

TOWARDS SUSTAINABLE TIMBER PRODUCTION – A REVIEW OF EXISTING LOGGING PROJECTS

FINAL REPORT

VOLUME 1

Main Report – Observations and Recommendations

Prepared For:

**THE GOVERNMENT OF PAPUA NEW GUINEA
C/- THE INTER-AGENCY FORESTRY COMMITTEE**

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THE 2003/2004 REVIEW TEAM

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This Final Report consists of the following separate documents:

- A Summary Report
- Volume 1 – Main Report: Observations and Recommendations
- Volume 2 – Appendices to the Main Report
- Volume 3 – Consultations Material and Written Stakeholder Responses to the Draft Observations and Recommendations Report of May 2004

This document is Volume 1.

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VOLUME 3 – CONSULTATIONS AND RESPONSES TO THE DRAFT REPORT

LIST OF ACRONYMS

AAC	Annual Allowable Cut
DEC	Department of Environment and Conservation
EIA	Environmental Impact Assessment
FCP	Forestry and Conservation Project
IAFC	[Government] Inter-Agency Forestry Committee
ILG	Incorporated Land Group
IPRR	Individual Project Review Report
LFA	Local Forest Area (A form of Timber Permit)
MTDS	Medium Term Development Strategy 2003-2007
NEC	National Executive Council (Cabinet)
OEC	Office of Environment and Conservation
PFMC	Provincial Forest Management Committee
PNG	Papua New Guinea
PNGFA	PNG Forest Authority
TORs	Terms of Reference
TP	Timber Permit
TRP	Timber Rights Purchase (Agreement)

EXECUTIVE SUMMARY

BACKGROUND

Papua New Guinea (PNG) is blessed with extensive areas of natural forest which have the potential to be managed for a sustainable yield of timber, and thus to underpin a sustainable timber industry and provide a sustainable source of income for forest landowners. The potential for sustainability was recognised by the PNG Government in the early 1990's when it adopted the National Forest Policy 1991, and implemented the policy by enacting the Forestry Act 1991. Management of the natural forests as a renewable resource for the benefit of future generations is also a requirement of the Constitution.

This Review of Existing Logging Projects is a PNG Government response to its concern that the industry continues to move satisfactorily towards a sustainable yield basis; employs environmentally friendly roading and logging practices; and provides long term benefits to landowners. An objective of the Review is to identify weaknesses and problems with the operation, monitoring and control of the sector which may be hindering the achievement of the Government's forestry objectives.

The Review Team appraised 14 existing logging projects, and sought input and comment from the direct stakeholders, being the landowners, the logging company, the regulatory agencies (PNGFA and DEC), and the Provincial Government and Administration.

BROAD FINDINGS

Most of the existing logging projects were authorised under previous legislation when sustainability was not yet a policy objective. These projects are expected to expire by 2010. Projects set up under the Forestry Act 1991 are designed to be individually sustainable, and offer the opportunity to create permanent timber production centres and townships, and a focus for the delivery of Government services such as health, education, and law and order.

The main Government institutions charged with the responsibility for implementing the National Forest Policy 1991 are the PNG Forest Authority (acquisition of forest resources, allocation of logging projects, and field monitoring and control) and the Department of Environment and Conservation (environmental standards, environmental plans, and field monitoring and control). A range of other Government Departments and Authorities are responsible for more general aspects of logging projects such as labour, training, visas and work permits for foreign employees, law and order, and general community development. Of all the responsible Departments and Authorities the PNG Forest Authority far exceeds the others in terms of the field presence it is able to provide, and the field monitoring and control it is able to exert.

None of the direct stakeholders in the industry wish logging to cease.

Logging was found to have little long term beneficial impact on landowners, although they bear the environmental costs. Personal income is directed to immediate consumption, and community income tends to be squandered by so-called land owner companies who purport to represent the landowners. Whilst new large scale sustainable logging projects may offer the opportunity for landowners to receive a sustainable income, the level of income under current arrangements is generally too small to impact significantly on rural living standards. It is evident that in general landowners are not able to manage their affairs in the democratic way they are expected to with regard to their organisation, and the management of cash flows from logging projects for long term benefits.

Currently Government is extracting some K110 million per annum out of the sector by means of a log export tax. The funds go into consolidated revenue. Although Government pays for the PNGFA, DEC and independent log export monitoring, the Government does not deliver any social services to the communities in the logging projects. It is not uncommon for the landowners to view the logging company as the de facto Government. Apart from their direct financial incomes, landowners do not benefit greatly by making their forest available for management by the State.

At current log export FOB prices, the K110 million per annum extracted by Government is also a sum which the sector cannot afford. The logging industry, an essential stakeholder if sustainable timber production is to be achieved, is not profitable, and the logging companies are not replacing their field equipment. This is not sustainable and unless the situation changes for the better it is estimated that PNG's current logging capacity will cease to exist within 10-15 years.

The Review Team observed that many breaches of the logging standards go unreported and are not actioned. Field based PNGFA monitoring officers have lost faith that their attempts to impose sanctions on non-complying logging companies will be backed up by senior management, who in turn take their cue from the current political leaders. Although the logging companies could improve the supervision of their own field operations, achieving compliance with the requirements of the Planning Monitoring and Control Procedures (including the 24 Key Standards) relies mainly on more assertive and effective field monitoring and control by the Government's regulatory agencies.

THE MAIN REGULATORY AGENCIES

Although the PNG Forest Authority provides the best field presence of all the Government Departments and Authorities, the capability of the institution generally has declined significantly since the late 1990s when the support provided by donors under the National Forest and Conservation Action Plan (NFCAP) during the early to mid 1990s ceased. The decline is also due to a number of years of poor management and direction by politically appointed chief executives. There is a notable lack of strategic thinking and planning, and there are significant internal divisions. The most immediate need for the PNG Forest Authority is for the legal battle regarding the position of Managing Director to be settled, and for a merit based permanent appointment to be made. This would remove much of the uncertainty which currently exists, and which demoralises staff. It is crucial that the appointee has a strong sense of direction, and is willing to support staff at all levels within the organisation.

The Department of Environment and Conservation has also declined significantly since Departmental support under NFCAP ceased. Its ability to undertake effective monitoring and control of logging projects in the field was fatally damaged in 1996 when the Forest Monitoring Unit set up in response to the National Forest Policy 1991 was disbanded. Currently the Department is ineffective in the forestry sector, partly due to a lack of operational funds and a lack of adequate staff numbers. Despite the lack of resources the Department is tasked with implementing the new Environment Act 2000. The most immediate need for the Department of Environment and Conservation is funds for field monitoring and control.

Although a follow-up NFCAP II was planned at the completion of the original NFCAP, this has not eventuated to date.

OVERALL CONCLUSION

The overall conclusion of the Review Team is that under the current market conditions, the current levels of log export tax, the current non-compliance with environmental standards, and the inadequate monitoring and control imposed by the Government regulating agencies, timber production as currently practiced is not sustainable. However, in accordance with the national objectives set out in the Constitution, and the National Forest Policy 1991, it behoves Government to protect the productive capacity of the national forest resource, and to pursue sustainable timber production for future generations.

Despite the concerns set out in this report, the Review Team is of the opinion that the potential for setting up logging projects on the basis of sustainable timber production, which observe environmentally friendly roading and logging practices, and which provides long term incomes to landowners, is real. Achievement of the policy objectives set out in the National Forest Policy 1991 depends mainly on the will of the direct stakeholders.

KEY REQUIREMENTS FOR SUSTAINABLE TIMBER PRODUCTION

The following table sets out the key inputs necessary for sustainable timber production to be achieved, and indicates the Review Team's views regarding the current weaknesses and problems which are hindering achievement of the Government's forestry objectives.

INPUTS NECESSARY TO ACHIEVE SUSTAINABLE TIMBER PRODUCTION	REVIEW TEAM ASSESSMENT AND COMMENT
<p>1. Political will, and support from the National Executive Council and the relevant Ministers (in particular the Minister for Forests).</p>	<p>There have been no overt statements of political support for timber production to be based on sustainability principles since the early 1990s. A number of actions taken by political figures and/or the politically appointed chief executive of the PNG Forest Authority and/or the PNG Forest Authority Board over the last 10 years do not support the proper observation of the National Forestry Policy 1991. This includes the Government extracting some K110 million from industry each year, which at current FOB prices the forestry sector cannot afford.</p> <p>The likelihood of the Government's National Forest Policy 1991 being fully implemented would be significantly enhanced by supportive statements from political leaders, especially with regard to their support for effective controls and penalties.</p>
<p>2. Policies, laws and where necessary regulations and guidelines (including standards for environmentally acceptable logging practices).</p>	<p>A review of the current policies, laws, regulations and guidelines (and other mechanisms) indicated that the PNG Government and its regulatory institutions have all the necessary policies, laws, regulations and guidelines required to ensure that sustainable timber production can be achieved. The challenge is to commit to the policy and to use the available tools effectively.</p>
<p>3. Regulatory institutions with the will, power and resources to enforce the laws, regulations and guidelines.</p>	<p>The PNG Forest Authority has adequate powers. However it does not have the will to enforce the roading and logging standards if this means stopping or reducing log production. Senior management, following the perceived priorities of the current Government, is reluctant to put the flow of log export tax to the Government and the flow of royalty payments to the landowners, at risk. A longer term view is required if sustainable</p>

	<p>timber production is to be achieved.</p> <p>The Department of Environment and Conservation is currently ineffective in the forestry sector and will require adequate operational funds and a rebuilding of staff numbers and skills if sustainable timber production is to be achieved within acceptable environmental guidelines.</p>
<p>4. Adequate FOB log prices to meet all costs.</p>	<p>The current average FOB price of K185/m³ is insufficient to meet the costs of providing landowners with financial incomes, managing the forests, harvesting the logs, and cover the cost of regulatory monitoring and control. The breakeven FOB price is estimated to be K226/m³ before log export tax, and about K400/m³ after export tax. Financially sustainable timber production will require log export prices to rise, although interim relief could be provided by the Government reducing the amount of log export tax it extracts from the sector.</p>
<p>5. Land suitable for natural forest management which the landowners are willing to make available on a sustainable basis in return for benefits that are meaningful to them.</p>	<p>Adequate natural forest is available (subject to some technical issues being resolved) to support at least 10 new individually sustainable logging projects. Whilst the direct financial returns to landowners are insufficient to materially improve their standard of living, the value landowners place on cash income means that they are willing to enter into Forest Management Agreements. The Review Team does not believe that the landowners are fully aware of the long term rights given to the State under the agreement, especially with respect to the dedication of their land to long term timber production, thus excluding other land use options.</p> <p>Currently landowners are not receiving meaningful long term benefits from logging projects. Unless log prices rise very significantly, it is unlikely that the sector will ever produce sufficient economic surpluses for this to happen. Some improvement in landowner benefits could be provided by the Government either</p>

	<p>reducing the amount of log export tax it extracts from the sector, or Government using some of the tax receipts to deliver social services to the logging communities.</p> <p>Field observations indicate that landowners require significant support if they are to properly manage their affairs as far as this regards their relationship with logging projects.</p>
<p>6. Management of the forest resource which under the standard Forest Management Agreement is the responsibility of the State.</p>	<p>Whilst logged forests will recover eventually, approximately half of the forest harvested would benefit significantly from investment in timber stand improvement. This task is easily undertaken by local landowners under supervision from the PNGFA. The cost is the equivalent of about K3-4/m³ of log harvest. This is about twice the amount currently collected as Reforestation Levy, although the levy is only partially dedicated to this purpose.</p> <p>Responsibility for forest management lies with the State. Currently the State does not fulfil it's obligations in this regard. Meeting it's obligations could be funded from a proportion of the log export tax the Government currently extracts from the sector.</p>
<p>7. A financially sustainable logging industry capable of regularly replacing it's equipment and earning sufficient profits to keep it engaged in the sector.</p>	<p>Given the current FOB log export price, and the amount the Government extracts from the sector as log export tax, the logging industry is not financially sustainable. Industry is not replacing it's field equipment, and consequently the nation's logging capacity will gradually decline until it ceases to exist.</p> <p>Whilst industry may continue to maintain a logging capacity as long as it can, it's essential contribution to timber production is currently not sustainable. Whilst waiting for log export prices to rise, some interim relief could be provided by the Government reducing the amount of log export tax it extracts from the sector.</p>

<p>8. A sustainable supply of skilled labour willing to work for the regulatory institutions and the logging industry.</p>	<p>It appears that in most cases logging workers do not earn sufficient wages to support themselves and their families. This is not sustainable, and contributes to labour turnover, which in turn mitigates against investment in training. Some attention to the working conditions which prevail in the logging sector is required.</p>
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THE GOVERNMENT’S IMPACT FORESTRY PROJECTS

Under its Medium Term Development Strategy 2003-2007 the current Government has announced that it wishes to see 10 new sustainable logging projects producing logs by the end of 2004. These are referred to as “impact projects”. In order for these projects to be progressed a number of technical issues remain to be resolved (fragile forests, the 10% conservation set-aside, and the length of the sustainable cutting cycle). Although the issues were identified in 2001, and the National Executive Council gave directions to the PNG Forest Authority and the Department of Environment and Conservation that they be resolved, no meaningful progress has been made.

The Review Team is also concerned that the impact of the Environment Act 2000 on new logging projects is not yet clearly understood. The Act came into effect on 1 January 2004 and now covers all the impact projects. This issue needs to be resolved.

In the opinion of the Review Team, it is unlikely that any of the impact projects will be operational by the end of 2004. If these projects are to be successful as long term sustainable logging projects, then in the opinion of the Review Team the Government should contribute to their initial development by investing in the delivery of basic social services to the permanent communities which will develop.

THE GOVERNMENT FORESTRY AND CONSERVATION PROJECT

The review was asked to provide recommendations which the Government’s Forestry and Conservation Project (FCP) could implement. The design of this project was based on the capabilities of the PNG Forest Authority and the Department of Environment and Conservation as they existed in the late 1990s. As noted above, the capabilities of both institutions has declined significantly, and it will be necessary for the Forestry and Conservation Project to redirect some of its resources to re-strengthen the institutions if the objectives of the project are to be successfully achieved.

In addition a significant objective of the FCP is to assist landowners make informed decisions regarding the use of their forest resources. With regard to industrial scale logging, it would appear that few if any opportunities for new sustainable scale project areas to be acquired by the State under a Forest Management Agreement. Sustainability might be better served if the FCP shifted some of this focus to assisting landowners who have already chosen to pursue industrial scale logging.

1. BACKGROUND AND FRAMEWORK FOR SUSTAINABLE TIMBER PRODUCTION

1.1 OBJECTIVE OF THE REVIEW

Focus On Sustainable Forestry

Following a Commission of Inquiry into the Forestry Sector in 1989¹, and to bring the forestry sector into compliance with the Constitution, the PNG Government developed and adopted a new National Forest Policy in 1991. The Government's key objective was to place the management and harvesting of the nation's natural forest resources on a sustainable basis. Generally this is taken to mean harvesting at sustainable rates; harvesting in accordance with appropriate environmental standards; and adequate consideration of the requirement for forest and biodiversity conservation.

Measures subsequently introduced by Government to give effect to the policy include:

- The new Forestry Act 1991 (Enacted by Government in 1991. Gazetted in June 1992. Amended in 1993, 1996 and 2000²);
- The National Forestry Development Guidelines (A requirement of the Act. Produced by the Minister for Forests in 1993, but not revised since that time); and
- The National Forest Plan (A requirement of the Act. Produced by the Minister for Forests in 1996, but not revised since that time).

The two key Government regulatory institutions, being the PNG Forest Authority (PNGFA) and the Department of Environment and Conservation (DEC), have put in place more detailed standards and procedures to give operational effect to the policy. These include:

- Specific Guidelines for [Environmental Plans for] Forestry Harvesting Operations 1993 (Provided for under the Environmental Planning Act 1978³. Produced by DEC);
- Planning, Monitoring and Control Procedures for Natural Forest Logging Operations Under Timber Permit (PNGFA 1995). These incorporate the 24 Key Standards⁴;
- Set-up Monitoring and Control Logbook (PNGFA 1995);

¹ The Barnett Inquiry.

² As at August 2004 the PNGFA has prepared a further Forest Amendment Bill for initial consideration by the PNGFA Board.

³ Repealed and replaced by the Environment Act 2000 which took effect from 1 January 2004.

⁴ A sub-set of the PNG Logging Code of Practice.

- Waste Assessment Manual (PNGFA – 1995);
- Procedures for Environmental Plan Assessment (DEC 1996);
- Guidelines for the Preparation of Environmental Monitoring and Management Programs for Commercial Forestry Harvest Operations (DEC 1996);
- Guidelines for the Preparation of Waste Management Plans for Commercial Forestry Harvest Operations (DEC 1996);
- Procedures for the Identification, Scaling and Reporting (Including Royalty Self-Assessment) on Logs Harvested From Natural Forest Logging Operations (PNGFA 1996);
- Provincial Forest Plans – various dates 1996 – 1997 (A requirement of the Act. Produced by the respective Provincial Governments with assistance from the PNGFA and sometimes DEC). Most have expired;
- The Logging Code of Practice 1996 (Produced by a joint working group of the PNGFA and DEC. Endorsed by the National Executive Council (NEC)); and
- The Forestry Regulations 1998 (Produced by the PNGFA. Amended in 2004).

The Broad Objectives For The Review

As noted in the Review Terms of Reference (TORs), the review is a PNG Government response to it's concern to:

Ensure that the forest industry is moving satisfactorily towards a sustainable harvest yield basis, environmentally acceptable logging practices and is providing meaningful long term benefits to landowners.

Within this framework the TORs specify that the overall aim of the review is to:

- *Assess overall compliance by existing logging projects; and to*
- *Review the standards and procedures available for the monitoring and control of the industry;*

and through this process to:

Identify weaknesses and problems within the operation, monitoring and control of the PNG forest sector, which may be hindering progress towards meeting the Government's key forestry objectives, which include ensuring "the management of the nation's forest resources as a renewable natural asset"⁵.

⁵ This reiterates the Fourth Goal of the PNG Constitution which requires "Papua New Guinea's natural resources and environment to be conserved and used for the collective benefit of us all, and to be replenished for the benefit of future generations".

Directions to the Review Team set out in the TORs are that:

The purpose of the review is not to conduct a “witch-hunt” but to focus on industry wide and positive forward-looking solutions for the improved achievement of sustainable forest management.

A full copy of the TORs is presented as Appendix 1.

The Forestry And Conservation Project

The Forestry and Conservation Project (FCP) is a program of support to the forestry sector funded by the PNG Government utilising its own and World Bank loan funds (Loan Agreement dated December 20, 2001). It has four main components as follows;

- Landowner Forest Decision Making (to be carried out through the Department of National Planning and Monitoring);
- The PNG Mama Graun Conservation Trust Fund;
- Sustainable Forest Management (to be carried out through the PNGFA); and
- Environmental Assessment and Monitoring (to be carried out through DEC).

The project was launched in June 2002. A final project implementation plan (PIP) was agreed in September 2003. It was suspended by the World Bank also in September 2003 due to non-compliance by the PNG Government with the terms and conditions of the loan, specifically the failure to amend the terms and conditions of two Timber Permits to comply with the National Forest Policy 1991 and the Forestry Act 1991 before extending the term of the permit. As at August 2004 the FCP remains under suspension.

1.2 FRAMEWORK FOR THE REVIEW

1.2.1 A MARKET ECONOMY

The PNG Economic Model

In theory, once forest resources have been acquired by the State from willing landowners, Government, if it had a mind to, could undertake its own forest management and harvesting and ensure that its key objectives, as set out in the Review TORs, are met. The level of logging could be limited to the estimated sustainable cut; environmentally acceptable logging practices could be employed; where needed silvicultural interventions could be applied; and landowners could be provided with meaningful long term benefits. Provided that log prices at minimum cover all the costs, then this would be sustainable.

Government has made a policy choice however, for good reason, to adopt a market economy and to allow the private sector to undertake forest harvesting and log marketing. To facilitate this the Government has passed enabling legislation for private enterprise in general, and more specifically for forestry. Given that the overall objective of the private sector is to maximise profits, and that this objective differs from that of

Government, Government has put in place policies to ensure that the level of logging is limited to the sustainable cut; that environmental standards are observed; and that the activities of the private sector are monitored and where necessary controlled. Government, through the terms and conditions of forest Project Agreements, and its powers under various Acts, is also able to control the amount and method of delivering benefits to the landowners.

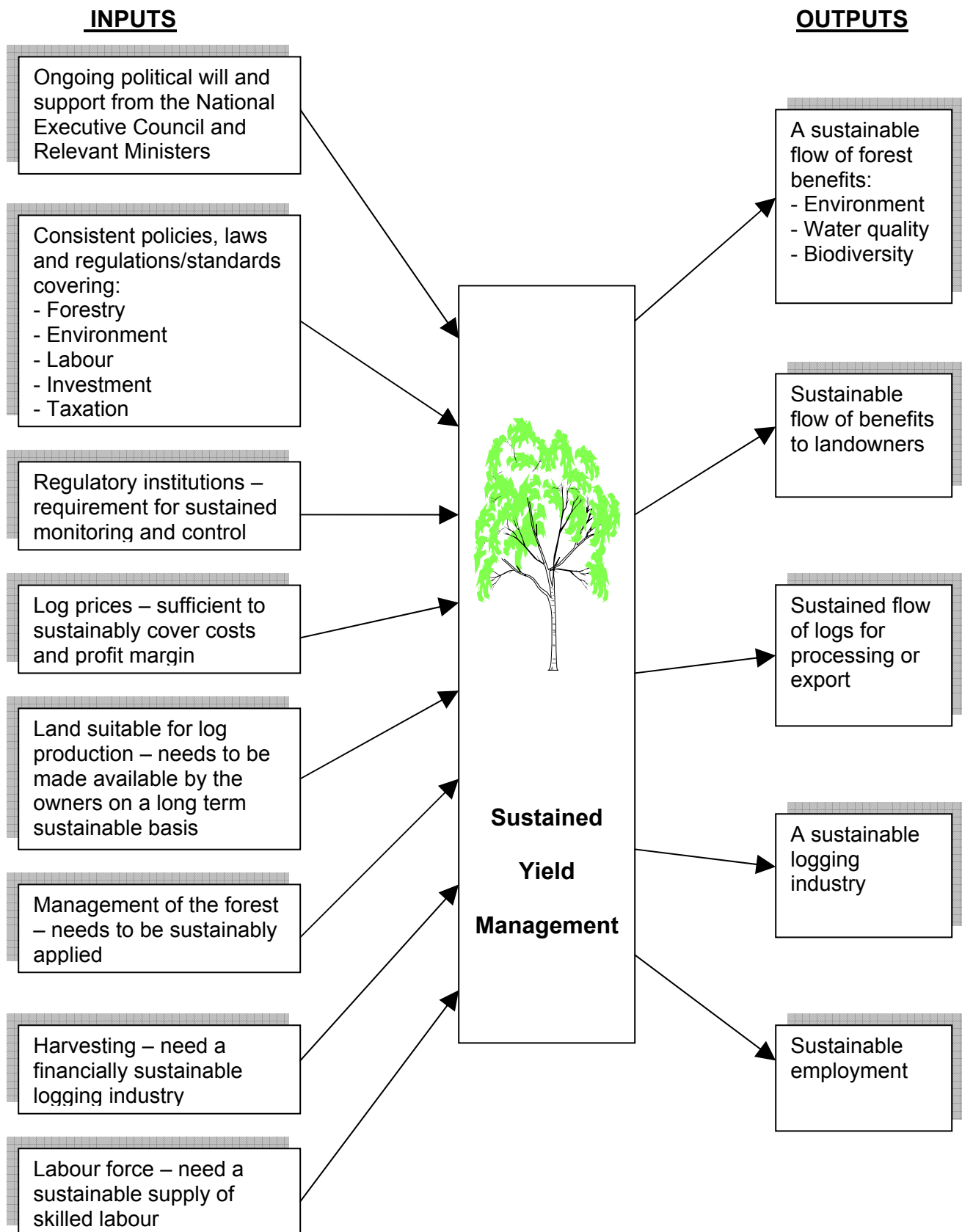
Inputs For Sustainable Forestry

Under the above market model, the achievement of the Government's sustainable forestry objective is dependent on the existence and application of a number of necessary inputs, as depicted in Diagram 1. These are:

- Political will and support;
- Policies, laws and where necessary regulations and guidelines;
- Regulatory institutions with the will, power and resources to enforce the regulations and guidelines;
- Adequate log prices;
- Land suitable for forestry which the owners are willing to dedicate to timber production on a long term basis;
- Forest management;
- A financially sustainable logging industry capable of replacing its equipment and earning sufficient profits to keep it engaged in the sector; and
- A sustainable supply of skilled labour willing to work for the regulatory institutions and the logging industry.

If any one of the inputs listed above is absent, or deficient, then it would be doubtful that the PNG forestry sector can be sustained in the long term.

DIAGRAM 1 : SUSTAINABLE INPUTS REQUIRED TO ACHIEVE THE SUSTAINABILITY OBJECTIVE OF THE CONSTITUTION AND THE NATIONAL FOREST POLICY 1991



1.2.2. THE FOCUS OF THE REVIEW

The information collected by the field team touched on a wide range of issues related to the inputs required to achieve the sustainability policy objective. This review, in accordance with the general directions set out in the TORs, has focused on aspects of:

- Policies, laws, regulations and guidelines;
- Regulatory institutions, in particular the PNGFA and DEC;
- Landowners, their relationships with the logging companies, and their success in investing in long term sustainable income earning opportunities;
- Forest management;
- The performance of the logging industry, in particular in relation to the PNGFA's Planning Monitoring and Control Procedures, and the environmental requirements set out in the "24 Key Standards"; and
- A sustainable supply of skilled labour willing to work for the logging industry.

A broad socio-economic evaluation of the sector added to the Review Team's understanding of the topics listed above⁶. Section 1.4 of this Report sets out the general methodology.

1.2.3 THE OTHER NECESSARY INPUTS

Political Will And Support

One of the key inputs required to achieve sustainable forest management is ongoing political will, and the support of the National Executive Council and the relevant Ministers. In PNG there are many hundreds of traditional political communities (tribes, villages or clans) most of whom aspire to place their representative in the national parliament, both for the prestige that this brings, and to seek access to "development". The national parliament is however, only able to accommodate 109 representatives. National elections are characterised by the very large number of candidates who stand for each available seat, and by a number of very fluid alliances referred to as political parties, none of whom produce a manifesto to distinguish themselves from the others. Typically elected politicians have gained only a small portion of the total vote, and thus represent (and are accountable to) only a small portion of their electorate. Understandably the "electoral development funds" which go with the position are rarely equitably distributed.

Under this approach to the election of national representatives, the political will and support necessary to achieve the forestry objectives set out in the Constitution and the National Forest Policy 1991 depend on the personal interest and commitment of the politically powerful of the day. This in turn may well depend on the importance or otherwise, of logging in their electorate.

⁶ The Socio-Economic and Financial Impacts report is attached as Appendix 8.

Under the Medium Term Development Strategy 2003-2007, the current government is pursuing an “export led economic growth” strategy, and in support of this promised in early 2003 that ten new Timber Permits would be granted. As well as the Government promoting foreign interest in the planned projects, the Minister for Forests continues to exhort the PNGFA to progress the projects to a point where the Minister can grant a permit.

The ten forestry projects referred to are those identified by the 2000/2001 Review Team⁷ as having the potential, subject to specified key issues being resolved by the PNGFA and DEC, to support a financially viable log export operation. As at August 2004, despite a time bound action plan endorsed by the National Executive Council, the key issues remain unresolved. These are:

- A decision regarding the loggability of fragile forests. Work undertaken on behalf of DEC has classified the forest types making up the bulk of some of the 10 projects as being fragile i.e. forests which will not grow at a rate fast enough to be sustainably harvested on a 40 (or 35) year cutting cycle, or which do not have the potential to regenerate after logging;
- The implementation of the conservation set-asides provided for in the standard Forest Management Agreement entered into between the State and the landowners; and
- Making a decision regarding the sustainable cutting cycle. The National Forest Policy 1991 specifies that a 40 year cycle be used, where-as the PNGFA base their estimates of the sustainable annual allowable cut (AAC) for new projects on a cycle of 35 years.

One of the main attractions to Government of increasing log exports is that this would ease the current shortage of cash resources by generating additional cash flow as log export taxes. It is notable however, that the Government does not appear to have identified any additional funds for the PNGFA and DEC to cover the cost of setting up and operating the additional field monitoring and control effort that will be required.

Given the relatively short term of any Government when compared to the sustainable forest cutting cycle of 35 or 40 years, it can be expected that any political commitment to long term sustainable forestry will at times be compromised by shorter term concerns. Although the NEC accepted the recommendations of both the 2000/2001 and the 2002/2003⁸ Review Teams, and directed that they be implemented, many of the recommendations remain unaddressed.

⁷ Review of Forest Harvesting Projects Being Processed Towards a Timber Permit or a Timber Authority – Observations and Recommendations Report. October 2001.

⁸ The 2002/2003 Review Team reviewed the extension of the term of six logging projects originally authorised under the old Forestry Act using the extension provisions of the new Forestry Act 1991, which had been approved, or were being considered for approval, by the PNGFA Board.

Log Prices

The FOB price for natural forest saw/veneer logs (93% of natural forest log exports) during 2003 declined from a high of K209/m³ in January to a low of K181 during the latter part of the year. The weighted average was K192/m³. The FOB price for low grade logs (7% of natural forest log exports) similarly declined from about K120/m³ to about K105/m³. The weighted average for low grade logs was K111/m³. The overall weighted average was K186/m³.

The above data is based on information declared by the log exporters, and thus assumes that there is no transfer pricing. The 1989 Barnett Inquiry in the forest industry found that transfer pricing was common practice at that time. The 2002 Forest Revenue Review Team⁹ examined transfer pricing and noted that given the independent checking of log scaling, species identification, and loaded volumes undertaken for the PNG Government by the independent contractor SGS (PNG) Ltd, the weak point for PNG is declared prices. In its Executive Summary the Forest Revenue Review Team noted that it “conducted an investigation into log export pricing for Papua New Guinea to Japan, Korea and China”, and that it “found some unexplained and substantial discrepancies between declared FOB prices plus freight and insurance, and the destination CIF (cost, insurance, freight) prices, that warrant further investigation”. The Review Team is not aware of any further investigation having taken place to date.

The total volume of natural forest logs exported in 2003 was 1.8 million m³. About 50% of exports came from Western and Gulf Provinces, and most were sold to China (about 70%) and Japan (about 15%).

Total natural forest log export earnings for 2003 were K324 million, of which K111 million (about one third) was captured by Government as log export tax.

Financially Viability Of Log Exporting

A detailed evaluation of average logging costs in PNG was last undertaken in 2002 by the Forest Revenue Review Team. This data, with some amendment¹⁰, has been used to estimate the average costs for a sustainable logging operations (i.e. one which is able to replace its equipment over seven years) as follows:

⁹ Review of the Forestry Revenue System in Papua New Guinea. Final Report of the Forest Revenue Review Team. March 2002.

¹⁰ Based on information provided by industry, the cost of Fuel and Oil was reduced by about 25%, and the cost of Head Office Overheads was more than halved.

	Kina/m3
PNG Salaries and Wages	6.61
Expatriate Salaries and Wages	8.39
Repairs and Maintenance	28.21
Fuel and Oil	20.00
Operational Overheads	12.50
Stevedoring and Port Charges	21.43
Royalty and Landowner Benefits	26.00 ¹¹
Sub-total	<u>123.14</u>
Head Office Overheads	15.00
Depreciation	43.00
Total	<u>181.14</u>
Say	K180/m3

The 2002 Revenue System Report warns that the above data is an estimate based on average PNG conditions, and that it should not be used as a reliable indicator of cost for any one specific logging operation. The report further noted that there would need to be provision for an additional amount of K32.25/m3 if there was to be a 15% return or profit on investment.

Based on the average FOB price for natural forest export logs achieved in the 12 month period ending December 2003, the margin available to the logger/log exporter as profit is estimated as follows:

¹¹ Based on the standard royalty of K10.00/m3 plus an estimate of the national average value of log export premium payments, levies and infrastructural benefits for current logging projects. For all new projects these are replaced by the Project Development Benefit (PDB) which is based on the FOB log price.

	Kina/m3
Average FOB Price 2003	186
Log Export Tax Paid to Government ¹²	53
Gross Return to Logger/Log Exporter	<u>133</u>
Average Costs Before Head Office Costs Or Depreciation	123 ¹³
Profit Before Head Office Costs or Depreciation	<u>10</u>
Head Office Costs	15
Depreciation	43
Profit margin	<u>-48</u>

Under this revenue and cost structure the logging and log exporting industry can only survive if it can substantially reduce overheads and/or depreciation. It is noted that in the above calculation, if there was no log export tax, that there would be a net profit of K5/m3.

For diversified companies active in other sectors, diverting head office overhead costs to more profitable areas of business may well be possible. However this is not possible for stand alone logging companies.

Reducing depreciation costs may well be possible by extending the working life of logging equipment beyond its normal working life of 7 years. The 2002 report of the Forest Revenue Review Team notes that heavy equipment sales in PNG (excluding logging trucks) have fallen very significantly since 1997, and Review Team observations in the field suggest that little (if any) new logging equipment is currently being purchased. Instead some machines are being cannibalised in order to keep others operational. Whilst this may significantly reduce the cost of depreciation, it cannot but increase the cost of repairs and maintenance, as well as reducing machine productivity (as a result of additional down time).

Costs might be lowered further by reducing the stock of spare parts, deferring machine maintenance, and reducing field planning and operational supervision. All will adversely affect productivity or the quality of the operations.

¹² Based on the current (May 2004) log export tax regime. A 5% reduction in log export tax was applied by the Government in late 2003.

¹³ This includes K16/m3 being the national average value of log export premium payments, levies and infrastructural benefits for current logging projects as estimated by the Forest Revenue Review Team in 2002. For a new project this would be replaced by the FOB price based Project Development Benefit (PDB), which for the FOB price of K186/m3 is slightly less at K13.00/m3.

The 2002 report of the Forest Revenue Review Team notes that “it is important to recognise that a logging company can operate at a loss and still have an incentive to maintain logging rates”. In economic terms, as a general principle, as long as revenue after Government log export tax (K133/m³ in the above estimates) covers variable costs (K123/m³ in the above estimates) and are making some contribution to fixed costs (+K10/m³ based on the above data), then it makes sense for the logging company to continue logging. It concludes however that “current export duty rates are probably too high to ensure a sustainable industry over the long term”, and that if current duty rates are maintained, then in the absence of a meaningful FOB price rise that “[the export duty rates] can be expected to eventually cause a problem and lead to industry contraction” as equipment wears out and is not replaced. It is reported¹⁴ that some smaller logging operators have already closed down despite having access to exportable forest resources.

Despite the clear lack of profitability, it is the observation of the Review Team that some logging companies are actively seeking access to additional forest resources. In addition there is some competition for new forestry projects. This would not appear to be rational behaviour unless there exists another reason for remaining in the industry. This question was raised with the PNG logging industry through the questionnaire (see Section 1.4 of this Report). Reasons offered included:

- An expectation of future increased log prices; and
- An expectation that once the initial investment had been made (resulting in a period of negative profits), that this would be followed by a period of profitability.

The Basis For Log Export Tax

Logs are sold in US dollars. Export tax is calculated on the FOB price expressed in PNG Kina using the exchange rate provided by the Bank of PNG on a daily basis.

The log export tax is based on a sliding scale which sees the proportion of the sale price captured as tax increase as the FOB price increases, and vice versa.

There have been significant fluctuations in the exchange rate over the last three years, and thus although the log sale price in US dollars may not change, the proportion of the sale price captured as tax has also fluctuated accordingly.

In order to avoid fluctuations in the level of tax resulting from fluctuations in the exchange rate, which has little to do with the world market price for logs, it would seem sensible to base the log export tax on the FOB price expressed in the currency in which it is traded, i.e. US dollars. The fact that the industry input costs includes a high import component (machinery, fuel and oil, expatriate labour) would support this argument.

¹⁴ Comment from PNG Forest Products Ltd dated April 2004.

1.3 SELECTION OF PROJECTS TO BE REVIEWED

1.3.1 THE AGREED LIST OF PROJECTS

The detailed TORs require that 15 projects are to be reviewed, six in greater detail (referred to as case studies - see Section 1.5 of this report). Appendix 2 sets out the basis for project selection. The final list approved by Government's Inter-agency Forestry Committee (IAFC) in July 2003 is as follows:

LOGGING PROJECTS TO BE REVIEWED

PROJECT	PRODUCTION FOCUS	EXPIRY DATE	CASE STUDY	
1. TP 1-07	Wavoi Guavi	Log exports/ Local processing	Apr 2012	Yes
2. TP 1-09	Makapa	Log exports	Jan 2012	
3. TP 2-12A	Turama Extension	Log exports	May 2030	Yes
4. TP 2-14	Vailala Blk 1	Log exports	Feb 2009	
5. TP 2-16	Vailala Blks 2 & 3	Log exports	Jun 2012	
6. TP 3-27	Iva Inika	Log exports	Dec 2008 (*)	
7. TP 10-08	Vanimo	Log exports	Oct 2011	Yes
8. TP 13-33	Watut West	Local processing	Jun 2007	Yes
9. TP 13-38	Buhem Mongi			
	Busega	Log exports	Jan 2032	
10. TP 14-50	Kapuluk	Log exports	Mar 2009	
11. TP 14-52	Ania Kapiura	Log exports	Dec 2014	Yes
12. TP 15-53	Open Bay	Log exports	Nov 2005	Yes
13. TP 15-58	Seraji & Seraji			
	Extension	Log exports	Nov 2005	
14. TP 18-2	Manus West Coast	Log exports	May 2008 (*)	
15. Kiunga Aiambak Road TA		Log exports		

(*) It was assumed that the (then) current application for extension would be granted, and that it would be for 5 years.

Since the list was approved the Kiunga Aiambak Road TA operation has been judged to be illegal and has been closed down. Consequently this project was deleted from the list, and 14 field inspections were undertaken and 14 Individual Project Review Reports (IPRRs) were produced.

Soon after the field inspection, the operator at TP 15-58 Seraji & Seraji Extension closed down the operation. An IPRR for TP 15-58 Seraji & Seraji Extension has, however, been produced.

There are no additional current logging projects which would meet the review selection criteria.

1.3.2 GENERAL DESCRIPTION OF PROJECTS

Permits Granted Under The Old Forestry Act

Of the 14 projects reviewed, all except TP 2-12A Turama Extension and TP 13-38 Buhem Mongi Busega were authorised prior to June 1992 under the previous forestry legislation. The Forestry Act 1991 came into force in June 1992. For these projects the right to harvest the forest resource was acquired under a Timber Rights Purchase (TRP) agreement between the State and clan representatives. A Timber Permit was then granted to either a landowner company or a logging company, either of whom were permitted to subcontract logging and marketing under a standard Logging and Marketing Agreement¹⁵.

Sustainable timber production was not a stated national forest policy objective at this time, although it could have been read into the Fourth Goal of the Constitution. At this time the Timber Permits granted were typically for a term of either 10 or 20 years.

Given that logging in the TP 1-09 Makapa project area was significantly delayed, an effort was made to bring it into line with the sustainability objective of the new policy and Act by extending the term, and reducing the AAC to an estimated sustainable level.

For Timber Permits granted under the old Act, the terms and conditions under which logging may take place are set out in the Timber Permit document. The Timber Permit was granted by the Minister. The permit holder was required to pay royalties, log export premiums, various specified levies, and to deliver a range of specified infrastructure.

Permit Granted Under The Forestry Act 1991

TP 2-12A Turama Extension and TP 13-38 Buhem Mongi Busega were authorised under the new Act. Under the new arrangements the right to manage the forest (as opposed to merely harvesting it) is acquired by the State under a long term Forest Management Agreement with the chairpersons of the Incorporated Land Groups which represent the landowners. The term of the agreement is 50 years, and the permitted AAC is based on one 35th of the estimated net loggable volume. Thirty-five years is deemed by the PNGFA to be the appropriate sustainable cutting cycle¹⁶. The State enters into a Project Agreement with a duly selected investor, and the Timber Permit is granted to the investor, who is permitted to subcontract logging and marketing.

For Timber Permits granted under the Forestry Act 1991, the terms and conditions under which logging may take place are set out in the Project Agreement between the State and the logging company. The Timber Permit is a one or two page document signed by the Minister which activates the Project Agreement. The logging company is required to pay royalties, and a Project Development Benefit (PDB) payment which effectively

¹⁵ Prior to the Forestry Act 1991 it was also possible to harvest forests by means of a Dealings approved by the Minister under the Forestry (Private Dealings) Act. These were known as Local Forest Areas (LFAs), and were typically for a 10 year term. The only LFA still current is LFA 14-08 Alimbit Andru, but as logging is due to be completed in 2004, this project was not selected for review. The Dealings for Alimbit Andru expire in October 2005.

¹⁶ The National Forest Policy 1991 prescribes a sustainable cutting cycle of 40 years.

replaces the log export premiums, the various specified levies, and the range of specified infrastructure required under the old Act.

1.4 THE REVIEW PROCESS

A Summary Of The Review Process

The review process was led by the core Review Team consisting of a Review Team Leader (Forester and Forest Policy Specialist), a Field Team Leader (Forester), an Environmentalist, a Landowner Specialist, a Legal Adviser, and appropriate staff of the PNGFA (generally the project based Project Supervisor, and the regionally based Supervisor Inspections). The review methodology¹⁷ was approved by the Government IAFC.

The review process for each project generally consisted of the following steps:

- Advising the logging companies of the planned review, and of the list of projects to be reviewed. This was done by a general letter signed by the Secretary for National Planning and Monitoring (a copy is presented as Appendix 3);
- Obtaining and reviewing the relevant documents and files from the PNGFA and DEC. In a number of cases documents had to be sought from the logging companies;
- Discussions with Port Moresby based landowner representatives, and getting prior advice to the landowners in the field about the team's planned visit (by various means including national Karai and provincial radio);
- Discussions with the site based PNGFA Project Supervisor and logging company staff to arrange the field visit, transport, accommodation etc;
- Preparation of a letter to the logging company advising it of the dates for the planned field work, and seeking its cooperation. In all cases this letter went out on the letterhead and over the signature of the Chief Secretary to Government in his capacity as the Chairman of the Government IAFC;
- Travelling to the site, and undertaking field inspection work. This included random samples of logged and pre-logging set-ups to check compliance with required procedures and standards (in the presence of the PNGFA Project Supervisor); inspection of roads and bridges; inspection of logging camps and log export facilities; discussions with logging company personnel (both management and labour); group meetings with local landowner representatives (including in most cases officers of the local landowner company); separate group meetings with local women; and reviewing further relevant documentation on site;
- In nearly all cases meetings were also held with the Local Level Government District Office, and the Provincial Government (especially where they play a role

¹⁷ Review of Existing Logging Projects - Review Methodology. Prepared for the Government of PNG c/- the Inter-Agency Forestry Committee. July 2003.

in administering levies). Meetings were also held with the police teams based at most of the logging project sites in the Southern Region;

- Writing up the preliminary findings for each project in a draft IPRR. This was provided to the direct stakeholders for their comment and further input before being finalised. Copies were provided to the logging company head office (mostly in Port Moresby), the landowners (usually through the landowner company, or various PNGFA officers), the local level Government (District Office), PNGFA and DEC. Copies were also provided to the Government IAFC (which released copies to the NGO representative on the IAFC); and
- Direct stakeholder responses to the draft IPRRs were analysed, followed up where necessary, and the IPRR finalised. A summary of which key stakeholders responded is set out in the following table. Copies of the finalised IPRRs were sent to those stakeholders who had responded to the draft.

The IPRRs were used as resource materials for the production of the draft Observations and Recommendation Report.

Consultations

As well as receiving written responses to the draft report, the Review Team ran a series of consultations with key stakeholders to receive additional feedback; to provide explanations to stakeholders where required; and to further engage directly with the stakeholders. Consultations were held with :

- Department of Environment and Conservation
- PNG Forest Authority
- Other relevant Government Departments
- The industry (through the Forest Industry Association)
- The NGO community
- The public (one consultation in Lae and Port Moresby)

The feedback received from the consultations was taken into account in finalising the review report. Copies of the written submissions received, and a listing of the main points raised at each of the consultations are presented in Volume 3.

SUMMARY OF STAKEHOLDERS RESPONDING TO THE DRAFT INDIVIDUAL PROJECT REVIEW REPORTS

DIRECT STAKEHOLDER	1. TP 3-27 Iva Inika	2. TP 18-2 Manus West Coast	3. TP 13-38 Buhem Mongi Busega	4. TP 1-09 Makapa	5. TP 14-50 Kapuluk & Kapuluk Extn	6. TP 15-58 Seraji & Seraji Extn	7. TP 2-14 Vailala Block 1	8. TP 2-16 Vailala Blocks 2 & 3	9. TP 2-12A Turama Extn	10. TP 13-33 Watut West
Logging Company	✘	✓	✘	✓	✓	✘	✓	✓	✓	✓
Timber Permit Holder	✘	✓	✘ (**)	✓ (**)	✓	✓	✘	✓ (**)	✓ (**)	✓
Landowner Company or Incorporated Land Group(s)	✘ (*)	✓ (**)	✓	✓	✘	✓ (*)	✘	✓	✓	✓
PNG Forest Authority	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Department of Environment and Conservation	✓	✓	✘	✓	✓	✓	✓	✓	✓	✓
Provincial Government and/or Administration	✘	✓	✘	✘	✘	✘	✘	✘	✘	✓

(*) In this case the Landowner Company is the Timber Permit holder.

(**) In this case the Logging Company is the Timber Permit holder.

DIRECT STAKEHOLDER	11. TP 14-52 Ania Kapiura	12. TP 15-53 Open Bay	13. TP 10-08 Vanimo	14. TP 1-07 Wavoi Guavi
Logging Company	x	✓	✓	✓
Timber Permit Holder	x (**)	✓ (**)	✓ (**)	✓ (**)
Landowner Company or Incorporated Land Group(s)	x	x	x	x
PNG Forest Authority	x	x	✓	x
Department of Environment and Conservation	✓	✓	✓	✓
Provincial Government and/or Administration	x	x	x	x

(*) In this case the Landowner Company is the Timber Permit holder.

(**) In this case the Logging Company is the Timber Permit holder.

Questionnaires And Broad Responses

As part of the review process, the Review Team prepared and distributed two questionnaires.

(a) Questionnaire For PNGFA Project Supervisors

The questionnaire sent to the PNGFA field based Project Supervisors was designed to obtain their views on the workability of the PNGFA's Planning Monitoring and Control Procedures (which integrates the 24 Key Standards), and to learn of any difficulties they might be experiencing in applying the procedures, and the powers they have to ensure compliance by the logging companies. The questionnaire was sent out through the office of the PNGFA Manager Field Services Division. 28 out of 29 (97%) responded.

A copy of the questionnaire and an overview of the Project Supervisor's responses is presented in Appendix 4.

(b) Questionnaire To Logging Companies

The questionnaire sent to the major logging companies was designed after most of the field work had been completed, and common issues had been identified. Only four logging companies responded in writing, despite an extension to the deadline for response¹⁸.

A copy of the questionnaire and an overview of industry responses is presented in Appendix 4.

1.5 CASE STUDIES AND PARTICIPANTS

The six case study projects were reviewed in more detail by including in the Review Team representatives of other Government Departments and Authorities who have a responsibility for the monitoring and control of some aspect of the logging operations. The review covered the cost of travel, accommodation and daily allowances. A wide range of Departments and Authorities were invited to participate. Also invited were the relevant Provincial Administration. The invitations were extended by letter signed by the Secretary for National Planning and Monitoring. All were followed up with telephone calls from members of the Review Team. Those invited to participate were:

- Department of Foreign Affairs
- Department for Community Development
- Royal PNG Constabulary
- Department of Works
- Department of National Planning and Monitoring
- Internal Revenue Commission
- Investment Promotion Authority

¹⁸ The Forest Industries Association made an effort to set up a round table meeting between the Review Team and representatives of the industry. The Review Team agreed to this. However the FIA members later decided that they would prefer to respond individually in writing.

- Department of Labour and Industrial Relations
- Provincial Governments:
 - Fly
 - Gulf
 - Sandaun
 - Morobe
 - West New Britain
 - East New Britain

Those who chose to participate, or were able to be persuaded to participate, are as indicated in the following table.

CASE STUDY PROJECTS – SUMMARY OF PARTICIPATING DEPARTMENTS AND AUTHORITIES

<u>Department/ Authority</u>	<u>CASE STUDY PROJECT</u>					
	TP 1-07 Wavoi Guavi (Fly)	TP 2-12A Turama Extn (Gulf)	TP 10-8 Vanimo (Sandaun)	TP 13-33 Watut West (Morobe)	TP 14-52 Ania Kapiura (WNB)	TP 15-53 Open Bay (ENB)
Foreign Affairs	✓	✓	✗	✓	✓	✓
Community Development	✓ Rpt	✗	✓ Rpt	✗	✓ Rpt	✓ Rpt
PNG Constabulary	✓	✓ Rpt	✗	✓ Rpt	✗	✗
Works	✗	✗	✗	✗	✗	✗
National Planning and Monitoring	✗	✗	✗	✗	✗	✗
Internal Revenue	✗	✗	✗	✗	✗	✗
Investment Promotion	✗	✗	✓	✗	✓	✓
Labour and Industrial Relations	✓ Rpt	✓ Rpt	✓ Rpt	✓ Rpt	✓ Rpt	✓ Rpt
Environment and Conservation ¹⁹	✗	✓	✗	✓	✓	✓
Provincial Government ²⁰	✓	✓	✓	✓	✓	✓

¹⁹ The design of the Review provided for a representative of DEC to work full time with the Review Team and to participate in all of the field work. However, due to a shortage of available staff, it was arranged that a DEC representative would join the Review Team for the case study projects only.

²⁰ Although non of the Provincial Governments responded to their invitation to participate, the Review Team made a point of making contact with a senior person during the field work. This included one or more of the Provincial Governor; the Deputy Governor; the Provincial Administrator; and the Deputy Administrator. It also included representatives of the Local Level Government.

Each of the Government participants were asked to produce a short review report for each field visit based on a template provided by the Review Team setting out what issues they were monitoring and their findings. “Rpt” in the above table indicates the reports received.

In addition, an economist was engaged to review the wider impacts of the six case study projects, in particular with reference to TOR 4, which requires the Review Team to:

Conduct an assessment of environmental, social and economic impact of six case study logging operations in terms of the allocated forest, the local population and forest resource owners, and also at the wider regional and national level.

The reports produced by the Departmental and Authority representatives, and the economist, were used as resource material for the production of this draft Observations and Recommendations Report. The economist’s report is presented as Appendix 8²¹.

1.6 THE DIRECT STAKEHOLDERS AND COOPERATION RECEIVED

The key direct stakeholders in the PNG forestry sector are identified as being:

- The landowners – who own the forest resource, make it available for logging, and receive monetary and non-monetary benefits. In most cases there exist so-called landowner companies who purport to represent the landowners, and through whom some of the landowner cash benefits are channelled;
- The logging industry – which harvests the logs for either export or processing, pays log export tax to Government and provides monetary and non-monetary benefits to landowners;
- The Provincial Government – within whose jurisdiction logging takes place;
- The PNGFA – which is responsible for acquiring the forest resource on behalf of the State, setting the AAC, identifying a suitable logging company, and subsequently monitoring and controlling logging operations; and
- DEC – which is responsible for setting environmental standards, approving an environmental plan for each logging project, and subsequently monitoring compliance with the plan and any approval conditions.

1.6.1 LANDOWNERS

Review Team Observations

The Review Team’s observations regarding landowners as direct stakeholders in sustainable forestry are that they are generally characterised by:

²¹ Comments regarding the economist’s report received from Rimbunan Hijau (PNG) Ltd are presented in Volume 3.

- A very high social discount rate for cash. One Kina today is worth sacrificing a great deal of benefit tomorrow. Landowners are not fully considering the impact which logging projects will have on them, neither are they investing in their futures.
- A general disregard for the sanctity of contract. Any contract entered into is considered to be renegotiable at any time. The pressure to amend the contract often results from better understanding.
- A lack of any or correct information regarding the impacts of logging and the contractual arrangements which they have entered into;
- A lack of access to independent advice at a reasonable cost, especially legal, management and technical advice;
- A lack of understanding of the economics of logging, and of financial imperatives, which leaves them without any clear understanding of what a fair return from logging operations might be. As a consequence they continually agitate for additional benefits in the hope that they might get them, whether the sector can afford it or not.
- Customary approaches to their organisation, and the distribution of cash benefits. In particular deferring to “Big Men” (typically Chairmen of the so-called landowner companies) in public, but privately complaining about their lack of performance and accountability. Landowners generally have no option but to trust their often self-appointed representatives.
- Generally landowners would prefer direct personal access to cash, rather than seeing funds managed towards community facilities, or invested on the community’s behalf.
- Landowners are not a homogeneous stakeholder, although they are often treated as such. Typically there is a great deal of internal division and factionalism.

Cooperation Received

Generally the cooperation of landowners was good, although in many cases the landowners were as interested in being better (or more correctly) informed about the terms and conditions under which their forest was being harvested as they were in voicing their opinions regarding compliance issues.

Every attempt was made to ensure that meetings were held with the grass roots landowners. Landowners were typically also represented by one or more so-called landowner companies which purport to act on their behalf, or by officers of the relevant Incorporated Land Groups. In many cases there was clear conflict between the grass roots landowners and the landowner company, which in most cases is the entity that the logging company deals with. In some cases the landowner company holds the Timber Permit. In one case it was demonstrated that the officers of the landowner company were paid a salary by the logging company.

When an individual land owner voiced an opinion, it was often difficult to ascertain in what capacity s/he spoke, viz as an individual; as an informal spokes-person for the group; as an officer of a landowner company; or as an officer of the Incorporated Land Group. It was not unusual for individual landowners (or sometimes groups) to quietly approach the Review Team after a meeting to inform the team of the status of the people who had the most to say.

Only in one instance (TP 1-7 Wavoi Guavi) did the landowners not all welcome the Review Team in the field. In this case one of a number of landowner companies pursued a court order preventing the Review Team (and by implication the State) from entering onto “their land”. Although a wide range of landowners had indicated that the Review Team was welcome, a small group protested at the local airstrip, and would not allow the team to disembark in November 2003. A field inspection was eventually made in March 2004 after a court ruling in favour of the State and the Review Team.

1.6.2 INDUSTRY

Review Team Observations

The Review Team’s observations regarding the logging industry as direct stakeholders in sustainable forestry are that they are generally characterised by:

- A variety of ethnic origins, resulting in some clashes of culture, and some communication difficulties;
- The perception that logging is not sufficiently profitable to provide for the replacement of machinery, or to make normal profits;
- A tendency to prefer expatriate workers to PNG nationals due to the perception that expatriate workers are more productive and reliable;
- A general contempt (with notable exceptions) for environmental and conservation values²²;
- A preference for dealing with landowners through one (or as few as possible) landowner companies. Often landowner company representatives (official or otherwise) are freely provided with funds by the logging company through an advance account which is then recouped against royalty or log export premium payments; and
- Having, in the opinion of the Review Team, an unhealthy influence over the landowners through their close relationship with the executives of the landowner company, and their willingness to fund the costs incurred by the executives from the advance account.

²² One logging company was found, commendably, to have adopted an internal environmental policy. Review Team field inspections indicated that it did not live up to the policy in practice.

Cooperation Received

The cooperation of industry with the review process varied, although cooperation in the field from on-site company managers was generally very good once the Review Team had explained the purpose of the review. The team's draft IPRRs were sent to the logging company head offices for comment. At this level some chose to support the review and provided very useful input; some stated their lack of support for the review process, and commented reluctantly; and some declined to comment. Generally the upper level managers of the larger logging companies did provide comment, and the Review Team is of the opinion that a meaningful sample of industry views was obtained.

The cooperation of the PNG Forestry Industry Association was also sought. Initially the association chose to challenge the Government's right to undertake the review, and effectively dissociated itself from the review process. In April 2004 it offered to facilitate a round-table discussion between its members and the Review Team to discuss questions raised by the Review Team through a questionnaire which had been sent to the logging company for each of the projects reviewed. The discussion was later cancelled by the FIA on instructions from its members.

A well attended consultation with industry was held in August 2004.

1.6.3 PROVINCIAL GOVERNMENT/ADMINISTRATION

Review Team Observations

The Review Team's observations regarding the Provincial Government/Administration as direct stakeholders in sustainable forestry is that they are characterised by:

- A lack of awareness of the role they are expected to perform in regards to forestry projects, resulting mainly from the fact that there is no direct Provincial financial support flowing from forestry projects;
- A lack of awareness of the Provincial Forestry Plan;
- Frustration regarding the lack of communication with the PNGFA, especially the Planning Division with regard to action taken to develop new projects within the province;
- Frustration at what they see as the lack of adequate National Government funds to support service delivery, especially infrastructure, health and education;
- Frustration at the lack of consultation regarding the delivery of infrastructure under the terms and conditions of a Timber Permit (e.g. schools, health clinics) where the Provincial Government is expected to staff and supply them;
- No incentive to be involved with logging projects as there is no direct or indirect addition to the Provincial budget. Log export tax is paid to the central Government;

- A distancing by landowners who do not want the Provincial Government/Administration involved in decisions regarding (where it exists) the infrastructure development levy; and despite the above characteristics
- Generally keen to become more involved, in particular in the selection of a suitable logging company, and the monitoring of logging operations.

Cooperation Received

In all cases the Review Team made contact with the appropriate District Office of the Provincial Administration and invited a representative to accompany the team during the field work. In most instances a representative joined the field team for a short time only.

In nearly all cases the District Office had had little previous involvement with the forestry project. Most representatives were more interested in being better (or more correctly) informed about the project than they were in contributing usefully to the review, and checking to see whether there were any opportunities for the logging company to support the District Office either financially or in kind.

Where possible the Review Team also met with the Provincial Governor (or the Deputy Governor) and the Provincial Administrator (or the Deputy Administrator). Sometimes these meetings took place in Port Moresby.

Where the Provincial Government/Administration representatives did express a view, then this was recorded in the draft IPRRs. Copies of the draft IPRR were provided for comment, but only rarely was there a response. Only the Sandaun Provincial Government responded to Review Team's draft report.

1.6.4 PNG FOREST AUTHORITY

Review Team Observations

The Review Team's observations regarding PNGFA as a key Government regulatory agency responsible under legislation for the monitoring and control of the forestry sector, is that it is generally characterised by:

- Demoralised staff, partly due to the perceived lack of sufficient operational funds to be effective²³, and partly due a number of years of lack of direction, and poor leadership;
- A perception that it is not provided with sufficient Government funds to perform its functions properly;
- The lack of an operational plan to guide activities, set priorities, and underpin the annual budget. A five year corporate plan exists, but this does not appear to recognise the PNGFA's role as a regulator, or its core responsibility for delivering field monitoring and control services;

²³ It is the opinion of the Review Team that there is scope for improved prioritisation and expenditure management.

- Field staff reluctant to impose sanctions for non-compliance as they have experienced the undermining of their powers by more senior managers;
- An apparent internal division between staff choosing to support the Government and the Minister's wish to activate new logging projects in whatever way they can and to avoid closing down existing operations in whatever way they can, and staff who would prefer to follow a more professional approach;
- A Planning Division apparently unable to produce reliable volume estimates for new projects;
- A Mapping Section, which as a result of fires and theft, no longer has an up-to-date database or equipment;
- An Operations Division hampered by the lack of resources to invest in staff housing so that adequate numbers of Monitoring Officers can be located where they are needed; and
- A General lack of cooperation between Divisions.

Further observations of the Review Team are that:

- The capacity and resources available to the PNGFA to perform its functions has declined very significantly since the mid 1990's when the Authority was supported under the National Forestry and Conservation Action Plan;
- A significant number of field based staff have not received training in basic field monitoring and control procedures;
- The PNGFA was unable to produce adequate records of royalties and other payments received and distributed to landowners; and
- The PNGFA has not made any discernable attempt to ensure that the Performance Bonds required under the terms and conditions of the Timber Permits were kept current.

Cooperation Received

PNGFA field based and regional office based staff were, with one or two notable exceptions, extremely cooperative and helpful, and assisted the Review Team with access to documents, logistical arrangements, introductions to logging company staff and landowners, and comments and opinions useful for the review.

At PNGFA Head Office, cooperation varied. Some staff were strongly supportive of the review, were very helpful with access to files and records, and went to considerable effort to provide support and input. It was clear that others were opposed to the review, and considered the review to be an unnecessary imposition on their activities.

Initially copies of the draft IPRRs were sent to the office of the Managing Director for passing on to appropriate staff (Field Services Division, and the Projects Section of the

Resource Development Division) for consideration and comment. This failed²⁴. The Review Team then sent copies to the office of the General Manager, who when pressed, responded to say that in his opinion all of the reports were fine. Eventually the team adopted the practice of sending a formal copy to the Managing Director, and a second copy direct to the Field Services Division, and the Projects Section of the Resource Development Division. Considerable and ongoing effort by the Review Team was required to obtain considered responses. Mostly the responses were received well after the indicated deadlines.

A well attended consultation with the PNGFA was held in August 2004.

1.6.5 DEPARTMENT OF ENVIRONMENT AND CONSERVATION

Review Team Observations

The Review Team's observations regarding DEC as a key Government regulatory agency responsible under legislation for the monitoring and control of environmental impacts, is that it is generally characterised by:

- Generally demoralised staff owing to the lack of operational funds²⁵, and the consequent inability of staff to undertake field work and be properly engaged in meeting their legislative responsibilities in the forestry sector; and
- Poor record keeping. A number of key documents, and proper records for a number of procedures prescribed by legislation, were not able to be found.

Further observations of the Review Team are that:

- A number of the Environmental Plans for current logging operations had been archived, indicating the Department's withdrawal from performing its functions;
- The capacity and resources available to DEC to perform its functions has declined very significantly since the mid 1990's when the Department was supported under the National Forestry and Conservation Action Program; and that
- DEC's planned user pays approach to obtaining operational funding will advantage the logging companies over the landowners as the logging company will be in a better position to pay.

²⁴ It must be noted that during the period of the review there were at least three people holding the position of Managing Director. There were also a number of changes in the position of General Manager. The Review Team was not always sure which individual was receiving its communications.

²⁵ An analysis of DEC's actual expenditure for 2002, and DEC's budgets for 2003 and 2004, indicated that of total amounts of K4.3, K3.7 and K4.0 million respectively, the amount available to support operational activities was K426,000, K169,000 and K98,000 respectively. The 2004 operational budget for the Environmental Protection and Pollution Control Program, which includes the monitoring and control of logging operations, is K10,000, up from K7,000 the year before.

Cooperation Received

In general terms the cooperation received from DEC was good. DEC appointed a Review Liaison Officer through whom most requests were channelled. The Review Team received good access to files and records.

The project design called for a DEC representative to join the Review Team full time. An officer was appointed, but unfortunately resigned from DEC not long after. Given that DEC did not have sufficient staff resources to spare another full time officer, it opted instead to send a DEC representative to join the field work for the case studies.

Initially copies of the draft IPRRs were sent to the office of the Secretary for passing on to appropriate staff for consideration and comment. This failed. Subsequently the team adopted the practice of sending a formal copy to the Secretary, and a second copy to the Review Liaison Officer. Considerable and ongoing effort by the Review Team was required to obtain considered responses. Mostly the responses were received well after the indicated deadlines.

A well attended consultation with DEC was held in August 2004.

2. OBSERVATIONS FROM THE FIELD WORK

A pro-forma draft IPRR was prepared for both the non case study forestry projects, and the case study projects. These set out the headings for the key areas to be investigated by the field team. The same headings (with some amendments and additions) are used here to summarise the findings of the field work. Where a more detailed discussion is warranted, then this is set out in an appendix.

2.1 THE AVAILABILITY AND STORAGE OF DOCUMENTS

Forestry projects involve a large number of legal and planning documents, including maps. It is essential that original signed copies of documents are securely stored.

Observations

Although nearly all the documents required to undertake this review were eventually located, the system of document management in the PNGFA²⁶ and DEC is poor. A number of documents were not able to be located at head office, and had to be sourced from regional offices, or from the logging companies. Of particular concern was the inability in many cases to view original signed documents. Often the documents available were unauthenticated and/or unsigned photocopies, and often there are pages missing.

There were many instances where the landowners did not have copies of documents that they (or their representatives) had signed, or which directly affected them. In some cases those landowners who did hold copies of documents chose to not share them, and thus keep the power that goes with knowledge to themselves.

2.2 LEGAL DUE PROCESS FOR TIMBER PERMITS

For each of the existing logging projects reviewed, the Review Team examined the legal basis for the Timber Permit.

Observations

It was found that generally due legal process was properly observed, or where not observed subsequently corrected or confirmed by the Courts. The main exception was the issuance of TP 15-58 Seraji & Seraji Extension, which was issued using Form 2 of the old Act at a time when the Forestry Act 1991 was already in effect. Consequently in this case the requirements of the National Forest Policy 1991 and the Forestry Act 1991 were circumvented.

The main ongoing legal uncertainty involves the extension of the term of Timber Permits originally granted under the previous Forestry Act. The term of 4 of the 14 logging projects reviewed had been extended by the PNGFA Board, and two were pending,

²⁶ For the PNGFA this contrasts to the situation in 2001 which was described by the 2000/2001 Review Team as very good.

when the 2002/2003 Review Team questioned the legality of the extensions. In addition it was found that for two of the projects the extension had been granted after the original Timber Permit expiry date, which is legally questionable. It also raises the question of whether the Environmental Plan, which is generally valid for the term of the Timber Permit, has also not expired in these cases.

In this regard a number of legal opinions exist, and the chief legal advisor to Government has recently (February 2004) produced an opinion that the extensions are legal. However an amendment to the Forestry Act has been prepared to dispel any ongoing uncertainties.

2.3 LANDOWNERS

Landowners is a generic term used to describe groups of people:

- Who by custom have the right and responsibility by inheritance, or any other customary means, to control the use of their land; and
- Who can make decisions about the use of their land without reference to other groups.

Typically boundaries between land owning groups are not formally defined. The experience of the PNGFA is that most neighbouring groups have a more or less common understanding of their borders, especially in the more densely populated places.

In some areas, for example Gulf and Western province, landowners are still nomadic, and the concept of logging does not fit readily with their culture. Here the inheritance the older people pass to the younger generations is the intact environment on which they depend, and in turn the younger generation look after the older generation. Where the forest is seriously disturbed by logging there is evidence that there is a marked deterioration in respect of the younger generation for the older one.

2.3.1 REPRESENTATION OF LANDOWNERS

Under the previous Forestry Act (repealed in 1992) the State acquired timber harvesting rights by dealing with clan agents representing the landowners. Timber royalties were paid directly to the clan agents whose responsibility it is to distribute the funds amongst the clan members according to custom. Under the terms and conditions of the Timber Permit, log export premiums were payable to the landowners, and typically a so-called landowner company²⁷ was set up to receive and manage the funds on behalf of the landowners at large.

²⁷ Under the Companies Act, these are standard commercial companies with no special rights or obligations. As for all companies they are required to have named shareholders and named Directors, and are required to hold an annual general meeting, and to lodge annual company returns. Few do so.

Under the Forestry (Private Dealings) Act (repealed in 1992), landowners set up a company to represent them, which entered into an agreement with the landowners to arrange the harvesting and marketing of their timber.

Typically, in both of the above cases, the shareholding was not representative.

Under the Forestry Act 1991, where landowners wish to develop a logging project, they are required to incorporate themselves under the Land Groups Incorporation Act 1974. The State then enters into a Forest Management Agreement with the Incorporated Land Groups. The objective of this change was to ensure improved representation of landowners. A significant amount of work has been done to examine how the Incorporated Land Groups might best associate in order to work with the logging company, but in most cases the landowners (or at least their more influential members) persist with the setting up of so-called landowner companies, in particular to receive financial benefits which under the terms and conditions of the Timber Permit accrue to the “landowners” rather than the Incorporated Land Groups. Generally this is supported by the PNGFA and the logging companies, as it is far easier for them to deal with a single entity than a large number of Incorporated Land Groups.

Observations

The observations of the Review Team are that:

- Typically the shareholding of the landowner company does not reflect the Incorporated Land Groups (where these exist).
- Typically the landowner company does not account to the landowners or the Incorporated Land Groups it purports to represent. There are rarely annual general meetings or the presentation of audited annual accounts.
- Typically the landowners and/or the Incorporated Land Groups are less than satisfied with the performance of the landowner companies. There are often disputes and court cases regarding appointments to executive positions. There are many calls for the accounts of the landowner company to be audited.
- Often the executives of the landowner company are accused of working closely with logging company managers in a manner not in the best interest of the landowners at large (see Section 2.3.3 of this Report).
- There are many claims that the executives of the landowner companies squander the funds they are entrusted with, including the use of funds to pay legal fees when their appointment is challenged.
- With some exceptions, there is little evidence in the field that the landowner companies have either invested funds for the longer term benefit of the landowners, or spent significant amounts of money to meet basic landowner needs, such as water tanks, improved housing, community infrastructure, investment in agriculture, or payment of school fees.
- There have not been any dividend payments to landowners. In many cases the landowner company is insolvent, and continues to operate using advances

obtained from the logging company against future royalty and/or log export premium payments.

- There are a number of examples where the executives of the landowner company reside permanently in Port Moresby, and are not available to account to the landowners at large.
- There is also evidence of clan agents not acting in the best interest of the landowners at large. This includes:
 - Borrowing money (at very high interest rates) from lending agencies for personal use, and using future royalty and/or log export premium payments as collateral. A failure to repay loans means that the lending agency then has a claim on future royalty and/or log export premium payments.
 - Accepting money from logging companies in exchange for not pursuing better terms and conditions requested by landowners.

It is the view of the Review Team that in the interest of ensuring more democratic and accountable management of landowner financial benefits, that there needs to be some form of direction (perhaps regulation) regarding a logging project wide body which properly represents the Incorporated Land Groups. In addition it behoves the State, as part of its responsibility for the well-being of it's citizens, to provide some form of administrative assistance and guidance to the representative bodies until such time as they prove that they can manage their own affairs.

2.3.2 RELATIONSHIPS WITHIN LANDOWNER GROUPS

Typically landowners are considered as a homogeneous group with common interests. With regard to the financial benefits which flow from logging projects, the commonly expressed concern is that landowners should receive “meaningful long term benefits”.

Observations

The observations of the Review Team are that:

- Landowners are usually not a homogeneous group, but are typically faction ridden. Factions may include competing traditional leaders and their respective supporters, groups of more educated landowners, individuals who have formed a “working relationship” with the logging company, and groups of younger landowners. Although there are matrilineal societies in PNG, the field work encountered mainly societies where women did not speak on behalf of the group, although they often had other ways of exerting influence. Grievances can be nursed for many years.
- It is generally perceived that landowners are community minded, and that they are willing to forego personal income in exchange for community facilities or services. The observation of the Review Team is that landowners are interested in community facilities, or group owned businesses or investments, only when they cannot arrange to have the funds divided amongst themselves for personal consumption.

- Dealing with landowner internal disputes takes up a great deal of time for both the logging companies and the PNGFA Project Supervisors. It can also incur significant costs. Many individuals directly involved in dealing with landowners spoke of landowners as groups or individuals prepared to “act deviously” to support their claim as being more worthy than the claim of others.
- The situation seems to be worse where Incorporated Land Groups have not been set up, and one or more so-called landowner companies purport to represent the clans and act on their behalf.

The Review Team is strongly supportive of the Incorporation of Land Groups, but as noted previously, is of the opinion that there needs to be some form of direction (perhaps regulation) regarding the creation of project wide representative bodies which properly represent the Incorporated Land Groups in dealings with the logging company and Government.

2.3.3 RELATIONSHIPS WITH OTHER DIRECT STAKEHOLDERS

The Logging Companies

Once logging commences the logging company is required to make financial payments to landowners, and to liaise with the landowners regarding cultural sites which should not be logged. In some cases the Timber Permit requires the permit holder to assist the landowners with spin-off business opportunities.

The observations of the Review Team are that:

- Once logging commences, the logging companies have little direct contact with the landowners at large. Their contact is through the clan agent or the landowner company.
- Logging companies prefer to deal with a single landowner company, as this is easier for them than dealing with a large number of clan agents or Incorporated Land Groups. As noted earlier, it is questionable whether the landowner companies genuinely represent the landowners.
- Certain logging companies choose to avoid having an office at the logging site, in order to avoid dealing with landowners. Generally logging company offices are in the towns or cities.
- Most of the older Timber Permits require the permit holder to appoint a Landowner Liaison Officer whose job it is to deal with the landowners. Where a person has been appointed, they are typically also responsible for other duties, and the appointment is only nominal. It is usually perceived that the Landowner Liaison Officer, being an employee of the logging company, looks after the logging company’s interests.
- With some exceptions, there is little evidence of logging companies actively promoting spin-off business opportunities for landowners.

The PNG Forest Authority

It is argued that the core role of the PNGFA is to ensure the smooth operation of the logging industry in full compliance with logging and environmental standards. A component of this responsibility is to the landowners. In addition the PNGFA represents the State in the Forest Management Agreement.

The observations of the Review Team are that:

- When the PNGFA was first set up in 1993, it's structure included a landowner liaison office. The intent was that this office would back up the field based Project Supervisors in their dealings with landowners, and advocate for the landowners in general. The positions were abandoned during a 1995 restructuring exercise.
- During this time an effort was made by the PNGFA to present landowners with various land use options before committing their land to long term sustainable forestry by inviting other Government Departments, for example the Department of Agriculture and the Department of Environment and Conservation, to address landowners. This effort failed as the other Departments were unable to find the funds required to participate.
- Currently the main call on the time of the field based Project Supervisor, other than field monitoring and control, is dealing with landowner issues. These may not necessarily relate to forestry and logging. The general lack of a Government presence in the remote logging areas (other than the PNGFA), means that the Project Supervisor may be asked to deal with a wide range of non-forestry issues.
- Landowners have complained about the lack of cooperation they receive from the field based PNGFA personnel. For example few Incorporated Land Group chairpersons have copies of the Forest Management Agreement that they have signed, or of other legal agreements that affect them, and requests to PNGFA Project Supervisors for copies are often ignored. The PNGFA has commented that providing all of the Incorporated Land Groups with copies of the Forest Management Agreement is too expensive.

Department of Environment and Conservation

The role of DEC is to set appropriate environmental controls for logging operations, and to monitor compliance. This responsibility is shared with the PNGFA given that most of the 24 Key Standards imposed on the logging companies through the PNGFA's Planning Monitoring and Control procedures have an environmental protection basis. DEC is also responsible for evaluating Environmental Plan approval applications, and monitoring and controlling compliance with the approved plan and any approval conditions which might apply.

The observations of the Review Team are that:

- Currently DEC is not functional in the forestry sector.

- There are examples of DEC responding to landowner environmental concerns by field visits.
- Whilst reports exist, there is no evidence that genuine environmental concerns have been satisfactorily resolved.
- Landowners know of the existence of DEC, but have no faith in it's ability to act.

Provincial Government and Administration

The Provincial Governments and Administrations have a responsibility to manage the affairs of the province. A component of this responsibility is the delivery of social infrastructure and services, such as health and education. The Provincial Government is also represented on the Provincial Forest Management Committee (PFMC).

The observations of the Review Team are that:

- There is virtually no delivery of Government funded social infrastructure and services to the landowners involved with logging operations. Whilst some logging companies build aid posts and schools (as required under the terms and conditions of the Timber Permit), often they are not staffed or equipped.
- The 2000/2001 Review of Timber Projects Being progressed Towards a Timber Permit or a Timber Authority found that the Provincial Forest Management Committees were often not properly representing the landowners, by not adequately meeting the requirements of s58(f) of the Forestry Act 1991 which requires each Forest Management Agreement to contain a certificate to the effect that it is satisfied as to:
 - The authenticity of the tenure of the customary land alleged by the persons or land group or groups claiming to be the customary owners; and
 - The willingness of those owners to enter into the agreement.
- In the past the Provincial Governments received some revenue from logging. This is no longer the case, and the lack of any contribution to provincial expenses is a disincentive for the Provincial Government and Administration to be involved.
- Landowners and their representatives openly discourage any direct involvement by the Provincial Government and Administration in decision making regarding the expenditure of levies (where these exist), such as the Infrastructure Development Levy. This contributes further to the reluctance of Provincial Government officers who may be in position to help landowners, such as the Business Development Officers, to become involved with the landowners at logging projects.

2.3.4 LANDOWNER AWARENESS

Setting up a logging project involves the signing of a Forest Management Agreement between the landowners and the State. This allows the State to enter into a Project

Agreement with a logging company. It is generally assumed that landowners understand what this means.

Observations

The observations of the Review Team are that:

- Landowners in general have little concept of a long term land use agreement, especially one that ties their land to long term sustainable timber production. It is the opinion of the Review Team that the landowners do not see beyond the fact that allowing logging (by signing an agreement) they will have access to cash income, and for the older Timber Permits the logging company will provide useful infrastructure, especially roads.
- Whilst in a number of instances landowners claimed, through court action, that the logging company was breaching logging and environmental standards, the opinion of the Review Team is that landowners have little understanding of the environmental impacts of logging. Where landowners had initiated court action, there were typically other more direct issues which were driving the action, such as a desire to change the logging company, or to contest which landowner company is the “genuine” representative of the landowners.
- In many cases the landowners at large knew only what they had been told by their clan agents, the landowner company, or the logging company. There were many instances of incorrect or biased information being provided. Typically there is no independent source of advice. At many of the meetings held with landowners, the interest was as much in becoming better informed as it was in expressing concerns.
- Landowners at large often complained that they had no access to copies of relevant documents, such as the Forest Management Agreement. Requests to the clan agents, or the landowner company to provide copies are generally ignored.
- Although the Forestry Act 1991 (s60) provides that gravel from within a Forest Management Agreement area may be used by the Timber Permit holder free of charge (as is the case for TRPs), a number of early Forest Management Agreements included the provision that gravel would be paid for at the rate set by the Valuer-General. The current situation is that landowners at some project sites are being paid, and some are not. This is causing confusion among landowners, and has the potential to create landowner disputes.
- Generally landowners were not fully aware of the social, environmental and economic impacts that logging brings, and consequently are not able to factor this information adequately into their decision to pursue a logging project. However, for landowners in isolated rural locations, the promise of roads and cash payments are very powerful drivers.
- It is of concern that there is no requirement in the standard Forest Management Agreement for the State through the PNGFA to report to the landowners regarding the State’s observance of the terms and conditions of the agreement. A

reporting system reflecting the PNGFA's accountability for the management of the landowner's forests would seem desirable.

- Generally landowners want (or demand in some cases) to “participate” to a greater degree in the “exploitation of their resources”. To some this means greater access to spin-off business opportunities, although in most cases they have neither the capital nor the expertise to set up and manage a business. In one case it was suggested that the Project Agreement should be a tripartite contract signed by the State, the landowners, and the developer.
- In none of the projects reviewed was there any suggestion from landowners that logging should be stopped. In all cases landowners had many concerns, but mostly wanted to see improvements in logging company compliance with the 24 Key Standards; an increase in landowner financial benefits; and the full delivery of promised infrastructure. Only occasionally was there a suggestion that a new logging company would be an improvement.

2.3.5 THE AVAILABILITY OF INDEPENDENT ADVICE

It is sometimes claimed, especially by NGOs, that landowners signing Forest Management Agreements do not do so with “informed consent”. The 2000/2001 Review of Timber Projects Being Progressed Towards a Timber Permit or a Timber Authority observed that:

Landowners do not have the skills or information to make informed decisions regarding the 50 year transfer of their forest management rights to the PNG Forest Authority. All of the Forest Management Agreements signed to date are seen by the Landowner Specialists as deficient with regard to informed consent.

Observations

- The 2000/2001 Review of Timber Projects Being Progressed Towards a Timber Permit or a Timber Authority also noted that there are no standards for judging the achievement of “proper” consultation, or the achievement of “informed consent”, and recommended that the PNG Forest Authority “assist the landowners access commercial and legal advice”.
- It is of concern that the standard Forest Management Agreement used by the PNGFA includes a clause which appears to absolve the PNGFA from responsibility for ensuring that landowners are properly aware of what they are signing. Clause 8.6 states that “Land Groups acknowledge and agree that prior to them signing the Agreement that they have been given the opportunity to seek independent legal advice

2.3.6 LANDOWNER COMPANIES AND INVESTMENT ON BEHALF OF THE LANDOWNERS

The landowner companies claim to represent the landowners, and as such are expected to manage the log export premiums (plus in some cases targeted levies) received from the logging companies for the benefit of the landowners at large. The landowner companies are legitimised by their formal recognition by the PNGFA and the logging

companies. There is a general expectation that they will be the mechanism through which “meaningful long term benefits” will accrue to the landowners.

Observations

- With few exceptions, the landowner companies have failed to deliver “meaningful long term benefits”. It is the view of the Review Team that this will not change unless there is some form of control over the organisation of landowners, and the provision of guidance to support the management of landowner affairs.
- Simply accessible investment options, such as interest bearing deposits, or Treasury Bonds, are not being used.

2.3.7 LANDOWNER COMPANY REGISTRATIONS (IPA)

Landowner companies are ordinary companies, and are subject to the normal requirements of the Companies Act. As such they must be registered with the IPA, hold annual general meetings, elect executive officers, and submit audited annual accounts.

Observations

- Most of the landowner companies are registered with the IPA, but have not kept the mandatory company details up to date. Whilst there are accounting firms who for a fee will prepare and present annual company returns to the IPA, some landowner companies do not have the funds to pay.
- Most landowner companies have not held annual general meetings, or regularly elected executive officers, or submitted audited annual accounts.
- In some cases the landowner company receiving payments from the logging company, or formally recognised by the PNGFA to be an appropriate recipient of payments²⁸, is not registered. It is of concern that the PNGFA does not check the IPA registration of intended recipients of payments from logging projects.

2.3.8 LANDOWNER VOICED CONCERNS

Many meetings with landowners were held during the field work, and many project specific concerns are reported in the Individual Project Review Reports. The common areas of concern expressed by landowners were as follows:

- Mismanagement of financial benefits by clan agents or landowner companies.
- The often close relationship between the clan agents or the landowner company executives, with the logging company, and the perception that this works against the best interest of the landowners at large.

²⁸ For example, the agreement signed between the PNGFA and the Wavoi Guavi Timber Company Ltd in May 2004 to vary the terms and conditions of the Timber Permit, identifies six landowner companies to be the recipients of payments. One is not IPA registered and three are not Registered Forestry Participants under the Forestry Act 1991.

- That landowners have not received a “fair return” for the depletion of their forest and the environmental impacts of the logging operation.
- That there has been no increase in the royalty rate since 1996, despite the significant loss of purchasing power.
- That the PNGFA has not properly monitored and supervised the logging operations.
- That the National and Provincial Governments have failed to make any contribution to effective development, especially with regard to the provision of basic services such as health, education, agricultural extension, and business development. This is despite the log export tax collected by the central Government.
- The lack of sustainable and durable infrastructure, especially roads.
- Law and order concerns, and in particular that in some instances the police stationed at logging project sites are perceived to act as company police, rather than ensuring the observance of PNG laws and the protection of PNG citizens. This is of particular concern in the Southern Region.

2.4 THE LOGGING COMPANIES

2.4.1 COMPANY PLANNING AND CONTROL OF LOGGING

Under the PNGFA’s Planning Monitoring and Control Procedures the logging company is responsible for preparing and submitting Five Year Plans, Annual Logging Plans, and Set-Up Plans for consideration and approval by the PNGFA. A review of the PNGFA’s handling of the applications is presented in Appendix 5.

Observations

The Review Team’s observations are that:

- The logging companies generally employ expatriates, mostly Filipinos, to plan and control their logging operations. Most of the expatriates have no qualifications in forestry, or received any training in the Planning Monitoring and Control Procedures. At the same time there are National forestry graduates who are unable to find employment in the sector.
- Generally plans are well prepared. Many logging companies have access to computer aided mapping systems. However, implementation of the plans in the field is suspect. This can only be addressed by adequate field monitoring and control by the PNGFA.
- The Review Team observed a number of instances where the logging had been sub-contracted, and the sub-contractor did not have a copy of the approved plans, in particular the approved Annual Logging Plan. It is unclear how the sub-contractor is expected to follow a plan he does not possess.

The key concerns regarding the processing of the plan application by the PNGFA are as follows:

- There is significant evidence that the field based Project Supervisor's concerns regarding the Annual Logging Plan are not considered seriously.
- The Landowner Cultural Site Identification Form is typically not treated seriously by logging companies and landowners alike.
- The lack of manpower and resources to properly undertake monitoring during logging. This is discussed elsewhere in this report.
- Most PNGFA Project Supervisors lack the confidence to issue Lawful Directions. Generally they fear lack of support from senior management.
- The pre-logging and post logging inventory data provided by the logging companies is not used by the PNGFA to cross-check planning data, or to monitor the proper completion of logging for individual set-ups.

2.4.2 SUBCONTRACTING PRACTICES

Some logging companies have chosen to sub-contract some or all logging activities. The main stated advantage is that compared to waged workers, sub-contractors can be put off and on as required, thus affording a greater degree of cost control.

Observations

The observations of the Review Team in this regard are:

- There is an unhealthy perception that engaging sub-contractors absolves the Timber Permit holder from responsibility for the quality of operations and the observance of logging standards.
- The PNGFA is not always clear regarding the sub-contracting arrangements, although the terms and conditions of the Timber Permit require that such arrangements be approved by the Managing Director.
- Most piece-rate workers complained that they have difficulty in reconciling the work done with the payments received.

A general summary of logging company compliance with the 24 Key Standards is set out in Appendix 6.

2.4.3 ENVIRONMENTAL PLANNING AND MONITORING

Under the Environmental Plan and the Approval Conditions, the logging company is required to prepare and implement an Environmental Monitoring and Mitigation Programme, and a Waste Management Plan. It is also required to employ an Environmental Management Officer to undertake the work required.

Observations

The observations of the Review Team are that:

- Many logging companies have failed to comply with the Approval Conditions of their Environmental Plan, especially in failing to actively implement an Environmental Monitoring and Mitigation Programme, and a Waste Management Plan.
- Where an Environmental Management Officer is appointed, he typically has other duties, and his environmental responsibilities are not given priority.

2.4.4 LANDOWNER DIRECT FINANCIAL BENEFITS

Royalties

The current royalty payment is K10.00/m³ for all logs scaled less a Government withholding tax of K0.50/m³. The royalty payment was standardised in 1996. Prior to 1996 royalty payments varied according to species group and perceived difficulty of log extraction, and were significantly less.

Royalties are collected by the PNGFA who pays it to the appropriate clan agents or Incorporated Land Groups. In some instances landowners approach the PNGFA officer in charge and provide lists of individual names so that the royalty is paid to individuals (or sometimes families) rather than clans.

Export Premiums

A log export premium is paid to landowners at all of the log export projects set up under the old Forestry Act. Typically the amount and arrangements are left to the landowners through their so-called landowner company and the logging company to sort out, and typically it is defined as a percentage of the FOB log export price. Whilst for Timber Permits granted under the previous forestry legislation the agreed arrangements are recorded in the Timber Permit, in all cases they have subsequently been changed by means of a "Supplementary Agreement" or a "Deed of Variation"²⁹. Under the terms and conditions of the Timber Permit the approval of the PNGFA Managing Director is required, but this condition is not enforced. Consequently the PNGFA is not always aware of the latest arrangements.

Log export premiums are paid by the logging company directly to the representatives of the landowners, which is usually a so-called landowner company.

²⁹ In the TP 2-14 Vailala Block 1 logging project, the logging company has entered into a Deed with seven landowner companies which allows the log export premium payment to be reduced when the FOB price exceeds K150/m³, thus effectively increasing company profits. The landowner signatories to the Deed signed against the advice of the PNGFA. The Deed was signed in Port Moresby. It is doubtful whether the landowners in the villages have heard of this Deed, or would willingly support it.

Project Development Benefit (PDB)

The PDB is described in detail in Section 2.4.5 of this Report. To date it has been implemented only at TP 13-38 Buhem Mongi Busega and TP 14-52 Ania Kapiura.

Since the Buhem Mongi Busega project commenced in 1997 there has been an ongoing dispute between a Landowner Company and the PNGFA over the use of the Project Area Development Fund, and this is subject to ongoing litigation. Furthermore, in response to the unanimous demands of the 84 ILG Chairpersons, the 40% of the PDB deemed to be a Cash Premium has been paid to the ILGs representing the area where from which the logs have been harvested, rather than being spread among all of the ILGs. This negates one of the objectives of the PDB which is to secure long term commitment to forestry by providing for a regular but small payment to all the ILGs.

Observations

- The landowners have received their royalty payments from the PNGFA with a minimum of fuss. In most cases however, the PNGFA was unable to provide complete records of the amounts collected and the amounts disbursed³⁰.
- In many cases the landowners did not entirely trust the clan agents to properly distribute the royalty payments, and in some cases the landowners have approached the PNGFA to pay them directly.
- Landowners are very conscious of the declining purchasing power of the royalty payments. In real terms K10.00 in 1996 is now worth only K4.00.
- The Review Team observed that little of the royalty payments were flowing to the women and children in the villages, even where the society is matrilineal.
- The flow of royalty payments in most cases resulted in an increased dependence on shop bought foods, especially rice, tinned fish, and soft drinks. There is little evidence of expenditure on improved housing for example.
- In some cases the logging company retains some or all of the log export premium payment to guarantee advances made to landowners or the landowner company, and to cover landowner expenses paid for by the logging company which are charged to a "landowner advance" account³¹. Under this system there are no checks to ensure that funds owed to the landowners collectively are spent on authorised expenses.
- Instances were observed where clan agents were borrowing money for private purposes and committing future anticipated royalty or log export premium payments as collateral.

³⁰ As at August 2004 the PNGFA Board has initiated some investigation of the royalty accounts held at the PNGFA Regional offices, and the associated records.

³¹ It can be difficult for the logging company to identify who is and who is not a landowner, or whether the expenditure on goods and services the logging company is being asked to pay for on behalf of the landowners has been appropriately sanctioned. Goods and services charged this way may include airfares, food and accommodation, legal fees, fuel, etc.

- The PDB is calculated by the logging company. At the one project where the PDB is being implemented (TP 13-38 Buhem Mongi Busega), there is no evidence of the PNGFA verifying the correctness of the PDB payments made, or monitoring total payments made.
- In the case of Buhem Mongi Busega the landowner company is clearly defending its access to the cash flows, although the landowners would prefer to receive the cash as individuals.
- Landowners at Buhem Mongi Busega do not like the idea of spreading cash flows amongst all of the landowner groups within the project area. For individual groups this means larger but shorter term cash flows, compared to perpetual but smaller cash flows. For some groups it also means waiting until their land is logged before cash begins to flow, which based on a 35 year cutting cycle might be many years.
- There continues to be significant debate regarding the forest revenue system which applies in PNG. No doubt further amendments will occur in due course.

2.4.5 LANDOWNER INFRASTRUCTURAL BENEFITS

Arrangements Under the Old Forestry Act

The arrangements under the old Forestry Act typically provided for a list of infrastructural benefits to be specified in the Timber Permit document. The list typically included houses, schools, aid posts, road and bridges. For some of the larger projects, where it was envisaged that the logging operation would support a small but growing township, the list also specified infrastructure to be provided by the logging company for various Government Departments and Authorities, such as a Police Station, a section of a provincial highway, or houses for Government officers.

In many cases the Timber Permits issued under the old Act are held by landowner companies, who then contracted out logging and marketing. The logging and marketing company typically did not take responsibility for the delivery of infrastructural benefits.

A 1998³² study found that in many cases the required infrastructure had not been delivered, or was not up to the expected standard. It criticised the lack of enforceable detail in the Timber Permit with regard to timing and minimum quality standards. It also found, especially where the infrastructure was to be for various Government Departments, that in many cases the failure to deliver was the result of a failure by the relevant Government Department to provide the required design and specification, to approve plans, or to deliver the Government's agreed input.

Arrangements Under The New Forestry Act

The arrangements under the Forestry Act 1991 are for the logging company, instead of delivering infrastructure, to make an FOB based Project Development Benefit payment (PDB - earlier referred to as the Project Development Levy or PDL), and for the

³² Audit of Landowner Benefits. Groome Poyry Ltd 1998.

accumulated funds to be available for infrastructure development. The details of the PDB are set out in Schedule 3 of the pro forma Project Agreement approved by the PNGFA Board in 2000. This provides for the PDB to be split as follows:

- 40% as a “Cash Premium” to be paid by the PNGFA Managing Director to all of the Incorporated Land Groups (ILGs) in proportion to the area of land managed by each group³³.
- 60% as a “Project Area Development Fund” to be distributed for developments approved by a committee representing the landowners, the Provincial Administration, the logging company and the PNGFA (or their nominees).

TP 13-38 Buhem Mongi Busega and TP 14-52 Ania Kapiura are the only projects to date where the PDB has been paid (see additional discussion in Section 2.4.3 above). The Project Area Development Fund is not yet working at either location.

The arrangements regarding infrastructure for TP 2-12A Turama Extension were put in place before the PDB was designed and applied. In this case the main contribution to infrastructure comes from the Annual Benefits Fund. Decisions on the use of the fund, which is not limited to infrastructure, are made by the Annual Benefits Fund Committee. There is also a Delta Infrastructure Fund specifically for those villages along the waterways used by the company to transport logs. In addition minor infrastructure to be provided by the company is specified in the Project Agreement.

Observations

Where landowner infrastructural benefits are to be delivered by the logging company, the observations of the Review Team are that:

- The infrastructure that the landowners place greatest value on are roads and bridges, and infrastructure which will facilitate the delivery of services such as education, health, and law and order.
- In nearly all cases landowner’s expectations regarding roading are met only as long as logging continues in that location. Not only are logging roads not constructed to be used for the long term, but maintenance ceases as soon as the company no longer requires the road. The general expectation that the local level Government will take over road maintenance once the road is no longer cared for by the logging company, is only rarely achieved, causing much dissatisfaction³⁴.
- In some instances the logging company, despite the forest resource being nearly exhausted, has not yet delivered the required infrastructure. This situation is exacerbated by poorly written Timber Permits which typically do not set out an

³³ This was seen in part as a way to compensate those landowners whose trees had already been logged pre 1996 when the royalty payment was increased to K10.00/m³. It was also seen as a way of giving all of the landowners in a long term sustainable logging project a vested interest in continuing to allow their land to be used for timber production.

³⁴ One of the reasons that landowners support a change in land use to oil palm production, is that the oil palm processors build and maintain higher quality roads.

agreed delivery schedule, any minimum standards, and sometimes depend on the input from other Government Departments which is not forthcoming.

- Even where required to do so under the terms and conditions of the Timber Permit, the National and Provincial Department of Works have failed to play their anticipated role in ensuring that standards were specified, and checking that delivered infrastructure was up to standard.
- There appears to be a general reluctance on the part of the PNGFA to call on the logging company's performance bond to ensure that the required infrastructure is delivered.

Where the PDB is being paid, the observations of the Review Team are that:

- There has been a failure to date to form the required committee to oversee the expenditure of the Project Area Development Fund.
- There are examples of landowners attempting to charge the fund for costs not related to the management of the fund.
- Evidence was seen of inappropriately large committee sitting allowances being proposed.

It is further observed that although the intent of the PDB was that it should replace entirely the delivery of infrastructure by the logging company as a Timber Permit condition, the standard Project Agreement used by the PNGFA calls for both a PDB payment, and a listing of infrastructure to be delivered. This causes confusion, and may lead to inappropriate expectations by landowners that they might get both.

2.4.6 PERFORMANCE BONDS

Requirements Under The Act

The lodgement of a Performance Bond, for an amount to be determined by the Board and specified in the Timber Permit, is a requirement of s73(2)(h) of the Forestry Act. Further details are set out in s98 which provides that:

No Timber Permit shall commence or be in effect until the performance bond payable has been lodged with the Authority.

Observations

Investigations into the existence and terms and conditions of performance bonds found that:

- It is industry practice to arrange the performance bond in the form of a Bank Guarantee which the PNGFA may draw on. The Guarantees have a term of one year.
- Whilst all logging companies had lodged a performance bond at the time their Timber Permit was issued, over time fewer and fewer companies have arranged

annual renewals. In some instances logging companies commented that they had put a bond in place as required by the Act, and implied that renewal was not required³⁵. It is true that the Act does not set out any renewal requirements, or require the performance bond to be ongoing, although there can be no doubt that this was the intent.

- In a number of cases the performance bond put in place was limited to specified items, such as royalty payments. The intent is that the bond is general in nature, and that it can be drawn on for any material breach of the terms and conditions of the Timber Permit or the Project Agreement.
- The PNGFA does not check on the status of performance bonds as a matter of course. It merely files evidence of the bonds as and when these are forwarded to the Authority. There is no ongoing monitoring effort.
- At the time of the review, no currently valid performance bonds were in place. All had expired.

The Forestry (Amendment) Regulation 2004, gazetted in January 2004, sets out more detailed requirements for performance bonds. Clause 9 provides that:

A holder of a Timber Permit, timber authority, license shall not be regarded as having lodged a performance bond until the holder has delivered an original copy, together with a duly completed confirmation of performance bond to the Managing Director.

As at May 2004, there is no evidence that any such copies have been lodged.

There is no evidence that the PNGFA has ever seriously considered drawing on the logging company's performance bond, although in the opinion of the Review Team there are many examples where it would be appropriate to do so.

2.4.7 LOGGING COMPANY REGISTRATIONS (IPA)

All logging companies, and their contractors, are required to be registered with the PNG Investment Promotion Authority which maintains the PNG Register of Companies.

Observations

- For all of the 14 logging projects reviewed the logging company and its contractor (where there is one) were found to have appropriate IPA registration. In a number of cases the details held by IPA was not up to date with regard to shareholding and/or the list of directors. In addition in some cases the requirement for copies of accounts to be submitted annually had not been complied with for several years.

³⁵ Some Timber Permits, e.g. TP 1-7 Wavoi Guavi, require that the guarantee "shall be a continuing form of guarantee".

2.4.8 FOREST INDUSTRY PARTICIPANT REGISTRATION

All logging companies, and their contractors, are required under the Forestry Act 1991 to be Registered Forest Industry Participants.

Observations

- For all of the 14 logging projects reviewed the logging company and its contractor (where there is one) were found to have been registered by the PNGFA as a Forest Industry Participant. However, although the PNGFA maintains a register, there is no requirement for registration to be renewed or updated. Deregistration has little effect.
- The 2000/2001 Review of Projects Being Progressed Towards a Timber Permit or a Timber Authority recommended that the PNGFA introduce a “Code of Practice” to be used to control the behaviour of Forest Industry Participants, by amending the Act to prohibit an unregistered person from holding a Timber Permit, Timber Authority or s91 licence. As at May 2004 this recommendation has not been implemented.

2.5 THE PNG FOREST AUTHORITY

The following comments regarding the PNGFA are in part based on a survey designed jointly by the Manager Field Services Division and the Review Team, and given to all Project Supervisors in December 2003 (see Section 1.4 of this Report).

2.5.1 PNGFA STRUCTURE AND BUDGET

Structure

Field monitoring and control comes under the Field Services Division headed by the Divisional Manager – Field Services, who reports to the office of the General Manager. The Division is supported by the Finance Directorate (which manages all incoming and outgoing financial flows) and the Corporate Services Division (responsible for human resources, assets and training). The Field Services Division has a direct link with the Resource Development Division which is responsible for the evaluation and approval (through the PNGFA Board) of Five Year Plans and Annual Logging Plans. There is little direct involvement with the Forest Planning Division (responsible for sectoral planning and forest resource acquisition), the Forest Management Division (responsible for natural forest management and plantations), or the Forest Research Institute.

The PNGFA maintains regional offices in Port Moresby (Southern Region), Lae (Momase Region), Rabaul (New Guinea Islands Region), and Hagen (Highlands Region), although there is little harvesting of natural forest in the Highlands Region. The Regional Managers report directly to the Divisional Manager – Field Services. Field based Project Supervisors, some of whom have one or more subordinate Forest Monitoring Officers, report directly to their respective Provincial Forestry Officers.

Budget

The original 2003 budget was for K26.7 million. The Treasury approved recurrent budget grant from the Ministry of Finance for 2003 was K20.5 million, and it was expected that the balance would be raised from internal sources. The budgeted direct cost of the Field Services Division was K6.9 million.

Revisions during the year saw the recurrent budget grant from the Ministry of Finance decreased to K19.1 million, and the total budget decreased to K25.3 million.

Actual receipts for 2003 were K24.4 million (a shortfall of K2.3 million from the original budget). The recurrent budget grant received from the Ministry of Finance was K18.8 million (a shortfall of K1.7 million from the original budget). The Ministry of Finance also provided a special grant of K300,000 specifically to fund an audit of the independent log export monitoring services provided by SGS (PNG) Ltd. Anticipated internal sources of funds which did not eventuate included about K1 million in cash grants from donors, and K1 million from EU Stabex Funds, although this was mitigated to some extent by unexpected high interest income (K0.75 million more than budgeted).

Total costs for 2003 were K36.5 million (K9.8 million more than the original budget, and K11.2 million more than the revised budget). Compared to the revised 2003 budget, key areas of over-expenditure were the SGS (PNG) Log Export Monitoring Contract³⁶ (K5.1 million being K2.7 million more than budget), motor vehicle expenses (K2.6 million being K1.7 million more than budget), communications costs (K1.3 million being K1.0 million more than budget), legal and professional fees³⁷ (K1.2 million being K0.9 million more than budget), domestic travel and accommodation costs (K2.3 million being K0.9 million more than budget), repairs and maintenance (K1.0 million being K0.6 million more than budget), electricity (K0.7 million being K0.6 million more than budget) and security (K0.7 million being K0.6 million more than budget).

Mitigating the higher than budgeted costs were significant under-expenditure in the areas of chemicals, conferences and workshops, operational materials and supplies, overseas travel and accommodation, staff training, salaries, new construction, and some unbudgeted income from workshops.

Expenditure in 2003 exceeded income by about K12.0 million. An April 2004 paper to the PNGFA Board from the Finance Directorate noted the cash flow problem currently being experienced by the PNGFA. As well as suggesting the need for improved accountability by PNGFA Managers, it notes that if the current trends continue, then the Authority will be forced to significantly scale down its operations. Data for the first quarter of 2004 indicates that the trend continues – the budget for the quarter has

³⁶ The PNGFA had budgeted K2.4 million although it should not have done so. According to the Secretary of Finance the cost should be met by the Department of Finance, and that it had budgeted K4.5 million for this purpose (K1.5 million EU Stabex Funds and K3.0 million of Government funds). In 2003 the PNGFA met the entire K5.1 million paid to SGS (PNG) Ltd during the year from its recurrent budget funds. It did not receive any funds from the Department of Finance for this purpose.

³⁷ Mainly due to ongoing court action between the Minister, the PNGFA and the PNGFA Board.

already been overspent by K1.0 million. The Finance Directorate has suggested that the present level of casual workers employed by the PNGFA (326) is too high³⁸.

The 2003 Annual Report of the Field Services Division indicates that it had a budget for the year of K6.7 million, and that expenditure for the year was K1.2 million. This indicates that field monitoring and control activities were seriously constrained.

The PNGFA budget for 2004 is K29.0 million. The Treasury approved recurrent budget grant is the same as it was for 2003 before being adjusted downwards, K20.5 million. Of concern is the continued reliance on cash grants from donors (K1.0 million) and EU Stabex Funds (K1.5 million), neither of which were forthcoming during 2003.

Observations

- Conscious of the rate of expenditure, senior PNGFA management controlled what it saw as deferrable expenditure. This included reducing the funds available to support field monitoring and control. The Review Team field work noted especially the lack of travel funds available for regional inspectors to travel to project sites to both support and monitor Project Supervisor performance in the field, inadequate vehicles, missing field equipment, worn out or missing uniforms, and in some cases sub-standard accommodation. Of particular concern was the serious lack of sufficient PNGFA staff at some of the larger project sites to provide proper monitoring and control³⁹, and the opportunity this provides for significant non-compliance with the required standards by the logging company.
- Proper field monitoring and control is essential if the forests are to be managed in a sustainable and environmentally sensitive manner. It is clear that proper field monitoring and control is being compromised by over-expenditure in other areas. It is the view of the Review Team that field monitoring and control is the core business of the PNGFA⁴⁰, and that it is not acceptable that over-expenditure in other areas is being allowed to adversely affect its performance in this area.
- There is little doubt that the current Government's wish to see 10 new "impact" projects operational by the end of 2004 is placing additional pressure on the organisation. In October 2003 the PNGFA presented Government with an estimate of the additional funds required to both get the new projects up and running, and to cover the cost of setting up proper field monitoring and control (including staff, housing, vehicles, and the cost of increasing the work of the independent log export monitoring service). The total estimate was K37.2 million. As at August 2004 no additional funding has been approved.

³⁸ As at May 2004 the PNGFA Board has initiated a review of casual workers, and spending.

³⁹ This is of particular concern given that unutilized experienced Project Supervisors are located in West New Britain where the level of logging has declined significantly in recent years. Lack of funds for housing and moving expenses is the reason given for not transferring these officers to seriously under-staffed projects in Western and Gulf provinces.

⁴⁰ The Government's MTDS 2003-2007 defines the "primary role" of the PNGFA as "the management of harvesting of natural forest resources".

- Following the presentation of the 2003 and first quarter 2004 financial accounts to the Board in May 2004, the Board has stepped in, and is seeking to improve the financial information and control systems.
- The PNGFA has become compartmentalised and easy cooperation between the various Divisions and Sections is lacking. This is in part a consequence of the ongoing saga regarding the appointment of a permanent Managing Director. Morale boosting gatherings and workshops which used to be a feature of the PNGFA (and especially the Field Services Division), no longer take place.

2.5.2 FIVE YEAR AND ANNUAL LOGGING PLANS

Requirements

The required content, and the procedures for the submission, evaluation and approval of both the Five Year Plan and the Annual Logging Plan are set out in the PNGFA's Planning Monitoring and Control Procedures 1995. Responsibility for preparing the plans lies with the logging companies, and responsibility for evaluation lies with the PNGFA Resource Development Division.

Observations

The observations of the Review Team are that:

- The Five Year and Annual Logging Plans are generally well prepared.
- The PNGFA undertakes a compliance audit to assess the performance of the operator before a new plan is approved. However, the field work undertaken by the Review Team indicated that the compliance audit is not being undertaken diligently⁴¹.
- There is evidence that the Resource Development Division does not take sufficient account of the comments made by the field based Project Supervisor in the "PNGFA Project Supervisor Endorsement Letter" which the logging company is required to attach to its application for an Annual Logging Plan.

2.5.3 SET-UP PLANS AND CLEARANCES

Requirements

The required content, and the procedures for the submission, evaluation, and approval of set-up plans, and for the clearance of set-ups after logging, are set out in the PNGFA's Planning Monitoring and Control Procedures 1995. The manual also sets out environmental standards. Responsibility for evaluation, approval and clearance after logging lies with the PNGFA Project Supervisor.

⁴¹ For example, the summary of performance presented to the PNGFA Board in April 2004 by the Resource Development Division regarding the renewal of the Ania Kapiura Annual Logging Plan is significantly at odds with the Review Team observations in the field.

Detailed comment regarding the field monitoring and control of logging has been set out in the Individual Project Review Reports.

Observations

The general observations of the Review Team are that:

- There is considerable variation in the attention paid by Project Supervisors and Monitoring Officers to the details of the set-up plan approval and clearance procedures.
- There were some examples of set-up plans being approved where the skid tracks were neither marked on the map nor set out in the field.
- A key component of the Planning Monitoring and Control Procedures is the post logging waste assessment. As well as ensuring that wasted timber is paid for, the inspection send a signal to the logging company that waste will not be tolerated. During the course of the field work, the Review Team found that waste assessments were no longer being carried out. The apparent reason is that there is currently an impasse regarding the methodology for waste assessment⁴².
- There were many examples where commercial trees had not been felled. There is some justification for including these in the waste assessment so that landowners and the Government are paid their dues.
- That attention needs to be paid to transport and housing for field based staff.
- That in some cases there are insufficient PNGFA staff at the logging site to provide adequate field monitoring and control. This is particularly so for the larger projects. The situation is worst at Makapa and Wavoi Guavi.
- The Project Supervisors rarely refuse to approve new set-ups where logged set-ups have not yet been properly completed. They fear that management will not back them up, or that management will back the logging company.

2.5.4 MONITORING THE LOGGING OPERATION

Requirements

The procedure for monitoring during logging is set out in the PNGFA's Planning Monitoring and Control Procedures 1995. The manual also sets out forms for recording the outcome of monitoring visits.

Detailed comment regarding the field monitoring and control of logging has been set out in the Individual Project Review Reports.

⁴² The PNGFA set up a committee to review the waste assessment procedures. The Forest Industry Association was invited to sit on the committee. The Association does not agree with the proposed approach, and the committee is effectively stuck. It is the view of the Review Team that the PNGFA must decide on the most appropriate procedure and apply it promptly.

Observations

The Review Team's general observations are that:

- The effort put into the monitoring during logging varies considerably. At the larger projects (e.g. Makapa and Wavoi Guavi) there are insufficient PNGFA staff to undertake proper monitoring during logging.
- There are many examples of breaches of the 24 Key Standards going unreported and not actioned. Often breaches are being overlooked by PNGFA Inspection Supervisors.
- There is one example (Kapuluk) where despite the use of suspensions by the Project Supervisor the quality of the logging operation has not improved. In this case there is a clear need for stronger sanctions to be imposed by PNGFA senior management.

2.5.5 RESOURCES FOR FIELD BASED STAFF

The PNGFA was set up in 1993, and at that time received considerable support from aid agencies to create a capable field presence. This included communications equipment, pre-fabricated houses, vehicles and other necessary equipment. A key aim was for the Project Supervisors to be able to operate independently of the logging company, and so not be compromised.

Observations

The Observations of the Review Team are that:

- Whilst field equipment was maintained for some years, regular maintenance has now reduced, and much of the equipment supplied during the mid 1990's has worn out.
- Some Project Supervisors now operate in isolation with no telephones or other essential office equipment.
- In many cases field monitoring and control is compromised by unreliable or insufficient vehicles. Vehicles in a number of cases are not registered.
- In some cases the Project Supervisors are again dependent on the support of the logging company for housing, office space, communications and services.

2.5.6 FOREST INDUSTRY PARTICIPANT REGISTRATION AND LICENSING

Under s105 of the Forestry Act 1991 no person shall apply for a Timber Permit or a Licence unless they are registered as a Forestry Industry Participant. Under s114 it is an offence to do so. Under s108 the PNGFA Managing Director is required to maintain an appropriate register.

Under s122 of the Act any Forest Industry Participant who engages in Forest Industry Activities (as defined in the Act) without a Licence is guilty of an offence. A licence is valid for 12 months only.

It is the Review Team's understanding that the above provisions of the act mean that all persons (corporate or otherwise) who are engaged in any form of Forest Industry Activity must first be registered as a Forest Industry Participant, and secondly hold a licence. To operate in the logging industry without either of these instruments is an offence.

Observations

The observations of the Review Team are that:

- Most but not all participants in the forest industry are Registered Forest Industry Participants. The main non-complying group are landowner companies.
- The PNGFA, whilst maintaining the register, does not require any regular updating of the details provided by the applicant when registration was first sought.
- Very few persons operating in the logging industry hold a current licence. Consequently most are guilty of an offence against the Act. The requirement for a licence is not well understood by either the industry or the PNGFA.
- Under s112 the PNGFA Managing Director may cancel a Forest Industry Participant Registration where the person registered is convicted of an offence under the Forestry Act, an act of dishonesty under any law, or where there has been a change of circumstances sufficient to justify cancellation.
- Under s97 the Minister may cancel a licence where the licence holder is convicted of an offence under the Forestry Act, an act of dishonesty under any law, or fails to comply with the conditions of the licence.
- It would seem that many Forest Industry Participants have obtained an initial licence, but have failed to renew the licence after it expires. The PNGFA does not actively monitor the expiry of licences, or take any action where a Forest Industry Participant does not have a licence.
- Industry notes it's understanding that a s122 licence is not a universal requirement. The issue needs to be clarified.

2.6 THE DEPARTMENT OF ENVIRONMENT AND CONSERVATION (DEC)

DEC's mandate is enshrined in the Fourth Goal of the Constitution, which states that:

We declare our Fourth Goal to be for Papua New Guinea's natural resources and environment to be conserved and used for the collective benefit of us all and to be replenished for the benefit of future generations.

DEC has two core functions, which are:

- Environmental management and protection; and
- Nature conservation and development.

2.6.1 DEC STRUCTURE AND BUDGET

Structure

Although the Environment Act 2000, which came into operation on 1 January 2004, requires some changes in the structure of the nation's environmental agency, as at August 2004 it continues to operate under a departmental structure which has been in place for about 6 years. This consists of three Divisions responsible to the office of the Secretary for Environment and Conservation. The Divisions in 2003 were:

- The Environment Division (55 approved and funded positions);
- The Conservation Division (51 approved and funded positions); and
- The Corporate Services Division (26 approved and funded positions).

The Environment Division was further split into:

- Administrative support (9 positions);
- Environmental Impact Assessment Branch (7 positions);
- Environmental Protection Branch (8 positions);
- Water Resource Management Branch (18 positions); and the
- Environmental Compliance and Enforcement Branch (13 positions).

The responsibility for the monitoring of compliance with the Environmental Plans and Approval Conditions for logging projects lies with the Environmental Impact Assessment Branch. Once the implementation of a logging project is formalised, the Water Resource Management Branch is advised regarding the requirements for permits for the abstraction of water and the discharge of waste water. The Environmental Protection Branch may come into play where chemicals are used.

Whilst the 7 approved and funded positions within the Environmental Impact Assessment Branch were initially filled, resignations have not been replaced. As at August 2004 the branch has only two officers. It is not possible for two officers to undertake all of the tasks of the branch. It is understood that the Department of Personnel Management has approved the engagement of several additional officers in 2005, but that DEC's priorities will dictate where the staff will be located within the organisation. No additional budget has been made available.

DEC does not currently have any offices outside Port Moresby which deal with forestry matters⁴³. In the mid-late 1990s DEC had a Forest Monitoring Project Implementation Plan (PIP) under which the Government funded the strengthening required under the National Forest Policy 1991 to effectively monitor the logging sector. Under this program it was planned that regional offices would be set up. This did not happen.

Budget

Whilst DEC raises some funds internally (Water Use Permits etc), it relies mainly on its annual grant from Government. The Treasury approved grant from the Department of Finance for 2004 is K4.0 million (up from K3.7 million for 2003, and down from K4.3 million for 2002). The following analysis demonstrates that nearly all of DEC's budget is used for personnel costs and running Head Office. There is only a very small and declining amount available for operational activities.

	2002 Actual (K000)	2003 Budget (K000)	2004 Budget (K000)
Total	4361	3693	4050
Personnel Costs (*)	3769	3471	3360
Capital Expenditure	21	0	130
Routine Maintenance	103	35	97
Consultancy	20	0	0
Head Office Costs	23	18	365
Balance Available for Operations	426	169	98

(*) Includes salaries, allowances, wages, leave airfares, retirement benefit pensions, gratuities and retrenchment costs.

Under the 2004 budget allocation DEC's Environment Protection and Pollution Control Program, which is responsible for the field work required to monitoring and control logging company compliance with the terms and conditions of the Environmental Plan, the Environmental Monitoring and Management Programme, and the Waste Management Plan, had a mere K10,000 available for operational activities.

Observations

The observations of the Review Team are that:

- There is a consistent lack of DEC field monitoring and control in the forestry sector. The reason given was lack of operational budget, and the data presented above supports this explanation. This is of concern because it means that there is no effort being made to ensure that the logging companies comply with the DEC approved plans; to guide the companies where there is lack of compliance;

⁴³ In some instances DEC officers are permanently assigned to oil or mining projects, typically with the material support of the company.

or to impose sanctions where there is a material and ongoing failure to meet the terms and conditions of the Environmental Permits. Where there is no official response to non-compliance, the logging company is effectively given a signal that the non-compliance is of no concern.

- DEC has made an effort to obtain private sector funding for its monitoring activities. An example is the financial and technical contribution made by Rimbunan Hijau (PNG) Ltd to a field compliance monitoring and inspection of the company's logging projects in 2003. The Review Team is concerned that DEC field monitoring and control should be completely independent, and not depend on the financial support of the party being monitored, and who has a vested interest in the outcome. It is the view of the Review Team that the reports produced in this case did not present a stringent evaluation when compared with the field compliance findings of the Review Team as set out in the respective IPRRs.
- Under the Environment Act 2000 DEC plans to utilise a User Pays policy to enable it to fund its operational activities. DEC anticipates that it can raise K2 million per annum from fees and penalties. As at August 2004 the required mechanisms are yet to be put in place, although a draft Enforcement Policy under the Environment Act 2000 has been prepared. This sets out the powers of authorised officers, and defines offences, penalties and costs. For example the maximum penalty for breaching a condition of an Environmental Permit, or for obstructing the flow of a watercourse, is K100,000 for a corporation. A user pays policy will disadvantage landowners who are not in a position to pay. Under the saving provisions of the Act current Environmental Plans for logging projects are deemed to be Environmental Permits.

2.6.2 ENVIRONMENTAL PLANS AND CONDITIONS

Under s77(2) of the Forestry Act 1991, all applications for a Timber Permit must attach an Environmental Plan which has been approved under the Environmental Planning Act 1978. Since the Act commenced, no applications for an Environmental Plan have been rejected, although typically they are approved subject to conditions.

Prior to 1993 the Environmental Plan was required to be prepared in accordance with the General Guidelines for the Preparation and Contents of Environmental Plans gazetted under the Environmental Planning Act. In 1993 the Specific Guidelines For Commercial Forestry Harvest Operations were gazetted, and applicants for Timber Permits were required to follow these when preparing their Environmental Plans for assessment by DEC.

Observations

The observations of the Review Team are that:

- The Specific Guidelines For Commercial Forestry Harvest Operations introduced very onerous requirements on the applicant, including the requirements to demonstrate the viability of the project, to describe the biophysical environment (including impacts and safeguards), to describe the existing social and economic environment (including impacts and mitigatory measures), and to prepare an

Environmental Monitoring and Management Programme and a Waste Management Plan. The concerns regarding logging projects were probably adequately covered by the Environmental Monitoring and Management Programme and the Waste Management Plan, especially after 1995 when the 24 Key Standards were imposed on the logging industry. Despite the onerous requirements, no applications were declined. This has been more a reflection of the lax approach taken to compliance, than of the quality of the applications.

- DEC does not maintain a register of active Environmental Plans for logging projects, or their approval conditions, although a register was obligatory under s26 of the Environmental Planning Act. The Review Team also observed missing and mis-filed materials.
- The observations made by the Review Team regarding logging company compliance with their Environmental Plans, their approval conditions, and their Environmental Monitoring and Management Programme and Waste Management Plan, indicate that the controls envisaged by the Environmental Planning Act have not been achieved.
- A review of Environmental Plan applications indicates that in most cases the applicants were prepared to make a wide range of responsible statements, and to indicate an environmentally responsible mode of operation. Rarely were these implemented in the field, and given the low capacity of DEC to undertake regular monitoring, the signal has been given to the logging companies that they can ignore environmental concerns with impunity.
- A general condition of an Environmental Plan approval is the requirement that “Any proposed variation from the Environmental Plan will require prior written approval from the Secretary DEC”. Relevant examples of variations are additional logging camps, or log ponds. There is no evidence that requests for variations have ever been received, although inspections in the field indicate many instances where it would have been expected that an application should have been lodged. Approval for the construction of a logging camp or a log pond from the PNGFA is also required, and it appears that some logging companies consider approval from the PNGFA alone as sufficient.
- With two exceptions, the 14 logging projects reviewed have observed the requirements of the Water Resources Act, and have obtained Water Use Permits. However, in a number of cases the permits had expired. There does not appear to be any monitoring of this situation by DEC. Currently DEC in Port Moresby issues Water Use Permits in response to the receipt of applications (and fees), but does not undertake any field checking to ensure that the Act is properly complied with.
- A key condition of the Environmental Plan approval is the requirement for the logging company to employ and resource an Environmental Monitoring Officer. Part of the role of this person is to monitor the implementation of the Environmental Monitoring and Mitigation Programme and the Waste Management Plan. The Review Team found that in most cases an inappropriately qualified employee with other work responsibilities was appointed. In some cases the appointed person had no environmental skills at all.

- Key Standard No 22 requires that log landings be ripped to encourage re-vegetation and avoid soil erosion. This is rarely done. Most logging companies claim that they do not have the required rippers.
- The lack of field monitoring and control has sent a signal to the logging companies that the PNG Government is not serious regarding environmental concerns, and a number of logging companies behave accordingly.

2.6.3 ENVIRONMENTAL PLAN MONITORING

Responsibility for ensuring compliance with Environmental Plans lies with the Environment Impact Assessment Branch of DEC. The Branch is also responsible for establishing and maintaining dialogue with other stakeholders regarding environmental issues.

Observations

The Review Team's observations are that:

- There is no effective monitoring of compliance with Environmental Plans, Environmental Plan conditions, Environmental Management and Monitoring Programmes, or Waste Management Plans for the logging industry. As a consequence there is no enforcement effort, or any application of penalties. Key contributing reasons are a lack of operational funds, and a lack of sufficient staff numbers.
- For a number of active logging projects, the Environmental Plans had been archived, and even the expiry of Environmental Plans in some cases has not been noticed or actioned. An example is the Environmental Plan for Rimbunan Hijau (PNG) Ltd's Panakawa veneer mill, which expired on 10 November 2003. Legally the company should have renewed the plan, or DEC should have shut the mill down. The Review Team is aware however, of the political pressure aimed at keeping all export based processing going in support of the Government's export led economic growth strategy.
- Overall the PNG Government has kept DEC on a very tight financial rein for a number of years, effectively compromising the nation's environmental management. Unless provided with additional operational funds, the Government might consider shutting the Department down thus saving about K4.0 million per annum, but leaving PNG without a central environment and conservation agency, and effectively making the other line Departments responsible for environmental management within their own areas of responsibility.
- The Environment Act 2000 provides for the Director to appoint any public servant (or any other regulated class of persons) to be an Authorised Officer for the purposes of the Act. Authorised Officers have wide powers, including powers of entry, and are given protection from civil liability. These provisions provide a future opportunity to involve a wide range of public servants, including officers of the PNG Forest Authority, in day to day environmental monitoring.

- For the staff of the Environmental Impact Assessment Branch of DEC, the lack of operational funds, the lack of staff numbers, and periodic internal restructuring within DEC has resulted in low morale, and a general acceptance of their inability to be effective.

2.6.4 THE ENVIRONMENT ACT 2000

Of concern to the Review Team is the Environment Act 2000 which came into effect on 1 January 2004. This repeals and replaces the requirements of the Environmental Planning Act (Chapter 370), the Environmental Contaminants Act (Chapter 368 – as amended), and the Water Resources Act (Chapter 205). The new Act requires the setting up of an Environmental Council, an Environment Consultative Group, and the development of a wide range of policies. It would seem that DEC does not have the financial resources to implement the new Act at this point in time⁴⁴.

The Environment Act 2000 makes a fundamental change in the way new logging projects are processed. Under the now repealed Environmental Planning Act it was possible for a logging projects to be negotiated with landowners and the logging company, and for an Environment Plan to be required as the last step in the acquisition and allocation process before a Timber Permit was issued. There was little likelihood of logging being rejected on environmental grounds after the resource had been acquired by the State, and the State had agreed on the terms and conditions of a Timber Permit.

Under the Environment Act 2000 logging (where the annual allowable cut exceeds 70,000 m³) is classed as a Level 3 Activity⁴⁵, which means that an Environmental Impact Assessment (EIA) is obligatory. Given that the Director has the power to turn down logging on environmental grounds, it would seem logical that an EIA be undertaken prior to the State acquiring the resource through a Forest Management Agreement with Incorporated Land Groups. The EIA is to be undertaken by the proponent of the development, which at this early stage of the acquisition and allocation process is clearly the State.

Whilst permits (and Environmental Plans) approved under the now repealed legislation are saved, any new logging projects (such as the 10 new “impact” projects the Government wishes to see become operational this year) will need to comply with the requirements of the new Act. This will not be possible until the required institutional arrangements are put in place, and DEC makes some clear decisions regarding the application of the Act to logging projects for which the PNGFA has already entered in to Forest Management Agreements, and even more so for logging projects for which the PNGFA Board has entered into Project Agreements with logging companies.

⁴⁴ DEC reports that it sought K100,000 in funding in early 2004 to set up an operating Environment Council, but that the request was turned down.

⁴⁵ A Level 3 classification means that large scale logging is deemed to be an activity either of national importance and/or an activity which may result in serious environmental harm. In order to be granted an Environmental Permit for a Level 3 Activity, it is mandatory to undertake an EIA (s50(1)). This in turn involves (s51) the preparation of an inception report; an environmental impact statement; public review of the statement; assessment and formal acceptance of the statement by the Director; consideration by the Environment Council; and acceptance by the Minister. The EIA is a precondition for the granting of an Environmental Permit by the Director. The permit may attach conditions.

The repeal of the Environmental Planning Act has also effectively nullified the Specific Guidelines For Forestry Harvest Operations gazetted in 1993⁴⁶.

2.7 FOREST SILVICULTURE AND SUSTAINABILITY

PNG's natural forests have been shown to be far more resilient to the effects of logging than tropical forests in other countries, particular those countries where the underlying soils are prone to rapid erosion (e.g. Brunei). There is profuse regeneration after logging but the species mix is dominated by pioneer species, many of which have no commercial value. There is also a correlation between the amount of canopy disturbance and the invasion of weed species particularly the very fast growing "mile a minute" vine (*Mireemia* spp) which can be seen to colonise canopy gaps, abandoned roads and even climb over and kill regenerating trees.

Nevertheless, if the logged over forest is not further disturbed it will recover, though it will go through the various stages of succession and take many years to regain its original integrity.

Where regenerating forests are silviculturally treated with some form of Timber Stand Improvement, for example using the technique of 'Reforestation Naturally', canopy closure and weed elimination can result in an improvement in the proportion of commercially desirable species, and a more rapid growth of individual trees so that many species can reach commercial size by 20 years of age⁴⁷.

Observations

- It is clear that landowners do not appreciate the long term nature of the Forest Management Agreement, or the investment made in some cases by the PNGFA in silviculture following logging. There are examples of landowners entertaining oil palm conversion proposals after logging, or agreeing to silviculturally treated areas to be re-logged long before the investment in silviculture has matured. It would appear that the landowner's main interest in silviculture is very short term, in that it provides employment and wages.
- Villagers often take advantage of the large canopy gaps caused when there is a concentration of commercially sized trees felled in one location, to garden in areas far outside their traditional garden zones. The Review Team observed instances of villagers getting lifts on logging trucks to establish such gardens.
- In the Watut West logging area gardens were observed to be established ahead of logging in many set-ups and fire used as a gardening tool. This considerably reduces the potential for the logged over forest to regenerate. Gardening and further fires following logging completes the total destruction of the forest.
- Growth of indigenous trees such as *Octomeles sumatrana*, *Eucalyptus deglupta* and many others can be very rapid with trees reaching merchantable size within

⁴⁶ Although updated in 1996, the updated version was never gazetted.

⁴⁷ See for example draft IPRR No 13 TP 10-08 Vaimo.

15 to twenty years after logging. These species and many other indigenous species are also successfully grown in forest plantations.

- Even where there are provisions for the establishment of forest plantations in the various Timber Permits there has been very little effort by the forest industry to undertake reforestation, e.g. at Iva Inika there is a clause requiring 300 ha of plantations to be established by the logging company from year 3 onwards. There have been no forest plantations established and the reforestation levy paid by the logging company to the PNGFA, remains unused.
- Successful plantations established either by the industry such as those established by the Stettin Bay Lumber Company and Open Bay Timber Ltd are under extreme pressure from other land use options, particularly oil palm. Many forest plantations established by government such as those at Brown River and Kerevat have been “handed back” to landowners, logged and not replanted.
- The advantages of species mix (less variation, therefore easier marketing) and volumes per hectare (the Bulolo forestry plantations average ten times the commercial volumes of any natural forest) can be achieved in properly managed forest plantations.
- The Review Team observed many instances where the technique of ‘Reforestation Naturally’ has been compromised by not following the recommendations set out in the manual. For example at Kapuluk seedlings of *Anthocephalus chinensis* are being transplanted although it is known that these rarely survive to commercial maturity. At Vanimu the PNGFA has allowed the logging company to re-enter treated areas long before they are ready for a second commercial harvest. This compromises one of the critical principles of the Reforestation Naturally technique, which requires landowners to commit themselves and their land to long term forest management.
- For new logging projects there may be value in assisting the landowners to define those areas of forest that they wish to see managed for timber production in the long term, and to arrange a Forest Management Agreement over this area only. There is no doubt that under the current approach, where all of the landowner’s land is included under the agreement, that the landowners will wish to change the use of at least some of the land sooner or later. This will compromise the calculated sustainable AAC. To some extent this might be mitigated by the establishment of forestry plantations.

2.8 FORESTRY SECTOR ISSUES NOTED DURING FIELD WORK

During the field work, a running list of issues was maintained. Most of the issues raised are dealt with in this report, but some fell outside the scope of the Review Team’s Terms of Reference. For completeness a full list of all the issues noted during the field work is presented in Appendix 7.

3. THE CASE STUDIES

3.1 MONITORING AND CONTROL BY OTHER GOVERNMENT DEPARTMENTS AND AUTHORITIES

The logging industry is subject to a wide range of laws and regulations other than those provided for under the forestry and environmental legislation. The purpose of the six case studies was to provide an opportunity for other relevant Government Departments and Authorities to make field visits to a number of logging projects and to review those aspects of the project for which they are responsible. As noted in Section 1.5 of this Report, a wide range of Departments and Authorities were invited to participate.

Only the Department of Labour and Industrial Relations, and the Department for Community Development participated in a meaningful way. Whilst the Department of Foreign Affairs, the Investment Promotion Authority, and the Department of Environment and Conservation undertook field inspections at some of the case study project sites, they did not produce any written reports regarding their findings.

3.1.1 LABOUR AND INDUSTRIAL RELATIONS

The Role of the Department

The key responsibilities of the Department of Labour and Industrial Relations with regard to the logging industry relates to the issuance of work permits for non-citizens. It is also concerned with worker safety. Work permits for non-citizens are issued in accordance with a three year training plan to be submitted by the logging company, which is expected to reflect a decreasing dependence on the employment of non-citizens as PNG citizens are trained and gain work experience.

The Department is mandated by the Employment Of Non-Citizen's Act (Chapter 374). It implements the National Training Policy and reviews applications for work permits against training plans prepared by the logging companies in accordance with the gazetted Guidelines for Three Year Training Plans and Work Permits. The Department's operational and administrative performance is guided by the Three Year Training Plan Format and Guidelines of 2000, and the Work Permit Guidelines also of 2000.

The tasks of the Department's representative during the field visits were to:

- Verify and ensure that the non-citizens employed by the logging company have valid work permits and are physically performing in the positions set out in the three year training plan;
- Review the company's effort in actively conducting and implementing it's approved training plan;
- Address training and related issues;
- Assess the observance of safety practices; and to

- Address general employment issues and concerns.

Observations in the Field

Observations common to all of the case study projects are that to a greater or lesser degree the logging company:

- Exaggerates position responsibilities to support employment of more non-citizens;
- Allows non-citizens to work in positions other than for which their work permit was issued; and
- Demonstrated a less than acceptable focus on workplace safety issues.

Other relevant observations were:

- A lack of awareness by PNG citizen employees of formal and counterpart training obligations under the three year training plan;
- High labour turnover which mitigates against gaining the benefits of training, and thus impedes localisation;
- The demise of apprenticeship training; and
- The generally poor employment conditions with regard to housing, wages, and sometimes access to potable water.

The reports of the Department of Labour and Industrial Relations representative for the case study projects are presented in the Individual Project Review Reports.

3.1.2 DEPARTMENT FOR COMMUNITY DEVELOPMENT

The Role of the Department

The role of the Department for Community Development is to advocate for social welfare development and improvement. It is responsible for the implementation and administration of the PNG National Council of Women Act 1979, the Child Welfare Act 1976, the Civil Registration Act and the Marriage Act. Further it is guided by the National Women's Policy 1990, the PNG Platform For Action : A Decade of Action For Women Towards National Unity and Sustainability 1995-2005, the Convention on the Elimination of All Forms of Discrimination Against Women 1995, the PNG Social Development Policy 1993, and the Convention on the Rights of Children 1993.

The Department focuses especially on the role of women and children, and the impact large scale developments such as logging might have on them. It is the view of the Department that the well being of women and children provides the most sensitive indicator of the impact of development, and that they are disproportionately affected.

The tasks of the Department's representative during the field visits were to:

- Asses the impacts of the logging project on local women and children;
- Identify positive and negative impacts;
- To identify other general social issues relating to community development.

Observations in the Field

Observations common to all of the case study projects are that to a greater or lesser degree the logging company:

- Does not provide adequate accommodation or sanitation for families;
- Adversely impacts on the local availability of bush materials; and that it
- Adversely affects the volume and quality of potable water which is available from streams and rivers.

Other relevant observations were that:

- Generally the likely impacts of logging on women and children are neglected or accorded low priority. Only rarely are they considered at the planning stages for the development of a new logging project;
- Generally little of the financial benefits flow to women and children. They are only rarely consulted, and usually investment or expenditure proposals raised by women are ignored by their men;
- The lack of support for children fathered by expatriate workers is an issue. There are many examples of local women lodging complaints with the Provincial Social Welfare Office; and
- There are often un-investigated allegations of abuse of women, and the import of pornographic materials into logging camps.

3.2 ECONOMIC OVERVIEW OF THE LOGGING SECTOR

Monetary and non-monetary costs and benefits were analysed for the six case study logging projects. Direct financial benefits include log export tax revenues, landowner royalty receipts, project development benefit (PDB) payments, various specified levies, log export premium payments, and employment wages for PNG workers. Direct financial costs include the cost of the PNG Forest Authority, a component of DEC, and the cost of the independent log export monitoring contract.

Non-monetary costs and benefits were assessed qualitatively, primarily through field observations. These relate to health care, education, market access, training and skills acquisition, food and livelihood security, impacts on drinking water quality, fish stocks

and the availability other subsistence resources, the social impact of land tenure disputes, interaction with foreign nationals, and income volatility and uncertainty.

The main observations were as follows:

- Benefits to landowners from logging generally last less than five years, and are too small to result in any long term improvements in socio-economic welfare, especially given the paucity of public services to augment and multiply their impact;
- Logging projects are almost certainly a net cost to Provincial Governments;
- Financial payments to the central Government represent about 5% of Government's annual income, however this contribution to consolidated revenue is based on (currently) unsustainable use of the national forest resource;
- Almost three-quarters of the FOB income captured by PNG accrues to the central Government. Little is reinvested in either community development or forest management;
- The real value of Government and landowner receipts has declined sharply over the past seven years through the devaluation of the Kina. Annual inflation has been in excess of 10%, and average FOB log prices have declined almost 50% since 1997; and
- FOB log prices during the last 4 years or more have been too low to support a logging industry that is sustainable in the long term.

The following sections provide a summary of the economic analysis and discussion presented in Appendix 8.

3.2.1 ECONOMIC IMPACT AT THE LOCAL LEVEL

Direct Financial Payments

The main economic impact at the local level is due to the direct financial payments received by landowners. In this regard it is observed that:

- Royalty payments alone for the period 1997 to 2003 were more than K10 million for each of the two largest logging projects (TP 10-8 Vaimo and TP 1-7 Wavoi Guavi);
- For the six case study projects the total estimated direct financial payments to landowners are estimated to be between K10 million and K15 million per annum;
- On average, under the current FOB log price, landowners capture about 10% of FOB revenue, compared to the Government's 30% and industry's 60% (which is required to cover all costs plus reasonable profits); and
- The value of direct payments at the local level has declined significantly over the last 7 years. For example the K10/m³ royalty payment that was worth about \$US

5.25 in 1997 is now worth about \$US 3.00, effectively reducing the ability of the landowners to purchase imported goods, or goods with an imported content.

Lasting Benefits

There is little evidence in the field of the direct payments being used to support any long term economic growth and/or increased social welfare. There are several key conditions which contribute to this situation as follows:

- A relatively small percentage of the total direct payments (and associated infrastructural benefits) reach the poorest and most remotely located communities;
- Livelihood and food security is enhanced by the payments, but usually only for the period during which logging is active in a given area (some payments may continue under the PDB system after logging moves to other areas within the concession, but they are typically too low to have any significant impact);
- Funds that reach local communities, especially the poorest and most remotely located, are managed and distributed inefficiently and non-transparently, and are primarily used for consumption rather than investment;
- The value of funds that do reach communities is further diminished because it often varies significantly in size, and receipt is uncertain⁴⁸;
- The absence of banking services makes household savings and collective community investment by landowners difficult;
- Relatively few opportunities are being created for PNG workers to acquire professional level training as a result of logging projects;
- Some infrastructure is developed, but it is generally planned around logging requirements, and is not maintained after logging ceases;
- The value of infrastructure provided by the logging companies is diminished due to the lack of public investment, consequently reducing the potential for significant multiplier effects; and
- Lasting infrastructure that does accrue (schools, roads, health facilities, increased access to political processes etc) are off-set by social and environmental costs borne primarily at the local level.

⁴⁸ The incidence of poverty is linked to the ability to earn cash income and pay for non-food items, to vary and improve diets, and to permit savings for times of economic hardship. Income that is insecure and delivered primarily over the short term cannot adequately provide opportunities to alleviate poverty in the poorest and most remote locations.

3.2.2 ECONOMIC IMPACT AT THE PROVINCIAL LEVEL

Benefits

In only one of the six case study provinces does the Provincial Government receive direct payments from logging projects⁴⁹. Several had received modest payments up to 1996, after which payments were discontinued. When payments are made to provincial Governments, they are usually placed in a central fund and are broadly accessible. They are not necessarily used to benefit the communities where logging is taking place. In Vanimo there was an attempt to institute direct payments to the local level government, but this was foiled by landowners who wanted control over the use of the payments.

Costs

Logging incurs direct costs at the provincial level. Examples are participation in the Provincial Forest Management Committee, and addressing social problems associated with logging. Costs are also incurred in relation to logging workers drawn from other provinces. These economic migrants place additional burdens provincial public infrastructure and services (where these exist).

Environmental and social impacts resulting from logging can also impose costs at the provincial level. For example detrimental effects to the marine environment, where this is the basis for subsistence livelihood, may make the provision of public services more expensive. Social impacts resulting from, for example, conflict over land ownership, can also indirectly increase the cost of services at the provincial level.

Observations

Logging projects can positively impact provincial development through the provision of roads, bridges and harbour facilities. However, most if not all of these facilities are built and maintained almost exclusively to serve logging interests. Most bridges inspected are constructed of raw logs, and will not be maintained after the completion of logging.

The general observation is that logging does provide some primarily short-term infrastructural benefits at the provincial level, but no direct payments. It does however incur significant costs. The Provincial Government:

- Has little direct interest in logging because it does not receive any direct financial benefit that might be used to finance public investments and services that would benefit landowners at the logging projects; and
- In some cases is observed to prioritise alternative land uses which are better able to contribute to Provincial Government funds, for example oil palm development in East New Britain province, ostensibly at the expense of the forestry plantations.

⁴⁹ At TP 10-8 Vanimo, there is a “Timber Tied Levy”. It is not clear whether this is legal.

3.2.3 ECONOMIC IMPACT AT THE NATIONAL LEVEL

Benefits

The main benefit at the national level is financial. Over the past three years the central Government has received about K115 million per annum in log export tax receipts. This accounts for about 6% of all Government tax receipts, and about 4-5% of total Government revenue, including foreign grants. The logging industry also provides about 16% of all indirect tax receipts, such as VAT.

There are in effect, no mechanisms that require log export tax receipts to be allocated in any way to the logging areas or the provinces from which they were derived. With certain exceptions, the funds can be legally allocated to any purpose decided by central Government, including interest payments. The main exceptions are the 18% of all tax revenues that are allocated to Provincial Governments, and the 1% allocated to provincial projects. Consequently the greatest impact at the national level is an additional 4-5% increase in the central Government's total annual receipts.

In terms of foreign currency capture, log export tax receipts per cubic metre have declined by about 60% since the end of a period of high prices in 1997. On average, the export tax in 1997 was about \$US 39/m³. At current prices and exchange rates the central Government captures about \$US 16/m³.

Costs

The true economic impact at the national level is substantially less, in real terms, after forestry sector costs borne by central Government are subtracted. This includes:

- The K28 million per annum required to pay for the PNGFA, a portion of DEC, and the independent log export monitoring contract. It is anticipated that this figure would need to rise if sustainable timber production is to be achieved; and
- The draw down on the value of the national forest asset that is not being compensated for by reinvestment in forest management, or alternative sources of wood such as forestry plantations.

Observations

- Unsustainable harvesting of the natural forest estate finances about 5% of the central Government annual budget.

3.2.4 CONCLUSIONS

The analysis of monetary and non-monetary costs and benefits indicate three main conclusions. These are that:

- The choice of some landowners and the central Government to pursue and support logging operations is driven principally by direct monetary benefits;

- Environmental costs are borne primarily by landowners, especially where logging practices breach the 24 Key Standards, and where there is no re-investment in forest management; and
- At present, logging does not appear to be economically viable in PNG. On a national basis, economic costs exceed economic gains. This conclusion is based on the FOB log prices and Kina exchange rates which have prevailed for at least the last four years.

4. SECTOR WIDE ISSUES

The following were identified by the Review Team as sector wide issues which warrant discussion and comment. Also included are a number of issues raised in the TORs for specific attention.

4.1 SUSTAINABLE FORESTRY ISSUES

4.1.1 STATUS OF FORESTRY AND ENVIRONMENTAL MEASURES INTRODUCED SINCE 1993

A wide range of measures have been introduced since 1993 which contribute to three key forest policy objectives which are as follows:

- Achieving sustainable log production;
- Minimising the environmental impacts of roading and logging; and
- Forest Conservation.

The measures include:

- A pro-forma Forest Management Agreement.
- Specification of the requirements for [operational] forest plans.
- A checklist for the acquisition and allocation of forestry projects.
- A logging code of practice.
- Planning monitoring and control procedures.
- Guidelines for environmental plans.
- An operational manual for DEC's Forest Monitoring Unit⁵⁰.
- The Environment Act 2000.
- Guidelines for issuing Timber Authorities.
- 10% set-asides for forest conservation.
- Fragile forests.
- A register of forest conservation projects.

⁵⁰ Disbanded in 1996.

An evaluation of the measures listed above is presented in Appendix 9.

Observations

The observations of the Review Team are that:

- The measures introduced since 1993 are appropriate and sufficient to ensure the achievement of sustainable timber production, minimising the environmental impacts of roading and logging, and providing for forest conservation, provided that they are properly applied and adequately enforced.
- The disbanding of DEC's Forest Monitoring Unit in 1996 effectively destroyed any chance that DEC might have played the role envisaged for it under the National Forest Policy 1991.

4.1.2 FOREST MANAGEMENT AND SILVICULTURE

Given the National Forest Policy 1991 objective of sustainable log production (and consequently a sustainable forest industry), then the main focus of the forest manager needs to be on ensuring the long term productivity of the forest estate. Given this focus, then the key responsibilities of the forest managers are to:

- Ensure that the impact of any activities affecting the forest (including logging) are controlled so that the long term productivity of the forest (and the industry) is not compromised; and
- Consider and apply where practicable and affordable, interventions which enhance forest productivity.

Under this approach logging is essentially a forest management tool which should be carefully implemented in order that forest productivity is not compromised⁵¹. Further the practicality and affordability of various silvicultural options should be considered.

Responsibility for Natural Forest Management

The National Forest Policy 1991 states (Para 3(g)) that:

The overall responsibility of ensuring that the country's forests are managed and replenished will rest with the State.

The policy further provides (Para 5(a)) that:

The PNGFA shall be empowered to acquire, on behalf of the State, authority over forest resources by means of a Forest Management Agreement (FMA).

⁵¹ This view accords with that set out in the PNGFA's pro forma Forest Management Agreement which defines sustained yield principles to mean (Clause 19.3) "The management and control of forest management and harvesting in accordance with any applicable standards and/or code of practice to ensure that the net harvestable forest areawill yield a perpetual, more or less even flow of industrial wood which is harvested in a manner which does not adversely affect forest productivity, and which minimizes the risk of adverse impact on environmental values".

The Forestry Act 1991 is not specific about who is responsible for forest management. The State's responsibility is alluded to by s47(1) which states that:

The Authority shall cause to be drawn up a National Forest Plan to provide a detailed statement of how the National and Provincial Governments intend to manage and utilise the country's forest resources.

The National Forestry Development Guidelines 1993 (much of which is no longer relevant, or has been superseded) states (Part D) that:

Responsibility for forest management will be allocated between landowners and the Authority (PNGFA) according to the terms of the Forest Management Agreement.

It goes on to state that:

Where the Authority is responsible for forest management activities it will generally contract out those activities to the permit holder⁵².

Under the PNGFA's standard Forest Management Agreement between the State and the forest resource owners, the parties agree (Preamble E) to make the land available for "forest management and harvesting in accordance with sustained yield principles". Then in accordance with Clause 4.3 (and Clause 7.1) the PNGFA "may assign timber rights to a forest industry participant". The document thus clearly distinguishes between management and harvesting, but does not clearly allocate responsibility as it is required to do under the National Forestry Development Guidelines 1993.

The standard PNGFA Board approved Project Agreement between the State and a developer provides that:

Where Schedule 6 provides, the Company shall at its own cost undertake reforestation within the Forest Development Project Area in the manner method and times as specified in Schedule 6⁵³.

Although not a requirement set out in the pro forma Project Agreement, it is the practice of the PNGFA to add to the agreement a requirement for the company to pay a "reforestation" levy of K1.00/m³⁵⁴ harvested. The levy is payable to the PNGFA. The only place a definition of "reforestation" is given is in the National Forestry Development Guidelines 1993 which defines it as "re-establishment and regeneration of a forest by replanting". However it goes on to say that "..... reforestation will be considered

⁵² This was written after the Forestry Act 1991 came into force. Under the Act there is only provision for the developer who has entered into a Project Agreement with the State to be granted a Timber Permit. The previous legislation was more liberal in this respect, and in most cases the permit was granted to a landowner company. In some cases it was granted to a logging company.

⁵³ The East Awin Project Agreement, although signed shortly before the PNGFA Board approved the pro forma agreement, includes this Clause. However, Schedule 6 of the agreement states "Not Applicable".

⁵⁴ Under some of the Timber Permits issued under the old Forestry Act, the amount is K2.00/m³.

complementary to natural forest management", suggesting that the definition is not intended to cover the management of natural forest after logging.

Discussions held with logging company managers indicate the generally held view that because the logging company pays a reforestation levy, that it is effectively absolved from responsibility for any post logging forest management. There are examples of logging companies (where the Timber Permit does contain a reforestation responsibility⁵⁵) seeking direction from the PNGFA as to what it is that they would wish the company to do, and the failure of the PNGFA to respond.

It was observed at many project sites that landowners were actively seeking "reforestation", although it appeared that they were not always clear on what this meant, other than some sort of activity in their area which might provide a source of income. In some cases the terms and conditions of the Timber Permit requires that the reforestation levy be spent within the project area, and landowners questioned why this is not happening.

The PNGFA created a Forest Management Division in 2000. It has four Branches:

- Tree plantations Branch.
- Natural forest management.
- Area Highlands.
- Bulolo/Wau plantations

The Division has the following objectives:

- To coordinate sustained yield forest management practices in the country's natural forests and forest plantations.
- To implement sustained yield forest management practices in the Highlands Area and Bulolo/Wau forest industry area.
- To supervise Highlands Area forestry administration.
- To provide a national forest extension service.
- To coordinate divisional functions with other divisions of the PNGFA.

⁵⁵ For example, the original Timber Permit for TP 10-08 Vanimo requires the company to "..... annually reforest 40 hectares". Here the 1990 Project Agreement introduces a reforestation levy "in lieu of the obligations of the company to undertake reforestation".

Observations

The observations of the Review Team are that:

- The measures and tools which have been put in place to give effect to the National Forest Policy objective of sustainable forestry, whilst adequately covering harvesting, do not adequately cover forest management.
- There has not yet been a focused attempt by the State (through the PNGFA) to meet its obligation to landowners under the Forest Management Agreement to manage the forest.
- Although some progress has been made in treating natural regeneration the Division is inadequately staffed and resourced to carry out its functions.

4.1.3 THE REFORESTATION LEVY

A reforestation levy was imposed on all logging projects in 1990 as a result of a failure⁵⁶ of the forest industry to carry out any meaningful reforestation except at JANT, Stettin Bay and Open Bay. The levies are paid into a Trust Fund managed by the PNGFA. The levy varied from project to project from K0.50/m³ to K2.00/m³ log harvest. The PNGFA has not been vigilant in ensuring that all of the logging projects which are required to pay a reforestation levy do so.

In March 1995 the PNGFA Board decided that a minimum of 60% of the levy should be used to carry out reforestation activities in the location from which it was collected, and that this could include treatment of natural regeneration including the technique known as ‘Reforestation Naturally’.

Reforestation Naturally has many benefits. These include:

- Customary land owners commit themselves and their land to long term forest management. This is a crucial factor.
- The method is well suited to PNG’s land tenure system as there is no need for alienation of land.
- Villagers do the work so there is no need to import labour and consequently there is little risk of social disruption.
- The technique provides rural employment for men, women and youths.
- The technique is adaptable. There is no need to work fulltime and hence the technique can accommodate custom events and variable working hours.

⁵⁶ There are examples of logging companies seeking advice from the PNGFA regarding what was expected of them with respect to “reforestation”. The lack of response from the PNGFA suggests that the PNGFA was also not clear what the requirements were.

- The technique helps conserve biodiversity, including medicinal plants and the residual stand, and assists in more rapid re-colonisation of logged areas by plants and animals.

In 1996 the levy was abolished for new projects, but those projects which were already paying the levy continued to do so. In 1998 the Minister for Forests proposed a 4% reforestation tax, but this did not eventuate.

In 2000 the PNGFA Board rescinded its 1995 decision, and resolved to use the levy to “support new forest plantations and associated plantation activities”, and to reduce the share of the levy to be used for natural forest management to 30% of the available funds⁵⁷.

As at December 2003 over 30,000 ha of natural regeneration have been treated using the levy in areas from which it was collected.

4.2 SOME BROAD SOCIAL ISSUES

Whilst the Review Team included a landowner specialist, and there was a strong focus during the field work on assessing the impact of logging projects on local communities and identifying their concerns, the team identified a number of broader social issues relevant to the development of logging projects. These issues are listed below. No attempt is made to suggest how they might be resolved.

- The provision of services by logging companies, e.g. health. Logging companies generally provide health services for their employees. It would appear that where the logging company is operating in an isolated location, then often it is prepared to extend health services to the families of employees, and even in some cases to villagers living close to the logging camp. The provision of services however, acts as a magnet, and soon attracts additional people to the location of the logging camp. This is a form of “urban drift”. Clearly there is a limit to how long the logging company can continue to provide health services to local communities before the expense becomes prohibitive.
- In most cases landowners were very concerned about outsiders coming into their area. This appears to be in part a concern regarding the gardening and hunting activities of logging company employees. Whilst hunting and gardening is reserved to the landowners under the terms and conditions of the Forest Management Agreement, it is also the case that some logging company employees do not earn sufficient income to support their families with store bought food and goods. The threat of outsiders also relates to landowner concerns regarding the behaviour of outsiders, particularly towards local women, and also if they do not remain gainfully employed. Most landowners are aware that some Provincial Governments have forcibly repatriated squatters from outside the province e.g. Lae, Rabaul, Madang. In some logging project areas outsiders have leased land from local landowners (e.g. Makapa, Wavoi Guavi).

⁵⁷ Since income from plantations accrues to the PNGFA and central Government, this decision effectively redirects a significant portion of the reforestation levy back to central Government and away from the areas where the levy was collected.

Whilst this is done with the cooperation of the local landowners, the issue of what happens to the lessees when the logging operation ceases remains.

4.3 APPROPRIATENESS OF CURRENT LEGISLATIVE AND REGULATORY REQUIREMENTS

A full review and analysis of the current legislative and regulatory requirements appears in Appendix 10. This review:

- Identifies all laws referred to in the *Forestry Act 1991 (as amended)*;
- Reviews in detail the *Forestry Act 1991 (as amended)*, the *Environment Act 2000* and the regulations made under this Act, and the *Land Groups Incorporation Act 1974*;
- Considers and comments upon the recently proposed (May 2004) amendments to the *Forestry Act 1991*⁵⁸;
- Notes the potential for the application of s137(2) to apply the requirements of the current Act to operations commenced under the former laws, and considers the means by which this can be done; and
- Considers the issue of extending saved permits under s78, and recommends certain matters to be included in the proposed amendments to the *Forestry Act* in this regard.

4.3.1 THE FORESTRY ACT 1991

The general observations made about this Act note many worthwhile features, and do not identify any fundamental deficiencies. It is noted however that previously identified shortcomings in the context of sectoral planning and regulating the conduct of Registered Forest Industry Participants have not been rectified, despite an appropriate direction by the NEC.

The following observations are made concerning the proposed (May 2004) amendments to the *Forestry Act 1991*:

- Whilst the proposal to establish an autonomous National Forest Board Secretariat may have merit, it is not accepted that this body will have the independence required to vet processes for compliance with legal requirements in the way that a Probity Commissioner, or like body, may be expected to do;
- Further consideration should be given to the proposed power of the Minister to terminate the appointment of Board members so as to avoid the anomalies that would arise from such a provision;

⁵⁸ A draft Amendment Bill was presented to the PNGFA Board at its 101st meeting in mid-May 2004.

- If extensions of saved permits are to be permissible under s78 then there are additional relevant matters that should be clarified in the legislation, including matters relating to the term of the extension, the allowable cut, a timetable for the provision of outstanding infrastructure obligations and the retention of the powers under s137(2) to achieve compliance with aspects of the current Act;
- Provision should be made in s112 to enforce a Code of Conduct applying to all registered forest industry participants, and to clarify that cancellation of registration shall prohibit further participation in logging operations; and
- The National Forest Plan should clearly reflect the total of all current and operational provincial plans; and
- Draft provisions for regulating the harvesting of forestry plantations should be reconsidered, especially given that the draft does not distinguish between State and private sector plantations.

4.3.2 SECTION 137 OF THE FORESTRY ACT

S137(2) of the *Forestry Act 1991* enables the Board to direct that logging operations undertaken under the authority of repealed laws achieve compliance with aspects of the current Act. The Board must be satisfied that certain terms and conditions of permits or agreements (including Timber Rights Purchase agreements) are an unacceptable variance from the provisions of the current Act. The Board must specify the term or condition and indicate the action necessary to achieve compliance. A date must be specified for this to be done. If the permit holder or a party gives notification that the variation is not acceptable then the permit or agreement shall cease to have effect from the specified date.

It is conceded that the opportunity to apply this provision in a general way to all saved permits and agreements is no longer feasible. However numerous recommendations are made concerning its potential application to specific projects. The following objectives might be achieved in this way:

- The regularisation of problems arising from deficiencies in landowner organisation, particularly where so-called landowner companies are involved;
- The identification of opportunities for landowners to participate in projects and to otherwise benefit from them;
- The review of allowable cuts to achieve sustainability of logging in project areas;
- The regularisation and proper application of performance bonds; and
- Securing for the PNGFA a strong negotiating position where contentious negotiations with logging operators are called for.

Some consideration is given to the processes and requirements that apply to the use of s137(2) to achieve these objectives.

4.3.3 EXTENDING SAVED PERMITS (SECTION 78)

The projects under review that are affected by the uncertainty over this issue are identified. The nature of the uncertainty is explained and the fact that not less than six legal opinions have been expressed on this subject is noted.

Whilst it would remain acceptable for the PNGFA to resolve that no applications for the extension of saved permits will be entertained, it has been noted that an amendment to the *Forestry Act 1991* is proposed to clarify this fundamental issue. If such an amendment is to authorise the extension of saved permits, then it suggested that the amendment clarify the following matters also:

- That no extension of a permit can exceed the period of the underlying TRP, and that this applies retrospectively to instances where extensions have already exceeded the termination dates of TRPs;
- That the annual cut may not be increased but must reflect the remaining resource and the period proposed for the extension (the current s78 requirement for sustainability could therefore be qualified);
- That a detailed timetable for the delivery of outstanding infrastructure be applied, and that the performance bond fully reflect the estimated cost of the outstanding obligations; and
- That the Board retain its powers under s137(2) to impose variations so as to achieve compliance with the provisions of the Act (subject to the qualification concerning the requirement for sustainability).

4.3.4 THE ENVIRONMENT ACT 2000

This Act has been in effect since January 2004. There are numerous provisions that are relevant in the forestry context. Regulations have been made under the Act and these prescribe forestry activities as either Level 2 or Level 3 Activities, depending on the volume of the AAC.

The approvals given to Environment Plans applying to current logging operations are deemed to be Environmental Permits under this Act. New operations (including the Government's 10 "impact" projects) will require environmental impact assessments and permits.

There is a useful provision which requires persons who cause environmental harm, or who create a risk of it, to notify the Director⁵⁹. This is a new and useful obligation that will apply to logging operators, and they should be given clear notification of it.

There is a wide range of enforcement options under this Act which would have clear application to forestry operations. These may be broadened if the Logging Code of

⁵⁹ The Environment Act 2000 refers to the "Office of Environment and Conservation" headed by a Director. In practice, as at August 2004, the institution is still referred to as the Department of Environment and Conservation headed by the Secretary.

Practice were to be adopted as an Environment Policy under the Act, and it has been suggested that consideration be given to this.

The fact that prosecution and other enforcement action can only be taken under this Act by the Director of the Office of Environment and Conservation (OEC), or an authorised officer, will require very close cooperation between OEC and the PNGFA if this Act is to be usefully applied to control logging operations, and their adverse effects on the environment. The current draft Enforcement Policy is silent about aspects of this necessary cooperation, and it is suggested that this be rectified.

4.3.5 THE LAND GROUPS INCORPORATION ACT

No serious deficiencies in relation to the substantive provisions of this Act have been identified in this Review, or in previous reviews. There is a need however for it to be effectively administered by a responsible government agency.

It has been suggested in relation to a number of projects that landowner organisation deficiencies could be rectified by imposing a requirement that Incorporated Land Groups replace the so-called landowner companies where dysfunction has occurred and impede effective involvement of landowners and the equitable distribution of benefits.

5. THE FUTURE PROFILE OF THE PNG FORESTRY SECTOR

Appendix 2 details the selection of the logging projects to be examined for this review. It is noted that by removing from consideration:

- Those Timber Permit areas where the authorisation expires within 12 months (of June 2003) and there has been no indication that an extension will be sought (typically because the resource is nearly exhausted); and
- Those Timber Permit areas where the authorisation has more than 12 months to run but it is estimated that the remaining forest resource will be exhausted within the next two years at the current level of harvesting;

that only 14 logging projects remain. A summary of the types of project set out in Section 1.3.2 of this Report divides the 14 projects into 12 authorised before June 1992 under the previous Forestry Act (when sustainability was not yet a specifically stated forest policy objective), and two authorised after June 1992 under the current National Forest Policy 1991 and the current Forestry Act 1991.

Whilst some of the 12 Timber Permits authorised under the previous Forestry Act have been given short term extensions to allow the remaining forest resource to be harvested, the permits issued under the previous Act will eventually all expire, and the sector will consist only of forestry projects authorised under the Forestry Act 1991. These projects have, or will be, structured to be individually sustainable, and hence be the basis for long term ongoing timber production, and require long term monitoring and control. Consequently the main logging camp, wherever it is set up, will be a permanent log production centre, and thus warrant investment in more permanent infrastructure and services than was warranted for the unsustainable Timber Permits authorised under the previous Act. This includes logging company infrastructure, as well as infrastructure to support monitoring and control, and to meet the social needs of the landowners, company and Government personnel.

The PNGFA is currently working on 10 new projects which were identified by the 2000/2001 Review Team as possibly having the potential to support a financially viable log export operation. The current Government has identified these as “impact projects”, and has indicated that it wishes to see them become operational as a matter of priority to support the Government’s Export Led Economic Growth Strategy. The 2000/2001 Review Team noted that:

The work of the Review Team has identified four “in process” projects which have the potential to become sensible viable log export projects (sustainable annual log yield of 70,000 m³ or more). However in all cases there is a need to revisit aspects of the project for remedial action⁶⁰. The four projects are East Awin, Amanab Blocks 5 & 6, Kamula Doso and Asengseng Consolidated. These should be priority projects for further development by the National Forest Service.

⁶⁰ One of the key required actions was verification of the forest resource estimates by the PNGFA. A review of the sustainable AAC for the East Awin project undertaken by the Review Team in February 2004 suggests that the forest resource estimate in this case is excessive, and that the sustainable AAC may be as low as 37,500 m³ compared to the estimate set out in the Forest Management Agreement and authorised under the Timber Permit of 141,000 m³.

Depending on the policy decisions made regarding the exclusion of logging from Fragile forests; the adoption of a 40 year cutting cycle (as required by the National Forest Policy); and the full implementation of the PNG Forest Authority's right to set aside 10% of the loggable area under a Forest Management Agreement for conservation purposes, then a further six projects may have the potential to be developed into viable log export projects. These are Rottock Bay Consolidated, Amanab Blocks 1-4, Middle Ramu Block 1, East Pangia, April Salumei and Cloudy Bay. All require remedial actions.

(Underlining added).

It would seem sensible for the PNG Government, when granting a Timber Permit for any one of the above mentioned project areas, to at the same time support the development by ensuring that a township is included in the Government planning and budgeting process with respect to the need for civil servants, in particular the police, health and education.

The Project Development Benefit (PDB) gazetted in July 1996 provides for 60% of the payment to be spent on infrastructure development within the Timber Permit area, as decided by a Project Development Committee comprising of representatives of the PNGFA, the Incorporated Land Groups (representing the landowners of the area), the Provincial Government and the Timber Permit holder. It would seem sensible for at least part of the funds to be spent on social infrastructure within the township according to local priorities.

The recommendations made in this report anticipate a permanent central township for all the forestry projects set up on a sustainable basis in compliance with the National Forest Policy 1991.

6. DISCUSSION AND CONCLUSIONS

6.1 REVIEW OBJECTIVES

With regard to existing logging projects, this review is a PNG Government response to it's concern to:

Ensure that the forest industry is moving satisfactorily towards a sustainable harvest yield basis, environmentally acceptable logging practices and is providing meaningful long term benefits to landowners.

Within this framework the review Terms of Reference specify that the primary aims of the review are to:

- *Assess overall compliance by existing logging projects; and to*
- *Review the standards and procedures available for the monitoring and control of the industry;*

and through this process to:

Identify weaknesses and problems within the operation, monitoring and control of the PNG forest sector, which may be hindering progress towards meeting the Government's key forestry objectives, which include ensuring "the management of the nation's forest resources as a renewable asset".

6.2 OVERVIEW

A broad overview of the sustainability situation with regard to the current logging projects harvesting the natural forests of PNG is as follows:

- The Timber Permits granted under the previous legislation were not designed to be sustainable. They are gradually expiring. Whilst the new Forestry Act 1991 provided powers (s137) to bring these projects into line with the requirements of the National Forest Policy 1991 (essentially reducing the permitted annual allowable cut to a sustainable level), the limited attempt made soon after the commencement of the Act was not successful. The opportunity to comprehensively restructure any of the logging projects authorised under the old Act has now passed. Although the term of some of these projects is being extended to allow harvesting to be completed, it is expected that nearly all of these projects will have exhausted their forest resource and ceased operations by 2010.
- The Timber Permits granted under the Forestry Act 1991 are designed to operate on the principle of sustainable timber yield, and logging projects of this type will make up the natural forest logging sector in the future. Three currently operating logging projects have been set up on this basis, and a further ten are in various stages of development towards a Timber Permit. The current Government is

pressing to have these ten projects operational by the end of 2004 as a contribution towards its export led economic growth strategy. Under this strategy they are referred to as “impact” projects. Given the limits of the remaining loggable forest resources in PNG, it is likely that the future logging industry will consist of 10 to 15 large scale logging projects, each sustainable in its own right.

- For the log production to be sustainable, certain necessary inputs must be available also on a sustainable basis. These are:
 - Political will, and support from the National Executive Council and the relevant Ministers (in particular the Minister for Forests);
 - Policies, laws and where necessary regulations and guidelines (including standards for environmentally acceptable logging practices);
 - Regulatory institutions with the will, power and resources to enforce the laws, regulations and guidelines;
 - Adequate log prices to meet all costs (including normal profits for the logging industry);
 - Land suitable for natural forest management which the landowners are willing to make available on a sustainable basis in return for benefits that are meaningful to them;
 - Management of the forest resource which under the standard Forest Management Agreement is the responsibility of the State;
 - A financially sustainable logging industry capable of regularly replacing its equipment and earning sufficient profits to keep it engaged in the sector; and
 - A sustainable supply of skilled labour willing to work for the regulatory institutions and the logging industry.

6.3 MAIN FINDINGS

The findings of the review relate to the inputs necessary to support sustained yield forestry in PNG as listed in Section 6.2 above.

6.3.1 POLITICAL WILL AND SUPPORT

Whilst the Government of the day has supported sustained yield forestry by adopting the National Forest Policy 1991, and enacting the Forestry Act 1991, most successive Governments have been more interested in the immediate cash flow that new forestry projects might provide rather than ensuring that the current logging operations are managed on a sustainable basis. One point of view is that the requirements spelt out in the Forestry Act 1991 are onerous, and unnecessarily frustrate the granting of new Timber Permits.

There have been a number of public examples of Ministers for Forests, and/or the PNG Forest Authority, acting against the spirit of the National Forest Policy and/or the specific requirements of the Act. Examples over the last ten years include:

- The granting of Timber Permit 2-16 Vailala 2 & 3 in 1992 before the rights to the forest resources were secured from the landowners. Whilst a Forest Management Agreement with the Incorporated Land Groups representing the landowners was put in place in 1995, the project remains the subject of ongoing court actions by landowners.
- The granting of Timber Permit 15-58 Seraji & Seraji Extension in 1995 to Nangal Ltd. This was granted by the Minister using the provisions of the old forestry legislation, despite the fact that it had been repealed. It is unclear why the permit has not been revoked or challenged.
- In August 2000 the Minister for Environment and Conservation granted an Environmental Plan for the East Awin concession area without the advice of his Department. Whilst not illegal, circumventing available technical input is not considered to be supportive of the Forest Policy 1991.
- The granting, in 2001 by the Board of the PNGFA, of the rights to the Kamula Doso area as an extension to TP 1-7 Wavoi Guavi. This was reviewed by the Ombudsman's Commission in 2002. The Ombudsman concluded that the award of the project as an extension was based on improper considerations, that the PNGFA Board seriously violated the Forestry Act, and that the conduct of certain members of the Board and consecutive Ministers for Forests was wrong. This situation remains unresolved.
- The granting of a Timber Permit by the Minister for Forests in 2003 for East Awin providing for an annual allowable cut of 141,000 m³, when serious concerns regarding the PNGFA's estimate of the harvestable resource had been raised, and significantly lower estimates had been produced.
- The signing of a Project Agreement by the PNGFA Board Chairman for the Amanab Blocks 1-4 in March 2004 when it was well known that some 75% of the forest was classified as fragile, and that a 35 year cutting cycle was not a suitable basis for calculating the allowable annual cut. This is despite a warning from the office of the Chief Secretary to Government, and a lack of full support from the Board⁶¹.
- The granting of a Timber Permit by the Minister for Forests in 2004 for Amanab Blocks 1-4 with a term of only 10 years.

PNGFA staff were involved in all of the examples set out above.

⁶¹ The PNGFA Board did agree to the project "in principle". It appears that the members of the Board considered this to be no more than an indication that they did not object to the project subject to outstanding technical issues being resolved. It appears that the Chairman chose to interpret this as formal Board approval that the project should proceed. Although the Project Agreement is now signed, the outstanding technical issues remain.

The above examples indicate that political commitment to the implementation of the National Forest Policy 1991 could have been stronger. Since 1993 successive Ministers for Forests have failed to produce the National Forestry Development Guidelines required under s47(2) of the Act, which was designed to facilitate political input and direction.

The Review Team is aware of the current Government's stated plan to have 10 new logging projects operational by the end of 2004, after failing to have them operational by the original target date of end 2003. The main direct contribution the new logging projects can make to the Government's export led economic growth strategy is to contribute to Government revenue through the payment of log export tax. The further development of new logging projects is currently stalled by the apparent inability of the PNGFA to deal with outstanding technical issues. This appears to be a management issue, rather than a lack of skills. A shortage of funds is often quoted as the reason, but in the opinion of the Review Team the funding issue relates more to a lack of clearly defined priorities, exacerbated by a deficient management information system.

It is notable that the Government, despite a request from the PNGFA, has not yet allocated any funding to cover the cost of the staff and equipment which will be required to impose proper monitoring and control for the 10 new logging projects the Government is promoting.

A corollary to the Government's wish to receive revenue from new logging projects is the absence of political support for closing down any of the existing logging projects.

6.3.2 POLICIES, LAWS, REGULATIONS AND GUIDELINES

The support provided to PNG after the National Forest Policy 1991 was adopted through the multi-donor supported National Forestry and Conservation Action Plan (NFCAP) contributed significantly to the development of appropriate regulations and guidelines for sustainable logging. In the opinion of the Review Team the existing laws, regulations and guidelines are generally appropriate and sufficient to enable the achievement of sustained yield forestry. It is noted however, that amendments to the Forestry Act 1991 relating to sectoral planning and the conduct of Registered Forest Industry Participants, approved by the NEC in early 2001, are yet to be incorporated into the Act.

The main concern up to the end of 2003 would have been that the requirements set out in DEC's 1993 "Specific Guidelines for Forestry Harvesting Operations" under s5 of the Environmental Planning Act 1978 placed, in the opinion of the Review Team, an unreasonably onerous obligation on Timber Permit proponents.

The commencement of the Environment Act 2000 in January 2004 effectively repealed all of the existing environmental regulations and guidelines. For logging projects with an annual allowable cut of 70,000 m³ or more, the Act spells out a relatively onerous process for the granting of a mandatory Environmental Permit. As at August 2004 DEC does not have the resources to fully implement this new legislation. Of particular concern is that the requirements of the Act will impede the development of new logging projects (including the current Government's ten "impact" projects), as the Forestry Act 1991 requires that an Environment Plan (now replaced by an Environmental Permit) be approved before the Minister for Forests can grant a Timber Permit.

There is an urgent need for DEC and the PNGFA to collaborate in determining how the Environment Act 2000 will most effectively be applied to new logging projects, and in particular the ten “impact” logging projects being promoted by the current Government.

6.3.3 REGULATORY INSTITUTIONS

The key regulatory institutions in achieving sustained timber production are the PNG Forest Authority and the Department of Environment and Conservation.

The PNG Forest Authority

The PNG Forest Authority is responsible for the monitoring and control of logging operations in the field. It uses a system of plan approvals, monitoring during logging, and post logging inspections to ensure that logging standards are observed by the logging companies. In terms of providing a PNG Government presence in the field, the PNGFA significantly outperforms all other Government Departments and Authorities.

An observation of the Review Team is that the PNG Forest Authority today is a mere shadow of the institution it was during the late 1990s. The reason appears mainly to be a lack of leadership, or leadership which has used the institution for its own ends rather than focusing on the implementation of the National Forest Policy 1991 and the Forestry Act 1991. It is noted that Government has recognised this issue, and in May 2004 passed the Regulatory Statutory Authorities Act⁶². The issue has a serious consequence for the Forestry and Conservation Project which will need to direct some of its resources into rebuilding the PNG Forest Authority as a professional and committed institution, if the project’s wider forestry sector objectives are to be met.

The finding of the Review Team is that the field monitoring and control by the PNGFA is generally fair, but that there are many cases where breaches of the logging standards go un-reported, and/or are not acted upon. In part this is due to the general reluctance of senior management to support the suspension of logging operations on the grounds that this would be politically and socially undesirable, as it would threaten the flow of log export taxes to Government, and the flow of royalties and other payments to landowners. A similar attitude is sometimes evident in the minutes of the meetings of the PNGFA Board.

In some instances the number of field based PNGFA Project Supervisors and Monitoring Officers is clearly insufficient to properly monitor and control the logging operation, and need to be increased as a matter of urgency.

Although the monitoring and control of logging operations is the core business of the Forest Authority, the management of the institution’s finances does not recognise this by imposing any system to set priorities for expenditure. Currently it is the case that significant over-expenditure by other arms of the Authority has inappropriately caused field monitoring and control to be curtailed through the lack of available funds.

⁶² This is a constitutional amendment which regulates the appointment of Chief Executive Officers and non ex-officio members of Boards of regulatory statutory authorities such as the PNG Forest Authority. Appointments must now be merit based, and are subject to vetting by the Public Services Commission.

In the broader context there is a reluctance by the PNGFA to deal with industry as a regulator, and in the view of the Review Team, an overly cautious response to the perceived threat of legal action. The latter relates to some extent to the quality of the legal services available. In many cases the powers conferred by the Act could be used more effectively to achieve a stronger negotiating position for the State.

There are examples of the PNGFA appropriately involving the industry in discussions regarding the updating of procedures (e.g. waste assessment), but inappropriately allowing industry to drive the outcome. It is the responsibility of the PNGFA to make decisions in this respect.

As well as being responsible for the field monitoring and control of existing logging projects, the PNGFA is responsible for the development of new projects. The 2000/2001 Review of Projects Being Progressed Towards a Timber Permit or a Timber Authority identified 10 projects which in the opinion of the Review Team had the potential to be further developed into sustainable forestry projects, subject to inventory to check the resource and the sustainable annual allowable cut, the resolution of some sectoral technical issues, and some project specific remedial actions. A time bound action plan for the PNGFA (and DEC) to address the technical issues and the remedial actions required was approved by the NEC in 2001, and again in 2003. As at August 2004 there is little evidence that effective progress has been made.

The Department Of Environment And Conservation

The Department of Environment and Conservation is essentially non-operational in the forestry sector. The lack of operational funds means that the Department cannot undertake its field monitoring and control responsibilities with regard to Environmental Plans and Water Use Permits for logging projects. It would appear that Government needs to make a decision to either dis-establish DEC (and save the current annual budget allocation of about K4.0 million, but thereby passing the responsibility for the environment to the other relevant Departments), or provide at least some funds for operations. The issue is of concern to the success of the Government's Forestry and Conservation Project which is designed in part to support and strengthen the Department.

6.3.4 LOG PRICES

Current log export prices at about K185/m³ are insufficient to meet the costs of providing all the requisite inputs for sustainable timber production, even before consideration of the cash the Government extracts from the sector in the form of log export taxes. The imposition of log export taxes only exacerbates this situation, and acts directly to undermine the achievement of sustainability. The breakeven FOB log price required to cover the cost of all the inputs required is estimated to be about K226/m³. The current log export tax regime raises this to about K400/m³. Data supporting these figures is set out in Appendix 11.

6.3.5 LAND AND LANDOWNER PARTICIPATION

For new logging projects, landowners make their land available for sustainable log production by means of a Forest Management Agreement with the State. Their willingness to do so indicates that they see the promise of royalties and Project

Development Benefit payments, plus some employment opportunities, as the best use of their land.

The Review Team however, is not convinced that landowners properly understand the very long term nature of the Forest Management Agreement, and the fact that the agreement effectively ties their land to perpetual use for timber production (and thereby effectively excludes other land use options such as oil palm development). In the opinion of the Review Team, the view of the landowners is that for the offered payments and non-monetary benefits they are allowing their land to be used for logging, rather than long term sustainable timber production. In addition they view the terms of the contract to be periodically renegotiable (but only if this favours them), and that at some future time (but not too long a period of time) they will regain the full control over the use of their land. Given the multi-generational time span of the Forest Management Agreement, it is the opinion of the Review Team that the Government and the logging industry will at some time be challenged regarding the long term rights the agreement gives to the Government. The likelihood of a serious challenge might be reduced if the Government (through its regulatory agencies) were to exercise improved control over logging operations, especially in the area of environmentally acceptable logging practices, and were to be seen to be investing in forest management.

Landowners were often found to be internally divided, misled by their own representatives, and to have little access to independent guidance or advice. Due to the lack of a Government presence at many of the logging sites (other than the PNGFA), the logging company is often regarded by landowners as the de facto Government. This undesirable but understandable perception significantly reduces the power of the landowners in their dealings with the logging companies. Dealing with landowners and their ongoing disputes takes up a great deal of time for both the logging company and the PNGFA Project Supervisor on site.

There is significant concern regarding the potential abuse of so-called Landowner Advance Accounts run by many logging companies. Typically these are used by the logging company to accumulate the costs of landowner demands (cash, fuel, travel, accommodation, legal services etc), and then charged against royalty or log export premium payments when they become due. Given that the logging company is not required to justify any advances, or to ensure that cash advances are properly acquitted, then there is no landowner control over the use of their funds.

That landowners receive meaningful long term benefits from logging projects is a concern of Government and landowners alike. In most cases the continued reliance on so-called landowner companies mitigates against effective collective investment in community infrastructure, and the equitable distribution of some entitlements. Serious irregularities have been detected. In some cases the so-called landowner companies have only one or two shareholders. It has been suggested that invoking s137(2) of the Act to require the incorporation of land groups where this does not already exist may assist in resolving these problems. The lack of rural services such as banking, mitigates against individual landowner investment.

6.3.6 FOREST MANAGEMENT

One of the keys to sustainable log production is appropriate forest management. In this sense logging should be seen as a forest management tool, rather than something

which precedes management. Under the standard Forest Management Agreement the responsibility for undertaking forest management lies with the State. Logging needs to pay careful attention to minimising the damage to the next crop of trees, and to existing regeneration. Failure to do so will either significantly delay the harvesting of the second cut, or destroy the ability of the forest to produce commercial trees. All logged areas need to be assessed with particular attention to ensuring that the growth potential of the site is focussed on commercial rather than non-commercial tree species. Experience to date indicates that about 50% of logged forest benefits significantly from investment in silviculture (thinning, inter-planting etc).

Currently the State does not fulfil its contractual obligations in this regard.

6.3.7 THE LOGGING INDUSTRY

An essential input to sustainable timber production is a financially sustainable logging industry. This means an industry which is able to replace its machinery as required, and is able to make sufficient profits to keep it engaged in the sector.

The findings of the Review Team are that currently the logging industry is not profitable. Whilst a logging capacity can be maintained in the medium term by repeated rebuilding of key equipment, this is not sustainable in the long term. It is the opinion of the Review Team that unless the industry becomes more profitable, that the current logging capacity in PNG will decline and eventually disappear within 10 – 15 years.

Numerous breaches of logging and environmental standards by the logging companies were noted by the Review Team. A number of logging companies noted that the felling of trees inside designated buffer zones happens at the insistence of the landowners, who will disrupt the logging operation if their wishes in this regard are not met. As noted previously it is the opinion of the Review Team that improved compliance depends mainly on more assertive monitoring and control by the relevant Government institutions. However a more supportive attitude on the part of most logging companies would also help significantly.

The performance of logging companies at 14 logging projects was assessed. The Review Team note the superior performance of Open Bay Timbers Ltd (at TP 15-53 Open Bay), PNG Forest Products Ltd (at TP 13-33 Watut West), and Innovision (PNG) Ltd (at TP 1-9 Makapa). It also notes the seriously deficient performance of Kerewara Ltd (at TP 15-58 Seraji & Seraji Extension), Niugini International Corporation Ltd (TP 2-14 Vailala Block 1), Frontier Holdings Ltd (TP 2-16 Vailala Blocks 2 & 3), and the Wavoi Guavi Timber Company Ltd (TP 1-07 Wavoi Guavi). The latter three are subsidiaries of Rimbunan Hijau (PNG) Ltd.

6.3.8 SKILLED LABOUR FORCE

In order to achieve sustainable timber production, both the regulatory institutions and the logging industry require a sustainable supply of skilled workers.

The findings of the Review Team are that in some cases the pay rates for logging workers is insufficient for them to support a family without subsistence support, and that effectively the gardeners of the family subsidise the industrial worker. This situation

contributes to a significant rate of labour turnover, and difficulty in retaining trained workers.

Generally training of logging equipment operators is provided by the logging companies as “on the job” training. A significant level of labour turnover mitigates against investment in training.

For the regulatory institutions the findings of the Review Team are that most are paid reasonable salaries, given their urban locations. As a general observation the performance of the regulatory institutions is hampered by the lack of strategic thinking, the failure of management at all levels to call employees into account for their performance, and the tendency for workers to be reactive rather than proactive regarding their responsibilities. Significant attitudinal changes are necessary to overcome these shortcomings.

In the opinion of the Review Team much might be achieved by strong upper level management which is committed to achieving the objectives of the institution, and which is personally committed to strong support of staff at all levels. There are a number of examples of senior managers using their situation to position themselves for a political career rather than achieving the policies of Government, or backing up their staff, in particular field based staff tasked with monitoring and control. These staff are the Government’s interface with the other stakeholders in the field, and carry out the core business of the institution. Investment in enhancing management skills is required.

6.4 OVERALL CONCLUSIONS

The overall conclusion reached by the Review Team is that timber production in PNG’s natural forests is not sustainable under the conditions which exist at this time. However, in accordance with the requirements of the Constitution and the National Forest Policy 1991 it is incumbent on the Government to protect the productive capacity of the national forest resource, and the potential for future sustainable management, for the benefit of future generations. In order to achieve this specific attention needs to be paid to ensuring that all of the inputs required for sustainable timber production are available and properly applied. The main requirements are:

- A greater political commitment to the National Forest Policy 1991;
- More assertive monitoring and control by the Government regulatory institutions to ensure compliance with existing laws, regulations and standards;
- Some form of assistance to landowners (and perhaps regulation) to assist in the management of their own internal affairs, their relationships with the logging companies, and to ensure that the flow of landowner financial benefits is more equitably distributed, or pooled in a more democratic manner;
- Investment in natural forest management by the State;
- Some degree of financial relief for the logging companies in order that they may replace their equipment and thus maintain a long term viable logging capacity within PNG; and

- Some attention to logging workers rates of pay and conditions.

The conclusion that there is a need for financial relief for the logging industry is, as was pointed out by nearly all of the other key stakeholders, dependent on the assumption that there is no transfer pricing. Industry strongly denies that there is.

During the field work the Review Team observed numerous cases of logging company non-compliance with planning requirements, and logging standards. Representatives of other Government Departments and Authorities who joined the Review Team for the case study projects came to the same conclusion. Often the logging companies are blamed for this. Although it is true that the logging companies could perform better, it is the opinion of the Review Team that improved performance depends mainly on effective monitoring and control by the Government regulatory institutions. The control aspect, in the opinion of the Review Team, requires a significantly more assertive performance on the part of Government employees. This must include much greater use of the available sanctions, and back-up of field staff decisions by senior management.

For some of the relevant Government Departments and Authorities, it is clear that funding constraints limit their ability to travel to the field. Where there is no proper monitoring and control in the field due to a lack of operational funds, the Government is sending the signal that it is less than concerned.

The Terms of Reference seek the Review Team's views regarding a number of fundamental issues. Most are covered in the preceding discussion. The remainder are commented on as follows:

- Standards the logging industry can reasonably be expected to comply with.

It is the view of the Review Team that at this time the logging standards set out in the "24 Key Standards" are appropriate, and that industry can reasonably be expected to comply with these. Further it is the view of the Review Team that the Government regulatory agencies should at this time focus on compliance with these standards. Compliance with the full Logging Code of Practice can be introduced gradually once the 24 Key Standards are properly observed.

- Industry managerial capacity.

It is the view of the Review Team that whilst there are some language and cultural issues, the logging industry has the managerial capacity to ensure that logging is undertaken in compliance with the 24 Key Standards. If it does not, then buying managerial capacity is always an option. A more fundamental issue is the attitude of industry towards the Key Standards. This can only be improved through a combination of education, and effective monitoring and control by the responsible Government agencies to demonstrate that compliance is taken seriously.

Attention is drawn to the as yet unused power conferred by the Act under s137 for the Board to require variation to the terms and conditions of Timber Permits issued under the previous legislation (saved permits), and the potential to use this power to require the variation of any aspect of the permit which the Board considers is at variance with the provisions of the Forestry Act 1991, thereby providing a strong negotiating position for

the PNGFA where protracted or contentious negotiations with permit holders are called for. This might be used to address landowner organisation irregularities, or to implement a sustainable annual allowable cut.

In addition, attention is drawn to the findings of the 2000/2001 Review of Forest Harvesting Projects Being Progressed Towards a Timber Permit or a Timber Authority, and the 2002/2003 Review of the Extension of Six Timber Permits. In each case the recommendations made were accepted by the National Executive Council, and the Council issued a direction for implementation. A number of the recommendations were targeted at creating an improved sectoral planning framework for sustainable timber production. Many of the recommendations are yet to be implemented.

Given the number and range of breaches identified during the field work for this review, action should be taken by both DEC and the PNGFA without delay to apply their respective legislative powers to the offending logging companies, to indicate to the sector that a new and effective regime is in place.

7. RECOMMENDATIONS

7.1 OVERVIEW

The Review Team's observations of the natural forest logging sector in PNG are that:

- The sector operates within a current political framework which cannot be said to be fully understanding or supportive of the sustainability objective, or the attention to environmental impacts that this demands.
 - Although a previous Government put in place a requirement for sustainable timber production through the National Forest Policy 1991, the current Government does not show any overt support for the policy. The general perception is that under the current Government's Medium Term Development Strategy 2003-2007 its main concern is to increase Government revenue by establishing additional logging projects, and to ensure that none of the existing logging projects are shut down.
 - The current Government has announced that as part of its Export Led Economic Recovery Strategy, that it wishes to see 10 new logging projects become operational as soon as possible. However PNG Forest Authority requests for the additional financial resources to properly monitor and control logging (housing, vehicles, additional staff salaries) have been declined to date.
 - The current Government does not provide sufficient funds for the nation's principal guardian of environmental values and standards (DEC) to be effective in the forestry sector.
 - The State does not meet its obligations to the landowners under the Forest Management Agreement to manage their forest.
 - Although the Government takes about K110 million per annum out of the sector, there is no visible Government support for rural social development in the logging communities, especially in the areas of health, education, and law and order. Logging company investment in school and health clinic buildings are often wasted due to the lack of integration with Government planning, and the consequent non-availability of qualified personnel and supplies.
- The forest is owned by landowners who:
 - Are keen to support any development activity in their area which brings direct monetary benefits, or any employment opportunities. In many remote locations logging is the only option available to them.
 - Do not fully comprehend that by entering into a Forest Management Agreement with the State that they are dedicating their land to long term sustainable forestry, and that this (in theory at least) prevents other uses

of their land after the initial logging. Dedication of the forest to long term sustainable timber production is a key requirement if the objectives of the National Forest Policy 1991 are to be met. Security of land tenure is required to justify State investment in silviculture.

- Are internally divided; who are often represented by so-called landowner companies who do not have representative shareholding and/or are not properly accountable to landowners at large; and who compete strongly amongst themselves for power and influence.
 - Lack the skills (and typically the inclination) to manage funds for long term community benefits.
 - Do not have easy access to independent legal, financial and technical advice. Although some legal advice may be provided by the PNG Forest Authority lawyer when landowners are represented at the relevant meetings of the Provincial Forest Management Committees, the advice cannot be interpreted as being without vested interest. Some NGOs provide forestry advice to landowners. Generally this is conservation oriented, and not supportive of industrial scale logging.
 - Are not adequately represented as a stakeholder group, or supported by any independent institution to advocate for them, or to assist in managing their affairs.
- Logging and marketing is undertaken by an industry which:
 - At current FOB log prices is operating under a financially unsustainable forest revenue system, and which consequently is investing insufficient capital in equipment replacement for the current national logging capacity to last more than 10-15 years. This is not sustainable.
 - Although more expensive than local workers, some logging companies engage expatriates in positions that could be filled by qualified Papua New Guineans. According to reports from the Department of Labour and Industrial Relations logging companies often exaggerate position descriptions to support work permit applications. The view of the industry is that it is difficult to retain qualified Papua New Guinean workers, especially those with families, in the isolated setting of logging camps where there are no Government services.
 - Needs to improve it's performance with regard to compliance with the environmental guidelines and standards set out in the 24 Key Standards.
 - Suffers from an inflexible work permit system whereby work permits are site and position specific. This makes it difficult to relocate expatriates from one logging project to another during periods when logging stops, for example the wet season, even though they may not be changing employer or position. If complied with, this causes additional expense.

- Is not clear that the Government's Forestry and Conservation Project is not tasked with stopping commercial scale logging.
- Environmental monitoring and control is the responsibility of a Government Department (DEC) which:
 - Is currently not functioning in the forestry sector, mainly as a consequence of a lack of staff and operational funds.
 - Is as a consequence seriously demoralised.
 - Is responsible for the implementation of a new Environmental Act, but does not have the resources to do so.
- Forestry monitoring and control is the responsibility of a Government Authority (PNGFA) which:
 - For most logging communities is the only Government representative at the site. Consequently most landowner queries and requests for assistance are made to the Project Supervisor, although s/he is not qualified to provide advice and information except on forestry matters. Project based staff generally work hard despite a number of significant constraints and impositions.
 - Has lost it's focus, partly due to a period of poor management and direction. There also appears to be a lack of coordination and cooperation between the various Divisions, and no productive interaction with the Forest Research Institute regarding sustainable timber production.
 - Is seriously overspending it's financial resources. Field monitoring and control by Field Services Division is compromised due to funds being used for other purposes. This has contributed to inadequate monitoring and control field staff, inadequate housing and vehicles, and inadequate support for and training of field based officers.
 - Appears to not appreciate that forest management (field monitoring and control of logging, and silvicultural activities) are it's core obligations, and that this needs to be given priority. The MTDS states that the "National Forest Authority's primary role will continue to be the management of the harvesting of natural forest resources".
 - Does not yet understand the implications of the Environmental Planning Act 2000 on new forestry projects, especially those with a sustainable AAC of 70,000 m3 or more.
 - Needs to improve its budgeting and financial management to ensure that performance in core areas is not compromised by expenditure on areas of lesser priority.
 - Needs to improve its recording of incoming and outgoing royalty payments in order that it can account properly to the landowners.

- Needs to improve its monitoring and control of logging company compliance with the law, and the terms and conditions of the Timber Permit and Project Agreement, in particular with regard to performance bonds.
- Logging projects take place within the jurisdiction of a Provincial Administration which:
 - Is frustrated at its lack of meaningful involvement in the preparation of Provincial Forestry Plans.
 - Is frustrated at the lack of communication with the PNGFA Planning Division which plans new projects in its area.
 - Is concerned that the technical and legal advice given to the Provincial Forest Management Committee comes from the PNGFA, and does not necessarily reflect the wider concerns of the Province.
 - Has little incentive to become involved in logging projects as there is no direct financial benefit to them. Despite this it is the Provincial government which is expected to maintain roads and staff schools and health clinics.

7.2 RECOMMENDATIONS

The following recommendations are made:

7.2.1 RECOMMENDATIONS TO THE GOVERNMENT INTER-AGENCY FORESTRY COMMITTEE (IAFC)

It is recommended to the IAFC that it:

- Informs the National Executive Council (NEC) of the findings of this review, together with the views of the IAFC.
- Seeks the NEC's approval, through a formal NEC direction, that the following proposed actions be formally supported by Government and implemented by the relevant Departments and Authorities:
 - Amendment of the Forestry Act 1991 to clarify that the term of Timber Permits authorised under previous legislation may be extended subject to specified conditions. The conditions to include that the extension cannot exceed the remaining term of the Timber Rights Purchase agreement; that there be no geographical extension to the permit area; that a performance bond is in place; that the extension is consistent with the Annual Allowable Cut and the remaining resource; and that the extension does not exempt the permit from s137(2) of the Forestry Act.
 - Amendment of s60(b)(iii) of the Forestry Act to provide that all gravel used by the Timber Permit holder be charged at the rate set by the

Government Valuer General, as already provided for in most Forest Management Agreements, thus settling this point of contention between landowners who are paid and those who are not.

- That s57 of the Forestry Act be extended to require that landowners be required to set up a project wide Representative Landowner Body to properly represent all of the Incorporated Land Groups. This body should then represent the landowners in dealings with the Project Benefit Committee which is required to be set up under the Project Development Benefit levy system which applies to all Forest Management Agreements signed since the late 1990s. The current so-called landowner companies which purport to represent the landowners should be prohibited from performing this function. The PNG Forest Resource Owners Association is not suited to this purpose, and in addition has been moribund for some years.
- That the Government, through the Internal Revenue Commission, obtains independent professional assistance to investigate transfer pricing, and that if no verifiable evidence is found, that the current level of log export tax be reduced in order to improve the profitability of industry.
- That in order to minimise the unwarranted changes in log export tax resulting from variations in the exchange rate, that the Internal Revenue Commission bases the proportion of the FOB price charged as log export tax on the currency in which logs are traded, i.e. the US dollar.
- That for all FMA based sustainable forestry projects, including the 10 new logging projects planned by the Government under the MTDS, that these be supported by Government investment in basic infrastructure and service delivery for the permanent logging communities which these will create. That this include a Local Level Government presence, and staffed and appropriately funded schools and health clinics.
- That the Government provide the PNGFA with sufficient additional funds to finance the proper planning monitoring and control of the 10 new logging projects it wishes to become operational. That this includes adequate staffing, housing, vehicles and equipment.
- That the PNGFA be restructured to reintroduce landowner liaison officers at the regional offices to work with and support the Landowner Decision Making Support unit to be set up under the Forestry and Conservation Project (extended as recommended below).
- That on the appointment of a new permanent Managing Director for the PNGFA that the appointee be required to review his senior staff resources with a view to replacing those who are not committed to the proper undertaking of the core business of the Authority.
- That the Department of Treasury and Finance provides the Department of Environment and Conservation with sufficient funds under it's 2005 budget allocation to re-establish a forestry monitoring unit for the field

monitoring and control of compliance with Environmental Plans. The allocation to include adequate funds for regular field operations.

- That for logging projects based on a Forest Management Agreement, that a standardised forest management levy of K 4.00/m³ of log harvest be introduced, accompanied by removal of the current reforestation levy and a reduction in the log export tax rate so that there is no net increase in cost to industry. The proceeds to be allocated to natural forest management to be undertaken by the PNG Forest Authority.
 - That the PNGFA Board arrange an independent audit and review of the management and use of the Reforestation Levy Trust Fund, and the collection and payment of timber royalties on behalf of landowners.
 - That the Department of Treasury and Finance makes financial allocation in the 2005 budget to the Department of National Planning and Monitoring to set up a “Timber Permit Monitoring Fund” for Government Departments and Authorities other than the PNGFA and DEC to draw on for making field monitoring visits to logging project sites. That the Department of National Planning and Monitoring establish rules for use of the fund, and direct the Government Departments and Authorities to undertake field monitoring visits from time to time.
 - That a system of financial penalties for breaches of the 24 Key Standards be established, and that the PNGFA and DEC use their powers to take action against those logging companies which are in breach.
- Recommends to the Managing Director of the PNG Forest Authority that he distributes copies of this review report to senior National Forest Service managers, and arrange a seminar to discuss the findings and recommendations, and to prepare the National Forest Service’s views for presentation to the PNGFA Board.
 - Recommends to the Managing Director of the PNG Forest Authority that he distribute copies of this review report to the Forest Authority Board for it’s consideration, together with the views of the National Forest Service.
 - Recommends to the Secretary of the Department of Environment and Conservation that he distribute copies of this review report to his senior management team, and arrange a seminar to discuss how DEC might effectively re-engage in it’s field monitoring and control obligations.

7.2.2 RECOMMENDATIONS TO THE PNG FOREST AUTHORITY BOARD

It is recommended to the PNGFA Board:

- That it cease forthwith the practice of “approving in principle” any plans, agreements, documents or other matters, and instead only provide approval when all outstanding concerns have been satisfactorily resolved.

- That it consider the use of s137(2) of the Forestry Act as a means of rectifying problems with specific Timber Permit projects where these relate to regularisation of landowner arrangements or setting a sustainable annual allowable cut, thereby securing for the PNGFA a strong negotiation position where potentially contentious negotiations are called for.
- That it reconsider the proposed role for the National Forest Board Secretariat to act as a Probity Commissioner in light of the fact that the Secretariat will depend on the technical expertise of the National Forest Service which it is expected to be independent of.
- That it directs the National Forest Service to immediately require all Timber Permit holders to provide proof of the existence of a current performance bond which meets the requirements of the Forestry Act 1991 and the Forestry Regulations 1998 as amended.
- That where appropriate to do so, that it directs the PNGFA to draw on the performance bonds, especially with regard to logging projects originally authorised under the previous legislation and which are about to expire, and where the full complement of specified social infrastructure has not yet been delivered.

7.2.3 RECOMMENDATIONS TO THE PNG FOREST AUTHORITY

It is recommended to the PNGFA:

With regard to legal issues:

- That the proposed vesting of powers⁶³ of appointment of certain Board members, and a power to dismiss all Board members, in the Minister be reconsidered. Instead consideration should be given to making appropriate delegations of the powers of the National Executive Council to the Minister.
- That it strengthens its in-house legal capacity.

With regard to monitoring and control of logging:

- That it prepare a clear corporate statement of objectives and priorities which reflect the institution's responsibilities under the Act and the various agreements (Forest Management Agreements and Project Agreements) it has entered into on behalf of the State. These dictate that the core business of the PNGFA is to regulate the forestry sector, to monitor and control logging, and to manage natural forests. The same "primary role" for the PNGFA is set out in the Government's MTDS.
- That it review its manpower, vehicle, office and housing resources with a view to ensuring that all logging projects are properly monitored and controlled in accordance with the Planning Monitoring and Control Procedures. This to include

⁶³ As set out in a draft submission to the NEC prepared by the PNGFA setting out a number of proposed amendments to the Forestry Act 1991.

communication facilities which do not rely on the services of the logging companies. This to also include relocation of under-utilised staff in other regions to Southern Region.

- That in order to locate field staff with families in locations where basic services are available, that the PNGFA establish forestry stations at Kerema and Kikori to service the Vailala 1, Vailala 2&3, and Turama Extension forestry projects.
- That it implement a system of mobile inspection squads based on the regional offices, so that additional monitoring and control capacity can be quickly moved to the logging projects where it is needed. This applied especially to Southern Region.
- That it immediately review and improve it's record keeping system for tracking royalty receipts and payments, and cross checks payments against log production data.
- That it take immediate action requiring all Timber Permit holders to provide proof that their performance bonds are appropriate and current.
- That it immediately reintroduce waste assessment as an integral component of the Planning Monitoring and Control Procedures, if necessary using the existing methodology.
- That it strengthen the Mapping Branch to service the Field Services Division as well as Planning Division. That Mapping Branch explores the opportunity for cooperation with the UPNG Remote Sensing Project with regard to the possible exchange of information which might be used to assist with field monitoring and control.
- That it obtain a clear legal interpretation regarding the requirement under the Act for licences (Subdivision E).
- That it re-institutes annual regional workshops for field based Project Supervisors and Monitoring Officers.

With regard to management of the natural forest:

- That in cooperation with the Forest Research Institute, the PNGFA examine species specific minimum felling diameters with a view to replacing the current standard 50 cm limit applied across all species.
- That consideration be given to reserving trees deemed necessary for silvicultural purposes, and that a system for marking these trees for retention be developed.
- That an additional Key Standard be introduced which effectively prevents re-logging of already logged areas before the end of the sustainable cutting cycle.
- That compulsory residual tree marking be introduced into the 24 Key Standards set out in the Planning Monitoring and Control Procedures (and the Logging Code of Practice).

- That Key Standard 24 be changed so that the decommissioning of log landings involves replacement of the top soil and seeding with locally collected seeds of commercially or culturally important trees.
- That consideration be given to a formal requirement for logging company employees responsible for laying out set-ups in the field and preparing applications for approval, to be licensed. The issuance of licences to be dependent on satisfactory performance in an appropriate training course, and annual renewal of the licence to be subject to performance.

With regard to forest landowners:

- That it clarify for itself that the new PDB system replaces all levies (with the exception of the reforestation levy) and all requirements on the logging company to deliver infrastructure.
- That copies of all relevant documents be made available to landowners through their clan agents or their Incorporated Land Groups.
- That when the PNGFA prepares an internal logging company compliance report, that it provides a copy of the report to the landowners as part of the Authority's accountability to the landowners to manage their forest.
- That the representation on the Project Area Development Fund committee (a requirement of the Project Development Benefit scheme) be amended to include representation of women's interests.
- That when drafting legal documents such as Agreement For The Variation Of A Timber Permit, that the PNGFA lawyers make a greater effort to word the document in language that can be more easily understood by the landowners.

7.2.4 RECOMMENDATIONS TO THE DEPARTMENT OF ENVIRONMENT AND CONSERVATION

It is recommended to DEC:

With regard to the 24 Key Standards

- That as a matter of urgency it provide the NEC with a proposed policy regarding the logging of so-called fragile forests.
- That it work with the logging industry and the PNGFA to develop an effective working definition of "Karst". Logging in Karst is prohibited under the 24 Key Standards, and industry has asked that a more detailed definition of Karst be developed to guide them in the field. That the finalised working definition to be added to the 24 Key Standards (and the Logging Code of Practice).
- That it determines a policy for identifying forest areas to be conserved within logging projects. A 10% conservation set-aside is provided for under the Forest

Management Agreement, and the PNGFA Board is now reducing the calculated sustainable AAC by 10% to allow for this.

With regard to legal issues:

- That in order to provide additional scope for the application and enforcement of the Environment Act 2000 it gives consideration to adopting the 24 Key Standards as an Environment Policy under the Act.
- That it immediately clarify the requirements of the Environment Act 2000 on the 10 new “impact” logging projects being promoted by the current Government, and identify how these projects can be further developed in compliance with the Act.
- That it prepare guidelines for the undertaking of Environmental Impact Assessments for new logging projects. These are required for all logging projects with an AAC of 70,000 m³ or higher.

With regard to field monitoring and control:

- That it immediately advises all logging operators of the implications of the Environment Act 2000, and of the obligations that are now clearly imposed on them, in particular their obligation to give notice of environmental damage, or the risk of it, under s8.
- That it immediately make arrangements with the PNGFA to set up a working group to identify the effect of the Environment Act 2000 on both new and existing logging projects, and to set up a formal means of cooperation for pursuing prosecutions where the DEC will be reliant on the evidence and support of the PNGFA.

With regard to internal management:

- That it improves its document management systems, including the setting up of a formal register for active Environment Plans for logging operations, Environmental Plan conditions, Environmental Management and Mitigation Programmes, Waste Management Plans, and Water Use Permits.

7.2.5 RECOMMENDATIONS TO THE DEPARTMENT OF LABOUR AND INDUSTRIAL RELATIONS

It is recommended to the Department of Labour and Industrial Relations:

- That it investigate and report on the terms and conditions under which workers in the logging sector are employed, including wages, living conditions, occupational health and safety, insurance, detailed accounting to piece rate workers for their payments, and repatriation after termination (or death).
- That it review the “Classification of Occupations” which currently states that jobs under category 6141 Forestry and Loggers are occupations prohibited to foreigners. A more detailed classification is required.

- That it review the current lack of flexibility imposed by work permits which are site and occupation specific to allow for improved mobility of expatriate workers within the industry.

7.2.6 RECOMMENDATIONS TO THE DEPARTMENT FOR ECONOMIC DEVELOPMENT

- That it investigate and report on the social and economic conditions which prevail at the logging project sites, and propose how conditions might be improved by joint action by the Government (at all levels) and the logging company.

7.2.7 RECOMMENDATIONS TO INDUSTRY

- That it make an effort to improve its compliance with the 24 Key Standards through appropriate directions from senior managers, and improved on-site field supervision.
- That it make an increased effort to identify and employ suitably qualified Papua New Guineans, especially in setting out set-ups in the field, and field supervision.

7.3 THE GOVERNMENT FORESTRY AND CONSERVATION PROJECT (FCP)

7.3.1 FCP OBJECTIVES

The TORs for this review require that the Review Team:

Make recommendations Such recommendations would focus upon, but not be limited to, measures that would be implemented with the support of FCP.

The overall objective of the FCP is to assist the Government of PNG to improve sustainable forest resource management. The FCP consists of four parts. A brief description is as follows⁶⁴:

Part A : Landowner Forest Decision Making

- Develop and implement processes to enhance forest landowner participation in forest management and conservation, including educational activities to improve landowner access to information, and improved institutional and legal arrangements for organising landowner representation regarding forest management and conservation, and provision of technical and financial assistance to implement their chosen forest development option.
- Develop and implement Conservation Management Areas through the adoption of policy and the enactment of legislation for community-initiated conservation and sustainable resource management areas on customary land.
- To be implemented through the Department of National Planning and Monitoring.

⁶⁴ Source: Loan Agreement dated December 20 2001.

Part B : PNG Mama Graun Conservation Trust Fund

- Implementation by beneficiaries of specific biodiversity conservation and sustainable projects, including the provision for grants and sub-grants and technical assistance therefore.
- Develop and implement the PNG Mama Graun Conservation Trust Fund, including provision of technical assistance, office facilities, office equipment and vehicles therefore.

Part C : Sustainable Forest Management

- Enhance the PNG Forest Authority's capability to manage, plan, implement and monitor sustainable forest operations, including the provision of PNGFA staff training and workshops, field and office equipment, vehicles, computers and consultants' services.
- Improvement of natural production forest management through expansion of sustained yield post harvest activities, including provision of PNGFA staff training and workshops, field and office facilities and equipment, vehicles, computers and consultants' services.
- Development of post harvest management activities and feasibility studies for development of plantations on degraded forest lands, including feasibility studies, development of a forest plantation strategy and testing of methodology on a pilot basis.
- To be implemented through the PNG Forest Authority.

Part D : Environmental Assessment and Monitoring

- Development, testing and implementing environmental impact assessments and monitoring methodologies, including development of operational manuals, DEC staff training and workshops, field and office facilities and equipment, vehicles, computers and consultants' services.
- Designing and implementing a community based environmental monitoring program, including training to trainers within government agencies and Non-Governmental Organisations established in PNG, and testing the approach in several pilot areas.
- To be implemented through the Department of Environment and Conservation.

7.3.2 RECOMMENDATIONS TO THE GOVERNMENT'S FORESTRY AND CONSERVATION PROJECT (FCP)

The FCP was designed in the second half of the 1990's when the PNGFA and DEC were strong, and were being supported under NFCAP. It is the opinion of the Review Team that the capacity and capabilities of the PNGFA and DEC has deteriorated significantly since that time, and that if the objectives of the FCP are to be successfully achieved, then it will need to also substantially re-strengthen these institutions.

It is also clear that if the internal tensions which exist within and between landowner groups is to be reduced, and any sensible effort towards landowner investment in social infrastructure and services is to be achieved, that landowners need support to manage their affairs, at least until such time as they develop the skills to do this for themselves. If such support is provided for logging projects set up on a sustainable basis, then this would involve about 10 – 15 projects.

Further, a significant component of the FCP focuses on Landowner Forest Decision Making. Whilst this component also refers to forest conservation options, in terms of industrial scale logging there would seem to be few remaining opportunities for the State to acquire additional areas under a Forest Management Agreement. Consequently there may be scope to divert resources to improving assistance to landowners after they have chosen industrial scale logging. If this is possible then the FCP might also support the landowners who have already entered into a Forest Management Agreement, but where logging is yet to commence.

It is recommended to FCP that:

- The design of the FCP be modified to either add a provision for strengthening the PNGFA and DEC, or to divert some of the resources allocated to the various components of the FCP to this purpose.
- The Landowner Forest Decision Making component of FCP be extended to also provide support for landowners after they have made the decision to proceed with a forestry project. Such support would include but not necessarily be limited to:
 - Arranging landowner representative bodies;
 - Ensuring proper registration of those bodies;
 - Assisting with the mandatory Annual General Meeting, and the keeping and presentation of accounts;
 - Requiring information from the logging company verifying the correctness of payments made;
 - Requiring information from the logging company properly acquitting any deductions made;
 - Presenting information regarding simple investment options;
 - Assisting landowners to access relevant information regarding the agreements they have signed, and any other relevant materials; and
 - To train landowners to eventually become responsible for their own affairs.

- The FCP review its Project Implementation Plan with due regard to the findings and recommendations set out in this review report. The review to consider amongst others FCP support for:
 - Setting up and supporting Representative Landowner Bodies.
 - Determining and implementing financial breaches for non-compliance with the 24 Key Standards.
 - Investigations into varying the logging limit from the standard 50 cm to species specific minimum diameters.
 - Strengthening and support of the Mapping Section.
 - Establishment of a model logging project to be used as a demonstration, and to test under field conditions the practicality of existing logging and environmental standards.