on the premises of the undertaking such medicines, dressings and similar articles as are necessary for first-aid.

PART 10 — TERMINATION OF CONTRACT

Termination of contract

48. Subject to the provisions of this Part a contract of employment shall terminate on the last day of the period agreed in the contract or on the completion of the piece of work specified therein.

Notice of termination of contract

49. (1) A contract of employment for an unspecified period of time shall terminate on the expiry of notice given by either party to the other of his intention to terminate the contract.
- (2) Notice may be verbal or written, and, subject to subsection (3), may be given at any time.
- (3) The length of notice to be given under subsection (1) -
- (a) where the employee has been in continuous employment with the same employer for not less than three years, shall be not less than three months;
- (b) in every other case -
- (i) where the employee is remunerated at intervals of not less than 14 days, shall be not less than 14 days before the end of the month in which the notice is given;
- (ii) where the employee is remunerated at intervals of less than 14 days, shall be at least equal to the interval.
- (4) Notice of termination need not be given if the employer pays the employee the full remuneration for the appropriate period of notice specified in subsection (3).

Misconduct of employee

50. (1) In the case of a serious misconduct by an employee it shall be lawful for the employer to dismiss the employee without notice and without compensation in lieu of notice.
- (2) None of the following acts shall be deemed to constitute misconduct by an employee,-
- (a) trade union membership or participation in trade union activities outside working hours, or, with the employer's consent, during the working hours;
 - (b) seeking office as, or acting in the capacity of, an employees' representative;
 - (c) the making in good faith of a complaint or taking part in any proceedings against the employer.
- (3) Dismissal for serious misconduct may take place only in cases where the employer cannot in good faith be expected to take any other course.
- (4) No employer shall dismiss an employee on the ground of serious misconduct unless he has given the employee an adequate opportunity to answer any charges made against him and any dismissal in contravention of this subsection shall be deemed to be an unjustified dismissal.
- (5) An employer shall be deemed to have waived his right to dismiss an employee for serious misconduct if such action has not been taken within a reasonable time after he has become aware of the serious misconduct.

Employees may seek work during notice

51. During the period of notice an employee shall be entitled to a reasonable period of time off work without loss or reduction of remuneration in order to be able to seek other employment.

Certificate of employment

52. (1) An employee whose employment has been terminated shall be entitled to receive from the employer, on request, at the time of the termination, a certificate specifying the dates of his engagement and termination and the type of work on which he was employed.
- (2) Nothing unfavourable to the employee shall be inserted in such a certificate.

Breach of contract by employer

53. (1) If an employer illtreats an employee or commits some other serious breach of the terms and conditions of the contract of employment, the employee may terminate the contract forthwith and shall be entitled to his full remuneration for the appropriate period of notice in accordance with section 49 without prejudice to any claim he may have for damages for breach of contract.
- (2) An employee shall be deemed to have waived his right under subsection (1) if he does not claim it within a reasonable time after he has become aware of his being entitled thereto.

PART 11 — SEVERANCE ALLOWANCE

Severance allowance

54. (1) Subject to section 55, where an employee has been in continuous employment for a period of not less than 12 months with an employer and the employer terminates his employment or retires him on or after his reaching the age of 55, the employer shall pay severance allowance to the employee.
- (2) For the purposes of subsection (1) -
- (a) an employee who works for his employer on four or more days in any week shall be deemed, in respect of that week, to have been in continuous employment;
 - (b) no employee shall be held to have ceased to be in the continuous employment of an employer by reason of his participation in a strike which is not unlawful;
 - (c) where an employee ceases to be in the employment of one employer and enters the employment of another under section 55(4), his employment by the first and second employer shall be deemed to be continuous employment.

When severance allowance not due

55. (1) Severance allowance shall not be payable to an employee who has been recruited outside Vanuatu and is not ordinarily resident in Vanuatu.
- (2) An employee shall not be entitled to severance allowance if he is dismissed for serious misconduct as provided in section 50.
- (3) Where -
- (a) an employer dies and the employee is employed or offered employment by the personal representative of the deceased forthwith after the death;
 - (b) employment by a partnership ceases on the dissolution of the partnership, and the employee is employed or offered employment by a member of the dissolved partnership or a new partnership forthwith after the dissolution;
 - (c) employment by a body corporate ceases on the dissolution of that body and the employee is employed or offered employment by some other corporate body in accordance with an enactment or a scheme of reconstruction forthwith after the dissolution; or
 - (d) employment ceases on the disposal of the goodwill, or of the whole or a substantial part of the business as a going concern, or of that part of the business in which the employee is employed and he is employed or offered employment by the person who acquires the goodwill or business or part of the business forthwith after the disposal.
- on terms and conditions which are not less favourable than those of the former agreement, the employee shall not be entitled to severance allowance.
- (4) Where an employee to whom an offer is made in any of the circumstances specified in subsection (3) accepts the offer, he shall be deemed to have entered the employment of the person by whom the offer is made forthwith upon the cessation of his employment with the first employer.

- (5) Where an employee is deemed to be in continuous employment in accordance with section 54(2) and that continuous employment is terminated in circumstances in which severance allowance is payable, the employer in whose service the employee was employed immediately before the termination shall be deemed to be the employer during the whole of the period and shall be liable to pay severance allowance accordingly.
- (6) An employer who is liable to pay severance allowance under subsection (5) shall -
 - (a) be entitled to deduct any period and to make any deduction which any previous employer would have been entitled to deduct or to make had the previous employer become liable to pay severance allowance; and
 - (b) be exempt from any liability to pay the allowance in respect of any period for which any previous employer was exempt from such liability.

Amount of severance allowance

- 56 (1) Subject to the provisions of this Part, the amount of severance allowance payable to an employee shall be calculated in accordance with subsection (2).
- (2) Subject to subsection (4) the amount of severance allowance payable to an employee shall be -
 - (a) for every period of 12 months -
 - (i) half a month's remuneration, where the employee is remunerated at intervals of not less than one month;
 - (ii) 15 days' remuneration, where the employee is remunerated at intervals of less than one month;
 - (b) for every period less than 12 months, a sum equal to $\frac{1}{12}$ of the appropriate sum calculated under paragraph (a) multiplied by the number of months during which the employee was in continuous employment.
- (3) Where remuneration is fixed at a rate calculated on work done or includes any sum paid by way of commission in return for services, the remuneration shall, for the purposes of this section, be computed in the manner best calculated to give the rate at which the employee was being remunerated over a period not exceeding 12 months prior to the termination of his employment.
- (4) The Court shall, where it finds that the termination of the employment of an employee was unjustified, order that he be paid a sum up to six times the amount of severance allowance specified in subsection (2).
- (5) Any severance allowance payable under this Act shall be paid on the termination of the employment.
- (6) The Court may, where it thinks fit and whether or not a claim to that effect has been made, order an employer to pay interest, at a rate not exceeding 12 per cent per annum from the date of the termination of the employment to the date of payment.
- (7) For the purposes of this section the remuneration which shall be taken into account in calculating the severance allowance shall be the remuneration payable to the employee at the time of the termination of his employment.

Deductions from severance allowance

57. An employer may deduct from any severance allowance payable -
- (a) in the case of an employee who is retired on or after attaining the age of 55 -
 - (i) half the amount of any gratuity due at the age of 55 from any provident or pension fund or similar scheme approved by the Commissioner;
 - (ii) any gratuity granted at the age of 55 by the employer;
 - (iii) five times the amount of any annual pension granted at the age of 55 from any fund or scheme mentioned in paragraph (a)(i) above;
 - (iv) ten times the amount of any annual pension granted at the age of 55 by the employer;
 - (b) in any other case -
 - (i) any gratuity granted by the employer;
 - (ii) any contribution made to any fund or scheme mentioned in paragraph (a)(i) above by the employer.

PART 12 — REPATRIATION OF EMPLOYEES

Employee's right to repatriation

58. (1) Subject to section 63 every employee whose ordinary place of residence is more than 50 kilometres away from his place of employment and who has been brought to the place of employment by the employer or his agent shall have the right to be repatriated at the expense of the employer to his place of origin or engagement, whichever is nearer to the place of employment, in the following cases -
- (a) on the expiry of the term of contract;
 - (b) in the case of a termination of a contract when the employee has become entitled to a paid annual leave;
 - (c) in the case of a breach of contract or a serious offence committed by the employer;
 - (d) in the case of the termination of a contract due to the inability of the employee to complete the contract owing to sickness or accident.
- (2) The right of an employee under subsection (1) shall lapse if not used by him within six months from the date at which he becomes entitled thereto.

Repatriation of employee's family

59. (1) Where the family of an employee has been brought to the place of employment by the employer or his agent in the circumstances mentioned in section 58 the family shall have the right to be repatriated as provided in that section whenever the employee is repatriated or in the event of his death.
- (2) The expression 'family' in subsection (1) means the wife and the dependent minor children of an employee who reside with him.

Proportional payment of travel costs

60. When a contract is terminated for any cause other than those provided

for in section 58 or by reason of a serious offence committed by the employee the employer shall bear travel costs proportionate to the length of the employee's service in respect of both the journey to and from his place of employment.

Means of transport

61. The means of transport shall be determined by the employee's position in the undertaking in accordance with the local usage;
Provided that the employer shall ensure that the employee and his family are transported in reasonable comfort and safety.

Subsistence during repatriation

62. (1) Subject to subsection (2) and to section 60 the expenses of repatriation shall include -
- (a) the cost of travelling and reasonable subsistence expenses during the journey;
 - (b) reasonable subsistence expenses during the period, if any, between the date of the expiry of the contract and the date of repatriation.
- (2) The employer shall not be liable for subsistence expenses in respect of any period during which the repatriation of an employee has been delayed -
- (a) unreasonably by the employee's own choice;
 - (b) for reasons of force majeure, unless the employer has been able during that period to use the services of the employee at the rate of remuneration applicable under the expired contract.

Exemption from employer's duty to repatriate

63. Notwithstanding anything contained in the other sections of this Part an employer shall not be liable for the costs of repatriation or subsistence expenses if it is proved to the satisfaction of a labour officer -
- (a) that the employee has signified, in writing or otherwise, that he does not wish to exercise the right to repatriation;
 - (b) that the employee has been settled, at his own request or with his consent, at or near the place of his employment;
 - (c) that his contract has been terminated owing to a serious breach thereof by the employee;
 - (d) when the contract has been terminated otherwise than by reason of the employee's inability to complete the contract owing to sickness or accident and the labour officer is satisfied that -
 - (i) in fixing the rate of the remuneration proper allowance has been made for the payment of the costs of repatriation by the employee;
 - (ii) that suitable arrangements have been made by means of a deferred pay system or otherwise to ensure that the employee has the funds necessary for the payment of such costs.

PART 13 — MISCELLANEOUS

Power of Criminal Court to order payments to employees

64. (1) Where, in the course of proceedings against a person being an employer

in respect of any offence under this Act, it is proved to the satisfaction of the Court, that a sum of money is owing by that person to his employee, by way of remuneration or otherwise, under, or arising out of, his contract of employment, the Court, in addition to dealing with that person in any other way, may, on application or otherwise, make an order requiring him to pay that sum to the employee.

- (2) An order made under subsection (1) shall be suspended -
 - (a) in any case until the expiration of the period prescribed by law for the giving of notice of appeal against a decision of the Court;
 - (b) where notice of appeal is given, until the date of the determination or abandonment of appeal.
- (3) Where an order under subsection (1) has been made against a person in respect of any offence taken into consideration in determining his sentence -
 - (a) the order shall cease to have effect if he successfully appeals against his conviction of the offence or, if more than one, all the offences, of which he was convicted in the proceedings in which the order was made;
 - (b) he may appeal against the order as if it were a part of the sentence imposed in respect of the offence or, if more than one, any of the offences, of which he was so convicted.

Employment agencies

65. (1) No person shall carry on the business of an employment agency except in accordance with the conditions specified in subsection (2).
- (2) The conditions mentioned in subsection (1) are -
 - (a) that such person shall be in possession of a valid current licence issued by the Commissioner for the purpose of this section;
 - (b) that fees and expenses shall be charged only on the scale submitted to and approved or fixed by the Commissioner;
 - (c) that such books and records shall be kept as shall be required by the Commissioner;
 - (d) that placement and recruitment of persons for employment outside Vanuatu shall not be carried on without an express permission in the licence mentioned in paragraph (a), and that any contract made or intended to be made in respect of such employment shall be submitted for the prior approval by the Commissioner.
- (3) The expression 'employment agency' in subsection (1) means an agency which acts as an intermediary for the purpose of procuring employment for a person or supplying an employee for an employer with a view to deriving either directly or indirectly a pecuniary or other advantage from the employer or employee;

Provided that the expression 'employment agency' does not include newspapers or other publications unless they are published wholly or mainly for the purpose of acting as intermediaries between employers and employees.

Crimping

66. If an employee who has wrongfully broken a contract takes service with a new employer, the new employer shall be liable jointly and severally with the employee for any prejudice caused to the former employer if he

has induced the employee to leave his former employment or if he has engaged or continued to employ an employee whom he knew to be already bound by a contract.

Duty of employer to notify Commissioner of certain redundancies

67. (1) Any employer proposing to dismiss as redundant 10 or more employees at one establishment within a period of 30 days or less shall notify the Commissioner in writing of his proposal at least 30 days before the first of those dismissals is proposed to take place.
- (2) At any time after being notified under subsection (1) the Commissioner may by written notice, require the employer to give him such further information as may be specified in that notice.
- (3) If in any case there are any special circumstances rendering it not reasonably practicable to comply with the requirements of this section, the employer shall take such steps towards compliance with such requirements as are reasonably practicable in those circumstances.

Works stores

68. (1) Subject to the written approval of a labour officer an employer may establish at or near a place of employment a store for the sale of any commodities to the employees, on the condition that -
- (a) the employees concerned shall be free from any coercion to use such store;
- (b) the goods shall be sold mainly for the convenience of the employees and not for securing profit to the employer;
- (c) the accounts of the store shall be kept separate from the accounts of other undertakings of the employer and shall be readily available for inspection by a labour officer;
- (d) the prices charged shall be fair and reasonable, and shall be displayed in a clear and legible manner.
- (2) Where facilities are provided for the employees to purchase goods from a store mentioned in subsection (1) on credit, the prices charged to the employees must not exceed -
- (a) where the store is situated within the municipal boundaries of Port Vila or Luganville, the lowest price at which such goods are sold to members of the public;
- (b) where the store is situated elsewhere, the full cost price of the goods to the employer taking into account the cost of transport and recognised overheads.
- (3) If an abuse in the manner in which a store is operated is found by a labour officer he may, after giving a suitable warning notice to the employer, order a provisional closure of the store for a period not exceeding one month.
- (4) On a report by a labour officer of any such abuse the Commissioner may order the permanent closure of any such store.

Control of prices in certain stores

69. When an employer sells or supplies goods to the public and where in the absence of any other source of supply close to the place of employment his employees are obliged to provision themselves in his store the manner

in which such sales or supplies are made shall be subject to inspection by a labour officer who shall have the power to fix maximum prices charged to the employees based on the prices which prevail on the open market;

Provided that if any such goods are subject to a statutory price control the labour officer shall exercise his powers under this section in consultation with the appropriate price control authority.

Minister's power to prescribe housing standards

70. (1) The Minister may by order make rules specifying the standards, sanitary and otherwise, with which any housing provided by an employer for his employees must comply.
- (2) Any such housing shall, at all reasonable times, be open to an inspection by the Commissioner or any labour officer, and section 4 shall apply in relation to such housing as it applies in relation to any premises referred to in that section.

Apprenticeship

71. The Minister may make regulations in respect of -
- (a) the technical and other qualifications required of employers in order that they may employ and train apprentices;
 - (b) the conditions governing the entry of young persons into apprenticeship;
 - (c) the mutual rights and obligations of employer and apprentice.

Employers may be required to submit returns

72. The Commissioner may, by written notice, require any employer to submit to him, within a period specified in the notice, a return in a prescribed form showing -
- (a) the date of opening of his undertaking;
 - (b) the business of the undertaking; and
 - (c) the numbers of workers employed in the various trade categories of the undertaking at such date as shall be specified in the notice.

Employer's register

73. Every employer who employs ten or more persons at any undertaking at any time, shall keep permanently up to date at each place of work, a register, to be known as the 'Employer's Register', in such form as may be prescribed.

Statistical Returns

74. Without prejudice to the generality of the provisions of section 3 the Commissioner may require any employer to furnish in writing returns and statistics, whether periodically or otherwise, as to the number of employees employed by him in any particular employment and the rates of remuneration and other conditions affecting the terms or conditions of employment.

Employers may make regulations

75. (1) An employer may make regulations to provide for matters concerning the technical organisation of the work of the undertaking, discipline and

requirements concerning hygiene and safety necessary for the proper operation of the undertaking.

- (2) Any regulations mentioned in subsection (1) shall, before coming into operation, be submitted for approval by a labour officer, and, if approved by him, shall be deemed to form a part of the contract of employment of all the employees to whom they relate.
- (3) Any regulations mentioned in subsection (1) shall be displayed at some conspicuous place easily accessible to the employees.

Application of the Act to Public Service

76. (1) Except as provided in subsection (3) the provisions of this Act shall apply in relation to public servants and to the Government and any other public authority in Vanuatu subject to the modifications set out in subsection (2).
- (2) The modifications mentioned in subsection (1) are as follows -
 - (a) except in section 82, the references in this Act to the Minister shall be taken as references to the Minister responsible for matters relating to public service;
 - b) the functions of the Labour Advisory Board shall be exercised by the Public Service Commission;
 - (c) except in section 65, the powers and duties of the Commissioner of Labour shall vest in the Director of Public Service Department;
 - (d) the powers and duties of a labour officer shall vest in the Director of Public Service Department or an officer appointed by him for that purpose;
 - (e) sections 67, 72, 73 and 74 shall not apply.
- (3) Nothing in this Act contained shall apply in relation to members of the armed forces, police force or prison service.

Minister's power to exempt persons etc. from provisions of this Act

77. The Minister may by order exempt any person or class of persons or any public authority or class of public authorities or any contract of employment or class of such contracts from the operation of all or any of the provisions of this Act;

Provided that no exemption may be made from the provisions of section 7.

Offences

78. (1) Except as provided in subsection (2) any person who contravenes or fails to comply with any provisions of this Act or with any order or direction made by the Commissioner or a labour officer acting in the exercise of his functions under this Act shall be guilty of an offence.
- (2) Any person who -
 - (a) contravenes the provisions of section 7 which relates to forced or compulsory labour or section 16(3) which relates to payment of remuneration in intoxicating liquor or noxious drugs;
 - (b) obstructs the Commissioner or a labour officer in the exercise of his functions under this Act;
 - (c) knowingly makes a statement false in any material particular when required to make a statement under this Act;

(d) makes, or knowingly allows to be made, any entry in a record required to be kept by an employer which he knows to be false or misleading in a material particular;

Shall be guilty of an offence.

Penalty : 100,000 Vatu or imprisonment for a term not exceeding three years or both.

Continuing offences

79. Every act or default under this Act constituting an offence shall constitute a new offence in every week during which it continues.

Transitional provision

80. The provisions of this Act shall apply to all contracts of employment in force at the date of the commencement of this Act, and, where any provision in any such contract is inconsistent or in conflict with any provision of this Act, the latter provision shall prevail to the extent of such inconsistency or conflict.

Repeal

81. The Joint Regulation to control conditions of Employment No. 11 of 1969 is hereby repealed.

Commencement

82. This Act shall come into operation on such date as the Minister shall by order appoint.

General Guidelines for Production
of Environmental Impact Statement

GENERAL GUIDELINES
FOR THE PRODUCTION OF
ENVIRONMENTAL IMPACT STATEMENTS

AS REQUIRED BY
THE GOVERNMENT OF
THE REPUBLIC OF VANUATU

Technical Paper No. 1. 1987

Produced by:

Environment Unit *Home Affairs*
Ministry of ~~Land, Energy and Rural Water Supply~~
~~P.O. Box 151~~ *PMB 036*
PORT VILA
Vanuatu

Technical Paper No. 1. 1987.

The production of an Environmental Impact Statement is not intended to replace any other Reports which may be required by the Government of the Republic of Vanuatu as a necessary component of the planning process.

GENERAL GUIDELINES FOR PRODUCTION OF AN
ENVIRONMENTAL IMPACT STATEMENT

1. INTRODUCTION

An Environmental Impact Statement (EIS) is a report produced by a project proponent (Government or private sector) to explain a proposal and to identify and consider its implications on the environment. The EIS report will provide the basis by which consent for the proposal will be considered by the relevant authorities. It will normally be produced during project feasibility studies.

The basic premise of an EIS report is that no developer has the automatic right to develop the natural environment in such a way that results in a greater loss than gain to the country. Thus the main purpose of the EIS is to satisfy the Government that the developer can achieve the project objectives with minimum environmental losses.

When producing an EIS report, the proponent must adhere to the format and guidelines outlined in two documents:

General Guidelines - as applicable to all projects (this document)

Specific Guidelines - as applicable to the particular types of project under consideration e.g. mining, coastal tourism.

2. OBJECTIVES OF AN EIS

The objectives of an EIS are:

- a) To identify and describe as objectively and precisely as possible the existing environmental characteristics in the proposed project area.
- b) To describe as precisely as possible the effects that the proposed project will have on these environmental characteristics. These effects may be positive or negative, direct or indirect, short-term or long-term, severe or minimal, localized or widespread, reversible or irreversible.
- c) To consider alternatives to the proposed procedures and thereby justify the selection of the preferred option.
- d) To describe procedures specifically included to minimize adverse environmental effects, and to guard so far as is possible against emergencies.

- e) To produce this information in a clear and comprehensible manner to be set before decision makers and the public for their consideration and discussion.

With such information to hand the consent authorities will be aware of the proposer's serious intentions to implement environmental considerations into the project. The EIS will also demonstrate the proposer's ability to develop the project in such a way as to minimize environmental impacts whilst achieving project objectives.

3. IMPACT IDENTIFICATION

The major component of an EIS is the identification and evaluation of impacts on the environment of the project and associated areas. The best practicable method for doing this is to conduct a systematic analysis of all phases of the project on all the environmental characteristics of the area. Such analysis must be as objective and precise as possible.

The environmental characteristics to be considered come under four main headings:- Physical Resources, Ecological Resources, Human Use and Demographic and Cultural (Table 1). Environmental impacts can be summarized visually by use of a matrix (Table 2). This matrix lists all environmental characteristics covered by the various categories of Table 1 and all proposed project activities. For any particular project the anticipated significant effects can be entered on the matrix. All such designated impacts should then be discussed in detail. Impacts designated as potentially adverse and significant should be investigated fully to predict their effects.

Major projects may have many significant effects, both adverse and beneficial. Smaller projects will have fewer. Considerable professional expertise will often be required to appreciate the nature and significance of environmental impacts. This expertise may be required in many disciplines e.g. engineering, economics, ecology, anthropology, geology etc.

The EIS report should contain a programme whereby the environmental impacts of the project will be monitored throughout its life, and in some cases beyond.

4. STANDARD OF THE EIS

The EIS report must be produced in such a manner that it can be clearly understood by non-specialists and by a wide range of administrators, politicians and members of the public. To facilitate this understanding the EIS must not:

- i) Be excessively technical or complex.
- ii) Contain insufficient information to allow full appraisal of environmental effects.
- iii) Excessively praise the project.

- iv) Omit known and relevant information.
- v) Include superfluous and confusing information.
- vi) Use subjective or excessively complicated analytical techniques.

5. CONTENT OF THE EIS REPORT

The EIS should contain at least the following Sections:-

5.1) Introduction

This Section should generally introduce the project with its objectives and show the ability of the proposer to carry it out. Thus it should contain:

- a) Nature of the project and its objectives and the relations to Constitution, National objectives and environmental philosophy.
- b) Location and size of the project.
- c) Ability and resources of the proposer to carry out the project.
- d) Brief contents of the EIS.
- e) How and by whom the EIS was conducted.

5.2) Project Description

This Section should describe the proposal at the site and any necessary associated developments elsewhere. Items considered should include:-

- i) Detailed locations with maps.
- ii) Land tenure and actual or proposed lease agreements.
- iii) Description of the operation and proposed site layout.
- iv) Machinery and equipment to be used throughout the project.
- v) Implementation schedule and expected project duration.
- vi) Hours of operation.
- vii) Access arrangements to the site and numbers of movements.
- ix) Quantities of materials produced and/or processed.
- xi) Site rehabilitation proposals after project completion.

5.3) Description of Existing Environment

This Section is intended to place the proposal into the environment in which it will take place. It must provide a clear picture of the existing environmental resources listed in Table 1.

Descriptions must not be superficial and should be quantified by amounts or rates wherever possible. For major developments the proponent may need to conduct his own original environmental studies in addition to information already available in reports or publications.

5.4) Impact Analysis

This Section must identify and evaluate environmental impacts that will arise from each stage of project development. This should be done by completing the impact matrix of Fig. 2.

In those cases where adverse impacts are predicted the EIS should discuss ways in which they will be minimized. Both direct and indirect impacts must be considered both in the project area and associated areas.

5.5) Emergencies

Emergency situations may arise from a number of reasons e.g. fire, flood, explosion. In Vanuatu extra hazards are earthquake, landslide, cyclone and volcanic eruption. The EIS must specifically describe project safeguards designed to eliminate or minimize such emergency situations.

5.6) Resource Loss

The project may necessitate the loss of or irreversible damage to some of the environmental resources listed in Table 1. In such cases these should be listed together with an explanation of why such loss or damage is inevitable.

5.7) Alternatives

This Section must consider feasible alternatives to the proposed procedures described in Section 5.2. This is particularly important where environmental impacts are predicted to be severe. In discussing alternatives the advantages and disadvantages with respect to cost and environmental protection must be fully considered.

5.8) Justification

As a result of the analysis of alternatives, the proponent should be able to justify his proposed procedures on economic, environmental and social grounds. These justifications should be presented clearly and simply.

5.9) Monitoring

The developer must design and implement a monitoring programme specifically designed to investigate predicted adverse impacts. This programme must continue for as long as the impact is predicted - if necessary beyond the end of the project itself.

The developer must submit regular reports to the relevant authorities. If impacts exceed tolerable levels or adverse new ones arise the developer must take steps to minimize them.

5.10) Summary and Conclusions

This Section should contain a brief summary and major conclusions reached in the preceding sections.

In addition this Section should be printed separately in large numbers for wide circulation to interested organizations and individuals to facilitate public discussion. To further facilitate public discussion this Section should be printed in Bislama, English and French.

5.11) Appendices

The main text of the EIS should not contain large amounts of scientific or other data. There, it should be summarized in readily comprehensible Tables, graphs, histograms, pie diagrams etc. The main body of data from which such summaries are derived should be contained in appendices to the EIS.

Table 1. Summary of Environmental characteristics to be considered in environmental Impact Statement reports.

Physical Resources

Water Resources	Surface water - hydrology, quality. Ground water - hydrology, quality
Air Resources	Climate. Quality - radiations, odours, noise etc
Land Resources	Soils - erosion, fertility. Geology. Seismology Mineral resources.

Ecological Resources

Aquatic Resources (freshwater and marine)	Fisheries Aquatic biology
Terrestrial Resources	Plant communities Animal wildlife. Endangered/rare species Protected areas.

Human Use

Water Supply Transportation Agriculture	Methods of supply Roads, boats. Traditional, plantation, ranching, forestry
Flood control/Drainage	Methods adopted
Power supply	Generation, transmission
Recreation	Types, location
Mining	Types, location.
Industrial	Manufacturing, agro, mineral processing.
Land uses	Other land uses.

Demographic and Cultural

Socio-economic	Population numbers, location, health, education, languages, religion, political and economic.
Cultural	Historical, archaeological, aesthetics.

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