Loggers, donors and resource owners

Papua New Guinea is well endowed with tropical forest, almost all of which is held by local people under customary title. But the forest sector is in a mess. Over the last ten years a major national process of policy and institutional reform has sought to sort out the sector, but some key features of PNG society continue to frustrate this process. The ‘ideology of resource ownership’ is the core of national identity, yet it undermines the potential for diversified economic development based on the use or value of land and forests. Also, a widespread obsession with the pursuit of personal political power grows alongside an equally widespread loss of faith in the ability of government to deliver social and economic development. These contradictions help to explain why the national policy process centres on a struggle between the logging industry and donor agencies for the hearts and minds of the resource owners.

Whilst this struggle throws up many problems, it also presents opportunities for establishing a new approach to policy for forests and people. This would establish the common ground upon which a wider coalition of interests - a new ‘policy community’ - could be built. Opportunities include: developing mechanisms for testing and publicising claims to productive innovation; combining different scales of enterprise; generating a vision of the public interest through dialogue; and installing a brokering mechanism to connect needs with existing capacities.

Policy that works for forests and people series

Forest issues often concern large amounts of money, long timeframes, huge areas of land, and diverse livelihoods. The issues are complex and vary from place to place. However, a pattern of forest problems is common to many countries: continuing loss of natural forests; over-concentrated control and inequitable access to forests; an ill-informed public; and poorly-resourced, inflexible forestry institutions. Policy is the root cause of many of these forest problems.

This series consists of six country studies - from Costa Rica, Ghana, India, Pakistan, Papua New Guinea and Zimbabwe - and an overview report. The series aims at a better understanding of the forces at play in contests over policy, the winners and losers, and the factors that affect policy outcomes. It also describes the processes that make and manage good policies and the policy instruments that work in different contexts. By dealing with policy in practice - in the ‘real world’ of people and their institutions - the series aims to go beyond the frequently heard complaint that there is a lack of ‘political will’ to change, by showing how policy can change for the better.

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Loggers, donors and resource owners

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no. 1 Pakistan Javed Ahmed and Fawad Mahmood
no. 3 India Arvind Khare, Seema Bathla, S Palit, Madhu Sarin and NC Saxena
no. 4 Ghana Nii Ashie Kotey, Johnny Francois, JGK Owusu, Raphael Yeboah, Kojo S Amanor and Lawrence Antwi
no. 5 Zimbabwe Calvin Nhira, Sibongile Baker, Peter Gondo, JJ Mangono and Crispin Marunda
no. 6 Costa Rica Vicente Watson, Sonia Cervantes, Cesar Castro, Leonardo Mora, Magda Solis, Ina T. Porras and Beatriz Cornejo
no. 7 Overview report James Mayers and Stephen Bass

These studies are available from IIED at the address above.
Papua New Guinea’s forest industry has been developed on the basis of forest policy which encourages large scale projects which are intended to be conducted on a sustainable basis to produce a continuous flow of wood. The logical result of this policy is that projects cover large areas of forest so as to be economically viable for the foreign logging companies while securing a revenue source for the government. Large projects such as these discourage the participation of customary landowning groups whose title is recognised by law, but who are not always related by custom or language to the other landowners residing within one forestry project area.

Herein lies PNG’s greatest challenge: the equitable participation of customary landowning communities in the exploitation of their forest resources. It is clear that, at the moment, customary landowning communities are at the mercy of the agenda set by aspiring politicians, local big men, the foreign logger and the government. Unless provided with some meaningful ways to participate, they will continue to be rent collectors and bystanders waiting for the delivery of essential services to their rural area, hoping somehow that if the government does not deliver, the logging company may do so, bringing infrastructure and cash into the local economies. Whilst this happens on a piecemeal basis, the community has no sustainable investment in the forest resource and its harvesting.

In relation to downstream processing, PNG also continues to pursue a policy based on low-value, high volume output. This policy compounds the trend in favour of large scale logging. New projects negotiated on a similar basis are continuing to lock more communities into becoming disenfranchised bystanders.

The long term future of the people’s forests can only be maintained if there is a clear and definite shift to small and medium scale forestry, involving the direct participation of local communities. It will require rethinking the export component of our forest industry, looking for markets that pay the added value for our produce. This resource belongs to the people of PNG.
and should be used for the benefit of current and future generations. However, the forest industry will not achieve these aims while the greed of Asian markets continues to be the dominating force for present policy.

*Loggers, Donors and Resource Owners* tells the story, for the first time in PNG, of where policy has come from, who is fighting over it, and what effect this has. It describes the futility of trying to impose policy prescriptions on reluctant people, and analyses the motivation and power of different groups, and the potential they have to make positive changes. The report concludes by proposing a transparent process of testing claims for productive and equitable forest development. Through such processes a whole new policy community might be established, of those who can ensure that policy works for both forests and people. I recommend this book wholeheartedly.

Meg Taylor
Commissioner, World Commission on Forests and Sustainable Development, and formerly Papua New Guinea’s Ambassador to the USA
12 February 1998
Executive summary

Introducing the play and the cast of characters

Over the last ten years, Papua New Guinea has been engaged with a major process of policy and institutional reform in response to a perceived crisis in the forest sector. This study examines the successes and failures in this process, and assesses the feasibility of achieving a form of policy that works for the forests and people of PNG.

In this story, the forest policy process is seen as a social drama. The characters in the play are politicians, public servants, industry, NGOs, donors and local resource owners. However, some characters make more noise than others, and the national policy process is centred on a struggle between the logging industry and a donor lobby for the hearts and minds of the resource owners. The former two characters have the most concerted voices, while the latter own the scenery. The weakness of the other three characters reflects the fact that nearly all Papua New Guineans are resource owners, and represent themselves in this light when flirting with the characters of politician, public servant and NGO. The theme of the play is “sustainable forest management” but the plot revolves around the relationship between the politics of the Melanesian village and the divergent interests of assorted foreigners.

Setting the scene: forests and people

PNG is well endowed with tropical forest - it covers 280,000 km², or just over 60 per cent of national land area - and is renowned for its rich biological diversity. PNG also has relatively few people - about 4.4 million, with an average density of 9.5 people per km², and a growth rate of approximately 2.3 per cent per annum. Basic facts which underpin the relationship between PNG’s forests and people include:

- about 97 per cent of all land in PNG, and more than 99 per cent of all forested land, is held under customary title - by “resource owners”

- only 3 per cent of current subsistence farming in PNG takes place on land cleared of forest that was not previously cleared for agricultural purposes
over the last 20 years. PNG’s farmers are responding to population growth through forms of agricultural intensification rather than clearance of primary forest

- establishment of agricultural plantations has been the most important single direct cause of deforestation this century (until the 1997/98 drought brought forest fires to highland areas)

- plantation forests cover between 350 and 400 km² of land

- less than 4 per cent of PNG land area has formal protected area status

- very little commercial logging occurred prior to Independence (1975), but by 1994 raw log exports reached a peak of nearly 3 million m³, with a value of about US$410 million, representing just over 18 per cent of domestic export values, from which the national government collected about US$111 million in log export taxes

- up to 7,000 people are directly employed in PNG’s industrial forestry sector

- about 50 per cent of log exports are under the control of a single Malaysian company, Rimbunan Hijau, and another 30-35 per cent are under the control of other Malaysian companies.

- Japanese general trading companies dominate the log trade - by controlling distribution chains, financiers and wholesalers. They effectively control the regional market for logs through the sheer volume of their purchases.

Resource dependency and unequal development

Standard economic indicators show PNG to be a middle-income country, yet social indicators reveal a picture more characteristic of a typical low-income country. The economy is highly dependent on the export of raw materials, and is vulnerable to external price shocks. Many factors conspire against industrial development in PNG: high operating costs; high wage costs; dearth of skills; small domestic market; “law and order problems”; and cumbersome approval processes.

The decline of agricultural export prices has encouraged the search for alternative sources of cash income, and enclave economies have evolved around extractive industry - mining, petroleum and logging - which create
very unequal patterns of development. This is exacerbated by the government’s habit of passing resource rent to only a few “lucky strike” communities. It also creates a psychological and cultural form of “resource dependency”. However, such dependency may also lead to inflated demands from resource owners whose expectations of “development” may exceed what can feasibly be realised, sometimes rendering resource exploitation uneconomic. Yet if communities do not like their experience of development, it does not seem to stop them wanting more of the same.

### Populist politics and civil society

The much-vaunted populist view of Melanesian communities living in harmony with each other and the environment is a myth. In reality, Melanesian communities have always been on the verge of disintegration and it has taken special qualities of leadership in each succeeding generation to hold them together. An egalitarian ethos may, however, explain why some communities are willing to degrade their land in an effort to keep up with their neighbours.

PNG politics are characterised by a form of populism which breathes life into a wide range of public institutions. The judiciary has maintained its independence, and there is an uncensored national press. Together, these institutions punish the practice of political corruption. The Westminster political system continues to thrive, and no ethnic group has the size or solidarity required to gain exclusive control of the political system.

However, there are some major problems of governance at the national level:

- National government policy-making is still an activity which tends to be dominated by foreign consultants.

- Political parties are little more than parliamentary factions. Governments have been formed by an unstable succession of coalitions of national politicians whose own electoral survival commonly depends on their ability to reward a very small local constituency with the maximum possible share of government resources.

- The fluctuating personal interests of ministers, and their own patrons and clients, undermine the capacity of public servants to maintain the coherence of sectoral development policies.

- Politicians are rarely called upon to demonstrate the consistency of their
actions with policy, and are therefore free to treat their portfolios as personal fiefdoms.

• Popular distrust of elected politicians is widespread.

• The public service is also characterised by intense rivalries, low levels of financial accountability, and a tendency to treat policy statements as “state secrets”.

At the local level, the legitimacy and efficiency of local government has been at a low ebb for many years. After protracted national debate, new legislation on provincial and local government represents a significant change in the form of decentralisation, but it is too early to say whether this will restore confidence in government in rural areas.

Public policy domains affecting forests
Constitutionally-guaranteed customary land ownership is the key policy domain influencing forest use. PNG citizens think of themselves as landlords and staunchly defend their territorial right to claim “compensation” from the process of resource development which takes place on their land. The notion of “landownership” as the foundation of national identity leads, for example, to denials that there is such a thing as poverty in PNG, and to widespread hostility to sporadic World Bank attempts to initiate measures for the use of customary land as security for commercial credit.

Mineral policy is primarily concerned with the ownership and control of large-scale mineral export ventures and the distribution of resource rents between national stakeholders. The forest policy process has come to resemble the mineral policy process in that large-scale logging has become the dominant economic activity in the sector. However, unlike the forest sector, Western donors have kept a low profile in the mining and petroleum sector, perhaps reflecting their belief that Western mining and petroleum companies, unlike Asian logging companies, already act as responsible corporate citizens in PNG.

Agricultural policy aims to promote development of small-scale production on customary land. But its impact is constrained by the sheer size of the target population, and most farmers therefore remain detached from the policy process.

Structural adjustment policy continues to have a major influence on the forest sector. After much opposition from sections of government from 1995 to 1997,
the World Bank was able to use its economic muscle to push through government commitments to forestry reforms in return for a major economic rescue package (see below). While structural adjustment and the recent legislation on local government are subject to intense national debate, the effort by donor-funded experts to develop a National Sustainable Development Strategy has fallen, unsung, between the cracks of government institutional responsibility.

The number of individuals from any stakeholder group who are actively engaged in more than one of these policy domains at any one time is small, so there are few opportunities for learning across sectors.

**Industrial forestry appears on the scene - in crisis**

Surveys of timber potential began early in the century, but the Forest Service was not established until 1938. By 1953 it had established timber as the second most important export commodity after copra, but out-turn was still relatively low. There was very little public debate over forest policy until the late 1980s.

By 1987, the forest sector had grown to the point of harvesting 2 million cubic metres of logs annually. But allegations of impropriety in the timber industry and government were flying. Two months before a national election, the Prime Minister appointed an Australian member of the PNG judiciary, Thomas Barnett to lead an inquiry into these allegations. After two years, and in 20 volumes, Barnett described a “forest industry out of control” - dominated by foreign investors in questionable “partnership” with PNG leaders - in which the volume of logs exported was maximised with no regard for environmental damage and to the detriment of local processing capacity. He called for a slow down in timber harvesting, and advocated the reformulation of national policy, establishment of a nationally integrated forestry service, consultation procedures in allocation of permits, and formalisation of detailed requirements for sustained-yield forestry.

Barnett’s findings were premised on the assumption that national technocrats and landowners could make common cause against the corruption of their state and society by an unholy alliance of foreign loggers, domestic politicians and wayward public servants. The next section begins to illustrate that, with hindsight, this can be seen as a flawed assumption.

**Reform of industrial forestry policy 1989-1997**

Following Barnett’s findings, a small number of politicians and public servants lost their jobs, and a new government sought international assistance
under the global Tropical Forest Action Plan. Eventually, PNG’s National Forestry and Conservation Action Programme (NFCAP) took shape as a collection of projects which ran from 1991 to 1995. The NFCAP had a major emphasis on restructuring the forestry institutions, developing conservation objectives and working with NGOs to form a bridge with resource owners. A succession of policy changes was set in motion by the discussions of 1989 onwards. The following table highlights these changes, and their impacts in terms of actual practice.

<table>
<thead>
<tr>
<th>Changes in formal policy</th>
<th>Changes in actual practice</th>
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<tbody>
<tr>
<td><strong>National level</strong></td>
<td></td>
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<tr>
<td>New National Forest Policy, approved by Cabinet in April 1990 and published in September 1991, lays the foundations for detailed reform of forestry legislation</td>
<td>The new Policy does not contain any targets or guidelines specific enough to influence the course of subsequent public debate on forest management issues</td>
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<td>New Forest Policy proposes various fiscal measures to encourage ‘downstream processing’, and subsequent policy statements constantly repeat the need for such measures</td>
<td>Government unable to devise any system of incentives which can satisfy the World Bank and encourage new investment in the domestic processing sector</td>
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<td>New Forest Policy and subsequent policy statements propose various measures to promote reforestation by both government agencies and private investors</td>
<td>National Forest Authority unwilling or unable to make effective use of reforestation levies charged on logging companies, while developers make few additional contributions to this objective</td>
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<td>In 1990, Cabinet agrees to impose national moratorium on the issue of new Timber Permits for raw log export operations until the new Forestry Act comes into effect</td>
<td>More than 20 Timber Permits issued during the period of the ‘moratorium’, while gazettal of the new Forestry Act is delayed by the Minister and his Departmental Secretary</td>
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<tr>
<td>In 1991, Department of Environment and Conservation produces new guidelines for production of Environmental Plans for large-scale forestry projects</td>
<td>No marked improvement in the Department's capacity to evaluate such plans, monitor compliance, or prosecute offenders</td>
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<td>New Forestry Act (gazetted June 1992) replaces old Department of Forests with a National Forest Authority under the direction of a board representing a range of stakeholders - including NGOs - in the forestry sector, with a view to reducing the exercise of arbitrary powers by the Minister for Forests</td>
<td>Minister continues to influence the decisions of the National Forest Board and National Forest Service through control over the appointment of the Managing Director. Forest Authority divides into factions supporting and opposing the policies of successive Ministers</td>
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<td>New Forestry Act requires production of a National Forest Plan as precondition for the development of new forestry projects The required form of the Plan is essentially that of a land-use map (rather than a land use strategy)</td>
<td>Cabinet approves some development proposals before the Plan is developed. A Plan appears in 1996 but can never be more than a statement of government intent because it covers wide stretches of customary land, whose multiple owners have not yet made their own land use decisions</td>
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<td>New Forestry Act includes a commitment to establish a new forest revenue system designed to encourage sustainable forest management</td>
<td>Government raises log export taxes in 1993 and 1994, but comprehensive reform of the old system not implemented until 1996, and then only under intense pressure from the World Bank</td>
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<tr>
<td>Changes in formal policy</td>
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<td><strong>National level (contd.)</strong></td>
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<td>Radical set of National Forestry Development Guidelines produced by Ministry of Forests in 1993, as one of the statutory requirements of the National Forest Plan</td>
<td>Guidelines widely attacked by forest industry representatives, and largely ignored by subsequent Ministers and senior bureaucrats in the National Forest Service</td>
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<td>New Forestry Act and subsequent Guidelines provide for review of all agreements made under previous forestry legislation</td>
<td>Determined opposition by the logging industry, and lack of capacity in the National Forest Service, combine to halt the review process</td>
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<td>In 1994, the government engages a private contractor to monitor log exports in order to control the incidence of transfer pricing by logging companies</td>
<td>Widespread agreement that this system has proven effective, though still substantially dependent on donor support</td>
</tr>
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<td>In 1996, government endorses new Logging Code of Practice under pressure from World Bank</td>
<td>Logging industry complains about lack of consultation, and Bank still doubts capacity of National Forest Service to ensure that companies follow the code</td>
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**Provincial level**

| New Forestry Act requires production of Provincial Forest Plans by Provincial Forest Management Committees, in all 19 Provinces, as the building blocks of the National Forest Plan | Provincial planning process envisaged by the Act turns out to be unworkable because PFMCs do not have the information or capacity to produce integrated land use plans for their provinces, and officers of the National Forest Service take over the process in order to meet the Minister’s demand for a National Plan |
| New Forestry Act returns provincial forestry offices to national government control, under an integrated National Forest Service | Some improvement in morale and efficiency of provincial officers, and greater immunity to political interference at provincial level |
| New Organic Law of 1995 appears to grant new powers to provincial authorities to determine their own forest policies | Production of National Forest Plan delayed by confusion arising from apparent inconsistencies between the new Organic Law and the new Forestry Act |

**Local level**

| New Forestry Act strongly recommends that local land-owning groups be incorporated under the Land Groups Incorporation Act as a precondition of new Forest Management Agreements between themselves and the State | Task of land group incorporation exceeds the capacity of government officials, to the point where it either functions as an obstacle to state acquisition of additional forest resources, or else has to be completed with assistance from the logging companies |
| New Forestry Act requires forestry officials to conduct a Development Options Study in consultation with local landowners as a precondition of new Forest Management Agreements | Development Options Studies consist of little more than proposals for large-scale logging |
| New forest revenue system intended to increase the landowner’s share of resource rent from large-scale logging operations | Industry opposition, bureaucratic obstruction, and local disorganisation delay the transfer of additional financial and material benefits to landowning communities |
For a brief period from 1991 to 1994, the forest sector reform process contained a real sense of national ownership and unity of purpose. However, of the two major policy instruments introduced, it is now clear that the *Forestry Act* grossly overestimated the capacity of the state to regulate the use of customary land, whilst the new forest revenue system is yet to find a way to deal with the variation in the quality of timber resources, the relative costs and efficiency of different concession operators, and their differential willingness to honour the agreements made with other stakeholders.

So far, the most successful experiment in encouraging better practice in the forest industry is the log export surveillance system, initiated in 1994, which was “outsourced” to a private contractor. Log exporters welcomed the opportunity to prove that they were no longer guilty of the transfer pricing documented by the Barnett Inquiry. This raises the question of which other elements of the reform process might have been better expedited by a less heavy-handed approach to industrial regulation, and a more concerted effort to build a wider policy consensus.

**Reforming forest conservation policy, 1989-1997**

PNG’s official conservation policies are constructed around the establishment of a representative system of protected areas. But the legal and institutional mechanisms established to pursue this goal have proven to be unwieldy and ineffective. Terrestrial biodiversity values are almost entirely confined to customary land, and there is no prospect of this land being alienated by the state for purposes of conservation.

Various experiments with “integrated conservation and development” have attempted to foster a form of multiple land use planning in which local stakeholders agree to conserve part of the forest in exchange for the development of another part. Where the protected area embraces the territories of several adjoining landowning groups, this agreement has to make allowance for the people in conservation zones to participate in the development of other people’s land. Such agreements have so far proven elusive. Other projects, in which conservation proponents have tried to compete directly with logging companies, have met with limited success.
Changes in formal policy

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<tr>
<th>National level</th>
<th>Changes in actual practice</th>
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<tr>
<td>Minister for Environment and Conservation informs 1990 NFCAP Round Table that his government intends to create a system of protected areas covering 20 percent of the country</td>
<td>Multinational oil company secures government approval for addition of one large area to the list of protected areas, but total coverage still less than 4 percent of the country</td>
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<td>PNG government signs Convention on Biological Diversity in 1993</td>
<td>Biodiversity Conservation and Resource Management Programme, funded by the Global Environment Facility makes more progress with scientific appraisal of biodiversity than with experiments in an “integrated conservation and development” process designed to extend the protected area system</td>
</tr>
<tr>
<td>PNG signs Global Convention on Climate Change in 1993</td>
<td>Department of Environment and Conservation unable to produce baseline data required by Convention</td>
</tr>
<tr>
<td>In 1994, AusAID-funded Department of Environment and Conservation Strengthening Project initiates a process of streamlining environmental planning legislation to support a new Environmental Regulatory Framework</td>
<td>New Environment Bill still awaiting Cabinet approval in 1998</td>
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</table>

Provincial level

| New Organic Law of 1995 gives provincial governments greater responsibility for conservation area management | Little evidence that provincial governments are willing or able to take over these responsibilities, or that the Department of Environment and Conservation is willing to abandon them |

Local level

| New Organic Law of 1995 gives local-level governments greater responsibility for land use planning | No evidence of new relationships between local-level governments and major stakeholders in the conservation policy domain |

Reform of policy for community participation

Since 1992, donors and NGOs have opened up a substantial “popular front” through a variety of relationships with specific rural communities which are directed towards the goal of forest conservation or sustainable forest management. A range of NGOs currently claim to have some stake in the forest policy process through activities such as: environmental advocacy, applied research, legal aid, conservation area management, promotion of non-timber forest products, and provision of business development advice. Government has given vague endorsement rather than formal policy backing to these moves.
The forest policy reform process aimed to foster new forms of community organisation, stressing accountability and democracy in the forest resource acquisition process. However, rural communities have a long history of resistance to imposed values, and the National Forest Authority’s failure to negotiate with the forest industry or landowner groups in developing these measures has resulted in limited uptake. The Forest Industries Association believes that the whole reform process was designed to drive a bureaucratic wedge between the logging industry and the resource owners.

Like proposed protected areas, large timber concessions contain many customary land groups. New systems of representation through associations of “incorporated land groups” have yet to prove themselves workable, and the Forest Authority has little capacity or resources to try them out. Meanwhile, little attention has been paid to the actual or potential role of local-level governments as vehicles for community participation.

Villagers often do not see logging of primary forest as a direct threat to their subsistence lifestyles. Most of the trees which supply food, fuel, or raw materials for buildings or other local artefacts are either deliberately cultivated within the secondary forest zone, where shifting cultivation is practiced, or harvested from garden fallows. Thus, efforts to develop and commercialise small-scale forestry or non-timber forest products may not be seen as alternatives to logging. Of the “alternatives” that have received much attention:

- Portable sawmills have become widespread since the mid-1980s. However, they are often seen by villagers as a complement rather than an alternative to large-scale logging projects. Some of the most successful small sawmill operators are found in existing log export concessions where they can utilise reject logs and get technical help or equipment.

- Ecotourism has captured the imagination of many local groups. But the lack of infrastructure, PNG’s high-cost economy, the high cost of air travel, and the perception within key tourist markets that law and order problems make it a high risk destination, restrict the potential of ecotourism.

- Proof of carbon sequestration is seen by the World Bank as the best bet for PNG to secure substantial finances from conservation or sustainable management of forest resources. However, one experiment has already shown that, unless there is confidence that the carbon storage service can be guaranteed, investors are likely to shy away from such schemes.
A recent survey of anthropologists and other social scientists suggests that the rural constituency for more sustainable development only forms through the process of “resource development”, as people learn from experience. It appears that resource owners are beginning to learn that other stakeholders are not going to present them with “free” solutions, and are thus moving further down the road to self-reliance.

**Powers over policy**

Taking stock of the current powers of our six characters to influence the forest policy process, we can see a sort of stalemate developing. But we can also see why the balance of power is constantly changing:

- **Resource owners** possess much bargaining power based on the simple fact of ownership of the resource. If need be, this can be converted into acts of sabotage, intimidation of company personnel or production stoppages. However, communities are commonly internally divided, and the numbers of highly educated members of local communities who might favour sustainable development are often smallest in those rural communities with the most forest of interest to other stakeholders.

- **The private sector** derives most power from its capacity to use “divide-and-rule” tactics with other stakeholders. However, politicians and NGOs derive much political capital from attacking resource developers, and the demonisation of the log export industry thrives on a mood of public disquiet about the “Asianisation” of the national economy. Uncertainties about the physical and political environment constrain private sector players from manipulating the “system” to their lasting advantage, but also reduce the potential for sustainable forest management to be pursued through corporate self-interest.

- **Donor agency** leverage over the national policy process revolves around a double act between AusAID and the World Bank, where each relies on the other for specific actions, while other donor agencies play walk-on parts and keep their exit options open. The World Bank sells the prescriptions of a “global” donor community, while AusAID gravitates towards the implementation of “institutional strengthening” projects. Ultimately, the power which donors exercise over the forest policy process, through the Structural Adjustment Programme, depends on the continued fiscal and governance crisis which the donors are supposedly attempting to resolve.

- **Politicians** count themselves as resource owners, and many are, or have been, employed by government, NGOs and the private sector. So no clear
A distinction can be drawn between the country’s political, bureaucratic and business elites. There is a vicious circle through which politicians justify the exercise of greater personal executive power by reference to the failings of a bureaucratic system whose own powers are diminished by the same exercise.

- **Public servants** compete to obtain the maximum benefit from each rearrangement of the institutional furniture, and keep their distance from each other by constantly mending the fences which the politicians like to break in their own search for additional executive power. Bureaucratic reforms in the National Forest Service encountered resistance from public servants as soon as they could no longer rely on the support of a reforming minister and an elite squad of donor-funded technical advisers.

- **NGOs** do not form a natural cartel and have very different degrees of leverage on forest policy. The relationship between NGOs and donors is a marriage of convenience which is forced upon both parties by their common disaffection with the powers of bureaucrats and politicians. The acid test for the power of many NGOs lies in their ability to simultaneously meet the needs of rural resource owners and satisfy the donors.

**The next act in the play?**

In 1998, forest policy is not the hot topic which it was five years ago. Yet a number of recent events conspire to suggest that the heat may return:

- Massive forest fires have done far more damage to PNG’s forest resources in a matter of weeks than the logging companies have managed in ten or twenty years. Food and export crops have been hit by drought and some mining companies have been obliged to interrupt their operations. Faced with a drastic decline in its projected revenues and the additional cost of emergency drought relief programmes, will the national government speed up the allocation of new timber permits in a desperate attempt to balance its own books?

- The financial crisis in the national economies of Southeast Asia has contributed to the problems faced by log exporters. Loggers complain that they are being driven out of business by the combination of high costs, high taxes, and low market prices.

- The new Government formed in 1997 is not thought to be as well-disposed towards the log export industry as its predecessor.
The Structural Adjustment Programme includes commitments to the new forest revenue system, the adoption of a logging code of practice, the provision of additional funding to the National Forest Authority, and improvements in the supervision of PNG’s log exports. However, the programme is also beginning to bite on “bread and butter” issues for public servants and wage-earners. Resource owners may join the protest if the programme has a negative impact on rural living standards. If the programme enables the national government to balance its books, it may then give politicians room to escape the straitjacket which has been put on their relationships with logging companies. The programme, with its forestry conditions, may then disintegrate.

In the forest sector, the World Bank is putting together a major new Forestry and Conservation Project whose total value is currently estimated at US$ 59 million. This will centre on the founding of a Conservation Trust Fund as a means to pave the way for PNG to take advantage of the growing market for carbon offset schemes. It also aims to transform the Department of Environment and Conservation into an Environmental Protection Authority and found an independent “forestry inspectorate” to monitor the “front-line” dealings between officers of the National Forest Service and other stakeholders.

Over the next ten years we expect commercial exploitation of natural resources to account for a constantly increasing share of the country’s economic output - based primarily on a significant expansion of the oil and gas industry. This will maintain current patterns of resource dependency and uneven development which continually open up new divisions between different parts of the country. Millenarian fears are rife in PNG but, if the world has not come to an end by January 2000, present trends indicate that resource owners are more likely to lose faith in the political process than to abandon their hopes of salvation from the sale of their logs and other natural resources.

If the World Bank is able to ensure the maintenance of the current fiscal regime, the local log export industry will almost certainly contract. Those companies which make some environmental effort and make a serious effort to bring returns to other stakeholders may be the first to feel the pinch. The conservationists may gain more opportunities to ply their wares, and the new market for carbon offset schemes may assume greater importance. But PNG’s ability to profit from such schemes is not only dependent on the managerial capacities of the national government, which are slender enough, but on a wholesale transformation of indigenous property relations.
There are no quick-fix solutions in the search for methods of determining the use of customary land. Popular resistance to anything which smacks of customary land registration is strong, despite the fact that landowners in many parts of the country recognise the need to formalise their titles and their land use options in some systematic way. The challenge is to start making the right connections between the concept of “land reform”, the development of new forms of community organisation, and a basic shift in the moral basis of “landowner politics”.

Ways forward - common ground
Specific policy recommendations to be taken forward by a group of national “decision-makers” are not presented here. Three broad contradictions conspire to undermine any such group’s effectiveness:

- the pursuit of economic growth based on the use or value of land continues to be frustrated by the belief in “landownership” as the inviolate core of Papua New Guinean identity

- a widespread obsession with the pursuit of personal political power grows together with an equally widespread loss of faith in the power of government to deliver social and economic development

- the production of increasingly elaborate plans for reconstruction of the whole political economy is undermined by the perversity of actual policy outcomes

Each of our characters speaks loudly in their declarations of the others’ villainy, and none is willing to admit that others act on any principle except self-interest. Backstage however, most actors concede that there are some good people in the other camps. This suggests that there is an opportunity to establish the common ground upon which to develop a wider coalition of interests - to build a new “policy community”.

Building policy communities - creating stakeholders
Neither the donors, nor the logging companies, nor any other foreign stakeholders have any proven capacity to close the gap between village politics and the public interest. The best hope lies in those institutions of civil society which derive their strength from both sides of the fence: to build new constituencies from the building blocks of Melanesian society, with participatory structures, technical expertise and young leadership.

Policy communities will not simply arise from the invention of new
committees, boards, trusts, or other structures for the maintenance of
dialogue between our six main characters. The substance of the conversation
and the action has to be the focus of the effort. It requires developing the
quality and variety of negotiations between existing stakeholders, both
national and expatriate, in their official and private capacities, in a way that
creates new partnerships and new stakeholders.

Developing mechanisms for testing claims
As Papua New Guineans would say, the problem is to “find the road”, by
subjecting policy positions to a set of trials or experiments which will reveal
who speaks the truth, whose actions speak louder than their words, and
what those actions actually mean. As Americans would say, the problem is
to build more reality checks and feedback loops into the policy process, so
that it becomes an iterative, incremental and adaptive learning process.

For example, official representatives of the log export industry may claim
that a specific large-scale logging operation should be regarded as a model
of best practice under local conditions, or that a specific form of
organisation exemplifies the best way for landowners to deal with logging
contractors in the pursuit of sustainable development. Mechanisms are
needed to simultaneously publicise and adjudicate claims of this sort, by
producing evidence rather than recycling assumptions. A “route map” is
needed which enables competing claims to be evaluated - to travel from the
office to the village or a patch of forest and back to the public media for all
to see.

Only through negotiation can resource owners hope to achieve the capacity
to protect their interests in the long term. Similarly, “public interest”
objectives such as environmental protection should be balanced against
conflicting interests through location-specific negotiation. State agencies
will have to take the lead, but will also need new partners, to:

• scrutinise the development plans of developers
• publish model contract provisions
• legislate for court review of manifestly unfair contracts
• create finance arrangements where landowners can borrow against future
  income to pay for preliminary investigations and professional advice
• enable non-government negotiation services for landowners

Route maps will also need to show the links between decision-making
institutions in forest and other sectoral policy domains. This requires
progressive integration of negotiations between landowners, developers,
and other stakeholders in specific sectors and specific areas.
Combining different scales of enterprise
Bulldozers and portable sawmills are often thought of as alternative weapons in a battle to exploit the same physical resource. However, there is no shortage of avenues for combining different scales of enterprise. Similarly, the establishment of small-scale woodlots or tree plantations by local landowners might prove to be a viable form of economic activity if it is undertaken as one of the conditions imposed on a large-scale logging operation. The strategies of mixing large scale agriculture with small scale forestry, small scale agriculture with large scale forestry, large or small scale forestry with small or large scale conservation projects, are largely unexplored as yet.

Generating public interest and private initiative
To generate interest in a “public interest”, government needs to start policing a reasonable set of rules for the development of land and natural resources. But technocrats will also have to give away the pretence to executive powers which they do not possess. Policies should provide a clear mandate for “outsourcing” a wide variety of executive functions to an equally wide variety of ‘non-government’ organisations, in a manner which encourages these organisations to develop a common vision of their mutual responsibilities and separate specialities. Where government departments and resource developers agree to an arrangement by which the latter develop integrated land use strategies within an area of influence which is protected by the former, the work of integration should then be relayed to a mixture of consulting companies and NGOs who share a common interest in breaking down the barriers between sectoral policy domains. The net result is to enlarge the size and influence of the “non-government” policy community in each of these domains.

Working with interface institutions
There is no shortage of new institutional structures; the problem is a lack of executive and managerial capacity in the lower reaches of the state apparatus. What is required is a fundamentally flexible method of working in the interface between the village and the state, between resource owners and “policy makers”, which uses and empowers those groups of actors who specialise in adapting public policy to the variable needs of rural communities, or in articulating these needs in ways which can transform policy. The network needs widening beyond NGOs, to include church workers and social scientists, some of the staff and consultants employed by resource developers and donor agencies, as well as those government employees, such as primary school teachers, who still work in immediate proximity to the “grassroots”.
Finding the capacity for the job

If basic services are not delivered to rural communities in a manner which fosters their own self-reliance, then formal policy will become increasingly irrelevant to local practice. The much-derided “wantok system” is the most effective general-purpose mechanism for transferring goods, services, skills and information between members of the national elite and their “country cousins”. The system is also evolving. Perhaps the Melanesian principle of reciprocity can be refined to strike an appropriate balance between commercial credit arrangements and the grants or “handouts” which are currently constraining genuine community development.

New contractual relationships or working partnerships between existing organisations are needed, which can match the specific needs of different landowning communities with the specific capacities which different service-providers can bring to bear on particular development issues in different parts of the country. There is no shortage of previous experiments. For example, there are lessons to be learnt from the experience of mining and oil companies in promoting local business development. They have their successes and failures, yet few lessons are learnt even within a specific sector, because there are no institutional mechanisms through which the feedback circuits could be closed. There is a need to conduct separate reviews of projects or activities which have been directed towards each particular need which is under consideration.

In summary, we advocate a policy pathway along which the dialogue develops through the making and testing of claims to productive innovation, and the continual reinforcement of feedback loops between local, national and global levels of debate. It may take a long time for this process to transform the relationship between forests and people, but PNG does have some time on its side, because the forests are still present, and the people cannot make rapid changes to large portions of the landscape, even if they wish to do so.
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The opinions reflected in this study are those of the authors and not necessarily those of the NRI, IIED, DFID or NEDA.
### Acronyms

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<th>Description</th>
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<tr>
<td>AIDAB</td>
<td>Australian International Development Assistance Bureau (see AusAID)</td>
</tr>
<tr>
<td>ADB</td>
<td>Asian Development Bank</td>
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<tr>
<td>AusAID</td>
<td>Australian Agency for International Development (formerly AIDAB)</td>
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<tr>
<td>ANU</td>
<td>Australian national University</td>
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<tr>
<td>BCRMP</td>
<td>Biodiversity Conservation and Resource Management Programme</td>
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<tr>
<td>BWR</td>
<td>Bureau of Water Resources</td>
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<tr>
<td>CITES</td>
<td>Convention on International Trade in Endangered Species</td>
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<tr>
<td>CNA</td>
<td>Conservation Needs Assessment</td>
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<tr>
<td>CRC</td>
<td>Conservation Resource Centre</td>
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<tr>
<td>CSIRO</td>
<td>Commonwealth Scientific and Industrial Research Organisation</td>
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<tr>
<td>DAL</td>
<td>Department of Agriculture and Livestock</td>
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<tr>
<td>DEC</td>
<td>Department of Environment and Conservation</td>
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<tr>
<td>DFID</td>
<td>UK Department for International Development (formerly UK ODA)</td>
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<tr>
<td>DOF</td>
<td>Department of Forests</td>
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<tr>
<td>DOLPP</td>
<td>Department of Lands and Physical Planning</td>
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<tr>
<td>EESSTRU</td>
<td>Ecological, Economic and Social Sustainability of Tropical Rainforest Use</td>
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<tr>
<td>EIA</td>
<td>Environmental Investigation Agency</td>
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<tr>
<td>ERF</td>
<td>Environmental Regulation Framework</td>
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<tr>
<td>ERP</td>
<td>Economic Rescue Programme</td>
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<tr>
<td>FIA</td>
<td>Forest Industries Association</td>
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<tr>
<td>FIMS</td>
<td>Forest Inventory Mapping System</td>
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<td>FMA</td>
<td>Forest Management Agreement</td>
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<td>FMPP</td>
<td>Forest Management and Planning Project</td>
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<td>FMU</td>
<td>Forest Mapping Unit</td>
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<td>FRI</td>
<td>Forest Research Institute</td>
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<tr>
<td>FROA</td>
<td>Forest Resource Owners Association</td>
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<tr>
<td>FSP</td>
<td>Foundation for the Peoples of the South Pacific</td>
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<tr>
<td>FTMC</td>
<td>Forestry Transitional Management Council</td>
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<td>GDP</td>
<td>Gross Domestic Product</td>
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<tr>
<td>GEF</td>
<td>Global Environmental Facility</td>
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<tr>
<td>GTZ</td>
<td>Gesellschaft für Technische Zusammenarbeit (German Technical Cooperation Agency)</td>
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<tr>
<td>ICAD</td>
<td>Integrated Conservation and Development</td>
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<tr>
<td>ICRAF</td>
<td>Individual and Community Rights Advocacy Forum</td>
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<tr>
<td>IIED</td>
<td>International Institute for Environment and Development</td>
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<tr>
<td>ILG</td>
<td>Incorporated Land Group</td>
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<tr>
<td>Acronym</td>
<td>Full Form</td>
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<tr>
<td>ITTO</td>
<td>International Tropical Timber Organisation</td>
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<tr>
<td>IUCN</td>
<td>International Union for Conservation of Nature and Natural Resources (World Conservation Union)</td>
</tr>
<tr>
<td>JGF</td>
<td>Japanese Grant Facility</td>
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<tr>
<td>KGIDP</td>
<td>Kandrian-Gloucester Integrated Development Project</td>
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<td>LMA</td>
<td>Logging and Marketing Agreement</td>
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<td>LOAP</td>
<td>Landowner Awareness Project</td>
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<tr>
<td>LOASP</td>
<td>Landowner Awareness and Support Project</td>
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<tr>
<td>LOC</td>
<td>Landowner company</td>
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<tr>
<td>MP</td>
<td>Member of Parliament</td>
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<tr>
<td>MPA</td>
<td>Member of Provincial Assembly</td>
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<tr>
<td>NANGO</td>
<td>National Alliance of Non Governmental Organisations</td>
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<tr>
<td>NCC</td>
<td>National Conservation Council</td>
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<tr>
<td>NEC</td>
<td>National Executive Council</td>
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<tr>
<td>NFA</td>
<td>National Forest Authority</td>
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<tr>
<td>NFAP</td>
<td>National Forestry Action Plan</td>
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<td>NFAP</td>
<td>National Forestry and Conservation Action Programme</td>
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<td>NFS</td>
<td>National Forest Service</td>
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<td>NGO</td>
<td>Non-governmental organisation</td>
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<td>NRI</td>
<td>National Research Institute</td>
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<tr>
<td>NSDS</td>
<td>National Sustainable Development Strategy</td>
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<tr>
<td>NTFP</td>
<td>Non-timber forest product</td>
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<tr>
<td>NZMERT</td>
<td>New Zealand Ministry of External Relations and Trade</td>
</tr>
<tr>
<td>ODA</td>
<td>UK Overseas Development Administration (now DFID)</td>
</tr>
<tr>
<td>PDL</td>
<td>Project Development Levy</td>
</tr>
<tr>
<td>PFMC</td>
<td>Provincial Forest Management Committee</td>
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<tr>
<td>PMD</td>
<td>Prime Minister’s Department</td>
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<tr>
<td>PNG</td>
<td>Papua New Guinea</td>
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<tr>
<td>PNGRIS</td>
<td>PNG Resource Information System</td>
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<tr>
<td>PPP</td>
<td>People’s Progress Party</td>
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<tr>
<td>PRA</td>
<td>Participatory rural appraisal</td>
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<tr>
<td>RH</td>
<td>Rimbunan Hijau</td>
</tr>
<tr>
<td>RRA</td>
<td>Rapid Resource Appraisal</td>
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<td>SAP</td>
<td>Structural Adjustment Programme</td>
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<td>SGS</td>
<td>Society for General Surveillance</td>
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<td>TFAP</td>
<td>Tropical Forestry Action Plan</td>
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<tr>
<td>TFI</td>
<td>Turama Forest Industries</td>
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<tr>
<td>TRP</td>
<td>Timber Rights Purchase</td>
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<td>TSA</td>
<td>Timber Supply Area</td>
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### Currency conversion table

**Foreign Currency Units per PNG Kina, 1988-97 (Year End).**

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<th>Year</th>
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<td>1.2100</td>
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<td>1989</td>
<td>1.4659</td>
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<td>1990</td>
<td>1.3616</td>
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<td>1997</td>
<td>0.9365</td>
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Introduction

Over the course of the last decade, Papua New Guinea (PNG) has been engaged in a process of institutional innovation and reform which is directed towards the achievement of sustainable forest management, the conservation of biodiversity values, and a more equitable distribution of material benefits from the utilisation of forest resources. The long-term results of this process are still uncertain. Our aim in this study is:

- to review the issues which have arisen from the process of policy reform over the last ten years in order to assess the feasibility of achieving a form of policy that works for the forests and people of PNG.

To this end, we shall:

- review the many factors and values which contribute to the way that people make decisions about the use of the country’s forest resources; and,
- tell the story of past decisions in a way that leads us to a better understanding of those decisions which have still to be taken.

1.1 The policy process: a social drama

In this study, we shall not treat ‘policy’ in the narrow, formal sense, as a set of activities which are (or ought to be) undertaken by various agencies of government, but in the broader sense, as a process in which political decisions on a particular set of issues are the result of negotiations between a wide range of stakeholders (see section 1.3), inside and outside of government, whose interest in these issues may be said to constitute a ‘policy community’ or ‘policy network’. Some stakeholders may think of themselves as ‘policy makers’; others may not. Some stakeholders may have clear goals and concerted strategies; others may not. Some stakeholders may be able to secure the outcomes they desire; others may
find that their actions have consequences which they neither intended nor wanted. So long as this particular set of issues continues to engage a wide range of stakeholder interests, the policy process is unlikely to arrive at any general agreement about what should be done, or even what has been done, in the development of their mutual relationships. But we may still try to describe the shape and direction of their dialogue and behaviour, as if it might lead to various conclusions.

In order to underscore this vision of the policy process, we propose to treat it as a form of *social drama*, in which a variety of actors take on public roles, representing themselves as stakeholders with a particular kind of interest in the issues which constitute the theme of the play, and thus enter into the public dialogue through which the plot is revealed to the audience. Each act and each scene in the play is a distinct stage in the policy process, in which one group of characters engages with a single issue for a certain period of time, within specific institutional settings, but the action does not necessarily unfold in a strict temporal sequence. Insofar as the action takes place at local, national or global ‘levels’, the definition of these levels is not fixed in advance, but is partly dependent on the way that characters in each act or scene define their own spheres of activity. And if ‘policy analysts’ like ourselves can claim to be members of the audience, our programme notes do not tell us anything about the author, and having only seen part of the play, we cannot be sure how it will end. Like a Melanesian ritual or masquerade, it may only be one of a cycle of theatrical performances which is potentially endless, precisely because the actors can always find new plots in the overall theme of their drama.

In our case, the theme can be described as ‘politics in Papua New Guinea’, and the play which we are watching now is called ‘the social construction of forest policy’. Some members of the audience would like to know what we can learn from this play. But, from what we have seen so far, it would be hard to say that the characters on stage have reached any kind of agreement on this subject, so we shall have to make some allowance for their separate needs and desires, and then try to work out how the actions of each character may affect the needs and desires of the others, and what impact they may have on the forested scenery on stage, as the drama continues to unfold.
1.2 Sustainable forest management: a thickening plot

Policy that works for forests is commonly described as ‘sustainable forest management’. But since policies that work for some people do not necessarily work for others, we find that different characters in our play have different ideas (if they have any ideas) about the meaning of this phrase. And while some of them may say that they like the sound of it, and use it from time to time in their own speeches, their actions may not always be consistent with their words.

The Fourth Goal of PNG’s 1975 National Constitution calls ‘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’. This charter for ‘sustainable development’ has been constantly reiterated as the foundation stone of the national government’s own statements on forest policy for the past twenty years. However, the relationship between ‘conservation’, ‘utilisation’ and ‘replenishment’ has been the subject of persistent debate between the stakeholders with an interest in this policy process. The intensity of this debate has grown substantially since 1989, when a Commission of Inquiry found that the actions of government ministers and officials were certainly not consistent with the spirit of the Constitution, and the government’s various statements on forest policy were often inconsistent with each other. These findings gave rise to a policy reform process which may be seen as the second or third act in our drama, and on which this particular study will focus the bulk of its attention.

The reform process has underlined the tensions and contradictions between two different species of forest policy:

- *industrial forestry* policy, which is concerned with the business of transforming forests into commodities, and which therefore tends to equate sustainable forest management with *sustained yield* management, whose goal is to replenish the current commercial values of the forest; and

- *forest conservation* policy, whose goal is to replenish the ‘natural’ values of the forest, and which therefore tends to adopt a much broader definition of ‘sustainability’.

Some stakeholders have argued that these are not really two *species* of
policy, because they should be capable of breeding with each other. For example, one consultant to the newly established PNG Forest Authority thought it most unfortunate that the word ‘forestry’ made some people have visions of ‘destructive forest logging’ or of ‘forests as a ready source of government revenue’, and wanted to counter these visions with a definition of ‘forestry’ as ‘the management of the PNG national forest estate for the production of the entire range of possible forest benefits’ (PNGFA 1994a:2-3). But definitions alone do not make happy marriages, and there is still much room for argument about the compatibility of timber harvesting policy and biodiversity conservation policy as integral components of an overarching ‘forest policy’.

Instead of producing our own definition of ‘sustainable management’, we shall look at the way that different stakeholders have produced and contested a range of definitions within the policy reform process. Part of their argument relates to the differential mandate of two government departments - the Department of Environment and Conservation (DEC) and the Department of Forests (DOF) which has now been reborn as the PNG (ie National) Forest Authority (NFA). But the unhappy marriage between forest conservation policy and industrial forestry policy is not just a relationship between two government agencies and their various allies. Life could hardly be so simple when 99 per cent of all forested land is owned and controlled by communities of customary landowners whose attitudes and behaviour are not amenable to any form of centralised control. Most of these resource owners have never heard of ‘sustainable forest management’, and many of those who have been introduced to this concept by other stakeholders in the policy process are inclined to believe that it may represent an excuse for the government to persist in its failure to deliver the fruits of ‘development’. Some type of social forestry (or social conservation) policy, with its own distinctive vision of ‘sustainability’, might therefore be required to act as a sort of marriage counsellor.

1.3 Stakeholders in PNG: the actors and their masks

Participants in a planning workshop, conducted by this study in January 1996 (see section 1.4), agreed that there were six main groups of

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1 In many other countries ‘social forestry’ represents a distinct third ‘species’ of forestry, alongside industrial forestry and forest conservation. Usually focused on ‘local’ or ‘community’ levels, social forestry has generally emerged within the last twenty-five years.
stakeholders in the national forest policy process - politicians, public servants, industry, NGOs, donors, and local landowners (or resource owners). The present act of our drama might thus be said to deserve the title of Pirandello’s play - ‘Six Characters in Search of an Author’. This title is also appropriate because ‘the government’ does not possess the solidarity or authority to be regarded either as a character in its own right or as the sole author of national forest policy.

If we proceed to ask how these six characters have either contributed to, or been affected by, the decisions made about ‘sustainable forest management’ over the last decade, or what can be said about their respective interests, policies, plans, strategies or motives, then we are soon obliged to recognise that each of them is internally divided in several ways, and none therefore speaks with a single voice. Perhaps we should think of these ‘characters’ as costumes or masks which are worn, in particular scenes of the play, by a considerably larger number of stakeholders or a variety of individual or collective actors whose words and actions do possess some logical consistency over time. But PNG’s characteristic ‘politics of diversity’ make it difficult for the audience to decide just how many of these more specific interests are represented on stage. In this sense, our six main ‘characters’ are indeed more like ceremonial masks than costumes worn by recognisable actors.

The title of this study reflects our own belief that three of these six masks, or the actors who wear them, are somehow more prominent or powerful than the others. In essence, we suggest that the national forest policy process since 1989 has revolved around a struggle between the logging industry and a donor lobby for the ‘hearts and minds’ of the resource owners. The loggers and the donors are the stakeholders who have the most concerted interests, policies, plans, strategies and motives. The resource owners do not have this appearance, but they do have possession of the scenery on which the loggers and the donors have alternative designs. The lesser roles assigned to politicians, bureaucrats and (local) NGOs reflect the simple fact that nearly all the indigenous citizens of PNG retain their membership of specific landowning communities, and frequently represent themselves in this light. The ‘weakness of the state’ is therefore due to the fact that, in some parts of our play, it looks more like part of the scenery than a separate group of actors, while in other parts of the play, we find that local-level negotiations over the conservation or development of the ‘national forest estate’ take place with little or no regard for decisions made in the corridors of government. At national and local levels alike, inside and outside of the State, the plot centres on the
relationship between the politics of the Melanesian village and the divergent interests of assorted foreigners.

This does not mean that we can or should ignore the role of ‘government’ in the formation and implementation of forest policy. Much of the action still consists in a struggle for control of state institutions. On the other hand, we need to recognise the potential weakness of approaches to forest policy which go no further than making efforts to strengthen or reconstruct those institutions in which a group of ‘enlightened donors’ have contrived to establish the priority of their own policy perspectives.

**Figure 1.1  Forest policy as a tug of war**
Box 1.1 The actors behind the masks

‘The Companies’
- Rimbunan Hijau is the dominant player in the log export industry, but faces competition from other Asian business interests.
- The domestic wood-processing industry has little financial or political muscle.
- The Forest Industries Association represents the combined interests of all companies operating in the forestry sector.
- The major mining and petroleum companies have an interest in greening their own image by making some investments in forest conservation initiatives.

‘The Donors’
- The World Bank is the dominant player in the donor community by virtue of its role in coordinating the National Forestry and Conservation Action Programme and the latest Structural Adjustment Programme.
- Other UN agencies and the European Union are the main sources of multilateral aid for conservation activities.
- Australia is the main source of bilateral aid to PNG (both tied and untied), but its position in the forestry and conservation sectors is shared with New Zealand and Germany.
- A number of international NGOs, mostly based in the United States, and funded from a variety of sources, also act as ‘donors’ to the conservation sector.

‘The Politicians’
- National MPs are divided into factions which are grouped around individual leaders, and whose membership is as unstable as their policy platforms.
- The policy positions of most individual MPs reflect the fluctuating balance between their need to secure material resources from powerful patrons in the national arena and their need to fend off challenges from a host of political competitors in their own electorates.
- Recent provincial and local government reforms have increased the power of national MPs relative to that of elected representatives at lower levels of government.

‘The Bureaucrats’
- The NFA and the DEC are the two line agencies with immediate responsibility for implementing public policies on forest management, but their actions are influenced by decisions taken in the Prime Minister’s Department, the Department of Finance, and the Department of Personnel Management.
- Appointments to the most senior positions in the public service and on the boards of statutory bodies are subject to political interference by relevant Ministers.
- Expatriate contract officers still occupy some influential positions in the bureaucracy, and their influence is supplemented by the rotation of donor-funded consultants attached to particular projects.
- There are enduring problems of communication between senior government officials in the national capital and field officers responsible for dealing with resource owners at provincial and local levels.

‘The NGOs’
- There is a somewhat fuzzy distinction between national NGOs (which may or may not have international support) and international NGOs (which may or may not have resident representatives).
This study originates from the engagement of its authors and sponsors in various aspects of PNG’s National Forestry and Conservation Action Programme (NFCAP). The International Institute for Environment and Development (IIED) participated in the Tropical Forestry Action Plan Review which took place in 1989, and later became the supporting agency for the NGO component of the NFCAP Technical Support Project which was funded by the UNDP and ODA, UK (now DFID). Active collaboration between the IIED and the National Research Institute began in 1995. Preparation of the present study was initially undertaken by a ‘Core Group’, comprising:

- Colin Filer, an anthropologist who formerly taught at the University of Papua New Guinea, and who is now Head of NRI’s Social and Cultural Studies Division;

- Nikhil Sekhran, Resource Economist with the PNG Biodiversity Conservation and Resource Management Programme in PNG’s Department of Environment and Conservation;

- Brian Brunton, a lawyer and legal consultant who was formerly the NGO representative on the National Forest Board and is presently engaged as Greenpeace representative in PNG; and

- Basil Peutalo, who had previously worked as the NGO Specialist in the

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2 The National Research Institute, formerly the Institute of Applied Social and Economic Research, is a statutory body which is currently located within the Ministry of National Planning and Implementation.
Our Planning Workshop, brought several other stakeholders together to produce a clear focus on the primary aims of this study (see opening of section 1), and sought to devise a strategy for this exercise in policy analysis to do more than simply add to the small mountain of documents which the NFCAP had already deposited in the middle of the policy process. Having identified the six main stakeholder groups in the policy process, the participants went on to design a strategy for conducting interviews with representative members of each group, partly to search out the ideas and attitudes of stakeholders who have not had the time or inclination to write them down, and partly to promote further dialogue between them. In the case of politicians, public servants, private industry, the NGOs, and donor organisations, the participants made a provisional listing of approximately one dozen ‘key players’, in each stakeholder group, whose perceptions and opinions would represent the diversity of experience and influence within that group. It was recognised that a different approach would have to be adopted in order to canvass the diverse range of ‘grassroots’ community or landowner opinion in PNG. The participants therefore decided that this latter task would need to be undertaken indirectly, by designing a survey instrument which would be distributed to a stratified sample of social scientists and university students who should be able to describe the views held in those rural communities with which they are especially familiar.

As it stands, the present study may be read as the latest in a series of publications and reports on PNG which have arisen from the policy reform process that began in 1989, with the findings of Judge Barnett’s Commission of Inquiry (Barnett 1989). Its other major predecessors have been:

- the *Tropical Forestry Action Plan Review* (World Bank 1989);
- the *Conservation Needs Assessment* (Alcorn and Beehler (eds) 1993);
- a review of the National Forestry and Conservation Action Programme (Taylor et al. 1994);
- the *Country Study on Biological Diversity* (Sekhran and Miller (eds) 1994); and
- a monograph on *The Political Economy of Forest Management in Papua New Guinea* (Filer (ed.) 1997).

The last of these works may be regarded as a collection of background papers for the present study, and includes a more detailed account of the
planning process which has led to its production. The organisation and transcription of personal interviews with individual stakeholders, and the distribution and analysis of ‘rural community survey forms’ also developed for this study, have both proved to be difficult and time-consuming tasks. Findings are drawn on in a preliminary way in this country study, and the organisers are planning to produce one or two additional publications for a full assessment of results.

Although the authors of the present study have already staked a claim to the detachment of an audience observing the drama played out by other stakeholders in the national policy process, it should be evident that we are also players. As a contract officer with the National Research Institute, and an erstwhile consultant to the Department of Environment and Conservation, jointly engaged upon a study commissioned by an international NGO, and funded by two foreign governments, we obviously find it hard to put down the masks of the donor, the bureaucrat or the NGO, and to get behind those of the logger, the politician or the resource owner. In our efforts to reclaim a place in the front stalls, we shall try to remove our act of ‘participant observation’ from the action in which we have sometimes participated, and on which this study may yet have some influence.

1.5 The structure of this report

This study is divided into fourteen sections which constitute three main parts:

- In the first part (sections 2 to 5), we provide a summary portrait of those features of PNG’s national landscape which are most obviously relevant to the analysis of forest policy. We first present a summary account of the PNG’s natural environment, especially its forest landscape, and the human population which occupies and interacts with that environment. We shall then go on to discuss relevant aspects of social and economic development over the course of the last few decades, and follow this with a more detailed account of economic activities in the national forestry sector. Our discussion concludes with an attempt to show how national stakeholders make their appearance in the national policy process. In this way, we attempt to describe the scenery and the sets against which our policy drama will later unfold, and to introduce some of the main characters who will be seen to participate in that drama.
• In the second part (sections 6 to 10), we enter into a detailed account of the way that different stakeholders have staked their claims to the determination of forest policy in recent years. In the five years which elapsed between the national election of June 1987 and the next national election in June 1992, forest management came to be defined as a major policy problem for the State of Papua New Guinea, and a number of steps were taken to institute a process of institutional reform which would address this problem. We begin by considering the way that different stakeholders were identified and engaged in the process of debating this policy problem, defining their mutual interests, and presenting their respective solutions, during that five-year period. Having sought to establish the relationship between the conduct or construction of this argument and the parallel conduct or construction of other major policy debates in PNG, we then go on to review the activities and achievements of different stakeholders in more recent attempts to pursue, control, divert or obstruct the reform of forest policy, whether in the field of industrial forestry or in the neighbouring field of forest conservation. This discussion charts the ‘progress’ of debate on specific instruments and initiatives of public policy in the ‘forestry and conservation’ sector, and thus presents a picture of ‘formal policy’ as the outcome of stakeholder conflict and negotiation over these specific bones of contention.

• In the third and final part (sections 11 to 14), we try to determine the direction in which forest policy is now travelling, and the opportunities which exist for an improvement in the relationship between forests and people.
PNG’s ‘gross forest area’ is now said to cover 279,932 km², or just over 60 per cent of the country’s total land area.
In this chapter, we shall outline some of the most obvious features of the scenery which surrounds the actors in the forest policy process. We show why the forests of PNG hold great attractions for those actors with a stake in sustainable forest management, but we also reveal the fundamental problem which the fact of customary tenure poses for the imposition of any management regime by stakeholders who are not customary resource owners.

2.1 Physical geography

PNG has a land area of about 464,000 square kilometres. The country comprises that part of the island of New Guinea (the world’s second largest island) which lies east of the 141st meridian, together with the Bismarck Archipelago, the island of Bougainville, and over 600 smaller islands and atolls. The northernmost extremity lies just south of the equator, and the most southerly point is located at 12° S latitude. The islands lie at the point of intersection of the Oceanic-Pacific and Australian tectonic plates, which have been pushing against each other for the last 130 million years. As a result, they feature mountain ranges with extreme degrees of folding and faulting, with peaks rising to more than 4,000 metres above sea level, many active and dormant volcanoes, and extensive swampy lowlands subject to annual inundation. The physical landscape of the main island of New Guinea is dominated by a high central cordillera with outlying mountain massifs, to the north and south of which large flood plains have been created by the Sepik-Ramu and Fly-Strickland river systems respectively. Many of the large outlying islands also have rugged contours, comprising extensions of the uplands on the main island, with narrow coastal fringes (see Figure 2.1).

Most of the country is subject to high levels of rainfall and humidity, while temperatures vary primarily with altitude. The southern slopes of the
Figure 2.1 Major physical divisions and slope categories

Source: Löffler 1977
central cordillera and the southern coast of the island of New Britain experience annual rainfall in excess of 5,000mm, while the coastal strip around the national capital, Port Moresby, is one of the few parts of the country to record less than 1,000mm. There is some seasonal variation in levels of rainfall in most parts of the country, and some parts experience a distinctive ‘dry season’ in which there is little or no rain for several months.

2.2 Forest landscape

PNG possesses ‘an extremely rich flora which is influenced in its composition by the position of the islands midway between Asia and Australia, and in its structure and distribution by altitude, climate and the activities of man’ (Allen 1983:10). PNG’s forests are remarkably diverse, ranging from mangroves in the coastal zone to swamp forests, eucalypt savannah, lowland rainforests, and various forms of montane forest. PNG’s lowland rainforests have a botanical affinity to the Malayan realm, while Gondwanan elements are found at higher altitudes - the occurrence of southern beech forest (*Nothofagus* spp.) and Podocarps in upland areas being the most notable examples. Alpine grasslands replace forests above an altitude of about 3,000 metres. Large areas of the central highlands, and some parts of the Sepik River catchment, have been permanently converted to grasslands as a result of human activity. Figure 2.2 shows the distribution of broad forest types distinguished in the PNG Resource Information System (PNGRIS), and Figure 2.3 shows the physical extent of forested land above and below the altitude of 1000 metres.

The most recent assessment of PNG’s forest resources is contained in the Forest Inventory Mapping System (FIMS), which has been produced at the expense of the Australian government and installed as a database in the NFA’s computers early in 1997. This apparently supersedes all previous assessments (including the PNGRIS data summarised in Figure 2.2). The system is based on a mapping and description of the nation’s forest resources and other vegetation, at a scale of 1:100,000 in the years 1975 and 1996 (Hammermaster and Saunders 1995). From the 1975 data, the whole country has been divided into a very large number of individual ‘Forest Mapping Units’ (FMUs), each of which has then been allocated to one of fifty-nine ‘vegetation types’, of which thirty-six have been classified as ‘forest types’. A further distinction has been made between forty-two

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3 1975 was chosen as the baseline year because there had been very little commercial logging activity before that date.
Total land area of PNG = 464,000 Km²

Total forested area = 279,932 Km²

Source: Saunders 1993
Figure 2.3 The physical extent of forested land above and below the altitude of 1000m

Source: Saunders 1993
‘forest zones’, each of which contains those FMUs of the same forest type which also contain the same combination of merchantable tree species. The authors of the present study have not yet had access to the details of this classification.

As in the case of the earlier Rapid Resource Appraisal (McAlpine 1993), the definition and measurement of what is now called ‘potential production forest’ has been based on the progressive exclusion of other categories from the ‘gross forest area’, which is now said to cover 279,932 km², or just over 60 per cent of PNG’s total land area.

- First, the ‘gross forest area’, which is defined as the total area of forest identified in all vegetation types, has been reduced to an ‘adjusted forest area’ (currently 266,050 km²) by the exclusion of small patches of natural or human disturbance.

- Second, those areas of land (including mangrove swamps) which ought to be excluded from logging because of the existence of extreme or serious physical limitations of altitude, slope, terrain, or inundation have been classified as ‘non-potential production forest’ within this ‘adjusted forest area’.

The ‘adjusted forest area’ which existed in 1975 (296,583 km²), including both ‘potential’ and ‘non-potential’ production forest, has been divided into four parts by reference to the change which has (or has not) occurred between 1975 and 1996:

- 23,742 km² has been logged and left to regenerate;
- 4,210 km² has been logged and then cleared for conversion to permanent land use;
- 11,332 km² has been cleared for conversion to permanent land use without being logged beforehand; and
- the remainder has neither been logged nor cleared for conversion to permanent land use.

Figure 2.5 shows the total areas of ‘potential’ and ‘non-potential’ production forest, respectively, which existed in each province in 1975 and 1996, and the areas which have either been logged (with or without being cleared) or cleared without being logged in the intervening period. The summary data available to us do not provide separate measurements of the

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4 This represents a considerable reduction of previous estimates, which have commonly maintained that 70-80 per cent of PNG’s land area is covered with forests. The reduction is partly due to the progress of deforestation, and partly due to changes in the definition of ‘forest’.
Figure 2.4 Change in PNG's 'adjusted forest area*', 1975-1996

Total forest area in 1996: 266,050 Km²
(= 90% of forest area which existed in 1975
which was 296,583 Km²)

Logged-over forest left to regenerate: 8,751 Km²

Logged then cleared for other land use:
4,210 Km²

Logged-over forest "left to regenerate" but not done so yet**:
14,991 Km²

Cleared for other land use (without logging):
11,332 Km²

* see text
** see footnote 5

Source: PNG Forest Inventory Mapping System
Figure 2.5 Transformation of PNG's 'potential production forest' and 'non-potential production forest' 1975-96

(a) Transformation of PNG's 'potential production forest'
(b) Transformation of PNG’s ‘non-potential production forest’

- Western
- Gulf
- Central
- Milne Bay
- Oro
- S Highlands
- Enga
- W Highlands
- Chimbu
- E Highlands
- Morobe
- Madang
- East Sepik
- West Sepik
- Manus
- New Ireland
- EN Britain
- WN Britain
- N Solomons

Legend:
- □ Non-potential forest converted to other land use since 1975
- ■ Non-potential production forest remaining in 1996

'000 ha
areas of ‘potential’ and ‘non-potential’ production forest which have been logged and cleared. Observant readers may note that the measured decline in the aggregate area of both ‘potential’ and ‘non-potential’ production forest between 1975 and 1996 (a total of 3,053,416 hectares) is considerably greater than the sum of the areas which have been ‘converted to permanent land use’ (a total of 1,554,218 hectares). We have not yet been able to obtain a satisfactory explanation of this anomaly, but it may be due to the existence of substantial areas of logged-over forest which have been ‘left to regenerate’, but have not (yet) done so.

On average, logging coupes yield harvest volumes of between 18 and 30 cubic metres per hectare, contrasting with yields as high as 110 cubic metres per hectare in peninsular Malaysia (UNFAO 1993). Some 400 species of trees have economic value, but only 30-50 species tend, in practice, to be harvested (Cameron and Vigus 1993; Saulei 1993). The total national timber harvest currently averages something over 3 million cubic metres, although the ‘allowable cut’ in current logging concessions is over 6 million cubic metres. Allowable cut exceeds actual harvest levels because of the haphazard nature of resource allocation, the inefficiency of logging companies, and the obstacles which local landowners often present to their operations (see sections 5 and 6). Logging practices in PNG have also been criticised for their destructive environmental impact. There is a notable absence of forward planning, with 1:100,000 scale maps used to guide field operations, snig tracks and feeder roads being constructed on a trial-and-error basis, little use of directional felling techniques, and excessive use of bulldozers and dozer blades. A failure to cut the vines which bind the forest canopy before felling means that undersize trees, which should ordinarily form the future harvest, are toppled when merchantable trees are cut (Frans Arentz, 1995, personal communication). Additionally, there is a lack of adherence to environmental regulations, including restrictions on logging on slopes of over 30 degrees and along water courses and other sensitive environments. The net result of these practices is that soils are compacted to a greater degree than is necessary, and excessive gaps tend to be formed in the canopy. Soil compaction prevents seedlings from finding purchase on the forest floor, and canopy gaps alter micro-climates. Such gaps tend to be colonised by fast-growing climbers and pioneer tree species which suppress the re-growth of many valuable commercial species. Between 30 and 70 per cent of residual trees suffer mortality as a consequence of logging or the physiological stress following harvest (Tom Vigus, 1993, personal communication).

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5 It should also be noted that the statistics presented here are still regarded as provisional outputs of the database (John McAlpine, 1997, personal communication)

6 The UNFAO report estimates harvest levels of 30 cubic metres per hectare, but forest industry sources claim lower yields
The UNFAO (1993) has estimated a deforestation rate of 0.2 per cent per annum for PNG, compared to 1 per cent in Indonesia, 1.4 per cent in Sri Lanka, and 2.9 per cent in Brazil. The data contained in the FIMS suggest an 11.4 per cent decline in the ‘gross forest area’, and a 10.3 per cent decline in the ‘adjusted forest area’, over the period from 1975 to 1996. In 1989, the World Bank assumed that the overall rate of deforestation was roughly equal to the rate of reforestation, given that the area under forest plantations had grown from 23,580 hectares in 1979 to 35,896 hectares in 1988 (World Bank 1989:23), and that a good deal of government land was still theoretically available for this purpose (ibid:26), even if the DOF’s own target of 100,000 hectares by the year 2000 was clearly unrealistic (ibid:27). However, the World Bank’s own assumption may have been too optimistic. In 1988, roughly 70 per cent of the area devoted to forest plantations was under government control. The government was attempting to enlarge the area of plantations on customary land through the New Zealand-funded Demonstration Reforestation Project (see Filer 1989), but the problems encountered by this project were cited by the World Bank as evidence of the implausibility of the official target. This helps to explain a continued reduction in the rate at which new plantations are being established, while the FIMS shows that the rate of deforestation has been increasing.

2.3 Biodiversity values

PNG is renowned for its rich biological diversity. The presence of large mountains and islands have served to create and to isolate habitats and climatic zones, providing a supportive environment for species radiation. PNG’s biodiversity values have been extensively reviewed in the Conservation Needs Assessment (Alcorn and Beehler (eds) 1993) and the Biodiversity Country Study (Sekhran and Miller (eds) 1994). This section provides a very brief summary of the information contained in these works.

According to Miller et al. (1994), the biodiversity heritage of the New Guinea region, including Irian Jaya and outlying islands, includes the following:

- Some 20,000 species of ferns and flowering plants (perhaps 7.5 per cent of the world’s total species count);
- About 190 species of mammals (of which 81 per cent are endemic);
- More than 750 species of birds (approximately 53 per cent endemic);
- 300 species of reptiles and 197 species of amphibians (46 per cent of all cold-blooded vertebrates being endemic);
• 3,000 species of fish, including 300 freshwater species; and
• 200,000 to 400,000 insect species, many of which have not yet been
classified.

The dependence of these species on particular types of forest habitat, and
their vulnerability to particular types of forest clearance or degradation, is
hugely variable.

Although the present status of many species is simply unknown, some
species are extremely rare, with limited bio-geographical distributions. The
IUCN Red List of Threatened Animals includes 38 species of mammals, 22
species of birds, 8 species of reptiles and 26 species of invertebrates in PNG.
Of these, 14 species are listed as endangered and 40 as vulnerable (IUCN
1994). However, given that so many of New Guinea’s species are as yet
unknown to science, the precise status of the area’s biodiversity is still a
matter for conjecture. Certainly large gaps exist in terms of scientific
understanding of forest biology. Currently, the rate of discovery of taxa
new to science among forest trees runs at some 5 per cent of collections in
areas that have been relatively well surveyed, and perhaps double that for
other areas (John Pipoly, 1996, personal communication).
The biodiversity values of PNG’s natural forests are under threat from various quarters (see Filer 1994), but it is difficult to measure the relative significance of different types of impact. Industrial logging operations are very likely to have a negative effect on the populations of some species, but there is little empirical data on this subject. None of the existing logging operations applies species management measures (see Louman 1997). Given the uncertainty over the survival needs of particular species, and ecological linkages within and between species in the forest environment, we can only point to the danger that timber harvesting is contributing to species loss. Though populations of some species may increase as a result of logging, especially those adapted to forest-edge habitats and secondary re-growth, populations of species that inhabit the interior of primary forests may be seriously diminished or entirely extirpated, as micro-climates and stand composition change in the aftermath of logging. On the other hand, the presence of habitat refuges that are inaccessible to loggers for topographical reasons may provide a sanctuary for these species, in which case the extent and quality of such refuges in areas contiguous to logging coupes may determine the fate of some species.

Several species of birds and mammals are threatened by hunting pressures, compounded by the growing use of firearms by hunters in some parts of the country. These include some species of tree kangaroos, the two species of the Niugini Crowned Pigeon, and some populations of cassowaries. Other species are threatened by the introduction of exotic animals, including the domestic cat, Timor deer, cane toad and several species of rats.

Less than 2 per cent of PNG has formal conservation status, and three sites comprise 80 per cent of this area. Protected areas include sites on both state land and customary land. The existing protected area network is certainly not representative of PNG’s bio-geographical diversity. All of the current sites face a variety of threats, and there is little guarantee that conservation objectives will be achieved in the long term (see section 9).

### 2.4 Human population

Archaeological evidence from the Huon Peninsula (in Morobe Province) shows that human settlement of the main island of New Guinea dates back at least 40,000 years. The Bismarck Archipelago and the Solomon Islands seem to have been occupied for at least 30,000 years. The central highlands
Figure 2.6 The distribution of the human population

Source: PNGRIS database.
of New Guinea have probably been occupied for at least 20,000 years, and this is where prehistorians have found evidence of an agricultural tradition which dates back 9,000 years or more. Within the last 4,000 years, the aboriginal population has apparently been joined by an influx of Austronesian-speaking peoples who introduced a variety of new manufacturing techniques and some new species of domesticated plants and animals. Nearly all the country’s present inhabitants are descendants of the indigenous Melanesian population.

The current (1997) population of PNG is estimated to be 4.4 million, with an average crude density of 9.5 persons per square kilometre. Comparison of national census data from 1980 and 1990 indicates an annual population growth rate of 2.3 per cent. If this rate of growth persists, the population will double over the next thirty years. Almost 85 per cent of the population is still located in rural areas, and most of these people still obtain a large proportion of their domestic food requirements from the use of their own customary land. The urban population is growing more rapidly than the rural population, but there is a high level of circular migration between rural and urban areas.

There is also a very high range of variation in rural population densities between different parts of the country (see Figure 2.6). Some of the central highland valleys, parts of the Torricelli/Prince Alexander Range, and parts of the Gazelle Peninsula on New Britain support populations in excess of 50, or even 100, people per square kilometre, while the vast expanse of Western Province has only one person per square kilometre (PNGNSO 1993). There is no simple environmental explanation for this uneven pattern of distribution. High population densities seem, in many cases, to have been the result of fairly recent migration from areas which now have much lower densities, while some of these latter areas appear to have supported much higher populations in the past (Allen 1983). Traditional settlement patterns comprise a mixture of nucleated villages, with populations of 100-500 people, and scattered family homesteads, with much smaller numbers in each one. In this case also, there is no simple correlation between the overall density of population and the average size of settlements.

The demographic structure of the country is shifting dramatically, with the population becoming more youthful as it grows. On average, a Papua New Guinean woman is likely to bear 5.1 live children during her lifetime given current age-specific fertility rates (UNDP 1996). There is a relatively poor understanding of the determinants of population growth, including
Government policy has tended to emphasise the provision of contraceptives and family planning counselling without reference to these factors.

The environmental impact of population growth - past, present and future - has been a subject of considerable debate. In the period before substantial contact with Europeans, environmental impacts were generally limited by low population densities and simple subsistence technologies. However, substantial areas of forest were converted to grassland by repeated burning and subsistence pressure (Robbins 1960), and paleontological evidence suggests that ten species of mammals may have been rendered extinct by human activity (Flannery 1994). In the high valleys of the main island, where we find most of the anthropogenic grasslands and almost half of the current rural population at altitudes above 1,200 metres, the introduction of the sweet potato some 400 years ago facilitated a process of demographic and economic expansion which was still underway when Europeans first arrived. This involved a substantial increase in the rate of forest clearance...
and, in some cases, a vicious circle of environmental degradation (Allen 1984; Wood 1984). At lower altitudes, there is much less evidence of ‘traditional’ practices which could reasonably be described as ‘unsustainable forest management’, and these lowland and coastal areas suffered a more significant decline in population as a result of diseases introduced during the early colonial period, from which they have often taken some time to recover. In these areas, it is more plausible to argue that pockets of unsustainable population density result from the colonial destruction of various customary mechanisms for maintaining some state of ecological equilibrium.

In pre-colonial times, the institutions of tribal warfare and spontaneous migration provided some sort of safety valve for excessive rates of population growth. The colonial regime removed this safety valve by fixing and policing the territorial boundaries between rural communities, but then created another by initiating a series of agricultural resettlement schemes which were partly intended to shift numbers of people from high-density to low-density areas (see Valentine and Valentine 1979; Hulme 1984). In the period since Independence in 1975, there has been a rapid growth of parochial resistance to the idea of state-sponsored transfers of rural settlers across provincial boundaries, especially when this entails their movement from the less developed to the more developed provinces. The function of the safety valve has thus been transferred to the process of urban migration, which was tightly controlled during the colonial period, and which some provincial authorities are now seeking to resist in their own way by the forced ‘repatriation’ of urban ‘squatters’ from other provinces. However, the scarcity of land in some rural areas is only one of the many factors which explain the overall growth of the urban population over the last three decades, and there is as yet no evidence that current moves to reverse this general trend will add to the existing problem of population in those particular areas.

Evidence from other parts of the world has sometimes been taken to show that rapid rates of population growth amongst swidden cultivators is the most important single cause of tropical deforestation (see Poore 1989). But the evidence from PNG does not appear to warrant this conclusion. A comprehensive survey of current subsistence farming practices indicates that only 3 per cent of the land cleared for agricultural purposes over the last twenty years is land which has not previously been used for agriculture, and most of this clearance has taken place in the vicinity of large-scale agricultural projects originally sponsored by the colonial administration (Bryant Allen, 1997, personal communication). It seems that
PNG’s subsistence farmers, including those who live in the densely populated high valleys, are responding to population growth by various forms of agricultural intensification, rather than clearance of primary forest.

### 2.5 Customary tenure

About 97 per cent of all land in PNG, and more than 99 per cent of all forested land, is still held under customary title. Most of the land which has been alienated from customary tenure was either ‘purchased’ for the development of coastal plantations under European management during the early colonial period (especially in what was then German New Guinea) or leased by the colonial administration for the development of towns, outstations, and economic infrastructure, or for resource development. In the period following the First World War, the Australian administration of Papua and (formerly German) New Guinea took a fairly conservative approach to the question of land tenure, largely preventing any further alienation of customary land except through the acquisition and subsequent transfer of government leasehold for specific uses. The temporary acquisition of mining leases and timber harvesting rights was part of this general pattern.

It was only towards the end of the colonial period that the Australian administration began to consider that the maintenance of customary tenure might constitute a serious impediment to economic growth in an independent state, because the uncertainties of customary title would prevent the indigenous population from using their land as security for commercial credit. These considerations prompted passage of a Land Tenure (Conversion) Act in 1963, which provided an opportunity for members of landowning communities to secure individual title by mutual agreement with their fellow members, and a brief for the Land Titles Commission to demarcate and register the title of customary landowning groups. Neither of these measures had the intended effect of ‘liberating’ large areas of customary land from the constraints of custom. In some parts of the country, they only served to aggravate local disputes over customary title (see Hide 1973). At the same time, many of the traditional owners of land which had been alienated for agricultural purposes during the early colonial period began to agitate for its return to traditional ownership. In 1972, the Administration washed its hands of the land tenure question by setting up a Commission of Inquiry into Land Matters whose membership was entirely indigenous, even though the support staff were all expatriates.
Loggers, donors and resource owners

(Fingleton 1981). The Commission’s re-assertion of the primacy of customary title (PNGDOL 1973) was confirmed by several provisions of the National Constitution, by the Land Groups Incorporation Act of 1974 (see section 10), which was intended to facilitate the resumption of alienated land, and by the Land Disputes Settlement Act of 1975, which established a system of Local and District Land Courts to resolve disputes over customary title.

The failure or refusal of the State to record or transform the nature of customary land ownership in any systematic way reflects the huge variety and complexity of land rights in different parts of the country. Colonial and independent government officials have tended to assume, for the sake of argument, that such rights are normally vested in ‘clans’, but this has simply meant that ‘clans’ have come to be defined as landowning groups, whose internal constitution varies as much as the rights which are ascribed to them (Holzknecht 1994; Filer 1997a). Anthropologists have documented many specific instances of such variation, but have not made much progress in formulating general rules which can explain and predict the customs to be found in particular places (see Crocombe and Hide 1987). The acquisition of new lease areas for mineral resource development over the last ten years has occasioned a new round of investigations into different forms of customary ownership, which have added to the overall complexity of the picture.

Use of the phrase ‘land tenure’ is itself responsible for some of this confusion. Rather than say that ‘land’ is an object over which individuals and groups exercise various rights, it would be more appropriate to say that social relationships within and between local communities are normally grounded in the landscape. This means that ‘customary tenure’ is not merely concerned with the use of physical resources, but also with forms of cultural property and social organisation which may not seem, to Western eyes at least, to be part of the same equation. At the same time ‘local custom’ is not an immutable set of rules and principles, handed down from generation to generation, but a combination of attitudes and practices which are constantly being adjusted to fit new circumstances and demands - including those which accompany the commercial development of natural resources. This means, amongst other things, that the arguments over the ownership of such resources may not be any easier to resolve by appealing to local custom than by recourse to the legal apparatus of the State (see section 7.2).
Village elder making sago, East Sepik Province. Sago is a mainstay of the diet in many lowland areas of PNG. Sago palms grow wild in lowland swamps, but are deliberately cultivated in some areas.
PNG’s economy is dominated by the natural resource sectors, including the minerals, crude oil, forestry, agriculture and fisheries industries. These sectors are largely isolated from each other and from domestic manufacturing industry. Most raw materials are extracted with the use of imported technologies and then exported for processing overseas. Inadequate economic infrastructure, poor distribution and marketing networks, the high cost of utilities (including energy and communications), and the limited skill composition and productivity of the national workforce all contribute to high production costs which reduce the capacity to compete with neighbouring countries in the Asia-Pacific region. At the same time, PNG has a large and resilient subsistence sector, which exists in an uneasy state of symbiosis with its resource-dependent formal economy. The relative stability of this relationship in the early years of national independence has recently been tested by a series of political and economic crises which have obliged the government to accept the conditions of a structural adjustment programme coordinated by the World Bank (see sections 3.5 and 13.2).

### 3.1 Social and economic indicators

In the period since Independence, standard economic indicators show that PNG has gradually developed to the point where it ranks as a fairly typical ‘middle-income country’, but standard social indicators record a stagnant or declining level of development which is more characteristic of a typical ‘low-income country’.

Since 1993, PNG’s per capita GNP has been hovering between US$1,100 and US$1,200, but the distribution of national income is highly skewed. The World Bank estimates that 80 per cent of the population has an average
per capita income of less than US$350 - similar to the mean level for ‘low income countries’ (Hamidian-Rad 1997). In some rural areas, this figure falls below US$100.

The formal sector of the national economy is dominated by the export of raw materials. Figure 3.1 shows the relative significance of the main export commodities and the increase in the relative value of mineral, petroleum and timber exports.

![Diagram](image_url)

**Figure 3.1 Commodity export values, 1987, 1995 and 1997**


The high level of dependence on world commodity markets means that the economy is especially vulnerable to external shocks induced by fluctuating market prices. This is accentuated by a high level of import-dependence. Even excluding the mining and petroleum sector, where nearly all capital inputs are imported, imports have accounted for roughly 30 per cent of GDP over the last ten years.

Other indicators point to a general pattern of economic stagnation. Figure 3.2 shows that the sectoral distribution of GDP has remained constant since 1987, once allowance is made for the recent growth of the petroleum industry.
Figure 3.2  Sectoral share of real GDP, 1987 and 1997

Source: AusAID 1997
Gross domestic investment fell from more than 27 per cent of GDP in 1991 to less than 18 per cent in 1995 (AusAID 1997:152). Gross private investment (both foreign and domestic) in the non-mineral economy has been running at less than 10 per cent of GDP over the same period. There is a notable lack of coordination between public and private sector investment. By comparison with other developing countries, the capital-output ratio is very high, and the output-labour ratio is very low.

Some 13 per cent of the total workforce is estimated to be employed in the formal sector (SRI 1992), and the public service accounts for some 25 per cent of total wage employment (McGavin 1997). The 1990 census showed that only 11 per cent of citizens earning a cash income had more than 10 years of schooling. Approximately 60,000 new entrants enter the workforce annually, though the growth in new jobs has stagnated. Wage employment has only been growing at an average rate of 1 per cent per annum (compared with the population growth rate of 2.3 per cent) since 1980. There is, as a consequence, considerable urban unemployment, which is only partly alleviated by the growth of an ‘informal’ urban economy, and which contributes to a pervasive ‘law and order problem’.

Formal sector development has been spatially uneven. PNG’s economic landscape is dominated by a set of centre-periphery relationships. Social and economic infrastructure, government services, and formal sector work opportunities tend to be concentrated in a few urban areas and resource development enclaves. The relative quality and quantity of infrastructure and services tends to be much lower in areas which do not have ready access to these centres, reducing opportunities for rural communities to participate in the formal economy, and providing additional incentives for some of them to opt for extractive industrial development (including logging) on their customary land. The perceived affluence of urban and resource development ‘centres’ has a major impact on the development expectations of these communities, and also serves as a catalyst for further rural-urban migration.

PNG’s current social indicators present a stark contrast with the condition of relative affluence measured in nominal per capita income terms. Some of the indicators shown in Table 3.1 may actually overstate the average level of social development - some analysts consider that the functional literacy rate is still below 50 per cent. These indicators also conceal wide discrepancies between the welfare status of ‘central’ populations and that of villagers in the more remote rural areas, including many forest-edge communities. In this case also, village people’s feelings of relative deprivation are compounded by the apparent decline in the quality and availability of government ‘services’, and encourage them to demand such services from other sources, including logging companies.
It is very difficult to measure the contribution of the subsistence or non-market sector to national GDP, but it is clear that the vast majority of the rural population still produces the bulk of its daily food requirements within this sector (see Fereday et al. 1994). At the same time, the variety of subsistence production has been substantially reduced over the last few decades, as rural communities have abandoned many traditional handicrafts, hunting techniques, and medical practices, and substituted items of modern technology. This means that rural villagers now tend to make less use of natural forest products than their forbears did, and therefore have less of an incentive to manage and conserve their forest resources, except insofar as these are essential to the supply of food, fuel, water and building materials.

During the colonial period, the subsistence sector subsidised the formal economy by removing the need for expatriate employers to pay their native workers a family wage. Colonial labour regulations were explicitly designed to maintain the viability of the subsistence sector by detaching a limited proportion of the adult male population from their communities for limited periods of employment on coastal plantations or in urban areas. This element of subsidy continues, to the extent that many wage-dependent households still produce some of their own food requirements (even in urban areas), and otherwise engage in various forms of ‘gift exchange’ with other members of their home communities. But if the maintenance of this

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Table 3.1 Selected social indicators

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Life expectancy at birth</td>
<td>56 years</td>
</tr>
<tr>
<td>Adult literacy</td>
<td>70.5 per cent</td>
</tr>
<tr>
<td>Female literacy</td>
<td>60.6 per cent</td>
</tr>
<tr>
<td>Maternal mortality rate</td>
<td>930 per 100,000 live births</td>
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<tr>
<td>Infant mortality rate</td>
<td>68 per 1,000 live births</td>
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<tr>
<td>Under 5 mortality rate</td>
<td>95 per 1,000 live births</td>
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<td>Population with access to safe water</td>
<td>28 per cent</td>
</tr>
<tr>
<td>Population with access to sanitation</td>
<td>22 per cent</td>
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<tr>
<td>Underweight children under age 5</td>
<td>30 per cent</td>
</tr>
<tr>
<td>Daily calorie supply</td>
<td>2615</td>
</tr>
</tbody>
</table>

Source: UNDP 1996.

3.2 Subsistence economy

French (1994) has made a rough attempt at valuing the consumption of starchy staples. For a base population of 4 million, and assuming that gardening meets daily calorie requirements (of 2000 calories per person), he calculates that a total of 3 million tonnes of staple food production would be required to meet the population’s annual food requirements. This equates to between K600 million and K3 billion a year, if valued at K0.2 and K1 per kilogramme respectively.
sector helped to keep native wages low during the colonial period, it has come to have a rather different effect since real wages rose markedly around the time of Independence, because the availability of a ‘subsistence option’ encourages workers to leave the labour market if formal sector wages and work conditions deteriorate, and may inhibit the work effort and productivity of those who remain. The same argument applies to smallholders faced with a decline in cash crop prices.

Subsistence farming systems involve a bewildering variety of garden and tree crops. Figure 3.3 shows the geographical distribution of the main staple crops, but conceals the complexity of lowland agricultural systems, in which the ‘staple’ often accounts for less than 50 per cent of the calorie intake from subsistence food production. For many years, the most detailed information on subsistence agriculture was derived from a Survey of Indigenous Agriculture conducted by the colonial administration between 1961 and 1963, but this has now been replaced by the results of more recent survey work by scholars of the Australian National University in collaboration with the University of PNG and the PNG Department of Agriculture and Livestock (Allen et al. 1993-97).

Some 500 species of plants are grown for consumption in PNG, with 45 species vital for sustenance (French 1994). The most common garden crops are sweet potato, yams, taro, bananas, chinese taro, cassava and sugarcane. These are supplemented by greens such as aibika, rungia, pumpkin, watercress, snake bean, winged bean and tulip. A large number of fruits and nuts are also eaten - many of which are harvested directly from the wild. Sago palms (which provide the staple diet in many lowland areas) and other tree crops are commonly planted or cultivated in a variety of locations between village, garden and forest.

Swidden horticultural systems generally involve the clearance and/or burning of secondary re-growth or grassland fallows, followed by various forms of soil preparation before one or more crop rotations. Cultivation periods, crop combinations, management techniques and subsequent fallow periods depend on a wide range of environmental, technical and demographic circumstances. Subsistence farmers are accomplished innovators, and their innovations have helped them to adapt to rapid population growth without necessarily extending the area under cultivation. Land use intensification techniques include the substitution of more productive crops or cultivars, lengthening of cropping periods, shortening of fallow periods, and a variety of soil maintenance techniques. The latter include fallow species management though the planting of selected tree species, transfer of organic matter into food gardens.
Figure 3.3  Distribution of staple crops

Source: Allen et al. 1993-97 (map courtesy of Karl Benediktsson).
(composting), rotations of leguminous food crops with root crops, soil retention barriers (to reduce erosion), and mulching or use of animal manure as a fertiliser (Bourke 1990).

Despite these innovations, a combination of population growth, extension of the area of land planted to cash crops, and the diversion of time and effort to a variety of commercial and political activities are still having a negative impact on the productivity or sustainability of subsistence farming systems in some areas. Without some compensating growth in the formal sector of the rural economy, we may then expect a corresponding deterioration in the welfare of the rural population. At the same time, the real or anticipated growth of the cash economy may conceal the true value of subsistence production in the minds of producers, especially when they consider the prospect of getting ‘free money’ from the extraction of their natural resources by a third party. While the maintenance of subsistence systems may seem a sound rationale for the promotion of conservation initiatives, villagers may construe the loss of subsistence output as a reasonable sacrifice for the short-term benefits of extractive development.

3.3 Commercial agriculture

The history of commercial agriculture in PNG has involved a series of economic and social experiments with different export crops, normally involving some combination of plantations or estates under expatriate management, indigenous smallholder production, and government involvement in extension and marketing activities. Figure 3.4 shows the areas in which these different crops are now concentrated.

For the greater part of the colonial period, copra was the most important export crop, and most of it was derived from coastal coconut plantations which relied on a system of indentured native labour organised by the colonial administration. In the period following the Second World War, the Administration tried to establish a system of marketing cooperatives for coastal village producers, but this experiment was not a great success. In the period since Independence, most of the old plantations have gone out of business, as their source of cheap labour has evaporated, and the smallholder sector has declined in response to falling copra prices.

After the Second World War, a number of expatriate settlers cleared new agricultural estates in the temperate valleys of the central highlands, on land leased by the colonial administration, to grow arabica coffee. Here
Figure 3.4 Distribution of cash crops

Source: Allen et al. 1993-97 (map courtesy of Karl Benediktsson).
and elsewhere, local villagers also began to experiment with new cash crops, and by the 1960s, their efforts were receiving the active support of government extension officers. In lowland and coastal areas, robusta coffee and cocoa were the main subjects of this experiment, though villagers in some areas were encouraged to grow rice (for the domestic market) and to keep cattle (for local consumption). In the period since Independence, arabica coffee has been the most significant export crop, although production levels declined in the late 1980s because of a combination of disease and poor prices. In those areas where smallholders have not had the benefit of proximity to nucleus estates, production of coffee and cocoa has been hampered by the poor quality of government extension services and the decline of transport and marketing infrastructure, as well as by periodic price falls.

During the 1960s, the Administration took steps to develop two new plantation crops - oil palm and rubber - in ways which sought to capitalise on the perceived success of the ‘nucleus estate’ model which had been pioneered in the central highlands. Large oil palm estates were established in Oro and West New Britain provinces, and rubber estates in Central Province, under joint ventures between the government and an overseas partner. Adjoining blocks were then set aside for indigenous settlers recruited from other parts of the country, whose own output (along with that of local villagers) was to be purchased and processed by the company which managed the estate. Although palm oil now ranks as the second most important agricultural export, these experiments have not been totally successful, mainly because of enduring conflict between labourers, blockholders and traditional landowners. While price factors have persuaded the government to try and repeat these experiments in other parts of the country, the resettlement component has now been dropped from the design.

In the period since Independence, the national government and various donor agencies have shown a good deal of interest in developing domestic and foreign markets for indigenous food crops. Bourke (1993) estimates that average annual sales of food and betelnut are worth about K175 million, or approximately K250 per household. The domestic market has been expanding steadily with the growth of the urban population, but further expansion is constrained by the high costs of transport and storage. Perhaps the greatest agricultural ‘success story’ of recent years is the phenomenal expansion of marihuana cultivation in the central highlands, but marketing of this crop in PNG and Australia does not show up in the country’s national accounts.
The overall contribution of commercial agriculture to national export revenues declined from 36 per cent in 1980 to 15 per cent in 1995 (Temu 1997). Despite the fact that 85 per cent of the population earns its living in the agricultural sector, the rate of new investment has followed this downward trend, while productivity has remained low and domestic costs have remained high. In 1992, the national government made an effort to counteract the impact of falling commodity prices by introducing a price support scheme which contributed to the fiscal crisis which occurred over the following two years, but this scheme has fallen victim to the latest round of structural adjustment. The prospect of reversing the decline of this sector has recently been improved by the recovery of commodity prices and the devaluation of the kina (by 50 per cent against the US dollar since 1994).8

The fluctuating fortunes of commercial agriculture have two main impacts on the rate of deforestation and forest degradation. On the one hand, the establishment of large-scale agricultural plantations and estates in lowland and coastal areas has been the most important single cause of deforestation since European contact. And it may well continue to be so, since the national government has recently taken to encouraging foreign investment in so-called ‘agroforestry’ schemes, which purport to develop new tree crop plantations, but which may be motivated primarily by the investor’s interest in harvesting timber without having to follow the procedures laid down by the new Forestry Act (see section 4.4). On the other hand, the poor economic performance of the major export crops in recent years may well have encouraged smallholders to seek an alternative source of cash income by offering their forest resources for ‘selective’ industrial logging. Here again, the smallholder’s engagement with the formal economy is liable to produce a form of calculation in which short-term rental incomes look more attractive than the uncertain rewards of honest toil.

3.4 Resource dependency

Some economists would say that PNG is a mineral-dependent economy, while others might prefer to say that it depends on the extraction of a narrow range of natural resources - oil, gold, copper, fish, and logs. If we only consider the formal sector of the national economy, leaving aside the great mass of economic activity which is undertaken outside it, both forms of dependency are much in evidence. Extractive industry, almost entirely

8 The kina was worth approximately 70 US cents at the end of 1997, but only 50 cents by April 1998.
Figure 3.5 Distribution of mining, petroleum and logging projects, 1993-95

Source: PNG Forest Authority database (map courtesy of Karl Benediktsson).
under the management of foreign capital, currently accounts for something like 90 per cent of the value of PNG’s domestic exports, and probably contributes about half of the government’s non-grant revenues. From this point of view, PNG might therefore be described as a nation (and a government) of resource rent collectors (see Filer 1997b). Figure 3.5 shows the spatial distribution of resource extraction projects in the period 1993-95. Comparison of this map with those depicting the distribution of the human population and commercial agricultural activities reveals that extractive industry flourishes in areas of low population density and limited alternative sources of cash income for the rural villager.

There has been a slow but steady increase in the significance of mineral exports in the period since Independence, from something less than half to something more like two thirds of all domestic exports. The substantial presence of mining capital in PNG clearly does have some negative effects on other sectors of the national economy, mainly because of the way that it affects the domestic market in various factors of production, but if we can therefore say that the mining industry constitutes an ‘economic menace’ in its own right, it has also been responsible for a psychological or cultural form of ‘resource dependency’ which partly reflects the simple economic fact that an ever-increasing proportion of PNG’s national income has been collected in the form of mineral resource rent, but partly reflects (and explains) the national government’s recent habit of passing more and more of this income back to those few ‘lucky-strike’ communities which actually play host to a mining or petroleum project. The rest of the rural population has thus been left to indulge in fantasies about their chances of joining the club.

Stürzenhofecker (1994:27) has provided a graphic illustration of this state of mind in her portrait of a highland community whose male members

blend received notions regarding powerful spirits with rumours regarding the finding of oil resources, in such a way as to move from the picture of a sacred landscape, whose fertility must be preserved for the future, to a picture of an exploitable landscape available for manipulation by a company… Their peripheral location, coupled with rumours of the centralising potential of company development, have given them an almost apocalyptic vision of what such a form of development could bring to them, regardless of the likely ecological consequences.

Although there may still only be a minority of the rural population which actually does receive some form of resource rent, the vast majority now
seem to subscribe to the belief that their land does contain some valuable resource - whether gold, oil, diamonds, or the truly visible logs - and that their only chance of ‘development’ lies in their share of the rent to be collected from the extraction of these resources by some ‘multinational’ company. If and when the company comes, the expectation of deliverance within its field of operations is far too great to be satisfied by the actual conduct of its business, however many special deals or preferences are bestowed upon the local population. The business of ‘resource development’, unlike ‘business’ in the Melanesian sense, is bound to be directed to the ‘bottom line’, and not to the consumption or destruction of excessive wealth in the creation of new personal relationships. But while people may not like the experience of ‘development’ which they actually get from the mining companies (or the logging companies), and can readily be drawn to express their feelings of disappointment, anger and frustration, they are not cured of their addiction to the drug, they do not choose the path of ‘self-reliance’ or ‘alternative technology’; they simply want the ‘company’ to give them more, or else to have another ‘company’ to keep them company (Filer 1997d).

The resource dependency syndrome can be seen as a reaction against the ‘developmentalism’ espoused by both colonial and post-colonial governments, but also represents an increasingly desperate and frustrated search for the ‘development’ which government has increasingly failed to deliver. While it certainly seems to reduce people’s capacity for ‘self-reliance’, it also reflects their loss of faith in governmental institutions. And while it may be seen as a form of subordination to powerful global forces, it also contains a capacity for resistance which springs from the widening gap between local expectations of deliverance and the benefits which the developers deliver.

### 3.5 Structural adjustment

In the five-year period from 1989 to 1994, the national government fell victim to the political psychology of resource dependency, as it completely lost its earlier capacity to stabilise patterns of public expenditure in the face of huge annual fluctuations in its mineral revenues.

The first fiscal crisis followed the closure of the Panguna copper mine on the island of Bougainville by militant landowners and secessionist rebels in July 1989. In its last full year of operation, this one mine had been
responsible for 8 per cent of GDP, 35 per cent of export receipts and 12 per cent of government revenue. The sudden loss of this revenue caused the government to seek financial support from the World Bank, whose conditions included a 7.5 per cent cut in public spending, a 10 per cent devaluation of the kina, and the reduction of minimum wage rates. However, the need for this first round of structural adjustment was just as suddenly removed in 1992, when the government began to collect substantial new revenues from the Kutubu petroleum project, which more than made up for its earlier losses on Bougainville.

Apparently flush with cash, the government then embarked on a spending spree which was meant to ‘kick-start’ the rest of the national economy, but which rapidly produced another fiscal crisis. By the first half of 1994, the budget deficit had risen to 11 per cent of GDP. By September that year, there was a major squeeze on external reserves, which required a substantial devaluation of the kina. Although the budget deficit was reduced to 0.5 per cent of GDP in 1995, GDP contracted by almost 3 per cent in the non-mineral sector, annual inflation rose to 16 per cent, and the government’s debt service payments also rose substantially (Mulina 1997). Another appeal to the World Bank resulted in construction of a second structural adjustment programme, for which the Bank and the IMF have organised loans worth US$350 million. The conditions attached to these loans also have the backing of the Australian government, whose annual grant aid to PNG is still worth more than A$300 million a year. These conditions include the usual mixture of economic policy and public service reforms which are intended to stabilise prices, open up markets, reduce real wages, promote private investment, rationalise taxes, and so forth. The government is now committed to reducing its own expenditures from what had previously been a third of GDP (in 1992) to something more like a quarter, and to shifting the balance of this expenditure from consumption to investment.

It remains to be seen whether the government will sustain this kind of commitment as it now faces the prospect of another substantial increase in mineral revenues from a new gold mine on Lihir Island and new discoveries and developments associated with the Kutubu petroleum project. The obstacles to structural adjustment, or the opportunities to escape it, include the relative ease with which PNG has been able to use mining and petroleum revenues to balance its books during moments of economic crisis, as well as the limited technical capacities and decentralised structures of government machinery, and the absence of a strong domestic lobby in favour of the reform process (King 1997). While the strength of the
subsistence economy may provide a sort of ‘safety net’ to mitigate the negative impact of structural adjustment on the more ‘vulnerable’ sections of the population, a nation of rent-collectors still hankers after government subsidies, political handouts, and restrictive business practices.

One of the conditions attached to the latest loan packages is a renewed commitment to ‘sustainable forest management’ (see section 13.2). At the same time, the Bank has insisted on the installation of a more ‘progressive’ fiscal regime which substantially raises the share of the forest resource rent which is collected by national stakeholders, thus providing a further financial incentive for the national government and local landowners to challenge this commitment to sustainability. While it seems very unlikely that the government’s revenues from this particular source will enable it to duck the Bank’s policy imperatives by turning down the loan packages, it is not so clear that further expansion of the mining and petroleum sector will dampen its enthusiasm for granting more timber permits to the logging industry.
We now provide a more detailed portrait of the current state of the forestry sector within the national economy, the role of government in the regulation of the forest industry, and the difference between the actual and potential values of national forest resources. We pay particular attention to companies engaged in the raw log export trade, which presently dominates economic activity in the forestry sector, and to the regional setting within which they conduct this kind of business.

### 4.1 The forest industry in the national economy

The harvesting and export of raw logs currently constitutes the main form of economic activity in PNG’s forestry sector. According to the Bank of PNG, raw logs currently account for roughly 97 per cent of the value of all exports of ‘forest products’. Woodchip exports from the Gogol Valley in Madang Province account for most of the balance. The domestic market currently consumes about 400,000 cubic metres of timber a year, or roughly 15 per cent of the current log harvest (Bob Tate, 1997, personal communication). Despite the appearance of a national policy consensus in favour of ‘downstream processing’, the raw log export business is still responsible for an unprecedented share of output and activity in PNG’s forest industry.

Figure 4.1 shows the growing significance of raw log exports as a component of PNG’s international trade and as a source of national government revenue over the period since 1978. In 1996, government planners were predicting an increase in the nominal export price of raw logs at the rate of K8 per cubic metre each year for the next four years, and were also projecting an increase in the physical volume of exports beyond
the level of 3 million cubic metres per annum, which some commentators (including the World Bank) regard as the limit of ‘sustainability’\(^9\). Figure 4.1 shows that these have so far proved to be ‘over-optimistic’ estimates.

The government’s inclination to ‘solve’ its fiscal crisis by issuing new timber permits, despite the efforts of the World Bank to prevent it from doing so, is partly due to the fact that government revenues from log exports are worth considerably more, per unit of export value, than those obtained from the mining and petroleum sector. Log export taxes currently account for more than one third of log export values, while corporate taxes paid by mining and petroleum companies account for less than 12 per cent of mineral export values. Furthermore, the ‘production’ of a new mining or petroleum project is a far more complex and time-consuming business than the issue of a new timber permit. Fiscal constraints thus help to explain the growing prominence of raw log exports within a ‘resource dependent’ national economy.

It is thought that the forestry sector, as a whole, currently employs between 6,500 and 7,000 people (nearly all men)\(^10\). This represents about 3.5 per cent of formal sector employment, which is roughly the same as the proportion of jobs normally occupied in the mining and petroleum sector. Of this total, there are some 500 public servants employed in the regulation of the forest industry, and perhaps another 2,000 people employed in the sawmilling business, while the rest are engaged in logging and log exports. There has been some public debate about the numbers of ‘Asians’ employed in the logging industry (see Henderson 1996), and while the poor quality of PNG’s employment statistics does not enable us to quote precise figures on this subject, a wide range of anecdotal evidence confirms that Malaysian logging companies employ large numbers of Asian workers in skilled and semi-skilled jobs (see Majid Cooke 1997a).

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\(^9\) By the end of 1996, the Bank had persuaded the Ministry of Finance to reduce the projected log harvest to exactly 3 million cubic metres in 1998 and 1999.

\(^10\) A recent newspaper advertising campaign by the Forest Industries Association claims that more than twice this number of people are dependent on the forestry sector for their employment. This claim takes account of additional jobs which are thought to be generated by the industry’s backward linkages (Bob Tate, 1997, personal communication).
Table 4.1 Volume, value and revenue contribution of PNG’s log exports, 1978-1997

<table>
<thead>
<tr>
<th>Year</th>
<th>Export volumes ('000 m³)</th>
<th>Export values (millions of Kina)</th>
<th>Log export taxes (millions of Kina)</th>
<th>% Share of domestic export values</th>
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Sources: Bank of PNG Quarterly Bulletins
When public debate about the reform of national forest policy reached its peak in 1993, there was considerable speculation about the form and extent of the control exercised over the log export industry by one Sino-Malaysian company, Rimbunan Hijau (RH). The debate came to a head in June of that year, when the Forests Minister complained that this company was using all sorts of ‘connections’ to block the implementation of the National Forestry Development Guidelines (PNGMOF 1993b), even while it was supposedly seeking to influence public opinion in its favour by financing a new national daily newspaper. At this juncture, the Post-Courier (the only other national daily newspaper) published a feature article (Togarewa 1993) which claimed, amongst other things, that RH controlled 80-86 per cent of PNG’s log export market, and had made a profit of between K350 and K400 million on the export of PNG logs in 1992. These claims were vigorously denied by the directors of RH and its affiliated companies, who maintained that they only controlled ‘about, or less than, 40 per cent’ of PNG’s log exports, and could hardly have made such a remarkable profit on logs exported in 1992 when the total value of PNG’s log exports in that year was only about K179 million (Post-Courier, 23 June 1993).

Official figures show that the value of PNG’s log exports in 1992 was certainly not more than K179 million, and might even have been less (see Figure 4.1 above). But the proposition that RH controls a very substantial proportion of PNG’s log export market has been repeated in numerous writings on the subject (see PNGADCP 1993; Kürschner-Pelkmann and Callick 1995; Henderson 1996). However, these claims cannot be substantiated directly from the NFA’s own register of ‘industry participants’, which was established shortly after the gazetwal of the new Forestry Act in 1992.

Figure 4.2 shows, in summary form, the connections which could be shown to exist, in 1993, between those ‘forest industry participants’ who were thought to be part of a Sino-Malaysian cartel which was either dominated or controlled by RH. The evidence clearly revealed the existence of several distinct clusters of companies, each containing a combination of foreign companies (including some which were directly engaged in PNG’s log export industry) and national companies (normally local landowner companies) with which they were obviously doing business. The foreign

4.2 Concentration of capital in the log export industry

11 ‘Sino-Malaysian’ companies are defined here as Malaysian companies owned or controlled by persons of Chinese ethnic origin.
companies in each cluster were connected by mutual shareholdings, overlapping directorships, or shared office facilities (as revealed by common fax and phone numbers), while their links to the national companies were typically revealed by the use of sequential cheques from a single chequebook to pay their registration fees to the NFA. In this way, it was possible to identify a core group of companies associated directly with RH, and five other companies or groups of companies whose links to RH and each other were either tenuous or dubious:

- Cakara Alam, a subsidiary of Land and General Bhd, which was contracted to export logs from the West, Central and East Arawe timber permits in West New Britain Province;

- WTK Realty and its local subsidiaries, whose main operations were in the Vanimo area of West Sepik Province, but which also had contracts in Madang and West New Britain;

- the ‘Monarch group’ of companies, all subsidiaries of a Singaporean company called Monarch Logging, whose main operations were in the
Figure 4.2 The putative Sino-Malaysian logging cartel, 1993
Lolo area of West New Britain, but which also had contracts in Madang, Oro, and Milne Bay, and was effectively managed by Mr Hii Yii Ann;

- Dominance Resources, which held the Umbukul timber permit in New Ireland, and was one of a group of companies under the effective control of Dr Phillip Ling; and

- a group of companies registered in the Philippines, including Super Mahogany and Timber Producers and Marketing, which had one logging contract in Morobe Province.

Although the NFA’s database contained little or no evidence to show that RH actually controlled all or any of these other corporate interests, suspicions were converted into rumours, and even into ‘facts’, by the circulation of long lists and elaborate diagrams based on this body of data.

From information which has become available since 1993, it is now possible to identify a number of changes (or some new revelations) in this pattern of corporate relationships (see Filer 1997c for further details). These changes do seem to indicate that RH has strengthened its own position in the log export business, but not to the extent of directly controlling much more than 50 per cent of it.

Table 4.1 shows that the core group of companies associated directly with RH has been responsible for about 34 per cent of the log export market over the last four years. However, these figures definitely understate their current market share, and may also understate the rate of its growth during this period. Firstly, the Hong Kong-based Seal Corporation sold its PNG logging interests to RH in 1992. Secondly, the Monarch group of companies, though not shown to be part of the RH core group in the NFA’s database, appears to have been taken over some time in 1991, not long after RH had made its debut in the PNG logging industry. Monarch Investments, Saban Enterprises, and Putput Logging are certainly now regarded as RH subsidiaries by officers of the Forest Industries Association (FIA), and there is widespread circumstantial evidence of collaboration between the two groups of companies over the last five years. On the other hand, the same sources maintain that the Dominance group, under the leadership of Phillip Ling, is still operating independently of RH, and that this group has increased its own share of the export market through the acquisition of Yema Timbers from the Monarch group, and through the exercise of greater control over the Super Mahogany group. WTK Realty is also widely regarded as a competitor of RH, despite the fact that these two companies are owned and controlled by separate branches of a single Chinese ‘clan’
which dominates the logging industry in Sarawak\textsuperscript{12}. And Cakara Alam hardly even qualifies for membership of the putative cartel, since the chairman of its parent company, Wan Azmi Wan Hamzah, is a member of the ethnic Malay business elite which has been promoted by the Malaysian government to counter the influence of the ethnic Chinese business community.

There have been suggestions that RH exercises some kind of control over Turama Forest Industries (TFI), either through its stake in an offshore parent company, or through the contractual relationship between TFI and Concord Pacific, but these suggestions do not appear to carry much weight. There is no suggestion that RH exercises any kind of control over the Japanese companies which run the Stettin Bay and Open Bay logging operations, or over the Korean company, Nam Yang Timbers. If we assume that RH controls half of the business assigned to ‘other/unknown interests’ in Table 4.1, but we do not assume that it controls TFI or the Dominance/Super Mahogany group, then RH is left with approximately 50 per cent of the total log export business. And we arrive at much the same result if we make the equally plausible assumption that RH does exercise some kind of control over the Dominance/Super Mahogany group, but only controls about 20 per cent of the ‘other/unknown interests’.

\textsuperscript{12} The two branches of the clan, now commonly known as the Wongs (WTK) and the Tiongs (RH), are thought to have ‘fallen out’ some years ago. An article in the \textit{Asian Wall Street Journal}, reprinted in the \textit{Times of PNG} (3 March 1994), dates the ‘family feud’ back to 1975. On the other hand, they are still connected through financial institutions such as the Hok Hua Bank, which might therefore be regarded as the axis of any Sino-Malaysian cartel.
In either case, one would have to conclude that RH is certainly the dominant player in PNG’s log export industry - a fact which is confirmed by Francis Tiong’s erstwhile role as President of the FIA - but this does not amount to a monopoly. The role which RH plays within the log export industry might then be compared with the role played by Chevron, Placer Dome, and BHP, respectively, within the petroleum, gold, and copper export industries - in other words, a relatively standard pattern of capital concentration in the business of resource extraction. It is the form, rather than the extent, of capital concentration which seems to warrant the suspicion that Sino-Malaysian domination of the log export industry is the main obstacle to the rationalisation of forest management in PNG, primarily because the relevant companies are not accountable to the shareholding public or other stakeholders in their country of origin to the same extent as their counterparts in the mining and petroleum sector\textsuperscript{13}, and may therefore deserve to be portrayed as a corrupting influence on the body politic (see Henderson 1996).

4.3 The regional raw log trade

Figures produced by the NFA show that Japan is currently the destination for well over half of PNG’s raw log exports, while South Korea is the next largest customer, and a variety of other countries import the remainder. Figure 4.3 fails to reveal what some commentators consider to be a long-term decline in the Japanese market, which is due to material substitutions in the Japanese plywood industry and competition from its Indonesian counterpart (see Dauvergne 1996; Majid Cooke 1997a; Light 1997). On the other hand, these figures need to be treated with considerable caution, firstly because they may represent short-term fluctuations which disguise the long-term trend, and secondly because of the level of ‘political interference’ with long-term trends in the regional log export trade\textsuperscript{14}. The rapid growth of PNG’s exports to the Philippines over the last four years can be explained by the exhaustion of that country’s own timber resources, and the consequent need to supplement the supply of raw material to its domestic plywood industry, but since that industry is also in decline, it is unlikely that PNG’s exports to this market will increase much further (Peter Dauvergne, 1997, personal communication).

\textsuperscript{13} Environmental lobbies in Australia, America and Europe have recently been exerting a great deal of pressure on mining and petroleum companies to ‘clean up their acts’ in PNG, some of this criticism has been voiced at the annual general meetings of these companies, and the companies have shown considerable sensitivity to this kind of criticism.

\textsuperscript{14} For example, PNG’s share of the Japanese market may actually grow, while the total size of that market continues to shrink, because other countries in the region decide to follow the Indonesian example of imposing a log export ban in order to encourage the development of a domestic plywood industry. Furthermore, Figure 4.3 appears to underestimate the volume of PNG’s exports to Japan by a very considerable (and annually variable) margin. Data produced by the Japanese Lumber Importers Association show that Japan imported more than 1.9 million cubic metres of logs from PNG in 1994 (Peter Dauvergne, 1997, personal communication).
Figure 4.3 PNG log exports by country of destination, 1994 and 1997

Source: PNG Forest Authority Timber Digest
Representatives of PNG’s log export industry appear to believe that mainland China represents their best chance of compensating for any further contraction in the Japanese and South Korean markets (Bob Tate, 1997, personal communication), but there is as yet little evidence of long-term growth in the Chinese market.

The behaviour of the major logging companies in PNG cannot be fully understood without some reference to the larger pattern of economic and political relationships between national governments and corporate interests in the Asia-Pacific region. The Malaysian companies have been key constituents in the PNG government’s ‘Look North’ policy, which is designed to reduce national dependence on ‘traditional’ sources of investment in Australia and other Western countries, and which is part of a general trend sometimes know as the ‘Asianisation of the Pacific’. Portraits of the logging companies as ‘robber barons’ (see EIA 1996) are thus located in a political context which not only features the familiar contrast between long-term public policies and short-term corporate gains, and thus between ‘sustainable’ and ‘unsustainable’ forms of development, but also contains an opposition between East and West which is clearly articulated in the friction between the Australian and Malaysian governments over the question of forest management in PNG (see Filer 1996). At the same time, the demonisation of companies like RH tends to conceal their own subordination to other corporate interests which do not wish or need to maintain a visible presence in PNG’s national economy (see Box 4.1).

Box 4.1 The role of Malaysian logging companies in the regional economy

The image of Malaysian logging companies in PNG is one of a politically influential, and even all-powerful, machine. Most of the Malaysian timber companies which operate in PNG are from Sarawak in East Malaysia. In Sarawak, the timber industry is dominated by one segment of the ethnic Chinese population, the Fouchow (Majid Cooke 1997b). They may have partners who are not Fouchow, including Sarawak native groups and Malays from Sarawak itself and from Peninsular Malaysia, but in such partnerships they remain the controlling party.

However, in the context of global trade, these contractors are nothing more than intermediaries in a raw log production chain which is dominated by companies in consumer countries such as Japan and Korea. In the tropical timber industry, the Japanese sogo shosha (‘general trading companies’) dominate the raw log trade, while their control of the tropical plywood trade has been weakened somewhat, in recent years, by the planned entry of Indonesian products into the Japanese market. The sogo shosha link firms involved in the raw log trade, control distribution chains, and finance producers, wholesalers, and distributors, as well as final consumers - all for a small fee. According to Dauvergne (1996), wasteful consumption is a necessary outcome of their function and corporate structure. Moreover, they are able to control the market by the sheer volume of their purchases. When raw logs are
perceived to be in short supply, the sogo shosha commence a buying spree, sending prices up, creating instability and, ultimately, price collapse as excess logs are sold back into the market (Krause and Sekiguchi, cited in Nectoux and Kuroda 1989). Operating on a two-to-three month reserve stock, sogo shosha are able to use these reserves to flood the Japanese market and lower log prices (Dauvergne 1996).

In sum, producer companies in PNG, even the seemingly all-powerful Rimbunan Hijau, enjoy nothing more than a subordinate position in a world raw log trade that is dominated by the appetites of consumers. Malaysian loggers in PNG function to cater to consumer appetites for timber which are largely Japanese. Having exhausted sources in the Philippines and Sabah in the 1960s and 1970s, these consumers found new supplies in Sarawak and PNG (World Bank 1995:76). Malaysian logging companies, as long-standing suppliers to the Japanese market, are now also logging in Africa, South America, and other South Pacific island countries apart from PNG - especially the Solomon Islands, Vanuatu and Samoa (ibid.). However, for these logging contractors, remaining in a subordinate position does not imply complete subjugation, and often produces some real advantages, especially the fact that these relationships cushion raw log producers against price fluctuation.

Consuming countries, especially Japan and South Korea, dominate the world trade in tropical timber, especially raw logs, while intermediate countries such as Malaysia occupy a special niche as production agents. The roles are hierarchical and cannot be easily changed, although Indonesia has managed to modify the hierarchy to the point where it has gained significant control over the plywood trade by cutting prices and circumventing the sogo shosha. On the other hand, the Indonesian experiment has had substantial economic and environmental costs, and PNG should not seek to replicate it, even if this were a feasible option. But PNG cannot compete directly either with Indonesia or with Malaysia, where attempts have been made to attract Japanese investment to Sarawak with incentive packages which include a mixture of planned infrastructure and other services.

The additional problem for PNG is that the consuming countries try their best to exclude any new entrants who threaten their own control over the tropical timber trade, as they do by imposing high tariffs on value-added products such as plywood, yet they have no desire to exercise any direct control over the production and importation of raw logs. This explains why countries such as PNG find it more convenient to continue producing raw logs. With changing patterns of production in consumer countries, the consumption of tropical raw logs has declined, and the trade may change direction with the substitution of other materials (see also section 8.11 for a discussion of the potential of consumer pressure and certification). There is no bright economic future in the production and export of more raw logs, because prices will need to be kept low to meet the needs of plywood manufacturers in consumer countries, such as Japan, who already face competition from Indonesia. This means that PNG may have to produce more for less, with obviously detrimental effects on its economy and its forest resources. Hence the current need to explore the alternatives to large-scale logging.

The national government has two agencies which are primarily responsible for achieving the goal of sustainable forest management - the PNG Forest Authority (formerly the Department of Forests) and the Department (formerly Office) of Environment and Conservation. The NFA has about 425 staff, with a current operating budget of approximately K19 million. The DEC has about 175 staff, with a current operating budget of approximately K3.5 million. Other national government agencies with an interest or stake in forest management include the Department of Agriculture and Livestock (DAL), which has a long-standing interest in ‘agroforestry’, the Prime Minister’s Department, which has a general interest in matters of national development policy, the Department of Finance (now Treasury), in its capacity as a revenue-collector, and the National Planning Office, which has the notional responsibility for implementing the National Sustainable Development Strategy (see section 7.6).

The NFA is a statutory body established by the Forestry Act of 1991 (see Box 4.2). Its current organisational structure is shown in Figure 4.4. Before the passage of the 1991 Forestry Act, forestry was regarded as a ‘concurrent function’, meaning that powers and responsibilities were shared between the national government and nineteen provincial governments. As a result, officers of the DOF, like their counterparts in the DAL, had little control over the activities of provincial forestry officers, who were commonly located within provincial Divisions of Primary Industry, and accountable to their own ministers in Provincial Executive Councils (see also section 5.3). Although the national Forests Minister and the DOF retained control over the allocation of timber permits under the old Forestry Act, provincial governments were able to pass their own forestry legislation, and the DOF had virtually no control over Local Forest Areas, and very little capacity to monitor compliance with timber permit conditions through the provincial bureaucracies. The new Forestry Act changed this balance of powers and responsibilities by reintegrating provincial forestry officers into a unified National Forest Service under the control of a National Forest Board, and accommodating provincial political interests through the creation of Provincial Forest Management Committees with various planning and advisory powers. The Operations Branch of the National Forest Service has since been reorganised to include a number of regional offices, each of which is responsible for operations in several provinces.
Figure 4.4 Corporate structure of the PNG Forest Authority

Source: PNGFA 1996
The DEC is responsible for discharging a variety of conservation policies, and ensuring compliance with various environmental regulations, many of which have only limited or indirect bearing on questions of forest management. Until very recently, these powers and responsibilities were not shared with provincial governments, nor has the Department had any provincial offices of its own, though moves are now under way to decentralise some of its functions. The main subjects of relevant Departmental activity have been the environmental planning process for large-scale logging operations and the management of National Parks and Wildlife Management Areas (see Box 4.2). It is widely acknowledged that the DEC’s capacity to advance a forest conservation agenda is limited, because it is politically weak, its conservation mandate has been given a low priority by successive governments, low budget allocations have been accompanied by poor financial discipline, and staff morale has suffered from a lack of leadership and management direction. Some of these constraints have recently been addressed by an aid-funded institutional strengthening project, which is still being implemented.

**Box 4.2 Legislation directly relevant to forest management**

The *Forestry (Private Dealings) Act of 1971* (repealed 1992) allowed customary landowners to sell timber harvesting rights directly to a contractor of their own choice, under the terms of a ‘dealings agreement’ which required the assent of the Forests Minister, but which otherwise allowed the contractor to operate without a Timber Permit and with minimal government supervision. Areas subject to this kind of agreement were known as Local Forest Areas (LFAs).

The *Forestry Act (Amalgamated)* of 1973 (repealed 1992) provided for the State to acquire timber harvesting rights from customary landowners under a standard Timber Rights Purchase (TRP) Agreement, and then to grant a Timber Permit to an operator of its own choosing with conditions imposed by the government without reference to the customary owners.

The *Forestry Act of 1991* (gazetted 1992, amended 1993) repealed the *Forestry Act of 1973* and the *Forestry (Private Dealings) Act of 1971*. It lays down a new set of conditions and procedures by which the NFA can secure timber harvesting rights from customary landowners under a standard Forest Management Agreement (FMA) and then allocate a Timber Permit to a registered ‘forest industry participant’ in accordance with conditions specified in a National Forest Plan. The Act provides for new forms of consultation between government officials and customary resource owners, but does not give the resource owners a role in the selection of an operator.

The *Environmental Planning Act* of 1978 enables the Minister for Environment and Conservation to require that developers produce environmental plans which spell out the physical and social impact of their proposals and include appropriate measures for the mitigation of negative impacts. It also allows for developers to submit such plans on a voluntary basis, in which case they do not have to be made public. The DEC is responsible for approving the plans and for compliance auditing to ensure adherence to their provisions.
While the recent process of policy reform within the forestry sector has primarily been addressed to the problem of asserting greater government control over the activities of the logging industry, and a redistribution of the economic benefits derived from these activities, some attention has also been paid to the economic values which are lost through large-scale timber harvesting, and the values which might be obtained from alternative forms of forest utilisation.

In 1991, PNG was the subject of a case study on the application of a System of Integrated Environmental and Economic Accounting devised by the UN Statistical Office (Bartelmus et al. 1992). This treated the economic value of the forest resource entirely in terms of its timber content, thus ignoring non-timber option values. Even so, in their revision of the National Income Accounts for 1989, the authors estimated that environmental damage caused by logging was worth K10 million per annum - more than the damage caused by agriculture but much less than that caused by mining. These matters have also been discussed at some length in the Biodiversity Country Study produced for the DEC (Sekhran and Miller (eds) 1994). This study tried to classify the whole variety of direct and indirect use-values of

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4.5 Neglected values of the forest

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the forest resource summarised in Table 4.2, and then to discuss the actual or potential market values of these different uses, their relative sustainability and mutual compatibility.

It is difficult to estimate the value of those forest products, apart from raw logs, which are already being marketed in fairly large quantities. Exports of rattan, which is one of the few non-timber forest products currently reaching overseas markets, may be worth something in the order of K200,000 a year. Wood and other forest products are used as raw materials for the handicraft trade, which may be worth K300,000 a year.

There is an obvious connection between the artefact industry and the tourism industry. The latter currently earns K40-50 million in foreign exchange each year (about 1 per cent of GDP), and employs 5-6,000 people (almost as many as the forest industry), but foreign tourist numbers are still quite small (about 14,000 a year), and expansion is constrained by the high cost of transport and accommodation, and widespread concerns about ‘law and order’. It is difficult to say what proportion of the tourist trade could

**Table 4.2 Use-values of national forest resources**

<table>
<thead>
<tr>
<th>Direct</th>
<th>Indirect</th>
<th>Non-consumptive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Timber and wood products, including handicrafts</td>
<td>Tree plantations</td>
<td>Eco-tourism</td>
</tr>
<tr>
<td>Fuelwood</td>
<td>Cash crops, including coffee, cocoa and taro, grown in the forest periphery</td>
<td>Conservation rents, used as a disincentive to unsustainable uses</td>
</tr>
<tr>
<td>Fruits, nuts and fungi, including galip, pandanus and okari nuts, breadfruit, pitpit and aibika</td>
<td>Carbon swaps for carbon sequestration services</td>
<td>Access fees for research</td>
</tr>
<tr>
<td>Tannins and plant oils, including aromatic compounds</td>
<td>Resource conservation fees to protect hydrological and other forest functions</td>
<td></td>
</tr>
<tr>
<td>Rattan and bamboo</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Orchids and decorative plants</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sago and nipa palm products</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wild fauna, including insects, fish, and crocodiles</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exudates, including tree gums, copal resin and gutta percha</td>
<td></td>
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</tbody>
</table>

**Source:** Sekhran 1996
be defined as ‘ecotourism’, but scenic and cultural diversity are obviously major attractions, and the trade-off between these attractions and the impact of extractive industry has not received much attention in the policy process. The DEC has undertaken a contingent valuation survey of people using the Varirata National Park, just outside the national capital, but it is not possible to extrapolate the results to other parts of the country (Sekhran, Hedemark et al. 1994).

A considerable range of minor forest products are consumed directly from forests or traded in small quantities in local markets. These products include a variety of fruits and nuts, rattan, bamboo, exudates, pharmaceutical products, building materials, tannins and oils. Fuelwood harvested from forest trees forms the principle source of energy in most rural communities. Forests underpin subsistence systems in all sorts of other ways which are critical to human welfare, by stabilising watersheds, replenishing nutrients, and providing wildlife habitats, as well as offering a supply of food and raw materials, but the economic valuation of these ‘natural services’ faces many technical and methodological problems.

The problem of measuring the actual and potential value of alternative forms of forest use is compounded by the problem of estimating ‘sustainable’ levels of utilisation for each of them and working out the extent to which these multiple uses are compatible with each other. Different types of ‘forest product’ may derive from different types of forest, as when raw logs are extracted from primary forest, while local villagers obtain their fuelwood from secondary regrowth or planted fallows. On the other hand, the value of some non-forest products may be diminished by particular types of forest use, as when coral reefs are damaged by the soil erosion which results from large-scale logging.

There are many options and opportunities to diversify the transformation of natural forest values into monetary incomes - including the small-scale production of ecotimber, the promotion of ecotourism, bio-genetic prospecting, the sale of minor forest products, and carbon offset initiatives - but all are predicated on the continued productivity of the resource base. Some of these options are considered in our subsequent discussion of non-timber forest goods and services (see section 10.6).
Let us now return to the point made in the introduction to this study, that the State of PNG is the site of a tug-of-war between the politics of the Melanesian village and the divergent interests of assorted foreigners. National politicians and bureaucrats alike have personal connections to the subsistence economy which tend to detract from the performance of their roles as commanders or functionaries of the state apparatus. In our discussion of electoral politics, we use the masculine gender in order to underline the extreme rarity of elected female politicians in PNG.

5.1 The strength and weakness of the state

There is widespread agreement, both inside and outside the country, that PNG has a relatively ‘weak’ state, but there is rather less agreement on the essential features and implications of such weakness, or on their relationship to the development of ‘civil society’. Amongst the more commonly cited features of PNG’s problem of ‘governance’ are the following:

- Political parties are little more than parliamentary factions. Party leaders are parliamentary ‘big men’ who rally the wavering support of their colleagues by promising material rewards (such as government ministries) which they cannot always deliver. Grassroot party organisations are virtually non-existent in the intervals between national elections, and it is barely possible to distinguish between the policy platforms of different parties (Saffu 1996).

- The efficiency and effectiveness of the public service is constrained by the inconsistencies of the laws and policies which it is expected to implement, by rivalries between government agencies, by low levels of
financial accountability, and by the growing tendency for government ministers to fill senior positions with their own political supporters (Larmour 1995).

- There is widespread popular distrust of elected politicians, who are commonly thought to use the fruits of office for their own personal gain, and a corresponding sense of frustration at the palpable failure of government to deliver the benefits of ‘development’ which had been eagerly anticipated at the time of Independence. The legitimacy of state institutions of all kinds has thus been called into question.

- There is a serious ‘law and order’ problem which has not been resolved by a succession of ‘band-aid’ solutions, such as stiffer penalties or the imposition of curfews (Dinnen 1996). Criminal gangs in urban and rural areas have made increasing use of firearms, and have often shown remarkable brutality, in the conduct of their business. Some parts of the country (most notably the central highlands) have witnessed an upsurge in ‘tribal fighting’, in which the participants have also resorted to firearms, and to which the police have normally responded by mounting their own armed raids on suspect (and sometimes innocent) communities.

- For many years the national government was unable to find a political or military solution to the crisis induced by a secessionist rebellion on the island of Bougainville, where a state of virtual civil war, massive social dislocation, and a drastic loss of living standards had persisted since 1989. The government’s way of dealing with this crisis revealed an unstable and fragmented approach to major policy questions which is not so obvious, but no less real, when applied to questions less immediately concerned with life and death.

These problems of governance enter into the assumptions made in the design of many aid projects in ways which tend to turn these into so-called ‘killer assumptions’, which seem to condemn such projects to failure before they have even begun to be implemented. One consultant engaged in projects designed to strengthen the institutional capacity of both the NFA and the DEC has remarked on the difficulty of finding short-term remedies for the perceived weakness of the state.

In summary, it is apparent that the reasons for lack of state authority in PNG are structural and fundamental. The state will not increase its ability to impose its will on citizens overnight, by appointing more police officers or
reorganising departmental structures. Rather, a much longer process of development is required in which citizens come to accept the legitimacy of the state and its right to control various aspects of the way they live. Indeed, the major issue may be to ensure that the state does in fact pursue that path, instead of short-term strategies which may have the effect of widening the gulf between state and society, and ultimately hastening the breakdown of democratic institutions. Central to this pursuit is the state’s recognition that its authority rests on the will of its people (Whimp 1997:367).

Despite the sense of gloom and doom which tends to afflict members of a donor community confronted with the task of reforming or strengthening government institutions, the State of PNG is not (at least not yet) as weak as some of its counterparts in other developing countries, most notably those of sub-Saharan Africa. Signs of relative strength include the following:

- Despite popular cynicism about the value of ‘politics’, the Westminster system continues to thrive, voters continue to vote, and candidates continue to multiply. There have been two military mutinies since Independence (in 1990 and 1997), but neither could properly be described as an attempted coup d’état, and the prospect of an authoritarian military or single-party government still seems remote.

- Despite the demand for ‘public sector reform’, most recently articulated in the World Bank’s structural adjustment programme, there is still little evidence of widespread bureaucratic corruption. This is partly because inflation has never reached the point of seriously eroding the real value of public service salaries, so public servants have not been obliged (even if some have been willing) to neglect their duties or participate in the ‘second economy’ in order to make ends meet.

- Although the administration of justice leaves much to be desired, the judiciary has maintained its independence of the executive arm of government, the Ombudsman continues to wage public battles against political corruption, and the large volume of civil litigation testifies to popular respect for the ‘rule of law’ (as does the framing of many problems as ‘law and order’ problems).

- One of the reasons why there is so much public concern about political corruption is that politicians, government officials and ordinary members of the public make such extensive use of an uncensored national press to complain about it. And whatever the problems which
afflict the formation and implementation of public policy, they are at least transparent to those who read the newspapers or listen to the radio.

• Despite the recurrence of appeals to regional prejudice, such as that which pits ‘Papuans’ against ‘highlanders’ or the small islands against the mainland, the linguistic and cultural fragmentation of the nation means that no ‘tribe’ or ethnic group has the size or solidarity required to gain exclusive control over any government agency, even at the provincial level.

We may therefore suggest that the State of PNG has a mixture of strengths and weaknesses which depends on features of the national society over which it is meant to preside, but to which it is partially subject. At first glance, it appears that this national society is made up of thousands of traditional political communities, each with its own parochial interest, each putting its own fingers into the public purse, and that the tragedy of the state consists in the fact that it is literally being pulled apart by this form of communal competition. But that is not the whole story. While elected politicians and government officials do tend to function as the fingers or brokers of their traditional communities, redistributing the benefits of their participation in the state, they also participate in a range of other social institutions which help to fill the gap between the state and the community, or between the public and private sectors of the national economy. In other words, PNG has forms of ‘civil society’ which have outgrown local political boundaries, and which make their own distinctive contributions to the social integration and economic development of the country.

Religious organisations, sporting associations and educational institutions are more significant in this respect than political parties, trade unions or professional associations. The weakness of political parties reflects an absence of class consciousness which continues to belie the growing disparities of wealth and income between different sections of the national population. Urban poverty and unemployment fuel popular antagonism to the conspicuous consumption of the ‘elites’ in business and in government, and this is clearly connected to the volume and violence of urban street crime, but Papua New Guineans in all walks of life are reluctant to admit the existence of real ‘poverty’, and prefer to believe that the so-called ‘wantok system’15 can or should compensate for economic inequalities between members of the same ethnic group. At the same time, ethnic identities are subject to ambiguities of scale and partial dissolution because of high levels of internal migration, the rapid ‘localisation’ of formal sector

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15 Wantok in Pidgin literally means ‘one-talk’, somebody who speaks the same language, but the term is used with varying degrees of inclusiveness in different social contexts.
The following ‘assumptions’ were made in the project planning matrix for the GTZ Landowner Awareness Project, which is discussed at greater length in section 10.2.

• There will be no medium-term reduction in the level of external demand for natural resources (primarily tropical timber) from Papua New Guinea.
• Internal political pressure in favour of the unsustainable exploitation of natural resources will persist.
• The executive arm of government continues to lack either the commitment or the capacity to resist this pressure.
• There is no relevant government agency which has the capacity to coordinate project activities and communicate effectively with project participants.
• There is no relevant government agency which has been able to provide the material counterpart contributions required for the project (office space, operational costs, etc.).
• Relevant government agencies lack credibility and accessibility in their pursuit of the project’s objectives.
• Capacity-building activities supported by international donor agencies will barely improve the performance of the executive arm of government in the foreseeable future.
• The lack of consistent ideological commitment to specific forms or models of ‘development’ makes it difficult or impossible to predict the relative effectiveness of different types of strategic intervention.
• The ethnic and cultural diversity of the country (around 800 languages and perhaps 8000 traditional political communities) makes it difficult or impossible to produce general or national solutions to the problems of resource use by customary landowners.

Box 5.1 How problems of governance affect the feasibility of donor-funded projects

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• The ethnic and cultural diversity of the country (around 800 languages and perhaps 8000 traditional political communities) makes it difficult or impossible to produce general or national solutions to the problems of resource use by customary landowners.
and herein lies a paradox. During the colonial period, some of the mainstream churches (Catholic, Anglican, Lutheran, Methodist and Presbyterian) agreed to recognise each other’s separate ‘spheres of influence’ in different parts of the country, and thus to reduce the incidence of religious conflict amongst their native converts, but a host of unorthodox, evangelical, and even non-Christian sects has since been encroaching on their respective strongholds, to the point where the bonds of church membership now cut across the ties of ethnic identity, not only in urban areas, but also in many traditional political communities. The paradox thus consists in the fact that organised religion seems to have been ‘taken over’ by an indigenous tendency to cultural fragmentation, and yet the lines of fragmentation cut across the local boundaries of traditional society.

This process of religious diversification may have important implications for the growth of NGOs with a secular mission, including those which have recently become involved in the forest policy process (see section 10.1). On the one hand, it is difficult for them to become engaged in the politics of forest management in specific rural areas without entering into some kind of relationship with local church organisations. On the other hand, it is difficult to maintain relationships with several local church organisations when their members may have totally different approaches to the politics of forest management, and when some of them are liable to discount all questions of ‘sustainability’ because they believe that the world will soon come to a glorious or horrible end.

5.2 Electoral swings and roundabouts

PNG’s first national election was held in 1964, and the second in 1968. Although the vast majority of adult ‘natives’ voted in these elections, the first two Houses of Assembly were dominated by their expatriate members, some elected and some appointed by the Administrator. The first national government to be dominated by elected indigenous members was the one formed under the leadership of Michael Somare (now known as ‘the father of the nation’) after the third national election in 1972. This was the government which presided over the transition to Independence in 1975 and the passage of a very substantial body of legislation, including the National Constitution, which formed the charter of the newly independent state. One of these new laws, the Organic Law on National Elections of 1975, prescribed that elections would henceforth be held at five-year intervals, and substituted a ‘first-past-the-post’ system for the optional preferential
voting system previously favoured by the colonial administration. On the other hand, it retained the distinction between ‘open’ electorates and the larger provincial (formerly ‘regional’) electorates which have continued to be the favoured stamping ground of those expatriates who opted to take up national citizenship after Independence\textsuperscript{16}. After the Electoral Boundaries Commission had enlarged the number of open electorates, the 1977 election produced a parliament which contained 89 open members and 20 provincial members, and all subsequent elections have been contested on the same boundaries.

The political cycle which has developed since Independence is one in which all matters of public policy have increasingly become the hostages or victims of an unstable succession of coalitions between national politicians whose own electoral survival commonly depends on their ability to reward a very small local constituency with the maximum possible share of government resources.

Each successive election has witnessed:

- an increase in the total number of candidates;
- a corresponding reduction in the proportion of votes required to win a seat;
- an increase in the number of sitting members who have lost their seats;
- an increase in the number of winning candidates who have claimed to be independent of the growing number of political parties; and,
- an increase in the intensity of the ‘horse-trading’ by which a new coalition government has been formed after the declaration of results (see Saffu 1996).

And in each of the quinquennial political cycles since 1977, the ruling coalition established after the election has been defeated by a parliamentary vote of no-confidence when one or more of its component factions has crossed the floor and joined the previous Opposition (see Table 5.1).

In this form of parliamentary democracy, the fluctuating personal interests of individual ministers and their own political patrons and clients have come to undermine the capacity of public servants to maintain the coherence of existing sectoral development policies. In the year preceding an election, all Members of Parliament, whether in government or opposition, try to outbid their prospective opponents by repudiating all

Table 5.1  Coalition governments since 1972

<table>
<thead>
<tr>
<th>Year</th>
<th>Prime Minister</th>
<th>Deputy Prime Minister</th>
<th>Formed after</th>
</tr>
</thead>
<tbody>
<tr>
<td>1972</td>
<td>Michael Somare (Pangu Pati)</td>
<td>Julius Chan (People’s Progress Party)</td>
<td>national election</td>
</tr>
<tr>
<td>1977</td>
<td>Michael Somare (Pangu Pati)</td>
<td>Julius Chan (People’s Progress Party)</td>
<td>national election</td>
</tr>
<tr>
<td>1980</td>
<td>Julius Chan (People’s Progress Party)</td>
<td>Iambrekey Okuk (National Party)</td>
<td>vote of no confidence</td>
</tr>
<tr>
<td>1982</td>
<td>Michael Somare (Pangu Pati)</td>
<td>Paias Wingti (Pangu Pati)</td>
<td>national election</td>
</tr>
<tr>
<td>1985</td>
<td>Paias Wingti (People’s Democratic Movement)</td>
<td>Julius Chan (People’s Progress Party)</td>
<td>vote of no confidence</td>
</tr>
<tr>
<td>1987</td>
<td>Paias Wingti (People’s Democratic Movement)</td>
<td>Julius Chan (People’s Progress Party)</td>
<td>national election</td>
</tr>
<tr>
<td>1988</td>
<td>Rabbie Namaliu (Pangu Pati)</td>
<td>Ted Diro (People’s Action Party)</td>
<td>vote of no confidence</td>
</tr>
<tr>
<td>1992</td>
<td>Paias Wingti (People’s Democratic Movement)</td>
<td>Julius Chan (People’s Progress Party)</td>
<td>national election</td>
</tr>
<tr>
<td>1994</td>
<td>Julius Chan (People’s Progress Party)</td>
<td>Chris Haiveta (Pangu Pati)</td>
<td>vote of no confidence</td>
</tr>
<tr>
<td>1997</td>
<td>Bill Skate (People’s National Congress)</td>
<td>Chris Haiveta(^{17}) (Pangu Pati)</td>
<td>national election</td>
</tr>
</tbody>
</table>

existing policies for which they have no personal responsibility in order to recapture some of the permanently disenchanted voters in their own electorates. And in the formation of new coalition governments, the main economic portfolios are often allocated to individuals who have already built their political reputations around a commitment to radical innovations in departmental policies. Successive Ministers of Forests have alternately supported or opposed one or more of the logging companies

\(^{17}\) In December 1997, Haiveta was replaced by Michael Nali of the People’s Progress Party
which dominate the industry in PNG, while candidates standing for
election in the growing number of electorates which actually contain
logging concessions will almost invariably seek to make some political
capital out of the distinctive nature of their own relationship to the
developer.

5.3 Provincial and local government

Over the twenty years preceding Independence, the Administration
established local government councils in all but the most remote and thinly
populated parts of the country. The council system was conceived as the
main instrument for educating the ‘native’ population in the practices of
liberal democracy. A typical council area contained about 20,000 people,
and a typical council ward contained 500 (often two or three villages).
Councillors were elected at four-year intervals, and normally appointed
one or two deputies to assist in the performance of their duties.
Councillors and their deputies replaced the local headmen who had
previously been appointed directly by colonial district officers (known as
kiaps), and took over their function as brokers between the colonial
authorities and the mass of the rural population, responsible for settling
local disputes or bringing difficult cases to court, organising their
constituents to engage in unpaid ‘public work’ (such as road maintenance)
on certain days of the week, and helping the kiaps to collect census data and
council taxes during their routine patrols through each census division.
Council chambers were built at the sub-district headquarters or patrol post
which constituted the administrative centre of each council area, and the
councillors normally met there at monthly intervals to discuss the passage
of council ‘rules’ (bye-laws), appropriate levels of council tax, and
proposals for local expenditure on economic infrastructure and social
services. Apart from the head tax levied on the local population, which
varied according to their perceived ability to pay, each council received a
direct grant from the Administration. The deliberations of each council
were supported (and often effectively controlled) by one of the kiaps in his
official capacity as a ‘council adviser’.

In some parts of the country, the council system was opposed, more or less
strenuously, by a variety of local ‘cargo cults’ or ‘micronationalist
movements’ (May 1982), whose members refused to participate in council

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18 ‘Cargo cults’ are a Melanesian cultural phenomenon, much studied by assorted academics, which appear to have been based
on the use of ritual or magical techniques to gain access to the ‘hidden sources’ of European wealth and technological superiority.
elections or recognise the authority of elected councillors, and who sought to establish alternative forms of community organisation which were not subject to *kiap* control. Such opposition was especially prevalent on the island of Bougainville, where it was exacerbated by the heavy-handed approach taken by the Administration in promoting the development of the Panguna copper mine, and coalesced in a demand for secession from PNG on the eve of Independence. The first Somare government responded to this threat by passing an *Organic Law on Provincial Government*, which not only granted the Bougainvilleans a measure of political autonomy under what they chose to call the North Solomons Provincial Government, but also required that this new tier of government be established in the other eighteen provinces (formerly ‘districts’) of PNG (see Figure 5.1). Under this form of decentralisation, each province acquired its own Provincial Assembly, with roughly the same number of members as a typical local government council, and these were also elected at four-year intervals. Provincial governments were formed by unstable coalitions of elected MPAs, in much the same way that national governments were formed by unstable coalitions of national MPs. Some of the functions and agencies of the state (such as health, education, forestry, and agriculture) were partially decentralised, while others (such as mining, police, and environment) remained completely under central government control. In the former case, national government departments in Port Moresby normally took responsibility for matters such as policy formation and coordination, management of aid-funded development projects, and sectoral research and training, while service delivery became the responsibility of a division or section in each of nineteen provincial departments, whose officials were accountable to one of the ministers in each provincial government. Although provincial governments had some power to make their own legislation on these ‘concurrent functions’, and some power to raise their own taxes within their jurisdictions, they were still dependent on grants from the national treasury for the greater part of their budgets.

In 1995, the great majority of national MPs decided that this form of decentralisation had been a failure, and voted for a new *Organic Law on Provincial Governments and Local-Level Governments* which was intended to remedy its deficiencies. There were several reasons for their dissatisfaction with the old system:

- Although some provincial governments (including North Solomons until 1989) had acquired a reputation for reasonably efficient administration, the national government had suspended most of them on at least one occasion, for periods of one or two years, and assumed direct control of provincial affairs through the appointment of an
Figure 5.1 Provinces of PNG

Source: ANU Research School of Pacific and Asian Studies, Cartography Unit.
Administrator. The usual pretext for suspension was financial mismanagement, though it was sometimes motivated by political differences between the ruling coalitions at national and provincial levels.

• In many parts of the country, there had been a serious decline in the quantity and quality of the services provided by provincial departments, which could variously be attributed to bureaucratic incompetence, political interference, or lack of financial resources. Provincial budgets were seriously constrained by the national government’s own distrust of provincial accountability.

• Local councils had also lost some of their functions and capacities, even in areas where they had once been quite popular. As councils were often unable to secure their diminishing budgetary allocations from provincial headquarters, they also lost the legitimacy and enthusiasm required to collect council taxes (or free labour) from the local population, and the role of the councillor was often reduced to that of representing his ward in dealings with outsiders. Some provincial governments replaced local councils with ‘community governments’ which represented smaller populations with stronger ethnic identities, but this alone was not enough to secure greater local participation in the planning and management of rural development.

• Provincial and local planning priorities were distorted by the national government’s inclination to ‘by-pass’ the provincial administration by allocating ‘development funds’ directly to national MPs, to spend as they saw fit within their own electorates. These ‘slush funds’, as they soon came to be known, were often used for pork-barrelling purposes, and lent a peculiar air of hypocrisy to the national government’s claim that provincial politicians were financially irresponsible.

• Last but not least, many provincial assembly members secured their positions after being defeated in the previous national election, and many lobbied consistently against their own open or provincial MP with a view to unseating him at the next national election. At the same time, many of the candidates standing in provincial and national elections were themselves drawn from the ranks of the provincial public service, where their performance was sometimes affected by their political ambitions.

The new Organic Law has removed or displaced this last form of political competition by abolishing the second tier of the electoral system. Each
provincial assembly is now made up of the MPs who represent the province in the national parliament, the elected presidents of all the rural local-level governments in the province, one member to represent the heads of all its urban local-level governments, an appointed women’s representative, and up to three other appointed members to represent special interest groups. One of the national MPs is appointed by the National Executive Council as the Governor of the province, and assembles his provincial executive from the remaining membership. An effort has been made to reduce the number of local-level governments by requiring that each open electorate in rural areas shall contain no more than three of these bodies¹⁹, to side-step the pitfalls of electoral politics by allowing that ward representatives may be selected by ‘traditional’ means, and requiring that each body should include two nominated female members. Where necessary, the administrative boundaries of rural districts within each province are to be realigned in such a way as to make them coterminous with the boundaries of open electorates²⁰. The bureaucratic agencies of the national government are to exercise a significant level of control over the appointments made to key positions in each provincial public service, and to play an important role in developing ‘an effective and efficient provincial and local-level planning and data system’. On the other hand, political control over the planning and budgeting process is reasserted in the formation of Joint Planning and Budget Priorities Committees in each open electorate, chaired by the MP representing that electorate, and including three members appointed by himself, as well as the provincial MP and the heads of the local-level governments in that district. Each of these committees is to receive a minimum unconditional grant of K1 million a year for the purpose of district development, even though its own plans and budgets are subject to approval by the provincial and national governments.

It is too early to say whether these reforms will have the intended effect of restoring the legitimacy and efficiency of government in rural (or urban) areas. Some concern has been expressed over the quality and consistency of the legislation itself. The Organic Law has been subject to a series of major and minor amendments since it was first gazetted in February 1995, and the process of institutional reform is still incomplete. Provincial governors have been complaining vociferously about their budget allocations from the national treasury, and the provision of government services in some provinces has been further curtailed as a result. The abolition of provincial elections has certainly served to intensify the level of

¹⁹ In some cases, Cabinet has decided to waive this requirement in order to preserve existing political boundaries. There are now 284 local-level governments, containing a total of 5,747 wards.

²⁰ When the colonial ‘districts’ became provinces, their component ‘sub-districts’ became districts in their own right. But the administrative boundaries of the country’s 87 districts had not previously been made to coincide with the political boundaries of the 89 open electorates.
political competition for seats in the national parliament, and there were huge numbers of losing candidates looking for new political roles in the wake of the 1997 national election. Many of them contested the local government elections held in October 1997, and the winners of these elections have subsequently been engaged in all sorts of unseemly struggles to secure the presidency of their respective councils, and with it the chance to become the deputy governors of their respective provinces. Although the reforms appear to impose new forms of financial control over provincial expenditures, they also entail the transfer of additional powers and responsibilities to the level of provincial and district administration, and may thus be seen to represent a more radically decentralised system of government. By granting new forms of power to national MPs, they also create the risk that open electorates (districts) will be more like personal fiefdoms than they were before.

5.4 National populism or the end of ideology

How should this portrait of the social and political landscape affect our understanding of the national policy process, especially in the domain of forest policy? From one point of view (which is the donor’s point of view), the weakest parts of the state are those which have been colonised by village politics, but village politics may be the only kind of politics which matters if villagers own or control the resources whose management is the point of the policy process. From this same point of view, the strongest parts of the state are those which have been successfully (if temporarily) colonised by the latest fashions in public administration - as propounded by donor-funded consultants. On the other hand, these interventions commonly fail to win the understanding and approval of those Papua New Guineans who are supposed to benefit from them.

This is not to deny the existence of a national technocratic constituency which is prepared to voice its support for such global imperatives within particular policy domains, but the harmony, continuity and sincerity of this ‘policy voice’ is often open to question. During the first decade of national independence, some commentators were inclined to regard this technocratic constituency as an emergent ruling class.

The state occupies a central position which the technocracy uses to consolidate its class power. In this, it blocks any challenging advance of the national petty bourgeoisie, even at the price of tolerating and encouraging foreign domination (Fitzpatrick 1985:29).
Our own preference would be to say that national technocrats are primarily engaged in a struggle with ‘landowners’, rather than with members of a ‘national petty bourgeoisie’, especially in those policy domains which are concerned with the distribution of a pile of natural resources. At the same time, we doubt whether this should be seen as a struggle between two clearly defined groups of national stakeholders, or ‘social classes’, but would rather see it as an opposition of voices or perspectives which may be articulated or adopted by all manner of people - both citizens and foreigners - whose interests may draw them to one side or the other, depending on the context or the issue which engages them (Filer 1997b).

As we have seen already, the current process of provincial government reform appears to be motivated by the desire of a national political elite to rationalise the structures of the state in ways which help to insulate them from the baneful influence of village politics, but the effect of these reforms may only be to shift existing forms of political competition from one place to another, or to rearrange the boundaries of the playing field without changing the basic rules of the game. While national MPs may now have more control over the administration of their own electorates for the period in which they hold on to their seats, this may only serve to provoke the enthusiasm of their local opponents for the task of thwarting and displacing them. And there is no reason to assume that the business of the national parliament will henceforth be conducted in ways which overcome the present contradiction between the vitality of local politics and the confusions of public policy.

Public servants also seem to espouse a technocratic perspective when they seek to protect their own work practices from ‘political interference’, the sources of which may range from village leaders to national ministers, when national ministers are often seen as village leaders in a new disguise. The fear of political interference helps to explain why many public servants affect to despise the values of ‘community participation’, and tend to regard local NGOs as a new kind of vote-gathering device. And yet their preference for ‘top-down’ approaches to the business of government is belied by their habit of forming bureaucratic communities which function like clans or villages whose ‘territories’ are specific policy domains or bits of state. And when they have occasion to participate in the political life of their ‘real’ communities, as many of them do, they are more likely to adopt the kind of ‘grassroot landowner’ perspective which is illustrated by the following excerpt from a newspaper feature article on the vexed question of resource compensation:
When landowners stand with their compensation claims, it is not done in a vacuum. They stand opposed to the cunning, the smart, the educated and the exploiters. They stand, used and abused, and their land so often taken from them. It is in this light that we must look at compensation demands. Only then can we begin to understand why the people in the outlying areas of our country seem to have the urge to create problems for the Government, to provide challenges to their authority. The complicated bureaucratic bungling, the ineffective administration of resources, the unequal distribution of national income, an economy making a few rich and many poor, unequal distribution of services ... you want reasons for ‘unreasonable’ compensation demands? There you have them... All these factors play a part in urging the rural people to get benefits any way they can. It allows the powerless to grab a little power in this unequal world that is Papua New Guinea (Post-Courier, 31 January 1992).

The contest between ‘elite’ and ‘grassroot’ perspectives in any given policy process is therefore like a bridge or a tightrope, which members of the ‘political and bureaucratic elite’ are continually crossing back and forth as they make vain attempts to reconcile the public interest with that of the ‘landowning community’ to which they finally belong, and in whose ground they will most probably be laid to rest.

Some scholars writing about the relation between state and society in Africa have used the word ‘populism’ to describe the politics of those who demand or benefit from the existence of a strong state, and the word ‘localism’ to describe the politics of those who prefer to avoid or escape it, and have regarded these as distinct constraints on the development of a strong ‘civil society’ which can bridge the gulf between state and community (Chazan 1994). This contrast does not seem to work very well in PNG, where the only prevailing ideology (apart from a fractured form of Christianity) is a combination of ‘populism’ and ‘localism’, in which the mass of the people are still demanding that government should do more for them, and still participating in all sorts of activities designed to meet that demand, but still insist on the primacy of their rights as members of small landowning communities, and resist the efforts of government to gain more control over the resources which they own.

PNG’s version of populism is one which breathes political life into a wide range of institutions which serve to publicise and punish the practice of ‘political corruption’. This is its great strength. Its weakness, which turns it into an ideology that is liable to distort the policy process, may be found in its appeal to the ‘myth of Melanesian communism’ as the source of
national (and local) salvation (see Box 5.2). This is where we find the element of truth in the efforts of the national elite to escape the divisive nature of ‘village politics’ and cross back to the buildings of the state which contain some definition of the ‘public interest’. At the same time, while many a foreign consultant has been mystified by the constitutional requirement for public policy to be shaped in ‘Papua New Guinean ways’, we still find donors crossing in the opposite direction, as they allow their own interventions in the forest policy process to be guided by some latter-day version of the populist myth.

Whatever their own position in the contest between technocrats and landowners, neither the donors, nor the logging companies, nor any other foreign stakeholders have any proven capacity to close the gap between village politics and the public interest (see sections 6 to 10). If ‘traditional’ community values also lack this capacity, because they reflect and encourage a very limited scale of social and economic cooperation, then the best hope lies in those institutions of ‘civil society’ which may look like ‘grassroots initiatives’, but which actually depend on forms of institutional innovation which derive their strength from both sides of the fence. Chazan has observed that African NGOs which have recently been able to translate their economic and cultural concerns into ‘a more effective policy voice’ are those which

have a discrete constituency (regardless of size) [and] are endowed with well-developed participatory structures, some resources and technical expertise, and a younger, relatively well-educated leadership core. All these associations appear to be linked to the money economy, their members have undergone some process of commercialisation, and they maintain communications that span the urban-rural divide (Chazan 1994:275).

It is this kind of organisation which also seems most likely to lead to the emergence of an effective ‘civil society’ in PNG. But the measure of its success will not lie in its ability to exert new kinds of pressure on the state, but in its ability to form new constituencies out of the building blocks of Melanesian society (see sections 11 to 13).
Once upon a time there was a community whose members lived in complete harmony with each other and with their natural environment, who jointly owned the land to which they had a mystical attachment, who chose their leaders by consensus, settled arguments by compromise, and redistributed the products of their labour to ensure that everyone enjoyed the same condition of subsistence affluence. By general agreement, these are the ‘Papua New Guinean forms of social, political and economic organisation’ whose preservation at the level of the village, and whose application to the business of ‘development’, became the fifth and last of the National Goals devised by the Constitutional Planning Committee.

[The real story is] that Melanesian communities have always been on the verge of disintegration, even in pre-colonial times, and it has always taken special qualities of leadership, in each succeeding generation, to prevent them from splitting apart at the seams. In pre-colonial times, such efforts were directed to the pursuit of warfare, the practice of initiation, and the organisation of large-scale gift-exchange, but the rules of these games were no more permanent than the social groups whose continuity depended on the outcome. Colonialism itself had a complex and contradictory impact on this unstable state of affairs.

The new regime created opportunities for modernising leaders to establish their authority as middle men between the colonising institutions and the rural population, even to enlarge the scope of their authority beyond the confines of their own communities. Yet their chances of success were limited, just as the cost of failure was reduced, by the impossibility of wiping out the opposition. Each new addition to the institutions of ‘development’ has subtracted something from the solidarity of the community by dividing a diminishing amount of authority between a growing number of leadership roles.

[However,] the rate of social change has normally not been so great as to prevent each generation of leaders, in each of these communities, from arriving at their own ‘Melanesian compromise’, making their own peace with God and with each other, for as long as their leadership lasts. The majority faction in each new generation may choose to take a different ‘road’, and each new road may later prove to be a dead end, but the process of social change has itself created new forms of ‘initiation’ (the experience of Japanese occupation, indentured labour recruitment, high school education, etc.) which mark the boundaries of each new generation and impose some sort of order on the transfer of authority between them.

Source: Filer 1990
In this section, we consider the way that stakeholders have been defined by reference to their aims and objectives, or the way that these aims and objectives have been attributed to a particular cast of characters in the policy drama, in a series of documents which may be seen as some of the major stepping stones in the history of national forest policy. Having reviewed some of the documents which either belong to the colonial legacy or which set the tone for its repudiation at the time of Independence, we then go on to consider four main bodies of documentation which heralded the more recent process of policy reform:

- the findings of the Commission of Inquiry into Aspects of the Forest Industry (the Barnett Inquiry);
- the reform agenda embodied in the National Forest Policy and the *Forestry Act* of 1991;
- the production, critique and refinement of the National Forestry and Conservation Action Programme (NFCAP);
- the production, critique and refinement of PNG’s own Biodiversity Conservation and Resource Management Programme (BCRMP).

### 6.1 The colonial legacy and its critique

There are two main lines of argument about the history of forest policy in the decades preceding the initiation of a new round of policy reforms in 1989. The first maintains that a substantial reconstruction of the policy process occurred after 1964, when the Australian colonial administration tried to bring about a major expansion of the industrial forestry sector which had been recommended.
by the World Bank, and then again in the years between 1973 and Independence in 1975, when the values of ‘conservation’, ‘self-reliance’ and ‘popular participation’ featured prominently in the charters of the newly independent state of PNG. The second line of argument maintains that the rhetoric of independence had very little impact on the actual pattern of relationships between the governing elite and the bulk of the ‘native’ population, since ‘black men in white masks’ simply reproduced the attitudes and practices of their colonial predecessors. From this point of view, the newly independent state inherited a colonial legacy which Brunton has recently described as a ‘culture of bureaucratic feudalism’:

The absence of true democracy and markets in colonial Papua New Guinea meant that the legislative model for controlling forest resources was essentially one of bureaucratic feudalism. The colonial state by virtue of its status, appropriated the trees from the landowners almost as of right, and in return the landowners got next to nothing. The landowners were induced by promises of ‘development’ and royalties, or else they believed that the colonial government had the power to take the trees and dictate the terms (Brunton 1996:112).

In the period before 1965, the commercial exploitation of PNG’s forest resources was substantially constrained by the culture of colonial paternalism. This is exemplified in a paper produced in 1957 by two officials of the colonial administration, J.S. Womersley (Head of the Botany Division) and J.B. McAdam (Director of the DOF), on ‘The Forests and Forest Conditions in the Territories of Papua and New Guinea’.

The ownership of the land and the forests thereon, generally speaking, is regarded as resting with the Native inhabitants. Normally, the land is owned by a tribe or group with the individual holding usufructuary rights by virtue of his ownership in the tribe.

Natives are prohibited from selling, leasing or otherwise dealing with or disposing of any land except to the Administrator who may purchase or lease such land upon terms agreed upon between him and the owners.....

The Natives are a primitive people gradually emerging under contact with an advanced European race, from a stone age culture. It has been necessary to win and keep the confidence of these people and in the matter of land dealings, the Administration has been most circumspect.....

Except in the case of minor forest produce and limited quantities of logs, all major transactions with the Native owners of forest produce are brought under
the direct control of the Administration. Also, if the Native owners are willing to sell their land or the timber rights on it, the Administrator is empowered to acquire it whereupon it becomes Administration land under the Forestry Ordinance and timber authorities (permits and licences) may be granted to enable the harvesting of forest produce (Womersley and McAdam 1957:34-35).

Although the Australian colonial administration had begun to survey the timber potential of Papua and New Guinea in the early years of the century\textsuperscript{21}, a Forest Service was not established until 1938. By that time, Europeans had established a number of sawmilling operations to service the needs of the domestic market, most of them on land which had already been alienated from customary tenure, and the operators of coastal copra plantations had begun to export some logs and flitches (especially walnut) to the American veneer market in order to make up for the severe depression in copra prices (\textit{ibid}:36). Following the defeat of Japanese occupation forces in 1944, there was a substantial expansion of sawmilling operations, many of them run by the Administration, to meet the demands of post-war reconstruction. In 1953, when the Territories were already self-sufficient in sawn timber, the establishment of the Bulolo plywood mill – ‘probably the most modern plymill in the Southern Hemisphere’ – helped to establish timber (in both processed and unprocessed forms) as the second most important export commodity after copra (\textit{ibid}:37)\textsuperscript{22}. By 1957, when Womersley and McAdam wrote their paper, the Administration had purchased timber rights over 71,234 acres of ‘native land’ in Papua, and another 255,078 acres in New Guinea (\textit{ibid}:35). At the same time, a commitment to ‘sustained yield’ had already been established as a feature of colonial development policy, and forest plantations had been established near Port Moresby and Rabaul, as well as in the Bulolo Valley, to maintain the supply of raw material for the processing industry (\textit{ibid}:40-41).

Despite the optimistic tone adopted by Womersley and McAdam in 1957, development of the local timber industry proceeded at a pace which even disappointed the expectations of the Australian Minister for Territories, Paul Hasluck, who believed that ‘exploitation of national resources should take place in conditions that safeguarded the future of the people and should not have priority over but go hand in hand with their social advancement’ (cited in Lamb 1990:27). Between 1952 and 1963, the total log harvest rose from about 46,000 cubic metres (of which less than 10 per cent was exported) to about 183,000 cubic metres (of which 25 per cent was exported).

\textsuperscript{21} A survey of Papua’s timber potential was carried out in 1908, and both territories were surveyed again in 1934 (Womersley and McAdam 1957:29).

\textsuperscript{22} This investment in plywood production was made by the mining company which had been dredging gold from the Bulolo River for many years (see Healy 1967).
exported) (White 1975:37). By 1963, the Administration had acquired 548,000 hectares of land for forestry purposes, of which 73 per cent had been obtained through temporary Timber Rights Purchase agreements with native owners under the Forestry Ordinance, but this fell a long way short of the target which Hasluck had set in 1957, when he anticipated the acquisition of 1.6 million hectares by 1967 (Lamb 1990:28). Only two of the eighty-eight timber permits which had been issued by 1963 covered areas of more than 20,000 hectares, and only five of the eighty-two sawmills then in operation had a daily production capacity in excess of 35 cubic metres (ibid:28-29).

In 1964, the World Bank recommended ‘an aggressive policy of commercial development’ based on its estimate that the natural forest alone could sustain an annual harvest of 1.2 million cubic metres. However, the DOF found it difficult to implement this policy because the diversity of species and the difficulty of the terrain deterred potential investors, the purchase and allocation of timber rights over large areas of customary land was constrained by the policy of retaining customary tenure, and the Indonesian government was simultaneously offering much larger and more lucrative timber concessions with far fewer restrictions on their exploitation (Lamb 1990:29-34). As a result, the Department began to place more emphasis on the development of plantation forests on land which had already been alienated, and then to promote the clear-felling of natural forest for pulpwood or woodchip production as an alternative to selective logging (ibid:35-38). The culmination of this latter effort was an agreement between the Administration and the Honshu Paper company of Japan to establish a woodchipping project based on the resources of the Gogol Valley in Madang Province. The Gogol project then became the focus of much, if not most, of the public discussion of forest policy in the years preceding and following the achievement of Independence in 1975.

On the eve of Independence, in April and May 1975, there were substantial discussions of forest policy at two separate conferences held at the University of PNG – a UNESCO-sponsored symposium on the ‘Ecological Effects of Increasing Human Activities on Tropical and Sub-Tropical Forest Ecosystems’ (see McAlpine 1975), which was primarily concerned with the potential impact of the Gogol woodchipping project, and the Ninth Waigani Seminar on ‘The Melanesian Environment’ (see Winslow 1977), which could be seen as a series of reflections on the much-quoted Fourth Goal of the National Constitution – ‘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’.
K.J. White, then Assistant Director of the DOF, presented papers at both meetings in which he summarised that part of the colonial legacy for which his own department was responsible. He observed that the Administration had eventually managed to secure timber rights over more than one million hectares of customary land in various parts of the country, and that a number of major concessions had either been allocated to developers (Gogol, Open Bay, Kaut) or were subject to active negotiation (Vanimo, Sagarai-Gadaisu, Kumusi, Kapiura, Kapuluk). He also presented, but failed to explain, the Department’s preference for downstream processing over raw log exports:

While the desire of importers for log exports continues, log exports are generally being phased out and timber in some converted form will be exported. The export market will require large volumes of standard qualities, and this tends to favour the development of large-scale industries. Market opportunities will, however, continue for smaller operations (White 1977:402).

Despite this statement of preference, it was evident from his list of projects under negotiation that the DOF had not completely abandoned its efforts to promote the large-scale selective logging of natural forests, and one of his appendices contained a set of ‘Resource Management Guidelines’ which seems to assume that this would be the standard form of ‘forest management’ in PNG.

Two other presentations at the Ninth Waigani Seminar were highly critical of the Department’s policies and practices. A pair of Australian environmentalists, R. and V. Routley, complained about the destructive impact of conventional Australian forestry throughout Melanesia, attributing this impact

...to the overwhelming commitment on the part of forest services to the interests of big wood based industry, which interests dictate the large-scale mass production forestry, and the heavy handed, capital intensive, factory style operations that are so destructive of forest values (Routley and Routley 1977:376).

In the case of PNG, they restated the scepticism which the DOF’s Assistant had previously expressed over the economic benefits of large-scale log export operations:

Log export operations, because of the nature of Papua New Guinea forests, yield minimum returns to the country and move through the country at a great rate, leaving behind a degraded forest and a multitude of roads and...
tracks to be quickly overgrown (McIntosh 1971:17, cited in Routley and Routley 1977:380).

But they failed to see how this argument could justify the Department’s preference for the Gogol woodchip project, given that this entailed the clear-felling of huge areas with minimal provision for reforestation or conversion to more profitable uses, and that its benefits would accrue to a Japanese pulp and paper industry which had the capacity to maintain artificially low prices for the exported product.

From the point of view of the local people who sell the timber rights, it may be doubted that the paltry initial per capita sale price and the royalty price of apparently less than $5 per head each year during the period of liquidation of the forest, provide adequate compensation for the hunting, fishing and other forest food and produce foregone, let alone compensation to them and their descendants for the long-term degradation and possible irreversible destruction of the forest and other adverse effects on their lives.....

There is clearly a trade-off between commercial benefits and environmental costs to the Papua New Guinea population. The Madang [Gogol] project, for example, will provide revenue for the Government – the main reason for its existence – only if no attempt is made to reforest even part of the area or to impose adequate environmental standards (Routley and Routley 1977:388-9).

Having counterposed the positive values of ‘primitive affluence’ to the negative image of ‘underdevelopment’ peddled by the orthodoxies of the World Bank and the forest industry, they went on to propose a more sustainable form of forest management for PNG:

The switch to small-scale, low impact, ‘village forestry’, would have to be accompanied by appropriate reorientation of forestry education, training and research. For example, it would combine well with the training of ‘village foresters’, a training perhaps along Chinese lines, less oriented to high energy bulldozer technology and more oriented to the continuing management and small-scale utilisation, in everybody’s interest, of the existing forest resource (ibid:395).

And if the government were unable or unwilling to make this switch of emphasis, then salvation might still be found in the failure or refusal of the colonial administration to achieve a substantial and lasting alienation of forest resources from customary tenure:

There is some prospect that the distinctive Melanesian pattern of land
tenure, so far from being a major drawback, will serve in Papua New Guinea ... to block undesirable development and be in the interests of nature conservation (ibid:379).

At the same conference, John Waiko presented an account of his own community’s reaction to a proposed logging project, which not only exemplifies the anti-imperialist rhetoric that was then quite typical of PNG’s first generation of university graduates, but which also illustrates and comments on the internal divisions of landowning communities confronted with the prospect of ‘development’. According to Waiko, the logging proposal first arose as a result of an approach made in June 1973 by Julius Chan, then Finance Minister in the first Somare government, to a group of Chinese businessmen based in Hong Kong, but the DOF favoured an alternative development proposal put forward by an American-Australian company, Parsons and Whitmore. He went on to describe the conflict which developed between the community’s own political representatives, who were apparently happy to endorse both proposals on behalf of their constituents, and a number of students and other local leaders, including himself, who argued that their people had not been properly consulted or informed about the impact of either proposal.

Waiko argued that his community’s eventual rejection of the logging company’s proposals showed that ‘Bindandere society has never been shattered by colonial imperialism’ (Waiko: 1977:421), yet he acknowledged that it had the effect of exaggerating traditional conflicts over clan boundaries, dividing the older generation into those who wanted to get some money before they died and those who saw themselves as custodians of custom, and dividing the younger generation into those who were attracted by the prospect of employment and those who feared the disintegration of their own society (ibid:422).

.......The people are confused and do not grasp the goals of the government. This situation produces the following effects. Firstly, the bulk of the funds for the Government comes from non-subsistence sources and the Government tends to depend more on outside revenues, extending this dependence to the people in relying on foreign corporations. Secondly, the resources of the people are sapped by the Government for foreign capitalists, and this makes the people more dependent on outside assistance and more vulnerable to exploitation by the international capitalist system. Thirdly, the situation creates social divisions in which the elite establish ties with multi-national corporations to exploit the natural resources while the ‘half educated’ and ‘drop outs’ aspire to attain the standards of the elite by migrating to urban areas and leaving the great mass of the population in the villages (ibid:424).
He then goes on to describe the ‘cultural and linguistic gap’ between villagers and leaders as one in which

those who are chosen to bridge the gap (such as field officers, councillors, etc.) often turn out to be representatives of ‘progress’ and ‘development’. The result is that, whereas some people at the top may be under the illusion that the reports made available to them are the results of dialogue between the government representatives and the people, they are in fact hearing only the government voice and its own echo. The people are left in the worst situation: either totally uninformed, or (at best) informed but unheard (ibid:426).

In later years, John Waiko became the first Papua New Guinean to be appointed to a chair (in history) at the University of PNG. In 1992, he was elected to Parliament as the MP for Sohe, and eventually joined the Chan-Haiveta coalition government as Minister for Education. By this time, his opposition to logging and imperialism had both been diluted in ways which are fairly typical of the radical nationalist elite to which he formerly belonged. Yet his portrait of community politics has been equally typical of the way in which the social impact of large-scale resource development is construed by those who claim to oppose it.

From this brief account of the forest policy process at the time of Independence, it should be clear that the costs and benefits of different forms of resource exploitation were being couched in terms which are still pertinent to the current situation. However, there was very little public debate on matters of forest policy over the course of the next decade, except for the occasional note of complaint about the Gogol woodchip project (De’Ath 1979, 1980), despite the threefold increase in raw log export volumes over this period. It was only in 1986 that the local newspapers, especially the *Times of Papua New Guinea*, began to publish a series of sensational articles pointing to some of the sinister connections which logging companies had established with national and provincial politicians.

### 6.2 The Barnett Inquiry into the forest industry

In April 1987 the Prime Minister, Paias Wingti, appointed an Australian member of the PNG judiciary, Thomas (‘Tos’) Barnett, to conduct a Commission of Inquiry into allegations of impropriety against the executives of the Forest Industries Council and to assess the respective roles of the Council, the Minister and the DOF in the marketing of timber. Barnett could readily be identified as a member of the radical expatriate
intelligentsia which had previously played a major role in formulating PNG’s constitutional agenda, so his appointment might seem, in retrospect, to signal the government’s determination to adopt a radical solution to a serious problem of governance. On the other hand, we need to recall that the appointment was made only two months before a national election, at that point in the national political cycle when the coherence of national government policy is lost in the urgency of parochial political contests, and it is hardly possible to predict the shape of the next ruling coalition.

In the event, Wingti retained both his own seat and his position as Prime Minister in a ruling coalition which still contained many of his most prominent parliamentary allies. In this context, Barnett was able to expand his own terms of reference to include a variety of additional factors responsible for what he later described (1992:97) as the ‘heavy odour of corruption, fraud and scandal arising from the timber industry’. As a result, his inquiry lasted for more than two years and produced no less than twenty volumes of findings in seven interim reports and one final report. The final report was completed in July 1989, and duly presented to another Prime Minister, Rabbie Namaliu, whose own deputy and coalition partner, Ted Diro, was the most prominent of the politicians and public servants who now stood accused of receiving ‘improper benefits’ from logging companies. By this stage, Barnett felt that his life was in danger, and he left PNG as soon as his labours were completed.

The economic dimensions of the forestry sector in 1988, during the main period of Barnett’s investigations, were itemised by the World Bank in 1989:

- PNG’s total log harvest was estimated to be 2 million cubic metres, of which 1.34 million cubic metres (67 per cent) was exported.
- Forest products as a whole were valued at US$159.2 million, which represented 4.6 per cent of GDP.
- PNG’s total forestry exports were valued at US$111.3 million, which represented 8.5 per cent of total export values.
- Raw log exports were valued at US$99.3 million, and were mostly destined for Japan (63.6 per cent) or Korea (31.9 per cent).
- Government collected approximately K25 million in tax revenues from the forestry sector, representing 4.5 per cent of all tax revenues\(^\text{23}\), while the DOF spent roughly K5 million on its own operations.
- Approximately 5,000 people were employed in the forestry sector, of whom 445 were employed as public servants in the administration of the industry, about 2,200 in sawmilling, and most of the rest in logging.

\(^{23}\) The government also received indirect budgetary support of between K4 and K8 million from the provision of social infrastructure by permit holders (estimated at K3-6 per cubic metre of log exports)
It thus appeared that commercial development of the natural forest had now surpassed the targets set by the World Bank back in 1964, yet Barnett found that this was not a matter for congratulation or applause.

Although the Namaliu government failed to act on Barnett’s recommendation that his final report should be freely distributed to ‘universities, public libraries and appropriate institutions such as provincial governments, high schools and government departments’ (Barnett 1989:107), it would be wrong to assume that this government was less responsive to his findings than its predecessor might have been. While it is true that Paias Wingti, being a highlander whose own interests were primarily tied to the coffee business, was unlikely to suffer any personal damage from revelations of corruption in the timber industry, it is equally true that he presided, like all PNG prime ministers, over a loose coalition of factional leaders which was almost bound to include some individuals who would be damaged by such revelations. Indeed, Barnett’s findings against Ted Diro related to the latter’s occupation of the Forests Ministry in Wingti’s coalition government from 1985 to 1987. Diro did not desert this coalition until July 1988, when his ‘party’ crossed the floor to join the Opposition in a successful vote of no confidence. The position of Deputy Prime Minister, which Diro secured as a reward for his shift of allegiance, did not grant him the power to either halt the progress of the Barnett Inquiry or prevent the publication of its more sensational findings in the national newspapers. In fact, the Namaliu government began to implement many of Barnett’s recommendations before these were even made public, as part of a larger effort to strengthen or defend the capacity of the state to regulate the development of PNG’s natural resources. Rabbie Namaliu was still Prime Minister in September 1991, when a Leadership Tribunal under the chairmanship of Justice Graham Ellis found Diro guilty of eighty charges of misconduct in office, thus prompting his resignation from Parliament.

**Box 6.1 Justice Barnett’s conclusions**

The situation which is described in these reports is that of a forestry industry out of control. The reasons for this are that the State, which is the constitutionally appointed guardian of the forests, has failed to assert the guiding principles under which this trust is to be administered. It has failed to establish adequate control measures to contain the foreign companies which are exploiting the forests and it has failed to effectively administer such controls as exist.

As a result of these failures on behalf of government foreign investors have been able to completely dominate the timber industry. By using a combination of bribery, ‘gifts’ and other benefits and by making contributions to politicians and political parties the timber companies have made ‘partners’ of Papua New Guinea leaders at national, provincial and local level.
Once in control of a timber area the overriding preoccupation has been to maximise the volume of logs exported with little or no regard to the damage being caused to the forests and the environment in the process.

By taking advantage of the weakness in the control systems the logs are being marketed fraudulently so that an amount ranging between five and ten US$ a cubic metre is being transferred offshore causing very substantial loss to the Papua New Guinea government and to the resource owners.

By encouraging an ever increasing volume of log exports the government has allowed the previously existing local processing industry to be all but destroyed. Such processing as is still occurring is inefficient and incredibly wasteful. The product produced is consequently second rate and uncompetitive.

Our knowledge of the resource base is shamefully lacking and is insufficient to enable calculations of sustainable yield forest management to be made with any degree of certainty. It is however clear that the existing level of harvesting already exceeds the safe level of cutting and that the additional allocations already planned will place the future timber industry in real jeopardy.

The failure to impose appropriate conditions on timber operations and to enforce those which exist has seriously disadvantaged landowners who almost invariably gain unjustly low benefits from the exploitation of their resource.

The message which cries out through these reports is ‘Slow Down!’ I have recommended that sustainable yield management principles be forced into existing agreements and that no further allocation be made until the resource has been accurately assessed and sustainable yield management plans have been drawn up.

For the sake of future generations the mad rush to export logs must be curbed and integrated onshore processing, plantation forestry and proper care and enrichment of natural forests must become our primary focus.

Forestry policy, legislation and administration must be geared to these ends. Foreign investment must be brought under control and ways must be found to bring the illegal offshore funds, from which the bribes and ‘benefits’ are paid, on shore for the benefit of the country and the resource owners.

There are sufficient examples of more responsible timber operations in Papua New Guinea to show that it is possible to exploit the natural forest in perpetuity following sustainable yield management principles. To do this will require the introduction of integrated onshore processing complexes where waste is reduced to a minimum and value is added onshore. Appropriate silvicultural techniques can be applied to help the natural forests to regenerate and this process should be supplemented by large scale plantation forestry. Large reputable timber companies can be attracted to this concept if security of title can be arranged. Also, in view of the increased global concern over the loss of tropical forests, donor nations and soft loans can be attracted to this concept. With the help of agencies like the World Bank Papua New Guinea could set in place a system which could be a model of enlightened self perpetuating forestry bringing benefits for all concerned.

Source: Barnett 1989: 375-377
Perhaps the most significant feature of Barnett’s findings was the assumption that national technocrats and landowners could and should make common cause against the corruption of their state and society by an unholy alliance of foreign loggers, domestic politicians, and wayward public servants. At the same time, he was prepared to recognise that the restoration of ‘national control’ over the foreign sources of corruption was a task which would be easier to complete, and perhaps only feasible, with the support of ‘donor nations’, multilateral aid agencies like the World Bank, and some ‘reputable’ or ‘responsible’ operators in the forest industry. But if he could thus allude to the distinction between good and bad foreigners, and between good and bad loggers, his own position precluded him from saying very much about the difference, or the relative balance of power, between good and bad members of the national elite. And although he made some reference to ‘future generations’ as a distinctive group of stakeholders in the forest policy process, thus reminding his audience of the Fourth National Goal, he had nothing to say about the difference between the attitudes or behaviour of older and younger members of the national community.

Barnett’s Commission of Inquiry was bound to produce recommendations for action to be taken by the State of PNG, ‘which is the constitutionally appointed guardian of the forests’, rather than by any of the other stakeholders involved in the forest policy process, and was therefore bound to carry the implication that PNG’s political and bureaucratic elite possessed the capacity or willingness to act on such recommendations. On the other hand, his own willingness to address these recommendations to a foreign audience could easily be taken as evidence of his lack of faith in their readiness to do so. For example, in March 1991, almost two years after his departure from PNG, Barnett was invited to discuss his findings with US Senator Albert Gore and Congressman John Porter, both members of an organisation called the Global Legislators Organised for a Balanced Environment, and both politicians used his recommendations as the basis for resolutions proposed to their respective chambers, while Gore announced that similar resolutions would be presented to the Japanese and European parliaments.

Senator Gore was quoted as saying that the forests of PNG were ‘being destroyed so quickly that they will be completely gone in less than 10 years’, that the logging companies were ‘cheating the indigenous peoples, robbing them of their homes, their culture, and the basic sustenance of their lives’ (PNG’s national daily newspaper, the Post-Courier, 3 April 1991). Apart from being truly hyperbolic, this did not go down too well with PNG’s Foreign Minister, Sir Michael Somare, who replied that the Senator and the Congressman might be in contempt of court, because ‘our legal system is not made for other people to come and push us around’.
Box 6.2 Barnett’s major recommendations

As well as recommending a long list of names for prosecution for various criminal and leadership offences, and a series of measures to clamp down on political corruption, the Commission recommended:

- the formulation of a national forestry policy;
- the enactment of revised forestry legislation;
- the establishment of a single forestry service under national control;
- full involvement of provincial government in provincial and national forestry planning;
- the inclusion of detailed requirements for sustained-yield forestry and environmental protection in every permit over land intended for future forestry use;
- provincial governments to have power to veto projects in their own province;
- outside recruitment of experts to lead planning initiatives, resource surveys, monitoring of operations, marketing control and effective on-the-job training for local officers;
- formal consultation arrangements between national, regional and provincial bodies to prepare and update national and provincial plans;
- the full involvement of landowners and provincial governments prior to allocation of permits in discussions of desired future land use and the conditions to be imposed on the developer by the timber permit, to help ensure that where land is to be used in the future for forestry, details of sustainable-yield harvesting and post-logging care appropriate for the particular area should be agreed and specified before logging commences;
- the National Forest Development Programme to be revised drastically downwards;
- a review of all existing permits to introduce appropriate management conditions, revise harvesting rates, and reform logging practices;
- radical changes to reduce transfer pricing, based on the Commission’s very detailed investigations into this problem;
- a major increase in benefits for landowners and more effort to ensure that permits and licences protect their interests; the enforcement of conditions of permits which are designed to promote the interests of the local community.

Source: Barnett 1992: 104-107

6.3 The twin pillars of the new forestry regime

Soon after the Namaliu government came to power in July 1988, the new Forests Minister, Karl Stack, established a Consultative Steering Committee under the chairmanship of the Secretary for Forests, Michael Komtagarea, to produce a new National Forest Policy and drafting instructions for a new Forestry Act. The new government also sought international assistance under the Tropical Forestry Action Plan (TFAP), thus prompting the World Bank to organise an ‘inter-agency review mission’ which visited PNG in
April and May 1989, while Barnett was still preparing his final report. Later that year, the Prime Minister seems to have grown impatient with the progress of the Consultative Steering Committee, and appointed a Task Force of his own to report on the implementation of recommendations made by the Barnett Inquiry and the TFAP review mission. While Barnett and the Bank both exercised a good deal of influence over the construction of the new forestry regime, this was carefully concealed behind an image (or facade) of national sovereignty. The drafting of the new Forest Policy and *Forestry Act* can therefore be considered as an initiative of the national government which was taken alongside, and even in advance of, the orchestration of donor support for what later became the National Forestry and Conservation Action Programme.

A draft of the new Forest Policy was first approved by Cabinet in April 1990, tabled in Parliament as a white paper in July, and then circulated for further discussion in November of that year, though it was not officially published until September 1991. Two draft forestry bills were produced in 1990, and a third was finalised in May 1991 before being passed by Parliament (with some ‘last-minute amendments’) in July of that year, but the new *Forestry Act* was not gazetted until June 1992, in the last days of the Namaliu government.

The ‘Introduction’ to the new National Forest Policy states that forest policy formulation is guided by the Fourth Goal of the National Constitution, which has previously been described as PNG’s own charter for sustainable development. The second page of the document presents two main policy objectives:

- ‘management and protection of the nation’s forest resources as a renewable natural asset’; and
- ‘utilisation of the nation’s forest resources to achieve economic growth, employment creation, greater Papua New Guinean participation in industry and increased viable onshore processing’.

The third page presents three secondary or ‘supportive’ policy objectives:

- ‘the collection of information and advancement of knowledge relating to the utilisation and maintenance of Papua New Guinea’s forest resources through forest research’;
- ‘increased acquisition and dissemination of skills, knowledge and information in forestry through education and training’; and
- ‘effective strategies, including administrative and legal machinery, to manage the forest resource, and incorporating national, provincial and local interests’.
The rest of the document is accordingly divided into five parts - ‘Forest Management’, ‘Forest Industry’, ‘Forest Research’, ‘Forestry Training and Education’, and ‘Forestry Organisation and Administration’ - each of which is devoted to a detailed account of the specific policies and strategies to be adopted in the pursuit of these five objectives. The final part of the document - ‘Instruments for Implementation’ - contains some brief observations on the need for relevant legislation at both national and provincial levels and the need for consistency with other government policies in the renewable resources sector.

The new *Forestry Act* replaced three previous pieces of legislation - the *Forestry (Private Dealings) Act* of 1971, the *Forestry Act* of 1973, and the *Forest Industries Council Act of 1979*. The new Act had ten parts and 142 separate sections, many of which clearly corresponded with specific policies or strategies listed in the National Forest Policy:

- Part II of the Act (‘Papua New Guinea Forest Authority’) was largely concerned with matters covered under Part VI of the Policy (‘Forestry Organisation and Administration’);

- Part III of the Act (‘Forest Management and Development’) was largely concerned with matters covered under Part II of the Policy (‘Forest Management’); and

- Parts IV, V and VI of the Act (‘Registration of Forest Industry Participants and Consultants’, ‘Marketing’, and ‘Forest Finance’) were largely concerned with matters covered under Part III of the Policy (‘Forest Industry’).

The Act established a ‘Papua New Guinea Forest Authority’, now commonly known as the National Forest Authority (NFA), to pursue six objectives which closely resemble the five listed in the National Forest Policy\(^\text{24}\). The NFA was to take over the functions previously exercised by both the DOF and the Forest Industries Council in light of the innovations made by the new Forest Policy and the other provisions of the new Forestry Act. Its main functions would therefore be to:

- advise the Minister on matters of policy and legislation;
- prepare and review the National Forest Plan;
- direct and supervise the National Forest Service;
- negotiate Forest Management Agreements with timber operators;

\(^{24}\) The increase in the total number of objectives was the result of separating the pursuit of ‘national participation’ in forest management from both the pursuit of ‘development’ and the pursuit of ‘conservation’ for their own sake.
• control and regulate the export of forest products; and
• oversee the administration and enforcement of the Act.

According to the Policy (PNGMOF 1991:52), the NFA was to be established ‘as a statutory corporation with regulatory and administrative responsibility for management of the forestry sub-sector throughout the country’, and would have two institutional components:

• a National Forest Board operating through ‘a system of specialist advisory committees and Provincial Forest Management Committees’; and

• a National Forest Service which would ‘absorb all the functions of both the current National Department of Forests and the Provincial Forest Divisions’ (ibid:55).

In this way, forestry would remain a concurrent function of national and provincial governments, there would be greater opportunities for ‘consultation and cooperation’ between government and other stakeholders, fewer opportunities for ‘malfeasance inherent in the exercise of unfettered powers by a single person or group’ (ibid:49), and a larger measure of corporate integrity and autonomy in the business of forest management.

It should be noted here that composition of the National Forest Board and the Provincial Forest Management Committees was one of the main bones of contention in the drafting of the Act. Evidence of this remains in the published version of the Policy, where the membership specified in the second draft of the Bill is still shown in the main body of the text (PNGMOF 1991:54,57), but the relevant sections of the Act itself have been added as endnotes (ibid:62-63). These show that:

• the Department of Finance and Planning secured a place on the National Forest Board at the expense of the Department of Agriculture and Livestock;

• the National Alliance of Non-Governmental Organisations (NANGO) gained official recognition as the peak body representing what had previously been described as ‘non-government organisations concerned with environmental, social and developmental issues’; and
Box 6.3 The National Forest Board and Provincial Forest Management Committees

Section 10 of the new Forestry Act prescribed the membership of the National Forest Board as follows:

- the Director-General of the Forest Authority (as head of the National Forest Service);
- the heads of the three national government departments responsible for ‘finance and planning matters’, ‘environmental protection matters’, and ‘trade and industrial development matters’, or their nominees;
- a member ‘with appropriate experience in commerce and finance, preferably with respect to forestry, nominated by the Minister’;
- the President of the Forest Industries Association, or his nominee;
- a member appointed by the Minister from a list submitted by the National Alliance of Non-Government Organisations; and
- four provincial government representatives appointed by the Minister from lists submitted by each of the four regional Premiers’ Councils.

The Chairman and Deputy Chairman of the Board were to be appointed by Cabinet from amongst these eleven members.

The Board was to establish a Provincial Forest Management Committee for each of the country’s nineteen provinces. Section 22 prescribed the membership of these committees as follows:

- ‘a senior officer in the administration of the province, nominated by the provincial government, who shall be the Chairman’;
- ‘an officer of the National Forest Service, nominated by the Director-General’;
- ‘one person to represent the local or community governments situated within those areas of the province which contain forest resources, who shall be the president of such a local or community government nominated by the provincial executive’;
- ‘two persons to represent land-owning groups in the province nominated by the Provincial Forest Management Committee’; and
- ‘one person to represent non-governmental organisations concerned with environmental, social or developmental issues nominated by the National Alliance of Non-Governmental Organisations’.

Section 28 allowed that the owners of a timber resource under discussion by the Committee were entitled to representation by two of their number during the course of the discussion, but these representatives were not entitled to vote. Section 29 required all members to disclose any personal interest in matters under consideration by the Committee and exclude themselves from deliberations and decisions on those matters.

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25 The composition of the Board was changed when the Act was amended in April 1993 (see Section 3.3.1 below)
the Provincial Forest Management Committees were no longer to include ‘two Members of Parliament of the Province, one the Regional member, the other an Open Member of the area’.

This last change may have owed something to Barnett’s comments on the first draft of the Bill, where he noted the risk that national MPs might ‘dominate the decision making at provincial level’ (Barnett 1992:112). But all three changes owed a great deal to the influence of the World Bank, whose representatives presented the PNG government with their own comments on the second draft of the Bill in March 1991.

In this context, the Bank has consistently sought to strengthen the hands of senior public servants against the risk of ‘political interference’, whether at the national or the provincial level, and these efforts have naturally received a lot of support from the public servants themselves, even though some of them have thus been placed in the awkward position of serving two masters at once. At the same time, the Bank supported the creation of NANGO in 1990 because it wanted this organisation to be the primary instrument of NGO representation in reform of the forestry regime, and most other stakeholders soon concluded (with good reason) that this was its primary function. Finally, the Bank wanted the Department of Finance and Planning to be represented on the National Forest Board because that was the government department which shared the Bank’s own responsibility for coordinating the delivery of foreign aid to PNG’s version of the TFAP.

6.4 The National Forestry and Conservation Action Programme

When Judge Barnett suggested that the PNG government could do with the help of agencies like the World Bank, he simply acknowledged the appearance of the Bank as a major stakeholder in the national forest policy process during the course of 1989. The other global stakeholders involved in the TFAP Review mission organised by the Bank were: the United Nations Development Program (UNDP), the UN Food and Agriculture Organisation (UNFAO), the Asian Development Bank (ADB), the International Union for the Conservation of Nature (now the World Conservation Union - IUCN), the International Institute for Environment and Development (IIED), the Australian International Development Assistance Bureau (AIDAB), the New Zealand Ministry of External
Relations and Trade (NZMERT), and the German Federal Republic’s Technical Cooperation Agency (GTZ). Each of these organisations either supplied or paid for the services of one of the nine members of the review team.

The report of this team of experts, originally drafted in October 1989, was divided into six main sections. These considered:

- the general economic significance of forestry in PNG;
- the problem of defining and achieving ‘sustainable forest management’;
- the way to maximise national income from the forestry sector;
- the construction of a ‘conservation and land use strategy’;
- the strengthening of relevant government institutions; and
- the outline of an ‘action programme’ designed to attract support from the ‘donor community’.

The team repaid Barnett’s compliments by endorsing most of his recommendations and seeking to convert these into a form which would make them eligible for inclusion in the proposed Action Programme. The TFAP Review identified a similar mixture of stakeholder interests within the forestry sector, except that it betrayed a measure of scepticism about Barnett’s assumption of a natural alliance between technocrats and landowners. This was evident, for example, in the remark that existing legislation and resources had been insufficient to cope with ‘the pressure from landowners and development companies’ (World Bank 1989:61), thus placing ‘landowners’ in the position which Barnett had reserved for certain ‘politicians’.

The inclusion of a ‘conservation and land use strategy’ amongst the products of the TFAP Review reflected an international reorientation of TFAP objectives to address the disillusionment of many environmentalists (see Mayers and Peutalo 1995), and the World Bank itself seems to have regarded this particular exercise as a test case of its own sincerity in making this adjustment. On the other hand, the brevity of the chapter devoted to this topic in the official report, combined with the appearance of a separate report on ‘land use issues’ by the team’s ‘community forestry expert’, suggests that there may have been some difference of opinion on the manner and extent of the change required in the Melanesian context. Considering the implications of property rights for the policy process, this second report came to the conclusion that local custom, rather than the national economy, would have to be the starting point for the development of what the author called a ‘socially sensitive forest industry’ (Sargent 1989:7).
The World Bank’s own report clearly recognised the peculiar nature of the dilemma posed by customary ownership of the national forest resource:

_This can expose resources to serious over exploitation, because forests can be committed to logging without any technical or environmental supervision of what is done..... [but] it offers the opportunity for traditional landholders to resist pressures for logging in favour of retaining the resource for future generations, where state forestry bureaucrats might encounter problems in resisting powerful political pressures for exploitation (1989:18)._

On the other hand, the wider problems of conservation, land use, and customary land tenure were not seen to be matters of such urgency that they would need to be addressed by the ‘interim mechanism’ which the Bank proposed for the management of the Action Programme, since this mechanism was to be located entirely within the Forests Ministry, comprising a Steering Committee reporting directly to the Minister and a smaller Planning Group comprised of senior departmental officials (_ibid_:viii).

Radical commentators were quick to complain about the perceived shortcomings of the review process and its outcome. Critiques of the report were produced by Judge Brian Brunton, then Chairman of the PNG Law Reform Commission, and by a collection of NGOs under the leadership of the New Guinea Island Campaign Group and the Rainforest Information Centre, both based in New South Wales. Unimpressed by the Bank’s new green clothes, they viewed the package of proposed reforms as a castle built on the sand of several false assumptions, especially:

- that the Bank’s conception of economic growth was consistent with the goal of national participation in the development process, rather than being an instrument of national subordination to the capitalist world system;

- that the Bank’s conception of economic growth was also consistent with the goal of nature conservation, rather than providing further opportunities and incentives for environmental degradation;

- that national politicians and businessmen would voluntarily renounce the ill-gotten gains exposed by the Barnett Inquiry, or be obliged to do so by the formulation of new laws, policies, regulations or procedures;

- that national public servants could acquire the capacity to regulate commercial timber harvesting by foreign companies in a manner which would be consistent with any meaningful conservation values;
that PNG landowners could be forced or persuaded to submit to central
government decisions concerning the use of their own land.

Nevertheless, despite these criticisms, only one local NGO (Melanesian
Solidarity) actually refused to participate in the next stage of the reform
process orchestrated by the Bank.

The Round Table meeting convened in April 1990 might be compared to an
initiation ceremony in which the participating stakeholders were invited to
assume and endorse their respective roles and responsibilities in the
implementation of PNG’s Forestry Action Plan. The Round Table was in fact
a square table, located in the conference room of Port Moresby’s Islander
Hotel. The four sides were occupied by four different categories of
participants. Once the Prime Minister had concluded his opening address,
the top end was reserved for the Ministers and Secretaries of the government
departments which had some part to play in the implementation of the Plan.
To their right sat the constantly shifting, sometimes serried, ranks of more
junior government officials, amongst whom the two line departments were
noticeably outnumbered by the Prime Minister’s Department (PMD) and the
Department of Finance and Planning (DFP). Facing them, on the other side
of the table, sat the unshifting, unserried ranks of the aid donors, multilateral
and bilateral, apparently lined up behind the representatives of the World
Bank and the UNDP. The bottom end of the table was left to the NGOs,
national and international, with an occasional provincial public servant and a
delegation from the University of PNG.

By and large, the conference adhered to the ritual formalities prescribed by its
agenda: the Government welcomed the Plan, the NGOs expressed their
doubts about it, the donors indicated their interest in funding different parts
of it, and the Minister for Forests wrapped up the proceedings with a rousing
speech. Nevertheless, there were three points at which some of the
participants managed to challenge the expectations of their audience:

- The Prime Minister and the Forests Minister both told the donors that they
  would probably have to pay cash compensation to resource owners before
  the latter would be willing to sacrifice their expectations of ‘development’
  for the sake of nature conservation, but the donors were clearly not
  prepared to contemplate the payment of such ‘conservation rents’.

- The NGOs persuaded the rest of the meeting to endorse the establishment
  of a Task Force on Environmental Planning in Priority Forest Areas, which
  would take immediate action to prevent the further encroachment of
‘development’ on areas of special conservation value, and would thus count as an extra project, and the first piece of serious action, in the Action Plan.

- The Forests Minister announced that he would recommend to Cabinet the imposition of a two-year moratorium, starting in July 1990, on the granting of any new timber permits, and an indefinite moratorium on the granting of permits for the export of unprocessed logs, despite the World Bank’s clearly stated opposition to such measures.

From these episodes, it appeared that an appeal to national sovereignty or the ‘will of the people’ was the only way in which the national politicians and the NGOs could find common cause against the developmental orthodoxies propounded by the donors and the public servants.

In the year which followed this meeting, most of the ‘action’ in the National Forestry Action Plan consisted of talks between representatives of the PNG government, the World Bank, and other donor organisations regarding the titles, timetables and possible terms of reference of those projects in which specific donors had already shown some interest. In August 1990, a TFAP Steering Committee was convened under the chairmanship of the DFP, with representation from three other government departments (PMD, DOF, DEC), NANGO, and UPNG. In that same month, the government signed an agreement with the UNDP for the latter to fund the Technical Support Project which would provide the Steering Committee with a separate executive arm for coordination of the Action Plan. The Technical Support Team was to comprise a forester as Team Leader, a second forester as Forest Management Specialist, a Conservation Planner, and an NGO Specialist.

In April 1991, on the anniversary of the Round Table, a World Bank mission came to monitor the work of the Technical Support Team and advise the Steering Committee on the general progress of the Action Plan. By this stage, the Bank was recommending that all NFAP projects should be assigned to one of four distinct programmes within a ‘project matrix’ devised to reflect the various objectives spelt out in the National Forest Policy and implied by the simultaneous pursuit of a national ‘conservation and land use strategy’. Those projects for which the DOF had already been designated as the ‘lead agency’ were accordingly divided between:

- a ‘Forest Resource Management’ programme, whose objective was the development of a ‘sustainable logging’ regime for natural forest under customary ownership; and

26 New Zealanders (all former public servants) were recruited to the first three positions, while a Papua New Guinean was appointed to the last position, with ‘counterpart support’ from the IIED in London. Three members of the team began work in January 1991, but the conservation planner did not arrive until May because of an inter-departmental wrangle over the appointment.
• a ‘Forest and Industrial Development’ programme, whose objective was to raise the overall market value of forest products and rationalise the distribution of resource rents derived from their sale.

The remaining projects were then divided between:

• an ‘Environment and Conservation’ programme, whose lead agency was obviously the department of that name, and whose objective was the rehabilitation, maintenance, and expansion of the nation’s system of protected areas; and

• a programme called ‘Promoting Landowner Participation’, whose objective was obvious from its title, but whose leadership and relationship to the other three programmes were both matters of debate.

The Bank’s concern at this juncture was partly to sell individual projects to the PNG Donors’ Consultative Group Meeting scheduled for May 1991, and partly to help the PNG government to establish its own priorities. However, the donors and the public servants both seem to have decided that the task of ‘promoting landowner participation’ was one which could not readily be addressed without the identification of a single government department as the lead agency for each donor-funded project, for the action taken on this programme continued to lag behind the action taken on the other three.

In July 1991, the Steering Committee agreed to rename the National Forestry Action Plan as the National Forestry and Conservation Action Programme (NFCAP), largely because of a growing recognition that its conservation component could not be confined within the provisions of the National Forest Policy (see section 6.5). This formulation of the ‘separate but equal’ status of the two line departments, together with the problem of deciding who would be responsible for which aspects of ‘landowner participation’, had the somewhat paradoxical effect of encouraging the World Bank and the Technical Support Team to reconstruct the project matrix in such a way that each of the NFCAP ‘sub-programmes’ contained a combination of ‘Forestry’ and ‘Conservation’ projects. This new scheme of classification may have served to enhance the level of practical cooperation between the DEC and the new NFA, but it does not seem to have done very much to clarify or transform the mutual relationships of the other stakeholders in the forest policy process. Table 6.1 therefore makes greater use of the previous 1991 matrix to classify the projects originally identified in documents presented to the 1990 Round Table, together with the longer list of NFCAP projects identified by the Technical Support Team after the inception of the programme. This table also shows the extent of the financial commitment of different donor agencies to the policy reform process.
<table>
<thead>
<tr>
<th>Original (1990)</th>
<th>Subsequent title</th>
<th>Implementation</th>
<th>Costs (Kina millions)</th>
<th>Donors title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Immediate Technical Support (DOF/DEC/NGOs)</td>
<td>Immediate Technical Support</td>
<td>1991-95</td>
<td>2.15 (1.85)</td>
<td>UNDP UKODA AIDAB/WB</td>
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<tr>
<td></td>
<td>NFCAP Management and Coordination</td>
<td>Started 1992</td>
<td>0.30 (0.25)</td>
<td>AIDAB/WB</td>
</tr>
<tr>
<td>Revenue Study and Corporate Planning</td>
<td>Forest Authority Design Studies</td>
<td>1992-95</td>
<td>2.70 (2.50)</td>
<td>AIDAB/WB</td>
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<tr>
<td>Forest Management and Monitoring Task Forces</td>
<td>Forest Management and Planning</td>
<td>1993-96</td>
<td>4.90 (3.09)</td>
<td>WB/JGF</td>
</tr>
<tr>
<td>Human Resource Development</td>
<td>Support for Training Institutions</td>
<td>After 1994</td>
<td>11.9 (10.6)</td>
<td>AIDAB NZMERT</td>
</tr>
<tr>
<td>Ecological, Economic and Social Sustainability of Tropical Rainforest Use</td>
<td>Ecological, Economic and Social Sustainability of Tropical Rainforest Use</td>
<td>Started 1992</td>
<td>5.52 (4.92)</td>
<td>UNESCO ITTO</td>
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<tr>
<td>Rapid Resource Appraisal</td>
<td>Rapid Resource Appraisal</td>
<td>1993-94</td>
<td>3.50 (2.98)</td>
<td>AIDAB</td>
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<tr>
<td>Forest Resource Assessment</td>
<td>Forest Inventory Mapping System</td>
<td>After 1994</td>
<td>n.a.</td>
<td>AIDAB</td>
</tr>
<tr>
<td>Agroforestry</td>
<td>Community Forestry</td>
<td>Abandoned</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ecoforestry</td>
<td>After 1994</td>
<td>0.40 (0.25)</td>
<td></td>
</tr>
<tr>
<td>Revenue Study and Corporate Planning</td>
<td>Forest Revenue Study</td>
<td>Completed 1991</td>
<td>0.64 (0.56)</td>
<td>AIDAB</td>
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<tr>
<td>Forest Industry Development Studies</td>
<td>Forest Industry Development Studies</td>
<td>1992-93</td>
<td>0.73 (0.61)</td>
<td>ITTO</td>
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<tr>
<td>Strengthening the State Purchasing Option</td>
<td>Abandoned</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Description</td>
<td>Sub-programme</td>
<td>Year</td>
<td>Cost (NZD)</td>
<td>Donor</td>
</tr>
<tr>
<td>------------------------------------------------------------------------------</td>
<td>-------------------------------------------------------</td>
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<tr>
<td>Strengthening DEC Strategic Plan 1993-94</td>
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<td>1993-94</td>
<td>0.21 (0.19)</td>
<td>NZMERT</td>
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</tr>
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<td>1993-94</td>
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<td>1990-91</td>
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<td>Conservation Needs Assessment</td>
<td>1992-93</td>
<td>0.23 (0.21)</td>
<td>USAID</td>
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<td>Rehabilitation of Protected Areas</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Strategy, Design and Implementation of Conservation and World Heritage Areas</td>
<td>Integrated Conservation and Development</td>
<td>Started 1993</td>
<td>6.20 (5.00)</td>
<td>GEF</td>
</tr>
<tr>
<td>Queen Alexandra Butterfly Conservation</td>
<td>Queen Alexandra Butterfly Conservation</td>
<td>After 1994</td>
<td>n.a</td>
<td>AIDAB</td>
</tr>
<tr>
<td>Landowner Awareness and Support</td>
<td>Landowner Awareness</td>
<td>Started 1994</td>
<td>5.00 (4.50)</td>
<td>GTZ</td>
</tr>
<tr>
<td>Support for Wau Ecology Institute and NANGO</td>
<td>NGO Capacity Support</td>
<td>1993-95</td>
<td>0.50 (0.40)</td>
<td>AIDAB/WB</td>
</tr>
</tbody>
</table>

**Notes:**
The horizontal lines in this table represent our own classification of NFCAP projects into ‘sub-programmes’, along the lines indicated in the World Bank’s ‘project matrix’ of April 1991.
Column 4 shows project costs as stated in the NFCAP Status Report of June 1994, with figures in brackets representing the funds derived or required from external sources.
Some AIDAB-funded projects were funded through the NFCAP Trust Fund administered by the World Bank (hence donor indicated as AIDAB/WB).
**Sources:** World Bank 1989, Annex 10 (Column 1); Taylor et al. 1994 (other columns).
An evaluation of the NFCAP Technical Support Project, written by the project’s Chief Technical Adviser in February 1992, found that the programme as a whole had already begun to overload the capacities of central government agencies, without as yet showing much sign of creating the relationships with other national stakeholders - provincial governments, NGOs and local communities - which were essential for its success. Project implementation was being constrained by ‘a combination of limited staff capacity, differing administrative approaches from donor agencies, idiosyncrasies within and between various administration centres in PNG, and, in brief, too few people attempting too much work’ (Familton 1992:2).

At that stage, the ‘outputs’ of the Technical Support Project itself were supposed to comprise:

- a plan to restructure the national government’s ‘forestry administration’;
- a strategy to coordinate and schedule donor inputs to the NFCAP;
- a greater capacity of government and NGOs ‘to evaluate, manage and plan the conservation of forests and to assist customary landholders to establish conservation areas and to obtain a fair economic share from forestry development activities, including logging and forest industries as well as village and community based forestry activities’; and
- a ‘national public awareness programme’ which would ‘aim to promote continuous awareness and capacity amongst landowners in forest management, sustainable resource use and conservation’.

While the design of the Technical Support Project had included the assumption that NGOs could and would be able to convey the views and interests of resource owners to the government and the donors, this assumption had yet to be tested in the light of practical experience. At the same time, it was not at all clear how messages about the shared commitment of the government and the donors to ‘sustainable forest management’ were to be transmitted in the opposite direction. The Chief Technical Adviser concluded that there were two main weaknesses in the design and implementation of the NFCAP. On the one hand, ‘human resource development’ and ‘landowner awareness’ had been defined as projects in their own right, whereas they ought to be regarded as integral components of all the projects in the programme. On the other hand, the different values of the national forest resource had been defined as the specific concerns of different ‘lead agencies’, whereas they ought to be integrated into a single (and comprehensible) ‘national planning model’. Nevertheless, a second two-year phase of the Technical Support Project began in January 1993. It had broadly similar aims to the first phase, with
the exception of the ‘national public awareness programme’ which was dropped as a project responsibility.

An independent review of the NFCAP as a whole, was commissioned by the UNDP towards the end of 1994 (Taylor et al. 1994), five years after the programme had originally been designed. In their own portrait of stakeholder relationships, the authors of this study observed that the task of persuading different government agencies and NGOs to coordinate their own approaches to the pursuit of sustainable forest management had detracted from the task of persuading other stakeholders to join this pursuit. They felt that the Steering Committee had failed to give sufficient strategic direction to the programme, not only because some of its members had carried insufficient weight within their own organisations, but also because it had not included representatives of the resource owners, the donors, or the forest industry. Despite some remarks about the continued exploitation and manipulation of resource owners by logging companies, they suggested the need for a new ‘tripartite partnership’ with both of these other parties, and pointed out that the ‘much lamented concentration of ownership should in practice facilitate such partnership’ (ibid:16).

But where did this leave the NGOs, who had been leading the chorus of lament? While the review observed that ‘NGOs are now considered to offer an effective means of reaching landowners’ (ibid:16), the World bank’s concern to secure the central coordination of NGO inputs to the NFCAP was seen to have detracted from the capacity of individual NGOs to pursue the process of engagement with landowning communities, and perhaps made it easier for landowner companies to challenge NGO claims to represent the interests of resource owners as a whole. Despite their representative positions within the NFA, these claims could also be challenged on other grounds.

For many landowners the forest is an obstacle and its exploitation a quick entry onto the development path and access to infrastructure and cash. Their needs are simple, modest and consistent - roads, schools and health centres. Government failure has led them to exploit their forests to meet these needs. Forest owners in PNG and international environmental NGOs are thus very differently motivated (ibid:15).

While there had been some evidence of conflict between national and international NGOs during the course of their participation in the NFCAP,

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27 By that time, donors had committed about K27 million to the programme as a whole, though some of its component projects had not yet been completed, and the review team was therefore asked to make recommendations concerning the coordination of the programme’s second phase.
it was not so clear that the national NGOs had a better handle on the real interests of resource owners than their international counterparts. In any case:

_the resource owners are the ultimate NGO and NFCAP should be concerned with developing capacity there; intermediary NGOs are a means to an end, not an end in itself (ibid.26)._  

The review team felt that resource owners could not be expected to support a strategy for sustainable forest management ‘until the way is agreed to compensate owners who agree to forego wood production and those who agree to be 40th in the queue created by a 40 year cutting cycle’ (ibid.19).

### 6.5 The disputed grounds for conservation

The transformation of PNG’s version of the TFAP into a National Forestry and Conservation Action Programme was largely motivated by changes in the alignment of global stakeholders which took place in the years immediately preceding the 1992 Rio Earth Summit. This realignment of global interests created opportunities for conservationists to secure a larger stake in the policy process initiated by the Barnett Inquiry and the TFAP Review Mission. In April 1991, the World Bank mission engaged in a review of the NFCAP Technical Support Project indicated that PNG was in a good position to secure additional funding from the Global Environment Facility’s Biodiversity Conservation Programme, and a formal submission was duly made in September of that year. The result was the establishment, towards the end of 1992, of PNG’s own Biodiversity Conservation and Resource Management Programme (BCRMP), otherwise known as the Integrated Conservation and Development Programme, which was formally subsumed under the NFCAP, but which became, in effect, the focal point for the design, implementation and evaluation of those NFCAP projects whose ‘lead agency’ was the DEC. Management of the BCRMP was vested in a new Conservation Resource Centre, whose functions included:

- experimentation with integrated conservation and development (ICAD) projects in selected areas;
- development of methods for making ‘conservation covenants’ with local resource owners;

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28 As if to underline this point, the Conservation Planner in the NFCAP Technical Support Team, who had played a major role in the submission for GEF funding, was subsequently appointed as the Chief Technical Adviser to the BCRMP.
• construction of biodiversity and conservation information systems;
• production of the PNG Country Study on Biological Diversity;
• coordination of conservation advocacy and awareness activities;
• provision of technical support to the National Conservation Council (in the event of its establishment); and
• design of a Conservation and Environment Trust Fund (under the management of the NCC) to provide long-term financial support for conservation activities.

Although the design of the BCRMP was the work of a separate project formulation mission, the pattern of stakeholder relationships into which it was inserted is portrayed more clearly (and more controversially) in the Conservation Needs Assessment (CNA), whose preparation took place over the same period of time. This was a NFCAP project funded by USAID and implemented by a consortium of three international NGOs based in Washington DC - the World Wildlife Fund, the Nature Conservancy, and the World Resources Institute.

The CNA was seen as the first step towards the design of a ‘Representative System of Protected Areas’, in which the mapping of biodiversity values, critical watersheds and unusual habitats would be used to set the priorities for rehabilitation of those areas already under some form of protection and the selection of new conservation areas, including the pilot ICAD project sites envisaged in the BCRMP. Since the government had already made a notional commitment (at the TFAP Round Table) to protect or conserve 20 per cent of the country’s surface area, the CNA study was concerned to apply the research findings of natural scientists to the task of deciding which 20 per cent of the country would contain the optimum mix of ‘conservation values’. However, while most members of the study team were themselves natural scientists, national NGO participation was seen to be crucial to the whole exercise, not only because this reflected the philosophical approach of the implementing agencies, but also because the practice of conservation was understood to require the development of ‘partnership mechanisms’ between these NGOs and the DEC. The main forum for their participation was a workshop held in Madang in April 1992.

The stakeholders identified as participants in the CNA Workshop included ‘representatives of government, representatives from PNG NGOs, Landowners [sic], biological scientists, social scientists, lawyers, resource managers, conservation planners, and donors’ (Alcorn 1993:xvi). The most visible participants were the natural scientists, most of whom were expatriates, while the most vocal participants were the national NGO representatives, who questioned the capacity and the right of the scientists
to determine national priorities, and a group of ‘Madang community representatives’ who demonstrated against the meeting.

According to Brown and Holzknecht, the two anthropologists in the study team, the antagonism between the biologists and NGO representatives participating in the CNA Workshop was due to the radical difference in the assumptions which each group was making about the wider pattern of stakeholder relationships in the conservation business. Most of the biologists were assuming that:

- their own assessment of conservation values and priorities was an objective exercise based on detailed field research in different parts of the country, which already took account of human interaction with the natural environment;

- it was up to the conservation planners and managers, as consumers of this assessment, to make the ‘tough decisions’ and ‘stirring calls to action’ which would persuade other stakeholders to sacrifice the short-term benefits of development for the long-term benefits of conservation;

- the planners and managers should therefore be responsible for the process of consultation with NGOs and local landowners, and for dealing with questions of social feasibility and political strategy.

Most of the NGO representatives were assuming that:

- local knowledge and practice was the only genuine basis for determining conservation values and priorities, and conservation planners could not achieve their own objectives unless they adopted ‘culturally appropriate methods’;

- instead of trying to create the right mix of incentives for other stakeholders, conservation planners should be providing the information and resources required for landowning communities to make their own choices and take control of their own destinies;

- while NGOs themselves could make a positive contribution to this process, the government was not really interested in securing their collaboration (Brown and Holzknecht 1993:105-10).

If the national NGO representatives appeared to question the usefulness or relevance of biological research, they were also criticising the scientists for being the supporters or accomplices of an unholy alliance between the
national government and the donor community - including the international NGOs which were orchestrating the CNA. As one of them put it, American money and expertise had ‘closed the eyes and ears of the government on what the real needs of the country are’ (Kau 1993:114). Yet some of the biologists were clearly unwilling to concede that their own hard-won knowledge of the country’s ‘real needs’ was inferior to that espoused by the lawyers and social scientists in the study team or by the self-appointed representatives of the ‘grassroots’. While the biologists seem to have argued that a ‘natural’ combination of national and biological priorities should take precedence over a combination of local and political priorities, their opponents took the view that local priorities should be national priorities and that ‘biological’ priorities could only be foreign priorities in disguise.

At one level, this was an argument about rights and responsibilities - about which stakeholders had the right or responsibility to decide on the designation of conservation areas, and how this might affect their capacity to achieve specific conservation objectives. According to Brown and Holzknecht, the national government’s constitutional rights and responsibilities to pursue the goal of conservation require the pursuit of ‘Papua New Guinean ways’ of doing so, and since there is no such thing as ‘wilderness’ in PNG, this must entail some accommodation with the fact of customary resource ownership. This is taken to mean that the state can only facilitate, and not direct, the activities of the resource owners, even while it also has the responsibility to mediate between local communities and the corporate developers of these same natural resources. For this reason, the ‘top-down planning’ approach favoured by the professional conservation managers and natural scientists has to be modified, and the selection of conservation areas has to be based on some assessment of ‘social feasibility’, as well as on purely biological criteria. But there is no clear space for such an assessment to be made if maps of species and habitat distribution are used as the main instrument of conservation planning.

The critical question here would seem to be the manner in which social and cultural factors, including the attitudes of local resource owners, might be combined with the biophysical criteria used to determine the ‘conservation values’ of different areas. But this only becomes a critical question if the two sets of criteria yield very different results. Brown and Holzknecht suggest that landowners in areas of high biodiversity, which are normally areas of low population density, have less responsibility for the maintenance of conservation values than landowners whose resources are under greater pressure from the forces of ‘development’. But then we are
led to ask whether community attitudes and interests follow this same divergent pattern.

Section 12 of the Conservation Areas Act poses the same problem by declaring that conservation areas should have ‘particular biological, topographical, geological, historical, scientific or social significance or other special value for the present community or for future generations’ (our italics). How can this wide range of possible community values, unevenly distributed between hundreds of landowning communities, be accommodated by any coherent national conservation policy or strategy? This is no longer a question about rights and responsibilities; it is a question about motivations and incentives.

Brown and Holzknecht maintain that all landowning communities, whatever their internal divisions or different historical experiences, have the same kind of structural relationship with external stakeholders, and manifest a common desire for more information about the costs and benefits of different conservation and development options. If other stakeholders can provide such information, this ‘will be a crucial step in strengthening Landowners as a stakeholder group that can and will promote conservation of biodiversity in PNG’ (ibid:74). But the idea of ‘strengthening’ or ‘empowering’ resource owners is not just part of an argument about motivations and incentives; it is also part of an argument about institutions and procedures for stakeholder negotiations - about the most ‘appropriate’ way for outsiders to negotiate with resource owners whose own needs and desires could not be known until the process of negotiation was already under way. Brown and Holzknecht saw the manifestations of conflict at the CNA Workshop as one step in the formation of a coalition or partnership whose necessity derived from the fact that no one stakeholder group can achieve its own conservation objectives in isolation from the rest. If conservation planners still had reason to doubt the capacity of national NGOs to help landowning communities in the assessment or implementation of various conservation and development options, NGOs and resource owners were developing a shared interest from their common feeling of exclusion from the planning process. If the DEC had gained some strength from its association with a global network of natural scientists with a longstanding interest in PNG’s flora and fauna, these links may have been forged at the expense of a parallel, and equally essential, connection with the community of social scientists who had a longstanding interest in the country’s cultural heritage. And since rural villagers commonly fail to distinguish between the interests and activities of different government agencies, the DEC could hardly expect to share its own agenda or raise its credibility with local resource owners except through some form of collaboration with NGOs.
It was arguments like these which seem to have persuaded the workshop participants to agree the need for a Natural Resource Options Centre which would combine ‘the development of broad-based awareness programmes on environment and development’ with ‘the provision of balanced and detailed information, especially to Landowner groups, on the available natural resource development options, their consequences and impacts, and the positive and negative development experiences of other Landowner groups’. But while they also seem to have agreed that this body should ideally be ‘independent of government’, the CNA report has little to say about the practicalities of its establishment, funding and management.

To some extent the need for a Natural Resource Options Centre may have been obviated by the establishment of the Conservation Resource Centre (CRC) and the subsequent implementation of the NFCAP Landowner Awareness Project, though both of these are donor-funded initiatives contained within the formal structure of the DEC.

When PNG became one of the first countries to sign and then ratify the Convention on Biological Diversity in the wake of the Rio Earth Summit, the CRC also took responsibility for helping to implement the
government’s renewed commitment to develop a National Conservation Strategy. Having commissioned another team of experts to produce the PNG Country Study on Biological Diversity (commonly known as the ‘Biodiversity Country Study’), CRC staff arranged another workshop in Madang, in August 1994, at which some of the authors met with other stakeholder representatives to begin the design of a Framework Action Strategy (or Strategic Framework) for Conservation in PNG.

The Biodiversity Country Study had two aims and two audiences. On the one hand, it was intended to secure additional donor assistance for national implementation of the Biodiversity Convention by ‘alerting the global community to the alarming rate at which ecosystems are being degraded in Papua New Guinea, to the current lack of durable conservation actions on the scale necessary to address this trend, and to the need to reconcile social and economic development with conservation management to meet the needs of the key conservation stakeholders - the local landowners and resource custodians’. On the other hand, it was also meant to raise the awareness of ‘key decision makers and planners’ in the national government and national NGO community (Sekhran and Miller 1994a:1).

The economic analysis was primarily addressed to the question of how the costs and benefits of conservation could and should be distributed between PNG and the rest of the world, and between present and future generations within PNG. While many of the benefits of conservation accrue to ‘the global community at large’ and to future generations of national stakeholders, many of the immediate costs are borne (as opportunity costs) by ‘local resource holders’, whose stakes are especially high because their share of the current income from resource exploitation is not enough to compensate their own descendants for their loss of self-sufficiency (Sekhran 1994: 16). Furthermore, the adverse effects of resource exploitation on the ‘utility and production functions’ of other stakeholders - including foreign tourists and members of neighbouring communities - are not incorporated into the ‘implicit cost-benefit equations of local resource users’ because these functions have no market price (ibid:29). While those landowning communities which presently support the unsustainable extraction of their natural resources might opt to conserve a larger part of those resources if they received a larger share of the revenues arising from such exploitation, those communities which choose to resist such exploitation altogether are trapped in a vicious circle of ‘perverse conservation incentives’. They cannot get a share of the benefits which accrue from resource exploitation in

29 The need for a National Conservation Strategy had been widely canvassed when the DEC was first established, so the Biodiversity Convention merely served to remind the Department of its original mandate.
neighbouring areas; they are rarely if ever compensated for the damage which such exploitation causes to their own resources; and they are unable to cash in on the benefits which their own choice brings to other stakeholders. This is the essential economic problem posed by the fragmented nature of customary resource ownership (ibid:35).

Other contributors were more concerned with the way in which local and national cultural values might affect the willingness or ability of resource owners to make a strictly economic calculation of the costs and benefits of conservation. How have current attitudes to conservation been affected by an experience of rapid social change which entailed the loss of customary knowledge and the simultaneous growth of economic inequalities within landowning communities and the wider national society? How have changes in the distribution of wealth, power and knowledge between resource owners and other stakeholders affected the way that resource owners think about the choice between ‘conservation’ and ‘development’?

According to Filer (1994: 88-9), popular answers to questions of this sort proceed along two main lines.

• On the one hand, there are those which assume that the relationship between customary landowners and their natural resources is a very close one (‘perhaps even a condition of mystical harmony’), then seek to determine the combination of external forces which have broken this form of association, and thus vary according to the way in which they allocate the blame between various external agents — for example, the colonial administration, national politicians, or foreign logging contractors.

• On the other hand, there are those which proceed from the observation that landowners want nothing more than ‘development’, then argue that the intensity of this desire, and the frustration of its non-fulfilment, have caused a willingness to sacrifice anything which they control in order to achieve their goal, and thus vary according to their assessment of the options available to landowners in their pursuit of this goal.

The contest between these two lines of argument was one of the features of discussion at the CNA Workshop in 1992. Filer goes on to suggest that each line of argument results in a different approach to what he calls ‘the problem of regional diversity’, which is to understand why landowning communities in different parts of the country might now make different choices between ‘development’ and ‘conservation’.
• By treating ‘custom’ as a uniform starting point, the first line of argument tends to explain such variation as the result of a process of uneven spatial development in which some local communities have lost more than others, and the desperation for ‘development’ is itself the measure of this loss.

• By treating the desperation for ‘development’ as the constant factor in the equation, the second line of argument makes more allowance for the possibility that different interpretations of ‘development’ (and its relationship to ‘conservation’) may reflect ‘traditional’ differences in people’s attitudes or behaviour towards their natural environment.

Like the NGO representatives at the CNA Workshop, Holzknecht and Warakai both seem to favour the first line of argument. Warakai (1994:319) argues that ‘local traditional knowledge and knowledge of environmental conservation are one and the same thing’, and proceeds to blame the disruption of this ‘organic unity’ on Christianity and Western materialism. Holzknecht (1994:62) suggests that traditional values reflect a somewhat paradoxical combination of conservative subsistence strategies, based on the principle of risk avoidance, and an opportunistic interest in experimentation, which serves to explain the tendency of younger people to dismiss the relevance of ‘custom’ to ‘development’. He seems to say that resource owners have lost much of their former power, while keeping many of their basic values, that rural communities have grown dependent on a government whose own lack of capacity is driving them into the arms of the ‘developers’, while donor-funded awareness programmes are supposed to make use of ‘customary knowledge’ while searching to provide alternative, and more sustainable, forms of ‘development’.

Filer took a rather different approach to the problem of disenchantment and disempowerment by suggesting that the readiness of some resource owners to sacrifice their natural environment to the spirit of ‘development’ might be related to a form of traditional knowledge which was already based on a sense of alienation from powerful natural forces, rather than a condition of mystical harmony with them, but still allowed that new images of traditional knowledge might have another kind of relevance to nature conservation.

*The progressive alienation of rural communities from ‘traditional values’ may be regarded as a bad thing in its own right, but is only relevant to the business of nature conservation if the arts of traditional resource management have the capacity to mitigate new threats to biodiversity when they are recollected or revived. The question is not what the ancestors actually thought or did, but
When a nation of gardeners becomes a nation of customary landlords, it is perhaps understandable that many people would begin to believe that the royal road to 'development' is found in the collection of natural resource rents from foreign operators, regardless of the actual incidence of such behaviour amongst the wealthier sections of the community. When individuals or communities really do come to depend on this form of income, one might suppose that they are rapidly locked into some unsustainable form of resource extraction, because the market in logging or mining licences produces a continual adjustment of prices which allows for continued economic access by the operators. However, Papua New Guinea markets are remarkable for the rigidity of their pricing mechanisms and the absence of any overt form of bargaining between buyers and sellers, and local gatekeepers sometimes contribute to the conservation of their resources by raising the entry fees to the point which deters all potential customers, either because their expectations of 'development' begin to exceed what can feasibly be

Filer then goes on to suggest that the most persuasive voices may be those of an ‘emergent middle class’ which is already partially alienated from village life through the process of formal schooling and the modern division of labour, but whose ‘urban occupations have given them some freedom from the claustrophobia of village society, and whose level of education has given them the capacity and motivation to absorb Western ideas’ (ibid:193), even if they prefer to dress these ideas in traditional costume. In that case, the problem is not to decide whether the ethics of ‘conservation’ owe more or less to ‘custom’ than the politics of ‘development’, but to see how the defence of ‘traditional knowledge’ and the ‘natural environment’, are used as weapons in the constant struggle to redistribute wealth and power between individuals and communities.

The ‘Strategic Framework for Conservation’ in PNG has yet to be finalised. The document is organised around twelve ‘strategic objectives’, most of which are concerned with the planning and management of new conservation areas. The portrait of stakeholder relationships which emerges from this document is one which allows for greater complexity, and calls for greater flexibility, in the formation of a ‘national conservation constituency’ than the ‘black and white’ picture which is implicitly attributed to the critics of the CNA. A national conservation strategy which simply espouses a preference for ‘bottom-up planning’, which maintains that NGOs can always do a better job than government, or

**Box 6.4 Social inequality, political authority, and the prospects for holding on to biological diversity**

When a nation of gardeners becomes a nation of customary landlords, it is perhaps understandable that many people would begin to believe that the royal road to ‘development’ is found in the collection of natural resource rents from foreign operators, regardless of the actual incidence of such behaviour amongst the wealthier sections of the community. When individuals or communities really do come to depend on this form of income, one might suppose that they are rapidly locked into some unsustainable form of resource extraction, because the market in logging or mining licences produces a continual adjustment of prices which allows for continued economic access by the operators. However, Papua New Guinea markets are remarkable for the rigidity of their pricing mechanisms and the absence of any overt form of bargaining between buyers and sellers, and local gatekeepers sometimes contribute to the conservation of their resources by raising the entry fees to the point which deters all potential customers, either because their expectations of ‘development’ begin to exceed what can feasibly be
realised from some particular economic activity, or else because they are pricing themselves out of the market in order to achieve non-market objectives.

Chief amongst these objectives is the maintenance or restoration of social and economic equality between individuals or communities. The local version of the ‘tall poppy syndrome’ explains much of the resentment and many of the accusations which are directed at those who demonstrate unusual success in the acquisition of wealth or power. It may be argued that the politics of envy is a major obstacle to social solidarity and economic progress, but it can also be argued that the same egalitarian ethos which traditionally caused some communities to degrade their land in an effort to keep up with their neighbours in the business of competitive gift exchange may now have the unintended effect of limiting the damage done by the industrial exploitation of natural resources as political conflict over the distribution of rent eventually renders the exploitation uneconomic.

Nevertheless, the fact remains that the deep sense of distrust which formerly separated the hundreds of autonomous Melanesian communities has not only persisted down to the present day, but has also become characteristic of relationships between individual leaders and many of their notional clients or constituents, and thus of the general relationship between the village and the state. Such widespread lack of trust militates against the conscious implementation of collective nature conservation strategies. It also tends to function as a self-fulfilling prophecy. Unlike those countries in which networks of patronage, bribery and corruption are longstanding features of the political system, such excuses still seem to rankle with the majority of Papua New Guineans, and the current upsurge of Christian sectarianism might even be seen as part of their desperate search to establish some new form of moral community as a defence against the essential sinfulness of secular politics.

Remembering the ancient mutual distrust of neighbouring communities, a distinction still needs to be drawn between the general alienation of the ‘shoe-socks’ from the rural population as a whole and their continuing attachment to their place of origin, where their authority ... may be effectively exerted in defence of conservation values. Within the so-called ‘wantok system’, one should hardly be surprised if leaders show a preference for making economic gains at the expense of other groups, and the distinctive threat which is then posed for the maintenance of biodiversity is precisely the opportunity which a democratic political system and a bureaucratic system of administration provide for politicians and government officials to wage war on other people’s resources in order to enhance their reputations in their own backyards.

Those politicians and officials who manage to resist local expectations of favouritism may still find themselves obliged to adopt an attitude of arrogance or apathy when confronted by the fractious and claustrophobic nature of rural society. In this respect, their problems may be said to derive equally from their lack of familiarity with the impersonal organisational culture of the Western world and their own personal proximity to the villager’s own understanding of the world. Their failures to engage landowners in the pursuit of worthy causes need not be the result of incompetence or corruption, but may simply reflect the difficulty of exerting any kind of effective leadership in a social environment which is riddled by fear, jealousy and suspicion.

Source: Filer 1994
which declares that conservation ‘must be based on traditional patterns of landownership or must incorporate traditional notions of conservation or must work within traditional frameworks of leadership is ignoring the reality of Papua New Guinea’. The reality is that no stakeholder has a special claim to represent or understand the needs and aspirations of so many local cultures and communities, and all stakeholders with a stake in conservation must therefore develop the skills required to act on the reality which exists in those places where they choose to operate.

The Draft Framework insists that biological criteria must first be used to define those areas of ‘high conservation value’ within which a combination of ‘socio-economic’ and ‘operational management’ criteria are then used to identify smaller areas of ‘high conservation potential’. The ‘socio-economic’ criteria are said to include the motivations of local resource owners, the existence and relevance of their traditional conservation practices, and their capacity for self-reliance and experimentation, as well as the nature and extent of any immediate threats to biodiversity values. The ‘operational management’ criteria are said to include the chances of collaboration and support from provincial and local authorities, NGOs and donor agencies, as well as technical and logistical considerations. The primacy of biological criteria is justified in three ways:

- a national conservation constituency which shares the global interest in biodiversity cannot afford to waste scarce resources on dealing with local resource owners in areas of ‘low conservation value’, even if the latter are more likely to grasp the idea that natural resources are in limited supply;

- a review of existing protected areas in 1992 had found that landowners requesting the declaration of Wildlife Management Areas by the DEC were primarily motivated by the desire to assert rightful ownership and exclude outsiders from making use of the area in question30;

- biodiversity conservation strategies cannot be effective unless conservation areas are much larger than the areas owned or controlled by the members of any single customary group.

The critical problem, therefore, is to enable conservation planners and managers to learn more about local patterns of customary resource ownership, to use techniques like Participatory Rural Appraisal when dealing with local landowners, and to promote new forms of collaboration

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30 These findings were partly responsible for the abandonment of the NFCAP Rehabilitation of Protected Areas Project
between neighbouring land groups or local communities. At the same time, it is necessary to ensure that those who succeed in such activities receive a fair share of the rewards made available by the global community, which might otherwise be monopolised by senior members of the conservation constituency based in the national capital.

Finally, the Draft Framework also concludes that the basic lesson drawn from experience with conservation programmes in other countries is that resource owners will not support conservation without some combination of ‘moral’ incentives, which cause them to rethink the meaning of ‘development’, and ‘material’ incentives, which actually raise their standard of living. While moral incentives are understood to include the process of community empowerment envisioned by the NGO representatives at the CNA Workshop, the design of a ‘conservation advocacy and awareness programme’ must still be flexible enough to allow for a variety of roles and arguments to be adopted by NGO animators or facilitators, government extension agents, local community leaders, and other stakeholders. The utility of appeals to local custom, demonstrations of government authority, or attacks on political corruption cannot be decided in advance. A similar problem arises in the choice of appropriate material incentives from a range of options which might include sweat-equity schemes, the promotion of alternative income sources, the payment of conservation rents, or the protection of intellectual property rights. Those which are feasible or desirable in the short term (for areas under immediate threat) may not give the recipients a long-term stake in the maintenance of economic practices conducive to conservation. And the effectiveness of those which deliver tangible benefits to individuals or families, rather than to whole communities, may be limited or undermined by their unequal distribution and the social conflict which ensues.
We now turn to the question of how the forest policy process is affected by the negotiation of other policy issues in the national context. In this case, our task is to show how some of these other processes tend to pull forest policy in different directions, and thus help to explain some of its internal inconsistencies and inconclusive outcomes.

7.1 Mapping the public policy context

If we ask how policies within the ‘forestry and conservation sector’ are influenced by those outside it, then we may be led to make the false assumption that national governments routinely seek to integrate the design and execution of different sectoral policies within a single package which is tied up with the strings of logical and practical consistency. This way of thinking is evident in the wording of PNG’s National Forest Policy, where it remarks upon the need for consistency with other government policies in the ‘renewable resources sector’, since all policies in this sector can (in theory) be subsumed under the Fourth National Goal. However, this way of thinking tends to overlook some important features of the wider public policy domain in PNG:

- The production of ‘national government policy’ is still an activity which tends to be dominated by foreigners, either donor-funded consultants or public servants on expatriate contracts, whose prescriptions are routinely ignored or contradicted in practice. The entire NFCAP exercise may be regarded as a classic case of this externally motivated, and internally confounded, pursuit of public policy reform.
• The nature of PNG’s political system means that politicians in general, and national government ministers in particular, are rarely called upon to demonstrate the consistency of their own decisions or actions with a ‘policy platform’ to which they have some notional commitment, and are therefore free to treat their portfolios as personal fiefdoms whose rank is determined by the opportunities which they provide for the collection of a gatekeeper’s rent from the exercise of various licensing powers. This point is illustrated by the behaviour of some former Forests Ministers and the perceived weakness of their counterparts in the Ministry of Environment and Conservation, because the granting of timber permits is seen to be a greater source of power than the approval of environmental plans.

• National public servants have a tendency to convert policy statements into a form of intellectual property by which to define and defend their own ‘local’ interests within the metaphorical territory of the state, as if they were seeking to create new forms of Melanesian community through the mutual isolation of multiple ‘state secrets’. The ‘unhappy marriage’ between the DOF and the DEC in the early stages of the NFCAP exercise exemplified this fragmentation of public policy by the force of bureaucratic isolationism.

• Finally, the conventional classification of ‘sectors’, as reflected in the separation of ministerial portfolios and government departments, fails to accommodate the divergence between Western and Melanesian constructions of the policy landscape. While Western distinctions between ‘primary’, ‘secondary’ and ‘tertiary’ sectors of the ‘national economy’, or between different branches of productions and reproduction within these sectors, are built around the technical relationship between inputs and outputs, a Melanesian perspective divides the policy landscape into multiple forms of property which are related in different ways to customary resource rights and the ideology of landownership.

In our own construction of the policy landscape, we recognise the fundamental significance of land policy by defining ‘primary production policies’ as those which concern productive activities on customary land, in which landowning communities are acknowledged as stakeholders in their own right, and ‘secondary production policies’ as those which concern productive activities in the separate domain of the state - in urban areas, for example, or in territorial waters. So far as forest policy is concerned, the most influential policy processes in other parts of the primary production zone are those which concern the extraction of mineral resources and the
production of agricultural commodities (see section 7.3). And in the secondary production zone, forest policy is primarily affected by industrial development policies, in which rural communities of customary landowners are placed on the sidelines, and ‘national participation’ is normally construed in terms of the urban labour market (see section 7.4). Over and above these different types of production policy, we may gather together a range of other policy domains which are concerned with macro-economic management, human resource development, maintenance of law and order, public service reform, and other matters of that ilk. Thanks to the recent interventions of the World Bank, we can bundle these together under the rubric of ‘structural adjustment and governance policies’ (see section 7.5). We represent this as a bank of cloud raining on the rest of the national economy (see Figure 7.1). As a result of commitments made at the Rio Earth Summit, PNG should by now have developed its own National Sustainable Development Strategy, which might be seen to exercise a more benign influence on forest policy, and might therefore be represented by rays of sunshine bursting through the clouds of Structural Adjustment. But (see section 7.6) it is still necessary to board an aircraft and fly above the cloud layer before one can obtain a glimpse of the sun.

Figure 7.1  Forest policy in the context of other policy domains
7.2 Land policy and the ideology of landownership

The best way to describe the evolution of land policy in the period since Independence would be to say that it consists in a stalemate between a growing national ‘ideology of landownership’ and a series of attempts by donor agencies and commercial interests to persuade the government to revive some of the policy initiatives of the late colonial period. One of the few points on which the World Bank agrees with Karl Marx is in its apparent belief that the ‘liberation of the peasant from the soil’ is the basis of the whole process of capitalist development. But the ‘peasants’ of PNG prefer to think of themselves as petty landlords, whose main aim in life is to defend their territorial right to claim ‘compensation’ from the process of resource development which takes place on their land. And key sections of the national political elite have much the same outlook.

The national Department of Lands and Physical Planning has spent most of its time and effort on the administration of that 3 per cent fraction of land already purchased or leased by the government during the colonial period, and the defence of this land against a mass of claims by traditional owners who believe they were robbed or cheated of their rights. Generally speaking, this function has not been shared with the provinces. The national government has shown no capacity to engage in systematic land use planning outside of those urban areas declared as physical planning areas under the Physical Planning Act. Although the Department of Lands is notionally responsible for authorising the acquisition of new government leases over customary land for various types of externally-funded development, the actual work of negotiating such acquisitions has normally been left to other sectoral agencies of government or even the developers themselves. In the mining and petroleum sector, for example, the companies do all the necessary survey work, negotiate a ‘compensation package’ with customary landowners, and present all relevant documentation to a government lands officer for his signature. The settlement of disputes between customary landowners continues to be handled by land courts which are part of the regular judicial system.

The World Bank has been the principal architect of several measures designed to facilitate the use of customary land as security for commercial credit. These have included a ‘lease-leaseback’ scheme, under which cash croppers in the central highlands were encouraged to lease twenty-hectare blocks to the government, which then leased it back to them31, and a Land

31 The purpose of this circuitous exercise was to enable the original owners to use the land as security for bank loans
Mobilisation Programme, which included a new round of experiments in the registration of customary title. In 1995, when the Bank’s interest in further land reform was widely rumoured to have found a place in the latest structural adjustment programme, there was an outbreak of popular hostility which quickly persuaded the government to retreat to its customary position of inertia (see Box 7.1). These expressions of resistance may be seen as the continuation of a process which began in 1972, with the Commission of Inquiry into Land Matters, whereby ‘landownership’ has come to be defined as the foundation of national identity, as well as the subject of local custom. This process appears to have gained further momentum from the growth of public debate about ‘resource compensation’, which has followed on from the boom in extractive industrial development in the 1980s.

Once released from their colonial subjection, Papua New Guineans (or ‘Melanesians’) have been learning to think of themselves as people who are distinguished from other nations or races by their singular physical and emotional relationship to ‘the land’ which all of them possess. The citizen who has no customary land rights is a contradiction whose existence cannot be admitted. The identification of ‘the people’ as (customary) ‘landowners’ is also the flipside of denials that there is such a thing as ‘poverty’ in Papua New Guinea. It is because ‘we’ are all landlords that we can neither be peasants nor be poor. Declarations concerning the sheer abundance of national natural resources (commonly contrasted with the folly of their current exploitation or mismanagement) are also part of the same ideological construct. So is the proposition that there is no square inch of national territory which does not have a customary landowner attached to it (the mental abolition of terra nullius), the belief that customary land is always owned by groups called ‘clans’, and even the statement that land tenure is an alien concept (Filer 1997a:165).

The ideology of landownership goes hand in hand with the ‘resource dependency syndrome’ which we described in an earlier part of this study (see section 3.4), and both of them reflect and promote popular resistance to government control over the use of land and other natural resources.

Oddly enough, the World Bank’s recent efforts to promote a process of land reform have been partly motivated by the Bank’s concern to achieve greater equity and transparency in the distribution of resource rents derived from log exports. While the Bank was pushing the national government to give landowners a bigger share of this rental income, it was also attempting to institutionalise the process of ‘land group incorporation’ (see section 7.3) within the forestry sector, thus reducing the opportunities for individual
Box 7.1  Extracts from letters written to the Post-Courier newspaper in opposition to the registration of customary land

Registration of customary land ... will signal the loss of power which is usually derived from the special bond between people and their land. It is this power that brought giant mining companies crawling into the courtroom; this same power legitimises our rights to demand compensation from unscrupulous transnational corporations; it is the power that holds at bay bad business practices by foreigners by way of prolonging negotiations, demanding proper business deals, environmental plans, etc... It would be the beginning of division and destabilisation of families, clans, tribes, communities and ultimately the nation, hence the disintegration of our traditional cultural autonomy (17 July 1995).

We know we are blessed with resources. We are a rich people with what we have - people who know their true connection to the land will understand this. Take the land from us, and we are true beggars on our own soil (1 August 1995).

Land tenure is a Western concept like many other foreign ideas which have failed terribly in this country. Land entitlement over time changes hands and does not belong to a particular person, clan or tribe for that matter. That is why we have land disputes all over the country... If the landowners and not landlords wish to participate in meaningful development then teach them to be developers of their own land. Let them borrow the money from the banks and let them run their own businesses on their own land. In this way we will have self sustainable development co-existing with unspoiled cultural environment. Our land will not be turned to desert by foreign companies (4 August 1995).

Registration would promote the cunning middleman looking for the slightest opportunity to make profit at the expense of the silent customary landowner.... Minor disputes within a clan may be suppressed in order to get land registered. Once the land’s value has increased the land owner who was not happy in the beginning cannot come back and sue anybody because now he has to deal with a corporate body’s land (10 August 1995).

We believe the Government’s wish to register our customary land is a calculated move by it and the World Bank to wreck the normal, easy and simple village life of all customary landowners within this country, which we know is one of [the] best in the whole world (25 August 1995).

The assumption that a country’s age-old traditional system can be wiped out at the whim of a financial institution shows the contempt of outsiders for this growing nation... My brothers: in the Bible Esau ‘sold his birthright for a mess of pottage’! Let us pray that this Papua New Guinea of ours under God, does not commit that same foolish error! The bride gives herself gladly to the groom: together they find happiness in the future. The groom rapes the bride: tragedy is assured. Landed or Landless: It is the people’s time to choose (22 September 1995).

Source: Filer 1997a
landowners to misappropriate the benefits due to their respective communities (see section 8.4). But these efforts have not been widely appreciated because they are seen to entail a perpetuation or reinforcement of paternalistic forms of state intervention in the disposition of customary land (see Taylor 1997).

7.3 Primary production policies

The origin and application of the Land Groups Incorporation Act provides an interesting illustration of the relationship between forest policy and the neighbouring domains of agricultural and mineral policy, where all three are fundamentally concerned with the use of customary land for commercial production. As previously noted (see section 2.5), the Act was originally intended to facilitate the return of coastal plantations to customary ownership, and thus represented a turning point in the agricultural policy process (as well as the land policy process) at the time of national independence. However, the Act was hardly ever used for this (or any other) purpose until it was ‘rediscovered’ by Chevron Niugini during the development of the Kutubu petroleum project, and used as a vehicle for organising local ‘clans’ as collective shareholders in the landowner companies supported by Chevron’s business development staff. Having thus become part of the mineral policy process, this vehicle promptly travelled across to the forest policy process, when the new Forestry Act proposed that it should also be used to organise those landowning communities who might henceforth enter into Forest Management Agreements with the State (see section 8.4).

Generally speaking, PNG’s forest policy process does seem to borrow more of its features from the mineral policy process than from the agricultural policy process. Agricultural policy is primarily concerned with the relationship between large-scale production on leasehold land and small-scale production on customary land, with the balance between export crop production and food crop production, and with the role of the state in the conduct of research, extension and marketing. Mineral policy is primarily concerned with the ownership and control of large-scale, capital-intensive mineral export ventures and the distribution of mineral resource rents between national stakeholders. Small-scale mining is a marginal economic activity, the domestic market for mineral products is very limited, and government personnel play no direct role in the mineral production process. In the mining and petroleum sector, NGOs play the role of
environmental advocates, donor agencies play hardly any role at all, local communities are organised around the collection and distribution of ‘benefit packages’ delivered by the developers, and the developers do far more than government agencies to organise local communities for this purpose. In the agricultural sector, government agencies, foreign investors, industry corporations, donors and NGOs are all in the business of developing small-scale production on customary land - by seeking to promote technical innovation, widen the scale of cooperation, and raise the productivity of labour - but their impact is constrained by the sheer size of the target population, and most village farmers therefore remain detached from the rest of the policy process.

The forest policy process has come to resemble the mineral policy process because the logging (or mining) of natural forests has become the dominant economic activity in the forestry sector. It would have been more like the agricultural policy process if the national government had retained the earlier emphasis on plantation forestry and found some way to relate large-scale investment in forest plantations with woodlot cultivation or small-scale harvesting of natural forest in adjoining areas of customary land. But the only surviving example of this kind of relationship is the Gogol

Oil palm plantation, West New Britain. Large oil palm estates were established on converted forest land under resettlement schemes initiated by the colonial administration. Although palm oil now ranks as the second most important agricultural export, conflicts between estate workers and customary landowners have reduced the impetus for resettlement.
woodchip project in Madang Province, in which plantation forestry and woodlot cultivation have always played second fiddle to the clear-felling of natural forest, and which has long since ceased to function as a model for other investments in the forestry sector. Between the log export industry and the mineral export industry, there are many similarities in the mutual relationships of resource developers, local landowners, government regulators, and environmental NGOs. The most obvious differences stem from the contrast between ‘Western’ and ‘Asian’ ways of doing business, and from the fact that Western mining and petroleum companies dominate their enclaves far more thoroughly, and for longer periods of time, than Asian logging companies.

But this is not the only way in which the forest policy process is affected by the opposition of Western and Asian forms of development. Firstly, Western donors (including the World Bank) have been the main instigators of policy reform in the forestry sector, and in this one respect have made national forest policy look rather more like agricultural than mineral policy. These donor interventions have also had the effect of giving local NGOs a more varied stake in the forest policy process: they are no longer confined to environmental advocacy, as they are in the mineral policy domain, but are more actively engaged in the promotion of alternative forms of development, as they are in the agricultural domain. The fact that Western donors have kept a low profile in the mining and petroleum sector seems to reflect their belief that Western mining and petroleum companies, unlike Asian logging companies, already act as responsible corporate citizens in PNG. The mining and petroleum companies have repaid this compliment by granting moral and financial support to forest conservation projects, thus joining the ranks of the donors in the forest policy process.

Meanwhile, in the agricultural sector, Asian companies have been displacing Western companies (and Western donors) as sources of foreign investment, just as they had previously done in the forestry sector. This further process of ‘Asianisation’ has included a series of investment proposals for large-scale ‘agroforestry’ projects which would involve the clear-felling of natural forest and the development of new tree crop plantations in their place (see section 8.5). Although these proposals seem to follow the example set by the existing oil palm schemes, which were pioneered by the Australian colonial administration, they have been treated with grave suspicion by Western donors, who tend to regard them as logging projects disguised as agricultural projects in order to bypass the provisions of the new Forestry Act. From this point of view, forest policy begins to look like the subject of a tug-of-war between a collection of
Western corporate and governmental interests, whose main economic stake is located in the mining and petroleum sector, and an assortment of Asian corporate and governmental interests which is steadily encroaching on all other sectors of the national economy. But the economic dimensions of this contest are concealed, to some extent, by the presence of a third consortium of Western environmentalists, Christian church groups and local NGOs, whose members are generally hostile to capital-intensive forms of primary production.

Although we can detect certain points of resemblance between forest policy and other primary production policies, and even connect these to the influence which some stakeholders exert in several policy domains, we should not overestimate the extent to which specific institutions or practices are transferred from one policy process to another. The various applications of the Land Groups Incorporation Act in all three branches of primary production reflect the underlying significance of land policy for all of them, but each branch has its own specific legal framework and fiscal regime, and there is little evidence to suggest that the national government or any other stakeholders (with the possible exception of the World Bank) have deliberately sought to achieve a greater measure of consistency between them. The number of individuals - be they public servants, company executives, environmental advocates, or resource owners - who are actively engaged in more than one of these policy domains at any one time is very small, and so is their collective influence. This means that there are very few opportunities for stakeholders engaged in the forest policy process to learn lessons or borrow ideas from those engaged in the mineral or agricultural policy domains.

7.4 Secondary production policies

In the period since Independence, successive governments have made a great deal of noise about the virtues of import substitution and the need to develop the ‘downstream processing’ of minerals, timber, food or export crops - whether for local or overseas markets. This kind of ‘industrial rhetoric’ has commonly been directed towards the ‘law and order’ problem which is attributed to the growing army of unemployed and under-educated urban youth, whose members are apparently unable or unwilling to find work in the primary production zone. In practice, the urban population has expanded far more rapidly than the volume of formal sector employment in urban areas, and security firms have created more new jobs than any other kind of private company.
The most obvious opportunities for import substitution (in the food and textile sectors, for example) had been exhausted within a few years of Independence. During the 1980s, the government embarked on a series of ‘special deals’ with individual investors, using import controls and other forms of protection to create artificial monopolies in specific branches of production. These have made no positive impact on the overall levels of investment or productivity in the manufacturing sector, which still only accounts for 8 per cent of GDP, 5 per cent of exports, and 5 per cent of formal sector employment. And yet, despite the evidence of long-term stagnation, the government has continued to produce absurdly ambitious plans for further industrial development. In 1993, for example, the Department of Trade and Industry produced a policy document (‘Beyond the Minerals Boom’) which promised to raise industrial output to 35 per cent of GDP, double manufacturing investment and manufactured exports, and quadruple formal employment in the manufacturing sector.

After two rounds of structural adjustment and the establishment of the World Trade Organisation, the multilateral financial institutions now seem to have won their long battle to persuade the government to sell its own investments in manufacturing enterprise, get rid of import bans and quotas, abolish domestic price controls, and abandon legal restrictions on foreign ownership of certain kinds of business. But while they may be right to argue that these measures are necessary conditions for any further economic expansion in the secondary production zone, it is not so clear that they will be sufficient to overcome the many institutional constraints which still exist. Having presented a long list of such ‘liabilities’ (see Box 7.2), an economist with the Asian Development Bank suggests that downstream processing of export crops and natural resources for niche export markets and domestic consumption represents the only viable strategy for job creation in the ‘commerce and industry’ sector, and observes that the local furniture industry is especially well-placed to take advantage of the availability of tropical hardwoods and indigenous wood-carving skills (Cole 1997:111). But if such opportunities have not previously been exploited, one may wonder how much of the blame can be laid at the door of the government’s formal policies on trade and investment, and therefore how much difference will be made by the reform of these policies.

Once we recognise that the industrial policy process merges into the urban policy process, and therefore reaches out to embrace the problems of urban housing, crime and unemployment, it no longer seems feasible to argue that its dimensions will be radically altered by lifting restrictions on trade
and investment. Despite the government’s stated willingness to toe the World Bank’s line on trade and investment policy, there is still broad public support for the idea that national entrepreneurs and national workers need to be protected from foreign ‘exploitation’, just as they need to be protected from criminal gangs. When public debate concentrates on the relationship between industrial policy and forest policy, all stakeholders seem to agree that downstream processing is a good thing, but their agreement conceals a fundamental divergence of interests, motives and strategies. National politicians and NGOs have propounded the merits of a log export ban in the belief that this would either force foreign capital out of the forest industry, or else force foreign investors to employ more national workers, but would at least give Papua New Guineans a greater share of the income obtained from a more sustainable rate of extraction. The World Bank and its allies have decried such measures on the grounds that they would encourage the growth of inefficient and uncompetitive processing operations, lower the domestic price of raw logs, and thus reduce the income available to resource owners, without providing any guarantee of better logging practices. This is not just an argument about the role of free trade and state regulation in producing the most efficient or sustainable use of available resources; it is also an argument about the ‘correct’ distribution of political and economic power between national and foreign stakeholders. And if the World Bank is correct, this second argument is misleading because it conceals a more fundamental conflict of interest between the rural and urban segments of the population.
7.5 Structural adjustment and governance policies

When the Deputy Prime Minister presented the 1997 budget to the national parliament in December 1996, he tabled a 'Finance Statement' which proudly recorded the government’s implementation of the Structural Adjustment Programme (SAP) which was initiated in August 1995, when the World Bank approved an Economic Rescue Programme (ERP) worth K254 million. Amongst the micro-economic reforms included in this list of great achievements was the introduction of a new forest revenue system, the adoption of a Logging Code of Practice, the provision of additional funding to the NFA, and improvements in the supervision of PNG’s log exports. What the ministerial statement failed to record was the government’s repeated efforts to repudiate or ignore its commitment to meet the twenty-seven conditions attached to the original loan package, especially those which bound it to maintain the process of policy reform in the forestry sector. It was only because the government had failed in its attempts to raise additional revenue from other sources that it was finally obliged to allow the Bank to dictate the terms of the 1997 Budget in order to secure the release of a second tranche of loans worth K150 million.

The critical question raised during the course of this struggle was the extent to which the Prime Minister and some of his Cabinet colleagues were engaged in a deliberate campaign to discredit the SAP as a whole in order to deflect public attention from the undertakings they had given to powerful allies in the log export industry. It may be argued, for example, that ‘influential opponents of the ERP’ (Van Helden n.d.:13) were behind the student-led protests against the Bank’s proposals for ‘land reform’ in July 1995, especially considering that these protests coincided with the Bank’s approval of the loan package, and that ‘land reform’ was not one of the twenty-seven strings attached to it. On the other hand, the Bank had its own reasons to highlight the significance of those strings which were attached to the forest policy process, because these were tailor-made to show that structural adjustment could promote sustainable development, and thus appease some of the Bank’s customary critics. In any case, it was the government which eventually underlined the significance of these conditions, firstly when the Prime Minister announced his opposition to the new forest revenue system during the course of a visit to Rimbunan Hijau’s Malaysian headquarters in April 1996, and then again in July 1996, when the Forest Minister persuaded Parliament to pass an amendment to the Forestry Act which gave Cabinet the power to appoint members of the National Forest Board. Although the majority of MPs were prepared to accept that these measures represented a victory for the principle of
national sovereignty, rather than a breach of faith with the donor community, the World Bank still had the economic leverage required to humiliate the government, and a much better stock of ammunition for its own campaign to win the support of local NGOs and other national stakeholders who had become increasingly vociferous about PNG’s general ‘crisis of governance’, as well as the more specific crisis of forest policy.

While the World Bank and other donors may be happy to emphasise those aspects of the SAP which are clearly intended to bolster their own control over the process of policy reform in the forestry sector, they may also be diverting attention from other features of the programme which have a less direct and less predictable impact on this process. For example, the new forest revenue system is only one item in a package of tax reform measures which are all likely to affect the economics of the forest industry in one way or another. The Forest Industries Association has thus been able to extend its own battle against the new forest revenue system by joining a wider chorus of opposition to the introduction of a Value Added Tax, arguing that VAT will make a further dent in the ‘normal’ rate of profit which the new revenue system has already imposed on the log export industry (despite the compensating gains which might accrue from the simultaneous reduction of import duties and real wages) (see section 8.10).

If ‘sustainable forest management’ is one of the general pretexts for the SAP, this may or may not turn out to be consistent with its other general objectives — the promotion of economic growth, the streamlining of government capacity, or the alleviation of rural poverty. In the ideal world of the aid donor, these may all be part and parcel of a single process of ‘development’. In practice, however, gains in one direction often come at the expense of losses in another, and there is no obvious reason why forest management should be amongst the winners, rather than the losers. For example, if the programme does enable the national government to balance its books, it will also give national politicians greater freedom to escape the straitjacket which donor-driven policy reforms have recently placed on their relationships with logging companies. And local landowners will have all the more reason to join them if the programme has a neutral or negative impact on rural standards of living.

In the short term at least, the pain of structural adjustment will be felt by several groups of national stakeholders (politicians, public servants, other wage-earners) whose interest in forest policy bears no comparison to their interest in ‘bread-and-butter’ issues, and who may not appreciate the long-term benefits of evil-tasting medicine. The rain which is supposed to
fertilise the national economy will also make a lot of people wet and miserable. If the proponents of structural adjustment have succeeded in persuading their audience that ‘sustainable forest management’ is a crucial part of this unstable weather pattern, then it may become the baby which is thrown out with the bathwater when this particular package of reforms is abandoned or amended because of its apparent failure to solve many of the country’s social or economic problems.

The risk that it will be seen to have failed, sooner rather than later, is compounded by the wealth of natural resources which gives the national government room to push its own cross-sectoral policy packages across the path of reform favoured by the donor community. While the SAP represents the leading edge of a donor-driven policy process in which all forms of ‘tied aid’ are tied together by similar assumptions about the current ‘weakness’ of PNG’s political economy, donors are still forced to trade their own preferences for those of national politicians who do not share these assumptions. The most obvious example is the current process of provincial and local government reform which purports to solve the nation’s ‘crisis of governance’ by concentrating more power in the hands of national MPs. The SAP tinkers at the edge of this reform process by insisting that the new provincial and local-level governments should henceforth receive the resources needed to function effectively, despite the general fiscal crisis of the state, but the World Bank could not persuade national MPs to give up their notorious ‘slush funds’ in the name of greater accountability, and took the softer option of insisting that the government should try to improve the delivery of health and education services to rural areas by granting additional resources to the churches which already administer many of these services. But if the process of provincial and local government reform still fails to deliver the goods, its instigators will be only too keen to blame the sacrifices forced upon them by the SAP.

7.6 The National Sustainable Development Strategy?

The Structural Adjustment Programme and the new Organic Law on Provincial Governments and Local-level Governments are not the only cross-sectoral policy packages which seem to have some bearing on the forest policy process. It is not difficult to find other formal statements of government policy, like the National Population Policy of 1991, which are
no less relevant to this process. But it is necessary to distinguish here between those policy statements which are subject to intense and protracted public debate, and thus evoke a real transformation in stakeholder relations, and those whose impact barely reaches beyond the imagination of the professional policy-maker. There certainly has been a good deal of public debate about PNG’s National Sustainable Development Strategy (NSDS), and this did provide a bridge by which arguments about population policy could cross into the domain of forest policy, but the bridge was only open for a limited period of time, and efforts to rebuild it have since become the unsung speciality of donor-funded experts who do not even issue press releases.

As the Rio Earth Summit coincided with the national election of 1992, so public debate on the NSDS coincided with the most radical phase of the forest policy reform process under the Wingti-Chan government, and soon lapsed into silence after the change of government which took place in August 1994. The DEC and the Department of Foreign Affairs hosted a post-UNCED seminar on ‘Sustainable Development’ in November 1992; the University of PNG devoted its biennial Waigani Seminar to the same topic in September 1993; and the University of Technology followed suit with its Huon Seminar in June 1994. All three meetings were attended by a wide range of stakeholder representatives, and attracted a good deal of publicity through the reproduction of seminar papers in the national press. Participants in the first of these three meetings agreed that the UNCED Steering Committee should draft Terms of Reference for a ‘Technical Taskforce’, develop ‘the Mission, Objectives, Functions and Activities of the NSDS Steering Committee’, and combine with the Departments of the Prime Minister, Finance and Planning, Environment and Conservation, and Foreign Affairs to prepare a ‘substantive policy submission’ to the National Executive Council (PNGDEC/PNGDFAT 1993:11-12). These tasks seem to have defeated the executive capabilities of the relevant government agencies until September 1993, when a ‘Joint Interagency Mission’ of the United Nations initiated a series of provincial meetings under the auspices of the ‘NSDS Working Committee’. In March 1994, Cabinet approved a policy submission which finally made provision for the establishment of an NSDS Steering Committee and Secretariat, but failed to resolve the question of which government department would function as the lead agency. The UN mission simply recommended that the NSDS Secretariat should be housed in the ‘Department of Planning’, which did not then exist. By the time that membership of the NSDS Steering Committee (under the chairmanship of the DEC Secretary) was gazetted in the latter part of 1994, the new Chan-Haiveta government had already decided to abolish the
Policy Coordination and Monitoring Committee within the Prime Minister’s Department, but had not yet decided to separate the National Planning Office from the Department of Finance and Planning.

As a result, the second UN mission which arrived to assist the NSDS Steering Committee in August 1994 was preoccupied with the question of institutional responsibilities, to the obvious neglect of strategies for securing broad popular participation in the planning process (Nadarajah 1995:8-9). The main recommendation of the second mission was for a third mission to be funded under the UN’s Capacity 21 programme, and spend more time on the task of strengthening the government’s own planning capacities. After some months of deliberation, the new government did manage to recreate a National Planning Ministry, and by the end of 1995, the new minister had succeeded in extracting the National Planning Office from the Department of Finance and Planning.

Meanwhile, the NSDS had fallen into one of the black holes reserved for the ruminations of inter-departmental committees which have no immediate budgetary impact, and received no mention at all in that part of the 1996 Budget Papers which dealt with the functions of the NPO. As one disgruntled commentator noted at the end of 1995:

> After three years of work through the preparation of various policy papers, documents, seminars and workshops, NSDS seems to be homeless. The interest and participation in this process has been fragmented, and no tangible outcome has resulted from the past three years of formulation (ibid:26).

Although the UN’s Capacity 21 mission duly arrived in early 1996, with an obvious mandate to resurrect the NSDS policy process, this mission also came to the conclusion that nothing much could be done until the NPO had been properly structured and strengthened. The National Planning Minister appointed his own committee of advisers to reflect on long-term planning issues, but this ‘National Dreaming Committee’ (as it came to be known in some quarters) had no explicit stake in the NSDS. According to the NPO’s new Director, the more immediate priority was to escape the ‘crisis mentality’ which had gripped the central organs of the state by constructing a ‘fiscal responsibility package’ which would address five key questions:

- how much should government be paying for health [and] education and how much of the costs in these areas should be met by users?
• how much of what the Public Service now does must be done by Public Servants and how much can be contracted out?
• how rational is the government machine and can its cost be reduced?
• can we match resources that must go to the provinces with responsibilities for expenditures?
• can we limit the numbers in the public service in Waigani and the provinces? (Ai 1997:219)

These were clearly questions of structural adjustment, rather than questions of sustainable development. And while it is true that the NPO now has more than its fair share of transient UN-funded consultants, some of whom are meant to dig the NSDS out of its black hole and use it to strengthen provincial and local planning capacities, experience suggests that most of what the UN touches in this way will turn to stone when the consultants make their exit, and one must therefore wonder how many more white magicians will have to wave their wands at the NSDS before it takes root and grows in the local soil.

Sustainable forest management could only be one component of the NSDS, though it would obviously have to be a major component in a country like PNG. Questions of forest policy certainly were the focus of much of the discussion which took place in the public meetings devoted to the NSDS in the period from 1992 to 1994. At the end of 1994, the NFCAP review team even recommended that the same body should be responsible for coordinating the NSDS and the second phase of the NFCAP. In a sense, this recommendation has now been implemented, because the NPO is officially responsible for both of these activities, but what this means, in practice, is that both are equally neglected or invisible - pieces in a technocratic jig-saw puzzle on a table in a UN office in Port Moresby, far from the noise of battle still being waged over the future of the country’s forest resources.32

32 In April 1998, the Ministry of National Planning and Implementation was abolished and the NPO was returned to the bosom of the Department of Treasury (formerly Finance). Even after two years of design studies, the UNDP is unwilling to give the green light for implementation of what is now called the Strengthening National and Decentralised Planning Systems Project, unless or until the PNG government demonstrates its own willingness and ability to plan the future of its own planning institutions.
In this section, we evaluate the progress which has been made in the reform of industrial forestry policy in the period since 1989, concentrating our discussion on those features of the National Forest Policy and the new *Forestry Act* which have been the most prominent topics of debate between the main stakeholders in the forestry sector. This central component of our policy drama may be divided into four ‘acts’ by reference to changes in the composition of the national government and corresponding changes in the occupation of the Forests Ministry.

- In the first act, which began with the installation of the Namaliu government after a parliamentary vote of no confidence in July 1988, the Forests Ministry was held by Karl Stack (from August 1988 to April 1991) and Jack Genia (from April 1991 to July 1992). During this period, the revelations of the Barnett Inquiry in 1989 were followed by the inception of the NFCAP and the imposition of a government moratorium on the issue of new timber permits in 1990, the production of a new National Forest Policy (‘the Policy’) and a new *Forestry Act* (‘the Act’) in 1991, and gazettal of the latter piece of legislation in 1992. These were the foundations of the reform process conceived in the ‘partnership’ between the national government and the donor community.

- In the second act, which began with the installation of the second Wingti-Chan coalition government after the national election of July 1992, the Forests Ministry was held by Tim Neville (from August 1992 to August 1994). The main topic of debate in this period was the set of National Forestry Development Guidelines (‘the Guidelines’) introduced in 1993, which represented the high water mark in the tide of policy reform, and against which the logging industry and its allies mounted a furious defence.
• In the third act, which began with the installation of the Chan-Haiveta coalition government after another vote of no confidence in August 1994, the Forests Ministry was held by the two Andrews, Andrew Posai (from September 1994 to May 1995) and Andrew Baing (from August 1995 to July 1997). The main topic of debate in this period was the national government’s attempt to wind back several key elements of the reform process, but the only significant monument to its efforts was the National Forest Plan (‘the Plan’) produced in 1996. These efforts were largely unsuccessful because the government was trapped in the conditionalities of the Structural Adjustment Programme orchestrated by the World Bank.

• In the fourth act, which began with the installation of the Skate government after the national election of July 1997, the Forests Ministry has so far been held by Fabian Pok. As this act continues to unfold, the contest between the loggers and donors continues apace, and the government has so far sat on its hands. The policy innovations which have so far been mooted during this period are discussed at greater length in section 13 of this study.

Our discussion of different aspects of the policy reform process is organised around the topics established by the Policy, the Act, and the Guidelines. The amount of space which we devote to each of these topics partly reflects the amount of debate which each of them has generated, though much of this debate has taken place behind the closed doors which surround the central corridors of power. The one enduring theme which emerges from most of these ‘scenes’ in our play is the problem posed by the unassailable fact of customary resource ownership for those stakeholders who wish to assert greater control over the utilisation of forest resources without ‘wasting time’ in discussion with their customary owners. This theme is commemorated in the tightly guarded gates which surround the expensively carpeted and air-conditioned offices of the new Forest Authority, our ‘castle in the forest’.
8.1 The Minister, the Act, and the Authority

The most contentious issue in public debate over the reform of industrial forestry policy has been the relationship between the Forests Minister and the NFA. Successive ministers (and other national politicians) have made a series of attempts to amend the Act in ways which would reassert ministerial control over the membership and deliberations of the National Forest Board. Some of these efforts have received the tacit support of the logging companies and the more open backing of those resource owners (especially the directors of landowner companies) whose own stake in the industry would be diminished by the process of reform. They have generally been opposed by the donors (especially the World Bank) and those national stakeholders who have nothing to gain from the exercise of greater ministerial discretion.

The significance of this issue was underscored during Karl Stack’s occupation of the Forests Ministry, when Cabinet responded to the findings of the Barnett Inquiry by imposing a moratorium on the issue of new timber permits, firstly in those provinces which already accounted for the bulk of raw log exports, and then throughout the whole of the country. Even after the second moratorium had been imposed (in July 1990), the Minister continued to produce all sorts of reasons for adding to the list of projects which had initially been exempted on the grounds that they were ‘extensions to existing projects’. By the end of 1990, he was maintaining that the moratorium did not apply to ‘defunct projects being revived’, projects which had been ‘allocated for some time’, projects which were ‘ready for allocation’, and new projects which could be substituted for those which had previously been exempted, but which were ‘now having problems’ (Post-Courier, 2 January 1991). Stack justified his flexibility by reference to the pressures which other stakeholders were exerting on his own discretionary powers.

The fact of the matter is that my ministry is implementing the moratorium in spite of the political (both provincial and national) and landowners’ pressure to allow more projects to be developed... In spite of daily lobbying and visits by landowners and politicians to the Department of Forests and my ministry, we are strongly honouring the moratorium and our advice to them has been that until its expiry in 1992 the moratorium must stand... I would like to make it clear it was at my own initiative that the moratorium has been imposed and it would be ridiculous if I were now to contradict it by allowing more projects than the ones exempted (Post-Courier, 11 December 90).
Since the Minister had never seen fit to reveal the identity of the projects which he had not approved because they were covered by the moratorium, it was difficult to establish the criteria by which he had been dealing, on a daily basis, with the queues of ‘landowners and politicians’ at his office door. Given the number of years which normally passed between the demarcation of a TRP and the removal of the trees which it contained, it was equally difficult to believe that there was any such project whose Timber Permit might conceivably have been allocated before July 1992, with or without the moratorium. By the time that Jack Genia took over the Ministry in April 1991, there was a widespread public perception that the Minister still had a free hand to issue timber permits as and when he felt inclined to do so.

The World Bank’s determination to reduce the area of ministerial discretion was already evident in comments made on the second draft of the Forestry Bill in March 1991. A third draft, which addressed the Bank’s concerns, was the one tabled in Parliament by Minister Genia in July, but when it was passed a week later, it turned out to contain a number of ‘last-minute’ amendments.

- Section 7 (‘Functions of the Authority’) was amended to read: ‘Notwithstanding anything in this clause and subject to any law, the Minister may give any direction he considers necessary to the Authority, through the Board, for the purpose of implementing the objectives and the functions of the Authority.’

- Section 19 (‘Delegation’) was amended to read: ‘The Minister may, after consultation with the Board, by instrument delegate to any person all or any of the powers and functions of the Board under this Act (except this power of delegation).’

- Section 40 (‘Consultants’) was amended to read: ‘The Minister may, from time to time - (a) after consultation with the Board and the Director-General; and (b) within the limits of funds available for the purpose; and (c) on such terms and conditions as are fixed by the Minister on advice of the Board - appoint as employees of the Authority such consultants as, in the opinion of the Minister on the advice of the Board, are necessary for the purposes of the Authority.’

When these amendments came to light, they attracted some adverse comment in the national press. John Millett, Executive Director of the Institute of National Affairs (PNG’s private sector think-tank), found the first of them:
difficult to interpret because it gives an over-riding power to a Minister of the national government to direct the affairs of the authority which is meant to represent all of the diverse forestry interests, including provincial governments...... There could be only two reasons for the Minister to be unhappy with the board: It is not doing the right thing; or it is not doing the thing right. The first reason is related to policy, the second to implementation. The remedy for the first sin is to change the policy and for the second one to change the board. In neither case does the effective remedy rest with the Minister telling the board what to do and how to do it. That would be like barking after you have bought a dog..... The rushed amendments have introduced a second-best ‘catch-all’ contingent remedy where none was necessary because the bill already contained first-best remedies; but it has eroded and weakened the potential of the authority to discharge its statutory responsibilities positively and objectively without fear or favour because wherever the Act provides for board discretion the Minister may direct the board to exercise that discretion in particular ways (Post-Courier, 2 August 1991).

Nevertheless, the remaining provisions of the new Act would not have allowed the Minister to use such extra powers to allocate timber permits in the absence of a National Forest Plan, and it seems that this was one of the main reasons why he then sought to delay its gazettal. The other reason, as stated by his Departmental Secretary, Michael Komtagarea, was that the government had yet to approve a structure and budget for the NFA.

The task of finding ways and means of replacing the old Department with the new Authority was placed in the hands of the Forestry Transitional Management Council (FTMC), which began its work in February 1992, with substantial inputs from consultants engaged under the NFCAP. At the beginning of April, the FTMC Chairman, Wep Kanawi, secured the signature of the Acting Forests Minister, Michael Singan, on documents which would require gazettal of the Act on the 15th of that month (Post-Courier, 7 April 1992). Secretary Komtagarea instantly complained that he had not been consulted, despite his own membership of the Council, and that the Acting Minister should not have signed the documents after previously writing to advise the Prime Minister of the need for further delay (Post-Courier, 8 April 1992). Singan explained that he signed the documents because the World Bank had indicated the risk which further delay would pose for donor support of the NFCAP (Post-Courier, 10 April 1992). When Genia resumed the Ministry later in the month, he announced

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33 Singan was accompanying the Prime Minister on a campaign trip through the latter’s own constituency in East New Britain Province.
that the new act would not come into force until the 25th of June, because it was first necessary to renew or extend nineteen timber permits which were due to expire in 1992, and premature gazettal would entail a substantial loss of revenue and frustrate the long-standing expectations of landowners (*Post-Courier*, 22 April 1992).

It was then reported that eleven senior staff of the DOF had signed a petition complaining about their Secretary’s insistence on rushing the approval of ten new timber projects before the Act was gazetted, to which the Secretary had replied that these were ‘the directives of Cabinet and if the officers don’t want to work under pressure to get them off the ground, they might as well resign’ (*Post-Courier*, 28 April 1992). Next month, it was reported that he had physically prevented the gazettal of the Act by removing it from the government printery after it had been signed by the Governor-General (*Times of PNG*, 14 May 1992), provoking a general outcry from the NGO community.

At the end of May, it was reported that the FTMC had secured legal advice on the validity of timber permits issued in breach of the moratorium imposed by Cabinet in July 1990 and renewed in December 1991. Part of the advice was reported as follows:

*Unfortunately any permits issued in breach of the moratorium will be valid but they can be reviewed under provincial laws. The only hope is for decisive action to be taken by the prime minister to ensure that the minister and secretary for forests and their staff observe the clear statement of government policy* (*Times of PNG*, 28 May 1992).

The source of this advice was the Islands Regional Secretariat’s legal officer, Graham Powell, who had been counsel assisting the Barnett Inquiry, who had more recently advised the Islands Premiers Council to challenge the last-minute amendments made to the *Forestry Act*, and who had also helped to draft the a piece of legislation by which the East New Britain Provincial Government was now trying to prevent the issue of two new timber permits in Secretary Komtagarea’s own district of origin (*Post-Courier*, 29 July 1992).

On the 1st of June, the Prime Minister complained that certain timber companies and DOF officials were seeking to ‘by-pass’ the provisions of the new Act, but that he and his fellow ministers would not allow for such abuse. The newspaper which reported this complaint also published the text of a letter which he had previously written to Minister Genia,
instructing him to gazette the Act ‘no later than June 25’. The letter continued:

The postponement of gazettal of this major piece of our government’s legislation to the end of our current term of office is regrettable, particularly in the light of the considerable work which has gone into the preparation for the April ‘D’ Day which you had publicly pronounced; it may also have unfortunate implications with the donor agencies, which were well aware of the April deadline..... We cannot afford further negative publicity over an initiative which should be seen as a major achievement for our government..... We must therefore clearly demonstrate that this is a once off postponement, and does not detract from our commitment to effectively implement the new policy and legislation (Post-Courier, 2 June 1992).

The text of another letter to Minister Genia, written by the World Bank’s Director for East Asia and the Pacific on the 17th of April, was apparently ‘leaked’ in the same package. This one supported the point previously made by Michael Singan, advising that:

The Bank and other donors regard the new legislation and Forest Authority as underpinning all other components of the NFCAP. Continued delay in promulgating legislation and instituting administrative reform will therefore be interpreted by the donor community as an indication of waning commitment of government to the reform process (Post-Courier, 2 June 1992).

On that same day, Minister Genia authorised a full-page newspaper advertisement, entitled ‘Allocation of Timber Permits All In Order’, in which he still maintained that all the projects for which he had issued Timber Permits and Dealings were amongst the ten which Cabinet had exempted from the moratorium in July 1990 and December 1991, and denied that he had signed twenty-six new timber permits, as claimed in a press release imputed to Wep Kanawi (see Box 8.1). This advertisement prompted Opposition Leader Paias Wingti to promise another Commission of Inquiry as part of his national election campaign. It also seems to have prompted some further leakages of inter-departmental correspondence. On the 11th of June, one newspaper published extracts from three letters written to the Forests Secretary by the heads of other departments (Prime Minister’s, Finance and Planning, Environment and Conservation) in which they complained about the rush to issue new timber permits (Times of PNG, 11 June 1992).
Box 8.1 Minister castigates bureaucrat

Apart from the moratorium imposed by Cabinet, I as Minister for Forests still have all the power under the Forestry Act to make decisions in the best interest of the country and its people. I have made my stand public on a number of occasions and it should not be a secret to anyone. I have therefore allowed a few small projects to be implemented in certain least developed areas of PNG such as in West New Britain, New Ireland, Morobe, Gulf and Central...

I have approved new and am taking action with the Department to renew Timber Permits (extensions) but certainly I have not signed 26 of them as claimed in the press release. This is a blatant attempt to sabotage the efforts of the Department and I in carrying out Cabinet decisions.

It is still not clear to me what the motives are for Mr Wep Kanawi and some advisors in releasing baseless statements that only caused confusion. Mr Kanawi should not overstep his appointment by interfering in the operational functions of the Department of Forests. His function is mainly to implement the smooth transition of the Department of Forests, Divisions of Forests in provinces and FIC to become the National Forest Authority. He has breached his authority by meddling in matters he clearly does not have mandate in.

Had he forced the gazettal of the new Forestry Act in April 1992, it would have been to the complete detriment of the entire Forestry Sector, because he was completely unprepared. Only last week and this week has he been bold enough to complete the first draft of the Forest Authority which was never available then because he was unhappy with the work done by the Corporate Planning Consultant. Even the draft submitted now is far from complete and the Department, and in particular certain of its divisions are completely rewriting their own structures and duty statements.

Mr Kanawi has therefore misled everyone in believing that he had completed the major tasks, for which he was appointed.... His job is to produce the structure and put a money tag on it, but leave the detailed financial arrangements to those who know better.

Lastly, landowners must continue to play a major role in determining what happens to their resource, and as much as any one else would like to think differently the Government or Department of Forests do not have total control over the forest resources of this country. No one can tell them to lock up their resources if they do not have a positive alternative to their expected income from developing their forest resources.

Therefore anyone with an alternative solution should now come forward and sell it to the resource owners. If it is acceptable I will stop issuing any further new timber permits.

Source: Post-Courier, 10 June 1992
Meanwhile, in that first week of June, a group of about seventy landowners from six different provinces were said to have joined forces in Port Moresby to persuade the Forests Minister to delay the gazettal of the new Act beyond June 25 to allow for further ‘consultation’. The group’s leader, Henry Peni, was quoted as follows:

_We don’t see any reason how the new Act will justify the protection of our rights because it denies our rights..... Because the government cannot do it for us, we need to develop our resources to create employment and development in the rural areas and earn an income. What the government has done in its new Act is creating a bottle neck situation for us landowners_ (Post-Courier, 9 June 1992).

Later that month, members of this group met to establish the PNG Forest Resource Owners Association (FROA). Interestingly enough, spokesmen for the new association reportedly criticised the new Act for giving too much power to the Minister and demanded that the FROA should have its own representatives on the National Forest Board and the Provincial Forest Management Committees.

The final shots in this particular aspect of the national election campaign revolved around the accusations made against Minister Genia by various Opposition MPs, to the effect that he had made an undertaking to grant more timber licences to Rimbunan Hijau and its affiliates in return for a substantial donation to the Pangu Pati’s campaign funds, and had ignored advice from the FTMC which warned that these companies already controlled far too much of the nation’s forest resources. These accusations were strenuously denied by the Minister himself, whose parting shot was to publish another newspaper advertisement in which he recounted the splendid achievements of his Department and its Secretary since the latter’s appointment in September 1987, making particular reference to the twelve main recommendations of the Barnett Inquiry (Post-Courier, 22 June 1996). Nevertheless, two days after this advertisement was published, and one day before the new Act was finally gazetted, the Minister did manage to issue seventeen new timber permits (Henderson 1996).

When Parliament reconvened after the frenzied horse-trading which customarily follows a national election, Paias Wingti recovered the premiership which he had lost in 1988, consigning Jack Genia and the rest of the Pangu Pati to the opposition benches. Although Wingti’s coalition partners in the People’s Progress Party were known to have many friends in the log export industry, and their leader, Julius Chan, was restored to his

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34 Genia was elected Leader of the Opposition, but died of a mysterious illness in 1993.
previous role as Deputy Prime Minister and Finance Minister, the Forests Ministry was allocated to an ‘independent’ MP, Tim Neville. Like his predecessor, Karl Stack, Neville was a wealthy white businessman, but one who was rather more determined to show how wealth acquired outside of the rainforest might provide some immunity from the temptations of this particular office. During the two years in which he held it, the flow of new timber permits dried up completely, log shipments were delayed while the Minister personally checked their credentials, and rumours of conspiracies to murder him provided an extra touch of heroism in an Australian television programme devoted to his exploits. As the dashing ‘white knight’ of the policy reform crusade, Neville relied on the support of an unlikely pair of retainers. First came Jean Kekedo, an experienced and emotional public servant, who was appointed as Managing Director of the NFA by the first meeting of the National Forest Board in December 1992, and who once famously described herself as ‘a pawn in a sandwich’. Then came Conrad Smith, a Canadian consultant who was initially engaged to conduct the ‘Forest Industry Development Studies’ prescribed by the NFCAP, then appointed as the first General Manager of the National Forest Service in September 1993, and who preferred the codename ‘Nemesis’ to describe his own attitude towards the export logging industry, when communicating through the Internet. The slice of bread on which the day of judgement had descended was defended by the same consortium of loggers and landowner company directors whose public alliance had been forged in the dying days of the previous government.

Despite Neville’s determination to make a clean break with the past, the crusade took some time to muster its forces, because the NFA was by no means ready for action when the Act was actually gazetted. Although the Prime Minister repeated his promise of a second judicial inquiry within days of his election (Post-Courier, 7 August 1992), nothing more was heard of this particular weapon. And while the Forests Minister was uttering dire threats against those timber companies which failed to register themselves as legitimate ‘forest industry participants’35, several months elapsed before he was able to remove the recalcitrant former Secretary, Michael Komtagarea, from his new position as Acting Director-General of the new Authority. In January 1993, Komtagarea teamed up with the (Acting?) Chairman of the National Forest Board to complain that the Minister had

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35 Under Part IV of the Act (Sections 104-114), all ‘forest industry participants and consultants’ were obliged to register with the Forest Authority before doing business in the forestry sector. Registration was at the discretion of the Board, and penalties were prescribed for the conduct of various activities by unregistered persons. The Policy (PNGMOF 1991:35) regarded the process of registration as one of the strategies designed to secure the goal of greater national participation, but the Act treated it as instrument for the control of malpractice.
breached the *Forestry Act* by turning the ‘Director-General’ into a ‘Managing Director’ when making Kekedo’s substantive appointment to the position, and by authorising the advertisement of several senior management positions in the National Forest Service without even consulting the Board (*Post-Courier*, 20 January 1993). When these issues were raised in Parliament, Neville announced that he would be seeking special powers to suspend the entire Board under a Forestry (Interim Arrangements) Bill, so that he would be able to expedite the establishment of the National Forest Service and Provincial Forest Management Committees, and get on with the business of producing the National Forestry Development Guidelines and National Forest Plan without the inconvenience of ‘obtaining board approval at every turn’ (*Post-Courier*, 18 February 1993). This proposal did not go down too well with those other crusaders who thought that the whole point of the new *Forestry Act* was to ringfence the Minister’s powers and slow down the conduct of any business which might lead him or anyone else to grant more timber permits to the logging industry. They persuaded him to settle for an amendment to the Act which would reduce the size of the Board, and thus facilitate the necessary meetings and decisions. The Act, as duly amended in April 1993, reduced its membership from eleven to six:

- the four provincial government representatives nominated by the regional Premiers’ Councils were replaced by a single representative appointed from a list submitted by the National Premiers’ Council;
- two (rather than three) heads of national government departments were to be appointed by Cabinet in consultation with the Minister; and
- there was no place for the Minister’s own nominee.

The FIA and NANGO representatives remained on the Board. The amendments also confirmed the Minister’s previously stated intention to divide the Director-General’s position between a Managing Director (as Chairman of the Board) and a General Manager (as senior executive of the National Forest Service).

By this time, the Minister was already in possession of a draft set of National Forestry Development Guidelines (PNGMOF 1993a) which had been prepared by some of the consultants engaged under the NFCAP, including Conrad Smith. At the beginning of May, Neville announced that forest industry representatives had seven days in which to comment on this document before he sought Cabinet approval, thus provoking the FIA to wage a lengthy public campaign against several of the more radical measures which it proposed, and which we shall discuss in subsequent...
sections of this study. The FROA’s response, from which the FIA was careful to distance itself, was to engage the services of an opposition backbencher, Daniel Tulapi, to table a Private Member’s Bill which would amend or repeal all those sections of the new *Forestry Act* which were seen to restrict the freedom of the landowners (or landowner company directors) to profit (or lose) from the sale of their own (or other people’s) resources to the loggers of their choice. Under these proposed amendments:

- the National Forest Board would include three FROA representatives, three FIA representatives, and three government representatives (including the Managing Director), but no NANGO representative;

- all sections of the existing Act dealing with resource acquisition and resource allocation would be repealed, thus giving the Board a free hand in the issue of new timber permits; and

- all sections relating to the registration of forest industry participants, the exercise of the state purchasing option, the imposition of penalties on logging companies which failed to comply with permit conditions, the powers to review existing projects, the prohibitions against export of selected species, and the introduction of a new revenue system would also be repealed.

Tulapi’s Bill even proposed to repeal one section (s.130) which had already been repealed in Neville’s own amendments to the Act.

The purpose of these new ‘amendments’, as clearly spelt out in the newspaper advertisements published by the FROA, was to turn the new *Forestry Act* into a modified version of the old *Forestry (Private Dealings) Act*, by reasserting the constitutional rights of resource owners to dispose of their own private property, reducing the role of government officials to that of providing advice to the buyers and sellers of timber, and almost totally eliminating the powers of the Minister (*Post-Courier*, 20 July 1993).

Neville’s response, published in another newspaper advertisement, was to describe Tulapi’s Bill as ‘the work of a foreign lawyer hired by a logging operator’, to deplore the fact that genuine landowners were being ‘ripped-off [sic] by many unscrupulous and unrepresentative landowner company officials and foreign logging companies’, and to point out that his determination to stop these abuses had already resulted in several threats to his own life (*Post-Courier*, 18 August 1993).

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*Tulapi’s own interest in this matter was rather difficult to gauge, since he represented a highlands electorate in which the logging industry had no discernible interest.*
Although Tulapi’s Bill was initially tabled in August 1993, Parliament did not get around to rejecting it until March 1994. In the intervening period, Neville had secured Cabinet approval of a revised draft of his Guidelines, and the government had established a Forest Coordination Group to secure interdepartmental collaboration in their implementation. When Cabinet’s decision was made public in December, there followed another round in the newspaper war between the Minister and his opponents, and FROA
members tried to put a halt to logging operations in some provinces in an unsuccessful effort to boost their parliamentary support. At the same time, officials and consultants in the NFA were preparing another set of amendments which would have conceded the validity of some of the complaints raised by the FIA and FROA. Amongst other things, these would:

- provide for a stronger landowner and private sector representation on the Board;
- streamline and clarify the process for allocation of timber permits and licences;
- limit the power of the Minister to determine the level of charges imposed through the new revenue system; and
- allow for logging operators to pay some revenues directly to landowners and landowner companies (Dolman 1995).

However, these amendments never reached the floor of Parliament, or any other forum of public debate, because the Minister became embroiled in the defence of Conrad Smith’s grand scheme to divide the whole country into twenty-five ‘Timber Supply Areas’ (TSAs), so that each logging company with a proven commitment to downstream processing could be granted sole access to a resource which would be large enough to meet its long-term need for raw materials. In Smith’s view, this was also a concession to the industry (Times of PNG, 31 March 1994), and was cautiously welcomed as such by the FIA (Post-Courier, 25 July 1994), but local NGOs with strong environmental sympathies, which had previously been vocal in their support of the new Guidelines, now took sides with the FROA and several national politicians who had not previously backed Tulapi’s Bill, as they all opposed what they perceived as an attempt to challenge the hallowed right of all native Melanesians to decide what should or should not happen on their customary land. This unlikely partnership also had the backing of many national officers in the National Forest Service, who had grown increasingly resentful of what they perceived as the Minister’s reliance on advice from ‘fly-by-night consultants’, and who had formed an Association of Foresters to give occasional public voice to their grievances.

This was the context, in June 1994, in which the Minister lodged his appeal to an Australian television audience, unidentified arsonists burnt down one of the Forest Authority’s office blocks, and Jean Kekedo scolded the ‘unappreciative landowners and critics of [the Authority]’ for using her as a

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37 One NGO pamphlet translated the ‘TSA concept’ as ‘Total Silvicultural Annihilation’, because it ‘makes no allowance for other forest uses apart from timber, excludes landowners, and threatens to greatly increase the rate of forest exploitation’ (Post-Courier, 5 July 1994)
Dear Editor,

I watched the Four Corners [Australian TV] program about the logging industry in our country. The program made some good points but it was very one sided. It's all very well to bash the logging companies but business is business. Companies will only do what they can get away with. The biggest rascals are our very own government. It’s the fat politicians and bureaucrats who have taken bribes that have let the rip-off happen.

Mr Neville makes himself out to be Mr GoodGuy. But he’s little better than his predecessors. Apart from the show for the cameras, Mr Neville hasn’t bothered lowering himself to talk to the people who actually own the forests. And he doesn’t even try to talk to the forest industry. Instead him and his bigmouth General Manager, Conrad Smith, pretend to know it all and are bullying everyone to get their own way. And that means getting lots of ‘jobs for the boys’ in their new Forest Authority.

Canadian Conrad Smith used to be a consultant to the Forest Authority until he landed the top job. Since then the stream of his wantok leeches suckering up around the place has been never-ending. And every one of them is paid at well over K500 to K600 per day plus car, hotel room and expenses - and all paid for from our pockets. It makes me sick. A six month contract worth close to K1 million was given to Smith’s old (?) Canadian consultancy firm to set up the new revenue system that Smith made such a noise about earlier this year. Now there’s another of Smith’s Canadian buddies arrived and he’s got another few months worth of fleecing us stupid Papua New Guineans. And there’s an Aussie who’s been taken on as a ‘marketing consultant’ for six months at full consultancy rates. There also a couple more Australians who parade around like colonial masters ordering everyone about. They have been here for more than six months acting as Smith’s hit men and organising office furniture at the Forestry Fort Knox at Hohola. You don’t have to be a consultant to do these sums. Minister Neville and Mr Smith have dished out close to K1.5 million of our money to their pals. That’s a lot of royalties.

And in spite of all the big talk by Mr Neville and Mr Smith over the past 16 months, what’s been done? Nothing! Go to any logging site. Where are all the forestry people – you’d be lucky if you found a dozen in the whole country. But don’t worry. Minister Neville and Mr Smith have signed away K5.5 million for another pack of overseas consultants to do it! The Timber Supply Areas which they are trying to bring in is just a fascist attempt to take over landowners’ rights to their own land. The revenue system that cost so much, sits gathering dust on the shelves and is fare too complicated to introduce in PNG. This is not Canada, Mr Smith! Meanwhile, the export taxes have been raised and the landowners are not getting any more than they were before.

So who’s calling the shots at this supposed new autonomous Forest Authority? It should be the managing director, Jean Kekedo. But where is she? It seems that all the real decisions are conspired behind her back between Mr Neville and Mr Smith. Funny also how they’re all expatriates. I thought that since 1975 we were supposed to be running this country. So, Mr Neville, before you start slanging off everyone else, how about cleaning up your own act first? If you don’t then Mr Wingti had better do it for you!

Source: Times of PNG, 23 June 1994
‘pawn in a sandwich’ (Post-Courier, 22 June 1994). While other stakeholders reflected on the significance of these messages, Sir Julius Chan was preparing to desert the coalition government, and forge a new alliance with the Pangu Pati and its leader, Chris Haiveta. When this mission was accomplished at the end of August, Tim Neville crossed over to the opposition benches, and Chan allocated the Forests Ministry to one of his own henchmen, Andrew Posai, who was closely aligned with the FROA, and who promptly announced that his predecessor’s Guidelines would be revised to reflect the concerns of ‘resource owners’. Conrad Smith and the TSA concept returned to their Canadian place of origin38, and the new Minister tried but failed to persuade the National Forest Board to agree to the removal of Jean Kekedo. Having failed in this enterprise, he turned his attention to the task of amending the Forestry Act.

Posai’s proposed amendments, first announced in March 1995, were totally at variance with the rationale which the FROA had previously offered in support of Tulapi’s Bill, because they were designed to maximise, rather than minimise, the power of the Minister himself. Section 8A would be amended to state that it is the Minister (rather than the Authority) who ‘has, in addition to the powers otherwise conferred on him by this Act and any other Law, all powers to do all things that are necessary or convenient to be done for or in connection with the performance of his function and the achievement of this Act’s objectives’, and so:

the Minister may in his discretion suspend any operative provisions of this Act where it is considered by him impracticable or inexpedient for any reason to operate the provision of the Act [and] the Minister may:
(a) Grant a Timber Permit, Licence or Timber Authority for such term and under such conditions and in such form as he deems appropriate, subject to the availability of resource.
(b) Suspend or vary the terms of any existing Timber Permit, Licence or Timber Authority.
(c) Transfer, amend or extend any Timber Permit, Licence or Timber Authority to any third party.

And Section 9 would be amended to make the National Forest Board ‘subject to the directives of the Minister of Forests and/or the National Executive Council’.

Once again, local NGOs swung into action with a series of full-page newspaper advertisements attacking these proposals, while the Minister was distracted from his task by a series of scandals which necessitated his

38 Smith was replaced by Keith Dolman, a New Zealander who had been heading the NFCAP Technical Support Project.
Plans to vest more powers in the Forest Minister were a step back into the past age of corrupt crony deals, two critics charge. Former Forest Minister Tim Neville says an amendment to the current Forestry Act would see PNG going back another thousand years. And his comments were backed up by former PNG judge and forests inquiry boss Tos Barnett, who said that a move in this direction would be a tragedy for the country. Both men, joined by West New Britain premier Bernard Vogae, said … Minister Andrew Posai had been trying to bring back to his control powers that would see him holding sole responsibility for issuing permits.

Mr Neville and Mr Barnett made these comments when being interviewed on Australian SBS TV’s Dateline current affairs program. The program also reveals that Mr Posai had interests in a timber company set up in Gasmata, West New Britain, and that he had helped set up six companies for export logging and sawmilling and was an advisor to these companies from 1986 to 1992. Premier Vogae said: ‘He more or less simply is a landowner for a start and he also has a landowner company in which he is an executive member while his brother is one of the managing directors’. Mr Posai denied to TV interviewers he had any interests in the forestry industry, however he made the admission that he was a major timber landowner and chief of his tribe. He told the interviewer: ‘And I own 3-400,000 hectares of forest. I’m proud to say that. But I don’t own any vested interest in the timber industry despite the facts that I own land.’ Mr Neville alleged that at the time Mr Posai was appointed Minister, he was also still the chairman of local landowner groups that held timber concessions in the Kandrian district.

Trinco Number 10 Pty Ltd telephone number, 255513, and postal address, Box 6399, Boroko, is the same as that of logging company Niugini Lumber Merchants Pty Ltd. Niugini Lumber Merchants Pty Ltd is a subsidiary of Malaysian logging giant Rimbunan Hijau. The detail of telephone number and address was listed in Trinco Number 10 Pty Limited’s application for electricity supply to the Papua New Guinea Electricity Commission. The application was lodged by Doods Gatdula, who is employed with Niugini Lumber Merchants. The electricity bills for the property are being sent to Niugini Lumber Merchants…

Mr Posai was recently found guilty by a leadership tribunal comprising of Justice Kubalan Los, Senior Provincial Magistrate Mandik Kapin and Senior Provincial Magistrate Raphael Appa, of 26 counts of misconduct in office during his term as Minister for Home Affairs and Youth in 1992 and 1993. The tribunal recommended that he be dismissed from office.
dismissal from this precious office. In August 1995, Chan allocated the Ministry to another member of the People’s Progress Party, Andrew Baing, who promptly ‘directed’ the Board to issue six new timber permits before the end of the year (Post-Courier, 12 September 1995). On being advised that this could not legally be done in the absence of a National Forest Plan, he blamed Jean Kekedo for the Authority’s failure to produce one, and used this failure as the pretext for persuading Cabinet to authorise her dismissal, despite the Board’s repeated objections (Post-Courier, 18 October 1995)39. The real reason for her removal, as revealed in Parliament shortly afterwards, was her refusal to condone the allocation of a timber permit for Vailala Blocks 2 and 3, in Gulf Province, to a company closely associated with Rimbunan Hijau, because the timber rights had only recently been ‘acquired’ by the Deputy Prime Minister, Chris Haiveta, in a rather unorthodox manner.40 Her replacement, Guao Zurenuoc, was far more sympathetic to the Minister’s concerns. From the time of his appointment, in November 1995, a split soon developed within the senior echelons of the National Forest Service, between those who shared this sympathy and those who remained loyal to the spirit and letter of the legislation41.

Tim Neville and the NGOs immediately warned the public of the Minister’s intention to make another assault on the Forestry Act, and their prophecies were soon fulfilled. Baing’s strategy was to change the composition of the Board in ways which could be justified by a variety of extraneous criteria, and to simultaneously grant himself or Cabinet greater control over the actual process of appointment. The National Premiers Council had disappeared with the gazettal of the new Organic Law on Provincial Governments and Local-Level Governments, so its representative was now to be replaced by one of the nineteen Provincial Administrators; two new spaces were to be created for the FROA and the PNG Association of Foresters; and Baing suggested that the NANGO representative was an unnecessary luxury, because NANGO already had representatives on all the Provincial Forest Management Committees. His proposed amendments also allowed the Board to elect its own Chairman, instead of being automatically chaired by the Managing Director. Apart from the deletion of the NANGO representative, all of these changes eventually passed into law. But the proposal for all Board members to be appointed by Cabinet, from recommendations made by the Minister, was anathema to the World Bank, because it breached the conditions which the Bank had attached to the

39 Ms Kekedo subsequently took the State to court for wrongful dismissal, and eventually won a substantial sum of damages.
40 These permits were amongst those which had been issued by Minister Genia on the eve of the 1992 national election. The NFA had received legal advice to the effect they were invalid, because no TRP agreement had previously been made between the State and the landowners (Post-Courier, 1 December 1995).
41 The second camp was commanded by the new General Manager, Kanawi Pouru, a national officer who had risen through the ranks of the service.
country’s Economic Rescue Programme approved in August 1995. Despite the Bank’s warnings, Baing continued to ply his Bill through Parliament, where it was finally approved in July 1996. Even members of the opposition had their nationalist feathers ruffled when the Bank then threatened to scrap the rest of the country’s rescue package, and the Prime Minister announced that the Bank could ‘go to hell’ (Post-Courier, 5 September 1996), but the government’s financial plight soon forced the legislators to unamend the offensive amendment. A small piece of pride was saved by the Parliamentary Privileges Committee, which found that the Bank had been guilty of contempt of Parliament, but recommended that no action be taken to impose the statutory penalty comprising a K400 fine or six months imprisonment (Post-Courier, 10 October 1996). And the Bank had the additional satisfaction of noting that the FROA, having finally gained a seat on the National Forest Board, was now dominated by a faction which preferred the Bank’s company to that of the log export industry. The new General Secretary of this organisation published an article in one local newspaper, under the heading ‘Forestry reforms from a layman’s perspective’, which concluded as follows:

The World Bank’s adamant stand on forestry reforms is in the best interest of the nation, at least the silent majority in the hamlets in the most remote parts of PNG who, in order to reach the nearest government post, travel the tracks made by semi-trailers dragging logs through the forest for export. Vitriolic criticisms, arrogance, misinformation and naivety are the threats to our sovereignty (Independent, 22 November 1996).

The best the Minister could now manage, in the remaining few months of his term of office, was to lean on the Board to delegate some of its powers to the Managing Director, in the expectation that this would expedite some of the favours still sought by his friends in the logging industry.

8.2 The National Forest Plan

The Barnett Inquiry (Interim Report 4) and the TFAP Review both expressed grave reservations about the log harvest levels projected in the 1988 Medium Term Development Strategy produced by the DOF, noting how these departed from the projections made in the 1987 National Forest Development Programme (see Table 8.1). The production of a national forest plan came to be seen as an integral component of the policy reform process because it was felt that projections like these were taking no account of the true requirements of ‘sustained yield management’.
Table 8.1 Comparison of log harvest levels (in millions of cubic metres) projected by the Department of Forests in 1987 and 1988.

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Sections 47 and 48 of the 1991 Forestry Act required the NFA to produce and present to Parliament a National Forest Plan based on a certified National Forest Inventory, and comprising:

- a set of National Forestry Development Guidelines;
- a National Forest Development Programme; and
- an annual statement of ‘allowable cut’ (the amount of timber which may be harvested) in each province for the succeeding year.

According to the Policy (PNGMOF 1991:13), the Guidelines were to form the ‘primary political input’ to the planning process by providing ‘an overview of the forestry sub-sector’s perceived role in the national economy’ and being ‘broadly directed towards the areas of industrial, rural, economic, and social development objectives’. The Guidelines would ‘set out broad objectives and predictions for the long term (i.e. the next 40 years) and address the medium term (i.e. the next 10 years) in greater detail’. The Programme, on the other hand, would ‘provide schedules for the carrying out of resource inventory, acquisition and allocation tasks over a five year rolling term’ in accordance with ‘priorities and land use allocations as specified in the Provincial Forest Plans’.

Section 49 of the Act required each provincial government to produce and present to the Minister its own Provincial Forest Plan in conformity with the National Forestry Development Guidelines, and comprising:

- a set of Provincial Forestry Development Guidelines; and
- a rolling five-year Provincial Forest Development Programme.

According to the Policy (ibid:5), this would first require each provincial government to identify five different types of land within its own borders:

- ‘production forests’, i.e. long-term timber production areas;
Loggers, donors and resource owners

• ‘protection forests’, excluded from production by various environmental considerations;  
• ‘salvage forests’, i.e. forested areas to be cleared for other uses;  
• land currently without forest cover which would be ‘suitable for afforestation’; and  
• ‘reserve forests’ - a residual category for forested areas which had not yet been classified.

It seems that this classification was meant to form the basis for a ‘schedule for the management and utilisation of forest areas within the province’ (ibid:6), which would itself be part of the Provincial Forestry Development Guidelines, while the Provincial Forest Development Programme would be required to demonstrate a more specific commitment to ‘sustained yield management’ of those areas designated as ‘production forests’, by application of a notional 40-year cutting cycle (see section 8.3 below). These calculations would then be incorporated into the National Forest Plan, allowing the latter to arrive at its prescribed annual statement of ‘allowable cut’ in each province for the succeeding year.

For the benefit of those who might easily get confused about the relationship between the various ingredients in the proposed planning process, the Policy included a summary statement of the agencies responsible for preparation, approval and implementation of different components of the plan (see Table 8.2). On the other hand, no timetable was specified for the completion of the process, which is hardly surprising when one considers the amount of work which would have to be done and the number of ways in which it could be delayed. Barnett (1992:112) complained that the first draft of the Forestry Bill was asking far too much when it required each provincial government to produce its ‘forest classification’ within a year of the Act coming into force, but the Act as finally passed dispensed with any mention of this exercise, and only required that each Provincial Forest Plan should be produced ‘as soon as practicable’. Excessive haste in the production of provincial plans would not of itself do anything to speed up the appearance of their national counterpart, since this also presupposed the production of the National Forest Inventory, and this, according to the Policy (PNGMOF 1991:11-12), would take at least five years to be completed. The potential significance of such delay was highlighted by Section 54 of the Act, which had not been present in the first two drafts of the Bill, and which stated bluntly that: ‘Forest resources shall only be developed in accordance with the National Plan.’ The implication appeared to be that no new timber

42 The Policy (ibid:8) recognised ‘the national and global interest to support measures to secure the setting aside of land of ecological importance as conservation areas’ even while it also acknowledged ‘the problems associated with acquisition of land and provision of fair and lasting returns to the customary owners’.
projects would be developed for several years after the Act came into force, and this largely serves to explain the determination of Minister Genia and Secretary Komtagarea to delay its gazettal.

The Draft Guidelines which Minister Neville presented to the newly reconstituted National Forest Board in April 1993 covered much the same range of topics as the earlier National Forest Policy, and could thus be seen as an expanded policy statement. Separate sections were devoted to ‘Forest Resource Development’, ‘Management for Sustained Production’, ‘Reforestation and Afforestation’, ‘Forest Industrial Development’, ‘Forest Revenue’, ‘Training and Localisation’, ‘Forest Research’ and ‘Review of
Existing Forestry Projects’, in that order. However, the most significant alteration to the Draft Guidelines which was made as a result of the public debate in 1993 was the deletion of the original Part C, which dealt with ‘Preparation of a National Forest Plan’ (PNGMOF 1993a:5-7).

In its own detailed comments on the Draft Guidelines, the FIA did not object to the principle of land use classification proposed in the Policy, even though it doubted the capacity of provincial governments to demarcate the required areas, but it complained vociferously about the proposal to base future calculations of ‘annual allowable cut’ on the equation of ‘production forests’ with areas already allocated under TRPs and LFAs, and it refused to accept the ‘best guesses’ of the Rapid Resource Appraisal as a substitute for the National Forest Inventory required by the new Act (PNGFIA 1993:5-8). Rather than amend the relevant part of the Guidelines to accommodate such objections, government officials decided to abandon it entirely, primarily because their own doubts about the provincial planning process were already greater than those of the FIA (see Box 8.5).

By March 1994, consultants working on the World Bank-funded Forest Management and Planning Project (FMPP) had already supplied the NFA

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43 From this point of view, Conrad Smith’s ill-fated promulgation of ‘Timber Supply Areas’ may be seen as an attempt to short-circuit the provincial planning process by producing an alternative basis for land use classification at the national level.
with an ‘alternative approach’ to provincial forest plans which was based on the assumption that:

the original approach ... was considered to be an exercise in futility, as it could only ever be implemented to the extent that forest owners affected were willing to participate. Yet there was no guarantee that forest owners with forests suited to sustained industrial wood production would be willing to have them used for this purpose, or if they were, that they were willing to do so in accordance with a Provincial Government determined ‘management and utilisation schedule’ (PNGFA 1994a:4).

The alternative would be a ‘broader statement of the Provincial Government’s preferred forest uses based on defined priorities for potential forest benefits ... [which] would not predetermine specific boundaries, or develop utilisation schedules ... [and which] would be backed up by a Provincial Action Program aimed at encouraging forest owners to take part by adopting forest uses in line with the priorities expressed in the plan’ (ibid:4-5). A ‘Pro-Forma Provincial Forest Plan’ gave the following list of examples of the ‘potential forest benefits’ from which the provincial governments could determine their priorities:

- ongoing support for rural village living standards;
- protection of soil and water quality;
- biodiversity conservation;
- sustainable employment generation;
- industrial wood production to meet provincial demand for wood products;
- industrial wood production for export from the province to other parts of PNG and/or overseas;
- increased industrial wood production through the development of plantation forests;
- social forestry to meet local forest product and services needs (PNGFA 1994b:7).

At the same time, the NFA and the DEC would supply PFMCs with the information required for them to distinguish between those parts of their province which either had the potential for sustainable industrial wood production, or high biodiversity values, or both, and the PFMCs would use this information to assess requests from landowners for their land to be designated as ‘production forests’ or ‘protection forests’. Requests for land to be designated as new ‘production forests’ would be assessed in light of provincial priorities, and also by reference to the criteria already laid down by the National Guidelines, namely that:
Loggers, donors and resource owners

Box 8.5 The demise of forest classification in the forest planning process

Forest classification, as proposed in the National Forest Policy, has proved difficult to implement. First, political friction between national and provincial governments has constrained provincial input. Increasingly, provincial and national politicians saw themselves as competitors for control over the distribution of resources and delivery of government services. In the early 1990s, the national government considered a series of reform proposals clearly intended to undermine the political base of provincial governments (Axline 1993). The Bipartisan Select Committee on Provincial Government reported to Parliament in March 1993, recommending replacement of the existing tier of provincial politicians with provincial authorities. These were to comprise national government members from the province and local government leaders. The recommendations formed the basis of reforms that became law in 1995.

Second, the Forest Authority’s part in coordinating the process called for close management and enormous technical input at a time when its attention was focused on internal reorganisation and unresolved policy issues. But perhaps the major obstacle to completion of this exercise has been growing doubt over its ability to win the respect of landowners. The unofficial demise of the classification endeavour can be traced through successive drafts of the Guidelines. The first draft presented to the National Forest Board in April 1993 merely acknowledged some slippage in the time needed to complete the task, nominating April 1994 as a ‘realistic target’. The version approved by the National Executive Council in December 1993 omitted the whole chapter on preparation of the Forest Plan and made no reference to forest classification or land-use zoning. The view came to prevail that landowners would reject, outright, any lines drawn on maps, at the whim of government officials or politicians, which purported to tell them what they could or could not do with their resources. The alternative of country-wide consultation with all landowner groups was simply not feasible.

Despite the lack of progress and widely-held suspicion that forest classification is an exercise in futility, no alternative basis for the Forest Development Programme has been agreed. A National Forest Plan remains a key component of the Forestry Act. Without a plan in place it is questionable whether permits can be legitimately granted, given the stipulation in Section 54 that forest resources can only be developed in accordance with the Plan.

Source: Taylor 1997

- the area should contain at least 100,000 hectares of ‘commercially manageable forest’\(^{44}\) in order to ensure sustainability of wood production at the project level;

- at least 10 per cent of the commercially harvestable area should be set aside as a permanent conservation area;

- all participating land groups should agree to share the financial benefits

\(^{44}\) This was defined to exclude forested land which was environmentally unsuitable for sustainable wood production and land already formally designated as part of a conservation area or water control district.
of the project in accordance with the extent of their holdings within the commercially harvestable area (so that the owners of the protected area would not be disadvantaged);

- landowners should agree to enter into a Forest Management Agreement (FMA) with the NFA; and

- commercial forest plantations of high-value hardwood species should be established on 5-10 per cent of the area covered by the FMA (ibid:8-9).

The PFMC would also have some responsibility for helping the landowners to meet these conditions.

The discussion paper prepared by the FMPP consultants observed that one of the advantages of the alternative approach was that it would:

Avoid unrealistic industry and Government revenue expectations from being developed through a statement of Annual Allowable Cut, which might not be reached if forest owners did not agree to allow their forest to be cut in accordance with the plan (PNGFA 1994a:6).

However, the Pro-Forma Plan included a table (PNGFA 1994b:11) which required the derivation of a ‘maximum permissible annual cut’ from a calculation of the ‘net commercially accessible area’, the ‘average annual area available for cutting under a 40 year cutting cycle’, and the ‘mean annual increment’ (in cubic metres per hectare per annum). And while the discussion paper proposed that the ‘net commercially accessible area’ should not amount to more than 25 per cent of the gross operable area (PNGFA 1994a:7), the Pro-Forma Plan indicated that it should be 50 per cent of the gross operable area (PNGFA 1994b:10). This discrepancy seems to have arisen from different interpretations of the data produced by the Rapid Resource Appraisal (see section 8.3 below)45, but there were several statements to the effect that further information provided by the Forest Resource Inventory could later be incorporated into the provincial planning process since each provincial plan would be revised every three years.

In August 1995, the NFA produced a set of ‘Guidelines for Provincial Forest Plans’ (PNGFA 1995a) containing a lengthy glossary and a revised version of the Pro-Forma Plan which effectively reduced the provincial planning

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45 The discussion paper included an estimate of the net commercially accessible area in each province which arrived at a national aggregate figure of approximately 3.9 million hectares, and assumed an average mean annual increment of one cubic metre per hectare per annum to arrive at an aggregate annual sustainable yield of approximately 3.9 million cubic metres (PNGFA 1994a:8). The Pro-Forma Plan appeared to imply that both of these figures should be doubled.
process to an exercise in ‘filling in the blanks’. The preface to this document included a statement recognising that some provincial governments might still be unable to produce their plans in a format acceptable to the National Forest Board, and offering the assistance of the National Forest Service to remedy this deficiency. By this time, however, the technical limits on the planning capacities of provincial governments were outweighed by the confusion arising from passage of the new Organic Law on Provincial Governments and Local-Level Governments. While the main purpose of this law was to reduce the political autonomy, and increase the administrative capacity, of provincial authorities (see section 5.3), it included a variety of provisions relating to the management of renewable resources which were possibly at odds with the provisions of the new Forestry Act (see Box 8.6). As a result, several provincial governments (or their governors) began to rewrite their provincial forest plans, and even to draft new provincial forestry laws, in ways which were unacceptable to the NFA, and which therefore delayed the production of a National Forest Plan. As we have seen (section 8.1), when Andrew Baing took over the Forests Ministry in August 1995, he used this delay as his main pretext for getting rid of the NFA’s Managing Director, Jean Kekedo.

In January 1996, Minister Baing directed Kekedo’s replacement, Guao Zurenuoc, to form a Policy and Planning Advisory Committee in order to expedite production of the National Forest Plan, and thus enable the National Forest Board to allocate a series of new timber permits. As a result, a draft plan was hurriedly produced by senior officers of the National Forest Service, but this patently failed to meet the requirements laid down in the Act. At this juncture, the leader (and last remaining member) of the FMPP team drafted a discussion paper (Everts 1996a) in which he itemised the reasons for this failing:

- The Plan could not be rendered consistent with the Policy, because the Policy either lacked the necessary detail or the details made no sense (e.g. the requirement that ‘follow-up land use plans’ be produced for land committed to sustainable timber production).

- The Act contained no definition of a ‘certified’ National Forest Inventory, and apparently ignored the practical constraint that detailed inventories are normally only undertaken in areas where landowners are prepared to grant management and harvesting rights to the state.

- The 1993 Guidelines were ‘only partially endorsed by the NEC’ and had exerted ‘little influence on the development of the forestry sector’. The Guidelines contained policy statements which had either been ignored
Box 8.6 Sections of the new Organic Law on Provincial Governments and Local-level Governments (as amended) which are relevant to forest management and planning

- Section 1 (‘General Principles’) includes the statement (s.1.5) that ‘wealth generated by lawful exploitation of any natural resources must be equitably distributed by the National Government, the Provincial Governments and Local-level Governments for the benefit of resource owners and all levels of governments’.

- Section 42 originally stated that the ‘Law-Making Powers of the Provincial Legislatures’ extended to the subjects of ‘forestry and agroforestry’ and ‘renewable and non-renewable natural resources (but not maximum or minimum volume, or quantities, export prices, tax measures or taxation, levies or dues to be levied).’ This section was later amended to include an additional sub-section stating that such powers do not apply to ‘large-scale’ forestry ventures which ‘are declared by the Head of State, acting on advice, to be ventures to which this subsection refers’.

- Section 43 originally stated that the ‘Principal Administrative Functions of Provincial Governments’ included the provision of ‘advice to landowners in relation to the development and control of their traditional land’, and Section 45 originally stated that the ‘Principal Administrative Functions of Local-Level Governments’ included ‘ensuring necessary arrangements and participation at forums on renewable and non-renewable natural resources’ and ‘granting appropriate approval or entering into dealings in relation to [these] resources ... including recommendations to relevant bodies or authorities’. Both sections were later amended to state that the principal functions of both levels of government would simply ‘be as provided for in an Act of the Parliament’.

- Section 115 (on ‘Control of Natural Resources) states that the relevant National Minister shall consult with the relevant Provincial Government, and all three levels of government ‘shall liaise fully with the landowners’, in respect of any proposal to develop natural resources in a particular province. Section 116 (on the ‘Resource Development Process’) states that another Act of Parliament shall make provision for ‘the type or types of development to which Section 115 applies’, ‘the consultation process’, ‘the establishment of natural resource development forums’, and ‘the extent to which the parties may participate in the development of the natural resources’. It also states that another government agency, the National Economic and Fiscal Commission, ‘shall carry out a cost and benefit analysis for and in relation to the development of natural resources’.

(e.g. removing the role of government in plantation development), or had met with substantial opposition from other stakeholders (e.g. log export bans), or had not been subject to consultation with other relevant government departments (e.g. financial incentives for industrial processing).

- The NEC had already disregarded Section 54 of the Act, which stated that ‘forest resources shall only be developed in accordance with the
National Plan’, when it had given its approval for a number of ‘agro-forestry’ projects which entailed the clearance of large areas of forest (see section 8.5).

• The requirement to produce a National Forest Development Programme was based on the false assumption that national and provincial governments had the right to manage and utilise the nation’s forests, without first securing the agreement of their true owners, even in the unlikely event that these two levels of government could reach agreement with each other, and even if the government were to make the necessary financial resources available.

• Annual statements of ‘allowable cut’ also made no sense if they were applied to areas which had not (yet) been made available for cutting, and could not influence the level of cut already allowed under existing concessions, even in those provinces (notably West New Britain) where the allowable level was unsustainable.

• Provincial governments did not have the expertise required to produce separate sets of Provincial Forestry Development Guidelines and rolling five-year Provincial Forest Development Programmes, nor did the NFA have the expertise to do it for them, and the purpose of such exercises was also defeated by the fact of private ownership of the resource in question.

• Provincial Forests Ministers were no longer able to submit their Provincial Forest Plans to the National Forest Board, because their offices had been abolished by the new Organic Law, and the new provincial authorities were using the same law to challenge some of the provisions of the Forestry Act.

• The main benefit of the provincial planning exercise to date had been the opportunity for consultation between provincial administrators and national government officers, but this outcome could just as easily have been achieved without the need for plans to be produced.

In light of these considerations, it was proposed that the relevant sections of the Act should either be deleted or amended. But it appears that the discussion paper itself was never considered by the Policy and Planning Advisory Committee, and work on the National Plan continued apace.

The inconsistencies noted in the discussion paper were blithely ignored in the final draft of the Plan which appeared in May 1996. The Plan was said
to be consistent with the Policy and the Act, the National Guidelines were endorsed, the Rapid Resource Appraisal was still treated as an ‘interim certified National Forest Inventory’. The RRA was also said to be the basis of the ‘general forest classification of PNG’ (see Figure 8.1) and the estimated national ‘annual allowable cut’ of 4.9 million cubic metres (PNGFA 1996:11-12). The Plan contained nineteen provincial maps which showed existing ‘forest production areas’, ‘potential areas for future development’, other ‘areas suited to sustained yield management’, areas of forest ‘not suited to sustained yield management’, and other (non-forested) areas. They did not show the boundaries of any protected areas, despite the fact that these were said to cover 1.7 million hectares in the forest classification. Once the Plan had been produced, the NFA proceeded to advertise a number of new timber concessions in accordance with the Minister’s frequently stated wishes.
8.3 **Measures of sustainability**

During the period of national independence, research on forests and forestry in PNG has been undertaken by the Forest Research Institute (FRI) in Lae, which is a branch of the NFA (formerly DOF), by academic scientists at the two national universities, and by a variety of foreign researchers whose activities have generally not been coordinated or directed at a national level. With very few exceptions (notably the Stettin Bay Lumber Company), logging companies have not undertaken any research on their own account. Within the policy reform process which was initiated in 1989, the major function of ‘relevant’ forest research has been to provide the sort of data which can facilitate the production of national and provincial plans for sustainable management of PNG’s natural forest resource. In this section, we are concerned with the recent history of research intended to achieve the goal of sustained yield management, where the yield is a volume of commercial timber extracted from the natural forest.

The TFAP Review found a number of deficiencies in the way that the DOF had dealt with the problem of defining and measuring ‘sustainable forest management’:

- the actual log harvest levels forecast in the revised National Forestry Development Programme of 1988 were not shown to be related to any clear conception of ‘sustained yield management’ (World Bank 1989:18);

- the Department’s plan to achieve the goal of ‘sustainability’ by converting 10 per cent of all logged-over areas to forest plantations was evidently contradicted by its plan to sell off the small areas of government plantations which already existed (ibid:19); and

- official estimates that each hectare of productive forest contained 50-60 cubic metres of commercial timber did not match the actual measured output of 20-30 cubic metres (ibid:21).

The World Bank produced its own calculation of sustainable yields from the natural forest by:

- estimating that 40 per cent of the gross ‘operable area’ of 15 million hectares was actually available for logging;
- multiplying the net utilisable forest area of 6 million hectares by an estimated harvesting yield of 30 cubic metres per hectare; and
- dividing this total by an estimated rotation length of 50 years to arrive at a maximum annual allowable cut of 3.6 million cubic metres (ibid:21).
The National Forest Policy followed a similar procedure when it proposed that the ‘allowable cut’ in each province would initially be set ‘by dividing the total merchantable resource within the production forest by an assumed cutting cycle of 40 years’ (PNGMOF 1991:6), this being a provisional estimate of the period of time which the average stretch of production forest would take to recover its timber value after selective logging.

Barnett (1992:109) took particular exception to this method of achieving the goal of sustainability, describing it as a ‘simplistic and unsatisfactory device’.

This formula is not based upon research on Papua New Guinea forests, in fact the very concept of there being a scientifically determined sustainable yield cycle has been challenged by many competent authorities. Moreover, many of those who do believe in the concept would advocate a much longer cutting cycle of around 70 to 80 years. In any event, to work out a formula on a province-wide basis rather than to consider the characteristics and needs of each individual forest area would allow for gross and unnecessary overcutting of some valuable and irreplaceable forests on the rationale that other forests exist in the same province so that for the province as a whole, the annual allowable cut will not have been exceeded (ibid:115)

The Policy did state (PMGMOF 1991:6) that the formula would be ‘subject to review in the light of further research’, and although there was no mention of such activities in that part of the document which was devoted to research policies and strategies, the NFCAP included three projects which promised to undertake this type of research:

- the ‘Ecological, Economic and Social Sustainability of Tropical Rainforest Use’ (EESSTRU) project, which was to ‘promote and support research and development with a view to improving forest management and utilisation’, to ‘support and develop industrial tropical timber reforestation and forest management activities’, and ‘to encourage the development of national policies aimed at sustainable utilisation and conservation of tropical forests and their genetic resources, and at maintaining the ecological balance in the regions concerned’;

- The ‘Rapid Resource Appraisal’ (RRA) project, which was to ‘provide a quick estimate of the state of PNG forest resources, for use in production planning under sustainable yield’; and

- the ‘Forest Resource Assessment’ project, which later became the ‘Forest Inventory Mapping System’ (FIMS), which was to follow on from the
Loggers, donors and resource owners

To produce ‘volume estimates, growth and yield models, and management scale data to allow design of regional and forest management plans’.

The EESSTRU project had five different components (or sub-projects), the first of which was concerned with the definition of ‘sustainability’, while the other four were to assess the impact of alternative management regimes on the achievement of this goal. The first sub-project was implemented in 1992, through the conduct of a UNESCO-funded workshop, organised by the CSIRO Division of Wildlife and Ecology, which resulted in the publication of a ‘Blueprint’ containing a set of criteria and indicators of sustainability of forest use in PNG (CSIRO 1992). Little progress has since been made in the implementation of the other four sub-projects because of an apparent breakdown in communications between the implementing agency (FRI) and the funding agency (ITTO). The impact of the ‘PNG Blueprint’ has also been limited, mainly because it is couched in very general terms, while its ‘ownership’ was very narrow. Louman (1997) has produced a detailed assessment of the biophysical parameters that can be used to describe its criteria and indicators, and has shown how these are largely ignored in a sample of environmental plans produced for logging projects in PNG. While Louman has proposed that more work needs to be done to incorporate these parameters and indicators into the planning and monitoring of forestry operations, other commentators believe that there is a more urgent need to make operational use of the data produced by the PNG Resource Information System (PNGRIS), the RRA and the FIMS (McAlpine 1997).

The RRA itself, conducted in 1992 and 1993, was an interim measure, as its title would suggest. The main aim of the exercise was to produce an interim body of data which would enable the National Forest Service to produce the provincial and national plans required by the Policy, and thus to meet the conditions required by the World Bank and other aid donors for further funding of the NFCAP (John McAlpine, 1997, personal communication). Its implementation was actually delayed because of concerns expressed by the DEC over its terms of reference, and these concerns were reflected in the public statements of some NGO representatives, who maintained that resource mapping was liable to facilitate further exploitation.

The consultants engaged in this study arrived at their definition of the ‘maximum annual sustainable yield’ for each of the nineteen provinces through the analysis of data produced by the DOF in respect of all actual
and potential concession areas, and comparison of this data with other information obtained from the PNGRIS46.

- First, they deducted from the ‘gross operable area’, which amounted to a total of 12.6 million hectares, those areas which were not available for logging because of previous disturbance or problems of access, and thus arrived at a ‘net productive area’ totalling 8.8 million hectares.

- Having subtracted another 10 per cent (800,000 hectares) from this total to allow for ‘buffer zones’ around streams and water holes, they estimated that approximately 712,000 hectares out of the remaining area had already been logged before 1993, while another 7.2 million hectares had not yet been harvested by that date.

- A further 15 per cent deduction was made from this combination of logged and unlogged forest in order to allow for roading and other infrastructural requirements of logging operations, thus leaving a ‘potential forest area’ of approximately 6.8 million hectares.

- Assuming that this would be the maximum area available to a regime of sustainable natural forest management, they proceeded to calculate the ‘maximum annual sustainable yield’ by making further estimates of the volumes of commercial timber contained in the area which had not yet been harvested, and the natural growth rates of commercial timber species after selective logging had occurred47.

If the results of these calculations are compared with the actual volume of log exports in 1994, it would appear that a claim to ‘sustained yield management’ could be made in all provinces except West New Britain, which accounted for more than half of all the logs exported in that year. However, the authors of the study went on to point out that a substantial proportion of the ‘potential forest area’ would not continue to be available for timber harvesting, either because it would be set aside for conservation purposes or (more likely) because it would be converted to other uses - primarily subsistence agriculture. In other words, the ‘potential forest area’ could not be equated with the area of ‘production forests’ defined in the Policy because parts of it would either become ‘protection forests’ or ‘salvage forests’. The problem, then, was to arrive at a more realistic estimate of the ‘probable’, as opposed to the ‘maximum’, potential forest

46 The basis of these calculations was a map of forest types at a scale of 1:1,000,000 (see Saunders 1993), although some work was also done on the mapping of vegetation types at a scale of 1:100,000, in recognition of the fact that this interim study would eventually be supplanted by a more detailed forest inventory (John McAlpine, 1997, personal communication).

47 These growth rates were estimated at between 0.8 and 1.0 cubic metres per hectare per annum.
area. The authors of this particular study suggested that the figure could be as low as 3.7 million hectares, which would of course entail a corresponding reduction in the estimates of sustainable yield. Other commentators suggested figures as low as 3 million hectares, with a sustainable log harvest of only 3 million cubic metres a year (see PNGADCP 1993; Nadarajah 1994).

There were already a number of additional reasons for doubting the sustainability of the harvest levels of 1994.

- Firstly, the official export figures almost certainly underestimated the actual export volumes, since there were bound to be some operators whose shipments were not fully reported to the government 48.

- Secondly, the level of harvest will always be greater than the level of exports. Over the last few years, the difference has been officially estimated at between 600,000 and 1 million cubic metres per annum 49. This figure is understood to apply to timber which is subject to further processing before being exported or consumed by the domestic market.

- Thirdly, the volume of timber which is officially ‘harvested’ may not include a substantial number of full-size logs which are wasted in one way or another, and certainly does not include those very substantial volumes contained in the (mainly immature) trees which are critically damaged by careless logging practices, even though this second form of wastage represents a substantial detraction from some future harvest.

- Finally, the very uneven spatial distribution of logging operations was likely to create additional pressures for the conversion of forested land to agricultural use in those areas (such as West New Britain) where current harvest levels were extremely high, and those provinces in which harvest levels were obviously unsustainable would also be those in which logged-over forests were more likely to be cleared for other uses.

For these various reasons, it now seemed very unlikely that sustainable timber production would be possible if the country officially exported more than 2 million cubic metres a year for any significant period of time. But Figure 4.1 shows that exports have substantially exceeded this amount each year since 1993.

48 The volume of such ‘concealed’ exports may have been less significant than their value, because they were likely to comprise those species (such as rosewood) which were subject to a species-specific export ban.

49 Jant’s woodchip mill alone has been accounting for 200,000 cubic metres of logs processed onshore.
The 1996 National Forest Plan (PNGFA 1996:11) seems to have ignored the qualifications of the RRA when it declared that the total area of ‘production forest’ was 11.9 million hectares, and the 25.7 million hectares of ‘reserve forest’ included another 8.2 million hectares of ‘potential production forest’ (see Figure 2.4). It seems that the Plan was now equating the combination of actual and potential ‘production forest’ with what the RRA had defined as the ‘gross operable area’, and that the NFA’s estimate of the size of this area had grown from 12.6 million hectares to 20.1 million hectares. These calculations appeared to justify a projected annual harvest, from 1997, of 4.7 (or perhaps 4.9) million cubic metres, of which approximately 2.9 million cubic metres would be derived from existing projects (ibid:13).

At first sight, it may seem that these optimistic forecasts have received a measure of support from the FIMS, which has now supplanted the earlier RRA in the calculations of the NFA, and whose summary results have been described in section 2.2 above. If we compare the provisional outputs of the FIMS (Figures 2.3 and 2.4) with the corresponding estimates made in the RRA, we may be struck by the difference between the 6.8 million hectares of ‘potential forest area’ which were thought to exist in 1993 and the 11.5 million hectares of ‘potential production forest’ which are now said to have existed in 1996. If we assume that these are two attempts to measure the same thing, then it seems that the estimated area of ‘potential production forest’ was 70 per cent greater in 1996 than it was in 1993. This discrepancy is all the more remarkable when we compare the earlier estimate that 712,000 hectares of forest had already been logged before 1993 with the current estimate that 2.8 million hectares had been logged by 1996, which seems to represent a simultaneous increase of nearly 300 per cent in the area of forest whose potential production values have (at least temporarily) been realised. Should we therefore conclude that this new set of data justifies a corresponding increase in the estimates of aggregate sustainable yield, and therefore supports the claim implied in the Plan (and openly stated by representatives of the log export industry) that PNG’s natural forest resource can sustain an annual harvest of approximately 5 million cubic metres, instead of the 3 million cubic metres implied by the calculations of the RRA?

The architects of the FIMS maintain that there are three main reasons why a positive answer cannot be given to this question:

• Firstly, the database shows that more than one third of the area which has already been logged is classified as ‘non-potential production forest’ (see Figure 2.5), which means that it should not have been logged under a regime of sustainable forest management.
Secondly, the area of ‘potential production forest’ includes several ‘forest types’ or ‘forest zones’ whose combination of tree species do not warrant commercial exploitation under current market conditions, and which are therefore excluded, in practice, from the area of interest to logging companies.

Thirdly, and perhaps most importantly, the estimates which have previously been made of ‘typical’ regeneration rates, and which support the idea of a ‘standard cutting cycle’ of 30-40 years, are now regarded as maximum, rather than average, rates, and there are many ‘forest types’ or ‘forest zones’ in which the rates of regeneration are now shown to be much lower, and in which the ‘cutting cycle’ should therefore be twice or three times the ‘standard’ length (John McAlpine, 1997, personal communication).

From these considerations, it can be argued that the FIMS provides more reasons for the NFA to limit the numbers and types of forest area which are made available for commercial logging than arguments in favour of extending the aggregate area of ‘production forest’.

8.4 Resource acquisition procedures

Under the old Forestry Act, the state acquired timber rights from customary resource owners through the negotiation of a Timber Rights Purchase (TRP) Agreement. In theory, these agreements were meant to be signed by all the customary owners, or at least the adult males amongst them, and some effort was made to ensure this level of consensus during the last years of the colonial administration, but when the rate of forest exploitation began to rise substantially during the 1980s, the DOF began to adopt an ‘unofficial policy’ of accepting 75 per cent of the relevant signatures as sufficient evidence of landowner consent (Whimp 1995:51). The Barnett Inquiry found that even this level of consent had commonly been manipulated or manufactured to suit the demands of the logging companies. This kind of manipulation was even more likely to take place in the declaration of Local Forest Areas (LFAs) under the Forestry (Private Dealings) Act, which only required the Minister’s assent to a Dealings Agreement purportedly negotiated between the resource owners and representatives of a landowner company interested in negotiating its own Logging and Marketing Agreement with a logging operator. Some LFAs were established in New Ireland Province during the 1970s, but many more came into existence,
most notably in West New Britain Province, during Karl Stack’s occupation of the Forests Ministry from 1988 to 1991 (ibid:52).

By repealing the old Forestry Act and the Forestry (Private Dealings) Act, the new Act established a new set of resource acquisition procedures which were primarily designed to safeguard the interests of customary landowners against the risk of being misrepresented by a small minority of self-interested individuals. According to Section 46: ‘The rights of the customary owners of a forest resource shall be fully recognised and respected in all transactions affecting the resource.’ According to the Policy (PNGMOF 1991:4), this meant that priority must be given to ‘the development and promotion of forms of ownership and organisation based on traditional precepts’ and ‘the use of arbitrary procedures to obtain the approval of resource owners is not acceptable’. On the other hand, the Policy failed to indicate how the assertion of customary rights could be reconciled with the assertion of greater government control over the utilisation of forest resources on customary land.

The Act prescribed a process of ‘resource acquisition’ (Sections 54-60) in which the NFA would henceforth enter into Forest Management Agreements (FMAs) with customary owners whose title was either vested in land groups incorporated under the Land Groups Incorporation Act or was registered under a law providing for the registration of title to customary
lands. Where this was ‘impractical’, allowance was made for an FMA to be executed by the ‘authorised agents’ of the owners, provided that 75 per cent of the adult resident members of the landowning groups had given their written consent. Each FMA was to contain a map showing the boundaries of the area which it covered, and to specify the volume of merchantable timber which it contained, the benefits which the owners would receive in exchange for the harvest rights, and the period required for ‘proper forest management measures to be carried out to completion’.

The 1993 Guidelines indicated that the process of land group incorporation should be preceded or accompanied by a Landowner Awareness Programme which would provide landowners with the information required for them to make their own assessment of ‘the likely costs and benefits, impacts and responsibilities associated with a forest development project’ and enable them to ‘truly participate in the project formulation process and ensure that it is sensitive to their needs and concerns’ (PNGMOF 1993b:4). It was also suggested (ibid:7) that the process would enable dissenting groups of landowners to exclude their own land (or any disputed land) from the area covered by an FMA. This exercise was apparently regarded as a precursor of the ‘development options study’ prescribed under the new resource allocation procedures (see section 8.5), and caused the FIA to comment that the whole process was becoming so ‘lengthy and complex’ that it might prove to be ‘completely unworkable’ (PNGFIA 1993:30).

The Forest Management and Planning Project included a ‘Landowner Involvement Component’ which was designed to strengthen the capacity of the National Forest Service to follow the new resource acquisition procedures. The activities of the consultants engaged to implement this part of the project, in the years from 1993 to 1995, have been documented in a single collection of papers (PNGFMPP 1995), and the principal consultant has since produced some broader reflections on this experience (Holzknecht 1996, 1997).

The first test of the new procedures was the construction of the Turama FMA in Gulf Province, where the proposed developer, Turama Forest Industries, apparently played an active role in the process of land group incorporation by virtue of the fact that it already held a timber permit in the area (Hartmut Holzknecht, 1997, personal communication). When the National Forest Board used this FMA as the basis on which to issue an ‘extended’ permit to TFI in June 1995, local NGOs referred the decision to the Ombudsman Commission on the grounds that it constituted a breach of
Incorporation of Land Groups is currently a function of the Department of Lands and Physical Planning (DOLPP). It was taken over by the Department in 1992 as it was seen as an important part of the Department’s customary land registration function. The procedure for registration involves the lodgement with the Registrar of an application form attaching the Constitution. The Registrar notifies interested persons and allows a period of time for objections. Once the notice period has elapsed and objections have been resolved, the Registrar issues a certificate of registration.

The time taken to complete registration of a Land Group is perceived to be an impediment in terms of getting new forestry projects under way. At present it takes four to six months (up to twelve months if an objection is involved) from the time when the application reaches the Registrar. The incorporation of land groups for forestry projects is currently facilitated by Forest Authority staff. This involves field trips where groups are assisted to undertake genealogies, prepare property lists, and settle the Constitution. The application is then typed in Forest Authority head office, and forwarded to the Lands Department for processing. The DOLPP do not have any established positions to cater for this registration function. At present, they estimate 2-3 staff would be required to service this function. Currently, organisations which have promoted and assisted in the formation of Land Groups (notably Chevron Niugini and the Forest Authority) have provided staff to DOLPP to assist with registration.

A key issue in the formation of a land group for a forestry project is the necessity to resolve any potential land disputes before the group is registered and begins to assume the right to speak for the disputed land. The Act clearly envisages the importance of exposing any potential land disputes before registration, by requiring that notice be given of intention to incorporate. Notice is to be given to the [relevant] provincial and local-level governments, and in such other manner as the Registrar directs. Under current practice, the Group’s intention to register its Constitution is broadcast on local radio. However, the Act does not require land ownership to be identified as part of the registration process, and the Registrar has advised that the Department of Lands considers the process of incorporating Land Groups does not involve any adjudication on the ownership of lands (although many applicants mistakenly view recognition as an award of customary title). The effect of this is that unless there has been some adjudication about land ownership by the Land Court or Land Titles Commission, the Forest Authority enters into a legal contract for the purchase of timber rights on the strength of no more than the Land Group’s assertion that it is the owner of the land on which the timber is growing.

Forest Authority staff who have undertaken ILG work in areas where forestry operations have already logged the forest indicate that land ownership issues may be much more contested in these areas. This is partly because people are aware of the value of the timber, and partly because people now seek to redefine ownership (at least for the purpose of the forestry project) to remedy the inequitable distribution of royalties in the past. PNG case law suggests that if the Forest Authority enters into an FMA with people who are later determined NOT to be the real owners of the land, then the FMA will be void - the Forest Authority will not have acquired a good title to the timber. If Land Group work is undertaken by logging companies anxious to streamline the acquisition of a resource they hope will be allocated to them, or if it is undertaken by unqualified people, there is a possibility of short-cutting the procedures. These short-cuts will not affect the registration process - because identification of clan members and property are not required by the Land Groups Incorporation Act. However, they will render it more likely that assumptions about land ownership are incorrect.
The new resource allocation procedures (see section 8.5), but the dissent expressed by some local landowners appeared to indicate that some parts of the enlarged resource had not been properly acquired in the first place (Saturday Independent, 10 June 1995). Given the bureaucratic complexity of the land group incorporation process (see Box 8.7), it is hardly surprising that political pressures on the NFA have resulted in the cutting of several corners, including the use of logging company staff and facilities to expedite the process, and occasional reliance on the ‘75 per cent rule’ endorsed by the new legislation, but there have also been some cases in which the National Forest Board has rejected an FMA on the grounds that land groups in the area have not been properly consulted or incorporated, thus adding to the delays which have frustrated the logging industry and its political allies. The question of whether these procedures have served or may yet serve to enhance the overall level of community participation in the resource management or development process is dealt with at greater length in section 10.3 below.

8.5 Resource allocation procedures

Under the terms of the old Forestry Act, the TRP Agreement formed the basis on which the DOF would issue a Timber Permit for the exploitation of forest resources. More than half of the permits governing operational forestry projects at the time when the new Act was gazetted had been issued to landowner companies, rather than logging contractors. In these circumstances, the net result was rather similar to that which obtained in LFAs approved under the Forestry (Private Dealings) Act, where the landowner company entered into a separate Logging and Marketing Agreement (LMA) with a logging company. The main difference lay in the Department’s power to attach specific conditions to timber permits and to make the permit-holder responsible for their fulfilment. However, many of these conditions were ignored in practice, by both landowner companies and logging companies, and the Department had been unable to prevent the emergence of a bewildering variety of other ‘conditions’ through the negotiation of LMAs. The net result, as documented by the Barnett Inquiry, was a mess.

According to the Policy, a new set of resource allocation procedures should have the effect of enhancing the level of competition between developers (PNGMOF 1991:33) and helping to ‘create an operating environment within the industry that is conducive to attracting experienced and responsible
operators that are committed to the long term development of the industry’ (ibid:30). At the same time, the Policy envisaged that these procedures would give preference to national companies or companies with national shareholders (ibid:34) and to companies ‘with a strong background in processing and marketing’ (ibid:33).

The new Act prescribed (in Sections 62-77) the standard procedure by which the right to carry out a ‘forest development project’, including any rights acquired under an FMA, would be allocated to a developer:

• Firstly, the National Forest Board, in consultation with the Provincial Forest Management Committee, would commission a ‘development options study’ of the proposed project area, normally to be carried out by an officer of the National Forest Service.

• The Committee, in consultation with the resource owners and the provincial government, would then submit draft guidelines for project development to the Board for its approval50.

• The Board would then advertise the project and ‘seek expressions of interest from registered forest industry participants’.

• The potential developers would then submit their project proposals, having first sought the Managing Director’s permission to enter the project area.

• The Committee would then evaluate the proposals in light of national and provincial policy guidelines and recommend to the Board the names of those proponents (if any) with whom further negotiations should proceed.

• The Board, in consultation with the Minister, would then direct and advise the Committee on the conduct of further negotiations with the selected proponents.

• On the basis of these negotiations, the Committee would then submit a draft project agreement with one of the proponents to the Board for its approval.

50 According to Section 59, the Board was obliged to consult with ‘the member or members of Parliament for the Province and the electorate or electorates in which the area covered by the agreement is situated’, as well as with the customary owners and the relevant provincial government, when pondering the allocation of a Timber Permit. This provision seems to have been introduced into the third draft of the Forestry Bill in order to compensate the national MPs for their exclusion from the Provincial Forest Management Committees. There is no mention of consultation with MPs in the division of the Act dealing with resource allocation.
• Once satisfied with the terms of the project agreement, the Board would then recommend the Minister to grant a Timber Permit to the selected developer\(^{51}\).

• On acceptance of the Board’s recommendation, the Minister would then give the developer thirty days in which to submit a formal application for the Timber Permit, including an Environmental Plan approved under the *Environmental Planning Act*\(^{52}\).

• Once this was done, the Minister would then issue the Timber Permit, setting out the various conditions under which the development would be allowed to proceed, including the production of a project statement, a five-year working plan and an annual logging plan, and payment of a performance bond.

The Act also set down (in Sections 78-86) the procedures by which an existing Timber Permit might be extended, renewed, transferred, amended, surrendered or suspended. The Act allowed for two exceptions or deviations from this standard procedure:

• Firstly, if the amount of timber to be harvested from a project area did not exceed 5000 cubic metres per annum and was to be processed locally, or if the area had already been designated as ‘salvage forest’ in the National Forest Plan, there would be no need for a development options study, project development guidelines, or a process of advertisement (Section 87). The Managing Director would refer the project proposal directly to the Provincial Forest Management Committee for evaluation, and the Committee could then recommend the relevant provincial minister to grant a Timber Authority (rather than a Timber Permit) subject to the approval of the National Forest Board (Section 89).

• Secondly, under Section 64, the Board to might also ‘consider development proposals without advertisement for open tender’ if these were either seen to represent ‘an extension of an existing approved operation’ or to be ‘consistent with the National Forest Development Programme’.

Barnett (1992:114) criticised the first of these exceptions because he thought it would provide an opportunity for logging companies and provincial

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\(^{51}\) The Minister could ask the Board to reconsider its recommendation, but if the two parties were unable to reach agreement in this way, the dispute would have to be referred to Cabinet.

\(^{52}\) According to the Policy (PNGMOF 1991:8), this meant that a Timber Permit would not be issued ‘until an environmental plan is submitted and assessed and approved by the Minister responsible for environmental matters’.
authorities to persist in their former practice of disguising a single large-scale logging operation as a collection of relatively unregulated small-scale operations. This concern was addressed in the third draft of the Bill by the inclusion of Sub-section 87(1), which imposed a limit of 5000 cubic metres on the amount of timber which any one developer could harvest from a collection of two or more Timber Authorities whose boundaries were less than ten kilometres apart. Millett (1991) criticised the second exception because he thought it would reduce the transparency of the allocation procedure and thus deter investors’. He might have added that the question of what might or might not be counted as ‘an extension of an existing approved operation’ had already become a hot political potato before the Act was even passed. From 1990 to 1992, Ministers Stack and Genia both used this turn of phrase to justify the allocation of several new timber permits in apparent defiance of the government’s own moratorium (see section 8.1).

Part C of the 1993 Guidelines (on ‘Forest Resource Development’) restated the resource acquisition and allocation procedures already stated in the Forestry Act, and included a diagram representing the various components of the new ‘resource development process’ (see Figure 8.2). The ‘selected developer’ would now be required to lodge a substantial financial deposit with the NFA before commencing its feasibility study, part of which would reimburse the Authority for some of the expenses incurred in its previous conduct of the ‘development options study’53, and part of which would be advanced to local landowners as a means for them to obtain independent commercial advice on their participation in the project (PNGMOF 1993b:7-8)54. The Guidelines also proposed:

- that the developer’s environmental plan should henceforth be integrated with the ‘forest development plan and industrial development plan’, although it would still require the formal approval of the Minister for Environment and Conservation (ibid:9);

- that the allocation of new permits would take account of the need to increase the level of competition between logging companies by restricting any one company (or group of related companies) to a maximum of 25 per cent of the permitted national harvest - a move quite

53 It is interesting to note here that the Guidelines appeared to deviate from the Act by treating the ‘development options study’ as part of the resource acquisition process, rather than the resource allocation process. However, the significance of this change has yet to be realised in any practical way, because ‘the Forest Authority has failed to carry out any form of study resembling that described in the Guidelines with respect to the Forest Management Agreements it has made so far’ (Taylor 1997:253).

54 The second part of the deposit could be refunded if the developer subsequently failed to gain control of the resource, or could otherwise be deducted from the developer’s subsequent tax obligations.
clearly aimed at reducing the dominant position of Rimbunan Hijau (ibid:19)\textsuperscript{55}.

If this last measure was intended to produce a split in the ranks of the log export industry, it does not seem to have succeeded. The FIA was able to present a united front in opposition to a process which frustrated all the logging companies intent on expanding their scale of operations, and their level of frustration now reached new heights because of the surge in log export prices which took place during Neville’s occupation of the Ministry.

Those logging companies, like Rimbunan Hijau, which were already registered as forest industry participants, had four main avenues by which to maintain and enlarge their access to timber supplies in the face of these legal and bureaucratic restrictions:

- First, they could try to secure their grasp on those concessions which they had obtained from Ministers Stack and Genia, especially those whose validity was now being questioned by the NFA or whose exploitation had been delayed for other reasons.

- Second, they could try to gain control of the permits which these ministers (or their predecessors) had originally granted to other companies (including landowner companies), many of which were also in a ‘dormant’ condition\textsuperscript{56}.

- Third, they could exploit the loophole contained in Section 64, by manufacturing spatial or temporal ‘extensions’ to those permits which covered their existing operations.

- Fourth, they could throw their weight behind Tulapi’s Private Member’s Bill, which aimed to repeal all sections of the new Act which dealt with resource allocation.

To these four strategies, a fifth was added by some of the newcomers to the resource allocation game, who pretended that their interest in felling trees was merely incidental to their long-term interest in agricultural and infrastructural development. These companies received a warm welcome from the Minister for Agriculture and Livestock, Roy Evara, who chose to designate their proposals as a form of ‘agroforestry’.

\textsuperscript{55} The Draft Guidelines had proposed a maximum of 20 per cent, but the FIA had pointed out that this would simply limit the industry’s capacity to achieve economies of scale.

\textsuperscript{56} Neville’s advisers had already alerted him to the possibility of amending the new Act to prohibit such acquisitions without prior approval from the NFA (Dolman 1995).
Figure 8.2 Stages in the new ‘resource development and allocation’ process.

- Forest Land to be Developed for Long Term Production Forestry
- Landowner Awareness Programme
- Development Options Study
- Formation of Land Groups
- Corporate Formation
- FOREST MANAGEMENT AGREEMENT
- Call for Project Proposal
- Selection of Preferred Developer
- Developer Feasibility Study
- PROJECT AGREEMENT
- Approval of Project Agreement under Environmental Planning Act
- TIMBER PERMIT
- Performance Bond and Operational Planning Approvals
- HARVEST AUTHORISATION

Source: PNGMOF 1993b:5
The first company to lay its cards on the table was Arrow Pacific Resources, a consortium of Taiwanese and Singaporean interests, which proposed to spend K100 million replacing 120,000 hectares of natural forest with oil palm estates in Gulf and West Sepik provinces. Shortly after Tim Neville had unveiled his Draft Guidelines for public inspection, Arrow’s subsidiary, Lianyi Investments, hosted a lavish dinner for its local supporters, at which cheques for K100,000 were ceremonially launched at each of the landowner companies whose representatives were in attendance (Post-Courier, 10 May 1993). The regional MP for West Sepik Province, John Tekwie, and the Administrator of Gulf Province, Jacob Kairi, were amongst the audience which joined Minister Evara in applauding this act of generosity. The Minister was especially pleased, because the larger of the two projects, known as the Purari project, covered 80,000 hectares of his own electorate. But several political and bureaucratic hurdles still had to be cleared before the developments could proceed.

The first of these consisted in the fact that the Purari project embraced part of the area which the NFA had included in Vailala Blocks 2 and 3, and for which a timber permit had already been issued to a company closely associated with Rimbunan Hijau (see section 8.1). This meant that some of the landowners in the area had already made alternative arrangements for the sale of their resources, while most had not yet been consulted on the merits of Evara’s new proposal (Post-Courier, 6 May 1993). When Lianyi began logging in November 1993, a group of Vailala landowners obtained a court injunction against the project, while the FIA indignantly demanded some corresponding show of force from the Forests Minister (Times of PNG, 2 December 1993). Unfazed, Evara declared that ‘the 40,000 hectares of land to be cleared is on my land and the project has the full backing from all chiefs in my area’, and equally implausibly, that Minister Neville had agreed in Cabinet that this type of logging was not covered by his own Guidelines (Post-Courier, 14 December 1993). On these grounds, he proceeded to allocate another 100,000 hectares of his own electorate to a Malaysian company (Advance Synergy Bhd) which had now been alerted to the potential virtues of ‘agroforestry’. This ‘Baimuru’ project was to encompass parts of another Timber Permit held by Rimbunan Hijau, and resulted in more public protests from landowners who did not recognise the Minister as their ‘chief’ (Post-Courier, 1 February 1994). But the Minister’s plans for Gulf Province received a serious setback in May 1994, when the National Court found that the Purari project had breached five separate pieces of legislation, including the new Forestry Act, and thus confirmed the previous court order preventing further development.
Over in West Sepik Province, Arrow Pacific’s plans to develop the 40,000-hectare Lou project in the Aitape area had also run aground, as provincial agricultural officials persuaded their national counterparts that the company was in breach of government guidelines (Post-Courier, 28 October 1993), and university students tried to persuade local landowners that they were being taken for a ride (Post-Courier, 26 January 1994). These opponents initially had the backing of the local MP, Paul Mambei, but his doubts were apparently removed when the company put forward an even more ambitious scheme to develop the neighbouring Siau-Batai project, which covered almost 320,000 hectares (Post-Courier, 9 February 1994). But neither Mambei nor his regional counterpart, John Tekwie, had much influence in Cabinet, and while Neville remained in his ministry, Cabinet repeatedly refused to endorse any of the proposals being touted by Evara. Neville also made sure that Evara’s dealings with the agroforesters received a critical appraisal from the Australian television journalists who were invited to publicise his own heroic work in June 1994. Arrow Pacific then seem to have lost some faith in their ministerial patron, and sold their interest in the Siau-Batai project to a Malaysian company, Damansara Realty.

By August 1994, Evara had apparently concluded that he would not get Cabinet approval for his bundle of agroforestry projects, which he now claimed would account for 7 million hectares of forested land, unless he could secure the passage of an Agriculture Bill which would exempt them from the provisions of the new Forestry Act (Post-Courier, 24 August 1994). He never got the opportunity to pursue this course of action, because he lost his portfolio with the demise of the Wingti-Chan coalition at the end of that month. But if forestry officials were relieved to see the back of Minister Evara, they had not seen the end of ‘agroforestry’. The key players in the new Chan-Haiveta coalition were united in their determination to allocate more forest resources, by fair means or foul, not only to satisfy the familiar desire of individual MPs to ‘develop’ their own electorates before the next election, but also to address the fiscal crisis caused by the previous government’s spending spree. In his capacity as Finance Minister, Chris Haiveta was keener than most to expedite the development of the two Aitape projects (Post-Courier, 23 November 1994), and Cabinet approved both of them in February 1995, even though Damansara’s status as developer of the Siau-Batai project had not yet been established (Post-Courier, 21 February 1995).

However, the most enticing of the prizes which had yet to be distributed were still those located in Roy Evara’s Kikori electorate, covering the western half of Gulf Province, and the Middle Fly electorate in the
neighbouring Western Province. Despite being consigned to the Opposition benches in Parliament, Evara had lost no confidence in the virtues of his own pet schemes. He now announced a new deal with another consortium, known as Sino-PNG Resources, to invest up to K300 million in the Baimuru project, on a range of activities which included ‘oil palm, rubber, rice-growing and livestock, breeding ducks and fishing and various agro-forest activities, not just timber’ (Post-Courier, 16 February 1995). The same company was proposing to invest five times this amount of money in the Middle Fly electorate, where it also won the support of the local MP, Bitan Kuok, whose assets had been recognised in his appointment as the Vice-Minister for Forests. But this proposal, once again, ran counter to the interests of Rimbunan Hijau, whose largest operating concession (the Wawoi-Guavi project) was already located in the same area. RH had its own designs on the rest of the timber in Kuok’s electorate, either through the grant of an ‘extension’ to this project, or through acquisition of the neighbouring Makapa Timber Permit, which Minister Genia had granted to another Malaysian company - Innovision - but which had yet to be exploited. RH also had the support of Minister Posai, as well as some of the landowner companies in the area. In the event, these competing claims created a political stalemate, and the NFA confirmed Innovision’s right to the Makapa concession after that company had threatened legal action against the State (Wood 1997).

But in Evara’s own electorate, the bottleneck was broken. This was due, in no small measure, to the fact that Chris Haiveta was not only the Deputy Prime Minister and Minister for Finance, but also the regional Member for Gulf Province. As we have seen (section 8.1), it was Haiveta who signed the ‘TRP agreement’ which gave retrospective (though dubious) legal validity to the Valaila Block 2 and 3 Timber Permits which were now controlled by Rimbunan Hijau, thus putting the final nail in the coffin of Evara’s Purari oil palm project. The pressure to allocate this particular block of resources may have originated with the Prime Minister himself, but Haiveta also had other designs on the rest of the commercial timber resources in Evara’s electorate. These consisted primarily in his support for the proposal by Turama Forest Industries (TFI), which was already logging the area covered by the Turama Timber Permit at the far western end of the electorate, to ‘extend’ its operations by means of an FMA that would cover nearly all the commercial timber resources which had not already been allocated, thus quadrupling the size of its natural assets. To members of the National Forest Board and senior managers of the National Forest Service, this proposal had some undeniable merits. TFI had no apparent connection to RH, it was promising to build a K50 million plywood factory, had willingly assisted in the work of land group incorporation, and was
Box 8.8 Arguments over the allocation of the Makapa TRP

The Makapa Timber Rights Purchase (TRP) area, located in the Western province of Papua New Guinea (PNG), has been the subject of a lengthy process of negotiation in which no party or interest group has been able to exercise sufficient power over the other players to successfully impose their own definition of the TRP on those other actors. This is a case in which the various stakeholders have failed to achieve a level of cooperation which would impose a workable order on their divergent understandings of the Makapa TRP itself. What has happened instead is that conflicts over the definition of the Makapa TRP have so transformed and diluted this ‘project’ that it has yet to be scaled up from the micro-world of proposals, maps, ideas, letters of intent and project agreements to the macro-world of actual project development.

The Makapa TRP was not only potentially a major source of revenue for the government – it was, for a time, seen by the reformers as being likely to exemplify many of the benefits of the reform process. But the failure to implement the Makapa TRP became an icon, to their opponents, of the reformers’ more general inability to effectively implement their policies. While the reforms weakened the discretionary powers of the Minister for Forests, there was no real attempt to destroy or transform the alliances between the wider political elite and the loggers. If anything, the reformers succeeded in temporarily transforming a ‘governing alliance’ between the loggers and the elite which had previously run the forestry sector into a ‘defensive alliance’ which aimed at constraining, and winding back, the reform process. The reform process has not been robust enough to completely transform the permit given to Innovision under the old Forestry Act into an arrangement that fully conforms to the procedures of the new Act. Moreover, the reformers have been unable to prevent alliances between politicians and loggers from generating other definitions of Makapa which also seem to challenge procedures established by the Forest Authority. The competing loggers in the Makapa TRP have been reasonably successful in continuing to operate with a model that allocates power to the political elite in the form of the Minister for Forests, other ministers, and the National Executive Council. Understood in these terms, the Makapa TRP represents the failure of the Forest Authority to effectively impose its reformist policies on the political elite.

Source: Wood 1997

prepared to ‘set aside’ most of the resources contained within the Kikori ICAD project area (see section 9.1). In these respects, its proposal appealed to the residual supporters of Neville’s Guidelines or Smith’s ‘TSA concept’ within the NFA. Furthermore, any substantial allocation made under the new Forestry Act, even if it meant the exploitation of a legal loophole, would go some way to satisfy Minister Posai’s demand for ‘more projects’ (Times of PNG, 16 February 1995), and this particular concession would simultaneously knock the stuffing out of Evara’s Baimuru project, as the latter obviously recognised (Post-Courier, 16 December 1994). The FIA had already sets its face against the ‘agroforesters’, and the Association’s representative on the National Forest Board was none other than TFI’s
Managing Director, Tony Honey - who naturally abstained when the Board voted to grant the extended permit in June 199557.

The NANGO representative, Brian Brunton, also abstained from the vote, claiming that the Board had not even had the opportunity to study the proposal in detail, and then took his case to the local press and the Ombudsman Commission, arguing that Section 64 should not have been used to grant such a massive concession, and that the Kikori and Baimuru Timber Permits should instead have been advertised in the normal way, following completion of the Provincial Forest Development Programme and the National Forest Plan (Saturday Independent, 10 June 1995)58. Disgruntled landowners also took various actions (including legal action) against the developers, though they might not necessarily have shared the legalistic concerns of the NGOs. Some were no doubt followers of Roy Evara, who continued to complain that TFI had ‘bribed’ many of his constituents (Post-Courier, 22 November 1995). Even before the Board had made its decision, one (apparently unregistered) landowner company claiming a stake in the Kikori ICAD project area, Hekiko Forests Pty Ltd, had written to the Prime Minister to protest that their resources had been set aside without their consent (Independent, 5 July 1996), and later entered into a ‘Forest Management Agreement’ with another developer, which prompted forestry officials to publish a full-page newspaper advertisement advising all the land groups in the area that this was thoroughly irregular (Post-Courier, 31 May 1996)59.

Nor did the ‘official’ extension of the Turama Timber Permit do much to reduce the clamouring for ‘agroforestry’ projects in other areas. Over in West Sepik Province, John Tekwie, now the Provincial Governor60, was rapidly losing patience with the Provincial Forest Management Committee’s refusal to make good use of the loopholes in Sections 87 and 89 of the Forestry Act by granting a Timber Authority to Damansara Forest Products. The Committee’s hesitation was hardly surprising, because the company was planning to extract almost 1 million cubic metres of logs over three years, before even starting the process of agricultural development, and was asking the government to grant it a 50 per cent reduction in log export duty on full-sized logs, and a 100 per cent exemption on under-sized logs (Post-Courier, 20 November 1995). Although forestry officials

57 This was a 35-year contract allowing a maximum annual harvest of 180,000m³.
58 The Ombudsman did eventually find some irregularities in the allocation process, but the concession has not been revoked as a result.
59 The identity of the politicians involved in this particular deal has never been made public.
60 Under the new Organic Law, which had just been gazetted, those provincial MPs who were not national government ministers became the Governors of their respective provinces, displacing the former Premiers.
Piers, bridges and culverts constructed by logging companies are typically constructed from raw logs and begin to collapse after only one or two years.
persuaded their new Minister, Andrew Baing, to pronounce his opposition to unplanned clear-felling of natural forests, and the FIA was quick to support his views (Post-Courier, 2 October 1995), Damansara’s local MP, Paul Mambei, who had now assumed the Ministry of Environment and Conservation, had no problem in approving the company’s Environmental Plan. According to one newspaper report (Post-Courier, 12 March 1996), Governor Tekwie personally issued the necessary Timber Authority some time in the new year, and Cabinet seems to have approved this action without further reference to the National Forest Board.

The climate of opinion in Cabinet was certainly not such as to dampen the enthusiasm of other ‘agroforesters’. In July 1995, it had given its approval in principle to another 40,000 hectare oil palm scheme (the Vailala project) in Roy Evara’s electorate (Post-Courier, 31 July 1995)61, and a 50,000 hectare rubber estate (the East Awin project) in Western Province (Saturday Independent, 5 August 1995), even though no developer had yet been identified for either of these investments. But stranger things were to come:

• In the dying days of the old provincial government system, the Premier of Oro Province endorsed a remarkably fanciful proposal by a Filipino company, with a paid-up capital of US$7000, to replace the forests of Collingwood Bay with plantations of dwarf coconut palms (see Box 8.9). When this proposal came to light in 1996, a spokesman for the Prime Minister’s office reportedly described it as ‘stupid, ridiculous, nonsense and unrealistic’ (Independent, 28 June 1996), but its sheer absurdity probably helped to galvanise support for an ICAD project in the same area (see section 9.1).

• In March 1996, a Singaporean gentleman by the name of Dr Chong Huang, described as an ‘advisor and consultant to both the Home Affairs and Youth and Correctional Service Ministers’ announced that his company, PNG Vision 2000 Pty Ltd, had secured US$150 million to develop an ‘agro-forestry’ project covering the whole of Normanby Island in Milne Bay Province, and had already won the approval of the islanders (without yet submitting any proposal to the government), while making arrangements for the two ministers to visit Singapore ‘to study rehabilitation work both in prisons and for youth’ (Independent, 22 March 1996). The plan apparently involved clear-felling the island, building a veneer plant and woodchip mill, and replanting harvested areas with rice and maize. The NFA and the provincial government both denied all knowledge of this scheme, and nothing more was heard of it.

61 It is not clear whether this was done to appease or spite the local MP, but the 40,000 hectares covered by this proposal was then absorbed into the new Vailala timber concessions granted to Rimbunan Hijau.
• More serious, perhaps, was the proposal made public in November that year, by three Chinese Canadians representing a company called SanKung Trading Ltd, ‘to develop manufacturing operations in the agroforestry, fish cannery, agriculture and farming areas as well as general merchandise and mining projects’ over a period of fifty years, in various parts of East Sepik, West Sepik and Gulf provinces (Post-Courier, 14 November 1996). Of course, the first five years would be devoted entirely to logging operations, although the developer did not think it necessary to apply for a Timber Permit. It later transpired that Chris Haiveta had signed deeds of agreement with SanKung, that several Sepik politicians were also party to the deal, and that the Acting Finance Minister, Nakikus Konga, had later granted ten-year tax holidays to the company’s local subsidiaries (Independent, 26 September 1997).

Although it may have seemed that the ‘agroforesters’ and their political allies were pioneering the use of Timber Authorities to circumvent the resource allocation procedures laid down in the new Forestry Act, one logging contractor, Concord Pacific, had already discovered another application of the same device, by undertaking to construct a road on behalf of the landowner company which had been granted Cabinet approval to develop the East Awin ‘agroforestry’ project in Western Province (see above), and then using the Timber Authority which had previously been granted to that company as the pretext for harvesting all the timber which lay within one kilometre of the road alignment in order to pay for the cost of construction (see Box 8.10). Andrew Posai must have been apprised of this innovation during his brief occupation of the Forests Ministry, because his ‘own’ landowner company, Gasmata Holdings, induced the West New Britain Provincial Forest Management Committee to approve a Timber Authority for construction of an equally devious ‘road’ across the Whiteman Ranges.

Alarmed by these developments, bureaucrats and consultants in the National Forest Service drafted a Cabinet submission on ‘Conversion of Forests to Agriculture and Development of New Public Roads Through Forested Areas’ in May 1996. This document described the ‘core issue’ as Cabinet’s tendency to approve policy submissions from individual ministers who might have no formal responsibility over forestry matters and who were not formally obliged to consult with their departmental officials on the merits of their proposals.

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62 The Minister for Environment and Conservation, Parry Zeipi, gave ‘conditional’ approval to Concord’s Environmental Plan in July 1995, several months after logging had begun (Post-Courier, 28 July 1995).
Box 8.9 Agroforestry as ‘cargo cult’

Documents relating to a multi billion coconut sap agroforestry project for Oro Province’s Collingwood Bay reveal that major initiatives continue to be planned and endorsed by the government with little landowner participation and approval. The documents also confirm that a PNG diplomat supports this foreign project proposal which promises an attractive, exorbitant package to landowners, a surprising figure of K3.5 billion annually per landowner family.

[The project] proposes to develop 120,000 hectares of virgin forest land into dwarf coconut farms. The purpose is to process fresh coconut sap into a 100 per cent natural food and health drink for export. Project proponents are Francisco Umali and Ewin Acoba who are representatives of Ukadeco Pty Ltd, a company based in the Philippines. A joint venture agreement was signed on August 7, 1995 between two parties, a landowner company [called] Collingwood Bay-Musa Development Corporation Pty Ltd and Ukadeco Pty Ltd, in support of this project. It was witnessed by the then Oro premier Douglas Garawa.

The project has drawn the interest of PNG’s Ambassador to the Philippines, James Pokasui. Mr Pokasui has written to the Prime Minister, Sir Julius Chan, in support of this project [in a] letter dated December 29, 1995:

“I have read through the project proposal and concluded that this project will be the first of its kind in the country. Once given the opportunity to proceed, this project will indeed boost the development efforts of the national government in the following areas:

• Agri-livelihood development: The fully developed 100,000 hectares of dwarf coconut farms will be distributed to 25,000 farm families at four hectares per family for free. Each farm family is expected to earn about K11,000 per month or K139,817 per year. The project will generate a total livelihood income of about K3.5 billion annually.

• Agro-Industrialisation: One coconut sap processing plant would be built for every 5,000 hectares of fully developed dwarf coconut farms - 20 plants will be built in the Collingwood Bay area. A can manufacturing plant will also be built to supply the tin can requirements of the 20 plants.

• Employment generation: The project will generate about 200,000 jobs in the gathering of fresh coconut sap. An extra 11,000 jobs shall be generated by the processing plants and another 1,000 jobs by the tin plant.

• Infrastructure development: The project will develop the Collingwood Bay area into a modern agro-industrial community. Facilities and amenities [which] will be built include a pier, airport, water/power plants and commercial shopping centres to sustain a community.

• Taxes to the government: The project will generate a total tax revenue of K3 billion in a period of five years from round logs exports. Over a 10 year period, it will generate K11.1 billion tax revenues.

• Foreign exchange earning: The project will generate foreign exchange earnings at K26.03 billion per year from the eighth year onward.’

According to Mr Pokasui, a fund of K128.53 million is being set up by Mitsui International of Japan with corresponding guarantee by Enrique Zobel International of Philippines for this Papua New Guinea project. Mr Pokasui said he believes the project will succeed and further recommended that:

• the national government should consider approving the two parties request for concessionary tax of K12.85 per cubic metre for the export of round logs from Collingwood Bay area;

• the national government should consider granting tax exemption for capital equipment and income tax holiday, and

• the prime minister should consider giving both the chairman and president of Ukadeco Pty Ltd Mr Edwin Acoba and Francisco Umali the opportunity to meet and discuss their project plan with himself and the ministers of Finance and Planning, Forests, Agriculture and Livestock and Commerce and Industry.

Source: Independent, 21 June 1996
Once the NEC’s approval is obtained, the developers then behave as if [this] automatically exempts them from the requirements of PNG law, or as if the NEC approval means that all other legal requirements will be automatically rubber-stamped by the relevant Departments.

The submission relied on Cabinet’s previous endorsement of the Forestry Regulations (which included ‘Guidelines for the Issuance of Timber Authorities’), the PNG Logging Code of Practice (see section 8.11), and (above all) the conditions attached to the Economic Reform Programme, to recommend that:

- Proposals for large-scale agricultural development which entail the clearance of more than fifty hectares of forested land should be evaluated by the NFA, the DAL, and the DEC before being approved by Cabinet. In addition, the NFA should put the relevant Timber Authorities out to public tender, the proponent of the agricultural development should be prohibited from tendering for them, and should instead be required to lodge a performance bond equivalent to 15 per cent of the total agricultural investment with the NFA, to pay for rehabilitation of the land in the event that it does not proceed with the proposed development.

- Forest clearance for the construction of public roads should be confined to 40 metre wide corridor (in accordance with the Code of Practice), and the Forest Authority should not process Timber Authorities for this purpose without a guarantee from the relevant provincial government that it will take responsibility for maintenance of the road in question.

This submission was not greeted with much enthusiasm by the three ministers for whom it was prepared (Forests, Agriculture, and Transport), so the World Bank was left to ensure that the government agreed to comply with its own Forestry Regulations at the same time that it agreed to reverse its proposed amendments to the Act.

No attempt was made to revoke the Timber Authorities already granted to Damansara and tender them to another developer, but the company was required to lodge a performance bond and demonstrate some progress with its agricultural investment in each 5,000 hectare block before proceeding to harvest timber from the next one. Serious doubts have since been raised over the company’s compliance with these conditions, because the company had already exported 25,000 cubic metres of logs by the end of 1997, but the current Minister has generously given back the bond. Work on the Kiunga-Aiambak road has been interrupted by disputes amongst the
Landowners of the proposed 264 kilometre Kiunga-Aiambak road in the Western province have called on the National Forest Service (NFS) to review a timber permit issued to Paiso Pty Ltd and developers Concord Pacific whom they claim are carrying out illegal logging operations in the name of road development. The permit - Timber Authority 024 issued to Paiso in April 1994 - allows the company to clearfell 5,000 cubic metres of timber harvested per year in an operation confined to 50 metres on both sides of the road corridor. But so far only 20 kilometres of road have been constructed from Kiunga while, according to Forest Authority records, the contractors are understood to have exported 32,295 cubic metres of logs worth K5.4 million in 1996.

An Environmental Plan submitted to the Department of Environment and Conservation and signed by chairman of Paiso suggests that the Aiambak-Kiunga road will be entirely financed by revenue from log sales. But a Forest Authority brief in support of the landowner claims states that the approval of the permit granted by the previous Acting Forest Minister does not comply with existing forestry regulations and guidelines, especially the Forestry Act.

Last week, a group of Kiunga-Aiambak landowners led by the President of the Lake Murray Local Level Government Council travelled to Port Moresby to seek legal advice on the operations of the two companies. They said they had had no benefits from the project since it was initiated and were not party to the agreement that was in place between the landowner company and the developers, Concord Pacific. The President said Paiso Pty Ltd, the landowner company, does not represent their interest. The Council President has also raised the concerns of the landowners, saying the road construction is not of proper standard and has no culverts and bridges. He added that the road is only five metres wide. He said that although road construction was good for people in terms of transportation, the nature of how Paiso Pty Ltd and Concord Pacific acquired the permit had to be investigated.

According to the Forest Authority brief, contents of the agreement between Paiso and Concord Pacific suggest that the contractor will carry out timber harvesting and road construction. The agreement also allowed the developers to construct the road adequate for four-wheel drives and does not include permanent culverts and bridges. The total costs of the road construction was estimated by the company to be around K12 million. According to the brief, the managing director of Concord Pacific advised the chairman of Paiso that the timber harvesting based on the TA conditions was not commercially viable, and undertook to work out the economic analysis of the project, advising the landowner company to seek variation of the original terms and conditions of the permit.

In June 1994, the Vice Minister for Forests and the national member for the area wrote a letter on behalf of the landowner company seeking variation to the original conditions, and to allow the contractor to harvest 210,000 cubic metres of timber per year and cover 1000 metres on both sides of the road. In August 1994, the then Forests Minister Tim Neville approved that variation, including Concord as contractor.... The Timber Authority issued to Paiso expired on April 18, 1995, but the former Acting Forest Minister, in his letter of May 22, 1995, approved the renewal of the Timber Authority covering a period of five years.

Source: Independent, 19 September 1997
landowners, rather than the intervention of the NFA\(^{63}\), while the ‘road builders’ in West New Britain seem to have been defeated by their own technical incompetence.

There is now less reason for Cabinet or individual politicians to condone such irregular forms of resource allocation, not only because they are operating under the watchful eye of the World Bank, but also because the existence of a National Forest Plan has allowed (or obliged) the NFA to advertise a number of concessions for which ‘legitimate’ developers can openly compete. On the other hand, no new permits have actually been issued in the two years since Minister Baing ordered the advertisements. Seven proposals were rejected by the National Forest Board at the beginning of 1997 because their documentation was found to be inadequate (Independent, 14 February 1997). The smaller areas, which might not produce more than 10,000 cubic metres of timber per annum in a 35-year rotation, have apparently been too small to attract developers who are willing and able to meet the exhausting standards imposed by the allocation procedures. In the largest of the advertised areas, the Josephstaal FMA in Madang Province, the Board was unable to resolve the conflict between the Minister, the Provincial Forest Management Committee, and a local landowner company, each of which had its own favoured developer. By the time the Minister had left the scene, faults were discovered in the land group incorporation process, and forestry officials have since been occupied with their correction.

As John Millett (1991) pointed out in his original commentary on the new Act, ‘[t]he PFMC is the key to success of the entire operation because it must resolve any conflict between landowners, conservation and government interests’. As we have seen, these bodies have not been immune from political interference, but even when they make decisions on the merits of the case, and these should therefore receive the approval of the Board, other stakeholders, including the Minister, do not abandon their own agendas in the face of a technocratic consensus. The Policy and the Act failed to set out any specific mechanism for the resolution of such conflict, except insofar as they allowed for the Minister to question the recommendations of the Board, which seems to mean that dissenting stakeholders can rely on the intervention of the Minister (or Cabinet) to safeguard their interests, and the Board’s trump card is the technicality on which a final decision has to be deferred.

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\(^{63}\) Concord Pacific exported more than 123,000 cubic metres of logs in 1997, but it is not clear whether the whole of this volume was derived from their ‘road clearance’ work.
Whatever progress has been made in reform of the resource allocation procedures, the fact remains that most of the logging operations in PNG are still covered by agreements made under the old legislation. The generosity of Ministers Stack and Genia meant that the ‘maximum allowable cut’ under the permits and dealings approved before the new Act was gazetted amounted to 8.45 million cubic metres in 1993, and would still be 4.82 million cubic metres in 2001 (PNGADCP 1993) - well beyond the limits of sustainability which have so far been established (see section 8.3). If this provided a solid pretext for the policy reformers to restrict the allocation of additional resources, it also posed the question how they could ‘reform’ existing projects.

According to the Policy (PNGMOF 1991:23), ‘all timber permits and additionally all dealings under the Forestry (Private Dealings) Act ... current at the time this policy takes effect will be subject to the requirements of new forestry legislation, and permits and dealings that are inconsistent with this policy will be subject to renegotiation or termination as required’. This undertaking was embodied in Section 137 of the Act, which ‘saved’ all these permits and dealings as Timber Permits granted under the conditions set out in other parts of the legislation. Millett (1991) complained that Section 137 apparently gave the Board the right to change any condition of an existing agreement which was considered to be ‘at variance with the provisions of this Act to an extent which makes it unacceptable’, but apparently made no allowance for appeal against such a decision or delay in its enforcement. This proved to be one of the main bones of contention between Minister Neville and the log export industry.

When the Act was amended in April 1993, an additional clause was inserted in Section 137 which allowed the Board to grant existing operations a ‘grace period’ during which the provisions of the old legislation would continue to apply, but the length of this period was not specified. At the same time, Part J of the Guidelines (on ‘Review of Existing Forestry Projects’) proposed a mechanism for audits and field inspections of all such projects, which would still enable the National Forest Board to ‘unilaterally’ vary their terms and conditions to enforce compliance with the provisions of the new Act. Part J also noted that Logging and Marketing Agreements between permit-holders and contractors under the Forestry (Private Dealings) Act had not been ‘saved’ under Section 137, and contractors operating under such agreements would therefore need to obtain a licence under the new Act before they could continue logging. It was this part of the Guidelines, especially in its draft form, that aroused the ire of the FIA, which threatened...
that its members would take ‘legal action for compensation for expropriation under the Investment Promotion Act’ if the Board were to make full use of its powers under Section 137 (PNGFIA 1993:31). The main focus of their concern was the proposal to reduce the permitted levels of harvest in existing concessions.

Although the Minister was unwilling to beat a public retreat from his insistence on the process of review, the NFA’s legal advisers were not at all certain of their capacity to defend any legal actions arising from unilateral changes to existing agreements. Nor did forestry officials have the time and expertise to launch dozens of audits and field inspections in March 1994, when the review process was scheduled to begin. The only operation whose agreements were subjected to serious scrutiny that year was the Kapuluk project in West New Britain Province, and then only because a group of disaffected landowners were able to secure the assistance of consultants working for the donor-funded Kandrian-Gloucester Integrated Development Project, and because the Korean developers, Nam Yang, were prepared to accept a negotiated settlement entailing a substantial increase in landowner revenues (Simpson 1997:28).

Once Neville had been removed from the Forests Ministry, the senior reformers in the National Forest Service had other matters on their minds, and no further attempt was made to reassess the content of existing agreements until 1997, when the FIA’s campaign against the new revenue system prompted the World Bank to institute its own version of the project review process by engaging its own consultants to conduct an independent audit of material benefits provided by logging companies to local landowners under existing Timber Permits or Logging and Marketing Agreements, and an equally exhaustive survey of the production costs of all existing logging operations (see Section 8.7). Since then, the Bank has also thrown its weight behind the long-standing demand of local NGOs for gazetral of the Fairness of Transactions Act, which was approved by Parliament in 1993, and should have provided a more substantial legal basis for landowners to challenge the validity of existing agreements between landowner companies and logging contractors, which might explain why it has never been gazetted64.

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64 Oddly enough, this Act received the public endorsement of Daniel Tulapi, even at the same time that he was moving his own amendments to the Forestry Act (Post-Courier, 30 August 1993).
8.7 The forest revenue system

During the first fifteen years of national independence, the forest revenue system evolved in the rather haphazard manner which was typical of the forest policy process as a whole:

- Timber royalties were initially levied at the rate of K3.18 per cubic metre, this being raised to K3.95 per cubic metre in 1976, then to K5.41 per cubic metre in 1981.

- In the early years of Independence, these royalties were divided between the national government, the provincial government, and local landowners in the ratio 1:2:1, but the national government gave its own share back to the provincial governments in 1986, and later decided that the ‘resource owners’ should be entitled to the whole amount.

- In 1979, the government introduced a log export tax, which was levied at a flat rate of 10 per cent on f.o.b. prices for all species; the budget of November 1990 introduced differential tax rates on species ranked according to their market value.

- Local landowners (or rather landowner companies) were able to secure a variety of additional cash benefits from logging contractors in the form ‘levies’ or ‘premiums’ which varied widely between one project and another.

- Most permit holders (including landowner companies) agreed to spend some of their own revenues on the provision of ‘social infrastructure’ or other ‘benefits in kind’ within their concessions, some of which could be regarded as an indirect form of budgetary support to the government.

The TFAP Review criticised (and effectively stalled) the government’s proposal to revise the fiscal regime in the forestry sector in such a way that royalties would be charged as a fixed percentage of export value, because it carried ‘a potential political risk of exposing resource owners to the consequences of market instability, from which they are presently shielded’ (World Bank 1989:32). It was also critical of the use of royalty rate allowances and indirect infrastructural levies as the preferred method of compensating for variations in the average cost of production between different logging operations, since low-cost producers would probably still have the upper hand, and inefficient loggers might also be inefficient in the business of providing social infrastructure (ibid:33).
Under Part VI of the new Act (Sections 119-121), the government was committed to the establishment of a new ‘forest revenue system’, but no details were provided in the legislation. The Policy (PNGMOF 1991:40) promised an ‘early comprehensive study on State taxes, levies, royalties, charges, and obligations to be imposed on the forest industry, and minimum rentals and purchase prices due to resource owners’, and in the meantime undertook to maintain the existing method of calculating and distributing royalties, so that:

- ‘Resource owners will continue to receive all royalties collected from timber and other forest produce harvested from natural forests.’
- ‘The national and provincial governments shall continue to receive 25 per cent and 75 per cent, respectively, of royalties from timber and other forest produce harvested from State land.’

The Act allowed the Minister and Board a substantial measure of discretion in deciding the rate at which royalties and levies would be charged on individual projects, presumably so that the Act would not have to be amended in light of the revenue study promised in the Policy. Millett (1991) expressed the concerns of the private sector by complaining that this would cause ‘considerable investor uncertainty’ because it gave no guarantee of a level playing field, and because the allowance made in Section 121 for the NFA to meet its own costs out of levies charged on the industry might not be consistent with its stated aim of achieving ‘increased down-stream processing’.

Logging road creating large water pool, West New Britain. Many of the benefits that resource owners associate with large-scale logging, such as roads, often last only as long as the logging operation.
The NFCAP Forest Revenue Study, completed in 1991, found that the existing fiscal regime in the forestry sector was ‘reasonably efficient’, but it was ‘probably not fair, certainly not simple, and does not seem to encourage good forest management’ (Shedden Agribusiness 1991:viii). It went on to propose that:

- resource owners should receive a royalty payment of between K4 and K5 per cubic metre of all logs harvested;

- the government should tax the logging industry by a combination of ‘stumpage’ charges on all logs harvested, and an additional export tax on all logs exported, and thus encourage downstream processing by subjecting processors to the former, but not the latter, charge;

- stumpage charges should vary with the value of the species being harvested, while log export taxes should vary with the export price; and

- tax receipts should be credited to a Forest Revenue Stabilisation Fund which would first be used to cover the government’s own costs in regulating the industry, and any surplus then made available to Local Area Development Funds in each concession area.

The recommendations of the revenue study were subject to a certain amount of interdepartmental consultation during 1992, but came under heavy fire from the logging industry and landowner company representatives when a revised version was incorporated into the Draft Guidelines (see Box 8.11). As a result, the version approved by Cabinet in September 1993 proposed that the surplus stumpage should be paid to ‘a representative body appointed by landowners in each project area’, which might (but might not) turn out to be a landowner company.

In December 1993, Conrad Smith, in his capacity as Acting Managing Director of the NFA, published a full-page newspaper advertisement to show how landowners could expect to benefit from the new revenue system proposed in the Guidelines, which was due to be implemented in March 1994 (see Table 8.3). The log export industry’s opposition to this system was primarily based on its belief that the new ‘representative bodies’ would not be able to provide the same level of infrastructural benefits to local communities as those already provided by the logging companies under existing agreements, and on its claim that the NFA had underestimated the real costs of production, even after these benefits were discounted.
Box 8.11  Opposition to the new revenue system

The Draft Forestry Development Guidelines presented to the National Forest Board in May 1993 (PNGMOF 1993a) proposed payment of a set stumpage fee direct to individual landowner clans, plus an additional stumpage fee (essentially a share of the surplus on log sales) into a ‘project area development trust’. This trust was to be managed under government rules, with application of trust account funds confined to ‘economically sustainable enterprises - on a loan basis’ or ‘construction and maintenance of physical infrastructure - by way of conditional grants’. Given the high prices prevailing at the time, this proposal would have diverted a significant share of the proceeds of log sales away from logging companies and into the trust accounts.

Not surprisingly, the Forest Industries Association was highly critical of the proposal. Yet the strongest protests were voiced by the PNG Forest Resource Owners Association, a body whose membership comprised the directors and senior management of landowner companies. The FROA’s motives were as mixed as the conflicting allegiances of landowner companies. The revenue proposal made no provision for landowner companies, and severely restricted their capacity to continue to secure premiums from contractors, given the large rental share which was now due to go to the new trust accounts. FROA members also relayed the concern of landowners in general at having their money locked up in trusts. PNG experience suggests that money set aside for a common purpose is likely to be spent wastefully, if not misappropriated, by those entrusted with its management. Landowners had an understandable desire to see the money in their hands rather than in a remote trust account. FROA members were also inextricably linked with the logging companies. Not only were landowner companies dependent on logging companies for their income stream, but some also shared offices, fax numbers, and even bank accounts with them (Whimp 1995:16).

As much as anything else, feelings of indignation drove the FROA’s protests. Many landowner company principals saw themselves as enterprising proponents of self-help. Where the state had failed to deliver even basic social services to their respective areas, landowner company principals, in negotiating the logging agreements, had procured roads, cash incomes, and economic activity. Landowner company principals considered that they had justly earned their prominent positions through the role which they had played in brokering progress. They were outraged by the state’s complete failure to acknowledge their past efforts or current status. This emotion was compounded by the fear that the proposals would expose them as having bargained poorly on the landowners’ behalf. As Simpson (1997) observes, any public show of weakness or uncertainty on the part of landowner company directors would have opened the door to rival aspirants to their positions.

Source: Taylor 1997
The Forest Revenue Study had included an assessment of the range of variation in logging and hauling costs, based on a small stratified sample of operations in different parts of the country. The results of this exercise were later reviewed and summarised by consultants working on the Forest Management and Planning Project, and these calculations apparently formed the basis of the NFA’s decision to assess the average cost at K50/m³ (then roughly equivalent to US$50/m³) in 1993 (see Figure 8.3).

The FROA continued to oppose the new system, because its members could see that the NFA was unlikely to recognise most landowner companies as appropriate bodies to control the ‘additional stumpage account’ which would replace the levies and premiums which they were currently collecting (Whimp 1995:29). And the local processing industry could see that its own costs would be raised by the need to pay stumpage on locally purchased logs, thus losing the advantage which it derived from the avoidance of the log export tax (Ben Everts, 1996, personal communication).

In the face of all this opposition, Cabinet decided to defer its final approval of the new system pending further evaluation of its merits by a ministerial committee which failed to hold a single meeting throughout 1994. Instead,

<table>
<thead>
<tr>
<th>Income category</th>
<th>Current system</th>
<th>New system</th>
</tr>
</thead>
<tbody>
<tr>
<td>Log export price (Kina/m³)</td>
<td>150.00</td>
<td>150.00</td>
</tr>
<tr>
<td>Income to local landowners:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Royalties</td>
<td>13.00</td>
<td>49.62</td>
</tr>
<tr>
<td>Levies and premiums to LOC (after tax)</td>
<td>4.00</td>
<td>5.00</td>
</tr>
<tr>
<td>Additional stumpage to representative body</td>
<td>9.00</td>
<td>44.62</td>
</tr>
<tr>
<td>Provincial government levy:</td>
<td>0.50</td>
<td>1.00</td>
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<tr>
<td>Income to national government:</td>
<td>31.50</td>
<td>28.88</td>
</tr>
<tr>
<td>Log export tax</td>
<td>28.50</td>
<td></td>
</tr>
<tr>
<td>Income tax paid by LOC</td>
<td>3.00</td>
<td></td>
</tr>
<tr>
<td>Special withholding tax</td>
<td></td>
<td>14.88</td>
</tr>
<tr>
<td>Forest administration levy</td>
<td></td>
<td>14.00</td>
</tr>
<tr>
<td>Income to logging contractor:</td>
<td>105.00</td>
<td>70.50</td>
</tr>
<tr>
<td>Logging and hauling costs:</td>
<td>50.00</td>
<td>50.00</td>
</tr>
<tr>
<td>Operator’s profit:</td>
<td>55.00</td>
<td>20.50</td>
</tr>
<tr>
<td>Operator’s return on costs:</td>
<td>110%</td>
<td>41%</td>
</tr>
</tbody>
</table>

Figure 8.3 Estimated range of logging costs in PNG 1993

Source: PNG Forest Management and Planning Project
the government simply pursued the course which had been charted by the budget of November 1993, by once again raising the rates of export tax levied under the existing revenue system in the ‘mini-budget’ of March 1994 (see Figure 8.4).

Even so, the government’s failure to introduce a new revenue system, or even to raise the rate of taxes charged under the old system, before the end of 1993 seems to have created a substantial ‘windfall profit’ for the logging companies during 1993 and 1994, as average log export prices rose as high as US$170 per cubic metre. One economist (Duncan 1994) has estimated the size of this windfall profit to have been about K225 million - more than the sum of about K200 million which the government actually collected in log export taxes over the same period. Another economist (John Millett, 1996, personal communication) has estimated that the government would have made an extra K200 million in log export taxes over the four years from 1992 to 1995, if the new revenue system which was eventually introduced had already been in place during that time.

The World Bank was well aware of these losses when it negotiated the terms of PNG’s Economic Rescue Programme in 1995. It was also quite obvious, even to the Bank, that landowners had suffered a very substantial decline in their relative share of the timber resource rent because the royalty rate had been fixed in a period of rapidly rising log prices. The government was therefore told to introduce a new revenue system as one of the conditions attached to the first tranche of its structural adjustment loans.

The new system, approved by the Bank and proposed in the 1996 budget, differed substantially from the one which had been recommended by the Forest Revenue Study:

- there would be no system of ‘stumpage’ charges on all logs harvested, only a new method of calculating the log export tax;
- there was no provision to channel tax receipts through a Forest Revenue Stabilisation Fund in order to cover the operating costs of the NFA;
- resource owners were to receive a substantially higher royalty payment of K10 per cubic metre of all logs harvested (from which the national government would deduct a 5 per cent royalty withholding tax); and
- resource owners would also be entitled to the benefits of a ‘Project Development Levy’ (PDL), charged at a standard rate of K13 per cubic
Figure 8.4 Export tax rates under the old revenue system, 1979-1995

Note: The weighted average represents the effective subsidy to downstream processors.
Source: PNG Forest Authority
metre, but with some provision for this to be geared to the log export price.\footnote{The standard rate was to apply where prices ranged between K151 and K200 per cubic metre. If prices exceeded this range, an additional 7.5 percent of the export price would be added to the standard rate. If prices fell to K100, the PDL would only be K2 per cubic metre.} This last form of revenue was intended to replace the various levies and premiums already being paid to landowner companies, and to take account of all the landowner benefits provided by logging contractors under existing agreements, the value of which would be deducted from their liability to pay the new levy. The PDL was apparently also designed, in part, to satisfy Section 98 of the new \emph{Organic Law}, which states that the developers of natural resources which are not covered by existing agreements shall pay annual ‘development levies’ to the provincial and local-level governments of the province or area in which the development is situated, and that these are to be ‘controlled through a trust fund which shall be managed and administered in accordance with an Act of the Parliament’\footnote{According to Section 98, ‘development levies’ are to include ‘infrastructural development levies’, ‘economic development and land use follow-up levies’, ‘community and social development levies’, and ‘any other levies as are from time to time determined by national law or by agreement.’}. In this instance:

- 40 per cent of the PDL was to be distributed in cash to members of the local community, providing a mechanism which could be used to ‘compensate’ those landowners who were not currently having their trees cut down, or those who might never have their trees cut down because they occupied a designated conservation area; and

- 60 per cent would be allocated to Project Development Committees, which would include representatives of the NFA, the provincial government, and the holder of the Timber Permit, and which would spend these funds on the general ‘development’ of the project area.

In the case of new projects, these committees would also gain access to the reforestation levies previously paid to the national government.

The new export tax regime was considerably more ‘progressive’ than its predecessor, because the rate of tax was now to be tied directly to the export value of the logs, and so the government’s share of the economic rent would increase with the market price of the commodity. Table 8.4 shows how export tax rates are calculated under the new revenue system, while Figure 8.5 compares the levels of tax collected under the old system and the new system at different log export prices. Figure 8.6 incorporates the impact of the new system into a portrait of the changes which took place in
Figure 8.5 Comparison of export taxes under the old and new revenue systems

Note: Average log price in 1996 has been K175/m³, giving a weighted average tax rate of K56/m³ under the new system.

Source: PNG Forest Authority
At this stage, forestry officials were estimating that average logging costs fell within the range of K60-70/m$^3$, while industry representatives claimed that they fell within the range of K90-110/m$^3$, suggesting that the typical logging contractor had hardly made any profit at all over the previous three years.

### Table 8.4 Export tax rates under the new revenue system, 1996

<table>
<thead>
<tr>
<th>Price band</th>
<th>Tax rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to K90/m$^3$</td>
<td>15% of f.o.b. value</td>
</tr>
<tr>
<td>K91-110/m$^3$</td>
<td>K13.50 + 30% of amount above K90</td>
</tr>
<tr>
<td>K111-130/m$^3$</td>
<td>K19.50 + 50% of amount above K110</td>
</tr>
<tr>
<td>K131-150/m$^3$</td>
<td>K29.50 + 55% of amount above K130</td>
</tr>
<tr>
<td>K151-200/m$^3$</td>
<td>K40.50 + 60% of amount above K150</td>
</tr>
<tr>
<td>Over K200/m$^3$</td>
<td>K70.50 + 70% of amount above K200</td>
</tr>
</tbody>
</table>

Source: PNG Forest Authority

The overall distribution of log export values between different stakeholders and different forms of income over the period from 1988 to 1996.

Figure 8.6 shows the logging contractor’s residual share of log export revenues in both nominal and real prices, in order to take account of the fact that one kina could buy more in 1988 than it could in 1996, because of the effects of devaluation and inflation following the fiscal crisis of 1994. At a log export price of US$130 per cubic metre, which was close to prevailing market prices in 1994 and 1996, this figure shows that the new system had the immediate effect of reducing the logger’s share of log export revenues from 62 per cent to 55 per cent of the gross revenue (i.e. before subtracting assessed logging costs), while increasing the landowner’s share from about 5 per cent to about 12 per cent. The government’s share, which had been raised substantially by the ‘mini-budget’ of March 1994, had hardly been altered by the introduction of the new system.

This might perhaps explain why the government was willing enough to apply the graduated export tax as soon as it had been announced in the budget of November 1995, but wilted in the face of the usual pressure from the logging industry and landowner companies by failing to implement the landowner benefit component of the new system until the Bank stepped back into the breach. During the first half of 1996, the FIA mounted another publicity campaign against the new system, claiming that the industry could not afford the new level of landowner benefits because the government (or the World Bank) was still underestimating their costs of production by a substantial margin$^{67}$, and had failed to make allowance for the logger’s need to save some surplus for the rainy day when log export prices would surely fall below their current levels (Post-Courier 14 March 1996, 9 April 1996). Matters came to a head in July that year, when the

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$^{67}$ At this stage, forestry officials were estimating that average logging costs fell within the range of K60-70/m$^3$, while industry representatives claimed that they fell within the range of K90-110/m$^3$, suggesting that the typical logging contractor had hardly made any profit at all over the previous three years.
Figure 8.6 Distribution of PNG log export revenues, 1988-1996 (% shares)

Note: the '93-94' column shows the distribution of log export revenues between the budget of November 1993 and the mini-budget of 1994. The adjoining columns show the distribution during the remaining months of the year.

Source: PNG Forest Authority
government finally gazetted the new royalty rates and the PDL. The FIA advised its members to refuse to make the extra royalty payments (*Post-Courier*, 12 July 1996), but the FROA was now split on this issue (*Post-Courier*, 25 July 1996), and the Bank called the industry’s bluff by holding up the second tranche of the structural adjustment loans until the government had agreed to collect the outstanding amounts at the same time that it reversed its ‘unacceptable’ amendments to the *Forestry Act* (*Post-Courier*, 4 October 1996).

The bluff worked, the loggers coughed up, but they did not stop complaining about the Bank’s intention to drive them out of business. The FIA sought to retrieve the wavering hearts and minds of the ‘landowners’ by commissioning a series of cartoons which (somewhat ironically) trumpeted the level of benefits which they were now receiving from the industry. But the tone of its publicity became increasing hysterical in 1997, as log export prices continued their downward slide, finally sinking below US$100 per cubic metre by the end of that year. Amongst the new concerns raised during the course of this campaign were:

- the government’s intention to introduce a Value Added Tax in 1998, as yet another step in its programme of Structural Adjustment, which would almost certainly add to the industry’s overall costs;\(^6\)

- the prospect of what the FIA calls a ‘processing tax’, which is part of the same programme, and which introduces a new version of the ‘level playing field’ by forcing the local processing industry to pay world market prices for its logs; and

- the NFA’s refusal or inability to disburse some K7 million previously collected in the form of reforestation levies, and an equivalent amount which was formerly due to provincial governments as their 25 per cent share of royalties, but which should now be transferred to resource owners (Jim Belford, 1997, personal communication).

On this last point at least, the industry might have hoped to receive some sympathy from the World Bank, which had its own reasons to doubt whether forestry officials were properly discharging their own duties under the new revenue system.

Meanwhile, the Bank’s own consultants were travelling the countryside in

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\(^6\) The FIA estimated an increase as high as 5 per cent, but the Internal Revenue Commission maintained that it would not amount to more than 1.3 per cent. The truth has yet to be determined, because the new tax has been deferred to 1999.
Box 8.12  The FIA’s vision of landowner benefits

Source: Post-Courier, 1 November, 1996
Source: Post-Courier, 8 November, 1996
their endeavour to assess the actual value of the ‘landowner benefits’ already being distributed by the logging companies, in order to determine the level of rebate which they could henceforth claim from the PDL, and to measure the variation in their actual costs of production, in order to settle the long-standing argument on this sore point. The provisional results of both studies were announced in February 1998.

- The first found that 18 out of 49 operational projects had not delivered all the benefits promised in agreements between the contractors and the landowners, but that the overall level of compliance was fairly high, and that the total value of these benefits amounted to K30 million out of a notional liability of K39 million in PDL over the period of 16 months following gazettal of the new revenue system.

- The second found that logging costs (excluding taxes, royalties and other landowner benefits) ranged between US$45 and US$70 per cubic metre, that the average cost was higher (in US dollar terms) than had been estimated in 1993, that the total cost of production (including taxes, royalties, etc.) in some high-cost operations was as high as US$140 per cubic metre, and that the range of variation was such that export tax rates would have to vary between 13 per cent and 58 per cent of export prices in order to achieve the same normal rate of profit in each concession.

Although the FIA seems to have regarded these findings as a partial vindication of its own claims, the Bank has not yet shown much inclination to vary the revenue system in favour of the industry, despite the claims of an impending ‘sell-out’ by Greenpeace and ICRAF. If any concessions are to be made, they will most likely involve an interim reduction in log export tax by 15-20 per cent (if the Department of Treasury can be persuaded to accept this loss of revenue), and an agreement to waive the retrospective application of the PDL (because the NFA has been advised that this might be illegal).

It is interesting to ask, at this juncture, whether the Bank’s determination to secure implementation of the new revenue system has been motivated by a belief that this is the best (and perhaps the only) way to achieve the ‘slow-down’ which Barnett had recommended in 1989, or whether it is motivated by considerations of equity and efficiency which may or may not be consistent with a move towards ‘sustainability’. Although the policy reformers have applauded the Bank’s apparent concern to raise the share of resource rent which ends up in the pockets of local landowners, they have generally failed to comment on the possibility that such an increase in
Box 8.13 A sample of the FIA press campaign against the new revenue system

Papua New Guinea
Forest Industries Association (Inc)
P.O. Box 4037, BOROKO.
Phone: 325 9458, Fax: 325 9563

SITUATION REPORT ON FOREST INDUSTRY

LOG MARKET ? DOWN ! (1997 Average US $120,
1993 Average US $167)

LOG EXPORT TAX ? UP ! (Rate has increased 350% 
since 1990)

ROYALTY ? UP ! (Increased 100% in 1996)

LAND OWNER COMPANY PAYMENTS ? - STEADY

OPERATION COST ? UP ! (70% Increase in Capital 
Equipment Cost since 1992)

OTHER CHARGES ? WHO KNOWS ?
(VAT, PDL, Processing Tax, etc, etc.)

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The Resource base is sustainable - what about conditions which enable investments to be sustainable ?
Collapse of the Forest Sector will mean no Royalty, Landowner payments or Export Tax.
Government needs to support and assist investment in the Forest Sector if it is to survive.

Authorised by: Executive Committee, F.I.A.

Source: National, 19 September 1997
Box 8.14 Selling in and selling out - recent shots in the newspaper war

1. Text of Greenpeace/ICRAF advert (from Post Courier, 4 March 1998):

HONOURABLE MEMBERS OF NATIONAL PARLIAMENT
WE ARE ABOUT TO BE SOLD-OUT BY THE LOGGERS,
THE WORLD BANK AND THE FOREST AUTHORITY
Selling out our children
The World Bank and the Forest Authority are currently in secret negotiations with the loggers to devise an industry rescue package that involves:
• the lowering of export tax from the current 30% to 0%
• relaxing species that can be exported as logs
• giving exemptions on royalties and Project Development Levies

Selling out the landholders
The PNG Forest Authority this month confirmed K39 million was owing to landholders in Project Development Levies, back-dated to July 1996. But these levies would not be paid to landholders. The World Bank and the Forest Authority have given in to the logger’s propaganda, and will only pay out K9 million. K30 million of the levy will go to the loggers, as a credit for infrastructure and premiums. This is illegal. Premiums are not paid to landholders, but to landowning companies through logging and marketing agreements; infrastructure is between the PNGFA and the loggers in the Project Agreements.

World Bank consultants confirmed that K2 million each month disappears in the log export prices to Japan. The NGOs reported this last year. PNG loses K24 million a year to the Japanese. The consultants cannot say where the money goes. This is because the Japanese Government protects its timber importers and will not release importation documentation.

2. Text of PNG Forest Authority advert (from The Independent, 13 March 1998):

THE FACTS OF THE FALSE AND SENSATIONALIST MEDIA CLAIMS BY GREENPEACE AND ICRAF REGARDING THE FOREST INDUSTRY

The Forest Authority has never had any ‘secret’ negotiations with anyone regarding a forest industry rescue package – including the World Bank and the FIA.
• There never has been any proposal to drop the log export tax to zero.
• There is no intention to relax the species that can be exported as logs.
• There will be no exemptions granted on any Royalties or Levies.

The Forest Authority’s role is to protect the interests of the landowners and the State. No-one is about to be ‘sold out’!

The Forest Authority recently held a major seminar to explain and discuss the findings of three major consultancy studies regarding the forest industry. Over 70 representatives from NGOs, Government departments, research organisations, provincial governments, the FIA and donor organisations attended. This included ICRAF/Greenpeace representatives! The facts presented at the seminar compared to the interpretations taken by the ICRAF/Greenpeace people demonstrate that ‘there are none so blind as those that will not see’.
To set matters straight:
• The Project Development Levy (PDL) was gazetted in July 1996 to ensure that a minimum level of landowner benefits are provided at all timber projects.

• For all new projects, PDL was to be paid immediately from gazetted date.

• For existing projects, an assessment was to be made to make sure that loggers are not double charged for payments and other benefits to landowners that are already being provided according to existing legally binding contracts.

• PDL was to apply from gazetted date for existing projects, but no payments were required to be made until the allowances for each project were assessed.

• An independent Audit Study of Landowner Benefits is almost completed. Where companies are providing assessed benefits less than the PDL requirement, then they will be required to pay the difference on each shipment of logs exported.

• The consultants’ assessment of PDL shortfall payments between July 1996 and December 1997 was about K9 million. This compares to an assessed K30 million which was provided as landowner benefits over the same period – in addition to royalties.

• It is acknowledged that there are major problems with the representativeness and accountability of landowner companies. That is why properly representative bodies are required for all new forestry projects. Unfortunately there is little that can be done to change the legally binding contracts of existing projects.

• The legality of back-dating PDL payments is being challenged and the Government are currently working to resolve this issue.

• The difference between the PNG export log prices and Japan import prices can largely be explained due to freight, insurance and exchange rate costs. However, the consultants have identified that there is an amount of about US$14 per cubic metre difference which they cannot explain. This is currently being looked into.

Signed: Gabriel Samol, Deputy Chairman, National Forest Board.

landowner revenues will provide an additional financial incentive for landowners to applaud the unsustainable exploitation of their own forest resources. The proposed absorption of the reforestation levy into the PDL may likewise be seen as a way of discouraging the local pursuit of sustainability (Gerald Ward, 1997, personal communication), even if the NFA has not previously found a good use for it. The reformers have tried to square this particular circle by suggesting that landowners have not previously possessed the knowledge, or perhaps even the power, to make a ‘rational’ response to market signals (see Brunton 1996), but it is not at all clear whether other stakeholders have now developed the capacity to convince landowners that the short-term financial gains from large-scale logging carry a long-term price which ought not to be paid by future generations or the global community (see Filer 1997b).
Given:
- the wide variation in the quality of commercial timber resources between different concessions, as reflected in average export prices; 
- the separate variation in costs of production between these same concessions, as revealed in the latest study; 
- the tendency for the ‘productivity’ of each logging project to decline during the course of its operational life; and 
- the low levels of operational efficiency which are typical of the log export industry as a whole, as reflected in the number of days lost to production each year;

it is hard to see how any revenue system could extract the maximum share of resource rent from each individual project that would be consistent with the purpose of encouraging each operator to invest in more efficient and sustainable extraction - and keep the cost of administering this system at anything like a reasonable level.

Some commentators have thus been led to propose a radical revision of the revenue system, which would remove the need for government (or donors) to continually measure the financial parameters of the log export industry, and remove the temptation for politicians and officials to bend the financial rules in favour of specific operators. For example, Duncan (1994) has proposed a system based on the auctioning of Timber Permits, while the World Bank’s latest team of consultants have toyed with a system of Individually Transferable Quotas, of the kind which has been developed in the taxation of fishing operations in some parts of the world, where the items for auction would be the rights to export batches of logs (Rohan Nelson, 1997, personal communication). These innovations are intended to create a situation in which the operators ‘bid away’ the resource rent in their competition for access to the resource. But they seem to be based on a series of unrealistic assumptions about the transparency of market mechanisms in a context where logging companies and resource owners alike are embroiled in a thoroughly opaque set of property relations.

8.8 The downstream processing debate

The one issue on which the World Bank has been consistently at odds with the majority of national stakeholders in the forest policy process, from the most outrageously hypocritical politicians to the most radical members of

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69 The NFA’s own database showed that logs exported from the Rotrock Bay project during 1995 secured an average of US$205/m³, while logs exported from the Gar project (in the same province) secured an average of only US$89/m³.
the NGO community, has been the question of whether the logging industry would be a better industry if logs were not exported but converted into other products by the ‘downstream’ segment of the forest industry. However, Barnett’s vision of ‘integrated onshore processing complexes where waste is reduced to a minimum’ concealed a division of opinion within the protectionist camp, between those whose main aim has been to add more value to the logs, as part of a strategy for national economic growth, and those whose main aim has been to conserve the value of the natural forest, by imposing additional economic penalties on all forms of large-scale logging.

The TFAP Review was highly critical of the raft of measures announced by Minister Stack in 1989 as part of his own attempt to promote import substitution and downstream processing (World Bank 1989:44-5). These measures (as well as a proposed log export ban) were criticised for their failure to recognise the uncompetitive nature of the processing sector, itself due to high labour, energy and transport costs, low productivity, an unstable policy environment, imperfect market knowledge, and lack of trained personnel (ibid:45-6).

If local industry can compete in the market for the final product only because it pays less than the full (world market) price for the raw material, the government is merely redistributing income from resource owners to the local resource-processing industry..... If the objective of a log export ban is to slow down the rate of forest extraction, the same objective is better achieved .... not through an export ban but a production ban... (ibid:46)

One inefficient policy (excessively profitable log exports) combined with another inefficient practice (unprofitable processing) usually add up to two inefficiencies rather than one cancelling out the resource allocation distortions caused by the other (ibid:47).

The conclusion drawn from these arguments was that the best way to maximise national income from the forestry sector - assuming that this was the main aim of government policy - was to exercise greater control over the log exporters, and otherwise leave them to get on with their business.

But why assume that this should be the main aim of government policy? In his own critique of the Bank’s report, Brunton argued that

[1]The reason why PNG needs to stop exporting logs is not because it could earn more money by selling processed timber. PNG must stop exporting logs because logging is out of control, because the environment is in jeopardy,
because there is no sustained yield management, because we cannot trust the logging companies, because we cannot control traditional landowners, because the present forest bureaucracy is institutionally weak and there are very few controls in effect over timber companies (Brunton 1990:7).

Yet these were certainly not the reasons why Minister Stack surprised the NGOs at the TFAP Round Table by announcing the blanket moratorium on new log export licences.

The National Forest Policy was equivocal on this subject. It proposed to encourage the domestic processing of timber ‘wherever this is economically and financially viable’ (PNGMOF 1991:30), primarily by imposing relevant conditions in the allocation or renewal of timber permits. Raw log exports were to be prohibited ‘in cases where forest resources in the vicinity of current or prospective local markets are limited’ (ibid:36), and a combination of export and import controls would be designed to expand the domestic market for processed timber (ibid:38-39). The NFCAP project known as Forest Industry Development Studies, on which Conrad Smith was engaged as the main consultant in 1992, supplied the elaboration of these policy statements which was incorporated into the Guidelines of 1993.

Part F of the 1993 Guidelines (on ‘Forest Industrial Development’) undertook ‘to effect further successive reductions in the volume of logs which may be exported nationally so far as is necessary to achieve development of a domestic based processing industry’, and implied that raw log exports would be phased out completely over a period of five years. The government would seek to:

- ‘disperse forest industrial development throughout the nation as widely as is economically feasible’;
- ensure that such development only takes place ‘where it can be sustained with a constant supply of raw material in perpetuity’;
- encourage the participation of incorporated land groups in the process of industrial development; and
- promote the establishment of a private sector transport and marketing system to develop the domestic market for raw logs and intermediate products and export markets for intermediate and final products.

To achieve these goals, the government would grant the domestic processing industry the right of first refusal on all raw logs destined for export (at current export prices), and would provide some additional fiscal incentives, but it was claimed that the processing industry would still need to be ‘internationally competitive and not reliant on subsidisation’ (PNGMOF 1993b:16-17).
One of the FIA’s strongest objections to the Guidelines was that the proposal to phase out log exports would violate the terms of existing timber permits (see section 8.6). The FIA also considered that:

- the government’s desire to disperse processing operations made little economic sense;
- the NFA could not do much to engineer substantial reforms to the national transport system; and
- the ‘right of first refusal’ would seriously distort the operation of existing market mechanisms.

Nevertheless, Minister Neville steamed ahead with his demand for logging companies to submit proposals for downstream processing by the end of July 1994, or else risk the penalty of losing their ‘existing raw log export privileges’ (*Post-Courier*, 3 February 1994).

The Minister’s stance softened slightly in March 1994, when he announced that log export volumes would be reduced by 10 per cent a year from 1995, and that operators who failed to submit their feasibility studies by the end of July would only lose their entitlement to new export permits. This was
the point at which ‘Timber Supply Areas’ (see section 8.1) were wheeled out as one of a series of positive incentives which also included:

- the insertion of ‘recovery factor allowances’ into the new revenue system;
- the grant of compulsory purchase rights and coastal trading licences to allow processing facilities to secure their domestic log supplies;
- duty exemptions on the import of equipment and building materials required for construction of an approved processing plant;
- exemption from export tax on any processed product derived from such facilities for a minimum period of five years; and
- reduction of log export taxes on operators who have commissioned one third of the capital investment in those facilities which have a capital cost of more than K75 per cubic metre of installed capacity (Dolman 1995).

These messages were not lost on the logging companies. As early as February 1993, Rimbunan Hijau had announced a grandiose plan for the construction of processing facilities in several parts of the country, including one enormous complex in the national capital (see Box 8.15). By the time that Neville’s deadline expired, the other major companies had all produced their own ‘major investment proposals’, and Turama Forest Industries was already using its own proposal as leverage for its campaign to secure the first Timber Permits to be issued under the new Act (see section 8.5). Yet none of these facilities has ever been constructed, even though TFI has assembled most of the ingredients as part of the price paid for its success.

The evaporation of these undertakings was mainly due to the resurgence of the World Bank’s economic orthodoxies in the national policy process following the departure of Minister Neville and his key adviser, Conrad Smith, in August 1994. This change in direction was reflected in the NFCAP Review completed at the end of that year. This study noted the apparent contradiction between a revenue system designed to maximise national rental incomes from raw log exports and a policy commitment to downstream processing which would have the effect of reducing these incomes, and which might still not generate a sufficient increase in formal sector employment to compensate for this loss (Taylor et al. 1994:35). While domestic sawmillers sometimes had trouble in securing their raw materials because nearby areas had been allocated for log exports, their problems partly reflected their own unwillingness to pay the export price for logs. And where logging companies had been obliged to process part of their harvest under the conditions of their timber permits, they had sometimes met this obligation by processing poor quality logs and leaving the sawn
Box 8.15 Rimbunan Hijau committed to downstream processing?

Setting up of plywood and veneer plants in strategic areas of the country is one of the long term commitments of Rimbunan Hijau. In February this year, the company’s chairman, Datuk Tiong Hiew King announced in Port Moresby that Rimbunan Hijau will build a K150 million integrated wood processing complex near Port Moresby. The complex will process plywood, veneer, sawn timber and associated wood products. Datuk Tiong said the complex was in line with the PNG government’s policy on downstream processing.

‘We have full confidence in the future development of this country and are encouraged by the cooperation given to us by officials and community leaders. Our meetings with Government leaders have also motivated us to take a long term view of our presence and commitment to PNG,’ Datuk Tiong said.

At full production, the complex would produce about 500,000 cubic meters of timber and related products a year. It is expected to provide jobs to thousands of Papua New Guineans and bring in hundreds of millions [of] kina in foreign exchange a year. These figures, Datuk Tiong said, were based on the company’s operations in Malaysia and elsewhere. Datuk Tiong said the investment would increase the value added on export of PNG timber.

‘We are confident of transferring our technology to PNG and training more skilled nationals in the timber industry. We finally believe that with full encouragement of the Government and proper forest policy, PNG’s timber has a bright future.’

Meanwhile, RH executive officer George Yong said that they are now in the final state of negotiation with landowners to acquire the land for the multi-million kina veneer and plywood factory. ‘As soon as this is completed, RH will start putting up the complex’, Mr Yong said. He said that they are committed to do more downstream processing if bigger resource areas were allocated to them so that they could set up more allocated veneer and plywood plants in PNG. The company plans to put up these plants in the Western Provinces, Momase, and New Guinea Islands.

Source: RH ‘Fourth Anniversary Supplement’ in the Post-Courier, 18 August 1993

timber to rot. Conrad Smith’s ‘TSA concept’ had been designed to secure the long-term supply of raw material for the processing industry, while reducing the concentration of capital in the logging industry, but ‘it is not clear that an inefficient processing sector, no matter how diffused its ownership, would be better for the economy than an efficient log export industry with concentrated ownership’ (ibid:37). The Review therefore proposed that the NFA should promote small-scale processing for domestic and niche export markets, and that the permitted volume of raw log exports should represent the difference between the total allowable cut and the volume of logs required by the small-scale processing sector.

In practice, those companies processing timber for the domestic market have continued to receive a certain amount of protection from the government. Those based in the national capital have had the benefit of a 1993 Cabinet decision to create a Domestic Supply Zone, with a radius of
100 kilometres, from which raw log exports are (theoretically) banned. And all of them have had the benefit of a new revenue system which has (so far) enabled them to purchase logs at prices which exclude the export tax, even if this has caused them to complain about the problem of supply. This has resulted in a form of competition between different sections of the forest industry that is perfectly exemplified by the long-standing argument over the definition of a ‘flitch’. This particular argument initially arose from the government’s decision to ban the export of certain high-value species, such as rosewood or ebony, in ‘unprocessed’ form, thus causing the exporters to look for ways of defining the minimum amount of ‘processing’ which would pass muster with the customs authorities (see Filer 1991b), but the flitch-makers would not have the incentive to export their product if they could get a better price in the domestic market (see Box 8.16). In the name of greater transparency, the Bank has therefore been urging the government to force local processors to pay the world market price for their raw

Box 8.16 Who cares about the definition of a ‘flitch’?

Pressure from furniture manufacturers for the Government to ban the export of flitches has been exerted many times in the past. It probably arises every time a furniture manufacturer is short of logs and sees wood of a species suitable for furniture manufacture being exported as large cross-section roughly sawn flitches.

A move to formally ban flitch exports was made by then Minister for Forests Karl Stack in 1990. A copy of the circular issued to all log exporters ... includes a written definition of a flitch plus a diagram. The circular makes reference to an earlier definition issued by the then Forest Industries Council in 1989 indicating that an effort to ban the export of flitches was also made at that time.

What we are actually seeing is market forces at work. In essence the landowners are choosing to sell their logs to the flitch manufacturers rather than to the furniture makers, as the flitch manufacturers are offering them a better price. We cannot blame the landowners for this. The question then arises, of whether it is fair for the Government (through the PNG Forest Authority) to bow to furniture maker pressure and to ban flitch exports so that their log supply is better protected.

It appears that the call for the ban on the export of flitches is coming from Port Moresby based furniture manufacturers. The NEC has already established a 100 km radius zone around Port Moresby from which log exports are not permitted. Whilst it appears possible (through NEC decision or regulation) to also ban the export of semi-finished products (e.g. flitches) from this zone, there would still need to be shipment by shipment inspection to ensure compliance with the restriction.

It is the view of the writer that the State should not give in to pressure from the furniture manufacturers to protect their log supplies through regulatory intervention. If this view is accepted then a definition of a flitch is not required.

Source: Everts 1996b
material, through the imposition of an ‘output’ or ‘processing’ tax equivalent to the log export tax, before it creates any fresh incentives to expand their business.

In order to be seen to represent the interests of all its members, and because it regards the World Bank as the deadliest of enemies, the FIA has never seen fit to complain against any kind of subsidy which the government wishes to provide to any section of the industry. Nevertheless, in December 1995, one local sawmiller (Vudal Timbers) went public with its view that the FIA’s campaign against the new revenue system had failed to draw the correct inference from the decline in log prices and the parallel rise in sawn timber prices, which should have been ‘to concentrate on assisting and promoting downstream processing instead of supporting and defending the unscrupulous operators [who were] raping our natural resources at the expense of our successors (Independent, 9 December 1995).’ The FIA President reminded Vudal Timbers that his organisation was actively campaigning against the introduction of the ‘processing tax’ (Post-Courier, 22 December 1995), but this did not prevent the company’s managers from reiterating the ‘frustrations of having [a] continuous stream of large, fully loaded jinkers, going practically past our logless, empty sawmill, [all] year and being treated almost like a beggar when it comes to trying to secure resources for processing’ (Post-Courier, 29 December 1995). Mindful of such complaints, the FIA later requested the Forests Minister to enforce the prohibition on raw log exports from the Domestic Supply Zone, when it appeared that this was being ignored (Post-Courier, 8 October 1996).

However, the Association denies that there is any systematic conflict of interest between exporters and processors, because the main exporters of processed timber are the big logging companies themselves (Jim Belford, 1997, personal communication). And it holds the World Bank responsible for the reams of red tape which are supposed to have obstructed the development of new processing facilities by these same companies, because the Bank’s obsession with a ‘transparent’ revenue system has done nothing to address the problems of resource security and government support (Post-Courier, 29 August 1997).

Since government ministers have never ceased to proclaim their own support for more downstream processing at every available opportunity, the Bank and the ITTO both commissioned another round of studies on this subject in 1997. In the Bank’s case, this was combined with the study of logging costs and other features of the revenue system, in the expectation that this would facilitate some kind of consensus on the relative costs and benefits of raw log exports and processing for both the domestic and export markets. The provisional results of this study indicate that prices for sawn
timber and plywood in the domestic market (as previously pointed out by Vudal Timbers) are so much higher than those in Indonesia or Malaysia that tariff barriers are the only thing preventing the local industry from being wiped out by overseas competition (which Vudal Timbers might not like to face). For example, sawn timber purchased in the national capital costs about US$450 per cubic metre, but would cost less than US$300 per cubic metre if it were imported from Malaysian sawmills duty-free (John Keating, 1998, personal communication). If local processors were obliged to pay world market prices for their raw material, this differential would presumably be even greater. The same factors which raise the price of locally processed products in the domestic market - such as the diversity of species in the natural forest, the low skill composition of the workforce, and the very high cost of transport and other utilities - clearly reduce PNG’s comparative advantage in overseas markets for tropical plywood or sawn timber, which are currently contracting in any case. The disadvantage will remain unless or until regional competitors run out of raw material from their own countries, as has already happened in the Philippines, and is now happening in parts of Indonesia. But these examples only seem to prove that a processing industry supported by a log export ban tends to accelerate the depletion of natural forest resources (Dauvergne 1996). The Bank’s consultants have therefore concluded that the only way for PNG’s processing industry to make further inroads into the world market is by means of very substantial capital investment in new technologies which can manufacture specialised products from those particular species which happen to be abundant in some parts of the country (Evan Shield, 1998, personal communication). Yet there is little prospect of the government creating the conditions which would be sufficient to attract this kind of investment.

8.9 Control of transfer pricing

The Barnett Inquiry made a number of detailed recommendations regarding the control of transfer pricing, which included

abandonment of the minimum export price system; creation of an effective commercially-orientated state marketing agency; prohibition of third country invoicing without specific approval and production of all letters of credit; making the production of authenticated destination end-documents mandatory as an agreed condition of the permit, so Papua New Guinea export documents and declared prices can be compared with end-buyer prices for each shipment, and establishment of government-to-government relationships with importing countries to this end (Barnett 1992:106-7).
The National Forest Policy (PNGMOF 1991:37) aimed to minimise the incidence of transfer pricing in the log export trade through the exercise of the State Purchase Option by a State Marketing Agency within the new Forest Authority. Under Part V of the new Act (Sections 115-118), the State Marketing Agency had the right to ‘purchase compulsorily at the market price from the holder of the timber permit up to 25 per cent of the amount of logs which the holder of the timber permit is permitted to export in any one year’, but no other provisions were made for the ‘control or prevention of transfer pricing’ except those already contained in the Income Tax Act ‘or as are prescribed’. This last verbal gesture may have been a response to Barnett’s expression of disappointment with the first draft of the Bill, in which he found that ‘few of the proposals recommended by the Commission of Inquiry to reduce the level of transfer pricing appear to have been accepted’ (Barnett 1992:117). When the Act was amended in 1993, the State Purchase Option was retained, but the NFA lost the function of appointing and supervising the State Marketing Agency, which had not actually been established.

Although the 1993 Guidelines were silent on this subject, moves were already being made to engage a private company to undertake the surveillance role which the Act had assigned to the State Marketing Agency. In May 1994, the government signed a contract worth K5 million with a Swiss company, the appropriately named ‘Society for General Surveillance’ (SGS). While the FROA, acting in its usual role as the mouthpiece of the logging companies, had declared that ‘the money spent on SGS should be awarded to us to enable us to hire consultants who can do the job just like SGS does’ (Post-Courier, 22 February 1994), the FIA’s Executive Officer welcomed the new deal:

"We are relieved that we will not have to continue to operate under a situation where any person or organisation can make unfounded criticisms of the industry as a whole about imagined widespread transfer pricing (Post-Courier, 25 May 1994)."

Minister Neville formally launched the SGS work programme in July that year, but work did not begin until February 1995 because the government could not find the money to pay the contractors, and the European Union eventually had to divert K3 million from the country’s Stabex allocation to pay for the first two years of the programme (Post-Courier, 31 March 1995). This seems to have been a reasonably sound investment. An extra K2 million in log export taxes was reportedly collected in the first six months of the company’s monitoring operations (Times of PNG, 19 August 1995). By the end of 1997, SGS had ninety national and five expatriate staff making...
random checks of log shipments from every concession in the country, and its contract had been extended to the end of 1999.

A recent comparison of PNG’s log export prices and the import prices reportedly paid by Japanese buyers still reveals an average difference of US$54 per cubic metre, which greatly exceeds the US$14 per cubic metre which is thought to represent the average cost of freight and insurance (Rohan Nelson, 1998, personal communication). Although this suggests that there is still a transfer of economic rent from the logging companies to the Japanese trading companies which may be worth as much as US$2 million a month, the recent audits of logging company accounts have found very little evidence of the standard transfer pricing practices which featured so heavily in the findings of the Barnett Inquiry, and the NFA’s occasional exercise of the State Purchase Option does seem to have ensured that current export prices are the best on offer. The remaining discrepancy would therefore seem to be due to the oligopolistic structure of the Japanese market (Dauvergne 1996), over which the State of PNG has no control.

Box 8.17 Outsourcing the control of transfer pricing

The combination of record high log prices and relatively ineffective monitoring from a forest service which is in a state of major change, has provided an opportunity for companies to under-record log value and volume. These were the major concerns exposed through the Commission of Inquiry. As it will take time before the Authority can adequately inspect and monitor log exports, a contract for independent log monitoring and border surveillance has been obtained, and this will provide for:

- inspection of all logs during preparation and loading;
- establishment of a resource management system that will deliver a comprehensive data base of the industry with world-wide market information;
- commercial exposure and training for future inspection and monitoring staff of the Authority;
- design of improved export procedures;
- a transparent audit trail to facilitate accurate monitoring and reporting.

This service will cost in the order of K2.5 (US$2.5) per cubic metre. For this price, PNG will be guaranteed to receive the full and appropriate share of forest revenues due. All exports will be correctly identified and the full duties paid by the logging contractors. The increase to export revenue will more than cover the cost of the programme. Additionally it is hoped that this programme will remove the spectre of distrust between government and industry by exposing the true extent of malfeasance and transfer pricing, and in so doing will clear the way for positive collaboration in the future.

Source: Dolman 1995
Even assuming the existence of a new legal and institutional framework in the forestry sector, the TFAP Review found that the development of management capacity would be ‘the most important single challenge facing the sector’, and one which would require ‘considerable external assistance’ (World Bank 1989:vii). That study found that the number of government staff directly engaged in the supervision of logging operations had declined by 22 per cent between 1973 and 1987, despite the massive increase in the level of harvest (ibid:63). Although the new resource allocation procedures require the logging companies to spend a lot more time and money on their promises of good performance (see section 8.5), the Policy and the Act had very little to say about the means by which the government would ensure that these promises were kept.

Most of the logging projects established under the old regime had not even been obliged to produce Environmental Plans before the commencement of their operations (Nadarajah 1993). Early in 1992, the Minister for Environment and Conservation announced that he would close all operations for which a plan had not been submitted by the end of April that year (Times of PNG, 16 January 1992), but no action was immediately taken against the forty companies which apparently failed to meet the deadline (Times of PNG, 26 March 1992). The new Minister, Parry Zeipi, continued to utter occasional threats against the defaulters (Post-Courier, 25 June 1993), but it was later reported that he had been granting some of them ‘exemption notices’ instead (Times of PNG, 10 February 1994). In December 1993, his Department published a new set of guidelines for Environmental Plans covering commercial forestry operations, as had been envisaged by the National Forest Policy (PNGMOF 1991:8), but these do not seem to have improved the quality of the plans actually being submitted (Louman 1997). Nor was any substantial improvement made in the Department’s capacity to monitor and enforce the companies’ compliance. On the one occasion when DEC officials came close to prosecuting an offender, Minister Zeipi ordered them to drop the case because the Department had not been monitoring the company’s performance for the past four years (due to lack of funds), had not warned them of possible legal action, and really ‘should encourage investors’ (Post-Courier, 9 and 10 March, 1995). In practice, therefore, bureaucratic control over large-scale logging operations has fallen almost entirely to the lot of forestry officials.

Part D of Minister Neville’s Guidelines (on ‘Management for Sustained Production’) contained a number of statements about the way in which the
Forest Authority would seek to monitor and enforce compliance with the
management conditions set out in each Forest Management Agreement.
The FMA itself was regarded as ‘the means by which the Authority can
secure a commitment from landowners to accept and foster recommended
forest management practices aimed at achieving production on a sustained
yield basis’, and in those cases where the FMA gave the NFA (rather than
the landowners) the responsibility for achieving sustainability, the NFA
would normally contract these activities to the permit-holder, whose own
incentive to achieve this goal would be enhanced by granting Timber
Permits on the same ‘evergreen’ basis as the FMAs to which they were
connected - ‘e.g. an initial term of 50 years with provision for extension by
agreement for a further ten years every ten years’ (PNGMOF 1993b:12). At
the same time, the NFA would use a system of ‘harvest authorisations’ as
the main instrument for routine control of the permit-holder’s harvesting
activities, so that developers would have to demonstrate their compliance
with certain standards of practice in one logging coupe before being
allowed to proceed to another (ibid:13).

But the real problem was to make sure that operators complied with
conditions attached to those permits which had been ‘saved’ under the new
Act, most of which had only a few years to run. During Neville’s period in
office, some provincial forestry officials evidently did feel that they had a
new mandate to crack down on corporate misbehaviour (Nen 1997; Sagir
1997), and their capacity to do so should have been enhanced by the
substantial upgrade of their field offices and vehicle fleet which began in
May 1994. But new technologies could not compensate for the fact that
‘current timber permits, logging agreements, environmental plans, and
forest working plans contain piecemeal, and often contradictory, controls
on logging [which have] resulted in excessive canopy removal, damage to
residual trees, soil erosion, and siltation of rivers and reefs’ (Taylor

It so happened that Neville’s departure from the Forests Ministry in August
1994 coincided with the start of a campaign by the World Bank and the
Australian government to persuade all the Pacific island nations to
subscribe to a ‘regional code of conduct’ for sustainable forest management.
By August 1995, officials in the NFA and the DEC had combined to produce
a 70-page ‘Papua New Guinea Logging Code of Practice’ (PNGFA/
PNGDEC 1995), constructed around a set of 24 ‘Key Standards for Selection
Logging’ that dealt with such matters as the protection of watercourses and
costlines, soil disturbance and damage to residual trees, waste
management and operational planning. These standards were also
 incorporated into a more detailed document produced by the Forest Authority for the use of its own staff, on ‘Planning, Monitoring and Control Procedures for Natural Forest Logging Operations under Timber Permit’ (PNGFA 1995b). These procedures were to be applied to all existing operations, and divided the work of control between different levels of the National Forest Service:

- Headquarters staff in the Resource Development Division are responsible for vetting the five-year forest working plans (along with proposals for log pond and base camp construction) which operators are to supply once every three years. The five-year plans for new projects are to specify which five of the 35 ‘annual logging areas’ delineated in the feasibility study will be harvested during the plan period.

- Staff in one of the five regional offices of the Operations Division are responsible for vetting annual logging plans, which should divide the area to be logged into ‘set-ups’ of no more than 150 hectares each.

Box 8.18 The modular surveillance system

Forestry officers in remote logging sites in the country will for the first time carry out their surveillance monitoring duties in offices. The latest model portable modular offices will have modern communication units consisting of VHF radio and computer data network. On Tuesday the Managing Director of the Papua New Guinea Forestry Authority Jean Kekedo conducted an inspection at the Hornibrooks NGI Steel premises in Port Moresby, where the offices are being built. An initial order of 18 offices has been completed and will be transhipped from Port Moresby commencing May 23. A single modular office costs K25,500. This covers base unit, power, internal fittings including septic tank and rainwater tank, and transportation and erection. The offices are portable and can be moved to new locations...

Ms Kekedo said [that] due to budget constraints, the New Guinea Islands region and selected ‘hot spot’ projects in the Momase and Southern regions will be given priority. The next set of orders will be dictated by the budget availability. Ms Kekedo said no longer will the international community be able to criticise PNG [for] negligence in surveillance. ‘No longer will our resources be labelled “out of control” and no longer will our precious forest resources be depleted and not sustained.

In November 1993, the National Forest Board approved a capital expenditure programme worth K5.2 million for project offices and project site houses (K3 million), [plus] vehicles and field equipment (K2.2 million). Under the capital expenditure and mobilisation programme it was envisaged that the Authority will procure and establish 35 project site offices; 104 project site houses; 39 units of radio communications; 68 four wheel drive landcruisers; 13 dump trucks; 12 tractors, trailers and slashers; 33 motorcycles; 22 19 foot dinghies; 22 40 HP outboard motors and eight 2-WD vehicles.

Source: Times of PNG, 5 May 1994
Regional Inspectors are responsible for checking the ‘Set-Up Monitoring and Control Logbooks’ compiled by Project Supervisors, and for making periodic (sometimes unannounced) visits to check the work performance of these field staff.

- The Project Supervisors themselves are responsible for vetting the set-up plans and granting clearances for previous set-ups. There should normally be no more than three set-ups ‘active’ at any one time in each concession, so that logging can continue while Project Supervisors approve these clearances. Set-up plans are supposed to include a ‘document from the landowners confirming that they have identified all cultural sites to be excluded from logging’, and a map of clan boundaries if these fail to coincide with set-up boundaries.

Under this division of labour, ‘it is expected that Project Supervisors will actively develop and promote an open and professional relationship with the logging operator’s senior field managers [which] should allow minor field performance concerns to be sorted out on a face to face basis without difficulty or rancour’ (ibid:38). The Procedures set out a series of graduated
responses to non-compliance, ending with the issue of Lawful Directions or the seizure of timber or equipment.

The government was apparently reluctant to endorse the Code of Practice when it was first drafted, and even attempted to delete the regional code of conduct from the agenda of the South Pacific Forum meeting which it hosted shortly afterwards (Post-Courier, 13 September 1995). Cabinet finally endorsed the Code in March 1996, after the World Bank had made this one of the conditions for the second tranche of the structural adjustment loans. Thence began a series of training workshops for Project Supervisors, which were designed to phase the application of the Code into the working practices described in the Procedures. Meanwhile, the FIA has continued to grumble that its members were never consulted in the drafting of the Code, and maintains that forestry officials are obliged to make ‘exemptions’ in a piecemeal fashion because some of the Key Standards are simply impractical under local operating conditions (Jim Belford, 1997, personal communication). The World Bank is more inclined to regard such aberrations as evidence of continued malpractice on the part of an industry which refuses to recognise the virtues of self-regulation. Since the Bank now seems to recognise that the new revenue system may not induce the loggers to raise their game, it is now looking at ways to persuade the NFA to collect the performance bonds which are allowed under the regulations to the Act, to incorporate its assessment of an operator’s past performance into its criteria for resource allocation, and to apply the full range of sanctions to those operators which fail to comply with the Code. But it is also considering the need for an independent body to monitor the monitoring operations of the Operations Division (see section 13.3), as if to concede the further point that government officials cannot regulate the working practices of logging companies unless some other kind of pressure is applied to both of them.

It has sometimes been suggested that this pressure should and could be exercised by local landowners (see Brown and Holzknecht 1993; Holzknecht 1997), but it is most unlikely that they would be prepared to do such work, even if they had the requisite technical knowledge, without being paid for it, and there is no sign to date that landowner companies, logging companies, or the NFA itself are prepared to make the necessary outlays. While it is true that landowners would have to be included in any training programme directed at the workforce already employed by the logging companies, proposals for the development of a separate ‘community-based’ monitoring system face all of the wider problems associated with community participation in the logging industry (see section 10.3), and it is not clear how other stakeholders, especially government officials, would have the interest
Box 8.19 Can local landowners control their logging contractors?

While preparation of the Code of Practice is clearly an efficient use of state expertise, the code is ultimately a value judgement on the merits of competing environmental and commercial interests. Landowners may or may not agree with that judgement. If landowners are to define the local interest, they should have the option of adopting the code, adjusting it to local circumstances, or rejecting it. To ensure that the code is not rejected out of ignorance, the state will need to educate landowners on how it works.

If landowners adopt the code, the real challenge will be its enforcement. The state might best deploy its resources to train landowners to do their own monitoring, rather than field its own massive inspectorate. Landowners should be very effective in enforcing the code, given their local knowledge, proximity to operations, and self-interest motivation.

In summary, on grounds of technical capacity alone, the state cannot make a stronger claim than custom to the political task of defining the local interest. The state can deploy its technical capacity to supply landowners with resource management expertise and knowledge, yet refrain from imposing its judgement of how their commercial, social, and environmental concerns should be balanced. In adopting a supportive rather than coercive role, the state is more likely to mobilise landowners to monitor the timber industry themselves. In doing so, it should greatly reduce the pressure on its own resources of having to field inspectors for every logging project.

Source: Taylor 1997

or obligation to act on the results of such an exercise. It therefore seems unlikely that such a system can be established except as a series of ‘pilot projects’ funded by donor agencies and possibly administered by local NGOs, but its extension and sustainability would still be highly problematic.

The other stakeholders who might bring pressure to bear for an improvement in logging practices, apart from those funded directly out of donor pockets, are the consumers of logs or processed products exported from PNG. Taylor (1997) has expressed some concern that the ITTO’s ‘Target 2000’, which requires member countries to ensure that all imported tropical timber is derived from ‘sustainably’ managed forests by the end of this decade, may provide a perverse incentive for PNG landowners to sell their resources as quickly as they can. However, even if the timber buyers took this deadline seriously, very few local landowners would be aware of it, and they presently lack the ability to speed up the resource allocation process. While local NGOs have recently made some moves to adopt the certification standards espoused by the Forest Stewardship Council in order to facilitate the export of ecotimber from small-scale forestry operations (see section 10.5), it has generally been thought that the Asian markets which
account for the vast bulk of the country’s raw log exports are not ready to pay the premiums implied in the adoption of such schemes (Jim Douglas, 1997, personal communication). There is some evidence of changing consumption patterns in Japan, where some local authorities have begun to ban the use of tropical hardwood plywood by their building contractors in response to campaigns by environmental NGOs (see Light 1997), and this may be linked to a wider penetration of ‘green’ perspectives into Japanese boardrooms (Evan Shield, 1998, personal communication). Whatever the mix of moral and economic motives which accounts for the evident decline in Japanese tropical timber consumption, however, it would seem that Japanese buyers are more interested in material substitutions, as exemplified in the growth of temperate softwood plywood imports, than in paying higher prices for certified tropical timber.

8.11 Reforestation and afforestation

In the late 1980s, the government was attempting to enlarge the area of plantations on customary land through the New Zealand-funded Demonstration Reforestation Project (see Filer 1989; Sagir 1997), but the problems encountered by this project were cited by the World Bank (1989) as evidence of the implausibility of the official target. Nevertheless, the National Forest Policy (PNGMOF 1991:7) promised to promote reforestation through the development of plantations ‘as a means to maintain a permanent forest estate to supply existing and new forest industries’ and a forestry extension programme designed to encourage the establishment of woodlots and the practice of agroforestry in those parts of the country which suffered from a shortage of timber. Logging companies would be required to participate in the development of new plantations through the imposition of new conditions in their timber permits, which would take account of the ‘options for profitable processing within the country’, while the NFA would ‘take primary responsibility for supervising long term investment in reforestation ... where social and environmental factors are a prime consideration’ (ibid:27). The Policy did not include any statement about the ownership or sale of timber derived from plantations established on customary land by private companies or government agencies.

Barnett (1992:115-6) was especially critical of the failure of the new Act to be more specific about the role of ‘reforestation’ in Forest Management Agreements and Forest Working Plans. As if to make amends for this omission, Part E of the 1993 Guidelines (on ‘Reforestation and
Afforestation’) proposed a series of mechanisms by which the NFA might secure the collaboration of other stakeholders (loggers, donors and resource owners) in these two activities. The Guidelines allowed that:

- ‘reforestation’ might involve ‘enrichment planting of selected high value species’ as well as ‘industrial forest plantations on clear-felled land within a project area’, while

- ‘afforestation’ might either involve the ‘supply of timber in areas where natural forest resources are unable to satisfy local demand’ or the ‘establishment of export oriented commercial tree plantations on accessible grasslands’.

The government’s largest block of plantations, located near the Bulolo Forestry College, would be used as ‘a demonstration model of national importance for training and research’, but the other plantations on state land would either be returned to customary ownership or else leased out to private companies. The NFA might still provide grants or seek foreign aid to promote the development of new plantations on customary land under separate FMAs with the landowners, but would otherwise leave the funding and management of new reforestation or afforestation schemes to the private sector (PNGMOF 1993b:14-15).

This movement towards the privatisation of state assets seems to have provided the pretext for the National Forest Service to suspend its own plantation development programme, which was designed to use the reforestation levies imposed on selective logging operations to fund the planting of 4000 additional hectares each year. No progress was made with implementation of two NFCAP project proposals that would have conducted experiments with the reafforestation of grasslands in the central highlands. The Kandrian-Gloucester Integrated Development Project (KGIDP) in West New Britain Province (which was not a NFCAP project) did include a moderately successful experiment in training local landowners to practice Timber Stand Improvement techniques in areas which had been selectively logged (Cameron and Vigus 1993)70, and some of the larger logging companies have developed their own reforestation or enrichment planting programmes, but the remaining operators have not possessed the interest or expertise required to duplicate such efforts, let alone to bid for the right to manage the plantations which the government had already established.

70 This resulted in the production of a Tok Pisin video, ‘Lukautim Bus’, which has been mooted as one of the key ingredients for a community-based monitoring system (see section 8.10).
The Reforestation and Extension Division of the National Forest Service was finally established in October 1995, and took over the reforestation function previously handled by the Resource Development Division, which now consisted primarily of managing the Bulolo plantations. Its other main functions were:

- to restore basic management techniques on another ten or twelve government-sponsored plantations, including those located on customary land\textsuperscript{71}, which had been neglected since the start of the policy reform process;
- to promote enrichment planting practices of the type which had been pioneered by the KGIDP;
- to provide technical assistance to small-scale and community forestry projects; and
- to help the Operations Division to ‘provide an integrated general forestry service to the communities in which they work’.

The head of the new division observed that the reforestation levies accumulating in the NFA’s trust account had come to be seen as a ‘tax on bad logging practices’, and a serious reforestation programme, conceived as an alternative to the present emphasis on monitoring unsustainable selective logging practices, would entail a tenfold increase in these levies (Skelton 1996).

This suggestion found no favour with the architects of the new revenue system. Although some forestry officials still believe that further plantation development is the only way to feed a viable processing industry, they now seem to recognise that this would have to be driven by private sector investment and might well require a new approach to landowner revenue issues (Peter McCrea, 1997, personal communication). In December 1995, Cabinet resolved to sell the greater part of the state’s equity stake in the Bulolo plantations to its joint venture partner, a subsidiary of the Singapore-based Prime Group, leaving only 20 per cent to be held on behalf of local landowners (\textit{Independent}, 16 December 1995). However, the World Bank does not place much store by plans to expand the country’s total stock of forest plantations, because of the general lack of private investors willing to take the long-term risks involved (Jim Douglas, 1997, personal communication).

\textsuperscript{71} These included two plantations on alienated land (Kerevat and Brown River) which had simply been handed back to customary landowners.
8.12 Promoting national participation

The National Forest Policy (PNGMOF 1991:30) placed a good deal of emphasis on the role of citizens, ‘especially resource owners’, as shareholders in companies, especially landowner companies, which were to play a growing role in the harvesting and processing of timber. The Policy proposed that national participants in joint ventures with foreign companies should hold a ‘minimum of 5 per cent equity free of charge’ and a right to acquire additional equity at par (ibid:34).

The Policy also aimed to promote the recruitment and training of citizens within the forestry sector, but that part of the Policy which dealt with ‘Forestry Training and Education’ was largely concerned with the management of the government’s own training institutions. Although the National Forest Service would take some responsibility for ‘close examination of company training and localisation programmes’ (ibid:48), no statements were made about regulations or incentives intended to raise the relative size and skill composition of the national workforce within the private sector.

The Guidelines promised that FMAs and Timber Permits would henceforth be designed to specify the ‘avenues for landowner participation in a forest development project, whether as stakeholders, contractors or employees’, and stated that all unskilled or semi-skilled workers should either be recruited from the ranks of local landowners or long-term residents of the province in which a project was located (PNGMOF 1993b:25).

No progress was ever made with the policy of granting free equity to national participants in joint ventures with foreign companies. The ‘national capitalist’ still typically makes his appearance as the director of a landowner company whose stake in the industry rarely reaches beyond the collection of resource rents, some of which may be invested in other sectors of the economy, but rarely materialise as investments in the forestry sector, except in those few cases where such companies have bought into sawmilling ventures or plantation management (Bob Tate, 1998, personal communication). Some former forestry officials and other citizens of more questionable expertise have set themselves up as ‘consultants’ in the hope of capturing some of the income which accrues to landowner companies or some of the donor funding directed at the policy reform process, but these activities have not resulted in the creation of a distinctive group of private sector stakeholders.
Unlike their counterparts in the mining and petroleum sector, foreign logging companies have made little effort to provide themselves with a distinctive national voice in the forest policy process, through the appointment of well-qualified Papua New Guineans to manage their public relations. They have preferred, instead, to rely on the voices of landowner company directors and sundry politicians with whom they are closely associated, and these have commonly failed to carry much weight in the court of public opinion. Some logging companies have also received adverse publicity for their engagement of Asian field supervisors and manual workers, in apparent breach of the country’s immigration rules, thus raising suspicions of corruption in the relevant government agencies. While the industry has recruited a stratum of technical personnel from the country’s specialist training institutions, it has generally not followed the lead of the mining and petroleum companies in luring forestry officials away from the bureaucracy with offers of better terms and conditions of employment.

Box 8.20 ‘Logging provides employment?’
The FIA has made occasional efforts to indicate a potential conflict of interest between resource owners and other citizens employed in the forestry sector, but the fact remains that the national forestry worker is most commonly employed to harvest the resources of his own community. Some forestry workers and furniture makers may be working in isolation from their rural origins, but there is presently little scope for a numerical expansion of these occupational categories, or for any further displacement of foreigners from their ranks, except insofar as this reflects a general contraction of the industry in response to the rapid deterioration in market conditions.

These considerations explain the continual reduction of questions about national participation in the forest industry to those questions about community participation which we shall deal with in more detail in a later section of this study (see section 10).
In this section, we are concerned with the changes recently made or attempted in the way that the Department of Environment and Conservation (DEC) goes about the business of ‘selling’ the values of natural forest conservation to other stakeholders in the forest policy domain, or regulating those activities which threaten to undermine these values. The political weakness of the DEC reflects the limited domestic market for such intangible ‘commodities’, but is compounded by the Department’s failure to satisfy the demands of the market which already exists in the local NGO and global donor community.

This section is shorter than the last one, because the activities (and inactivities) of the DEC have attracted very little in the way of public debate and few signs of overt stakeholder conflict. In amongst the country’s forests, most resource owners have no inkling of the Department’s role, or even its existence, and what they do know about the government’s conservation policies is normally derived from their contact with provincial Wildlife Officers, who are not part of the DEC establishment, or with NGOs which have been actively engaged in battles with the logging industry.

We begin this discussion with a short history of the Biodiversity Conservation and Management Programme (BCRMP). This includes mention of the Task Force on Environmental Planning in Priority Forest Areas, because this was the first NFCAP project to be started (and finished), and because it provided a foretaste of several problems which have continued to afflict donor-funded efforts to raise the Department’s profile in rural areas and redefine its role in the forest policy process. We then go on to review the design and implementation of the DEC Strengthening Project, which represents the other main example of such donor-driven policy reform.
9.1 Conservation area management

By 1991, when implementation of the NFCAP began in earnest, PNG’s stock of protected areas covered less than 3 per cent of the country - a great deal less than the 20 per cent which was touted at the TFAP Round Table as a suitable national target. The existing areas included eighteen Wildlife Management Areas, fifteen National Parks (four of them on government land), two Protected Areas and two Wildlife Sanctuaries. Three of these areas accounted for roughly 80 per cent of the total area under some form of protection. Most of them were too small to be taken seriously as part of the commitment which the national government subsequently made by signing the Convention on Biological Diversity in 1993.

In its original design, the NFCAP included one project which was intended to improve the DEC’s management of the existing network of protected areas, and another project which was intended to develop a strategy for making substantial additions to this network. The first of these two projects proceeded no further than a review conducted by WWF-International in 1992, with funding provided by the European Union, which documented the inadequacies of the existing management regime, but failed to entice any donor agency to commit the funds required to remedy these deficiencies. Following the advice of the World Bank, the second project was redesigned to pass through the Biodiversity Conservation ‘window’ which was opened by the Global Environment Facility in 1991. By this means, US$5 million was secured for the BCRMP, whose central feature was to be a process of experimentation with ‘Integrated Conservation and Development’ (ICAD) projects, and the elaboration of an institutional, legal, financial and policy framework for the expansion of the country’s protected area system on the basis of lessons learned from these experiments. In 1993, a Conservation Resource Centre (CRC) was established within the DEC to pursue this mandate.

In the original conception of the BCRMP, the CRC was to produce Conservation Area Management Plans for each of its pilot ICAD projects, which would:

- describe the biophysical and socio-cultural features of each project area;
- negotiate conservation and development options with local resource owners;
- divide the area into specific zones by reference to the problems and prospects of promoting different types of conservation or development activity in each one of them;
• describe the activities to be undertaken in the pursuit of conservation objectives;
• determine the most appropriate designation for each area within the framework of national legislation;
• develop appropriate conservation covenants and incentive packages in consultation with local resource owners; and
• establish methods of monitoring and evaluation.

The first area selected for this process of experimentation was the Weittin Valley, located squarely in the middle of the Lak Timber Rights Purchase in southern New Ireland. The Weittin Valley had previously been visited in 1990 by the Task Force on Environmental Planning in Priority Forest Areas (see Box 9.1).

Box 9.1 The taskforce on environmental planning

The Task Force on Environmental Planning in Priority Forest Areas (TFEP) was established in 1990, as the result of a resolution passed at the TFAP Round Table. This resolution, which was sponsored by the NGO contingent present at that meeting, called for immediate action to counter the threat of logging in any of the twenty-seven areas which the World Bank’s TFAP Review (1989, Annex 6) had recommended for protected status.

Its stated aims were to ‘provide maps of the listed areas, identify areas of conflict between conservation and development projects, and provide advice to the Minister of Environment and Conservation on appropriate conservation strategies, development regulation, and priority needs’. It was recognised that the government would not be able to protect proposed conservation areas from the immediate threat of uncontrolled logging operations unless it could persuade the customary landowners in these areas to do the same thing. DEC officials subsequently produced a project description which emphasised the necessity of producing ‘benefit packages for landowners and government for revenues foregone in conservation areas’.

The Task Force made two ‘multi-disciplinary’ expeditions to potential conservation areas in Milne Bay and New Ireland provinces. During these brief forays into the countryside, the Task Force discovered that the people of Woodlark Island, in Milne Bay Province, were quite well disposed to the idea of granting protected area status to parts of their territory, whereas the people of the Lak area, in New Ireland Province, were found to be quite resolute in their determination to have their forests logged as soon as possible, and deeply suspicious of any government moves to interfere with their long-held dream of ‘development’. Despite (or perhaps because of) this finding, the DEC and its technical advisers later decided that Lak was the best place in which to conduct their first experimental ICAD project.

In effect, the TFEP did little other than confront the problem of landowner awareness in the two areas which it has visited. No serious work was ever done on the design of the contentious benefit packages. However, a number of inferences were drawn from this experience:

• Mobile inter-departmental committees are very expensive and relatively ineffective vehicles of communication between Government and landowners.
The choice of the Weittin Valley was apparently made in response to a letter written in August 1992 by the same provincial politician who had previously hosted the visit of the Task Force. The letter was initially sent to the ITTO, which sent it back to the NFA, which passed it on to the DEC, where it was ‘was seen by project proponents as a social invitation from a unified group of landowners eager to explore alternative methods of forest development’ (McCallum and Sekhran 1997:19). The Task Force may have been partly responsible for the author’s ability to recite so many phrases dear to the donors of the day, but the Task Force had also discovered and documented his own doubts about the willingness of his constituents to forsake their interest in logging for an alternative interest in conservation (Filer 1991a). Shortly after the Task Force had visited the area in August 1990, the Minister for Forests had granted a Timber Permit to the local landowner company, Metlak Development Corporation, in apparent violation of his self-imposed moratorium, and the Minister for Environment had incidentally approved the company’s Environmental Plan, which made absolutely no provision for a conservation area within the TRP. Since DEC officials and ICAD project proponents had already been apprised of those ‘socio-cultural features’ of the project area which were likely to present a serious obstacle to the pursuit of this objective, one can only conclude that their decision to return to Lak was either the result of bureaucratic inertia and structural amnesia, or else a deliberate move to

• Outsiders generally, whatever their affiliation, will not make much impact on village attitudes during the course of a single visit to the village.

• Educated members of landowning communities are the most plausible conveyors of a conservationist message at the grassroots level, assuming they believe in it themselves and maintain regular contact with the other members.

• Landowners who have no previous experience of logging operations are not easily persuaded of their negative impact.

• The best (if not the only) way to persuade landowners that conservation is a good thing is to represent it as an alternative form of ‘development’.

• It is very difficult to represent conservation as an alternative form of ‘development’ without raising expectations or making promises about the delivery of such development.

• It can also be very difficult to engage landowners in a dialogue about conservation and development options without exaggerating the intensity of factional struggles within their communities.

Sources: Filer 1991a, Filer 1991b, Young 1991
‘take the fight to the enemy’ by taking the local politician’s words at face value, and seizing the opportunity to mobilise a re-enchanted community against the forces of darkness which it had previously been so eager to embrace.

Box 9.2  Letter from a provincial politician to international donors

“Our landowner company has engaged a Malaysian company as [a] logging contractor to harvest and market the timber resource on its behalf. [By] the same token, we are also mindful of our forest environment as we do not want to see unnecessary destruction of our forest resources. Hence we are trying very hard to control the actual logging operation by our logging contractor to minimise environmental damage as well as promoting sustainable forestry management.

“Our local company is also trying to promote other means of income generation as well as developing the road infrastructure and other Government Social Services that are lacking in the area. In this regard we are trying to promote eco-tourism into the Weittin Valley which is located within the resource area. We are intending to develop the Weittin Valley as an ICAD project eventually leading to the declaration of the zone as a World Heritage-listed area.

‘Thus we are writing to inform your organisation of our intentions as we need technical and financial assistance to assist our organisation to carry out the following:

• Assist our local company with technical expertise to monitor and control the logging operation to ensure that minimal environmental damage is done, as well as sustainable forest management.
• Establish a Conservation Foundation for the Weittin Valley thus generating economic activities centred around conservation.
• Obtain funding for a Wildlife Management Programme incorporating profitable environmental activities.’

Source: McCallum and Sekhran 1997:18-19

The first meeting in the second round of dealings between the DEC and the Lak landowners took place in December 1992, and the directors of Metlak Development Corporation formally requested the removal of the Weittin Valley from their Forest Working Plan in April 1993. This was no great sacrifice on their part, since the logging contractor (Niugini Lumber) had already removed nearly all of the accessible commercial timber in the valley. ICAD project operations began with a Biodiversity Rapid Survey in January 1994, followed by the establishment of a Lak Conservation Area Management Committee and the inception of a Landowner Awareness Programme contracted to a national NGO. The same NGO was commissioned to produce an Alternative Incomes Assessment, but this failed to reveal any alternatives to logging which could produce anything like an equivalent level of short-term benefits. As a result, the ‘development’ component of the project was redesigned around three basic components:
• a Sustainable Forestry Project to be undertaken through a joint venture between the Metlak Development Corporation and The Nature Conservancy (Sekhran et al. 1996);

• a carbon offset proposal submitted, through the PNG government, to the United States Initiative on Joint Implementation (Stuart and Sekhran 1996) (see section 10.6); and

• an Early Rewards Schedule, which was intended to meet some of the immediate needs identified by local community members, and thus provide a ‘tangible sign of commitment’ on the part of the proponents.

The design of this package was complete by May 1995, when work finally began on the local ICAD project base. The first two elements of the package required the Metlak Development Corporation to terminate its Logging and Marketing Agreement with Niugini Lumber, and thus put an end to conventional logging in the area. Although ICAD project staff were able to secure an ‘overwhelming’ vote in favour of this move at a meeting of 200 community representatives in April 1995, the logging contractor was able to mobilise its own factional supporters, including some of the Metlak directors, to prevent the landowner company from taking a firm stand on this issue. In the ensuing tug-of-war between the loggers and the conservationists, it soon became clear that the behaviour of individual community leaders was not constrained by the resolutions made in public meetings, or even by their own public statements, and most landowners were inclined to play both ends against the middle by waiting to see which side would eventually offer them the best deal. Meanwhile, the continuation of conventional logging was rapidly depleting the commercial timber resource. As a result, in November 1995, the sponsors of the ICAD project decided to abandon the first two elements of their new development package and scale down project activities in order to test the level of community commitment. When the Chairman of the Conservation Area Management Committee later defected to the opposition, the ICAD project finally withdrew from Lak, leaving its rather expensive base camp as its only local monument.

Early in 1995, the CRC decided to initiate a second ICAD experiment in Madang Province, on the north-eastern slopes of the Bismarck Range, where the 1980 national census maps show the existence of a National Park, though its existence had never been officially gazetted under the National Parks Act of 1982 because no attempt had been made to alienate the land in question from customary tenure. The reason why this had once been considered a serious possibility was that the area appeared to contain no
Box 9.3  Some lessons learned from the Lak ICAD project

- Though biological criteria may be drawn upon to identify broad areas of interest for conservation, socio-economic criteria must dictate the actual choice of project site.

- The style and substance of an ICAD project’s initial contact with local communities will have implications for its subsequent ability to handle the issue of ‘dependency’.

- Unless communities come to redefine their strategies for seeking development in ways that ICAD projects can support, then ‘conservation through development’ will continue to fail.

- If ICAD projects are to survive, they require that recipient stakeholder communities already have a high level of social cohesion and cooperative endeavour.

- ICAD projects that are required to operate in partnership with government or non-government agencies that lack planning and management capacities must make allowance for this deficiency at the planning stage.

- In areas where communities lack a basic conservation philosophy and environmental awareness, education programmes are unlikely to be effective in the time frame required to compete with exploitative development activities.

- The commitment of personal time, energy and emotion by project proponents can affect their objectivity when evaluating project progress.

- The level of a project’s physical presence on site should not exceed the demonstrated commitment of the local community to project objectives.

- The land management requirements of biodiversity protection may well be incompatible with traditional land tenure systems.

- The quality of social relationships developed between conservation workers and local stakeholders are likely to determine the viability of the project, particularly when the surrounding cultural environment is built on customary exchange.

- Donor-funded ICAD projects which have to play by strict administrative rules cannot compete with logging contractors in the forest allocation stakes.

Source: McCallum and Sekhran 1997
human inhabitants. The combination of minimal population density and enormous altitudinal range had now led the CRC’s technical advisers to conclude that it ought to contain ‘more biodiversity’ than any other area of equivalent size in PNG. Furthermore, the government had not even begun to negotiate the acquisition of timber rights over any part of it. In light of the Lak experience, the immediate threat of logging was no longer considered to be a useful criterion for the selection of new ICAD project sites.

The earlier proposal to create a National Park in this area had actually been abandoned in 1986, following a DEC patrol which found that one part of it had been invaded by ‘squatters’ from the Jimi Valley in Western Highlands Province. In April 1995, the CRC organised another patrol to the area, with a view to locating some of its inhabitants and discussing the concepts of ‘conservation’ and ‘development’ with them (Filer et al. 1995). Following this patrol, the CRC defined a rectangular ‘area of interest’ which covered more than 3,000 square kilometres, including the whole of the proposed national park area, but also including all those surrounding areas which might include some of its customary owners or claimants to ownership. This large square contained approximately 20,000 people, the great majority of whom were living in the upper reaches of the Jimi Valley, where population densities were very high, and there was evidence of considerable pressure on subsistence resources.

Considering the lessons being learned in Lak, CRC staff decided that an entirely new approach to ‘community entry’ would now be required for the Bismarck-Ramu project. In particular, patrols led by white scientists carrying lots of expensive equipment would only have the effect of raising expectations of ‘development’ which could not possibly be met, and even the discussion of a ‘project’ was liable to induce a form of ‘cargo cult mentality’ which could only serve to inhibit any genuine local interest in conservation or sustainable development. The new approach featured Community Development Teams consisting entirely of Papua New Guineans with substantial experience of ‘landowner awareness’ work, whose entry to each village in the area of interest would precede that of any other project staff, and seek to establish the conditions of further interaction by using the techniques of Participatory Rural Appraisal. Candidates for membership of these teams, along with the staff of CRC and its project partners, were all trained in the use of a standard ‘PRA toolkit’ at a workshop held in May 1996 (Grant 1996). Thereafter, as the teams gradually made their way around the area of interest in a series of Community Development Patrols, they were followed by a rural sociologist engaged by the National Research Institute to conduct a Social Feasibility Study,
combining the PRA results with other sources of information to determine which communities in the area of interest were most likely to support and sustain some kind of conservation initiative. The Social Feasibility Study was completed at the end of 1997 (van Helden 1998), at the same time that the PRA techniques yielded their first positive result, in the shape of a spontaneous initiative by one village community in the area of interest to establish a conservation area in their territory (Mike Parsons, 1998, personal communication). At the time of writing, the Community Development Teams are still patrolling the area, and have not even made their first contact with many of the villages within it, but the future of the ICAD project remains uncertain, since there is no guarantee of donor support beyond the end of 1998.

As part of its mandate, the CRC has not only sought to engage NGOs as project partners in its own ICAD experiments, but has also attempted to promote the exchange of information and advice between the proponents of other ‘ICAD’ projects in PNG, most of which are initiatives taken by a combination of national and international NGOs. Although some of these NGOs have doubts about the utility of the ICAD concept as a central organising principle for conservation area management, and even greater doubts about the DEC’s long-term capacity to provide a model of best
practice in such activities, they have all been prepared to participate in the biennial roundtable discussions organised by the CRC (see James 1996), and these have not generated the sort of friction which was evident in the earlier Conservation Needs Assessment workshop in April 1992 (see section 6.5).

Eleven terrestrial conservation projects seem to have qualified for membership of the ICAD club over the past decade (see Table 9.1), and all of these could reasonably be described as forest conservation projects intended to protect specific areas of customary land from the threat of large-scale resource development, or else to maintain existing levels of biodiversity in collaboration with the customary owners. The DEC has only been directly involved in three of these projects, and in each case has relied heavily on technical assistance from donor agencies whose funding commitments have a limited lifespan. The Oro Butterfly Conservation Project, which is one of the DEC projects, is something of an odd man out, because of its focus on the protection a single species (the Queen Alexandra birdwing butterfly) which is found in scattered pockets of rainforest habitat in Oro Province, and because it was initially intended to protect this creature against the expansion of an oil palm scheme supported by the World Bank.

Five of these projects (Kamiali, Crater Mountain, Kuper Range, Lak and Collingwood Bay) were in some sense initiated by local people, although the initiative normally came from a single village, or even a single individual, and the sponsors have generally sought to expand the area and population involved in the project though some form of landowner awareness exercise. The exception is the Kuper Range project, which is still confined to a single village, and if it were not for the fact of external sponsorship by a national NGO located in the vicinity, this ‘project’ would appear to have much the same status as many of the applications which local groups have submitted to the DEC for the declaration of Wildlife Management Areas within their respective territories. The Crater Mountain project is located in one of the very few WMAs which has been officially gazetted, and which is large enough to meet the requirements of a national conservation strategy, as natural scientists understand them, but its boundaries only encompass four traditional political communities (see Johnson 1997). At its maximum extent (as shown in Table 9.1), the Kamiali project also covered four communities, but has since narrowed its focus to one of them (Lababia) in circumstances rather similar to those which afflicted the Lak project (James 1996:16).
The Lak and Kamiali projects are the only ones in which the sponsors have tried to help local landowners to extract their forest resources from a Timber Permit which had already been granted. In the Hunstein Range and Collingwood Bay, conservation initiatives have been predicated on the existence of a Timber Rights Purchase negotiated under the old Forestry Act, in areas which have since been granted high priority by the Conservation Needs Assessment, and NGOs have allied themselves with community leaders who now oppose the granting of a Timber Permit over these areas. The Kikori Basin is in a similar situation, except that the alliance formed against the loggers includes a multinational oil company which has long been engaged in the process of organising the local landowners along the route of its export pipeline, and has its own vested interest in protecting the

### Table 9.1 ‘ICAD’ project sites in Papua New Guinea

<table>
<thead>
<tr>
<th>Project</th>
<th>Province(s)</th>
<th>Sponsors</th>
<th>Duration</th>
<th>Area (km²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kuper Range</td>
<td>Morobe</td>
<td>Wau Ecology Institute</td>
<td>From 1991</td>
<td>7</td>
</tr>
<tr>
<td>Kikori Basin</td>
<td>Gulf</td>
<td>World Wildlife Fund (US), Chevron Niugini</td>
<td>From 1993</td>
<td>2,200</td>
</tr>
<tr>
<td>Lak (Weittin Valley)</td>
<td>New Ireland</td>
<td>Global Environment Facility (UNDP), DEC, Foundation for Peoples of the South Pacific (PNG)</td>
<td>1994-96</td>
<td>800</td>
</tr>
<tr>
<td>Bismarck-Ramu</td>
<td>Madang</td>
<td>Global Environment Facility (UNDP), DEC, Christensen Research Institute</td>
<td>From 1995</td>
<td>n.a.</td>
</tr>
<tr>
<td>Collingwood Bay</td>
<td>Oro</td>
<td>Conservation Melanesia, Greenpeace</td>
<td>From 1996</td>
<td>n.a.</td>
</tr>
</tbody>
</table>
pipeline corridor from any additional social or environmental disturbance. Part of the Crater Mountain WMA appears to be covered by a recent FMA which should, in theory, have excluded it, while most of the Lakekamu-Kunimaipa Basin is designated in the National Forest Plan as ‘potential areas for future development’.

The ‘development’ component of these various projects has comprised a wide range of feasibility studies, of the kind undertaken in Lak, and a rather more limited range of practical interventions which have delivered some tangible benefit to local resource owners. These interventions have included:

- the production and sale of various ‘non-timber forest products’, especially traditional or modern handicrafts (see section 10.6);
- the construction of guest houses for use by visiting scientists or ecotourists, and the collection of fees by local guides who show them the scenery;
- the practice of ‘ecoforestry’, typically based on the operation of small portable sawmills by village-based business groups (see section 10.5);
- improvements or innovations in the production of cash crops and supplies of meat from domesticated animals; and
- the construction of new educational or health facilities, or other items of social infrastructure.

Although there has been a good deal of discussion about potential markets for ‘ecological services’ (such as carbon sequestration), the sale of biodiversity prospecting licences to pharmaceutical companies, or the payment of pure ‘conservation rents’ to customary landowners, all these options still face major institutional obstacles at the local, national and global levels (see section 10.6).

The other critical questions which have been repeatedly discussed in the meetings hosted by the CRC are:

- how to reconcile the different criteria which have been used for ICAD project site selection - most notably the extent of local initiative, the measurement of biodiversity values, and the threat posed by large-scale logging operations;

- how to secure a lasting commitment to conservation by several neighbouring communities, whose members have no traditional basis for active cooperation in the management of natural resources, and may sooner or later be offered the temptation of substantial rents from large-scale logging operations (Sekhram 1996);
• how to avoid the development of a ‘project-dependent’ mentality which turns ‘development packages’ into a form of ransom paid to customary resource owners for the global benefits of conservation (Orsak 1996);

• where to find the funds required to create and sustain the kind of development assistance which will last long enough for resource owners to develop their own capacity to manage an ‘ICAD’ project on their own account;

• whether the diversity of local social and economic conditions permits the formulation and application of a ‘standard model’ of conservation area management which can evolve from repeated applications of the ICAD methodology;

• how donor agencies can enter into ‘conservation covenants’ with customary landowners under legislation which appears to prohibit anyone except an automatic citizen (or the State of PNG) from doing so (Fingleton 1993); and, last but not least,

• what role the DEC can realistically be expected to play, with or without substantial quantities of technical assistance from donors, in the maintenance and expansion of a national system of protected areas.

The World Bank and other donors take a dim view of the national government’s capacity to resolve any of these questions, and have therefore spent a long time searching for an institutional mechanism that would enlarge and stabilise the flow of funds to the most promising experiments in conservation area management, without sacrificing the government’s official stamp of approval or providing another set of excuses for the government to shirk its own responsibilities. The outcome of these deliberations had been a proposal to establish a national Trust Fund for Environment and Conservation, jointly managed by government and NGO representatives, open to bids by any national stakeholder, and partly funded by environmental levies which the government may one day manage to impose on the developers of natural resources. Not surprisingly, the outstanding bone of contention is the extent to which the DEC will be able to either fund or control this organisation.

The establishment of this Trust Fund appears to be based on the premise that there is no alternative to the ICAD methodology which has been advocated by the CRC, despite the patent inability of the DEC to function as a rural development agency. The most obvious alternative would be for donors to use their financial leverage to persuade the national government
not to pursue FMAs or issue Timber Permits over areas which are known to be rich in biodiversity. In that case, it would not be necessary for conservationists to enter into any kind of negotiation with local resource owners, let alone worry about the construction of alternative development packages. Although there are good reasons to doubt the NFA’s long-term commitment to implementing this kind of conservation strategy, the bureaucratic entanglements of the resource allocation process which it now administers has been partly responsible for providing the breathing space in which ICAD projects have been testing the waters of community sentiment. The irony here lies in the risk that those ICAD projects which are not directed to areas which are under immediate threat of large-scale logging may only serve to whet the appetite of resource owners for some ‘serious’ development when that threat finally arrives. Nor does the ICAD process remove the need to persuade the NFA to keep its hands off designated conservation areas; it can only promise to motivate resource owners to add their own distinctive weight to the act of persuasion. It is therefore reasonable to ask whether the preference for ‘integrating’ conservation and development owes more to the intellectual fashions of the donor community, or its desire to provide a space for NGOs to practice their good works, than to the principles of cost-effectiveness.

9.2 Institutional strengthening

Although the BCRMP has played some part in efforts to bolster the organisational capacities of the DEC, these activities have been limited to the Conservation Division, and related specifically to the Department’s role in meeting the PNG government’s commitments under the Biodiversity Convention. For example, the Programme commissioned a training needs assessment which identified a lack of opportunities for DEC staff to be trained in the planning and management of conservation areas (RCF and Lincoln University 1995), and has been responsible for setting up a Biodiversity Data Management system in the Department’s Resource Inventory Branch (Hedemark 1997; Hedemark and Peters 1997), which has been part of the process of refining the biophysical criteria for prioritising possible conservation areas. However, since 1994, AusAID has funded a project designed to strengthen the whole Department, which is being implemented by the Overseas Projects Corporation of Victoria, with substantial input from the Victorian Environmental Planning Agency. This project is not specifically concerned with the Department’s role in the forest policy process, but it was conceived as part of the NFCAP, and has focused
on the need to improve the statutory regulation of environmentally hazardous activities, of which large-scale industrial logging is a prime example.

A chronic shortage of financial resources has often been held to explain the DEC’s lack of institutional strength, especially by those who work in it, but the cuts routinely made to its operating budget have been partly justified by the Department’s failure to execute those tasks for which its staffing levels should be more than adequate. For example, it took the DEC fourteen months to make even the most elementary comments on the NFA’s proposed format for Provincial Forest Plans, and five years after PNG signed the Global Convention on Climate Change, the Department has yet to produce any baseline data on the country’s greenhouse gas emissions. And the whole environmental planning process has fallen into disrepute, because other stakeholders have come to believe that the DEC’s method of evaluating and approving plans submitted to them, if there is any method at all, has virtually nothing to do with the information, predictions or undertakings which they happen to contain. If there is one set of tasks for which the lack of funds has created a really serious constraint on the Department’s effectiveness, it is those which involve travelling to any place outside Port Moresby, which helps to explain why conservation areas are not properly managed and environmental plans are forgotten as soon as they are submitted.

The New Zealand government paid a lone consultant to assemble a new Strategic Plan for the DEC in 1993, but the results of this exercise were also forgotten amidst the deluge of Australian consultants who began to arrive at the end of 1994. One informant has compared the initial impact of the DEC Strengthening Project to the act of pouring a huge bucket of cold water over the whole Department. By the time that a mid-term review was conducted in 1996, it was recognised that this had failed to create an appropriate sense of ‘national ownership’ of the many innovations previously recommended. As the project approaches its completion date in 1998, the emphasis has shifted towards the creation of an institutional momentum which will carry forward those environmental policy reforms that require the collaboration of other stakeholders, and which could therefore take some time to reach fruition.

The most significant of these reforms is the development of a new Environmental Regulatory Framework (ERF), as represented in the fifth, sixth and ninth of the project’s ten components (see Box 9.4). The first step in this development was the adoption of a new set of Strategic Directions (PNGDEC 1995), which envisaged a partial devolution of the environmental
management system, under the rubric of ‘Total Catchment Environment Management’, with greater inputs from provincial governments, resource developers and community organisations. The process of devolution was to be encouraged by the formation of a new Field and Support Services Division, whose staff are supposed to escape the culture of ‘crisis management’ by taking a ‘multi-disciplinary’ approach to the ‘core business’ of the Department. An initial discussion paper on the ERF was produced in 1996 (PNGDEC 1996), and then revised in light of comments from other stakeholders (PNGDEC 1997). The stated intention is to turn the process of environmental planning and protection into a ‘one-stop-shop’, whose legal foundation will be a new Environment Act which supersedes the Environmental Planning Act, the Environmental Contaminants Act and the Water Resources Act. Under the new Act, activities with minor environmental risks will only need to comply with general guidelines or codes of practice, while those which pose greater risks will require specific permits, and those with the greatest impacts will require Ministerial or Cabinet approval.

**Box 9.4 The DEC strengthening project**

The project strategy seeks to bring about the cultural changes necessary to get DEC to act and behave strategically. These include acting collaboratively with government agencies, industry and stakeholders (particularly landowner groups); being a field-focused organisation and developing an entrepreneurial culture in which officers have the skills and confidence to make decisions and apply them effectively. This will be achieved through a change management approach which provides a different focus for each level of the organisation. Effective change management requires careful scheduling of training and technical assistance inputs so that the external contributions do not dominate the internal workings of the organisation. The large number of externally-funded projects impinging on DEC present the risk that its limited absorptive capacity will be overwhelmed by project overload. The project comprises ten components:

1. **Strategic Management:** This component will transform the way DEC is managed so that a clear mission is established, clear directions and priorities are set, each part of the organisation knows what is expected of it, good relationships are established with all stakeholders, the Minister is assisted to be an effective performer for the Government, effective decisions are made throughout DEC, and the budget is stretched to enable DEC to develop an effective presence in key areas of PNG. The component includes an organisational study, a revenue study, and assistance to develop a public relations capacity within DEC.

2. **Human Resource Development/Training:** The project will strengthen DEC’s human resources to the point where they possess the competencies to make them fully effective in the jobs they do.

3. **Work planning:** This component integrates strategic planning with medium-term and annual planning.
As in other resource policy domains, the provincial and local government reforms have created additional obstacles for these innovations in environmental planning policy. Provincial governments are keen to gain control of the issue of Water Use Permits under the existing Water Resources Act because they see an opportunity to supplement their revenues in a manner consistent with other powers granted to them by the new Organic Law, whereas the new Environment Act proposes to replace Water Use Permits with broader Environmental Permits which would be issued by the DEC. The new ERF has apparently been developed without any reference to the National Sustainable Development Strategy, which has become the ‘property’ of the National Planning Office, and the role of provincial and local-level governments in the environmental planning process is thus dissociated from attempts to build up their broader planning capacities. This problem is compounded by the lack of correspondence between provincial boundaries and the DEC’s ‘catchment management areas’, whose number has now been reduced from seven to three (the northern

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4. **Financial management:** The project will improve the accounting controls and develop the system to a stage where managers can run their programmes with accurate and up-to-date financial information.

5. **Environmental Approvals and Monitoring:** This component brings together strengthening activities for assessing environmental plans and the subsequent requirements for monitoring their social and physical impacts in the forestry, social and industry units in DEC. The approach is to train personnel in the necessary techniques and then put them alongside a project trainer/adviser in their day-to-day work in the field.

6. **Environmental Protection:** This component seeks to strengthen the capability of the Environmental Protection Branch and to develop effective linkages between this unit and the water quality functions of the Bureau of Water Resources (BWR).

7. **Species Management:** The component will reorientate the Species Management Branch towards a more planned approach to species management throughout PNG, as well as examining opportunities for utilising national fauna (and to a lesser extent flora) species for income-generating activities.

8. **Information System:** The project will establish a centralised database and management system appropriate for the tasks of every unit in DEC as well as allow for communication of relevant information between units. The system will also perform a management role of regulation, licensing and event monitoring on a scheduled basis.

9. **Legislation & Enforcement:** This component will review the legislative framework governing DEC’s operations and strengthens its capacity to enforce its legislation.

10. **Infrastructure & Project Management:** This component will examine the scope for cost-effective improvements to the work environment and assess the facility, equipment and housing needs of DEC and its staff. It also provides the effective management necessary for a successful project.

**Source:** ‘Project Brief’ dated March 1995
mainland, the southern mainland, and the offshore islands). And there is still a good deal of confusion about the way that staff of the new Field and Support Services Division, whose structure is still awaiting approval from the Department of Personnel Management, will relate their own activities to those of other public servants operating at regional, provincial or district levels, including regional and provincial forestry officials, who presently do nearly all the work of monitoring large-scale logging operations.

The provincial government reforms have created a similar set of problems for the design of a Species Management Strategy, which is meant to be the other major contribution of the DEC Strengthening Project to policy reform. The project’s mid-term review recommended the abandonment of this component, partly because it seemed to duplicate the role of the BCRMP in strengthening the Department’s Conservation Division and preparing the groundwork for the long-awaited National Conservation Strategy, and partly because the function of conservation area management was now destined for devolution to provincial governments under the provisions of the new Organic Law. However, DEC officials insisted on the retention of this project component, hoping perhaps that this would provide new options for the Department to retain some of the staff positions due for transfer to the provinces. While these transfers have not yet been effected, work on the Species Management Strategy has also been postponed, as the DEC Strengthening Project is still consumed by the task of establishing the new ERF.

This project is presently due for completion in the latter part of 1998, by which time the institutional strengthening component of the BCRMP will already have finished. Given the uncertainties which presently beset the future status of the Department (see section 13.3), there are serious question marks over the institutional sustainability of the policy initiatives taken by both of these external interventions. The DEC Strengthening Project may prove to have been more successful in limiting the Department’s ambitions, by focusing attention on its role as a regulator and streamlining the legal framework of its operations, than in promoting the kind of ‘entrepreneurial culture’ which is mentioned in the Project Brief. One cannot expect a tortoise to reconstruct its shell while shaking hands with other animals. And yet it does seem rather strange that the project has not even made any attempt to develop the DEC’s motivation and capacity to deal effectively with the NGO community, when donors (including AusAID) have otherwise been doing so much to entrench NGOs in the front line of the battle over forest conservation.
Mushrooms in the dark: community participation strategies

While local community representatives are apparently united in their own sense of exclusion from the forest policy process, there is apparently no stakeholder with an interest in this process who does not claim to believe in the value of ‘community participation’. On the other hand, there are few stakeholders who believe that other stakeholders know how to realise this value in practice. Their common point of departure is the perception that ‘government’ presently delivers very little to rural communities except a growing sense of frustration and alienation, but from that point they have developed a variety of strategies for gathering support amongst the resource owners in the distance.

We begin this section with a review of the way in which the local NGO ‘community’ has emerged, through the policy reform process, as a group of stakeholders whose stake revolves around their claim and their capacity to bridge this gap. We then review the wayward history of the one NFCAP project which was intended, from the outset, to develop policy reform messages for the rural populace, and develop the role of NGOs as their messengers. Since the design of this project took almost six years to complete, other NFCAP projects took over some of its intended functions. But one of the reasons for the delay was the divergence between donor-funded approaches to the problem of community participation in the two ‘sectors’ covered by this programme of reform. Having considered the ways in which this problem has been tackled in the new-look forest industry and the new-look conservation business, we then look at some of the material incentives for sustainability which donors and NGOs have put into the ‘benefit packages’ offered to landowning communities as a reward for their decision not to participate in any form of large-scale forest exploitation. Finally, we remark upon the tendency of forest policy
reformers to assume that several thousand landowning communities, each with its own history and traditions, will exhibit the same response to the same bundle of incentives and messages, as if to say that there is only one problem of community participation, rather than a multitude of local problems which reflects the wider problem of creating one national society.

10.1 Policies and practices of NGOs

Approximately fifty resident NGOs presently claim to have some sort of stake in the forest policy process^72, and these probably account for between one third and one half of the organisations which make up the entire ‘NGO community’ in PNG. Their sources of institutional and financial support include international environmental NGOs, the Christian churches, and foreign government aid agencies. Their scale of operation ranges from the global (including organisations like Greenpeace) to the truly local (including organisations like the Barok Heritage Association of New Ireland). Most NGOs (with the notable exception of the overseas volunteer agencies) are predominantly staffed by PNG citizens, although the larger ones (especially those with overseas counterparts) still make considerable use of expatriate staff and consultants. Their principal activities within the forest policy process include environmental advocacy, applied research, legal aid, conservation area management, promotion of non-timber forest products, and provision of business development advice. There will always be scope for argument over the definition of an NGO, but in a context where the critical problem is to bridge the communication gap between government agencies and rural communities, the official definition or legal form of an organisation is far less important than the function which it is willing or able to perform in the resolution of this problem - whether it be research, training, marketing, advocacy, or whatever.

Within the forest policy domain, a broad distinction can be made between the radical and pragmatic wings of the NGO community, or between those groups and individuals who specialise in campaigning for various policy options and those who specialise in facilitating certain types of rural development:

• the radicals tend to have a wider spectrum of concerns, they produce strong public statements attacking the practices and motives of other

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^72 These are the organisations listed in a database maintained by the GTZ Landowner Awareness Project (see section 10.2 below).
stakeholders, and they seek a fundamental transformation of stakeholder relationships in the policy process;

- the pragmatists tend to focus their activities on the gaps left by government agencies, are more interested in constructing partnerships than denouncing their enemies, and adopt an incremental approach to policy reform by offering proof of their own practical achievements.

It may be tempting to interpret this as a distinction between tub-thumpers and service-providers which parallels the distinction between politicians and public servants. But this temptation should be avoided, because the NGO community does not represent an alternative form of government, and its internal relationships are structured in a very different way.

**Box 10.1 A radical NGO policy position**

The Individual and Community Rights Advocacy Forum (ICRAF) recently spelled out its position on forest policy:

- The NFA should no longer be allowed to purchase timber rights from customary resource owners. FMAs should be freely negotiated between resource owners and developers, but should only cover the sale of timber (or other forest resources) from specific areas.

- The size of timber concessions should be progressively reduced in order to facilitate local community control over resource development. Emphasis should be placed on medium and small-scale projects in order to minimise environmental impact and maximise the value of the resource.

- Resource owners should have access to lawyers of their own choice in order to acquire a better understanding of existing legislation and negotiate the sale of their resources.

- The government should stick to its stated policy of phasing out log exports by the year 2000, and should therefore review all FMAs which allow for export logging to proceed past this date.

- Existing FMAs and Timber Permit conditions should be reviewed and revised by an independent judicial commission, preferably with reference to the *Fairness of Transactions Act*, which was passed by Parliament in 1993 but has never been gazetted.

- Contracts for the harvesting of timber should be reserved for national contractors, who should therefore be granted access to credit facilities required for the purchase of logging equipment.

- The NFA should prohibit overseas sales of logs by resident logging companies, and either exercise the State Purchase Option allowed under the *Forestry Act* or require that logs be sold to independent export agents.

- New foreign investment in the forest industry should be restricted to downstream processing activities, and
local investors should hold 55 per cent of the equity in all such ventures to ensure that resource owners receive a fair price for their timber.

- Assistance should be provided to eco-forestry, eco-tourism, and other forms of local business enterprise which make use of forest resources, to help them identify domestic and overseas marketing opportunities.

- Local communities should be directly involved in the planning, management and monitoring of all economic activities which utilise their forest resources.

- Women should participate equally in all aspects of the forest policy process, and should have equal access to employment and training opportunities in the forestry sector.

Source: ICRAF 1997

Most of the local NGOs which now participate most actively in the forest policy process have been established over the course of the last decade, and many have taken advantage of the funds made available through donor support of the NFCAP. On the other hand, the prominent part played by the World Bank in mobilising this support has been a constant point of friction within the local NGO community, while the recipients have struggled to develop the capacity to meet the expectations of their benefactors.

By the time of the TFAP Round Table in 1990, the Bank had devised three main avenues for NGO participation in the policy reform process:

- The newly-established National Alliance of Non-Government Organisations (NANGO) was to function as the peak body for what the National Forest Policy described as ‘non-government organisations concerned with environmental, social and developmental issues’ (PNGMOF 1991:54) and thus provide a single voice for the local NGO community.

- The NFCAP Technical Support Project was to include an NGO Specialist, with a brief to facilitate the involvement of NGOs in other NFCAP projects, as well as a broader dialogue between NGOs and national government agencies.

- One other NFCAP project, then known as the Landowner Awareness and Support Project, had already been designed around the use of NGOs as a channel of communication between the national government and local groups of landowners.

The twisted history of this last initiative is described in the following section (10.2). In this section, we review the subsequent development of relationships between NGOs and other stakeholders in the wider policy domain.
Box 10.2 Profile of a pragmatic NGO

The mission of the Foundation of the Peoples of the South Pacific, Papua New Guinea (FSP/PNG) is to facilitate community development projects that aim to improve people’s quality of life and sustainable resource management through continued support in the areas of education, awareness and economic development.

In its commitment to promotion of equality, participation and self-reliance, FSP/PNG gives special attention to proper care of the environment. Its current programmes include:

• **Awareness Community Theatre (ACT).** This is an effective vehicle for transmitting messages and information in a way that illiterate people can understand. ACT runs awareness workshops and theatre performances on issues such as environmental protection, AIDS, domestic violence and consumer awareness.

• **Ecoforestry.** Within the Melanesian cultural context of customary landownership, FSP advocates the development of sustainably managed forest-based enterprise at local community level. Ecoforestry enterprises can help communities to improve their well-being by generating cash, while maintaining their forest resources as well as their traditional uses and practices.

• **Grass Roots Opportunity for Work.** This programme aims to improve rural lifestyles and natural resource management through promoting sustainable agricultural practices, basic health care and nutrition. It particularly focuses on the role of women as agriculturalists.

• **Integrated Conservation and Development (ICAD).** This programme works to promote development and conservation initiatives by establishing direct linkages between an increase in the socio-economic well-being of landowners and conservation of natural resources. At present the programme focuses on the Lakekamu-Kunimaipa Basin in Gulf Province. The ICAD programme promotes the conservation of the lowland forest of the Basin and its upland watershed by focusing on research and building the capacity of the local landowners to be leaders in their own development. The programme integrates conservation and development by supporting ecotourism and the marketing of non-timber forest products. The ICAD programme also gives training and on-site assistance.

• FSP collaborates with local and international partners in its day to day activities, and has been at the forefront of efforts to develop standards for sustainable forest management through its association with the Forest Stewardship Council.

Source: Diwai, Volume 2.9, October 1997
NANGO’s constitution was finalised in January 1991, and a representative promptly appointed to the NFAP Steering Committee. Discussions within NANGO were initially concentrated on the question of when and how the NGOs would be able to obtain donor funding for their contribution to the programme, and the conditions under which they would agree to participate in some of the government projects which had already been designed. Since government officials were no less sceptical about the prospects of a dialogue or partnership with local NGOs, the World Bank quickly moved to establish a Trust Fund for ‘pure’ NGO projects, and persuaded the Australian government to finance this initiative. Although the creation of this mechanism was announced in July 1991, local NGOs did not see any of the money until August 1993 (see section 6.4). The frustration caused by this delay gave added weight to the radical argument that NANGO should concern itself with ‘policy’ rather than with ‘projects’. But the parallel delay in gazettal of the new Forestry Act, which promised NGO representation on the National Forest Board and Provincial Forest Management Committees, was even more important in this respect, because it appeared to prove the government’s own lack of commitment to policy reform, and thus to demand that NANGO’s main function should be to carry on the fight against the forces of corruption in the forest industry. Even after the Act had been gazetted, further publicity campaigns were
required to prevent its amendment by the political supporters of the logging companies, and NANGO’s public profile reached its peak during the period of this contest, from 1992 to 1995 (see section 8.1). It seems, in retrospect, that this was precisely the role which the Bank had always wanted it to play, even though the campaigning NGOs retained their deep suspicion of the Bank’s ultimate motives, and began, in 1995, to campaign against the Bank’s proposals for ‘land reform’ with the same vigour which they had previously applied to the logging industry.

Although NANGO played its part as a pressure group in the peak years of public debate about the reform process, it also served as a forum for all manner of personal and ideological battles between its members, which have been reflected in the rotation of executive positions within the organisation and the alternation of NGO representatives in the decision-making structures of the NFA. Some commentators have ascribed these internal conflicts to the unrealistic expectations of other stakeholders, and the diversity of the demands which they have made of an organisation which is itself an ‘alliance of diversity’ (Mayers and Peutalo 1995:18). On the other hand, the specific nature of the policy process for which it was initially created, and the campaigning role which arose from its location in this process, could never have accommodated such diversity, and may have actually closed off several options for communication with other stakeholders. Whilst NANGO found it difficult to facilitate a partnership between local NGOs and the National Forest Service in the implementation of NFCAP forestry projects, other government agencies with a specific interest in developing such partnerships were inclined to regard NANGO as a nuisance or an irrelevance, because of its attachment to a single policy domain.

NANGO now seems to have passed its use-by date. Its campaigning role has been taken over by two radical NGOs - ICRAF and Greenpeace - which have decided that there is little to be gained from further efforts to control the political orientation of an umbrella organisation. The more pragmatic local NGOs with a stake in conservation and resource management issues have likewise chosen to invest more time and energy in their relationships with international counterparts and target communities in rural areas. This does not mean that there is less communication or cooperation between local NGOs, but this now takes place through a more informal network of contacts and through meetings held to discuss particular issues or projects. The Conservation Resource Centre and the Landowner Awareness Project have both played an important part in brokering this exchange of ideas, and the World Bank continues to consult with the NGO community over
the direction of its own policies, even though some members of the community remain in fundamental disagreement with the outcome. While the pace of policy reform has slowed, there is more evidence of a general consensus between donors and NGOs about the several roles which the latter should be playing, and about the overriding need to keep on building their capacity to do so.

Box 10.3 NGO participation in the NFCAP

In their report on the experience of NGO involvement in NFCAP, Mayers and Peutalo (1995) drew various conclusions on success and failures. The principal successes of NGO participation in the Papua New Guinea NFCAP are:

- Involvement of NGOs in key formal decision-making bodies and structures for participation.
- Organised and effective support from NGOs for progressive government initiatives in forest policy and institutional reform.
- Institutional support to develop NGO networks, chiefly through support for the founding and development of the NGO alliance - NANGO.
- Increase in NGO capacities in forestry and related fields, through funding, training and information support.

Continuing constraints to fruitful NGO participation include:

- The perception amongst NGOs that NFCAP does not belong to them. The framework of the NFCAP was conceived and shaped before any formal mechanisms for national NGO consultation were in place.
- Opportunities for substantial NGO participation developed far more rapidly than the NGO capacity to consider the policy implications of the NFCAP.
- Slow development of initiatives oriented towards the identified primary beneficiaries of NFCAP - the customary landowners. Funding procedures for NGO participation were also opaque and unduly lengthy.
- Lack of widely-agreed goals for the type of NGO capacity which was needed, and hence the process for deciding which NGOs should be supported.

Papua New Guinea has created almost unprecedented opportunity for NGOs and customary landowner groups to participate in decisions about the management of national forests. NFCAP has also put NGOs on the political map in PNG and a delicate relationship continues to evolve between NGOs and government. It will take commitment over a considerable period yet to ensure that this process lives up to its billing and engenders lasting enrichment of PNG’s development process. As far as NFCAP is concerned, the level of this commitment is uncertain.

10.2 The NFCAP Landowner Awareness Project

In the process of consultation between the TFAP Review Team and PNG government representatives during 1989, the Landowner Awareness Project was initially conceived to be part of a National Literacy and Awareness Programme, which would itself be part of the Resource Management System then being developed as a national planning mechanism within the Prime Minister’s Department. The ‘Landowner Awareness and Support Project’ (LOASP), as described in Annex 10 of the TFAP Review (World Bank 1989:168) was designed to secure:

• the commitment of customary landowners to the ‘concepts of sustainable management and conservation of the natural forest’; and
• the knowledge and skills necessary for them to ‘participate effectively ... in the development of the forest resource’.

It was suggested that education alone would not produce the required commitment, and a programme of ‘awareness’ would therefore have to be combined with two additional ingredients:

• a package of material incentives or ‘benefits’ (the element of ‘support’), which would be designed to address the popular demand for ‘development’; and

• a process of continual negotiation between the landowners and other interested parties, which would take account of the popular perception that transactions in customary land cannot be permanent.

Despite this ‘rationale’, the ‘project outline’ appeared to make no provision for anything beyond a programme of awareness: there would be a non-profit-making company with a broadly representative board and a ‘training and information centre’ from which ‘mobile teams’ would be despatched to ‘carry out extension activities with landholders’.

It was agreed by the participants at the Round Table that the LOASP would be critical to the success of the whole programme, and its implementation should therefore begin as soon as possible. Indeed, this was one of the reasons why some of its functions were incorporated, as an interim measure, into the design of the Task Force on Environmental Planning (see section 9.1). The World Bank had already persuaded the German government aid agency GTZ to take responsibility for funding the project, but only on condition that it be subjected to the very thorough planning procedures adopted by this agency.
Meetings during the latter part of 1990 agreed that the LOASP would sooner or later be administered by a Landowner Awareness Centre to be established as an integral component of the National Literacy and Awareness Programme. This was to be a private company in which the shares would be held by five government departments (including DOF and DEC), and whose board of directors would include representatives of eight government departments, along with NANGO and the Melanesian Council of Churches. The Board would report to the Secretariat of the National Literacy and Awareness Council, while the Managing Director (with two support staff) would oversee the operations of a seven-person Publication Unit (initially accommodated by the Prime Minister’s Department) and an eleven-person Mobile Training Unit (initially accommodated by one local NGO - the Wau Ecology Institute). Although forestry and conservation issues would be given priority, the Centre’s Articles of Incorporation would be written in such a way as to allow other government agencies to use the service as well. It was evidently recognised that this elaborate scheme would cost a good deal more than had been allowed under the previous budget for the LOASP, and would almost certainly require support from more than one source of overseas aid.

The architect of this scheme then exchanged his job in the Prime Minister’s Department for a more lucrative position in the World Bank, and the conceptual structures surrounding the LOASP promptly vanished into thin air. In April 1991, the World Bank’s NFAP review mission produced another conceptual structure which featured a ‘sub-programme’ entitled ‘Promoting Landowner Participation’. The suggestion was that the element of ‘landowner support’ be formally removed from the LOASP and divided between the Task Force and two entirely new projects. The Bank also urged the NFAP Steering Committee to address three specific problems associated with the design of this sub-programme:

- the need to create an effective mechanism to identify and fund landowner benefit packages, which was seen to arise from the limited success of the Task Force;

- the need to determine a mechanism for appraising and funding NGO activities in support of the NFAP, which might be addressed in a similar manner; and

- the need to decide what approach should be taken towards the Landowner Awareness Project (LOAP), and the manner in which this project might also be related to the funding of landowner benefit
packages — the element of ‘support’ which had now been removed from the title of this project.

These three issues were discussed at some length, and it was recognised that progress on each front was being held up by the lack of progress on the other two. It was then decided that the third issue was the one on which an attempt should now be made to break the deadlock.

The Steering Committee therefore asked one of its members to produce a report on various issues affecting the design of the LOAP, excluding the question of how to relate ‘awareness’ to ‘support’. This report noted the discrepancy between the visions of ‘landowner awareness’ espoused by the NGOs and by many government officials, especially those in the DOF:

*There is a perception in some quarters, especially amongst the NGOs, that the LOAP is essentially an environmental awareness project, or a project whose primary function is to alert landowners to the social, political and physical hazards of large-scale logging in any form. According to this view, the ‘forest industry’ cannot be reformed or rationally managed, which seems to imply that most or all of the NFAP projects within the forestry sector are doomed to failure. At the same time, the process of reform which is actually being attempted through these projects is one which clearly will not work unless it is widely understood and accepted by all the parties involved, including the landowners. From this point of view, the LOAP is essentially a project to explain this process of reform..... The question is whether the LOAP can encompass both of these perspectives. DOF clearly does not want an LOAP which deliberately sets out to interfere in the demarcation of ‘production forests’ by trying to persuade local landowners that large-scale logging is not in their interest..... The situation which surely needs to be avoided is one in which two ‘landowner awareness projects’ compete for the attention of the same landowners - one promoting ‘forestry’ and the other promoting ‘conservation’ (Filer 1991c:15-17).*

This was the circle which apparently had to be squared. Forestry officials had a pragmatic interest in educating landowners about the provisions of the new *Forestry Act*, facilitating the negotiation of Forest Management Agreements, and promoting forms of community organisation adapted to this process. Members of the NGO community were more interested in using the Barnett Inquiry as the basis for a protracted homily on bribery and corruption in the forestry sector, and were naturally inclined to target those areas in which they stood a chance of persuading local landowners to reject proposals for new forestry projects. A third position was occupied by
the DEC officials who had an interest, but almost no capacity, to negotiate the acquisition and management of new conservation areas with landowners who might or might not be ‘threatened’ (or delighted) by the prospect of large-scale logging. It was hard to see how the NGOs and the government could jointly implement a project which encompassed all these types of activity.

But the main sticking point in the design of this project had been evident from the outset - the vexed question of ‘partnership’ between government and NGOs in its coordination and implementation. This question was aired at great length in the project planning workshop hosted by the GTZ Appraisal Mission in June 1991. Those local NGOs which had already developed some speciality in the field of ‘landowner awareness’ were clearly not prepared to accept any national government department, or even one of their own number, as the ‘lead agency’ responsible for coordinating their own participation in this project. The planning workshop therefore proposed the creation of an ‘LOAP Trust Fund’, administered by a board of trustees which would include the representatives of four government departments and four different types of NGOs. NANGO would nominate the four NGO representatives, and the whole board would elect a chairman from amongst the four government representatives. This board would determine the allocation of project funds between government or non-government agencies proposing to undertake activities which would serve the aim of promoting sustainable forest management through ‘dialogue and cooperation’ between local landowners and other stakeholders.

Unfortunately, the head of the Appraisal Mission was unable to complete his report to the satisfaction of GTZ, whose own officials therefore placed this project in the ‘too-hard basket’ for the next two years. So this was evidently not the way to break the deadlock which the World Bank had identified. The Bank proceeded, rather slowly, to establish another Trust Fund to support the activities of local NGOs (see section 10.1), but did not seek to establish a body of national trustees whose constitution would occasion further bickering amongst the membership of NANGO about the roles and powers of government departments. The Bank also moved to address the problem of landowner awareness in the forestry sector by including a ‘landowner involvement’ component in the NFCAP Forest Management and Planning Project, although this was primarily concerned to develop the Forest Authority’s capacity to manage the land group incorporation process as part of its resource acquisition procedures under the new Forestry Act (see section 8.4).
As the ‘conservation’ component of the rechristened NFCAP was enlarged by the allocation of GEF funds to the BCRMP, this programme assumed many of the functions previously allocated to the Task Force on Environmental Planning, including the conduct of awareness campaigns and the design of ‘benefit packages’ for landowners in areas selected for experimental ICAD projects. The Conservation Resource Centre entered into a contract with one local NGO (FSP) to supply a Landowner Awareness Specialist for the Lak project, whose two years of work were later described as the ‘backbone’ of this experiment (McCallum and Sekhran 1997:47), despite its apparent failure. Indeed, the failure of this first experiment resulted in an even heavier emphasis on this type of activity in the Bismarck-Ramu project (see section 10.4). At the same time, the BCRMP inherited the problems raised at the GTZ Appraisal Mission workshop through its separate mandate to design a Conservation and Environment Trust Fund, distinct from the fund already being managed by the World Bank, and in the absence of further communication from GTZ, this was still regarded as the most appropriate method of funding the LOAP.

When GTZ finally awoke from its slumbers, therefore, several of the ingredients in the original conception of the LOASP had already been taken over by other NFCAP projects, but their mutual relationship was something of a puzzle. GTZ sent a Project Manager to PNG in early 1994, and he spent more than a year familiarising himself with the local institutional scenery before a final project planning workshop was held in May 1995, some time after the first phase of the NFCAP had already been completed and reviewed. By this time, GTZ had decided that there was no option but to treat the LOAP as an ‘official’ DEC project, because the BCRMP had not yet made much headway with its own solution to the problem of establishing a Trust. On the other hand, the Project Manager had concluded that the DEC would not provide a congenial physical environment for the LOAP, and had decamped to a suite of offices in the building which houses the various UN agencies in Port Moresby.

The final design of the LOAP was centred around three ‘demonstration projects’ which would ‘develop and test forms of sustainable resource use by customary landowners’, and then make the results available for public consumption:

• a ‘small-scale logging project’ would experiment with the production and marketing of timber by village or clan groups using portable sawmills;
• a ‘medium-scale logging project’ would experiment with methods of coordinating the production and marketing activities of several such groups in neighbouring communities; and

• a ‘large-scale logging project’ would experiment with feasibility studies for a subsequent investment by an environmentally responsible and socially sensitive developer.

A number of other ‘mini-projects’ were designed to provide an opportunity for local NGOs to provide particular types of assistance to local landowners in the areas selected for these demonstrations. For example, one NGO would be contracted to provide them with legal advice, another to conduct conflict resolution workshops, and a third to promote concepts of self-reliance through ‘community awareness theatre’. Apart from these endeavours, the project also aimed to develop a national communication network linking all stakeholders with an interest in conservation and sustainable development, to boost the broadcasting capacities of provincial radio stations, and to distribute a variety of mass media messages and educational resource materials.

The first demonstration project ran into difficulties when the government unexpectedly issued a Timber Permit covering the project site\textsuperscript{73}, the legal advisers supplied to the local community were unable to organise a successful challenge to this action, and project staff began to have serious doubts about the economic and social sustainability of the small-scale operation which they were supporting. The second demonstration project never even got started, because the NGO contracted to organise the local sawmill operators was unable to secure their cooperation, and the third had to be radically redesigned as another kind of ‘medium-scale’ forestry enterprise in which GTZ project staff took over much of the developer’s intended role in partnership with a local landowner company. Although the project seems to have been quite successful in promoting the exchange of information within the network of interested stakeholders, it still obviously suffers from a shortage of raw material with which to manufacture optimistic messages.

Even if this problem can be overcome, and some of the partnerships with local NGOs turn out to be more productive during the remaining life of the project, many of its activities still go way beyond the present mandate of the DEC, and hence the purposes for which the Department is being ‘strengthened’ by another donor (see section 9.2). At the same time, the

\textsuperscript{73} This was the permit for Vailala Blocks 2 and 3 (see section 8.1).
LOAP may have provided a pretext for the rest of the Department to ignore the need to develop stronger ties with local NGOs, and this means that GTZ will face serious difficulties as it tries to leave an institutionally sustainable legacy behind it.

10.3 Community participation in the large-scale logging industry

The National Forest Policy (PNGMOF 1991:34) regarded landowner companies as one of the most important vehicles for greater ‘national control’ over the forest industry. This was understandable, when one considers that such companies held more than half of the operational Timber Permits which had been issued under the terms of the old Forestry Act, as well as representing the ‘landowner interest’ in all the Local Forest Areas declared under the Forestry (Private Dealings) Act. Even under the new Forestry Act, landowner companies remain the most obvious vehicle for national participation in the ownership and control of large-scale logging operations, because the resource owners who sign a Forest Management Agreement will not normally countenance the direct participation of citizens who do not originate from their own area. However, if landowner company directors were entitled to think that their commercial initiatives bore the stamp of government approval, many of them felt (with good reason) that the policy reform process represented a threat to their own positions of leadership within their respective communities. Once the reform process began in earnest, following gazettal of the new Act in 1992, their response to this threat was seen as proof (if further proof were needed) that they were nothing more than puppets of the logging companies, and could not therefore claim to represent the interest of their communities (see Simpson 1997).

The main reason why landowner company directors could not be readily accommodated in the reform process was that most of these companies had been formed for the exclusive purpose of ‘capturing’ a foreign logging contractor, within a space which had been cleared by the failure of previous experiments in rural development and for which traditional models of collective enterprise were clearly inadequate. The colonial administration had tried and failed to establish the economic viability of agricultural marketing cooperatives in various parts of the country. Most of the ‘development corporations’ established by provincial governments and
national politicians in the early years of independence had also come to a quick and sticky end. Small family business groups had become the standard form of rural enterprise, but their expansion was (and still is) constrained by poor management skills, limited access to credit, and a lack of support from the government’s own ‘business development officers’, whose performance has generally been lamentable. Although some rural entrepreneurs had broken through these barriers, they had rarely done so in those parts of the country which are most attractive to the logging companies. On the other hand, the business development programmes sponsored by Bougainville Copper Ltd and Ok Tedi Mining Ltd had offered a more promising example of the benefits which could be obtained from ‘joint ventures’ between local landowner companies and some of the mining industry’s major sub-contractors.

In most cases, the new breed of landowner companies, which were established to pursue comparable joint ventures with foreign logging contractors, reflected a genuine popular desire - sometimes bordering on desperation - for this kind of extractive development. Many became ‘unrepresentative’, and their directors lost their popularity, when further decisions had to be made about the details of their contractual arrangements and the distribution of costs and benefits which these entailed. At the same time, the policy reform process created an apparent need for new forms of community organisation which do not, or should not, share the same functions and aims. The reformers were concerned with the question of which specific form of organisation was best adapted to each specific form of community participation, within a policy framework which emphasises the values of democracy and accountability.

This question became the subject of a consultancy report on ‘Representative Resource Owner Bodies for Forestry Projects’ produced for the PNG Forest Management and Planning Project in 1995. The author of this report considered that landowner companies were appropriate only for the pursuit of strictly ‘commercial’ objectives, but were far less appropriate for the pursuit of those ‘social’ objectives which were concerned with a community’s overall quality of life. Under the government’s new policy regime, representative bodies were expected or encouraged to perform several tasks or functions which served the social, rather than commercial, aims of resource owners in the development of large-scale forestry projects. These included:

• negotiating (or renegotiating) the basic conditions of project development, especially the priorities for social and economic infrastructure;
Box 10.4 The problems of landowner companies

Although it is frequently said that landowner companies (LOCs) malfunction because they are not representa-
tive, it is likely that the reasons are somewhat more complex. The establishment of a representative structure
may not, by itself, necessarily resolve all the problems which these bodies experience.

Logging companies foster their own interests by garnering favour with LOC managers and directors at the
expense of broader community interests. The ability of the community to take action with respect to breaches by
the LOC is handicapped because the dispute between the company and the community has been shifted to a site
within the community itself, often exploiting pre-existing factional divisions.

Many LOCs lack the capacity and capital to effectively manage a logging operation and so become dependent on
the logging contractor, sharing offices and fax numbers and even bank accounts. The interests of the LOC thus
become inextricably tied to those of the contractor which provides its income stream, at the expense of the
interests of the resource owners the LOC is presumed to represent.

Board members will regularly engage in political manoeuvring to secure their power and influence on the board
and then consolidate their position through patronage. When the powers of board members under the articles of
association are unrestricted, and particularly if they have control over the appointment of company management,
their opportunity to manipulate the company in this way is virtually unchecked.

Few resource owners properly understand the role and responsibility of office-holders, or the nature of the
fiduciary obligations they owe to shareholders. Many mistakenly assume that the company belongs to its
office-holders. It is common for directors to utilise community funds as their own, much as they perhaps see
some politicians using government funds. Lack of compliance with audit requirements, and the inability or un-
willingness of shareholders to demand adequate reporting and accountability, compounds this situation, so that
problems may not be identified until the resulting losses are significant.

Standard articles permit loans by the company to directors without the consent of shareholders, and authorise
the payment by directors to themselves of directors’ fees, also without shareholder approval. These problems
can be overcome with changes to company articles, but this almost never occurs. Internal management
structures are not adequate to enable management to resist ‘pilfering’ of company assets by board members.
There are examples of logging operators perpetuating this state of affairs by making advances direct to board
members and deducting these from the company’s income.

In addition, it has been government policy for some time to relax controls on companies which are wholly nation-
ally owned, presumably on the basis that many of the requirements are too onerous, or on the assumption that
only non-citizen office bearers are likely to abuse their powers. While the objective of making company operation
simpler for Papua New Guineans is an admirable one, the provisions which are relaxed are the very ones which
might force directors to provide a greater level of accountability to shareholders.

• formulating and applying rules for the distribution of project revenues earmarked for the benefit of the entire community;
• monitoring the compliance of developers with timber permit and environmental planning conditions, and seeking compensation for any breaches of such conditions;
• lobbying the government or the developer for greater community access to project employment or business development opportunities;
• resolving disputes between resource owners over the progress or impact of the project; and
• organising activities designed to promote the regeneration of forests which had already been logged (Whimp 1995:21-22).

The report recommended that all such activities should be the responsibility of landowner associations established under the Associations Incorporation Act, whose membership would be restricted to land groups established under the Land Groups Incorporation Act. While the new Forestry Act had already recognised the formation of incorporated land groups (ILGs) as a key ingredient of the resource acquisition process (see section 8.4), they were now to be treated as the basic ‘building blocks’ in the formation of representative bodies which would exercise a much wider range of ‘social’ functions, and might also participate as shareholders in reconstituted landowner companies which would still be dedicated to the pursuit of those commercial objectives from which landowner associations would be legally excluded. This model of the mutual relationship between the three types of community organisation was the one which had been pioneered by the developers of the Kutubu petroleum project, and was ultimately based on some of the experiments conducted in East Sepik and East New Britain provinces under the auspices of the Land Mobilisation Project (see Fingleton 1991; Power 1991). The Land Mobilisation Project, like the FMPP, had been directly supported by the World Bank.

The diagram used to represent this triangular relationship (Figure 10.1) reveals some of its complexities and uncertainties. The assumption made here is that the boundaries of each timber concession should ideally be the boundaries of a single landowner association and a single landowner company, and that the landowner company, as holder of the Timber Permit, should still be the body which enters into a Logging and Marketing Agreement with a logging contractor. This leaves open the question of whether and how the landowner association might relate to the logging contractor, and what kind of ‘policy directives’ it might use to exercise control over the landowner company. The diagram also recognises the
Figure 10.1 A structure for representative resource owner organisations

possibility that the landowners of a single timber concession might be divided in their allegiance to a number of separate associations or ‘business groups’, but glosses over the problems which are likely to arise as a result of political conflict between these competing bodies.

In practice, the NFA has made little or no progress in the application of this model of community participation, because it simply does not have the resources necessary to organise the formation of all these representative bodies, and the only other organisations from which it might solicit practical support in this exercise are those same logging companies whose undue power and influence are meant to be diminished by this form of community empowerment. Forestry officials have barely been able to handle the process of land group incorporation required for the issue of new Timber Permits under FMAs. As the project review process has ground to a halt (see section 8.6), resource owners in those concessions granted under the old Forestry Act have largely been left to their own devices, which means that they are still ‘represented’, for better or worse, by their respective landowner companies. This has provided additional ammunition for the logging companies and the FIA, who can argue that the NFA’s insistence on new forms of community representation is nothing but a pretext for the national government to retain possession of the Project Development Levy which accounts for the greater part of the increase in landowner benefits under the new revenue system (see section 8.9).

The experience of the Kutubu project might well have served as a warning against the adoption of this model of landowner representation in the forestry sector. Government officials played a minimal role in constructing the complex hierarchy of land groups, landowner associations and landowner companies which now exists in the area covered by the Petroleum Development Licence. The staff of Chevron’s Lands, Community Relations, and Business Development sections, who were largely responsible for creating it, have continued to spend a great deal of time and money on the maintenance of ‘correct’ relationships between these various bodies, because this task continues to surpass the understanding and capacity of their actual members (Tony Power, 1998, personal communication). A multinational oil company can afford this luxury, and the government is probably entitled to approve their good intentions, even if the results often confuse or frustrate the ordinary villager. There is no reason to expect that logging companies can earn the same kind of approval from the NFA, especially while donor agencies stand guard over the forest policy process.
Even if the government had the capacity to duplicate Chevron’s labours in a hundred separate timber concessions, doubts would still remain about the kind of community participation or empowerment which its efforts might achieve. The new Forestry Act seems to regard the active involvement of forestry officials in the process of land group incorporation as an essential condition of the collective property rights which that process is meant to establish (Whimp 1995:32). This may seem to make sense, if the only alternative is for logging companies to do the necessary work on behalf of the government. But the assumption made here is that resource owners do not have the capacity to organise themselves in a manner which can satisfy the legal requirement for genuine accountability. The need for external bureaucratic or corporate assistance to create ‘democratic’ grassroots organisations in what is supposed to be an egalitarian society is surely a problem in its own right. Does the process of land group incorporation grant new powers to resource owners who have yet to appreciate the modern legal foundations of true democracy, or is it a method of regulating the wayward behaviour of local community leaders in order to advance the interests of other stakeholders in the policy process? This question came to the fore when the General Manager of the NFA tried but failed to persuade the National Forest Board to establish provincial associations of ILGs which could represent the interests of resource owners in the deliberations of Provincial Forest Management Committees. This move was opposed by both the FIA and the NGOs, who feared that such associations would do little more than apply rubber stamps to decisions made by forestry officials (Brian Brunton, 1997, personal communication).

Perhaps the most important aspect of this problem is the difference in the scales of representation at which the values of democracy, participation and accountability are meant to be realised (see Figure 10.2). The argument that landowner companies have shown themselves to be ‘undemocratic’ or ‘unrepresentative’ forms of organisation tends to conceal the problem of establishing any kind of democratic decision-making body with widespread popular support at the scale at which landowner companies have sought to operate - which simply approximates the size of the timber concessions which the NFA regards as an essential condition of sustainable forest management. The great virtue of ILGs, in the eyes of their proponents, is that they represent those customary social groups, normally labelled ‘clans’, which already possess the capacity to make collective decisions about the use of their natural resources. But these groups are normally very small, containing less than a hundred members, which normally means that decisions require the consent of less than twenty adult men. This is the typical scale, and also the typical limit, of ‘traditional consensus’...
on such matters. Traditional political communities, or ‘tribes’, may be regarded as loose confederations of such customary groups, maintained for military purposes, whose ‘jurisdiction’ over the allocation of natural resources rarely extended beyond the formation of rules for the allocation of land acquired through the conquest of their tribal enemies. And these communities were also very small, rarely exceeding a membership of more than a thousand people, and more likely to divide before their population reached even half this number. The leaders of so-called ‘cargo cults’ in the colonial period were trying to create new forms and scales of local organisation in full knowledge of the fact that ‘custom’ provided them with no model for such an enterprise, and were therefore liable to treat ‘custom’ as an obstacle to their endeavours. And the colonial administration attempted to take the heat out of their activities by ‘incorporating’ traditional political communities as the basic units of representation in the ‘properly’ democratic and accountable institutions called ‘local government councils’.

The pursuit of land group incorporation could be regarded as a rather similar exercise, but at a smaller scale and in a more restricted policy domain. In this case, the ‘provocation’ came not only from the dubious dealings of landowner company directors, as latter-day leaders of the ‘resource development cult’, but also from the ‘clan agents’ who could not be trusted to act in the interests, or with the agreement, of their fellow clan members when signing resource development agreements. The analogy falters over the fact that earlier cargo cult leaders were not living in the pockets of foreign companies, and the more disturbing fact that government officials can no longer be trusted to deal with landowner representatives in that same spirit of bureaucratic (and paternalistic) detachment with which colonial officials approached the formation of ‘native councils’.

Land group incorporation is meant to prevent one small group of individuals, who might be clan agents or landowner company directors, from making decisions about the use of resources which belong to many other small groups of individuals, who are their ‘real’ collective owners. The new Forestry Act clearly conceives the basic power of an ILG as the power to refuse the government’s offer to purchase the rights to its forest resources through an FMA. From this point of view, the basic function of land group incorporation is the production of ‘informed consent’ to the latest version of the resource acquisition process. Why should we expect such limited powers and functions to provide the basis for community participation in resource management decisions on a much wider scale,
rather than to reinforce the customary social isolation of the many fractions into which traditional political communities have previously been divided?

In a timber concession of any considerable size, we might expect to find ten or twenty traditional political communities, and maybe ten times that number of customary land groups. Imagine a project-wide landowner association in which each of these groups had its own representative on the central executive. It would be hard enough to organise a meeting of so many individuals, let alone expect this meeting to take tough but sensible decisions on such matters as the spending of the Project Development Levy, the demarcation of conservation areas within the Timber Permit, or a programme for community involvement in monitoring the permit-holder’s compliance with various standards of sustainable forest management. Of course, this problem can be addressed by further delegations of power - by creating a variety of sub-committees with jurisdiction over specific aspects of the development process, for example, by creating an intermediate layer of smaller associations representing the land groups in different parts of the permit area, or by getting the land groups in each village or council ward to
elect a single representative from amongst their number. But whatever the wider structure of representation might look like, the critical question is whether the previous establishment of ILGs makes any difference to the quality of the decisions taken jointly by their representatives. If the same quality of deliberation can be achieved where the members of each clan or village or council ward simply elect or nominate their representatives, in the same way that they choose their local councillors, or their local school boards of management, then the process of incorporation begins to look like a sledgehammer applied to the wrong nut.

In practice, most of the landowner associations which have been established, under the *Associations Incorporation Act*, to negotiate the conditions of resource development on customary land, have been set up to deal with mining and petroleum companies holding exploration licences, in much the same way that landowner companies have been established to deal with logging contractors who seek access to timber resources. Both types of organisation have been equally ‘unrepresentative’, in the sense that their leadership normally appears to be largely self-appointed, yet still accepted and sometimes overtly supported by its local constituency. This difference in the way that landowners have spontaneously chosen to organise themselves, or allowed themselves to be organised, follows from the fact that landowner companies can reasonably expect to get their hands on a Timber Permit, but not on a Special Mining Lease or a Petroleum Development Licence. In the mining and petroleum sector, landowner associations have typically served as vehicles for negotiating the terms of a ‘landowner benefit package’ with both the government and the developer, and have lost most of their significance and influence once that process of negotiation is completed. The package invariably contains an undertaking by the developer to provide further opportunities for community participation through support for landowner companies and local business groups, while the government commonly agrees to share its own revenues with some kind of elected local authority.

Given the practical problems of land group incorporation, and the unavoidable presence of landowner companies as the actual voice of resource owners in the forestry sector, it is reasonable to ask why so little attention has been paid to the actual or potential role of local-level governments as vehicles of community participation in this arena. In her own report to the NFA, Whimp (1995:30) did suggest that landowners who had already been incorporated into land groups should then have the choice of being represented, on a higher level, by their local-level government, rather than an incorporated association. However, even by
1995, when the new Organic Law was already on its way through the national parliament, it was hard to predict the extent to which it would grant new powers and functions to a level of government which had been grossly neglected for the previous twenty years. In many parts of the country, local government councils or community governments had truly become the runts of the state, unable to access the share of provincial government revenues to which they were theoretically entitled, and unable to raise revenues from their own constituents because of widespread popular disaffection with all forms of ‘government’. Although the new Forestry Act allowed for them to be represented on Provincial Forest Management Committees, and thus to play some role in planning the use of forest resources in their respective areas of jurisdiction, the main impetus for policy reform in the forestry sector preceded the efforts to revitalise the role of local-level governments in the wider field of resource management. As a result, the new Forestry Act and the new Organic Law sit uneasily alongside each other, with quite different perspectives on the nature of community participation in the large-scale logging industry, while their respective guardians wait for the other side to make the amendments which would reconcile these perspectives.

Space is possibly the greatest obstacle to reconciliation. The boundaries of timber concessions have not been drawn to match the boundaries of local-level governments, but to fit the forester’s definition of a commercial timber resource. To make matters much worse, both sets of boundaries have been subject to separate forms of bureaucratic and political manipulation. While landowner companies managed to reduce the average size of timber concessions through the declaration of LFAs under the Forestry (Private Dealings) Act, the technocratic reformers who got rid of that legislation have since tried to enlarge the size of timber concessions granted under FMAs in order to promote the sort of long-term investment which will make investors think about sustainability. Over the same period, some provincial governments replaced unpopular local government councils with smaller community governments, in order to establish a sounder but narrower basis for collaboration between the leaders of traditional political communities, but the new Organic Law has partially reversed this form of devolution, by seeking to limit and standardise the number of local-level governments in each national electorate. These two processes of spatial contraction and expansion have taken place without any reference to each other, and still coexist in a situation of ongoing uncertainty about the future movement of their boundaries.

The proponents of land group incorporation are well aware of the
government’s lack of capacity to sustain a series of special-purpose landowner organisations whose powers are limited to certain phases or issues in the development of only one type of natural resource, and whose members cannot even determine the geographical limits of that resource. The NFCAP Review (Taylor et al. 1994) saw the ‘resistance’ of resource owners to forest policy reform as a function of the lack of coordination between government agencies promoting alternative forms of resource management on customary land, and proposed that some type of multi-sectoral agency should henceforth be responsible for supervising the incorporation of land groups and the establishment of landowner associations. The problem with such proposals, and the main reason why little progress has been made in their implementation, is that most rural communities do seem to need some form of external supervision or encouragement before taking action on their own account, and there are no external agencies which have the capacity to offer this kind of support without getting locked into existing structures of administration - which either means the apparatus of local-level government or some sector-specific policy regime. And in the case of the large-scale logging industry, donors and NGOs with an interest in the forestry sector, and government agencies which lack this interest, all have many good reasons not to provide external support for the development of new forms of community participation in what they conceive to be an unsustainable form of resource exploitation.

The FIA still maintains that the whole thrust of the policy reform process was to drive a bureaucratic wedge between resource owners and logging contractors, and that those landowner companies which have survived this process, and even begun to show signs of functioning quite effectively, are now threatened by the superimposition of ‘Trust Committees’ to haggle over the distribution of the Project Development Levy (Jim Belford, 1997, personal communication). Some commentators who do not have the same axe to grind over the new revenue system would agree that much more could have been done, and may still need to be done, to make landowner companies more efficient and more accountable. Considerable efforts were directed to this end in the early stages of the Kandrian-Gloucester Integrated Development Project, whose consultants were obliged to deal with landowner companies as the standard expression of ‘community interest’ in West New Britain, but these efforts ran counter to the growing weight of ‘progressive’ opinion in the donor community (Simpson 1997). Nevertheless, having withdrawn its support for this element of the KGIDP, 75

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75 The KGIDP was never accepted into the NFCAP club, partly because NGOs in Australia and PNG complained so bitterly about the project’s engagement with landowner companies.
Box 10.5 Who represents the Hunstein range?

During preparations for the 1997 national elections, someone noticed that the population of the Ambunti-Dreikikir Open Electorate, in East Sepik Province, was considerably larger than the population of the neighbouring Wosera-Gawi Open Electorate. Although this disparity has existed since 1977, when the country’s electoral boundaries were last redrawn, no-one now believes that the Electoral Boundaries Commission has the capacity to rectify such anomalies. In order to even things out a bit, a group of villages was ‘transferred’ from one electorate to the other, and their local government councillors were simultaneously transferred from the Ambunti Local Government Council to the Gawi Local Government Council.

In practice, these councillors no longer attend council meetings, because the Gawi Council meets in Pagwi, which is much further away than Ambunti station, where the Ambunti Council meets, and most of them would have to travel through Ambunti to get to Pagwi. Since Ambunti station was the headquarters of the old Ambunti District, which included the Gawi Council area, and is still the headquarters of the new Ambunti-Dreikikir District, which does not include the Gawi Council area, no-one in Ambunti station seems to know which district, and which council, is now responsible for delivering government services to the villages affected by the transfer, but are generally inclined to believe that the result will be no services at all.

By some strange coincidence, the villages which have fallen into this political and administrative black hole happen to contain most, though not all, of the customary owners of the April-Salumei TRP area, whose boundaries might or might not coincide with those of a conservation area proposed for the slopes of the Hunstein Range. This area has long been the focus of a struggle between the provincial supporters and opponents of large-scale logging, many of whom derive from villages which have no territorial rights in the TRP, but which are much closer to the government services available in Ambunti and Pagwi, and which therefore boast many more members of the country’s educated elite. The joke, or the lament, amongst the public servants in Ambunti is that the government has now decided to leave the administration of these April-Salumei-Hunstein villages to the NGOs which have so far been successful in keeping the loggers out of it.

AusAID has more recently allowed for its inclusion in the NFA’s Human Resource Development Project, which it is also funding, in recognition of the fact that forestry officials also have to deal with landowner companies as a fact of life, even if they are also charged with the task of incorporating land groups and establishing other types of community organisation.

This is still a tall order. It is hard to see how forestry officials can succeed in engineering the bureaucratic reconstruction of ‘project-wide representative bodies’, even within their limited domain, when the Australian colonial administration and a multinational oil company have both come to grief in the minefields of ‘local politics’. One point on which
local NGOs are in agreement with the FIA is that the state cannot create and maintain genuine vehicles of community participation in anything. But, whereas the log export industry is prepared to take landowner companies at face value, and let the directors settle their own accounts with rural communities, the NGOs are led to conclude that large-scale industrial forestry is socially unsound, regardless of any steps taken to improve its economic or environmental sustainability, because no form of community organisation can represent the interests of all the people grouped beneath a single Timber Permit. Yet this conclusion overlooks another point: that it is not only the experience of ‘resource development’, but also the demand for it, which is undermining indigenous models of community leadership, even at the lowest end of the scale, where ‘clans’, like landowner companies, are now presenting themselves as the recipients and redistributors of resource rents (Filer 1997a).

10.4 Community participation in the ICAD process

How do the imperatives, and possible structures, for community participation in ICAD ‘projects’ differ from those which apply to the large-scale logging industry? In one respect, at least, they are very similar. That is because the donors who fund these projects in order to harness the global benefits of biodiversity conservation believe that protected areas should be just as large, or even larger, than the timber concessions whose size is thought to be a necessary condition of sustainable forest management by large-scale logging companies. From a strictly biological point of view, it is argued that conservation areas in PNG should cover at least 8000 square kilometres of contiguous territory (Beehler 1993), and the addition of a ‘development zone’ around the edge would add to this requirement (Sekhran 1996). Conservationists are therefore in the business of promoting yet another set of large-scale, special-purpose forms of community organisation in areas whose boundaries are liable to overlap or cut across the jurisdictions of local-level governments or the blocks of territory which different national government agencies have earmarked for different types of extractive development (see Figure 10.3).

Donors and NGOs are certainly prepared to commit more of their own resources to community organisation for conservation, or for conservation with a certain amount of ‘appropriate development’ thrown into the bargain, than to any equivalent exercise designed to facilitate community participation in the large-scale logging industry. Nor has the government
Loggers, donors and resource owners tried to place bureaucratic obstacles in the path of their negotiations with local landowners, by insisting that ‘conservation rights’ should be transferred to the state by the consent of incorporated land groups before the proponents of ICAD projects can be allowed to practice their own arts of persuasion. In practice, of course, logging company representatives continue to deal directly with the owners of those timber resources which they covet, just as they did before the gazettal of the new Forestry Act, but their interest in structures of community participation has rarely extended beyond the manipulation of landowner company directors. In the ‘conservation sector’, donors and NGOs look more like brokers between the local community and the national government, attempting to secure a deal with the former which can then be ratified by the latter. In practice, this puts them in much the same boat as the mining and petroleum companies to which the government has granted exploration licences. To secure their own long-term interest in certain natural resources, they must first prove that they are looking after the interests of a ‘community’ which is deeply and mysteriously divided by its own leadership.

76 In theory, these companies are not dealing with local ‘resource owners’ at all, since mineral resources are legally the property of the State. But this point is rarely appreciated by the people who live on top of them.
The legislation which covers the establishment of protected areas on customary land requires the formation of ‘management committees’ as the appropriate vehicles of community participation. Apart from the Kikori Basin area, where land groups had already been incorporated by Chevron before the ICAD project was initiated, the option of land group incorporation has not yet been pursued by the agencies sponsoring such projects. Given the use of this particular form of community organisation in the petroleum and forestry sectors, there is an obvious risk that conservationists could raise the ‘wrong’ kind of expectation if they were to follow suit. However, conservation area management committees resemble ILGs, and differ from landowner companies or landowner associations, to the extent that they are not normally established by local community leaders searching for new forms of wealth or power, but have to be introduced to a population which may at first be mystified by their purpose. On the one hand, this means that external agencies which sponsor the creation of such bodies can try to ensure that their constitution is not subject to the kind of political manipulation and factional conflict which is typical of ‘spontaneous’ forms of community organisation. On the other hand, it also means that these agencies may need to manage the management committees to an extent which discourages a local sense of ownership or participation.

This problem may be illustrated from the experience of the Crater Mountain ICAD project, where an international NGO (the Wildlife Conservation Society) has been engaged in this kind of activity for more than a decade. Even after a Wildlife Management Area was finally gazetted in 1994, and separate committees had been established to regulate the use of resources within its boundaries and to manage various types of ‘eco-enterprise’,

the intermittent presence of fieldworkers has not proven sufficient to assist in the development of the embryonic institutions in the WMA. During the lengthy absence of a fieldworker from a site in the WMA, confusion or conflict has arisen. The committees have lacked the confidence and experience to take action or to make rulings on topics related to the operation of the WMA or the eco-enterprise. This is complicated by the fact that collaborative management of the WMA and its enterprises requires cooperation between clans that may have been traditional enemies. A resident fieldworker must still be present to ‘walk’ most of the committees through the motions of conducting a meeting, delegating responsibility, identifying action, making a law, writing letters, or resolving conflict (Johnson 1997:418).

This kind of dependency may partly be attributed to the low levels of
literacy and formal education amongst the scattered population of this area, and the corresponding absence of other ‘modern’ forms of community organisation which could either support or challenge the bureaucratic imperatives of the conservation effort. But there is also cause to wonder whether the limited volume and substance of communication between local villagers and visiting American scientists will ever be sufficient to create a common understanding of these imperatives.

In this particular case, local people’s commitment to conservation has not yet been seriously tested by the availability of development options which offer more substantial rewards than the sale of artefacts or guided tours to foreign visitors. The boundaries of the WMA do overlap with those of an Exploration Licence and an FMA, but there are no serious plans for a mining project and the loggers have not yet invaded the area. As a result, this ICAD project has not yet had to deal with a situation in which the integration of conservation and development entails a form of multiple land use planning in which local stakeholders agree to conserve one part of their forest in exchange for the development of another part. Where local stakeholders are divided between a large number of landowning ‘clans’, and the protected area embraces several adjoining clan territories, this agreement has to make allowance for the people in the conservation zone to participate in the development of other people’s land (Sekhran 1996). Given the jealousy with which landowning groups defend the right to benefit from the use of their own land, this kind of ‘transfer mechanism’ may be difficult or impossible to negotiate. The short history of the Lak ICAD project illustrates this problem very clearly. The Conservation Area Management Committee drew most of its support from those clans whose land had already been logged, while the local landowner company drew most of its support from those clans which were still waiting in the queue for ‘development’ (McCallum and Sekhran 1997) (see section 9.1). Even if the ICAD project sponsors had succeeded in ‘selling’ a sustainable forestry project to both of these organisations, there would have been plenty of scope for further factional disputes over the physical location of its operations and the social distribution of its benefits.

Of course, resource developers also have to deal with such disputes, and sometimes have to abandon their projects when these get out of hand (see Leedom 1997a). However, the developers have one great advantage, which is that people in the centre of their operations, with the greatest power to shut them down, also have the strongest claim to compensation for their lost resources. In order to keep the peace amongst a wider group of ‘project impact area people’, resource developers can then distribute progressively smaller ‘benefit packages’ to people who live at progressively greater
distances from this central point. But while developers are thus engaged in ‘feathering the edges’ of their impact area, the conservationists must also be contortionists who have to find a way of ‘feathering the centre’, which, in their case, is the place where resource owners have to bear the opportunity costs of conservation. No ICAD project in PNG has yet devised a form of community participation which has successfully addressed this problem.

ICAD project sponsors are therefore caught between two equally uncomfortable scenarios. If they try to compete with the logging companies by promoting alternative methods of harvesting forest resources, as they did in Lak, they find that local patterns of resource ownership and community leadership militate against the integration of this kind of development with their ultimate goal of biodiversity conservation. If they move deeper into the forest, to places like Crater Mountain, where their pursuit of this goal can be presented as a form of development in its own right, the general ‘underdevelopment’ of the area militates against the formation of autonomous local management structures. One response to this dilemma has been to search for ways to get around the pervasive syndromes of ‘resource dependency’ and ‘project dependency’ by adopting new forms of community entry which are primarily designed to foster attitudes of self-reliance, and which enable the ‘social feasibility’ of an ICAD project to be tested before local people’s expectations are raised, or local politicians’ appetites are whetted, by any mention of a ‘project’, let alone of ‘conservation’ or ‘development’. This ‘softly, softly’ approach is best exemplified in the design of the Bismarck-Ramu project, whose proponents now prefer to describe it as an open-ended process of dialogue with the population of a broadly defined ‘area of interest’ (see section 9.1).

There is certainly no short cut to construction of a local constituency for sustainable resource management. However, the new emphasis on techniques of community entry can only postpone some of the tough decisions which must eventually be taken if the process of local empowerment is to be reconciled with global conservation imperatives. Where several local communities are given the time and space in which to make their own choice between activities which may have positive or negative impacts on biodiversity values, there is no guarantee that people who make the ‘right’ choice will occupy a series of contiguous territories which combine to make a single conservation area of several thousand

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77 This is the phrase used by Chevron’s community relations staff (Tony Power, 1998, personal communication). Chevron’s own support for the Kikori Basin ICAD project is one example of this strategy.
Box 10.6 Consensus management and rural politics

The landowner committees of the Crater Mountain WMA represent four villages and over thirty land-owning clans. Establishment of these organisational bodies has already gone through several iterations, and future modifications are likely. However, it may be useful to look at some of the problems that arose in the early stages of developing a management structure for the WMA.

In the first instance, individual village leaders approached visiting scientists and expressed a willingness to increase economic development through nature conservation. As often happens with village leaders, these individuals often spoke on behalf of constituencies which they could not fairly represent and who were not well-informed of all of the details of setting up a wildlife management area. The fact that they offered to participate in the WMA program did not necessarily indicate an overall trans-clan consensus on conservation. This situation was hard to rectify through small-scale programmatic efforts because of the geographical constraints imposed by the area on field staff seeking to increase local participation. Most project activities can only reach one or two constituencies at a time, and only ambitious individuals who travel long distances to active sites interact directly with project staff.

Many very early forays by project staff into the area were via helicopter, which obviously impressed rural constituents eager to sign on to the program. At one such village meeting in Haia, NGO and government representatives explained that in order to set up a WMA, resident landowners had to submit a list of rules and names for representatives of a local management committee. Because residents were afraid they may not see the people in the helicopter again for a while, they nominated their local committee on the spot. The fact that most PNG communities require time for achieving consensus renders this kind of approach unsuitable, and in Haia it is especially problematic since the society there is semi-nomadic, and at any given time a large percentage of the population may be far from the village hunting or harvesting sago. Furthermore, once residents contributed their names, they expected their recognised authority to achieve some kind of tangible results. A whole year passed before there was any follow-up to the original meeting, and by then people who expressed an interest in conservation, but were not present at the nominating session, expressed their discontent. Over time, as it became clear that the WMA would not result in immediate benefits, some representatives changed places with other clan members who wished to contribute their lands to the WMA plan.

Today the landowner committees of at least three villages in the WMA state that they have set aside land protection. Resident clans contribute these lands to their local committees, which then are responsible for upholding the rules they describe to manage them. The overall functionality of committees continues to be poor, and is probably the result of early influences from outside organisations moving too quickly to establish the WMA. Now that more field staff are on the ground in the WMA, there may be a greater opportunity to instil local proponents with more realistic expectations and sincere motivations for management of the WMA. The bottom line is that the long-term resident approach of a project to establishing stakeholder committees is far superior to rapid reconnaissance missions.

Source: James 1996
square kilometres. If anything, it is rather more likely that neighbouring communities, or even sections of a single community, will take different options as a new means to represent and pursue their existing social and political divisions. One group may opt for ‘conservation’ simply in order to defend its territorial boundaries against neighbouring groups whose encroachment expresses their own desire for ‘development’ (van Helden 1998). In these circumstances, a greater sense of local autonomy provides no instant solution to the problem of achieving a broader scale of consensus and cooperation.

Even amongst those groups who can redefine their own desire for ‘development’ in ways which make it compatible with conservation objectives, it may be difficult for donors and NGOs to provide the support required to realise that desire without creating new forms of dependency which undermine the earlier process of empowerment. This problem is most likely to arise when local ‘business’ ventures fail to meet community expectations, or else become a new focus of factional dispute within the community, because Western business management methods remain fundamentally incompatible with the ‘Melanesian way’ of redistributing material wealth (Brooks 1996). And if local experiments in ‘sustainable development’ do fail, for one reason or another, their failure will jeopardise any ‘conservation contract’ which has been negotiated with community representatives, regardless of the manner in which the community has been organised for this purpose.

In the final analysis, the existence of an incorporated body, or a contract to which it is a party, is no guarantee that the agreement reached will be honoured by the members of a customary group. Enforcement of contracts poses the same problems as enforcement of laws. Is there any reason to suppose that voluntary compliance will be greater where the desired outcomes have been negotiated rather than imposed? (Whimp 1997:365)

This type of uncertainty could even be ascribed to the fact that PNG’s rural communities already have too much autonomy. Unlike their counterparts in the Indonesian province of Irian Jaya, they have no need to make and keep bargains with conservationists in order to defend their resources against an authoritarian state which does not even recognise their customary land rights (Leedom 1997b). As resource developers know to their cost, resource owners can change their minds as often as they change their chosen representatives, and do so with impunity. A protracted process of community ‘empowerment’ therefore risks a double dose of bad faith, as the conservationists conceal their real motives, and the community conceals its real power.
10.5 Community and small-scale forestry

The National Forest Policy (PNGMOF 1991:34) saw the goal of greater national participation in the forest industry as one which could partly be achieved by the involvement of ‘small national groups’ in ‘small scale processing operations subject to compatibility with broad planning requirements and commercial viability’, with advice and support from the National Forest Service and other ‘relevant agencies’ (ibid:36-37). In practice, the NFA has done little or nothing to provide this kind of support, because its primary concern has been the management of large-scale logging operations. The Community Forestry Project, which was the only NFCAP project which might have diverted some bureaucratic attention to the lower end of the scale, was abandoned after its feasibility study had been completed in 1992. In 1995, a new Reforestation and Extension Division was established within the National Forest Service, and the functions of this division were supposed to include the provision of technical assistance to small-scale and community forestry projects, but only one or two staff positions were assigned to this function.

The government’s neglect of small-scale forestry can partly be explained by the willingness of NGOs and donor agencies to fill the gap:

- the Foundation for the Peoples of the South Pacific (FSP), the Village Development Trust (VDT), and the Pacific Heritage Foundation have all secured donor support for their activities in this arena, concentrating their efforts in Milne Bay, Morobe, and East New Britain provinces respectively;

- the NFCAP Landowner Awareness Project has experimented with a ‘participatory model for small-scale timber production and marketing’ in Gulf Province, as one element in its strategy to demonstrate the feasibility of different forms of sustainable development (see section 10.2); and

- the Islands Region Environment and Community Development Programme, funded directly by the European Union, has been promoting ‘village-based ecoforestry’ in West New Britain Province, where large-scale logging operations have recently been accounting for roughly half of the country’s raw log exports.

All these interventions have been directed towards the support of small business groups harvesting logs from the natural forest in their own clan or
village territories, producing sawn timber with portable or ‘walkabout’
sawmills, and selling it to local or overseas buyers. Indeed, this type of
enterprise has now become the standard reference point for local
definitions of ‘ecoforestry’ or ‘community forestry’, to the relative neglect of
other activities, like the direct sale of harvested logs to larger sawmills, the
cultivation of village woodlots on deforested land, or even the ‘traditional’
wood-carving industry.

The first reason for this bias is the rapid spread of portable sawmills which
has coincided with the growth of large-scale logging operations since the
mid-1980s. By the early 1990s, at least 500 of these devices were being
purchased every year (FSP 1995a)\(^78\), and this figure may well have risen
since donors became more active in promoting their use. While some of the
earlier growth may be attributed to the promotional activities of local
NGOs (especially VDT and FSP), or the munificence of mining companies
and national politicians, most of it was due to the spontaneous enthusiasm
of the buyers. As a result, villages in all but the most remote corners of the
countryside contain a growing proportion of houses built from slightly
twisted and poorly fitted sawn planks, with roofs (and sometimes walls)
made of galvanised iron. The number of such ‘plank houses’ is a fairly
good indicator of the relative prosperity of the village, but the very high
cost of transporting building materials means that it is also a function of
physical proximity to the source of supply. In the less accessible areas,
plank houses are normally funded out of the savings of long-term absentees
employed in the formal sector of the economy, as ‘vacation’ or ‘retirement’
homes, as well as symbols of their social status and continued economic
stake in village life. In areas with reasonable road access to urban centres,
they are tending to become the norm.

It is not this change in architectural fashion which explains the popularity
of portable sawmills with donors and NGOs. In their view, the technology
is appropriate because it enables the buyers to do three things:

- exploit their resources without causing significant environmental
damage;
- appropriate the lion’s share of the resource rent; and
- add further value by downstream processing.

Above all, portable sawmills are thought to provide landowners with a
clear, simple and rewarding alternative to the lures of the large-scale
logging companies.

\(^{78}\) This included a substantial number of Alaskan frames for use with hand-held chainsaws.
In theory, it is true that a small-scale sawmilling operation can meet all these objectives (Henderson 1996); but in theory, a large-scale log export operation could be a model of efficiency, sustainability and distributive justice. Practice defies theory, in both cases, because these operations are subject to a complex, variable and unpredictable set of property relations and work habits.

It is certainly true that portable sawmills make far less impact on the natural forest than large-scale logging operations, simply because their aggregate harvesting levels are so much lower. On the other hand, it is not so clear that small-scale operators cause any less environmental damage for each cubic metre of usable timber which they produce (Sargent and Burgess 1988), and most of them are a long way from meeting the criteria of ‘ecological sustainability’ which overseas donors and buyers would like to impose on them (Martin 1997). Secondly, the idea that these are virtuous examples of ‘community’ enterprise conceals the fact that rural business development lies firmly in the hands of the individual entrepreneur, ‘supported’ by his (or occasionally her) immediate kin. Once this fact is taken into account, there is no reason to assume that sawmill operators pay a fair price for other people’s trees, or a price which is higher than the royalties which would accrue from a large-scale logging operation. And one of the reasons why small-scale operators may not be able to afford a fair price is because their profits cannot cover their other costs.

Consider what happens when a portable sawmill is first put to work in a typical village setting. The most accessible trees are the first to be cut down, and there is a sudden increase in the number of ‘plank houses’ in the village, as the cost of planks is drastically cut. However, the price which the villagers are willing and able to pay for these superior building materials is not enough to cover the full cost of operating the mill, and the strictly local market is exhausted as soon as the true cost of maintenance and depreciation begins to dawn on the operator. Even if these costs can be carried for a while longer, more labour must now be spent on bringing fresh logs to the mill, or moving the mill further away from the village, and the operator may also find that members of other families or clans are increasingly unwilling sell their trees or grant access to their land. Furthermore, the cost of transporting the planks to a wider market - even to the next village - is too high to warrant the effort, since the next circle of consumers makes the same equation of personal costs and benefits as those in the original market. Urban and overseas markets are even harder to reach, because transport costs are compounded by demands for higher quality and the need for an entirely different order of managerial expertise.
on the part of the operator. The moment of economic truth may be postponed by the application of donor subsidies, in the shape of technical and managerial support for specific operations, but it is very hard to see how the domestic market for timber produced by small-scale sawmills in rural areas can grow substantially without a corresponding improvement in basic physical infrastructure.

Given the limitations of the domestic market for wet sawn timber, and the social constraints on the economic viability of what Martin (1997) calls ‘part-time ecotimber producers’, the prospects for further expansion of ecoforestry in PNG appear to depend on the achievement of some economies of scale, and improvements in the quality and variety of outputs directed at the ‘green’ export market, on the part of those producers who are able to escape these constraints. This indeed is the main focus of the subsidies now being provided by the donors and NGOs, whose conception of ‘medium-scale’ ecoforestry hinges on the development of cooperative training, marketing and management systems covering groups of ‘full-time’ producers in specific geographical locations. These arrangements may help to meet the demands of the overseas ecotimber market, but they face an uphill struggle to meet the costs of certification (see section 8.10) in a situation where regional prices for ‘uncertified’ timber have been falling quite dramatically, and where further changes to the government’s fiscal regime are now likely to impose a heavier tax burden on this kind of enterprise. Furthermore, the widespread failure of cooperative marketing schemes in the late colonial period does not bode well for the institutional sustainability of such arrangements in the absence of continued donor subsidies.

The fact that donors are subsidising this kind of enterprise as a means to realise their own environmental values, by providing a financial disincentive for landowners to sign away their timber rights to the NFA, tends to conceal the fact that big logging operators and small sawmill operators are not competing for the same markets, and, in many cases, are not even competing for the same resources. This is evident from the fact that some of the most successful of the small sawmill operators are to be found in existing log export concessions, where they can utilise reject logs and sometimes get free technical assistance or donations of equipment from the logging contractors (Sagir 1997). In this kind of symbiotic relationship, the small-scale operator could be compared to the small birds which live by picking the teeth of crocodiles on the Sepik River. In a wider perspective, there is no reason to suppose that a major contraction in the large-scale log export industry, of the kind which is presently happening because of low
Box 10.7 The social context of part-time ecoforestry

In an examination of five portable sawmill operations that are claiming ‘ecoforestry’ status in south-east Morobe, it was clear that the mills were used to service local community needs such as the construction of community buildings, churches, school guesthouses, and so on. They operated only when materials were required. They were not commercial ventures, and were not organised in a way which would make them commercially viable in the future. One mill was generating cash income on occasions by milling high value timber, such as rosewood, and selling it in Lae for K450/m³. The profits were used to cover the costs of a club which, on occasion, visited festival sites around the country to put on performances. The young men who were members of the club gave their sawmill services free in order to raise the money to attend these festivals and perform. Resource owners were paid in timber, not cash, for lumber extracted from their land.

The use of sawmills only when there is a definite need for cash or materials in a community is a common story. It is made possible by the initial donation of capital costs, which removes the necessity to undertake consistent production to service a loan. Because the cash costs are relatively small, labour is donated, and access to markets is limited or information on marketing unavailable, such operations are not seen by the villagers themselves as an alternative to the income that is generated when their timber resource is sold to large-scale logging companies. This is the case even though the mills may have originally been donated as an incentive to refuse the offers of logging companies.

In a rural community, the demands on people’s time for subsistence needs and for social activity within the community are high, irregular, and in many cases immediate – such as a death in the village, the destruction of pig fences, the arrival of schools of fish, and so on. Even though many villagers have experienced the time demands and constraints of wage labour while working in the towns, the social and subsistence demands in the village place such labour in a quite different context. Nevertheless, there is considerable potential for the many ‘older’ portable sawmills in these villages to become cash-generating options, and thus acceptable alternatives to large-scale logging, if they could be brought into the commercial strategy in some form. The point to be made is that this type of production is likely to remain intermittent because of the social context in which the producers operate and the nature of the sawmill’s history.

Source: Martin 1997

market prices and high domestic tax rates, or which might one day happen because the government decided to impose a log export ban, creates the basis for a major expansion of small-scale community forestry. On the contrary, it removes much of the incentive for donors to invest their own funds in supporting this type of enterprise, without creating any new markets for its products. The net result might simply be a smaller number of plank houses located beyond walking distance of a decent road to town.
Leaving aside the superficial attractions of the portable sawmill as a ‘downstream processing’ device, we might ask why the distribution of hand-held chainsaws to rural villagers deserves more support from donors and NGOs than the distribution of shotguns, apart from the fact that most villagers would prefer to get a shotgun than a chainsaw, because they place a higher value on hunted protein than on sawn timber. Perhaps the answer is that chainsaws (like portable sawmills) are more likely to break down, or to need spare parts and mechanical expertise which cannot be found, and this limits the damage which they can cause. In that case, there would seem to be another element of bad faith in the promotion of a form of ‘development’ whose main contribution to biodiversity conservation consists in the absence of economic sustainability. But it is more likely that donors and NGOs have promoted the spread of portable sawmills as an ‘alternative’ form of enterprise in the belief that community participation or control is more important than either the economic or environmental sustainability of forest exploitation. Of course it can be argued that their intervention is justified by the fact that this technology is spreading under its own steam, and those adopting it therefore need the benefit of sound advice to raise the economic utility, and reduce the environmental cost, of their operations. But there is also a tendency to assume that any advance in ‘social’ sustainability, achieved through the rejection of large-scale foreign investment, inevitably means a more sustainable resource management regime all round. This assumption may conceal a more important point: that small-scale forestry only makes sense as a single (and probably also a short-term) ingredient in a more diversified rural development strategy, whether or not that strategy makes room for large-scale logging.

10.6 Developing non-timber forest goods and services

Small-scale forestry is one of several types of economic activity which appeal to conservationists because they offer rural communities a chance to ‘realise’ the value of their natural forest resources in both an economic and an intellectual sense, and might therefore provide a material incentive for resource owners to resist the temptations of large-scale industrial extraction. The assumption normally made here is that rural villagers already make extensive use of these resources for subsistence purposes, but where these subsistence values cannot be converted into cash, there is a preference for short-term rental incomes from the logging which may
damage or destroy them. The non-timber forest goods and services which have an actual or potential market value may be divided between two broad categories:

- First, there is a range of animal and plant species which, like commercial timber, can be harvested by local villagers, perhaps processed in various ways at the village level, and then sold in domestic or foreign markets. We shall refer to these as non-timber forest products (NTFPs).

- Second, there are other forms of ‘rental’ income which can be earnt from granting outsiders access to forests which are being protected, rather than exploited, whether those outsiders arrive in the guise of tourists, scientific researchers, or biodiversity prospectors, or stay at home and purchase shares in a carbon sink. We shall refer to these as forest services.

This reflects the distinction previously made (section 4.5) between ‘direct’ and ‘indirect’ (or ‘non-consumptive’) use-values.

According to the National Forest Policy (PNGMOF 1991:43), the Forest Research Institute has a responsibility for conducting research on the ‘cultivation, management and utilisation of minor forest products with the objective of increasing the income of the rural population’, and its staff have produced occasional papers on this subject (see Saulei 1991). However, the responsibility for developing markets for either NTFPs or forest services is scattered between a number of government agencies, and is not regarded as a major priority by any of them. This may partly explain the World Bank’s failure to interest other donors in the idea of funding a general study of ‘alternative incomes’ from local forest resources (see section 10.2). Nevertheless, donor-funded ICAD projects have encompassed a number of feasibility studies and several practical experiments in the commercialisation of specific NTFPs, and local NGOs have tried to develop a wider public awareness of the options (see FSP 1995b).

Much of the debate on NTFPs in PNG fails to acknowledge the significance of the distinction which most rural villagers make between primary and secondary forest, and the heavy concentration of subsistence values in the second of these zones, which is where they practice the art of shifting cultivation. To describe this nation of gardeners as ‘tropical forest peoples’ is to overlook the fact that they traditionally made very little use of their ‘big bush’, except as a place in which to go hunting, and the forces of ‘development’ have made further inroads on this limited utility. That is
why they commonly fail to see the logging of primary forest as a direct threat to their subsistence lifestyles. In most parts of the country, large tree trunks (over 50 cm in diameter) were not used for building or any other purpose, and in those coastal and riverine areas where they were used to make canoes, slit-drums, totem poles or ceremonial masks, they have been ‘devalued’ by the substitution of metal boats and the abandonment of traditional ceremonial practices. In some of these lowland areas, wild sago palms are still a vital subsistence resource, but sago swamps hold no attractions for the logging industry. Beyond the flood plains, most of the trees which supply food, fuel, or raw materials for buildings or other local artefacts are either deliberately cultivated within the zone of shifting cultivation or harvested from garden fallows (Allen et al. 1993-97). This is also the source of most of the plant materials used in ‘traditional medicine’ and most of the handicrafts which are now being marketed as ‘rainforest products’ (Christin Kocher-Schmid, 1997, personal communication).

The products of the primary forest which village people are best equipped, by custom and experience, to market as commodities are precisely those whose exploitation is thought to represent the greatest threat to biodiversity values within the subsistence sector. PNG’s first contribution to world trade, which long predated the first contact with European colonialism, was the export of bird-of-paradise plumes, and the rapid growth of this trade in the early colonial period triggered one of the earliest international campaigns dedicated to the conservation of tropical biodiversity (Swadling 1996). The colonial administration responded by limiting, and finally banning, the export of these creatures, long before PNG became an independent signatory to the Convention on International Trade in Endangered Species (CITES). Towards the end of the colonial period, shotgun licences were also rationed (to a maximum of one per one hundred people in any local community) in order to combat the general risk of over-hunting, whether for subsistence or commercial purposes. At the time of Independence in 1975, there was still a robust domestic market
in wild animal skins and bird plumes, much of which represented a
continuation of traditional trading relationships between rural
communities, and was not subject to any form of government control. Since
that time, however, this market has declined substantially, as people have
lost interest in ceremonial decoration. In many parts of the country, there
has also been a reduction in the volume of hunting for subsistence
purposes, because traditional hunting techniques have been abandoned,
while access to shotguns and cartridges has been further restricted. This is
not due to any official concern with biodiversity conservation, but to the
growing use of firearms for criminal purposes or for the conduct of
‘traditional’ tribal warfare. Even in those heavily forested regions where
such abuse is still uncommon, the forces of ‘law and order’ have been
busily confiscating shotguns (often illegally) and refusing to issue new
licences for them, while licences to sell cartridges have also been heavily
restricted, and their price has risen accordingly. This may be good news for
the creatures of the forest, but only so long as villagers are not therefore
disposed to sell their trees in order to purchase alternative sources of
protein.

Little progress has been made with marketing those NTFPs which might
add some alternative value to the primary rainforest, but for which there is
little or no use in the subsistence sector. Perhaps the most successful
venture of this kind is the Insect Farming and Trading Agency, sponsored
by the PNG University of Technology, which has pioneered the export of
dead beetles and butterflies. These exports are now worth more than
K300,000 a year, but there are still less than 1,000 ‘smallholders’ engaged in
the business, and the market may already be saturated (Sekhran 1996).
Furthermore, insect farmers (like crocodile farmers) are better able to satisfy
green consumers and environmental regulators than those producers who
collect the insects from their natural habitat.

The only forest service which has so far fired the imagination and
enthusiasm of rural villagers is ecotourism - or at least the kind of
‘adventure tourism’ in which the adventure partially consists of staying in a
rural village. Anecdotal evidence suggests a very rapid expansion in the
number of village guest-houses constructed to accommodate such visitors,
which might almost be compared to the ‘craze’ for portable sawmills, but
which is no doubt partly due to the publicity generated by the
government’s Tourism Promotion Authority. However, there is no evidence
of any corresponding growth in the number of tourists making use of these
facilities, except in those few cases where donors and NGOs supply most of
the visitors through their active involvement in promoting conservation or
sustainable development in specific areas. Otherwise, the growth of this business is constrained by the same problems which afflict the tourist industry as a whole: ‘the lack of infrastructure, PNG’s high-cost economy, the cost of air travel to and within PNG, and the perception within key tourist markets that law and order problems make it a high-risk destination, are unlikely to be resolved in the medium term’ (Sekhran, Hedemark et al. 1994:285).

Conservationists have thus been led to conclude that the only two forest services which can provide a serious material incentive for sustainability within a reasonable time-frame are biodiversity prospecting rights and proof of carbon sequestration (Mike Parsons, 1997, personal communication). In both cases, however, large question marks loom over the capacity of rural resource owners to comprehend and participate in the marketing of such commodities.

FMAs concluded under the new Forestry Act apparently grant the NFA rights to all ‘forest produce’, meaning all living or dead plant material, but Timber Permits only grant logging companies the right to harvest timber. This means that the NFA could theoretically tender the remaining rights to pharmaceutical companies or international NGOs, or else transfer them to another government agency, like the DEC, which currently lacks any legal mechanism by which to acquire such rights through its own agreements with resource owners. Neither the NFA nor the DEC presently has the expertise required to pursue such options, and it is not clear how this pursuit may be affected by the legislation on intellectual property rights which the PNG government is obliged to introduce as part of its commitment to the World Trade Organisation. Public debate on this latter question has so far been dominated by those national stakeholders, including prominent conservationists, whose main concern is to protect the rights of customary resource owners from any type of foreign exploitation of their cultural and biological resources. There is an obvious risk that this debate will serve to encourage a new version of the resource dependency syndrome, in which rural villagers come to regard any type of research undertaken on their territory, regardless of its commercial value, as an activity for which they ought to receive substantial amounts of ‘compensation’79. At the same time, while some local entrepreneurs have begun to enter into contractual arrangements with overseas research institutes or pharmaceutical companies to collect and despatch samples of plant materials which might eventually prove to have some commercial

79 For example, one group of villagers has recently been demanding many thousands of kina in compensation from the PNG Institute of Medical Research for the blood samples taken by its staff during the course of a study concerned with the impact of large-scale logging on local people’s health (John Leedom, 1997, personal communication).
value, there is a risk that resource owners will price themselves out of this market by assuming that all such materials can yield a fabulous profit for their collectors, in the same way that they have commonly overestimated the amounts of money which anthropologists make from publishing books about their ‘culture’.

The World Bank now takes the view that so-called ‘carbon swaps’, or joint implementation schemes, are the best way for tropical countries like PNG to secure substantial financial rewards from the conservation or sustainable management of their forest resources (Jim Douglas, 1997, personal communication). The Bank considers that government agencies, NGOs, and even landowning communities in PNG could demonstrate the necessary capacity to preserve or enhance forest resources which would otherwise be degraded or destroyed. If and when the DEC is able to establish the baseline data on national carbon emissions required under the Global Climate Change Convention, this will make it easier for the NFA to access carbon offset funds by demonstrating the effectiveness of the Logging Code of Practice, proving the extent of reforestation within existing timber concessions, or enlarging the size of conservation areas under new FMAs. The Conservation Resource Centre was able to quantify the carbon sequestration benefits of the Lak Sustainable Forestry Project in ways which might have satisfied the carbon offset market (Stuart and Sekhran 1996), but could not secure the local community support required to translate theory into practice. The World Bank and other donors are well aware of the fact that resource owners will need to receive a share of the financial benefits which accrue from such schemes, but hold the government responsible for ensuring that these do not amount to a ‘conservation rent’, of the kind which the Prime Minister proposed to the TFAP Round Table back in 1990, because experience in other countries has shown that this may simply cause landowners to hold their forests to ransom (Jim Douglas, 1997, personal communication). However, resource owners may find it hard to appreciate the difference between making (and keeping) an agreement to use their forests more sustainably and an agreement to be paid for not using them at all, when it is likely that other organisations will shoulder the management responsibilities, and their own ‘participation’ will again be framed in the established idiom of ‘compensation’.

Amidst all the speculation about the best way for resource owners to realise the value of a resource which they rarely use, it is important to remember that the ‘targets’ of this speculation have their own priorities. People in areas with high biodiversity values have been suffering from a marked decline in the quality and accessibility of basic health and education
facilities, and a corresponding deterioration of economic infrastructure, for long enough to know that this is not a temporary setback on the path to progress. They also have good reason to believe that the path will not be cleared by the introduction of new opportunities for individual families to earn additional cash incomes, because of the lack of collective institutions at the local level which have the capacity to turn personal incomes into public goods.

10.7 The institutional neglect of cultural diversity

A final word of caution must now be added to qualify the many general statements which we have made about community attitudes and organisation in the forestry and conservation sector. PNG’s remarkable diversity of language and traditional culture, accompanied by wide regional variations in the experience of ‘development’, ensures that any rule will have a number of exceptions. The critical question, for developers and conservationists alike, is whether the variations between landowning communities, in their understanding and practice of forest management, fit some kind of general pattern which might explain or predict their response to the intervention of outsiders bearing new proposals for the use of their resources.

In this respect, it worth noting that the donor agencies which have funded a very substantial volume of research on the physical properties of PNG’s forest resources through different NFCAP projects have shown very little interest in funding any comparative study of the cultural attitudes or social organisation of their customary owners. Even where projects have been targeted at specific parts of the country, there has been an initial reluctance to consider their social context or social feasibility in any detail, and it is only when they fail, as the Lak ICAD project failed, that this reluctance is eventually overcome. This omission is even more remarkable, when one considers that the NFCAP was initiated so soon after the outbreak of the Bougainville rebellion, which had already shown the mining companies the cost of neglecting the local social context of their operations. Perhaps the conservationists allowed themselves the luxury of believing that they had nothing to learn from the experience of the mining industry, because all ‘indigenous rainforest peoples’ should have a natural sympathy with their own objectives. Perhaps the donors were keen to avoid any acknowledgment of regional variation which might undermine the value of their precious ‘pilot projects’. Or perhaps they were convinced, by anecdotal evidence, that this variation could not be construed in any
Box 10.8 A carbon swap for PNG?

There is scant understanding within PNG of the linkages between forest disturbance, such as that caused by conventional logging operations, and the global greenhouse effect. PNG’s forest vegetation serves as a carbon bank, storing carbon in plant tissues and fixing carbon dioxide through photosynthesis. One effect of forest disturbance is to release greenhouse gases (carbon, methane and nitrous oxide) into the atmosphere. Globally, forest degradation and depletion is responsible for some 22 percent of enhanced greenhouse gas accumulations in the atmosphere (Faeth et al. 1994).

In PNG, logging practices result in high forest biomass mortality - leading to the formation of necromass, which, on decay, emits greenhouse gases. However, alternative logging methods, following a strict code of practice, can significantly attenuate these impacts. A neat nexus exists between the objectives of biodiversity conservation and the management of forestry operations to minimise greenhouse gas emissions.

A number of power utilities in developed countries have invested in carbon offset schemes to compensate for their own greenhouse gas emissions, which might otherwise be penalised by regulatory controls. The forestry sector provides a number of investment opportunities for companies - including plantation development and reduced impact logging schemes. Offset projects have been piloted in other countries and have proven that forestry investments provide a cost-effective means of mitigating carbon release. Developed countries are moving (albeit slowly) to meet their obligations under the Framework Convention on Climate Change, and will probably need to impose substantive policy measures to cap their greenhouse gas emissions. Under a framework of joint implementation, savings made through carbon offset schemes might reduce the overall cost burden faced by affected industries.

The Lak ICAD project made an attempt in 1995 to leverage a carbon swap (Stuart and Sekhran 1996). A proposal was submitted to a US Government State Department review panel - the United States Initiative for Joint Implementation (USIJI) - for carbon offset funding to be invested in a proposed low-impact logging venture, intended to provide an alternative to conventional logging. The proposal anticipated carbon savings of 3.78 million tonnes over forty years, relative to the baseline of conventional logging, which could potentially have attracted funding of US$2-4 million.

The USIJI - whose endorsement was necessary before private funding could be solicited - gave the proposal a highly favourable review based on its technical strengths. However, landowner reluctance to forego benefits and income captured from conventional logging foreclosed the project initiative, despite PNG government backing for it. In PNG, landowner disputes can occur at any time during a project’s life. The risk is that landowners will make future land use decisions that compromise the original investment. Carbon offset projects must authenticate that carbon savings are indeed being made. The difficulty in enforcing long-term dealings with landowners provides an enormous disincentive to investors. Unless there is some guarantee that the service, once purchased, will actually be supplied, investors are likely to shy away from such schemes.
systematic way, because it reflects the personal qualities of individual community leaders, whose influence over other community members is bound to be a transient phenomenon.

In order to canvass the existence of broader social or cultural determinants of the apparent variations in local community support for conservation or sustainable management, the National Research Institute has distributed a detailed questionnaire to three groups of individuals with first-hand knowledge of specific rural communities in PNG - a sample of professional anthropologists and other social scientists, a number of fieldworkers engaged by the local branch of the Summer Institute of Linguistics, and a group of national university students taking courses in environmental science. The survey instrument contained a number of ‘development indicators’ for each community, followed by a series of open-ended questions on a variety of ‘forest management issues’, including some which dealt with gender and generational differences in attitude and practice. Preliminary analysis of the resulting data suggests that most of the variation between communities can be attributed to their actual experience of logging or their exposure to debates about the logging industry through the mediation of community members with high levels of formal education (Paul Sillitoe, 1997, personal communication). In other words, the rural constituency for conservation is not one which already exists in a natural state of innocence, but one which is created through the process of ‘resource development’, as people either learn from their mistakes or get new forms of knowledge which enable them to hesitate before mistakes are made. However, formal education does not by any means turn all its beneficiaries into conservationists, and educated conservationists have very little leverage outside their own communities.

Box 10.9 Bucking the trend - communities which opt for conservation

Despite the proclivity of most PNG landowners to opt for extractive development of their forest lands if given the opportunity, a small number of communities have bucked the trend. In Madang province, landowners from the village of Baitabag have repeatedly spurned offers from timber concerns to log their forest resources. These holdings today comprise one of the last repositories of lowland tropical rainforest in the coastal belt north of Madang township. And in Collingwood Bay in the Oro province, members of the Maisin community began, in 1995, to challenge the decision of some village elders to commit communal lands to timber extraction.

In Baitabag, the leader of the local Didipa clan, Kiatik Batet, made a decision to set aside 300 hectares of forest for conservation in 1963. Located close to Madang town, the village is blessed with access to markets and is already relatively well serviced by social and economic infrastructure. Villagers also
have a source of income from a poultry project. But other communities in the area, in a roughly analogous situation, have opted to commit their lands to logging. What makes Baitabag unique? In a word, leadership. Kiatek Batet has displayed an enormous measure of conservation conviction, seeded by his father and nurtured by patrol officers in the 1950s (Larry Orsak, 1996, personal communication).

In Collingwood Bay, several members of the Maisin community took the initiative to oppose a logging concession on their lands. The anti-logging constituency included individuals domiciled in urban centres, senior officers in the DEC who came from the area, and a community elder who had himself witnessed environmental degradation first hand while working at the Panguna copper mine in Bougainville.

A number of community elders clearly favoured logging, and indicated their preference in a letter to the NFA which they wrote without consulting many of their fellow clan members, but in connivance with a prospective logging operator. This is common practice in PNG; but in this instance their actions did not go unchallenged. Claiming that logging would ‘destroy the fabric of their society’, the opponents orchestrated a media campaign warning the proposed logging company to ‘keep off their land’ while simultaneously challenging the legitimacy of the ‘rogue’ elders. Some 80,000 hectares of land have been excluded from timber harvesting as a result. A local NGO (Conservation Melanesia), supported by an international NGO (Greenpeace), is working with the community to define alternative economic opportunities and establish a Conservation Area.

Thus, in the cases outlined above, conservation commitment was fostered by a few influential leaders. Whether the apparent determination of these communities to protect their forests will withstand the test of time remains to be seen, but their actions represent some hope for conservation workers facing an otherwise bleak situation. The question is whether the conviction and farsightedness demonstrated by the leaders in Baitabag and Collingwood Bay can be replicated elsewhere through a process of education which avoids the risk of paternalism and the pitfalls of project dependency. A number of conservation programmes are gambling that it can.

Box 10.10 Young or old - who cares more?

The Maisin (Oro Province)
As far as talk of conservation and development go, I believe that differences are as much related to education and experience outside the rural areas as age. Close to a third of the Maisin population lives in urban areas. Most have high school education and higher, enjoyed relatively high wages by PNG standards, and have been exposed in recent years to a great deal of conservation education. As jobs have become increasingly scarce, more and more educated people have returned to the villages and are among the strongest advocates of conservation efforts. There is a general consensus that ‘development’ is needed for better schools, medical facilities, churches, and so forth. However, the consensus I heard repeated over and over again during my stay in the villages in March
1997 was that development must not involve large scale logging, mining or other extractive ventures (John Barker, 1997, personal communication).

**The Kamiali (Morobe Province)**

Comments expressing a conservationist perspective were limited to a few of the vigorous village leaders (‘elders’) in their forties. These were mostly in terms of avoiding the mistakes of their neighbours, and to a certain extent reflect their observations as to the lack of benefit that those neighbouring villages received from their partnerships with logging companies. These ‘elder’ Kamiali said they did not want their rivers polluted. A couple of references have been made to preserving the resource for future generations. Questions on how future generations might use this forest resource, given the lack of use of the current generation, were not answered. Younger men have not expressed opinions in the ‘conservation’ area of the Kamiali ICAD project, but have talked almost exclusively about the ‘development’. They hold out considerable hope for the small-scale developments in fishing, servicing the training centre, and ‘guiding’ tourists to bring them cash incomes. No evidence has been gathered that there is any deep, or even superficial, conservationist ethic either present or developing. While village projects, such as a church or residences for the medical orderly and community school teachers, attract universal support, their participation in cash-generating small-scale businesses or jobs in training centre construction has essentially been opportunistic. The latter comment applies across generations. For example, the fishing project undergoes periodic collapse because individual fishermen make decisions to fish by reference to their individual needs for cash, and not the long-term viability of the project (Ron Martin, 1997, personal communication).

**The Kamula (Western Province)**

In my view the demand for instant, massive development has increased over the years I have visited Wawi Falls. This is partly because such massive transformations are more likely now than 20 years ago, when there was no logging company operating in the area and actively seeking to expand into the Kamula’s country. Secondly, people seem more influenced now about ideas concerning the year 2000 and the end of the world. Thirdly, people are more aware now of the discrepancy between village life and city life, and have essentially watched the region stagnate over the last few years. Fourthly, younger men also feel that they need to bring development (logging) quickly so that the older generation will receive something before they die in compensation for the effort and pain they put into rearing the current generation. However, some of the older generation are suspicious of the younger men’s ability to realise a satisfactory form of ‘development’. They argue that the new generation, even though ‘educated’, has ‘ways that are no good’ because they fail to listen to what the ‘village’ people say to them and fail to adequately explain what they have done while in Moresby. As one elderly man explained, when the young men go to Moresby, they are bribed by the company with money, beer and women, and they sign anything. Such young men, in the views of their seniors ‘don’t have any strength. They don’t know hard work. They don’t know how to make a garden. They just sleep all day and when a plane comes they just run and jump on it’ (Michael Wood, 1997, personal communication).

Source: NRI Rural Community Survey data.
Given the numbers of individuals within each of the stakeholder groups, it makes no sense to ask what each of these groups has collectively learnt from a decade of participation in the forest policy process. We therefore need to construe the results of the policy process as a number of lessons which might have been learnt, or the impressions which might have been gained, by the audience, rather than the actors - or at least that section of the audience which has a persistent and genuine interest in ‘sustainable forest management’, and therefore has not fallen asleep during the earlier parts of the play.

What might these ‘sympathetic outsiders’ now regard as the positive or negative outcomes of the policy reform process in each of the main parts of the forest policy domain which we have previously identified? In what respects would they have to suspend their judgement because the outcomes still seem to be ambiguous, because it is too early to tell what is or is not ‘working’? What explanation can be given for these outcomes, and what conclusions drawn for the further development of the forest policy process?

Since the road to hell is paved with good intentions, our provisional answers to these questions will highlight the difference between those statements of policy which have been produced by stakeholders with a vested interest in the process of policy reform and the changes in actual practice which might or might not accord with such pronouncements, but which we should still regard as part of the policy process.

Box 11.1 Lessons from the Kandrian-Gloucester Integrated Development Project

**Lessons for government**

*Policy should be negotiated and incremental if government lacks the resources and political will to enforce its provisions, and greater recognition must be given to the problems of achieving popular participation and equity in rural PNG.*

At no stage in the formulation of the National Forest Policy did the government seek to enter into any significant
negotiations with the forest industry or landowner groups. There was no systematic attempt on the part of government to assess the position of landowner companies and what oppositional strategy they might invoke. Equally important, there was no assessment by the government as to its own capability to enforce the Act, and the likely outcome if it could not.

Government policy rhetoric continually seeks to reaffirm the nation’s commitment to social democratic process, and plays down the real problems which rural communities have in dealing with participation and equity issues. The ferocity with which overseas logging contractors set about exporting logs between 1993 and 1994 meant that landowner companies and government had to reach a rapid agreement if they were to stem the flow of revenue offshore. Unfortunately, the questions of participation and equity on which government sought to commence the negotiations proved to be thoroughly intractable in the short term. With hindsight, the government would have achieved more by adopting a strategy which sought to work from the common ground - maximising landowner company and government revenue shares - and then progressively addressed the issues of participation and equity. However, such a strategy would have been unlikely to endear the national government to the aid donors, who were looking for bold political statements to justify their expenditure and to pacitate vocal interest groups in their own countries.

Lessons for donors

In the case of the KGIDP, donors and their technical advisers would have been better advised to play the role of ‘honest broker’ and facilitate the process of negotiation between landowner companies and the government.

Donors gave themselves little opportunity to consider the negotiation option. As enthusiastic proponents of forestry reform in PNG, they committed extensive resources to its development from the outset. Had donors and their technical advisers given more consideration to the difficulties of implementing the Act, and to the oppositional stance of landowner companies, the prospect of providing support for facilitating the negotiation process may have been more attractive. However, donor responses were influenced by the attitudes of international and local NGOs, whose philosophical foundations were deeply rooted in promoting community participation and social equity. Any turnaround on these issues would have been strongly and publicly contested by these groups - a situation which all donors were keen to avoid. Furthermore, donor flexibility is ultimately constrained by bilateral and multilateral aid agreements which dictate that donors give priority to the government agenda.

Lessons for landowners

Landowners who enter into development agreements with unresolved land and resource disputes have little chance of maintaining group solidarity in the face of conflict with resource developers.

Most landowner companies were formed without due consideration for the membership of the land groups which they claimed to represent, or for the actual ownership of resources. Had land groups been able to reach agreement between themselves over ownership of the forest resource, and establish common development objectives, their power to negotiate with logging contractors would have been vastly increased. Instead, the relationship between many landowner groups was typified by mistrust and conflict, some of which had its origins in traditional clan allegiances and rivalries. Logging contractors, aided willingly or unknowingly by landowner company directors, were able to exploit divisions within and between these groups to secure maximum advantage.

Source: Simpson 1997
The litany of scandals revealed by the Barnett Inquiry provided fertile ground for a substantial group of national stakeholders to initiate a process of reform which attracted the support, and finally fell under the control, of donor agencies motivated by wider global concerns about the fate of tropical forests. During the fairly brief period in which this process contained a real sense of national ownership and unity of purpose, it was possible to mount a full-scale frontal assault on the trenches of the logging industry and its domestic allies. Many elements of the reform were mown down by the enemy’s machine guns, and some were shot in the back, but several strongholds were taken, and no counter-attack has yet been able to reclaim them. Given the losses on both sides, one might conclude that this form of trench warfare is not the best way to achieve a wider consensus on sustainable forest management, that ‘being strategic is more important than being comprehensive’ (Mayers and Peutalo 1995:27). But because the nature of PNG’s political system precludes concerted government action on any front for more than two or three years at a time, there is no time to beat about the bush. The policy reformers have marched to the same tune as the loggers and their allies: ‘Get what you can while you can’ - and then dig in or beat a quick retreat.

The main piece of artillery covering this assault was the new Forestry Act. In retrospect, it is quite clear that this piece of legislation grossly overestimated the capacity of the state to regulate the use of customary land, and may therefore have weakened the credibility and legitimacy of such intervention in some quarters. On the other hand, its most outspoken critics - logging companies, landowner companies, and radical NGOs - had very little faith to lose. Precisely because of its weight and complexity, the Act has created a large muddy bog between the logging camp and the bureaucracy. If it has stretched the NFA beyond the limits of its own institutional capacity, it has also caused forestry officials to heed Barnett’s injunction to ‘slow down’ the process of resource allocation, even where this course of action (or inaction) contradicts their own professional inclinations. The risk of heavy regulation is that those abuses which it targets will be driven underground, where regulators can obtain a more substantial profit by condoning them. But the long arm of the World Bank has so far kept the lid on such irregularities, by constantly piling one regulation on top of another, sending in another squad of consultants to ferret around the undergrowth, and using its financial leverage to pin down the wayward politicians in their foxholes. This is no way to facilitate any
kind of economic activity, but facilitation was not the purpose of this exercise.

In the heat of this battle, the definition of ‘sustainable forest management’ was rapidly whittled down to a single number - the annual volume of raw log exports. Given the many flagrant breaches of the government’s self-imposed ‘moratorium’ on the issue of new timber concessions during the period before gazettal of the new Forestry Act, the strong rearguard action mounted by the logging industry in defence of agreements made under the previous legislation, and the surge in world market prices during the peak of the reform process, red tape alone could not be guaranteed to keep this number under the magic three million cubic metre mark. Another weapon had to be deployed against the loggers on the fiscal front. The time taken to implement the new revenue system was not just the result of resistance by the industry, but was also due to confusion amongst the reformers about how to design and aim it.

- How could the fiscal regime accommodate wide variations in the quality of timber resources in different concessions, the costs of operating in different parts of the country, the relative efficiency of different operators, and their differential willingness to honour the agreements made with other stakeholders?

- How could it produce a ‘normal’ rate of profit for ‘reasonably’ efficient and honourable operators throughout the operational life of logging projects in so many peculiar physical environments, and then produce an equitable distribution of the resource rent between the other stakeholders, which would also provide an incentive for each of them to appreciate the value of sustainability?

- How could it also achieve the government’s stated goal of encouraging ‘downstream processing’ without offending the World Bank’s free trade principles by subsidising inefficient local manufacturers?

Experience suggests that these are riddles which have no solution in the realm of bureaucratic calculation.

In the end, the instrument was blunt and heavy, like the Act. With falling world market prices, and an equally dramatic decline in the value of the national currency, it has been ‘successful’ in driving many operators out of the forest, at least for the time being, and thus reducing the aggregate level of log exports, but it is hard to credit the Bank’s claim that a sliding tax on kina-denominated export values ensures that the order in which they exit is
inversely correlated with their long-term contribution to sustainable forest management. At the same time, those elements of the new revenue system which would theoretically divert a portion of the resource rent towards the achievement of this same goal - by way of ‘reforestation levies’ or ‘project development levies’ - have proven to be equally contentious and unsatisfactory, for the simple reason that the NFA is unwilling or unable to establish the kind of working relationships with other stakeholders that would allow such monies to be spent.

The reformers would not have been obliged to place so much emphasis on implausible connections between log export tax rates and sustainable forest management if they had made more progress with the planning instruments envisaged by the new Forestry Act. A ‘national forest plan’ could never be more than a statement of national government intent to allow logging companies to harvest or export certain volumes of raw material, unless it could somehow be grounded in a ‘rational’ process of decision-making at the provincial or local level, and no such groundwork is evident in the National Forest Plan which finally emerged from the statutory process of consultation with other stakeholders. The critical mistake made by the designers of the Act was to conceive Provincial Forest Plans as land-use maps, rather than land use strategies. This fault may have been encouraged by the long-standing requirement for logging companies to produce forest working plans, which are indeed a
combination of maps and timetables, within their timber concessions. If the government and its advisers had paid more attention to the fact that logging companies are unwilling or unable to follow their own harvesting plans, then they might have recognised the futility of attempting to produce comparable plans over much wider stretches of customary land, whose multiple owners had not yet made their own land use decisions, or might at any time reverse those previously made.

This is not to deny the real sense of enthusiasm with which some groups of provincial stakeholders tackled the task of establishing Provincial Forest Management Committees and imagining Provincial Forest Plans. The provinces now harbour a check on the abuse of ministerial power at the national level which is not necessarily dependent on the abuse of political power at another level, because a unified National Forest Service can now play both ends against the middle, and the middle ground is occupied by a variety of local stakeholders. However, PFMCs are really little more than timber permit allocation committees, and can hardly sustain the illusion that they are land use planning committees unless they become an integral part of a much broader process of policy reform in both provincial and local government. And on this latter score, the new Organic Law has promised far more than it has so far delivered.

Having learnt the futility of physical planning in such a disjointed political environment, the reformers have understandably developed a more specific obsession with measurable standards of ‘best practice’ in the forest industry, and with the nuts and bolts of monitoring corporate behaviour. Hence the Logging Code of Practice and its bureaucratic offspring. But this form of regulation seems not only to require a level of collaboration from ‘the enemy’ which is excluded by the adversarial approach to policy reform, but also to place further question marks against the state’s capacity to orchestrate the process.

This dilemma is highlighted by the first, and so far most successful, experiment in monitoring the performance of the logging companies under the new policy regime, which was the log export surveillance system initiated in 1994 with financial assistance from the European Union. By ‘outsourcing’ this function to a private contractor (SGS), the National Forest Service clearly conceded the limits of its own capacity, but also created a space within which the log exporters could and did welcome the opportunity to prove that they were no longer (if they had ever been) guilty of the transfer pricing documented by the Barnett Inquiry. The question is why it took the government and the donors so long to recognise the value
of such contractual arrangements, and which other elements of the reform process might have been expedited by a more flexible, and less heavy-handed, approach to the business of industrial regulation, and a more concerted effort to build a wider policy consensus, rather than simply strengthen the institutions of central government.

11.2 Lessons concerning the reform of forest conservation policy

PNG’s official conservation policies are constructed around the establishment of a representative system of protected areas. The legal and institutional mechanisms established to pursue this goal have proven to be unwieldy and ineffective. Terrestrial biodiversity values are almost entirely confined to customary land, and there is no prospect of this land being alienated by the state for purposes of conservation. During the first decade of its existence, the DEC was even unable to develop a method of communicating with customary landowners which had any significant effect on their resource management decisions. With the inception of the NFCAP and PNG’s later ratification of the Biodiversity Convention, the government was able to obtain substantial donor support for an effort to change this state of affairs, by reforming the legal and institutional framework of conservation policy, and by opening new channels of communication between the DEC and other stakeholders.

This effort has only met with limited success. No changes have yet been made in the relevant legislation. Those which have been mooted are unable to address the fundamental problem which arises from widespread popular ignorance and distrust of the many legal innovations made in other policy domains. Amongst these other innovations, the provincial and local government reforms have cast a fresh cloud of uncertainty over the powers and functions of the DEC. The political weakness of the Department has previously been associated with a very limited capacity to enforce those laws and regulations for which it is responsible, and this association seems set to continue, whether or not the laws and regulations change. Those donors who have invested heavily in strengthening the DEC have reason to wonder if they are flogging a dead horse.

Nevertheless, the reform process has served to enlarge the national conservation constituency, to promote the exchange of ideas amongst its
members, and to create a common understanding that government alone cannot do much to realise their aims. Many DEC officials now subscribe to this consensus, and some have resigned to take up new careers in the NGO community. Those who remain now have a much wider range of informal contacts with other conservationists, aside from their former colleagues, and these help to compensate for the continued lack of institutional mechanisms for more effective collaboration between the DEC and rest of the conservation lobby.

The search for such mechanisms has mainly been conducted through the Conservation Resource Centre and its various experiments with the ICAD process, as well as the process of consultation which eventuated in the Biodiversity Country Study. These activities have struck new chords between scientific and managerial perspectives on the conservation business, and have facilitated new partnerships between national and international NGOs and multilateral donor agencies. On the other hand, the limited duration of external funding for the BCRMP has left a big question mark over the government’s willingness and ability to sustain such relationships, or even play an active part in their continuation. Insofar as the government continues to regard the DEC as the main instrument of its involvement, the utility of the ICAD concept is seriously limited by the simple fact that this Department is not a development agency, and recent attempts to strengthen it have only served to underline this fact.

Even if the DEC is stripped of any official role in the establishment and management of new conservation areas, and merely regulates the process by which they gain official recognition, there is still a question mark over the success of existing ICAD projects in achieving their primary purpose, which is to provide resource owners with the motivation and capacity to pursue forms of ‘development’ which are at least consistent with the maintenance of biodiversity values. In many parts of the country, landowners still exhibit a preference for rental incomes from the large-scale exploitation of their natural resources, and therefore take a dim view of the opportunity costs of ‘conservation’. Where ICAD project proponents have tried to compete directly with logging companies for control of the same tract of forest, they have only met with limited success, and it is hard to say what general lessons could be drawn from their few local victories. Where such competition is avoided or postponed, it is even harder to determine the long-term value of any bargains struck with resource owners. Perhaps the most important lesson to be learnt from this variety of local experiments is that forest conservation policy will not get very far unless it
is integrated with resource development policies at several points between the level of the local community and the level of the global convention.

11.3 Lessons concerning the reform of community participation policy

Developments in the forest policy process from 1987 to 1992 did not reach very far outside the pages of the national press or the corridors of power in Waigani. It is true that Justice Barnett made trips to the provinces, that NGOs engaged in a variety of ‘awareness’ activities, and that one provincial government tried to challenge the powers of the Forests Minister. By and large, however, the ‘voice of the landowner’ could only be heard indirectly, through the representations made by nearly all the other stakeholders whose stakes were already planted in Port Moresby. Since 1992, donors and NGOs have opened up a more substantial ‘popular front’ through a variety of relationships with specific rural communities which are directed towards the goals of forest conservation or sustainable forest management. However, the government’s vague endorsement of these moves has not been accompanied by a series of specific innovations in formal policy which could be directly compared with the corresponding transformations of stakeholder relationships. The vision of community participation contained in the new Forestry Act is limited to the requirement that landowners be ‘incorporated’ before they transfer control of their forest resources to the state, and no-one can readily tell what vision of community participation is contained in the DEC. Cross-sectoral policy initiatives, like the Village Services Programme, the National Sustainable Development Strategy, or even the new Organic Law, have not so far made any discernible impact on the way that such visions are constructed in specific sectoral policy domains.

The history of the NFCAP Landowner Awareness Project illustrates the way in which the shape of community participation in the forest policy process has been influenced by fortuitous changes in relationships between donor agencies, government departments, and local NGOs. All donor-funded interventions in this aspect of the forest policy domain could be described as creatures wandering in search of a place where the values of participation and sustainability will be reconciled in practice, as well as in theory, and the good news can then be broadcast to the rest of the world. The haphazard nature of this search is partly due to the frequency of
collisions between the Western image of ‘indigenous tropical rainforest peoples’ and these indigenous peoples’ yearning for ‘development’. Having bumped their heads on this particular contradiction, conservationists in PNG should by now have abandoned the assumption that customary landowners have a ‘natural’ interest in the conservation or sustainable development of their forest resources, that local communities are dependent on ‘rainforest products’ to meet their subsistence needs, or that outsiders can empower rural villagers by simply raising their ‘awareness’.

The basic mistake of the policy reformers was to believe that beautiful human flowers would blossom in the Melanesian forest, once the curtain of corrupt community leadership had been pulled aside. Those who cast landowner company directors as the small-time villains of the policy process had failed to notice that many rural communities have a long history of resistance to the values of ‘democracy’ and ‘accountability’ which well-meaning Europeans have sought to impose upon them, and have preferred a form of ‘charismatic’ leadership which is not based on the abstract equality of many small ‘customary’ groups supported by the institutions of the state, but which promises to overcome their traditional state of mutual isolation by some extraordinary venture into the unknown. When the goods are not delivered, the support evaporates, and what had
been a social movement stands condemned as nothing but a ‘cargo cult’. But when delivery depends on the assistance of some outside agency, then feelings of dependency are reinforced. And since the local leaders who depend on such assistance also often fail to meet the expectations of their followers, their prestige is no less vulnerable to the rising tides of disillusionment. Where rural society is already populated by the ghosts of past ‘community developments’, villagers are understandably sceptical of new schemes which they cannot even call their own.

If the policy reformers have now learnt that customary landowners do not possess an instinctive preference for either conservation or democracy, they should also have learnt that outsiders do not possess the capacity to impose any conception of the ‘public interest’ on the decisions which landowners privately make about the use of their natural resources. But the proponents of this public interest have not helped their own cause by adopting a compartmentalised approach to the problem of raising the scale of cooperation, and fostering the values of citizenship, within or between traditional political communities. Resource owners have good reason to complain that a set of special-purpose representative bodies, covering a series of ‘development zones’ whose boundaries fail to coincide, are bound to become engaged in forms of political competition and conflict which negate each of their special purposes. At the end of the day, some form of local-level government will have to develop the capacity to represent a local version of the public interest in matters of natural resource management, or else there will be no sustainable capacity at all.

This does not mean that resource owners can make no progress towards the goal of sustainable forest management until they have achieved certain forms or levels of community organisation. Government agencies, donors or NGOs can offer various ‘interim arrangements’ which enable or encourage local groups to resist the blandishments of logging companies or exert some more positive control over their behaviour. But they also need to acknowledge the probability of a very high rate of failure in the outcome of such experiments, not only because of the familiar structural obstacles to economic or commercial innovation in rural areas, but also because the regional diversity of local custom and practice requires the continual reinvention of wheels to fit the vehicles of such innovation. While policy makers conspire to overlook such diversity in their search for general solutions to global or national problems, rural villagers display their ignorance of formal policy, alongside their lack of technical capacity, as if these were methods of insulating their economic autonomy from external interference.
In this case, patience is the order of the day. One final assumption which the policy reformers should now be able to abandon is that high rates of population growth, or the ‘revolution of rising expectations’, in rural areas pose an immediate threat to the sustainability of natural forest resources. Generally speaking, subsistence farmers are responding to population pressure through the intensification of existing land management practices rather than a constantly increasing encroachment into ‘primary’ forest (see section 3.2). And despite the readiness of many resource owners to consign their primary forest resources to logging companies, they are quite well able to constrain the process of extraction by making ‘impossible’ demands on the developers, and thus defeating their own desire for unsustainable development. The critical question here is what local communities expect to get, what they have actually received, and what lessons they are learning, as a result of their ‘participation’ in specific aspects of forest policy or specific forms of forest exploitation. The widespread deterioration in rural living standards over the last decade is a lamentable, and much lamented, fact of life, and one which goes a long way to explain the current pattern of local resistance to anything which smacks of ‘policy reform’. If resource owners are learning that government agencies and resource developers, or even donors and NGOs, are not going to present them with a ‘free’ solution to this problem, then they should be moving further down the road to self-reliance.
In this section we take each of our ‘six characters without an author(ity)’,
and ask how each of these characters, and each of the actors who play these
parts, in the conception and pursuit of their own interests, might create
positive or negative outcomes for the quality of their social and natural
environment, firstly for the needs of other characters and actors, and
secondly for that part of the scenery which is covered by forest. But we
must also concede that our own capacity to answer this set of questions is
not inherently superior to that of the other characters and actors in the play.
Like the rest of the cast, we do not possess an all-encompassing knowledge
of the wants, needs, aims and methods of all the other stakeholders in the
policy process - we can only present a range of possible interpretations, or
snatches of dialogue in which these stakeholders communicate such
knowledge to each other.

In order to represent the future distribution of benefits between our various
characters and actors as a form of dialogue, as an interactive process, we
believe that it is necessary to subordinate the question of ‘who gets what’
(e especially money) from the process of ‘resource development’ to the
question of how these characters and actors gain or lose power to influence
the direction of the policy process. But in order to tackle this second
question, we also need to recognise that ‘power’ is not (like money) a single
negotiable object. Instead we distinguish four different types of power:

- *positional power*, which is the capacity to secure the sympathy and
  support of other stakeholders, on the assumption of some common
  interest;

- *bargaining power*, which is the capacity to extract resources or concessions
  from other stakeholders, by some combination of force and persuasion;

- *executive power*, which is the capacity to meet the needs and demands of
  other stakeholders, thus increasing one’s authority over them; and
• **managerial power**, which is the capacity to control the productive activities of other stakeholders, and thus to determine the quantity and quality of their outputs.

Since each notional group of stakeholders is internally divided, like a character played by several actors whose own attitudes and interests may be quite diverse, we can also distinguish between external forms of power, which are exercised by one group of stakeholders over other groups of stakeholders, and internal forms of power, which are exercised by some members of a stakeholder group over other members of the same group.

The order in which we shall analyse the powers of our six main characters reflects our own assessment of their relative ‘weight’ within the policy process, which means the sum of all their influences over the direction of that process. This assessment was initially reflected in the title of this study, which gives a certain priority to the influence of loggers, donors and resource owners over that of politicians, bureaucrats and NGOs. We now reflect a little further on the size and shape of the contribution which each character makes to the plot, in order to reveal the ways in which the overall ‘balance of power’ leads to a sort of stalemate.

### 12.1 The powers of resource owners

PNG’s forest-owning communities possess a considerable amount of external positional power, because their ownership of ‘natural’ forests with high biodiversity values enables them to secure the sympathy and support of other stakeholders with an interest in biodiversity conservation and sustainable forest management. However, this support is partly based on the highly questionable assumption that members of these communities are ‘naturally’ or ‘traditionally’ inclined to share this interest. If their actions show that this assumption is false, they will lose some of this power. For example, if they persist in allowing or demanding the degradation or destruction of their forests by the logging companies, then the donors will lose interest in funding conservation projects which require the collaboration of local communities.

At the same time, the external positional power of any **particular** community which **does** exhibit a preference for the conservation or sustainable management of its forest resource is limited by the sheer number of forest-owning communities, and the lack of information available to other stakeholders about the variation between them.
Furthermore, this kind of power is closely related to the sheer extent of the environmental damage which occurs in particular areas, and this means that communities demanding compensation from mining companies find it much easier to secure national and international support for their cause than communities which seek to resist the negative effects of selective logging practices.

PNG’s forest-owning communities also possess a good deal of external bargaining power, which is primarily based on the simple fact of ownership, and there is no immediate prospect of this power being diminished by the capacity of other stakeholders to remove forested land from customary tenure, or even to impose new rules and regulations on the way that customary owners utilise their property. This external bargaining power is typically manifested in the continual escalation of compensation demands made on both mining companies and logging companies, and also in the growing share of the resource rent which local communities are able to secure from the national government’s own tax revenues. The exercise of such power leads to a contradiction. On the one hand, as local communities secure an increasing share of the material benefits of resource exploitation, they have an additional material incentive to permit the exploitation of those resources which have not yet been extracted from their land. On the other hand, their success reduces the capacity of the government to regulate the process of exploitation, and the extent of the demands made on the developers eventually reaches the point at which it constitutes a disincentive to further investment. In this respect, the desperation for development is ultimately self-defeating, but if it thus serves (unintentionally) to slow down the process of environmental degradation, it also intensifies the level of conflict between different groups of stakeholders.

Local communities have some external managerial power, which is closely related to their external bargaining power, but this is limited to their capacity to reduce the productivity of the companies working on their land, mainly through acts of sabotage, intimidation of company personnel, production stoppages, and so forth. In their capacity as company employees, community members are inclined to limit the duration and intensity of their own work because they are aware of the bargaining power which stems from their access to subsistence resources. Local communities are not able to exercise the same kind of managerial power over public servants, because the latter do not normally need (or even want) to have access to their land. This is one of the factors which encourages community members to complain about the services (or lack of services) which government provides, and thus to believe that logging and mining
companies have greater *executive* power than either politicians or public servants.

Local communities themselves have very little in the way of external executive power. Their own capacity to meet the needs and demands of other stakeholders is primarily constrained by the lack of all forms of *internal* power. What this means, quite simply, is that most community leaders have great difficulty in uniting all community members in the pursuit of a common interest. Community leadership is normally fragmented and contested, as communities are internally divided by a wide variety of social and cultural boundaries. Commercial exploitation of a community’s natural resources often exaggerates and intensifies these internal divisions, thus ‘disempowering’ the community, but this can paradoxically add to the community’s *external* power, since no other stakeholder is able to command unanimous community support, while all other stakeholders are able to command some community support, and the community therefore gives the appearance of playing both ends against the middle. Conflict between these other stakeholders over the management of the community’s natural resources thus comes to reflect and reinforce the conflict between different sections of the community. This can sometimes lead to a sort of stalemate, in which the process of ’development’ is effectively blocked, despite the stated wishes of most (or even all) community members, because they cannot reach agreement on the way it should proceed. But it can also lead to a net increase in the total quantity of material benefits which accrues to the community, as other stakeholders keep competing for majority support.

There is not a great deal of evidence which would enable us (or anyone else) to say which sections of which communities might generally be expected to support the conservation or sustainable development of their forest resource. This is partly because community members who *seem* to hold these values are primarily interested in opposing other members who currently hold other values, or else in ‘flattering’ other stakeholders by reflecting their own stated interests. Hence the lack of ideological consistency or commitment which is so characteristic of both local and national politics. Hence perhaps the lack of interest which donors have so far shown in funding the type of research which seeks to link specific ideologies to specific sections of society. But this means that donors and NGOs have very little idea of how to tailor their own pursuit of sustainable forest management to fit the social conditions prevailing in different parts of the country.

What evidence we do have suggests that the more highly educated
members of local communities are more likely to maintain a consistent stance in favour of conservation or sustainable development than community leaders whose authority is grounded in customary knowledge. Although there are a few communities in which customary leaders have maintained this kind of interest over time, and have even been able to wield sufficient internal power to put their values into practice, the general tendency is for the younger generation to wield a growing influence over decisions about resource management, and for education to be an increasingly important foundation for the exercise of such influence. Environmental values are already quite well entrenched in the formal educational curriculum, though there is still some scope for improvement on this score, and the continued growth in the overall size of the educated elite promises a gradual but positive shift in the balance of public opinion. However, other stakeholders should not place too much faith in this process of enlightenment. Firstly, there is a risk that the urban section of the educated elite will become progressively more detached from the politics of resource management in specific rural communities. This risk does not presently seem very great, because Papua New Guineans spend such large amounts of time and money travelling back and forth between town and village, and this pattern of circular migration is associated with the periodic attempts of educated urban community members to win rural seats at national elections. More problematic is the fact that this educated elite continues to manifest the ideological inconsistency which has previously been described, for there is no shortage of educated individuals, inside and outside of the national parliament, who are more than willing to do questionable deals with logging companies. And a further problem arises from the fact that those rural communities with the largest numbers of highly educated members are generally those whose forests have the lowest conservation values, for the simple reason that high conservation values are associated with low population densities, and low population densities are associated with limited access to social services and limited opportunities for any form of economic development which would not entail the extraction of natural resources.

It may be thought that those communities which do opt for the large-scale exploitation of their forest resource by foreign logging companies will learn their own collective lessons from the experience of environmental degradation, and if their forest is left to regenerate, will be less willing to repeat this experience at some future date. It may likewise be thought that communities can learn such lessons from the experience of their neighbours, and thus come to appreciate the values of conservation and sustainable management without having to learn them the hard way. But the available evidence suggests that this kind of learning process is often
obstructed by the desperation for ‘development’ and the kind of parochialism which assures each community of the superiority of its own external bargaining power, and therefore the capacity of its leaders to do better deals than those which have been done before or done elsewhere.

Since it is men, rather than women, who do the deals which lead to unsustainable forms of forest exploitation, it might be thought that female community members have an interest in more sustainable alternatives, especially because rural women spend a lot of time collecting water and washing clothes in the streams and ponds which are liable to be damaged by large-scale logging operations. But there is very little prospect of a Chipko movement emerging in PNG, because trees are so widely regarded as symbols of masculinity, and women themselves concede that forest management is men’s business, thus excluding themselves from public debate on this issue. Women are only likely to intervene in their capacity as members of the educated elite, where their views reflect their level of education rather than their gender.

How can those local communities, or sections of communities, which do oppose unsustainable forms of forest exploitation increase their own external and internal power to influence resource management decisions at the local or national level? Given the questionable legality of many of the agreements which currently allow large-scale logging operations to proceed, and the relative neutrality of the judicial system, the first answer would be that they need stronger legal representation. There are two problems here. Firstly, there is a very serious shortage of altruistic lawyers in PNG (as in other parts of the world), and national politicians are increasingly reluctant to allow foreign lawyers to participate in PNG’s legal proceedings, partly because they have some reasonable concerns about national sovereignty, and partly because they do not wish their own behaviour to be subject to more penetrating legal scrutiny. Secondly, where ‘dissident landowners’ are driven into the arms of resident commercial law firms, they commonly find that the financial costs of litigation reduce their own internal executive power to an extent which exceeds the external bargaining power which they obtain through their access to the courts. At the end of the day, their own financial resources are no match for those of the logging companies ranged against them, and their bargaining power is further diminished by the capacity of relevant government agencies to protect their own interests by obfuscation and delay.

A second form of empowerment is the process of land group incorporation which is recommended in the resource acquisition procedures set out in the new Forestry Act. But this path also contains a number of significant
obstacles. Firstly, the proponents of land group incorporation tend to assume that unsustainable forms of forest exploitation are promoted by a small minority of community members, against the wishes or interests of the majority, and that new forms of community organisation will reduce the external and internal power of this deviant minority. Given the dynamics of community politics and the widespread culture of resource dependency, this assumption is questionable. Secondly, the process of land group incorporation, as envisaged and promoted by the government, requires a great deal of work to be done by stakeholders outside of the community, and since the government does not have the resources to undertake most of this work, much of it devolves upon the developers, whose own interests then come to the fore. Finally, bureaucratic initiatives to include this process in the renegotiation of existing forestry projects have been thwarted by the same lack of resources, and a corresponding lack of interest on the part of other stakeholders. If there is no concerted action on the part of other stakeholders, local communities do not have the capacity to carry out this process on their own account.

A third form of empowerment embraces a range of techniques, like ‘participatory rural appraisal’, which NGOs and donor-funded government agencies have been using to promote concepts of self-reliance, democratic decision making, and sustainable resource management, amongst the membership of selected rural communities. The main problem with these techniques is their tendency to either assume the inherent superiority of moral over material incentives, and thus to be obstructed by local desires for the tangible material benefits of ‘development’, or else to offer alternative forms of economic enterprise whose own sustainability is open to question. Furthermore, the proponents of these techniques often make appeals to ‘local custom’ or ‘local knowledge’ in ways which lay them open to the risk of seeming to patronise community leaders who understandably believe that Western knowledge is the key to economic growth.

If it is accepted that most members of landowning communities have an understandable need for reassurance that the economic alternatives to unsustainable forms of forest exploitation are themselves sustainable, and will produce substantial material rewards within a relatively short period of time, then it is necessary to consider the relative prospects of three distinct forms of alternative development - small-scale forestry (using portable sawmills), the marketing of non-timber forest products, and the expansion and diversification of small-scale agriculture. It is also necessary to take account of the high levels of scepticism which already exist in many rural communities because of the failure of previous economic experiments promoted by outside agencies. The problem here is that other stakeholders
tend to conceive this choice of ‘alternative development options’ in terms of their relative economic feasibility, assuming that landowners either have all the skills or none of the skills required to make them work. In practice, their feasibility depends on the relationship between local forms of indigenous knowledge and specific forms of technical innovation. Under current market conditions, the creative powers of indigenous knowledge are heavily concentrated in the field of agricultural (or rather horticultural) innovation. This means that most villagers can travel much faster along the road to self-reliance by selling agricultural products than by selling ‘forest products’, although some so-called ‘forest products’ turn out to be the by-products of existing cultivation regimes.

The economic question posed for the proponents of sustainability is whether their own resources are best invested in developing new ways for local resource owners to exploit a forest resource which they had not previously exploited at all, or in supporting those productive activities in which the resource owners already have the greatest capacity to secure higher returns from their own labour. A sensible answer requires an appreciation of the fact that most Papua New Guineans are traditionally ‘garden peoples’ rather than ‘forest peoples’.

Whatever the ultimate aims of other stakeholders, it is unlikely that there is any single form of empowerment which could be said to constitute the ideal learning curve for the majority of landowning communities in PNG. Those who propose that ‘custom’ is the only way to define the local public interest (e.g. Taylor 1997) must not only recognise the diversity of local custom, but also the diversity of the local ‘development’ experience. The overall process of national ‘development’ is not reducing the diversity of this experience in ways which could be taken to encourage the formation of standard models or methods of community empowerment. For this reason, there soon comes a point at which it no longer makes sense to speak, in general terms, about the powers of resource owners, and where different communities must be allowed to go their own separate ways - as indeed they will.
Landowners in the Makapa area, particularly in the southern villages, have watched their region undergo a process of stagnation over the last fifteen to twenty years. At the same time, there is a widespread concern with the meaning of the year 2000, which is thought to be associated with apocalyptic events, including the end of all current property relationships and the return of Christ. The logging project is seen as one vehicle that will quickly shift people into modernity and its associated wealth before the year 2000 has its effect. An equally significant basis of local support for logging was the proliferation of ‘landowner’ companies which provided large numbers of men with access to unprecedented wealth, prestige, and influence, by bringing these men into regular contact with developers and the often unstable networks of elite and bureaucratic power.

Yet, despite this expansion of practical knowledge of modernity, Port Moresby, and PNG’s forestry sector, the landowners have so far been unable to create any organisation that represents their unified interests. Given the pre-existing divisions amongst the landowners, and the intense competition among men for senior positions in landowner companies, such an organisation was perhaps unlikely to have been successful, but the landowners have been further divided and destabilised by competing logging companies who do not necessarily require strongly unified and independent landowners. Rather, each potential investor is interested in maintaining patron-client ties with a small group of ‘representative’ landowners who are fundamentally dependent on the investor for further funds and resources.

Landowner company board members and directors who find themselves in this position are unlikely to always represent the views and interests of the wider community. This point is not lost on other landowners, who often bitterly criticise directors for tricking the ‘ground people’ by doing deals in Port Moresby without telling them. The result is that the ‘ground people’, even when overtly supporting a particular logging company, are highly suspicious of the directors of its associated landowner company. Partly because of such criticisms, some men holding senior positions in a landowner company rarely leave Port Moresby, and consequently have little direct contact with people at the village level. Such divisions within factions further contribute to the sense that, in the village, no-one really knows what is going on, apart from the often hidden pursuit of self-interest. The government did not intervene or in any way regulate this process. It simply refused to recognise the legitimacy of any of the feuding landowner companies, but by failing to intervene, it facilitated, by default, the landowners’ transformation into competing and highly unstable factions which were organised and funded by potential investors.

Many landowners still have no real understanding of the transaction which they were entering into when they signed the initial TRP agreement. They believe that, since they own the land, all their possessory rights in the trees are still active. People also think that they will be able to ‘try out’ any logging company that comes on to their land, and that, if they are not happy with its operation, they will be able to send it away. Embedded in this view is the belief that they still control access to the resource, and that they have the capacity to negotiate terms and conditions as the project develops.

Source: Wood 1997
Local people learned that landowners who collaborated with Sovereign Hill (the logging company) were temporarily empowered in their relationships with other villagers. Since the logging contractor was obliged to recognise their land claims when they were granting access to their forests, they acquired a greater capacity to decide how land was to be used. They found that it was easier to put land into the logging project than it was to withhold it, yet they eventually lost status and wealth as their kinsmen contested the legitimacy of their land claims, demanded a share of their logging incomes, and spread rumours about them cutting ‘private deals’ with Sovereign Hill. Similarly, while collaboration with Sovereign Hill initially empowered the executives and directors of WongWong (the landowner company), they ultimately lost authority, and became increasingly alienated from their constituents and kinsmen, amidst the accusations and rumours that they had been ‘bought off’ by Sovereign Hill.

At the same time, the material interest which many landowners had in the outcome of the logging operation involved many of them in a quest for increased literacy and knowledge of the law. On the other hand, other powerful actors, from WongWong executives to forestry officials, put up many obstacles to their quest for an understanding of their legal rights and the various contracts which they had purportedly signed. Despite these handicaps, it seems that knowledge about forestry and corporate law, the conduct of business, and the behaviour of overseas companies has increased as a result of their experience.

Forestry policies debated and formulated in Port Moresby were ultimately of little relevance to resolving the specifically local problems of the LFA. Instead, logging proceeded as a function of the temporary balance of allegiances between the jumbled ‘class’ of customary landowners and Sovereign Hill. The former easily divided themselves into factions which took up temporary positions in either facilitating or blocking Sovereign Hill’s access to local forests, depending on their contingent political alliances.

The most important arena for future action in the practice of forestry management in PNG is not to be found in the formulation of additional policies, laws, and institutions at the national level. Instead, the challenge ahead is to foster forms of social organisation and political culture, at the local level, which can more effectively safeguard the interests of local communities, rather than just advancing the agendas of aspiring politicians or big men. The point here is that the forces of regionalism and nationalism are both weak in PNG. One of the most important consequences of this weakness is that foreigners with capital can (whether intentionally or not) easily manipulate struggles between local factions for their own benefit. These local-level power struggles then result in a multitude of negative social, economic, and environmental consequences. Meanwhile, the lion’s share of the benefits derived from log exports accrues to the national government and foreign capital, while local actors merely fight over the patronage offered by overseas logging companies in return for their political loyalty.

Source: Leedom 1997a

Box 12.2 Lessons learnt by resource owners in the Hawain Local Forest Area, East Sepik province
Large-scale logging companies are not by any means the only private companies with a demonstrable stake in the national forest policy process. The ‘forest industry participants’ registered under the terms of the new Forestry Act include landowner companies, forestry consultants and furniture-makers, while there are many ‘non-participants’ whose interest stems from their use of forested land for other purposes, such as mineral extraction or commercial agriculture. However, the title of this study does serve to underline the dominant role of the logging companies in the public profile and economic foundations of the ‘forest industry’, and we propose to consider the substance of their power by comparing it with that of the mining and petroleum companies which have an equally substantial stake in the business of natural resource extraction, rather than that of the other ‘forest industry participants’ whose own powers are more limited and whose interests are highly varied.

The external positional power of the private sector as a whole, its capacity to command public sympathy for its position within the national policy process, is limited by the gulf which still separates the ‘spirit of capitalism’ from the value-system of modern PNG society. This is evident in the peculiar connotations granted to the word ‘business’, and also by the ‘ideology of landownership’ which has previously been described. The multilateral financial institutions are naturally keen to promote the values of market competition and capital accumulation under the rubric of structural adjustment, and are therefore sympathetic to those private sector representatives who routinely complain of their inability to sway debates on public policy.

In the forestry sector, however, this element of sympathy has been greatly reduced by the oligopolistic structure of the log export industry, and by those ‘Asian’ business practices which appear to lack the transparency favoured by the global advocates of level playing fields. Because of this lack of transparency, it is hard to say how much sympathy and support the big logging companies are able to obtain from each other, although they certainly present a united public front through their spokespersons in the FIA, and they have powerful backing from the Japanese trading companies which still dominate the regional raw log trade. Public perception of the ‘log export cartel’ as a distinctive business community therefore seems to be warranted, yet fails to take account of the mutual support networks which operate within different ethnic segments of the resident ‘Asian’ business community as a whole. These ethnic divisions are normally submerged in a form of public debate which tends to regard ‘European’ and
‘Asian’ business elites as two horns in a devilish national dilemma. The demonisation of the log export industry thrives on a mood of public disquiet about the ‘Asianisation’ (or Malaysianisation’) of the national economy. The proponents of forest policy reform have played on these fears in ways which threaten to frame the policy process as part of a global struggle between Western heroes and Oriental villains for control of an innocent Melanesian soul. The public reticence of the resident Asian business elites, inside or outside the forestry sector, follows from their recognition of a simple fact of life - that public policy debate in PNG is dominated by the masters of the English language.

This does not mean that the logging companies have given up the battle for public opinion. During the heyday of forest policy reform, from 1992 to 1994, their position was ardently defended - or at least covered - by the directors of the landowner companies with whom they had business dealings, some national politicians were persuaded (without too much difficulty) to join the chorus of protest, and Rimbunan Hijau caused a minor public uproar by founding a second English-language daily newspaper (The National) which looked as if it might function as a propaganda sheet for the log export industry. In retrospect, however, it seems that this burst of ‘public relations’ was a gambit prompted by the sudden loss of other forms of power, and the captains of this industry would even prefer to have friends in high places who do not trumpet their true allegiances to a sceptical public audience. The reputations of their noisier supporters were too readily dismantled, both in the ‘independent’ local media and by Australian investigative journalists. The log exporters have since relied primarily on the FIA (and its English-speaking executives) to present their contributions to public policy debate in the shape of full-page press advertisements and letters to the editors of all the national newspapers. The World Bank can normally rely on friendly local journalists and NGOs to put the case for the opposition.

Outside of the forestry sector, there are certainly very few private sector organisations which are prepared to voice public support for the log export industry. The big mining and petroleum companies, despite the oligopolistic structure of their own industries, are all domiciled in English-speaking countries, have no business dealings with the logging companies, and like to portray themselves as good corporate citizens wedded to the same values of transparency as the donor agencies which are funded by their home governments. From their point of view, the log export industry gives foreign capital a bad name. In order to distance themselves from its ‘Oriental’ qualities, they have emulated the example of the World Bank by attempting to establish greater mutual understanding with those
environmental NGOs which are their most vocal critics, thus forming a loose ‘Western’ alliance of strange bedfellows. In contrast to the Sino-Malaysian or Japanese logging companies, they have also been forced to defend their environmental records against close public scrutiny in their countries of origin, and have therefore invested heavily in forms of ‘greenwash’ designed to enhance their positional power at a global level.

And yet these lumbering giants of the national economy have not done much better than the log exporters in the public opinion stakes. The trouble is that they are big and they are foreign - much bigger, and not much less foreign, than the Asian logging companies which they affect to despise. And in the case of hard-rock mining companies, they also make a mess. For each of the many newspaper stories which document their good citizenship, and thus testify to the power of the corporate press release, there is another which documents the countervailing hostility of some other stakeholders in the mineral policy process. The mining and petroleum companies have their own supporters in Parliament, just as the logging companies do, but their political support is no less fickle, since elected politicians know that more political capital can normally be made by attacking resource developers than by defending them. And that is also why the local NGOs remain recalcitrant, at least in public, even if they recognise the need for tactical alliances with more progressive sections of the business community. The one point on which the mining and petroleum companies have demonstrably scored a goal for their own
progressive reputation is in the appointment of outspoken and respected members of the national elite to their boardrooms and senior executive positions. The logging cartel has no such national voice to support it from within.

Despite the divergence of corporate strategies and tactics, foreign resource developers also face similar constraints in the exercise of other kinds of power within their respective policy domains. While mineral resources are legally the property of the State from the outset, and the State must purchase rights to forest resources from customary landowners before it can pass them on to a third party, all developers are obliged, in practice, to bargain with government agencies and landowning communities throughout the period in which they seek access to such resources. All developers are likewise limited in their capacity to use force in order to secure those rights of access which the State has granted them. They have found, to their cost, that any overt deployment of state power - in the shape of a police riot squad, for example - is liable to provoke acts of physical retribution against the developer which the government has no lasting capacity to control, and which may even be organised or promoted by local politicians and NGOs.

Perhaps the most important difference in the relative bargaining powers of logging, mining and petroleum companies stems from the physical quality of their investments in time and space. Unlike mining and petroleum companies, whose major investments are tied to particular physical locations for long periods of time, logging companies can shift equipment and personnel from one place to another at relatively short notice, both within and between their concession areas. This means that the bargaining power of the logging companies is enhanced by their capacity to make false promises, and later threaten to close down their operations when these promises have clearly been broken. In this case, their bargaining power is grounded in their capacity to use ‘divide-and-rule’ tactics on scattered groups of resource owners, and the process of forest policy reform has not yet made much impact on this kind of power. On the other hand, the reform process has made a much bigger, albeit belated, impact on their use of similar tactics to ‘persuade’ politicians and bureaucrats to let them keep the lion’s share of the resource rent collected from their log exports. In this case, the bargaining powers of the World Bank and other donors have persuaded the national government to adopt a fiscal regime, and a set of transfer pricing controls, which forces the log exporters to accept a ‘normal’ rate of profit as one condition of their investment. In this case also, the loggers now find themselves in the same boat as the mining and petroleum
companies. They must try to rationalise their production methods in order to safeguard their profit margins.

The executive powers of resource developers are limited by the variety, size and persistence of the needs and demands which are voiced by resource owners and their political representatives. Mining and petroleum companies certainly spend a great deal more than logging companies on ‘benefit packages’ for local communities in their respective spheres of operation, although the differential is reduced if it is calculated as a proportion of operating costs or gross revenues. And yet, however much they spend on benefits in cash or kind, the developers find that it is very difficult to secure a proportional increase in their authority over the recipients, primarily because the Melanesian ‘gift economy’ is designed to produce a situation of material equivalence between the transacting parties, and local landowners cannot get enough ‘hand-outs’ to achieve this goal, precisely because they can never afford to make a return payment to their benefactors. Developers therefore tend to conclude that they are dealing with manifestations of greed and ingratitude, and what they spend on ‘community relations’ becomes a ransom which is necessary to avoid the risk of further conflict. The size of this ransom reflects the government’s own inability to satisfy the aspirations of local communities. Where the mining and petroleum companies provide the infrastructure, goods and services which should have been a government responsibility, they now recoup a portion of their spending in the shape of tax concessions. The logging companies have generally been more flexible and less accountable in their risk avoidance strategies, but if they have thus gained more control of their own local supporters through the judicious distribution of material rewards, they have not been able to persuade the forest policy reformers that their capacity to build public roads matches their capacity to purchase private loyalties.

The networks of personal loyalty through which the logging companies prefer to operate, whether in the local or the national arena, are sometimes described as a set of ‘patron-client’ relationships. But who are the patrons and who are the clients? Dauvergne’s (1997) study of timber politics in Southeast Asia describes the logging company bosses as the clients of powerful political patrons, on whom they are dependent for the grant of lucrative timber concessions. But domestic critics of PNG’s logging industry tend to reverse this relationship, describing landowner company directors, national and provincial politicians, and some forestry officials as clients of the logging company bosses, whose executive power is thus assumed to be greater than their own. Recent academic commentators have
hedged their bets by writing about ‘smart alliances’ between loggers and politicians (Majid Cooke 1997a), which became ‘defensive alliances’ in the context of donor-driven policy reforms (Wood 1997). It is certainly true that PNG’s open political system is one which does not allow many of its leaders to accumulate and entrench their executive power to anything like the extent which is possible in countries like Indonesia or Malaysia. But in this case, we are not simply dealing with a differential balance of power between separate groups of stakeholders; we are dealing with differential perceptions of relationships which rarely last very long, and whose instability is the critical factor which prevents most of the players from manipulating the ‘system’ to their lasting advantage. Since the political arena is overcrowded and unpredictable, small balloons of power are always being punctured, friends soon become enemies (or vice versa), and past favours may never be reciprocated.

By overestimating the executive power of the log export industry, its critics have also exaggerated its managerial power. Like other resource developers, the loggers can obviously exercise some control over the work of their contractors, suppliers and debtors, but politicians and landowners like to insist on their own share of backward linkages, and the discipline of the market-place is then overlaid with a measure of political constraint and the usual dose of political uncertainty. Mining, petroleum and logging companies could all be said to ‘patronise’ local landowner companies, in one way or another, but if it is true that logging companies have frequently exploited these institutions for their own benefit, the management of landowner companies has just as often defied the best efforts of business development staff employed by the mining and petroleum giants. In their efforts to control the work of the bureaucracy, logging companies may persuade some public servants not to do their jobs, while mining and petroleum companies may sometimes do their jobs for them, but the public sector generally presents itself as a slow-moving or immovable object, especially when donor agencies and private companies are pushing it in opposite directions, as they have been doing in the forestry and conservation sector. In this policy domain, the ‘work’ of politicians has been subject to the same countervailing pressures, which is one of the reasons why some logging companies have sought to evade the forest policy stalemate by pretending that they are not in the business of logging at all.

Internally, the logging companies face additional problems of managerial control which receive very little publicity, but which make it harder for them to meet the World Bank’s stringent demands for greater operational
efficiency. Unlike the mining and petroleum companies, their workforce is scattered across the countryside, and not amenable to rigorous supervision or tight operating schedules. The racial and linguistic barriers between Asian and Melanesian sections of the workforce are a constant source of conflict and misunderstanding, especially where Asian field staff seek to control the work of local landowners (see Box 12.3). Staff turnover rates are correspondingly high, the skill composition is correspondingly low, and training schemes are only found in large and long-established operations. Generally speaking, the larger the concession area, and the longer its period of operation, the more likely that a reasonable set of work practices will have been put in place, and some serious effort directed towards the goal of sustainable forest management. Although one company (Rimbunan Hijau) controls more than half the country’s total log exports, there is little evidence to suggest a uniform standard of management in its various concessions. At the same time, the big logging companies cannot afford to expose their management problems to public scrutiny, since this would grant another hostage to fortune - or at least to the World Bank. As a result, the problems of operational management are concealed beneath an abstract debate about the merits of the new forest revenue system, in which both sides repeatedly accuse each other of bad faith, and where each example of the economics of a single logging operation seems to represent the best or worst of what is possible.

When the log exporters claim that rising taxes, rising front-end costs and falling export prices have reduced their profit margins to the point where they are literally being driven out of business, they imply that log export prices are subject to the laws of supply and demand in a free world market. Yet the history of transfer pricing and business relationships in the regional raw log trade shows why the World Bank can call their bluff. Whatever the export price may seem to be (when transfer pricing is substantially controlled), the log exporters are primarily constrained by the need to maintain the export volumes promised to the trading companies who are their real ‘patrons’ - to the extent that exports are allowed. The price will simply be adjusted to facilitate that flow - so long as the importers need to have the logs. Meanwhile, the uncertainties of the physical and political environment substantially detract from the pursuit of sustainable forest management as a matter of corporate self-interest. The logging companies rush to recover their front-end costs for the same reason that the mining companies engage in ‘high-grading’ extraction strategies. As a result, the values of sustainability can only be imposed by forms of bureaucratic regulation which then become an extra disincentive to investment.
Counting the cost of machinery and equipment, the construction and maintenance of infrastructure, and
upholding landowners’ good will, logging is a high-risk business. Moreover, regardless of alliances
made with landowners, politicians and others, good networking alone does not convert trees into
profits. Knowledge of the forest is important. Unless logging companies are prepared to undertake
vigilant surveys themselves, they may have very little idea of what ‘their’ patch of forest may yield. It
is frontier territory, where one may strike gold or oil, but luck has a lot to do with it as well. The survival
of logging companies is therefore driven by the urgent need to recover front-end expenses or sunk costs.

While the cost structure of machinery, parts, and maintenance may be relatively inflexible because it
represents the cost of ‘dead labour’, infrastructure costs and landowner fees may be more amenable to
manipulation. The flexibility can be seen in the frequently sub-standard quality of logging roads and the
various means and degrees by which landowner companies are manipulated or exploited in order to
save costs. Niugini Lumber has been found in breach of government logging standards on a number of
occasions since the start of its operations in Lak. Operations were suspended for six months in 1993 for
non-compliance with permit conditions and for severe environmental degradation. Operations were
again suspended in February 1995, and this time the list of transgressions included irregularities in the
construction of a log pond, the poor quality of snig tracks causing unnecessary damage, the poor
standards of road construction and drainage, and excessive damage to residual tree stands. These
irregularities seem to indicate poor engineering standards, but a key factor would have been the speed
at which logging was done. The resulting problems have been aggravated by the poor quality of
technical staff available to supervise field workers.

Field staff are mostly technicians - surveyors, accountants and foremen. There are no foresters among
the staff at Lak. The field staff are expected to cope with very complex work and social situations in a
country with which they have little familiarity, but they have been given little preparation in human
resource management. Malaysian field staff were thus expected to deal as best they could with a local
labour force whose members might not have any previous experience of regular wage labour, yet their
authority was limited. The company’s head office in Port Moresby took all major decisions regarding the
application of inducements (whether carrots or sticks) to local workers, landowners, and decision
makers at provincial and national levels.

Although local men were very keen to secure employment with Niugini Lumber because of the
fortnightly pay packet, they were in no hurry to accept the discipline of wage labour, whose negotiation
therefore became a serious business. Workers have often spent the better part of the day, between the
times of checking in and checking out, engaging in activities unrelated to their work, like gossiping.
There has also been a high level of absenteeism. Such resistance to the discipline of wage labour was
clearly connected to the confidence which workers derived from their status as landowners.

Under conditions of chronic uncertainty, company staff must constantly reinforce their relationships with
timber workers who may also be landowners, but their capacities and their techniques for doing so vary
Donor agencies have acquired a stake in the reform process which clearly reaches beyond the national constellation of stakeholder relationships. Northern governments and multilateral agencies have developed their own interest in the management of ‘tropical rainforests’ for domestic political reasons which are not well understood or appreciated in those tropical countries whose rainforests are supposed to benefit from the application of foreign aid. At the same time, the shape and size of the Northern ‘aid industry’ has been subject to other kinds of domestic political pressure which are equally opaque to many of its intended beneficiaries. Aid budgets have contracted in the face of doubts about the overall effectiveness of foreign aid, aid agencies have sought to define their ‘core business’ in regional and sectoral terms while ‘outsourcing’ more of their activities to private companies and NGOs, and donors have been more inclined to subject their grants and loans to conditions of ‘good governance’.

In this last respect, it may seem that donors are seeking to enlarge their powers over policy in those countries and sectors in which they do business. On the other hand, those aid agency officials who have a vested interest in one country or one sector are under greater pressure to justify this interest against competing interests within the same agency, in what is frequently a hostile domestic political climate. While the ‘donor community’ may seem to be making a concerted effort to drive PNG’s forest policy process along a pre-determined path, the actions of its representatives are silently constrained by their battle against the forces of ‘donor fatigue’ within their own organisations and political constituencies, and their room for manoeuvre is correspondingly reduced.

It is fairly clear that the World Bank’s interest in PNG’s forest policy process
has been driven by the belief that donors can exert greater collective leverage over this process than could be achieved in any of the other countries in the Asia-Pacific region which still have so much natural rainforest available for conservation or sustained yield management. In other words, the donor dollar ought to save more trees in PNG than it can save in larger countries, where the leverage is limited, or smaller countries, where the trees are not so plentiful, or many countries (large and small) which have already lost a larger proportion of their natural forest resources through past mismanagement. The Australian dollar is especially significant in this respect, because the total value of Australian aid to PNG still exceeds 20 per cent of the PNG government’s total revenues, and although the size of this benefit package diminishes with each passing year, an increasing proportion of it is tied to specific sectoral development programmes, as the element of general budget support is phased out.

When AusAID (then AIDAB) established a new set of sectoral priorities in 1993, the forestry and conservation sector was not given a very high priority, mainly because a number of other donors had already made substantial funding commitments to the NFCAP. But the sheer size of the total Australian aid package means that its forestry and conservation component greatly exceeds that of any other single donor. At the same time, some of PNG’s other bilateral benefactors (the United Kingdom, the United States, and now Germany) have decided to quit the Melanesian scene, so that aid from these sources will henceforth only make an indirect appearance through their contributions to multilateral institutions or those NGOs which retain some kind of stake in Melanesian forest management.

What this means, in effect, is that the main feature of donor leverage over the national policy process is a sort of double act between AusAID and the World Bank, where each relies on the other to exert specific forms of power, while other donor agencies play walk-on parts and keep their exit options open. The Bank functions as a broker, selling specific parts of the national policy process to these minor actors, while selling the prescriptions of a ‘global’ donor community back to the PNG government. This helps to reduce the friction generated by Australia’s use of tied aid to fund a small army of Australian consultants, whose ‘advice’ to the PNG government is readily construed as a form of neo-colonial domination. Australian tied aid gravitates towards the implementation of ‘institutional strengthening’ projects because these hold little attraction for other donor agencies with lower levels of commitment to the more intransigent problems of governance in PNG. At the same time, the Australian government has asked or allowed the Bank to administer that part of its aid programme which is dedicated to strengthening the hand of local NGOs in the forest...
policy process, because it acknowledges the Bank’s need to secure wider public support for the conditions imposed on the PNG government under the Structural Adjustment Programme. The Bank polices macro-economic policy, while AusAID strengthens the Police Department. Such is the agreed division of responsibilities.

Considerations of national sovereignty and international diplomacy make it hard enough for donors to muster positional power within the recipient country, but the domain of forest policy in PNG is fraught with additional problems which stem from the intensity of political conflict between resident stakeholders. While the smaller donor agencies can afford the luxury of dealing with specific groups or institutions, and all donors can generate publicity for their assistance to disadvantaged sections of the national community, the two Big Brothers are too big to avoid being seen to take sides in this national policy contest, yet do not have the executive power to satisfy the expectations and demands of all the protagonists, and are therefore bound to make enemies in several quarters. The World Bank in particular, in its role as the global policeman, attracts the same kind of hostility as the other ‘multinational monsters’ which are supposedly responsible for pillaging the natural wealth of paradise. The Bank has therefore tried to appease those sections of the local NGO community which are responsible for articulating such fears, firstly by offering financial support for their practical contributions to conservation or sustainable development, and secondly by wrapping the latest Structural Adjustment Programme in the strings of progressive forest policy. This strategy appears to be warranted by the Bank’s previous success in winning the qualified support of many international NGOs (especially those based in Washington), but is also partly motivated by its growing impatience with the national government’s lack of executive and managerial power over the policy reform process. For this latter reason, it carries the obvious risk of alienating those members of the political and bureaucratic elite who doubt that NGOs, for all the noise they make, have any greater capacity to satisfy popular demands for ‘development’ of any kind. And if the Bank believes that pressure from the local NGO community will somehow persuade the log export industry to clean up its own act, the log exporters still seem to regard the Bank’s courtship with the NGOs as proof of the bad faith which deploys the values of ‘environmental management’ as a disguise for the defence of Western commercial interests in the Asia-Pacific region, and an implicit attack on the merits of the national government’s ‘Look North’ policy.

Meanwhile, the radical wing of the local NGO community has been equally
suspicious of the Bank’s true motives, because its members are well aware of the Bank’s opposition to some of their favoured policy measures (especially the imposition of a log export ban), and they continue to air their suspicions in public because their populist political philosophy would otherwise be compromised. Any public reconciliation with the Bank would seem to contradict their long-standing campaign against the twin devils of Land Reform and Structural Adjustment. When this campaign reached its height in 1995, some rural villagers were apparently persuaded to believe that the Bank was not only attempting to sell their land from under their feet, but was also ‘responsible for the influx of Asian logging companies into the country because it wants the PNG government to repay its loans quickly’ (Sagir 1997:144). And if the radical NGOs have not already done enough to damage the Bank’s reputation with the mass of rural resource owners, there are plenty of fundamentalist Christian preachers who portray it, literally, as the instrument of a Satanic ‘one world government’ whose installation heralds the Millennium (see Stewart and Strathern 1997). The finer points of forest policy are no match for the Mark of the Beast.

Those donor agencies (including international NGOs) which attempt to influence forest policy at the local level, by dealing directly with rural communities, therefore have some reason to avoid any statement of sympathy for causes espoused by the World Bank, even if they are constrained from joining in its condemnation. If they cannot derive their positional power from some higher authority, be it the World Bank or the national government, their executive power is limited by competition from resource developers and religious organisations. On the one side, the developers offer substantial material rewards for very little effort. On the other side, the churches offer social services and spiritual redemption. What else can donors offer which the people really want? When they offer ‘Integrated Conservation and Development’, they propose alternatives to ‘unsustainable’ development which may be unsustainable themselves, run the risk of raising expectations which cannot be satisfied, and expect the resource owners to appreciate that unexploited forests are equivalent in value to the money which the donors spend on the administration of their own activities. It is hardly surprising that the recipients of such ‘aid’ are often led to wonder whether their benefactors are bargaining with peanuts or practising a form of exchange which makes no economic sense at all. If donors therefore find it hard to build up their own executive power at the local level, because they appear to spend more money on the satisfaction of their own material needs than on meeting the ‘unrealistic’ demands of the ordinary villager, they will sooner or later find that they also lack bargaining power with those other stakeholders who compete for the villager’s attention and respect.
The main reason why donors have been driven to deal directly with rural communities, however strange those dealings may become, is that they have begun to question the utility of dealing with the State. It is true that donors became engaged with the recent round of forest policy reform as a result of the national government’s request for assistance from the World Bank in 1989, that the vast bulk of the funds which donors have since committed to the cause of sustainable forest management in PNG has been directed through government channels, and that much of it has been directed towards the reform of government institutions and practices. But the reform process became a donor-driven process, and the donors have been driving it away from the State, because the State appears to lack the executive and managerial power to sustain the implementation of a coherent policy agenda which matches the donors’ own sectoral objectives. What this means is that the donors’ own executive power over the national government is limited by the variety and mutual inconsistency of ministerial demands on the overall pattern of government expenditure, while the government routinely fails to ‘absorb’ a substantial proportion of the grants and loans which donors have made available to meet these demands, because the bureaucracy is unable to make the commitments necessary to release these funds.

This lack of ‘absorptive capacity’ limits the bargaining power of the donor agencies on both sides of the aid relationship, since providers and beneficiaries are both liable to conclude that the game is not worth the candle. If the government cannot secure the results for which the donors wish to pay, the donors must then decide whether to purchase more managerial power over the government itself, by ‘strengthening’ those state institutions which are responsible for relevant aspects of policy, or to by-pass the state altogether, or even to by-pass the country.

The trouble with institutional strengthening projects, as AusAID endlessly discovers to its cost, is their tendency to create unsustainable enclaves of alien luxury within a poverty-stricken state apparatus. Money appears to be well spent by the well-heeled ‘advisers’ in well-furnished offices, but once the project is successfully completed, the resentment of their national counterparts gives way to a sense of relief, and normal work resumes. While AusAID champions the virtues of downsizing, outsourcing, flexibility and user-friendliness, PNG’s public service remains stubbornly faithful to the old-fashioned values of the Australian colonial administration, which Brunton (1996) describes as the ‘legacy of bureaucratic feudalism’. Local NGOs appear to possess the virtues which the public service is not yet prepared to accommodate, but may possess
them in an abundance which even the donors find difficult to tolerate. While the number of local NGOs active in the forestry and conservation sector has expanded to fill a greater part of the space made available by the promise of additional donor funding, their own absorptive capacity is restricted by their tendency to resist the development of organisational structures which would make them more accountable to donor agencies, and more ‘professional’ in the business of project implementation. The donors therefore find that it is no easier to exercise managerial power over local NGOs than over government departments, but in this case the problem lies in a deficiency of red tape rather than a surfeit of it.

In the final analysis, however, the power which donors exercise over the forest policy process does not depend on the executive or managerial capacities of local NGOs, but rather on the fiscal crisis of the State. It was the fiscal indiscipline of the Wingti government, from 1992 to 1994, which provided the World Bank with the leverage required to prevent the Chan government from reversing the progress already made in the rationalisation of the forestry sector, and force it to impose the new fiscal regime which transformed the distribution of resource rent derived from the log export industry. And this use of the Bank’s bargaining power, within the context of structural adjustment, reveals the central paradox of the aid relationship - that the continued exercise of such power depends on the continued crisis of governance which the donors are supposedly attempting to resolve.

12.4 The powers of politicians

When Papua New Guineans talk about the powers of politicians, their normal point of reference is now the National Parliament, with its array of Ministers, Vice-Ministers, Shadow Ministers, Provincial Governors, and backbench MPs. Prior to passage of the new *Organic Law on Provincial Governments and Local-Level Governments* in 1995, there were no Provincial Governors in the National Parliament, because each of the nineteen provinces had its own elected assembly, headed by a Provincial Premier, with a similar division of roles and responsibilities to that found in its national counterpart. In dispensing with these elected assemblies, the new *Organic Law* seems, at first sight, to have effected a very substantial reduction in the total number of politicians, by eliminating the ‘provincial politicians’ altogether, and leaving ‘national politicians’ to exercise a new measure of power over the administration of provincial affairs. However, this apparent concentration of power is belied by some further considerations:
Firstly, the reconstructed provincial assemblies now include a number of elected local council presidents and some appointed members, who may now be seen to qualify as ‘provincial politicians’ in their own right.

Secondly, the new connections established between the provincial and local levels of government may mean that all elected local councillors will henceforth be seen as ‘local politicians’, where they were previously more likely to be classified as ‘community leaders’.

Thirdly, the new set of legal and institutional relationships between the national and provincial levels of government has only served to intensify the competition for a seat in the National Parliament, so that each elected MP must now deal with a larger number of former politicians or would-be politicians who are either disputing the results of the last election or planning their campaign for the next one.

If the word ‘politician’ were used in the much broader sense, to include all those living individuals who have ever contested a national or provincial election, as well as those who have recently contested a new round of local government elections, then the membership of this ‘stakeholder group’ would increase quite dramatically, from just over one hundred to well over ten thousand.

Nearly all the individuals in both the smaller and the larger category would certainly count themselves as resource owners in their own right. Most of them have been government employees at some stage in their careers, even if they were obliged to give up their positions in the public service, at least temporarily, in order to stand for election. Many are now employed in the ‘private sector’ (including the NGO sector), including those who were formerly public servants. But few of them would qualify as ‘traditional’ community leaders, because electoral contests of all kinds are nowadays regarded as the happy hunting ground of the country’s ‘educated elite’, whose members have completed at least ten years of formal schooling. Given the high rate of occupational mobility, the intensity of political competition, and the rapid fluctuation of political fortunes, no clear distinction can be drawn between the country’s political, bureaucratic and business elites.

The very large number of ‘failed politicians’ or ‘would-be politicians’ who are currently excluded from the National Parliament play a significant role in limiting the powers of the ‘real politicians’ who have temporarily gained entrance to it. Nearly all MPs have been elected with a minority of the
votes cast in their respective electorates, and very few can claim to represent a wider national constituency through their membership of a political party, since political parties are little more than parliamentary factions competing over the allocation of government ministries. Whatever position an MP takes on matters of public policy, his enemies will claim that he is either catering to the demands of a very narrow local constituency or has been surreptitiously ‘captured’ by an equally small group of wealthy stakeholders with a vested interest. The distribution of political support for the log export industry is a clear case in point.

Despite the limits thus placed on the positional power of MPs, the weakness of political parties and the chronic lack of Cabinet solidarity appears to enhance the bargaining power and executive power of individual MPs, especially government ministers and provincial governors. The recent history of forest policy is littered with erratic decisions by ministers, vice-ministers and acting ministers, with or without the agreement of their Cabinet colleagues, which are frequently at variance with the laws, regulations and procedures to which the government is formally committed, and which have normally had the effect of granting special favours to specific logging companies. Such political decisions are not the sole preserve of the Forests Ministry, but have also been made by the holders of other portfolios, such as Finance, Agriculture, or Trade and Industry. At the same time, provincial governors and other MPs from the same province have made occasional attempts to control or undermine the deliberations of Provincial Forest Management Committees in order to effect their own ‘special deals’ with individual developers. Indeed, the sheer number of individual MPs who have been able to influence the development of a specific forestry project within a short period of time has tended to limit the executive power which each one can exercise, since they are rarely acting in concert, and often acting at cross purposes. As these conflicting decisions are routinely exposed to public scrutiny through the mass media, the yawning gap between formal government policy and personal political practice reinforces the lack of public faith in either policy or politicians.

Many national politicians seem to feel that they have little choice but to use their own bargaining power with developers in order to satisfy demands for ‘development’ within their own electorates. To satisfy these same demands, they also bargain with each other to secure greater personal control over the state’s own purse strings, thus increasing the proportion of public spending which can be represented as an act of personal generosity. And in order to satisfy the demands of their own supporters within the
ranks of the educated elite, many of them look to create new paid positions, or redistribute existing posts, in any branch of public employment where they can exercise some influence. However, this exercise of executive power is rarely accompanied by any corresponding increase in their managerial power. Where MPs divert public revenues into pet projects, rather than their own pockets, these are not properly planned, monitored or evaluated, and seldom prove to be sustainable. And when ministers or governors can persuade their colleagues to approve a new round of political appointments in government departments or statutory bodies, they provoke a new round of bureaucratic resistance to ‘political interference’, and new incentives for frustrated public servants to seek an alternative career in politics. Such actions are part of a vicious circle through which politicians justify the exercise of greater personal executive power by reference to the failings of a bureaucratic system whose own powers are diminished by the same exercise.

This is not to imply that PNG’s ‘crisis of governance’ is so severe as to present any immediate threat to the institutions of parliamentary democracy, or to prevent national politicians from reforming their political system in ways which will facilitate a more coherent approach to matters of public policy. There is evidence to suggest that a growing proportion of the votes cast in national elections, especially in the urban and regional electorates, are being cast in the direction of candidates who promise to clean up the government’s act rather than distribute instant material rewards to their personal supporters. With each rotation of the electoral cycle, it is possible to discern an increase in the proportion of MPs whose commitment to reforming specific policy domains, commonly based on their prior work experience, offers some kind of defence against the private temptations of public office. There is no prospect of this group turning itself into a single political party, but they are still liable to support reforms to the electoral system - like the adoption of preferential voting - which will enable more candidates to broaden the basis, and raise the level, of their appeal to the electorate. In those areas where sustainable forest management - or rather the lack of it - is a major political issue, candidates who can win votes in many parts of the electorate are more likely to oppose destructive logging practices which benefit a few people at the expense of the majority. But even under the present system, where the politics of the parish pump and pork barrel still determine electoral outcomes in many rural areas, MPs who support destructive logging practices can still be thwarted by their many local opponents, including those who would agree that logging is the only option for ‘development’,
because there is no way for one developer and one MP to satisfy the competing demands of so many local community leaders who aspire to be politicians in their own right.

12.5 The powers of the bureaucracy

If politicians can accidentally limit the incidence of unsustainable development in the act of competing for control over the distribution of its immediate benefits, public servants can achieve the same result through their acts of passive resistance to political interference in their respective policy domains. The fear of political interference appears to justify the rigid bureaucratic adherence to sundry sets of rules and regulations, even if it does not excuse the combination of apathy and arrogance which tends to infect the process of communication between public servants and the public whom they are supposed to serve. Given the number of public servants who harbour private ambitions for a political career, there is a certain irony in their complaint that ‘politics’ is what prevents them from meeting the public demand for an improvement in the quantity and quality of ‘services’, but there is also some truth in their conception of ‘civil society’ as an arena in which all other stakeholders are engaged in a perpetual struggle to rip up the body of the State. Politics in PNG fits Migdal’s model of ‘dispersed domination’, in which ‘neither the state (nor any other social force) manages to achieve countrywide domination and in which parts of the state may be pulled in very different directions’ (Migdal 1994:9). The masters of red tape may thus regard their own struggle against these centrifugal tendencies as the main reason for their employment.

Although it may seem that bureaucrats are engaged in a constant struggle with politicians over the allocation of scarce government resources, where the dictates of public policy are opposed to the trade in personal favours, the competition amongst the politicians themselves is duplicated throughout the executive arm of government. As the whole state apparatus is continually ‘restructured’ to suit the proprietorial claims of individual ministers in unstable coalition governments, and politicians still trample across the current set of institutional fences which separate one policy domain from another in their constant search for additional executive power, the officials in each ‘bit of state’ compete to obtain the maximum personal benefit from each rearrangement of the institutional furniture, and keep their distance from each other by constantly mending the fences which the politicians like to break. At the same time, within each of these isolated
‘bureaucratic communities’, a further division arises between those who see some immediate advantage in serving the politician of the moment, and those who prefer to wait for a more congenial political master, and thus serve Father Time or the ‘public interest’. But these are not the only options open. Some officials are transferred from one agency to another when they get promoted by a newly appointed national minister or provincial governor, normally as a result of some prior personal connection; some resign in the normally vain hope of realising their own political ambitions with the approach of the next national election; and others simply defect to the private sector in the search for more rewarding occupations. The best and brightest tend to move on; the rest keep serving time.

The continual circulation of agencies and personnel limits the exercise of all forms of state power, not only the external powers of the government as a whole, but also the internal capacity of the state to function as a single stakeholder with a coherent and consistent position within any given policy domain. However, these limitations are unevenly distributed between different government departments, and more especially between the different levels of administration, from what Migdal (ibid:16) calls the ‘commanding heights’ and the ‘central offices’ down to the ‘dispersed field offices’ and the front-line ‘trenches’. In PNG, the commanding heights of the bureaucracy are occupied by the Departments of the Prime Minister, Finance (now Treasury), and Personnel Management, which are either responsible for the overall coordination of national government policy or administer the distribution of human and financial resources between the competing demands of government ministers, line departments, and provincial authorities. This is the level at which bureaucrats and politicians play for really high stakes, as reflected in the fact that a new Secretary of Finance is appointed almost every year. Officials in these central departments also engage in the continual invention of new structures and practices which are intended to impose greater financial discipline on the rest of the bureaucracy, and thus possess a kind of negative bargaining power which is manifested in the refusal to release resources to those agencies which cannot meet the latest standards of accountability. This kind of power has been reinforced by the conditions attached to the latest Structural Adjustment Programme and by some of the financial provisions in the new Organic Law on Provincial Governments and Local-Level Governments. As a result, the lower levels of the government hierarchy appear to have even less bargaining power, and therefore less executive power, than they had even under the old system of provincial administration, and there is no guarantee that they will develop the new forms of managerial power required to reverse this second vicious circle. At the lower levels of the hierarchy, in provincial and district
offices, there remains a great deal of regional variation in the distribution of power between public servants and other stakeholders, but the common problem is that bureaucratic communities at these levels are too small to resist the forces of ‘political interference’ in the same manner as the central government agencies in the national capital.

As a result, the powers of the bureaucracy are dissipated well before they reach the level of the village, especially in the most ‘backward’ parts of the country, which also happen to include most of the areas with large volumes of commercially attractive timber in their forests. Front line government officials can rarely get their hands on the very substantial travel allowances stipulated under the Public Service General Orders, which they regard as reasonable compensation for the noxious task of spending time in any village but their own.

The transformation of the old Department of Forests into the new National Forest Service is an example of that process of ‘corporatisation’ which the donor community has persuaded the national government to undertake as a means of enhancing or restoring the bureaucratic powers which are threatened by erratic ministerial behaviour. During the first two years of its existence, from 1992 to 1994, forestry officials at all levels of the hierarchy showed a greater willingness and ability to regulate the log export industry through their dealings with existing permit-holders (see Nen 1997, Wood 1997). The reunification of national and provincial offices within a single corporate body, with the simultaneous introduction of an intermediate regional level of administration, also bolstered the internal managerial power of the senior staff, while the generosity of the donors permitted an improvement in their general working conditions, and a flow of additional resources to the lower levels of the hierarchy, which reduced the temptation to seek alternative employment. However, some aspects of this process of empowerment proved to be rather fragile when the bureaucratic reformers could no longer rely on the support of a reforming minister, and were thus driven back to the trenches of passive resistance. Their defences are no longer shored up by an elite squad of donor-funded technical advisers, and their maintenance now seems to depend on the World Bank’s conditionalities.

Even if the process of corporatisation enables the bureaucrats to keep the politicians at a safer distance, at least for some period of time, it does nothing to reduce the isolation of a statutory body from other bureaucratic agencies, or from other stakeholders with a legitimate interest in its own policy domain. Although the reformers originally expected the NFA to
finance its own operations out of the income generated by the new forest revenue system, the Finance Department has consistently thwarted such ambitions, and budgetary allocations to the Authority are therefore still subject to some political manipulation, as evident in the World Bank’s insistence that they not be cut too far. On the other hand, the Bank itself now seems to doubt whether donor interventions have made a lasting impact on the capacity of the National Forest Service to deal effectively with resource owners and logging operators at the local level, whether through the production of Forest Management Agreements, the policing of Timber Permit conditions, or the distribution of royalties and levies. For all these reasons, it would be hard to conclude that the National Forest Service has achieved any discernible increase in its positional power with other stakeholders in the forest policy process, or that such a change would eventuate if the process of corporatisation were to be taken further. The ‘castle in the forest’ just has thicker walls.

While donors regarded the partial corporatisation of the forestry bureaucracy as one of the cornerstones of the policy reform process, they have not shown any corresponding enthusiasm for transforming the status of the DEC. Despite the talk of fostering an ‘entrepreneurial culture’ through the implementation of the DEC Strengthening Project, the Department continues to lack the bargaining power which would be necessary to any form of entrepreneurial behaviour. Its only significant contribution to national government revenues derives from the issue of Water Use Permits, and this licensing function is now being sought by provincial authorities under the terms of the new Organic Law. The Finance Department still tends to regard the DEC as a waste of scarce government resources, and this becomes a self-fulfilling prophecy, because the DEC has never managed to obtain either the budgetary allocation or the operational capacity required for the enforcement of environmental regulations and effective management of conservation areas. This means a further lack of bargaining power with the logging companies which breach these regulations as a matter of course, and a corresponding lack of executive power to satisfy the demands of the forest conservation lobby. Although the DEC Strengthening Project has resulted in a new departmental structure which promises an improvement in front-line capacity through the creation of a Field Services Division, and the Conservation Resource Centre has taken a lead in performing expensive experiments with ICAD methodologies, it is not clear how either of these donor-funded interventions will change the long-term balance of power between the Department and other government agencies.
Given the current limitations on the power of those sections of the bureaucracy with a primary mandate to deal in the domain of forest policy, the problem is to decide:

- which of these limitations are to be overcome by projects designed to enhance the capacity of these bureaucratic institutions; and
- which will be more effectively overcome by shifting the relevant responsibilities to other government agencies, private companies, or NGOs.

Since corporatisation and privatisation have received general endorsement in recent government policy statements, one might infer that government agencies should only assume responsibility for those activities in which they have a proven record of effectiveness or for which there are no alternative agencies willing and able to undertake the task. However, the bureaucrats have some reason to believe that the process of ‘outsourcing’ is an open invitation to new forms of political interference or political corruption, and are highly sceptical of donor-funded projects which purport to strengthen the capacity of NGOs or private companies to do the work of government. Their scepticism is partly rooted in their direct experience of those institutional strengthening projects which are carried out by consulting companies under contract to donor agencies. Even in respect of those responsibilities which are (for better or worse) retained by government, a similar dilemma arises over the relative capacities of different government institutions. For example, it is not clear whether the cause of community participation in the forest policy domain is best served by strengthening the front-line capacities of national departments or provincial authorities, or by strengthening the autonomous management capacities of local-level governments. These questions should still not be allowed to obscure the larger (but more difficult) question of how bureaucratic agencies of all kinds can develop a recognition of their own limitations, and a corresponding capacity to develop mutually beneficial contractual relationships with other stakeholders, including the resource owners who rarely even know the rudiments of public policy regarding the ‘development’ of their resources, and certainly cannot keep pace with the continual renovations being made to the bureaucratic edifice of rules and regulations.
Box 12.4 The role and problems of bureaucratic regulations

The enforcement of development controls, especially licence and permit conditions and environmental approvals, increasingly brings the state into competition with landowners and developers. Sometimes landowners request assistance from the state to enforce conditions; sometimes they are allied with the developer in seeking to undermine them. In either case, the state’s inability to enforce the regulations it has laid down undermines its capacity to do so in the future.

The reasons for poor enforcement are complex and interrelated. To begin with, the bureaucracy has little or no experience of prosecuting regulatory offences. There is no pre-Independence legacy of knowledge about how to prosecute for breach of environmental plan conditions. Indeed, the state appears to have some difficulty securing convictions in relation to criminal matters, in relation to which it has considerable experience. Problems with prosecutions include lack of adequate records to establish proof of facts on which the conviction would be based, lack of expert evidence, and lack of detail in the legislation about how, by whom, and in what court prosecutions should be commenced.

Regulatory systems are also inadequately entrenched. Inadequate monitoring, poor record keeping, tolerance of breaches, and confusion about what the conditions actually are have contributed to bureaucratic inertia, so that it is difficult to determine which breaches are most serious, and whom to prosecute first. Much of the administrative resource available is absorbed in maintenance of the regulatory system itself – answering correspondence from approval holders and reviewing new applications for approval - rather than in monitoring and enforcement activities.

Enforcement in most regulatory systems depends largely on the willingness of those to whom laws apply to obey those laws. In the case of large multinational foreign companies, there are usually considerable persuasive influences for them to submit to the regulatory system. The risk of adverse publicity outside PNG is too great to engage in outright disobedience of environmental conditions.

However, where the rules of behaviour are ill-defined or ambiguous, there is often room for manoeuvre or renegotiation of the conditions of environmental approval. In the case of companies which are not vulnerable to public censure at home, confusion and overlap between different development approvals can provide large loopholes. Officials sometime purport to relax conditions of ministerial approvals by letter, and companies rely upon these to justify non-compliance. While the government may well succeed in any action to enforce those conditions (on the basis that the official acted outside his power), the company only needs to arm itself with the basis for a half-credible argument justifying their default in order to fend off local criticism.

If the threat of prosecution for non-compliance were a real one, permit-holders and approval-holders might take more care to ensure that they were legally, and not just apparently, acting in compliance with conditions. But, as there has never been a successful prosecution under the Environmental Planning Act, they can assume that they are unlikely to be prosecuted as long as the breach is not outrageously flagrant.

Source: Whimp 1997
12.6 The powers of NGOs

The distinction which we have drawn between the radical and pragmatic wings of the national NGO community may be construed in terms of the search to establish two different kinds of power within the forest policy process. The more radical members appear to be mainly interested in the accumulation of positional power, by mobilising broad public support for a specific position within that process through various forms of advocacy, while the more pragmatic members appear to be more concerned with the development of their executive power, by addressing the needs and demands of resource owners for specific types of assistance or advice. In practice, most NGOs are seeking both kinds of power, and in theory, most of their members are liable to deny that they are seeking any kind of power which they can call their own, rather than that of their notional grassroot constituents. NGOs do not form a natural ‘cartel’, in the same way that log exporters or even donor agencies do, because they are not all ‘selling’ the same kind of product.

The separation of an ‘NGO position’ from that of the churches and other elements of ‘civil society’ (journalists or scientists, for example) is itself a somewhat artificial result of the way in which the donor community has contrived to insert this position into the forest policy process. The internal and external relationships of the ‘NGO community’ are quite different in other policy domains. In the domain of ‘law and order’ policy, for example, the focus of advocacy shifts from the depredations of resource developers to the repressive instruments of state power, and there are few points of common interest between the advocates of ‘human rights’ and those church agencies which run juvenile detention centres or wage public battles against drug abuse. In the ‘softer’ domains of health or gender policy, the overall level of antagonism between stakeholders is generally much lower, and the voice of radical advocacy is hardly even heard. Even in the domain of mineral policy, which resembles forest policy in highlighting the contest between the custodians and developers of a natural resource, the presence of local NGOs has been accomplished under quite different conditions, since they are not bargaining their way through a second contest between developers and donors. In the mineral policy process, it is harder to distinguish the role of NGOs from that of local and national politicians who also jostle to present the grievances of a few landowning communities directly to the mining and petroleum companies, which then seek to accommodate all these power-brokers within a ‘stakeholder forum’ which is managed by their own specialists in corporate and community affairs.
In the forest policy process, by contrast, the NGOs have a more distinctive role as the brokers between a large mass of rural resource owners with a lower public profile and an equally nebulous ‘global community’ whose local interests are managed by the representatives of donor agencies. In this domain, the NGOs do not even talk to the developers - a point which sets them apart from many politicians and landowner company directors, with whom they must compete quite vigorously for the honour of claiming to represent the true soul or real interest of the masses. As a result, the forest policy process features a lot of strange talk about the correct method of achieving ‘landowner representation’ on sundry boards and committees, as if it were possible to distinguish ‘landowners’ from the wider body of ‘citizens’ in matters affecting the management of customary land. At the same time, the radical NGO position has a two-faced quality which adds another element of confusion to the policy process: those who sell donors the image of landowners as natural conservationists are also selling resource owners the image of donors as foreign imperialists. Beneath the global green agenda lurks a parochial xenophobia.

Most of the international NGOs with a stake in PNG’s forest policy are reluctant to endorse the radical versions of dependency theory espoused by some of their local counterparts. The conflict between global and local priorities may therefore reflect a greater divergence of interest within the local NGO ‘community’ itself, between those who like to bite, and those who are content to lick, the foreign hands that feed them. If the biters still get fed, even by the likes of the World Bank, this seems to imply that the relationship between NGOs and donors is a marriage of convenience which is forced upon both parties by their common disaffection with the powers of bureaucrats and politicians, as well as their common antagonism towards the log export industry. The question is whether the local NGOs can simultaneously meet the needs of rural resource owners and satisfy the donors that the net result is better local management of natural resources. Where donors acknowledge their own inability to ‘strengthen’ the institutions of government, they can hardly expect the government itself to strengthen the capacities of local NGOs, and are therefore driven to regard this task as one of their own responsibilities. But donor intervention in the work of local NGOs adds further tension to a difficult relationship, since there are few, if any, local NGOs which are willing and able to design and manage donor-funded ‘projects’ in a way which satisfies the methods of evaluation and the standards of accountability adopted by the funding agencies. When the source of funding is a bilateral agency like AusAID, the design and evaluation of local NGO projects is primarily intended to reinforce the donor’s positional and executive power with its ‘own’ NGO
community rather than develop or transform the managerial powers of its PNG counterpart. But if this means a lowering of the standards imposed on the performance of local NGOs, it may still have a negative effect on their executive capacities, because the needs of their own ‘clients’ are liable to be ignored.

If the bargaining power which local NGOs can exercise with the donor community rests on the assumption of government corruption or incompetence, at least in the domain of forest policy, their bargaining power with the government is correspondingly reduced by the fact that national politicians and bureaucrats alike tend to regard the NGOs as their competitors, whether in their ‘political’ capacity as tub-thumping populists, or in their ‘bureaucratic’ capacity as the providers of alternatives to inadequate government services. The radical wing of the NGO community would have more bargaining power with the politicians if it could undertake to deliver a certain proportion of the popular vote, but this capacity was not much in evidence until the last national election. Although some of its members and supporters have now been elected to Parliament, it is not at all clear that any of them currently ‘represents’ a radical constituency within the forest policy process. On the other hand, those bureaucrats who believe that the government’s executive failures are the result of political interference, rather than administrative incompetence, now have fresh evidence to support their claim that NGOs - at least the radical variety - are simply public speaking platforms for the latest breed of politician.

The mere fact that NGOs are obviously more ‘political’ animals in some policy domains than in others goes some way to explain why the bureaucrats in the rather ‘unpolitical’ Department of Home Affairs have been unable to come up with an official ‘NGO policy’ which commands widespread support for a more productive partnership across the board. The institutional mechanisms through which the churches presently deliver a wide range of social services on behalf of the government do not provide appropriate models for a mutually acceptable division of responsibilities between relevant government departments and NGOs engaged in the forest policy process. It is not hard to understand the reluctance of the NFA to share power with NGOs which have a mission to expose political and bureaucratic corruption in the log export industry, but the DEC has hardly got much further in developing contractual relationships with NGOs who seem to share its own objectives, and do not represent an obvious threat to its reputation.
Government officials may have less reason than donor agency representatives to overlook the limited managerial capacities of local NGOs, and more reason to believe that NGOs are overstating their capacity to do the work of government in order to mobilise additional public support for their criticism of official policies and practices. At any rate, the result is another vicious circle, wherein local NGOs are unable to establish themselves on an equal footing with government agencies unless they first agree to submit themselves to a series of ‘capacity-building’ exercises which threaten their own sense of mission and make them feel that they are mere tools in the pursuit of some larger corporate or bureaucratic purpose. The further development of contractual relationships between some of the more pragmatic local NGOs and other stakeholders in the forest policy process - whether they be government agencies, donor organisations or private companies - is likely to open up another split within the NGO community, between those members who are willing to take on the opportunities and risks of corporatisation and those who firmly adhere to the belief that ‘small is beautiful’, and either retain more limited ambitions to deliver specific forms of assistance to particular communities, or else prefer to function as professional critics and campaigners.

Box 12.5 How to develop constructive partnerships with NGOs in a National Forestry Action Plan

**Strategic directions and political realism**
- It is more important that a NFAP be strategic than attempt to be fully comprehensive. Likewise, the participation of NGOs should not be expected in all areas. It may be legitimate for governments to start with a concentration on government roles alone, before going on to a wider, participatory process.
- Criteria need to be developed for determining the types of NGOs, and other bodies, which should participate. NGOs may have to prove their credibility before they are taken into account.
- Forestry rarely gets high up a central government agenda. Participants in a NFAP should know how far up the decision-making ladder their deliberations are likely to reach.

**Communication and information**
- An information and communication strategy is needed for a two-way process of education and consultation to develop between the NFAP and the public.
- Government agencies and NGOs need information about each other’s objectives and working practices, and training to adapt to these in joint fora.

**Appropriate policy, agreements and institutions**
- The rights and responsibilities of the NGO-Government relationship in the NFAP should be defined through consensus, and formalised in writing and/or actions. A procedure for reconciling possible
points of disagreement in the pursuit of common goals should also be developed.

- NGOs need a forum to meet and coordinate approaches to the government and private sector.
- A core planning agency of government is preferable as the lead NFAP agency - to provide strategic coherence and to nurture the participation of NGOs and others.

**Participatory approaches and capacity**

- Local expertise in participatory methods, communications, education and media activities should be identified and consulted early in a NFAP process and goals set for long-term strategy towards adaptation and institutionalisation of participatory approaches in the development of ‘new professionals’.
- Based on an independent review of capacity amongst NGOs, a capacity needs assessment should be made and indicators of development, participation, representativeness, accountability and capacity developed with NGOs.

**Catalysts for the process and learning environments**

- NGOs with recognised capabilities may help with early participation in NFAP processes and in starting to develop the links between top-down and bottom-up processes.
- Coordinators of NFAPs need to be able to deal with more devolved directions and complexity of process and “NGO specialists” should be included in programmes of core technical support for NFAPs.
- Frameworks for judging the achievement of progress should be developed and early phases of the NFAP should be assessed with all participants and an early round of adaptation should take place before spreading the programme.

**A phased approach with adequate resources, skills and time**

- Phasing the process can slow the rate of raised expectations and development of conflicts and allow them to be better met and dealt with.
- Early priority should be given to supporting small NGO projects to develop confidence amongst NGO partners and to demonstrate particular approaches.
- Higher investment will be required in the early phases of a NFAP which involves NGOs and others; experience shows that in time this becomes more cost-effective.

*Source: Mayers and Peutalo 1995*
If each national election heralds a new act in the forest policy drama, as well as all the other ‘shows’ which go to make up the national policy process in PNG, we may now consider how the latest act in this drama is shaping up in the wake of the national election held in June 1997. Has the reform process finally run out of steam? Are there signs of change in the balance of power between the various stakeholders? Who now cares about sustainable forest management, and what might they do to promote it? And what forecasts can now be made about the ‘medium-term’ directions of the forest policy plot?

13.1 The new government

Forest policy was not a major campaign issue in the 1997 national election, except perhaps in those electorates where some of the candidates could grind their axes on the impact of existing logging operations or the allocation of prospective timber permits. Even the impact of structural adjustment was thoroughly eclipsed, as a topic of national political debate, by the so-called ‘Sandline mercenary crisis’, which resulted from the government’s decision to engage a British ‘security’ company, Sandline International, to undertake a ‘surgical strike’ against the rebel forces on the island of Bougainville. When the mercenaries arrived in PNG in March, they were promptly arrested and ejected by the Defence Force, whose commanding officer, General Singirok, then demanded the resignation of the Prime Minister, while civilian demonstrators took to the streets of the national capital to join in the protest. Foreign journalists were attracted by the scent of a military coup, but the crisis was defused when Singirok agreed to accept his own dismissal on condition that the Prime Minister, Deputy Prime Minister, and Defence Minister also volunteered to step aside for the duration of a Commission of Inquiry into the circumstances of the
mercenary contract (see Dinnen et al. eds. 1997). Although the Commission found no evidence to warrant further judicial action against the three politicians, and they returned to office before the election took place, many of the candidates challenging for seats held by members of the ruling PPP-Pangu coalition used the Sandline affair to illustrate their own charges of corruption and incompetence.

It is hard to say what impact this argument might have made on the actual distribution of votes in June, but the Prime Minister and Defence Minister both lost their seats, both coalition parties returned to Parliament with a considerably smaller number of elected members, and some of the newly elected ‘Independent’ candidates had been amongst the more vocal supporters of General Singirok’s act of ‘mutiny’. It was widely expected that this group of Independents would join forces with the members of parties previously in opposition to the Chan-Haiveta coalition to form a new government untainted by the Sandline legacy. However, this arrangement foundered on the question of whether Michael Somare, the ‘father of the nation’, or Bill Skate, the leader of the People’s National Congress, should be the new Prime Minister, and Skate’s supporters, including most of the Independents, decided to take out their long spoons and sup with the ‘devils’ in what remained of the former ruling coalition.

Despite this compromise, the new government is not thought to be as well-disposed towards the log export industry as its predecessor. Sir Julius Chan’s personal defeat means that the loggers have certainly lost one of their most powerful allies in Parliament, and his replacement, Bill Skate, appears to have no personal stake in any timber concession, because he represents an urban electorate. The former Forests Minister, Andrew Baing, was able to retain his own seat, and took over the leadership of the People’s Progress Party, but was unable to secure anything more impressive than the Agriculture and Livestock portfolio in the new Cabinet, and was then ejected from the ruling coalition. The new Forests Minister, Fabian Pok, is one of the newly elected Independent candidates, and like the Prime Minister, he represents an electorate in which the loggers have no interest. The World Bank seems to regard the composition of the new government as a window of opportunity through which some further progress can be made with the process of forest policy reform. The local NGO community is rather more sceptical, since most of its members have long since decided that no politician can be trusted.
13.2 The latest weather

In the latter part of 1997, massive forest fires did far more damage to PNG’s forest resources in a matter of weeks than the logging companies have managed in ten or twenty years. The severity of the drought caused by the El Niño weather pattern has been a necessary, but not a sufficient, condition of this conflagration. And the ‘resource owners’ who have lit these fires are not engaging in a traditional land management practice. The main ‘cause’ of the conflagration is the abundance of modern combustible materials in the hands of irresponsible individuals (many of them probably children playing with matches) and the absence of traditional or modern social institutions which can control or sanction their behaviour. Although the coincidence of dry weather and volcanic eruption has undoubtedly caused previous incidents of catastrophic forest loss in some parts of the country, and the volcanic soils created by these events have subsequently nourished some of the country’s ‘richest’ stands of natural timber (which now act as natural magnets to the logging industry), the latest round of destruction has enveloped many high-altitude areas which have not been subject to such natural catastrophe for a very long time.

The impact of the drought on both the commercial and subsistence sectors of the national economy has already been severe. The Ok Tedi copper mine was forced to cease operations for several months because the level of water in the Fly River was too low for barges to reach the port of Kiunga. Production at the Porgera gold mine was also interrupted by the loss of water required for its milling operation. The output of cash crops in many parts of the country has fallen markedly, and cannot be expected to regain normal seasonal levels for at least a year. The supply of food crops has also diminished, especially in highland areas, where the staple sweet potato crop has been affected by widespread frost as well as drought. The combination of drought, frost and widespread forest fires has also fuelled the millenarian fears and fantasies which were already spreading through the countryside.

The forest policy process has not been directly affected by this turn of events. With one or two exceptions, forest fires have not caused any significant damage to operational timber concessions, since they have mainly been confined to higher altitudes. Dry weather otherwise makes life easier for logging companies, and is not amongst the list of hazards which are said (by industry spokesmen) to threaten the economic future of the log export industry. The critical question is whether the national government, faced with a drastic decline in its projected revenues from mineral and
agricultural exports, and the additional cost of emergency drought relief programmes, will now make financial concessions to the log export industry and try to speed up the allocation of new timber permits as part of a desperate attempt to balance its own books.

13.3 More structural adjustment

Even before the impact of El Niño began to be felt, the national government had already asked the World Bank to organise another package of loans under the Structural Adjustment Programme. This package, worth 50-100 million US dollars, was primarily required in order to tide the government over a period of general fiscal reform, which involves the introduction of a Value Added Tax and the simultaneous reduction of import duties in accordance with the dictates of the World Trade Organisation. The need has now been magnified, not only by the impact of the drought on the national economy, but also by the falling price of three major export commodities - oil, gold, and raw logs - and by the government’s decision to postpone the introduction of VAT for another year, pending further discussion of its economic consequences. As a result, the Bank has now made a further appearance on stage in its role as a godfather and ghost-writer, pronouncing upon the virtues of the policy statements uttered by the Minister for Finance in a budget which sounds as if it was written by the Bank’s officials. The government therefore has little room in which to make new concessions to the log export industry, unless the Bank can be persuaded to agree.

It does seem that the log exporters have fallen on hard times in the period since the national election, not because of any change in government policy, nor because of the unusual weather, but because of a dramatic reduction in prices for processed and unprocessed timber in their Asian export markets. This is partly due to the financial problems afflicting the national economies of Southeast Asia, and partly due to the continuing stagnation of the Japanese construction industry, as well as the long-term trend for Japanese builders to use alternative raw materials. Several log export operations in PNG have been scaled down or suspended as unsold stocks of logs are piling up, and export prices barely cover the cost of production\textsuperscript{80}. The FIA has therefore cranked up its campaign against the forest revenue system, demanding a substantial reduction in export taxes, opposing the introduction of the Project Development Levy, and joining in the lobby against the introduction of VAT. But the Bank has so far turned a

\textsuperscript{80} At the time of writing, average prices have fallen below US$60/m\textsuperscript{3}
resolutely deaf ear to the industry’s cries of distress, and has preferred to engage local NGOs in debate on the wording of a new set of sustainable forestry conditions to be attached to the next structural adjustment loan. This debate has not produced a consensus between the Bank and the NGOs, but the Bank is clearly reluctant to relax any of the conditions attached to the previous loan until the economics of the industry have been studied in greater detail by three separate teams of consultants, whose final reports are due for completion in May 1998.

13.4 The new donor package

The Bank’s grip on national forest policy has potentially been tightened even further by the new government’s request for additional donor support to address outstanding problems in the forestry and conservation sector. These problems have also been subject to discussion between the Bank and local NGOs, as well as with other stakeholders, and the Bank has already persuaded the GEF to contribute 17 million US dollars to a new Forestry and Conservation Project whose total value is currently estimated at 59 million dollars. This could be seen as a further extension of the NFCAP, except that it has been designed as an integral part of the Structural Adjustment Programme, so that other parts of this larger package will be dependent on the national government’s commitment to further reforms in the domain of forest policy.

This project has four components:

• The provision of additional financial support for the Conservation Trust Fund, whose establishment has been one of the objectives of the Biodiversity Conservation and Resource Management Programme, accounts for 61 per cent of the project’s total value, and for most of the support obtained from the GEF.

• The provision of technical assistance for the transformation of the DEC into an Environmental Protection Authority is worth 10 per cent of the project’s value, and could be seen as a continuation of the DEC Strengthening Project.

• The component dedicated to ‘sustainable natural forest management’ takes up 17 per cent of the project’s funding, and features the engagement of an independent body to audit or monitor the ‘front-line’
dealings between officers of the National Forest Service and other stakeholders, primarily the resource owners and the logging companies, and publish the results of its investigations.

- A separate component dedicated to ‘landowner forest decision-making’ takes the final 12 per cent of the project’s total funding, and involves a variety of measures intended to encourage resource owners and their representative organisations to opt out of proposals for unsustainable development.

The Trust Fund appears to be regarded as a method of paving the way, both financially and institutionally, for PNG to take advantage of the growing market for carbon offset schemes under the Climate Change Convention. The demand for more light to be cast on the activities of the National Forest Service seems to have arisen from the shared concern of local NGOs and donor agencies that some forestry officials are still hiding skeletons in their closets, and no amount of rules and regulations will suffice to root them out unless they are accompanied by new forms of transparency and publicity. It is still unclear whether the supporters of this proposal would agree for the auditing function to be contracted to a private company, in the same way that the task of log export surveillance has already been contracted to SGS, but some local NGOs see no reason to exempt the work of SGS staff from the scope of the audit.

The Bank has asked the logging companies to demonstrate their own commitment to sustainability by making voluntary contributions to the cost of this new ‘forestry inspectorate’, whose functions might be extended to include the training, as well as the policing, of their field staff, and thus raise the efficiency of their operations. The response has been less than enthusiastic, given the Bank’s apparent determination to maintain the impositions of the current revenue system. But the proposal is consistent with efforts currently being made by the Bank’s President and other senior executives to persuade the captains of the logging industry, at a regional and global level, that their own long-term interests are best served by making some judicious concessions to their critics and staking a claim for the benefits of self-regulation. The success or failure of these efforts will not be decided in PNG.
13.5 Long-term prospects: four scenarios

Let us now resort to our clouded crystal balls, and contemplate the prospects for sustainable forest management, or for policy outcomes which somehow work for the mutual benefit of forests and people, over the course of the next decade, or the period which is expected to end with the national election scheduled for 2007. This is a hazardous exercise in a country where all stakeholders normally find that their best-laid plans come unstuck within a year or two, and many therefore give up planning altogether. We must therefore make allowance for a number of alternative outcomes, each of which may be seen to represent a different combination of economic, ecological and institutional forms of ‘sustainability’ - or the lack of it - and a different transformation in the ‘balance of power’ between the various stakeholders in the policy process.

We propose four visions or scenarios:

- The first, which we shall call the ‘resource dependency scenario’, is one in which the commercial exploitation of natural resources will account for a constantly increasing share of the country’s economic output and international trade, and in which the balance of power will determine and reflect the continuing struggle over the distribution of resource rent within a ‘nation of rent-collectors’. While politicians, bureaucrats and resource owners may pocket different shares of the resource rent which is realised in different economic sectors, they will not pocket enough between them to deter the developers from making further investments in the process of extraction, and most of them will lapse further into the parasitic ‘handout mentality’ which most of them will also lament as the greatest threat to their national culture.

- The second, which we shall call the ‘structural adjustment scenario’, is one in which an escape from the resource dependency syndrome is engineered by a series of institutional reforms, masterminded by the World Bank, that will open up the national economy to new kinds of productive investment, revitalise and diversify the domestic market, and shape the state into something more like a lean and mean machine than a dysfunctional pork barrel. Under this scenario, a new kind of civil society will develop an entrepreneurial culture which gradually but steadily displaces the parasitic culture of resource dependency.

- The third, which we shall call the ‘self-reliance scenario’, is one in which a growing proportion of the national population, or at least the rural
population, concludes that there is nothing to be gained from large-scale foreign investment in any sector of the economy, least of all in those which export natural resources, and is able to restrict the opportunities for such investment. In this vision of the future, the ‘traditional’ virtues of small-scale production will be rediscovered or reinvented, a nation of would-be rent-collectors will turn (back) into a nation of gardeners, artisans and petty traders, the village will reassert its ascendancy over the town, and the parasitic institutions of the state will wither away for lack of revenues and popular support.

- The fourth, which we shall call the ‘collapsing state scenario’, is the one which has featured in the dire predictions of many expatriates since before the time of national independence, and for which the Bougainville rebellion has recently provided a case in point. This scenario also involves a dramatic reduction in large-scale foreign investment, but one which is brought about by a radical crisis of governance, a wholesale breakdown of ‘law and order’, and an outbreak of civil strife between different sections or factions of a population which has no choice but to abandon a wide range of economic activities in the search for personal security.

We do not propose to assess the relative plausibility of these four scenarios, except to say that the balance of probabilities appears to favour the first of them, simply because this represents the continuation of current trends, whereas the other three all represent radical departures from them. However, this point must be qualified by the observation that current patterns of resource dependency promote a form of uneven development which continually opens up new divisions between different parts of the country, as these prove to contain different types and amounts of extractable natural resources, and the government struggles to contain these divisions within a single national policy framework. This is another lesson of the Bougainville rebellion, which rapidly transformed the country’s leading mineral province into an economic backwater and a political disaster zone, while incidentally provoking the national government to create an entirely new system of provincial and local government throughout the country.

How should we locate the prospect of sustainable forest management within these broader visions of the future, whether at the national or local level? To answer this question, we need to assess the likelihood of some specific changes in the current relationship between forests and people, and then consider whether and how these changes might be part of a departure
from the resource dependency syndrome, and thus contribute to the
realisation of one of the other three development scenarios which we have
just depicted.

13.6 Business as usual?

First of all, we must consider the likelihood of a change in the size, the
shape, and the operational practices of a large-scale log export industry
based on the selective logging of natural forests. The loggers say that they
are being driven out of business by the combination of high costs, high
taxes, and low market prices. The World Bank maintains that high costs are
partly due to waste and inefficiency, and the fiscal regime has been
designed to drive the least efficient operators out of the market, leaving the
rest to make a reasonable profit when market prices rise again. The loggers
and the Bank seem to agree that a large-scale log export industry based on
the selective logging of PNG’s natural forests can be ‘sustainable’, in the
sense that natural regeneration will allow a certain volume or value of

Arguments rage on about the relative shares of revenue collected by loggers, government and resource
owners, and about whether such shares actually bring the ‘development’ that all desire
commercial timber to be extracted from the natural forests for an indefinite period. The Bank subscribes to this definition of ‘sustainability’ because it believes that large-scale logging adds more ‘value’ to the natural resource than any other economic activity which could presently replace it, and if the forests are not valued through their exploitation, their owners will have more incentive to get rid of them altogether, and use the land for an entirely different purpose - especially for agriculture. The loggers, on the other hand, have little incentive to care whether their operations are sustainable or not, since they cannot be sure of gaining access to any part of the national resource for long enough to reap the benefits of natural regeneration, and their pronouncements on the subject of sustainability are therefore suspect. Knowing this, the Bank attempts to nail them down with rules and regulations, hoping that they will eventually learn to regulate themselves in order to avoid the cost of battling the global forces of enlightenment. Amongst the local forces of enlightenment, however, there are many conservationists who say the industry will never be environmentally sustainable, and should therefore be regulated out of existence through the imposition of a log export ban. While the Bank believes that an efficient log export industry has some role to play in the structural adjustment scenario, the proponents of a log export ban believe that its elimination is essential to the self-reliance scenario.

Let us assume, for the moment, that national forest policy proceeds in the general direction advocated by the World Bank, primarily because there is no significant change in the balance of power between the various stakeholders in the policy process. Can we then detect some combination of moral and material incentives, consistent with this general policy framework, which is likely to raise the overall operational efficiency, or reduce the negative environmental impact, of the logging companies which presently dominate the log export industry? It is hard to predict the pattern of demand in Asian markets, except to say that Japanese consumption will probably decline, while exports to the People’s Republic of China, either directly or through various Southeast Asian intermediaries, may provide an alternative outlet. In this context, it is hard to see how international agreements to certify the sustainability of tropical timber production will make much impact on the major players in the local industry. At the same time, the Bank’s appeal to the virtues of self-regulation is unlikely to sway those operators who know that they can get away with being less efficient, paying lower taxes, and collecting bigger profits in other tropical countries. If the Bank is able to ensure the maintenance of the current fiscal regime, the local industry will almost certainly contract, and Washington will shed no tears, since this will show
that ‘market forces’ can help to achieve the result envisaged by supporters of an outright ban on log exports - which the Bank regards as an anathema.

On the other hand, despite the Bank’s prognostications, it is not at all clear that the least efficient operators will be the first to go, since operational efficiency is not the key to economic viability in this particular industry. Production costs and profits vary with the uneven and unpredictable qualities of the natural resource, but more importantly perhaps, with the size of the ‘compensation package’ which loggers are forced or obliged to deliver to local resource owners and other stakeholders. Under these circumstances, those companies which make a serious effort to provide the material benefits specified in their harvesting contracts, or to limit the damage which they cause to the natural environment, will be the first to feel the pinch. Economists may continue their search for the Holy Grail of financial incentives which will cause the loggers to raise their standards of forest management without reducing their rate of profit, but level and transparent playing fields must finally be constructed on the ground which really exists, and not in the realm of Washingtonian fantasy. Given the nature of property relations in PNG, each attempt to tighten the screws of financial and bureaucratic regulation has the paradoxical effect of creating...
new opportunities for local gatekeepers to collect their ‘customary’ entry fees on backdoor dealings.

If economic instruments alone are unlikely to raise the performance of the players already on the playing field, but only make some of them less willing to play, does the present direction of industrial forestry policy offer any other prospects for a change in the shape and size of the national forest industry? There is some prospect for the entrance of new players with a vested interest in demonstrating the principles of sustainable forest management through various forms of ‘low impact logging’ on timber permits issued through the current resource allocation process, but we do not fancy their chances of turning a profit under current market conditions, within the present policy framework, unless they obtain some special favours from the donor community. A similar distortion of market forces would also be required for the development of a large-scale processing industry, whether its products were destined for export or domestic consumption, and there are very few proponents of sustainable forest management who believe that their own aims would be achieved by this kind of subsidy. It is perhaps more likely that resource owners will continue to ascend the learning curve which leads to a greater measure of control over the allocation and exploitation of their own resources, and a greater interest in their sustainability, but it is not so clear that this form of empowerment would be consistent with the maintenance of a large-scale log export industry in its present form.

Within the present policy framework, and with the present mix of attitudes and incentives, it is rather less likely that resource owners will rapidly learn to appreciate the benefits of resisting any large-scale exploitation of their forest resources for the sake of simply conserving their biodiversity values. Insofar as donors continue to fund a variety of ‘alternative’ forms of development which are intended to meet some of the opportunity costs involved in the establishment of a nationwide system of protected areas, there will be no shortage of communities willing to take their money and advice, for the simple reason that something is better than nothing, and many communities in the most remote parts of the country have not yet faced a real choice between sustainable and unsustainable forms of forest use. The conservationists have not done so well when they have chosen to battle the loggers over the same piece of turf, and some of their victories have proven to be hollow when resource owners have shown themselves to be more interested in exchanging one logging company for another, rather than turning their backs on the whole industry. If the log export industry does stagnate or contract, the conservationists will have more opportunities
to ply their wares without the need to engage in such battles, but the return on their investment may then prove to be a new form of resource dependency, rather than a route to self-reliance, because their versions of ‘development’ will still need to be subsidised to an extent which barely conceals their role as conservation rents.

13.7 Bigger pictures, other movies?

The donor-driven policy process is still being driven along the path which was mapped out for it at the inception of the National Forestry and Conservation Action Programme. Although some NFCAP projects have long since been completed, and others are shortly due to vanish from the stage, the pursuit of sustainable forest management is not immediately threatened by the onset of ‘donor fatigue’. So long as this pursuit is entrenched in a set of global institutions which maintain their own vitality, PNG’s forest resources will doubtless continue to attract a level of global interest which reflects their diverse range of values. On the other hand, within the national political context, forest policy is not the hot topic which it was five years ago, in the aftermath of the 1992 national election and the Rio Earth Summit which coincided with it. Our characters still march around the stage, making speeches and gestures in abundance, but they repeat themselves too much, and the action fails to develop the plot. If forest policy slips further down the national political agenda, we may have seen the end of one play, and not know how long we have to wait before we see another one begin.

If we are thus led to conclude that the national forest policy process evinces a condition of stalemate between the major stakeholders, where each has just enough power to prevent the others from securing their objectives, the prospect of a major redirection of this process would appear to depend on a more substantial change in the balance of power, and one which originates in other policy domains - at a global or local level, perhaps, or in other sectors of the national economy, or in wider social and political upheavals.

First of all, we may consider the possibility and the consequences of a very substantial change in the size and power of the log export industry. Some analysts might argue that its size and power have grown substantially, even through the most recent period of policy reform, to the point where the FIA is now able to impose its own definition of ‘sustainable forest management’ on a government which is desperate for ready cash, and that the industry’s
present cries of pain are a smokescreen behind which it hopes to secure the allocation of a new raft of timber concessions in anticipation of a future upturn in the regional raw log market. This argument neglects the fact that most of the recent expansion has been based on the exploitation of timber permits issued before the gazettal of the new *Forestry Act* in 1992, and those operators who are still intent on the acquisition of new resources have been forced to resort to a variety of ‘special deals’ which are not only open to multiple challenges by other stakeholders, but also have the effect of dividing the log export industry against itself. The industry’s strenuous efforts to amend the legal and fiscal framework of its operations, in order to avoid the necessity for such backdoor dealings, have been largely unsuccessful, and we do not anticipate a shift in the balance of power which would cause them to bear any more appetising fruit in the near future.

In our view, it is far more likely that the industry will experience a substantial contraction over the next five years, primarily because the World Bank and other donors will be obliged to recognise (if they have not recognised already) that there is no framework of regulation which can
produce a more ‘sustainable’ version of the industry, with its present harvest volumes, and any major concessions to the industry’s complaints about costs and profits will therefore provoke a backlash from Western environmental lobbies. At the same time, previous donor interventions have produced a domestic opposition to the log export industry which, although made up of several disparate and often disorganised elements, is now well entrenched in its various positions. On the other hand, we do not agree with the optimistic assessment of those who believe that alternative commercial values will rapidly be realised from the natural forest resource to fill the economic gap left by departing loggers. In which case, there is obviously some risk that the resource will be undervalued to the extent of inviting the encroachment of other forms of land use - especially the territorial expansion of large or small scale agriculture. However, we do not subscribe to the Bank’s fears on this score, because these appear to be based on a misconception (or perhaps on wishful thinking) about the nature of local property relations. There is very little evidence to support the widespread assumption that rapid rates of rural population growth are already causing such encroachment, though they might eventually do so in some areas, and the prospect of converting major tracts of customary land to large-scale agricultural estates is little more than a pipedream - albeit one which does hold some appeal for the less respectable branches of the logging industry, and has served to exercise the economic imagination of sundry politicians.

If we are to witness a major transformation in the shape of the national economy, and especially in those sectors which exploit the country’s natural resources, it is most likely to involve a significant expansion of the oil and gas industry, perhaps also the fishing industry, with a parallel decline in the hard-rock mining sector, and an agricultural sector which largely retains its present shape and size. There is some possibility that global discussion of greenhouse gas emissions will result in a moratorium on further oil and gas exploration, but we doubt whether this will eventuate in the course of the next decade. PNG’s proven oil and gas reserves are still expanding quite rapidly, while hard-rock mining companies are lowering their exploration profiles because of the slump in gold and copper prices, and a recognition that their operations have a mixture of physical, economic, political and social impacts which are causing acute discomfort to risk assessment specialists. One consortium of oil companies has recently been investigating the feasibility of a liquefied natural gas project whose capital cost would be greater than that of all previous mining and petroleum projects put together, and whose exports (to China or Korea) would account for as much as 40 per cent of GDP. The size of this gamble suggests that the general trend in the mining and petroleum sector is to scale up or scale
down, and the first option is one which the oil companies alone are willing and able to take.

The oil and gas industry makes much less of a mess than the hard-rock mining industry, and is willing to spend a lot more money on the quest for environmental respectability. The revenues which might flow from a major expansion of this industry would certainly dent the economic reasoning behind political attempts to commit any more of the country’s forest resources to the hazards of large-scale logging, and the oil companies could reasonably be expected to exert greater influence as benign stakeholders in the forest policy process. However, this kind of development offers no prospect of escape from the resource dependency syndrome, and if there is no parallel improvement in the executive capacities of the State, it can only serve to exaggerate the regional inequalities which already threaten a major crisis of governance. And if it serves to restrict the motivation for self-reliance in all parts of the country, it will not serve to diminish the number of politicians and resource owners crying out for some alternative form of rental income - whether from logging, conservation, or the defence of ‘intellectual property rights’.

Might there be some corresponding change in global policy imperatives which brings about a radical redirection of national forest policy, whether or not the country’s economic fortunes are still locked up in some version of the resource dependency scenario? Perhaps the World Bank and other members of the donor community will abandon the rather hollow pretence that their own structural adjustment scenario is consistent with the many market distortions which they have to support in order to demonstrate their parallel commitment to sustainable forest management. If the PNG government swims out of its fiscal troubles on a tide of oil and gas revenues, they might even see the logic of a log export ban, and thus win new friends amongst the radical NGOs, but in the unlikely event that current economic orthodoxies could be sacrificed so blatantly, their own grip on official government policy might no longer be strong enough to keep the politicians in line. The view from Washington appears to be that PNG now has the chance to find a whole new market for its forests in the rapid growth of carbon offset schemes, and ‘only’ needs to build its institutional capacity to take advantage of the offers made by messy Northern industries. But PNG’s ability to profit substantially from this particular form of world trade is not only dependent on the managerial capacities of the national government, which are slender enough, but on a wholesale transformation of indigenous property relations, which is beyond the global reach of any donor, as the Bank should know from its
experience. A donor-driven policy process is one which may only serve to expose the widening gulf between policy and practice as it lumbers from the realm of international conventions to the realm of local politics. And nowhere is this fault in the transmission line more evident than in the case of PNG.

Will various fractions of the national elite develop a new kind of solidarity and determination to bend the policy process to their own ‘political will’, and thereby reveal a new capacity to either facilitate or defy the prescriptions of the donor community? And how would their empowerment be manifested in the realm of local politics, where the tragedy of the state is grounded in the constant fragmentation of the public interest and the roller-coaster ride which leads from one election to the next? A grandiose gesture, like the imposition of a log export ban, might well appear to be the best test and signal of their collective determination to turn over a new leaf in the forest policy domain, but if a national government were to adopt this measure in the hope of creating new jobs in plywood and furniture factories, or creating new opportunities for national business development, the result would almost certainly be disappointing. Nor is it clear why forest policy should play a leading role in struggles to resolve the nation’s crisis of governance, when efforts to rebuild a collapsing state are almost bound to focus on the political foundations of that edifice, rather than one of its various rooms. Indeed, one of the main arguments in favour of a log export ban is the government’s failure to manage the log export industry in a transparent and effective manner, and this argument would evaporate if the government’s wider failings were to be rectified by the emergence of a new regime in the commanding heights.

In our view, the revitalisation of state power is unlikely to proceed any more rapidly than the regeneration of a logged-over forest, because it will depend on a generational shift in attitudes and practices at all levels of the national society. This means that we do not anticipate a substantial improvement in the production and implementation of national government policies over the next five or ten years, whatever the specific target of those policies might be. The continual concoction of quick-fix solutions to long-lasting problems is more likely to reflect a further dissipation of central authority than to mark the progress made in its assertion of control over the policy process. The true test of progress made in the direction of a distinctive and effective national forest policy, which can straddle the gulf between global and local imperatives, will not be found in the raising or lowering of incentives to make alternative uses of tropical timber, but in the far more fundamental changes made to methods
of determining the use of customary land. There are no quick-fix solutions at this bottom level of the forest policy domain. But if there are no long-term solutions either, then it is pointless to contemplate the economics of a choice between selective logging, plantation forestry, large-scale agriculture, carbon sequestration, or any other possible component of an integrated land use strategy. This is the steep and hazardous track which has to be taken, but even a progressive national elite will not get very far along it until they can make the right connections between the concept of ‘land reform’, the development of new forms of community organisation, and a basic shift in the moral basis of ‘landowner politics’.

In the final analysis, hot air generated at the global or national level will not induce a fundamental change in the practice of forest management unless it blows through the brains of rural resource owners. Many of these brains are presently filled with millenarian fears and expectations which leave no room for any consideration of ‘sustainability’. If the world has not come to an end by January 2000 or January 2001, the time will be ripe for many resource owners to radically rethink their conception of ‘development’ as they contemplate the prospect of another national election in June 2002. Present trends would seem to indicate that they are more likely to lose all faith in the political process than to abandon their hopes of salvation from the sale of their natural resources, but these hopes are likely to be disappointed if government institutions then lose the capacity to attract additional foreign investment, and the economics of resource dependency no longer produce a favourable bottom line for multinational corporations. The seeds of local self-reliance may then be planted in the ruins of a collapsing state, but may not flourish in conditions of political anarchy.
Let us now return to the aim of this study: to review the issues which have arisen from the process of policy reform over the last ten years in order to assess the feasibility of achieving a form of policy that works for the forests and people of PNG. One way of concluding this study would be to make a list of ‘recommendations’ to some notionally enlightened audience, of the kind which consultants typically make to their clients, on the assumption that this audience may act like a benign philosopher-king who is both willing and able to translate these recommendations into actions which really do ‘improve the sustainability of forest management and optimise stakeholder benefits’. Our portrait of stakeholder relationships in PNG’s forest policy process suggests that this kind of response would have to be directed to the donor community and whatever national constituency shares its concern with the values of sustainable development. In that case, our conclusions would follow the well-trodden path which leads to an assessment of the relative effectiveness of different forms of aid - whether, for example, money spent on ‘strengthening’ PNG government institutions might better be spent elsewhere, perhaps even in another country, or how the design of specific ‘projects’ might be improved in light of the lessons learnt from previous endeavours. In that case, the final act in the script of our national policy process would feature the pronouncements of a deus ex machina, to which the other characters would hopefully pay homage.

Will our national stakeholders rise to the challenge of the World Bank’s wise counsel and plunge their stakes through the heart of the log export industry, driving off the misguided landowners whose loyalty has been purchased by the vampire, releasing the Melanesian peasantry from their fearful oppression, and saving the Green ladies of Europe from their worst nightmares? Count Dracula, we may recall, could not have been destroyed unless his human enemies had been united in their efforts, bound by mutual trust and understanding, as well as their respect for the arcane knowledge of a Dutch Professor. But it is hard to see such solidarity
amongst those members of PNG’s ‘educated elite’ who hold some stake in the domain of forest policy. The foreign accents of the World Bank are no less suspect than those of the Forest Industries Association, but nationalism is not the main obstacle on the path to sustainable development. On the contrary, it is the deeply fragmented and hotly contested nature of the national or public interest, where the policy process comes to resemble the looting of a supermarket, and where the stability of the ‘system’ resides in the shared belief that you should ‘get what you can while you can’ (Simpson 1997) and the realistic expectation that the police will not arrive in force until the business is complete.

Of course, the ‘wise men’ of the World Bank do not really want to banish the loggers to another kingdom, only to make them more ‘efficient’ players on the famous level playing field, and our national elite would have good reason to ignore the Bank’s advice if they agreed amongst themselves that large-scale logging is the business of the devil, and acted on this shared assumption. But where there seem to be the makings of a national consensus - on the wickedness of foreign exploitation, the virtues of self-reliance, or the benefits of downstream processing - these make little or no detectable impact on the actual allocation of resources in a resource-dependent national economy, and therefore look like ritual postures in an empty masquerade. Whatever the logging companies might be doing to the scenery, they alone are not responsible for draining the blood from the body politic, except perhaps in the fevered imagination of those who believe that forest policy is the key which unlocks every door in the crumbling castle of the State. Accusing fingers may be pointed at them, but the whole action of our play seems to revolve around a small forest of accusing fingers, where all the characters speak loudly in their declarations of each other’s villainy, and none is willing to admit that others act on any principle except self-interest. Which may lead us to conclude, as many Papua New Guineans do, that ‘politics’ is the real devil of the piece. And who will put a stake through the heart of that?

The real problem here is to establish the common ground upon which to develop a wider coalition of interests and individuals whose members share a common understanding of the principles of sustainable forest management, a common desire to secure the best possible mix of public and private benefits from the application of this understanding, and a collective capacity to make this application work in practice. This kind of ‘policy community’ will not simply arise from the invention of new committees, boards, trusts, or other structures for the maintenance of dialogue between our six main characters. The plot will neither thicken nor make any
progress just because the stage designers change the sets. The substance of the conversation and the action has to be the focus of the effort. As Papua New Guineans would say, the problem is to ‘find the road’, by subjecting policy positions to a set of trials or experiments which will reveal who speaks the truth, whose actions speak louder than their words, and what those actions actually mean. As Americans would say, the problem is to build more reality checks and feedback loops into the policy process, so that it becomes an iterative, incremental and adaptive learning process rather than a colourful but static charade.

The trials or experiments envisaged here are of three main types, because they have three different aims:

- to sort out the relationship between the actors and their masks;
- to sort out the relationship between forest policy and other policy domains; and
- to sort out the relationship between ‘policy-makers’ and resource owners.

In each case, however, the ultimate goal is to achieve a wider ownership of ‘policy that works’.

14.1 *Flesh and blood*

Our six characters without an author are not real people at all. They are only roles, or groups of roles, which real people are called upon to play when they get mixed up in the forest policy drama. No stakeholders become the heroes of sustainable forest management just because they wear the right mask on the night. Behind each mask, there are some people with a genuine commitment to sustainability, and many others without one. But who can tell the difference, and by what means?

While they remain behind their masks and strut around the public stage, each group of actors works to maintain a united front, concealing the existence of moral or political divisions in their ranks, and imputing all forms of wickedness to one or more of the other characters. But in the dressing rooms backstage, most actors will concede that there are some good people in the other camps, and some whom they would rather not have in their own. Even members of the radical NGO community will be reminded of Judge Barnett’s distinction between the responsible logging
companies and the rip-off merchants, while forest industry representatives will agree that they have ugly ducklings in their log pond, and would like to find a way to get them out.

It is easier for the foreign actors in the play to establish this kind of communication behind the scenes than it is for their national counterparts. Most of them enter the policy process through possession of some relevant technical expertise which can then form the basis of their mutual assessment. More importantly, perhaps, most of them have neither the opportunity nor the desire to play the parts of the resource owner or the politician, and are thus excluded from those sections of the policy domain in which the national elite is most thoroughly divided against itself. On the other hand, those members of the national elite who do possess a genuine commitment to better forest management should find some ground for mutual understanding in the fact that most of them are resource owners in their own right, many of them have experience of playing at least three of the main parts in our play, and all of them face the problem of accommodating a surfeit of ‘foreign experts’ in this policy domain.

The number of well-educated Papua New Guineans who could be said to form the core of a national constituency for sustainable forest management is still very small. Even those members of the educated elite who claim some special interest in forest policy are inclined to regard most of the other members as an assortment of opportunists, hypocrites and villains, since any interest in ‘policy’ appears to be the pretext for a movement into ‘politics’, and ‘politics’ explains the fact that policies don’t work. These suspicions are voiced, both onstage and offstage, through the division of elite opinion between technocratic and communitarian policy perspectives. The technocrats believe that the most progressive resource owners are also members of the educated elite, while the communitarians maintain that landowning communities already possess the customary knowledge necessary for sustainable forest management.

• The technocrats believe that sustainable development of natural resources cannot be achieved without effective government control over their utilisation; while the communitarians maintain that government interference is more of a hindrance than a help.

• The technocrats believe that foreign investment in large-scale timber harvesting and log exporting operations can make a positive contribution to national development if it is properly regulated and efficiently managed; while the communitarians maintain that foreign logging companies are the epitome of evil.
The technocrats doubt the integrity of the communitarians, because the communitarians sound like politicians, and politicians do not practice what they preach; while the communitarians doubt the integrity of the technocrats, because the technocrats sound like the World Bank, and the World Bank is an agent of imperialism.

Since these are contrasting perceptions of the relationships between the main characters in the play, they tend to be attributed to those characters, as their perceptions, rather than to individuals who can play several parts, and often do. As a result, the business of bridging the gap between the ‘top-down’ thinking of the technocrats and the ‘bottom-up’ approach of the communitarians is construed as an extension of the ritual encounters between the World Bank and the local NGOs, where the Bank persuades the national bureaucracy to assume its own technocratic role in such engagements, and thus creates a new form of institutional mediation within the national policy process. But the national technocratic constituency is not to be confused with the upper echelons of ‘relevant’ government departments, nor with those members of the national elite who share the Bank’s policy perspectives, and those NGOs with a vested interest in forest policy do not monopolise, or even share, the core of a communitarian position. Many bureaucrats are closet communitarians, and there are even some members of the NGO ‘community’ who lean towards the technocratic viewpoint. Both perspectives can be found among those members of the national elite who belong to the ‘private sector’, as well as those who sit in Parliament, and even among the ranks of those resource owners who do not qualify for membership of the elite. They are simply two poles in a single spectrum of national consciousness. Many individuals manage to think both ways at once, or change their views as they change their roles or drop their masks as they leave the stage, and that is why they sometimes come across as hypocrites or opportunists.

In order to nationalise or localise the forest policy process by developing new forms of dialogue between these two policy perspectives, it is not sufficient for donors to ‘strengthen’ those central government agencies, like the National Planning Office, which are mistakenly thought to epitomise the technocratic perspective, and then go round to the other side of the negotiating table and invest in the capacities of environmentally friendly NGOs which are mistakenly thought to represent the pure embodiment of the communitarian position in the countervailing force of ‘civil society’. The reinforcement of vested interests will not create a wider ownership of policy, and if it depends on donor funding, it is unlikely to reduce the reliance of those interests on foreign expertise. The priority for policy that works is to develop the quality and variety of negotiations between existing
stakeholders, both national and expatriate, in their official and private capacities, in a way that creates new partnerships and new stakeholders.

The key to such dialogue is the production and evaluation of claims about things that work and things that don’t. Let us say, for example, that official representatives of the log export industry, or any other people who have some right to be taken seriously on this matter, claim that a specific large-scale logging operation should be regarded as a model of best practice under local conditions, or that a specific landowner company exemplifies the best way for landowners to deal with logging contractors in the pursuit of sustainable development. The masked dancers in the formal policy process may accept or reject such claims on the basis of their prior ‘knowledge’ of the role played by all logging companies or landowner companies in that same process, but this will only serve to prolong the dialogue of the deaf. In order to apply the principle of ‘putting up or shutting up’, the participants will have to find some way of simultaneously publicising and adjudicating claims of this sort, by producing evidence rather than recycling assumptions. The common ground will then take the shape of a route map which enables competing claims to travel from the office or the conference room to the village or a patch of forest and back to the pages of a national newspaper or the image on a reel of film.

14.2 A stake in the ground: integrated land use strategies

While the ‘ground-truthing’ of claims made by and about specific groups of actors already engaged in the forest policy process may serve to strengthen the bonds of common ownership or shared responsibility within an existing policy network, it will not extend the outer limits of this network unless the route map which is used in the evaluation of such claims includes some paths which lead out of the forest, into other sectoral policy domains, and back again. In this case, the onus seems to fall upon the technocrats to demonstrate the benefits of integrating separate sectoral policies, plans and programmes at different levels of administration. But here again the risk is to assume that technocrats are bureaucrats whose job is to produce a script and then persuade the other characters on stage to follow their instructions. Even within the forestry and conservation drama, such claims to authorship are constantly defeated by the plot. The National Forest Plan ought to look like an integrated land use plan, but actually looks like the
Emperor’s New Clothes, while the National Conservation Strategy has not even been shown to the audience. How then should we expect our script-writers in the central corridors of the state to produce a National Sustainable Development Strategy, or any other work of art, which will serve to control the motions of stakeholders in several different policy domains, when the fundamental fact of life is that the ground on which they build their grand designs is barely subject to effective government control.

This is not to deny the possibility, or even the necessity, of constructing a National Sustainable Development Strategy which reflects the country’s commitment to Agenda 21 - only to question the manner of its construction. Castles built on sand (or in the air) will never be sustainable. Multiple land use plans which look like maps of customary land, at any level of administration, can only be works of fantasy if they do not result from the progressive integration of negotiations between landowners, developers, and other stakeholders in specific sectors and specific areas. Another kind of map is needed for this latter purpose - one which shows the links between decision-making institutions, rather than the boundaries between alternative ‘developments’ of physical resources. The integration of decision-making institutions, at both the centre and the margins of the forest policy domain, means building three different types of bridge:

- between the use of large areas of customary land and small areas of government (leasehold) land;
• between the values of large and small scale forms of land use or resource development; and
• between the protection of public interest and the promotion of private initiative (including the initiatives of NGOs).

Those who think that all three goals can be accomplished in a single master plan will only find that they have organised the blueprint for a traffic jam.

Within the realm of industrial forestry, decisions made about selective logging or reforestation on customary land bear virtually no relationship to decisions made about the disposition of forest plantations on leasehold land, even though it is widely recognised that the economics of downstream processing would be greatly improved, and incentives to exploit the natural resource could be substantially reduced, if more land were made available for private investment in plantation development. But this option also belongs to the realm of fantasy, because customary landowners and potential investors both believe (with good reason) that the government no longer has the capacity to secure and manage additional leasehold land for their mutual benefit. This problem is not unique to the forestry sector, and can barely be addressed, let alone resolved, in the formulation of sectoral development policies. The same obstacles prevent the acquisition of additional land for large-scale agricultural projects or national parks. Amongst the many government agencies which have some stake in the borderline between leasehold and customary land, there is not even a semblance of agreement about where this boundary actually lies, let alone a concerted strategy for moving it in one direction or another. The Land Mobilisation Project has been typical of donor-funded institutional strengthening projects in dealing with the symptoms of bureaucratic incompetence without due regard for the conditions under which other stakeholders will subscribe to new forms of transparency in land transactions of all kinds. Hence the widespread popular resistance to anything which smacks of customary land registration, despite the fact that landowners in many parts of the country recognise the need to formalise their titles and their land use options in some systematic way.

Yet the government sidesteps the land policy logjam by conjuring with sector-specific schemes for dealing in the use rights to particular resources, proving by default its inability to integrate the uses of the land which has already been removed from customary tenure. Forest Management Agreements are a case in point. It is hardly surprising that forestry officials are unable to produce a Development Options Study in consultation with customary landowners when the main purpose of their engagement is the
acquisition of specific rights to harvest timber. Where technocrats in
government are unable to breach sectoral barriers in order to integrate their
land use strategies, the only integration which occurs results from the
creation of separate ‘spheres of influence’ by the developers of specific
resources, wherein they are finally driven to formulate their own multiple
land use strategies by reconciling their own business imperatives with the
unavoidable and unpredictable demands of local communities. The
histories of the Gogol timber project, the Hoskins oil palm project, and the
Ok Tedi mining project reveal the many problems which arise from this
kind of ‘planning’ in different economic sectors. But few lessons are learnt
or applied as a result of these experiments, even within a specific sector,
because there are no institutional mechanisms through which the feedback
circuits could be closed.

Within the realm of industrial forestry, technocrats and communitarians are
both inclined to think of bulldozers and portable sawmills as weapons in a
battle to exploit the same physical resource. Within the corridors of the
NFA, this impression is reinforced by the relegation of small scale forestry
to an item under ‘any other business’ - a toy for NGOs to play with while
the big boys get on with the main game. But for those who can see the
potential merits in such an exercise, there is no shortage of avenues for
combining different scales of enterprise, not only in the harvesting and
milling of timber, but also in other forms of forest management, from
monitoring to reforestation. To give but one example, the establishment of
small-scale woodlots or tree plantations by local landowners may only
prove to be a viable form of economic activity if it is undertaken as one of
the conditions imposed on a large-scale logging operation. If the concept of
‘agroforestry’ could be rescued from its recent abuse by some of the more
disreputable players in the log export game, then it would show the way to
more examples of such symbiosis. It is not just a question of seeking out
different mixtures of large and small scale forestry, but of mixing large scale
agriculture with small scale forestry, small scale agriculture with large scale
forestry, large or small scale forestry with small or large scale conservation
projects, and so forth. The government alone is unlikely to construct such
linkages by means of formal policy unless other stakeholders are willing
and able to test and publicise their viability.

It is hard to see how further progress can made in the integration of land
use strategies unless there is a wholesale realignment of relationships
between the government, the private sector and the NGO community. The
corporatisation or privatisation of various ‘bits of state’ may well satisfy
the World Bank’s vision of ‘subsidiarity’, but subsidiarity without
transparency may do little to improve the legitimacy or efficiency of the organisations which result from this process. Quite clearly, all stakeholders should be doing more of what they do best, and less of what others do better, but the key element in the formation of a new policy community is public scrutiny of who is doing what. There is no reason to suppose that the elements of a new ‘civil society’ will be less secretive or devious in their behaviour than old-fashioned bureaucrats, especially if they operate in a political culture which is riddled with rumour and suspicion. Indeed, they are most unlikely to do so unless the government can prove its own commitment to police a reasonable set of rules for the development of land and natural resources. The technocratic guardians of the public sector Project Cycle must retain the final responsibility for project impact assessment, monitoring and evaluation, as well as the establishment of sectoral targets, benchmarks and guidelines. But they need the support of other stakeholders in order to exercise these responsibilities in ways which are seen to be fair and efficient, and this support will not be forthcoming if
the process of bureaucratic regulation becomes an obstacle course which is primarily designed to enhance the bargaining power of government officials, or protect them from various forms of ‘political interference’. The process must be justified as the pursuit of a wider public interest, which counteracts the current tendency to privatise the benefits, and socialise the costs, of resource exploitation. To gain wider public acceptance of their own role in this pursuit, the technocrats in government will have to give away the pretence to executive powers which they do not possess.

Once government allows that private companies and NGOs have roles to play in the development of integrated land use strategies, then private companies and NGOs should find more common ground in this pursuit, where technocratic and communitarian perspectives can be reconciled through the development of new working relationships rather than formal policy pronouncements. What is needed here is not the token gesture of an ‘NGO liaison desk’ in one or other government department, but official land use policies which provide a clear mandate for ‘outsourcing’ a wide variety of executive functions to an equally wide variety of ‘non-government’ organisations, in a manner which encourages these organisations to develop a common vision of their mutual responsibilities and separate specialities. This kind of devolution is already happening in the private sector, as big companies narrow the definition of their ‘core business’ and multiply their contractual relationships with smaller ones. Where government departments and resource developers agree to an arrangement by which the latter develop integrated land use strategies within an area of influence which is protected by the former, the work of integration should then be relayed to a mixture of consulting companies and NGOs who share a common interest in breaking down the barriers between sectoral policy domains. The net result is to enlarge the size and influence of the ‘non-government’ policy community in each of these domains.

14.3 Binding policies to places

Without some common ground between the technocratic and communitarian perspectives, which is so obviously lacking in the forest policy domain, a distinction must still be drawn between:

- the design and implementation of integrated land use strategies at the ‘project’ level and at higher levels of levels of administration; and
• the facilitation of productive dialogue between small groups of resource owners and other stakeholders with an interest in the use of their resources.

Quite obviously, these two kinds of activity cannot and should not be carried out in isolation from each other, but the conditions do not yet exist in which they can be treated as two steps along the same path, or two legs of the same animal. Their isolation must be overcome by progress separately made on two fronts. If the technocrats are charged with demonstrating progress on the first front, the communitarians bear an equivalent responsibility for demonstrating progress on the second.

There is widespread agreement on the need for an institution or set of institutions which can help resource owners to make the ‘right’ choices about the development of their natural resources. However, if a new type of national planning agency is not the answer to the problem of producing integrated land use strategies, it is certainly not the answer to this second problem, which demands an even greater measure of flexibility to accommodate the diversity of local conditions prevailing in the country. The national government has made a variety of efforts to transform its ‘front-line’ relationship with rural communities, either by setting up new ‘bits of state’ or by reconstructing the roles of those which already exist. Within the realm of industrial forestry, such initiatives have been concentrated on the resource acquisition process and on mechanisms for the distribution of resource rent. Other economic sectors possess their own variations on the theme of state-sponsored community participation in the process of resource development, while the Village Services Programme and the subsequent reform of local-level government under the new Organic Law have offered broader institutional solutions to the same problem. The sheer number of novel institutional structures which descend from the heavens, like Mosaic tablets, upon the heads of unsuspecting villagers may be one reason why they fail to take root in the soil. But the main reason is that they do not descend at all, or if they do, they lack the form and function which their designers had bestowed on them. The root problem is a lack of executive and managerial capacity in the lower reaches of the state apparatus, which is compounded, rather than alleviated, by the process of institutional innovation. The bottom line is quite simple: if basic services are not delivered to rural communities in a manner which fosters their own self-reliance, then formal policy will become increasingly irrelevant to local practice. Given the varieties of local practice, this gap cannot be papered over with new organisation charts, duty statements, or manuals of procedure floating through the corridors of the National Castle.
Mechanisms are needed to simultaneously publicise and adjudicate competing claims about sustainable development options, by producing evidence rather than recycling assumptions.
What is required, in this case, is a fundamentally flexible method of patrolling the interface between the village and the state, between resource owners and ‘policy makers’, which uses and empowers those groups of actors who specialise in adapting the dictates of public policy to the variable needs of rural communities, or in articulating these needs in ways which can transform those dictates. The mistake here is to assume that those actors who have been somewhat artificially gathered behind the ‘NGO mask’ in the forest policy drama possess a natural monopoly on this kind of activity. They do not have the numbers necessary for the task. To widen the network of ‘community change agents’ envisaged in the NFCAP Review (Taylor et al. 1994:10), it is necessary to include a variety of other actors with a stake in rural community development - church workers and social scientists, some of the staff and consultants employed by resource developers and donor agencies, as well as those government employees, such as primary school teachers, who still work in immediate proximity to the ‘grassroots’. Above all, it is necessary to remember that state-sponsored or donor-sponsored schemes for developing ‘landowner awareness’ or ‘landowner capacity’ can easily fail to accommodate the role of the much-derided ‘wantok system’ as the most effective general-purpose mechanism for transferring goods, services, skills and information between members of the national elite and their ‘country cousins’. If rural communities cannot rely on their most educated members to provide the kind of leadership which leads in the direction of sustainable resource development, then outsiders of any description are unlikely to make much of an impact.

Although there has been a lot of talk about the need for something like a ‘Landowner Resource Development Support Agency’81, and the steps now being taken to establish a Conservation Trust Fund could be seen as steps in this direction, it is hard to see how any one national organisation, with a specific form of stakeholder representation, could have the flexibility required to address the full range of community needs, even in respect of the development of a single natural resource. The history of NANGO suggests that the NGO community alone would have trouble enough in developing such an institution on their own account, even without the presence of additional stakeholders. The history of the Village Services Programme casts a similar shadow across proposals to construct new forms of inter-departmental collaboration in the government’s own efforts to establish new forms of community participation in resource development. And the history of the National Youth Movement Programme contains another warning for the designers of a centrally administered Conservation Trust Fund, for if landowning communities or NGOs are encouraged to

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81 This particular designation was originally coined by the World Bank
Taylor (1997) describes how PNG forest sector reforms have faltered over the issue of control of forest resources on customary land. The state has shied away from implementing reforms that challenge the right of landowners and landowner companies to manage and exploit these resources as they see fit.

Where custom can divine the local public interest, it displaces the need for state intervention. Given custom’s resilience and pervasive influence, the state should be cautious in assuming its demise. Emerging institutions such as landowner companies should not be dismissed as aberrations of custom simply because they are not egalitarian, whether judged against fantasies of how custom once operated or against introduced ideals of participatory democracy. Where custom seems to be failing, the state should not presume that it can do what custom cannot. The state’s inability to deliver services and leadership to remote forest areas is what sparked the rise of landowner companies in the first place.

The state can legitimately claim a role in balancing local interests with the national interest, although the forestry experience suggests that it lacks the political confidence and enforcement capacity to impose its will over customary land. Negotiated resolution of national and local interests would seem to be a more realistic and sensitive approach. Only through negotiation, with all its perils to novice participants in the timber industry, can landowners hope to achieve the capacity to protect their interests in the long term. The alternative of unilateral state regulation leaves landowners exposed to the dictates of ministers who lack accountability beyond their own electorates, and urban bureaucrats who tend to favour national or provincial concerns over local ones.

These conclusions suggest that the state should abandon nationwide land-use zoning through forest classification, statements of provincial allowable cut, and inflexible statutory controls over distribution and investment of the landowners’ share of logging revenues. These reforms are all based on the flawed assumptions that the state is the best judge of the public good and can readily enforce its will. Environmental protection, sustained yield, and revenue distribution objectives should, instead, be balanced against conflicting interests through project-specific negotiation. For new projects, the state, landowners, and logging companies could rely on forest management and project agreements to set the terms on which logging is conducted. If the state is less absorbed in nationwide planning and policing work, it should be more able to resource the conduct of development options studies and scrutiny of environmental plans, such that they serve as useful components of the negotiation process.

The state could also take steps to improve the bargaining strength of landowners, without attempting to bargain on their behalf. Measures to strengthen landowner negotiation capacity could include:

- publication of model contract provisions;
- legislation providing for court review of manifestly unfair contracts;

Box 14.1 The role of custom and the role of government
Compete for access to a fabled pot of gold, the result could well be an outbreak of spurious ‘projects’ which only serve to reinforce the culture of resource dependency which represents the antithesis of genuine self-reliance.

All organisations, both inside and outside the walls of government, which are formally involved in the planning, administration, or practice of commercial resource development or professional resource conservation on customary land are enjoined, by self-interest as much as anything else, to facilitate and respond to the needs and interests of landowning communities, including the basic need for communities to make their own choices in a manner which gains the maximum consent of their members over the longest possible period of time. In many cases, corporate cultures and institutional climates will need to change before such bridges can be built to last. But will the necessary change result from the establishment of another organisation with this as its special brief? What is surely required is a series of new contractual relationships or working partnerships between existing organisations, or between networks of individual stakeholders, which will test out new criteria for matching the more specific needs of different landowning communities with the specific capacities which different service-providers or facilitators can bring to bear on particular development issues in different parts of the country. This is indeed a matter of adapting policies and practices to places where they work, rather than composing novel structures in a central place.

There is no shortage of previous experiments on the part of external organisations attempting to secure specific forms of community development, and the relative success of these experiments (albeit in particular areas or sectors) may be taken as a guide to the feasibility of repeating them. For example, there are lessons to be learnt from the experience of mining and petroleum companies in promoting local business.
development, since they have a statutory obligation to make the effort and they possess the resources required to make expensive mistakes. For these lessons to be applied effectively in the planning process, it is necessary to commission or conduct separate reviews of projects or activities which have been directed towards each particular need which is under consideration. Another criterion which can be applied in the design of community development initiatives, and indeed in the actual process of negotiation with communities, is the concept of what is culturally appropriate - the Papua New Guinean or Melanesian Way. In this case also, it will be always necessary to focus attention on some particular need or purpose if this is to be a useful criterion for planning purposes and not simply a pretext for some discourse in political philosophy. For example, the Melanesian principle of reciprocity (or some local version of it) can be refined to strike an appropriate balance between commercial credit arrangements and the grants or ‘handouts’ which are now widely regarded as a disincentive to genuine community development. However, the more immediate problem is to develop an institutional framework within which this sort of balance can be struck.

14.4 Between planning and perversity

By way of conclusion, we are led back to the distinction which is often drawn between the ‘weakness of the state’ and the ‘strength of civil society’ in countries such as PNG. For this contrast to assist in our understanding of national forest policy, it has to be conceived as a bundle of three basic contradictions in the organisation of the policy process:

• Firstly, there is the contradiction between the pursuit of economic growth and national participation as central policy objectives, where economic growth appears to depend on substantial foreign investment in the exploitation of natural resources, but where the spirit of capitalism is confronted with an ideology of landownership which defies the rationally organised pursuit of sustainable development.

• Secondly, there is the contradiction between a widespread popular obsession with the pursuit of personal political power, and all the honorific trappings which accompany its acquisition, and an equally widespread loss of faith in the power of government to produce the social and economic development which is just as widely desired.

• Finally, there is a contradiction between the production of increasingly
elaborate plans for reconstruction of the whole political economy and the perversity of actual policy outcomes, which only achieve the aims of planners and policy makers through the deliberate or accidental refusal of other stakeholders to follow their grandiose prescriptions.

Whether we think of these as contradictions within the forest policy process, or within and between a wider set of policy domains, their existence at the interface between state and society is sufficient reason for us not to conclude this study with advice on the best way for the nation’s power-brokers to proceed with plans for sustainable forest management in such an unpredictable and uncontrollable environment. We might even be tempted to propose that most of our stakeholders will only ever do the right deed for the wrong reason, limiting the degradation of their forest resources through the extent of their mutual jealousy and suspicion, the tangled web of rules and customs governing their interaction, and the general excess of expectations and demands directed at developers. On the other hand, the trouble with perversity as a condition of sustainability is that it fails to offer any hope of an improvement in the quality of people’s lives. The celebration of an accidental cultural resistance to ‘rational’ but unsustainable exploitation of the country’s natural resources may well suit the taste of those scholars who believe that ‘policy’ is nothing but a modern form of ritual or magic, but it cannot satisfy the search for moral and political imperatives which are essential to the building of a new relationship between social institutions and physical resources. A new form of civil society will never be created by the little gods who sit on the commanding heights of mountainous bureaucracies, but it can and will develop through changes in the form and substance of dialogue between stakeholders in each of several policy domains.

In the forest policy domain, we advocate a path between planning and perversity, in which the dialogue develops through the making and testing of claims to productive innovation, and the continual reinforcement of feedback loops between local, national and global levels of debate. It may take a long time for this process to transform the relationship between forests and people, longer in some places than in others, but PNG does have time on its side, because the forests are still present in abundance, and the people cannot make rapid and drastic changes to large portions of the landscape, even if they wish to do so.
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Annexes

Data used for figures

Data used for Figure 2.2 Distribution of PNG forest types

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<thead>
<tr>
<th>Forest type</th>
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<tr>
<td>Low altitude forests on uplands up to 1000m</td>
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Source: Hammermaster and Saunders 1995

Data used for Figure 2.4 Change in PNG's 'adjusted forest area', 1975-1996

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Source: PNG Forest Inventory Mapping System
Data used for Figure 2.5 (a) Transformation of PNG’s ‘potential production forest’, 1975-1996

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<th>Province</th>
<th>Total area in 1975 '000ha (%)</th>
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<th>Cleared but not logged '000ha (%)</th>
<th>Total area in 1996 '000ha (%)</th>
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Source: PNG Forest Inventory Mapping System
Data used for Figure 2.5(b) Transformation of PNG’s ‘non-potential production forest’, 1975-1996

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Source: PNG Forest Inventory Mapping System

Data used for figure 3.1 Commodity export volumes and values (in millions of kina), 1987, 1995 and 1997

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<tr>
<td>Crude oil (million barrels)</td>
<td>—</td>
<td>—</td>
<td>37.0</td>
<td>827.7</td>
<td>28.0</td>
<td>852.2</td>
</tr>
</tbody>
</table>

Data used for Figure 3.2  Sectoral shares of real GDP, 1987 and 1997

<table>
<thead>
<tr>
<th>Sector</th>
<th>1987 (%)</th>
<th>1997 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture, forestry and fisheries</td>
<td>30</td>
<td>26</td>
</tr>
<tr>
<td>Mining and quarrying</td>
<td>17</td>
<td>15</td>
</tr>
<tr>
<td>Petroleum</td>
<td></td>
<td>10</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Electricity etc.</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>Construction</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Commerce</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Community and social services</td>
<td>10</td>
<td>9</td>
</tr>
<tr>
<td>Import duties</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Source: AusAID 1997</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Data used for Figure 4.1  Volume, value, and revenue contribution of PNG's log exports, 1978-1997

<table>
<thead>
<tr>
<th>Year</th>
<th>Export volumes ('000 m³)</th>
<th>Export values (K million)</th>
<th>% share of domestic export values</th>
<th>Log export taxes (K million)</th>
<th>% share of non-grant revenues</th>
</tr>
</thead>
<tbody>
<tr>
<td>1978</td>
<td>421</td>
<td>11.8</td>
<td>(02.3)</td>
<td>n.a.</td>
<td>n.a.</td>
</tr>
<tr>
<td>1979</td>
<td>476</td>
<td>20.9</td>
<td>(03.0)</td>
<td>n.a.</td>
<td>n.a.</td>
</tr>
<tr>
<td>1980</td>
<td>618</td>
<td>30.0</td>
<td>(04.7)</td>
<td>n.a.</td>
<td>n.a.</td>
</tr>
<tr>
<td>1981</td>
<td>749</td>
<td>31.5</td>
<td>(05.8)</td>
<td>n.a.</td>
<td>n.a.</td>
</tr>
<tr>
<td>1982</td>
<td>1,063</td>
<td>49.6</td>
<td>(09.1)</td>
<td>n.a.</td>
<td>n.a.</td>
</tr>
<tr>
<td>1983</td>
<td>1,003</td>
<td>43.2</td>
<td>(06.5)</td>
<td>4.7</td>
<td>(01.1)</td>
</tr>
<tr>
<td>1984</td>
<td>1,278</td>
<td>69.9</td>
<td>(08.7)</td>
<td>12.4</td>
<td>(02.6)</td>
</tr>
<tr>
<td>1985</td>
<td>1,158</td>
<td>58.4</td>
<td>(06.5)</td>
<td>12.6</td>
<td>(02.3)</td>
</tr>
<tr>
<td>1986</td>
<td>1,299</td>
<td>68.0</td>
<td>(07.0)</td>
<td>13.7</td>
<td>(02.5)</td>
</tr>
<tr>
<td>1987</td>
<td>1,450</td>
<td>103.0</td>
<td>(09.3)</td>
<td>16.5</td>
<td>(02.5)</td>
</tr>
<tr>
<td>1988</td>
<td>1,348</td>
<td>90.5</td>
<td>(07.4)</td>
<td>15.6</td>
<td>(02.3)</td>
</tr>
<tr>
<td>1989</td>
<td>1,349</td>
<td>90.0</td>
<td>(08.6)</td>
<td>11.4</td>
<td>(01.4)</td>
</tr>
<tr>
<td>1990</td>
<td>990</td>
<td>65.2</td>
<td>(06.2)</td>
<td>12.2</td>
<td>(01.6)</td>
</tr>
<tr>
<td>1991</td>
<td>1,062</td>
<td>81.2</td>
<td>(06.2)</td>
<td>17.7</td>
<td>(02.2)</td>
</tr>
<tr>
<td>1992</td>
<td>1,601</td>
<td>140.0</td>
<td>(08.0)</td>
<td>25.0</td>
<td>(02.7)</td>
</tr>
<tr>
<td>1993</td>
<td>2,375</td>
<td>400.2</td>
<td>(16.3)</td>
<td>70.9</td>
<td>(06.3)</td>
</tr>
<tr>
<td>1994</td>
<td>2,944</td>
<td>483.1</td>
<td>(18.1)</td>
<td>131.3</td>
<td>(10.2)</td>
</tr>
<tr>
<td>1995</td>
<td>2,513</td>
<td>436.7</td>
<td>(12.8)</td>
<td>127.6</td>
<td>(08.6)</td>
</tr>
<tr>
<td>1996</td>
<td>2,607</td>
<td>464.8</td>
<td>(14.0)</td>
<td>150.9</td>
<td>(08.7)</td>
</tr>
<tr>
<td>1997</td>
<td>2,376</td>
<td>409.3</td>
<td>(13.4)</td>
<td>143.4</td>
<td>(07.6)</td>
</tr>
</tbody>
</table>

Note: At the time of writing, average prices have fallen below US$60/m³
Sources: Bank of PNG Quarterly Economic Bulletins

Loggers, donors and resource owners 413
Data used for Figure 4.3  PNG log exports by country of destination, 1994 and 1997

<table>
<thead>
<tr>
<th>Country</th>
<th>1994 exports</th>
<th>1997 exports</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>'000m³</td>
<td>%</td>
</tr>
<tr>
<td>Japan</td>
<td>1,509.8</td>
<td>64.9</td>
</tr>
<tr>
<td>South Korea</td>
<td>601.0</td>
<td>25.8</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>71.3</td>
<td>3.1</td>
</tr>
<tr>
<td>China</td>
<td>47.9</td>
<td>2.1</td>
</tr>
<tr>
<td>Taiwan</td>
<td>41.0</td>
<td>1.8</td>
</tr>
<tr>
<td>Philippines</td>
<td>35.2</td>
<td>1.5</td>
</tr>
<tr>
<td>Thailand</td>
<td>10.2</td>
<td>0.4</td>
</tr>
<tr>
<td>India</td>
<td>9.4</td>
<td>0.4</td>
</tr>
<tr>
<td>Malaysia</td>
<td>29.3</td>
<td>1.0</td>
</tr>
<tr>
<td>TOTAL</td>
<td>2,325.7</td>
<td>100</td>
</tr>
</tbody>
</table>

Note: Average prices are in US dollars.
Source: PNG Forest Authority Timber Digest

Data used for Figure 8.3  Estimated range of logging costs in PNG, 1993

<table>
<thead>
<tr>
<th>Item</th>
<th>Low cost</th>
<th>High cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planning/survey</td>
<td>Nil</td>
<td>K2.50/m³</td>
</tr>
<tr>
<td>Road construction</td>
<td>K10/m³</td>
<td>K20/m³</td>
</tr>
<tr>
<td>Felling (labour contract)</td>
<td>K2/m³</td>
<td>K5/m³</td>
</tr>
<tr>
<td>Skidding</td>
<td>K2/m³</td>
<td>K5/m³</td>
</tr>
<tr>
<td>Scaling (labour contract)</td>
<td>50t/m³</td>
<td>K1/m³</td>
</tr>
<tr>
<td>Loading/trucking</td>
<td>K2/m³</td>
<td>K10/m³</td>
</tr>
<tr>
<td>Log dump (sort/stack)</td>
<td>K1/m³</td>
<td>K2/m³</td>
</tr>
<tr>
<td>Shipping ( barging)</td>
<td>K2/m³</td>
<td>K7.50/m³</td>
</tr>
<tr>
<td>Shipping (stevedores)</td>
<td>50t/m³</td>
<td>K1/m³</td>
</tr>
<tr>
<td>Fuel, oil and parts</td>
<td>10%</td>
<td>20%</td>
</tr>
<tr>
<td>Administration</td>
<td>10%</td>
<td>10%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>K22.40/m³</td>
<td>K66.00/m³</td>
</tr>
</tbody>
</table>

Source: PNG Forest Management and Planning Project
Data used for Figure 8.4  Export tax rates under the old revenue system, 1979-1995

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Kwila, Pencil Cedar, Planchonella</td>
<td>10%</td>
<td>30%</td>
<td>33%</td>
<td>46%</td>
</tr>
<tr>
<td>Calophyllum, Mersawa, Taun, Walnut</td>
<td>10%</td>
<td>20%</td>
<td>23%</td>
<td>36%</td>
</tr>
<tr>
<td>Burckella, Canarius, Gluta, Hopea, Terminalia</td>
<td>10%</td>
<td>12%</td>
<td>15%</td>
<td>28%</td>
</tr>
<tr>
<td>All other species</td>
<td>10%</td>
<td>9%</td>
<td>13%</td>
<td>26%</td>
</tr>
<tr>
<td>Weighted average</td>
<td>10.0%</td>
<td>14.3%</td>
<td>17.3%</td>
<td>31.1%</td>
</tr>
</tbody>
</table>

Note: the weighted average represents the effective subsidy to downstream processors.

Source: PNG Forest Authority.

Data used for Figure 8.5  Comparison of export taxes under the old and new revenue systems

<table>
<thead>
<tr>
<th>Log price (USD/m$^3$)</th>
<th>Log price (PGK/m$^3$)</th>
<th>Tax under old system (K)</th>
<th>Tax under new system (K)</th>
</tr>
</thead>
<tbody>
<tr>
<td>110</td>
<td>147</td>
<td>45.80</td>
<td>31.2</td>
</tr>
<tr>
<td>120</td>
<td>160</td>
<td>49.85</td>
<td>31.2</td>
</tr>
<tr>
<td>130</td>
<td>173</td>
<td>53.90</td>
<td>31.2</td>
</tr>
<tr>
<td>140</td>
<td>187</td>
<td>58.27</td>
<td>31.2</td>
</tr>
<tr>
<td>150</td>
<td>200</td>
<td>62.32</td>
<td>31.2</td>
</tr>
<tr>
<td>160</td>
<td>213</td>
<td>66.36</td>
<td>31.2</td>
</tr>
</tbody>
</table>

Note: the average log price in 1996 was K175/m$^3$, giving a weighted average tax rate of K56/m$^3$ under the new system.

Source: PNG Forest Authority.
Data used for Figure 8.6  Distribution of PNG log export revenues, 1988-1996 (in kina)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Average log price (Kina/m³)</td>
<td>71.00</td>
<td>66.00</td>
<td>87.00</td>
<td>169.00</td>
<td>163.00</td>
<td>158.00</td>
<td>160.00</td>
<td>175.00</td>
</tr>
<tr>
<td>Income to local landowners:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Royalties</td>
<td>6.34</td>
<td>6.21</td>
<td>6.73</td>
<td>8.79</td>
<td>8.64</td>
<td>8.51</td>
<td>8.56</td>
<td>21.11</td>
</tr>
<tr>
<td>Other levies &amp; premiums</td>
<td>3.56</td>
<td>3.56</td>
<td>3.56</td>
<td>3.56</td>
<td>3.56</td>
<td>3.56</td>
<td>3.56</td>
<td>9.50</td>
</tr>
<tr>
<td>Income to provincial government:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Royalties</td>
<td>2.78</td>
<td>2.65</td>
<td>3.17</td>
<td>5.23</td>
<td>5.08</td>
<td>4.95</td>
<td>5.00</td>
<td>11.61</td>
</tr>
<tr>
<td>Royalties</td>
<td>1.25</td>
<td>1.25</td>
<td>1.25</td>
<td>1.25</td>
<td>1.25</td>
<td>1.25</td>
<td>1.25</td>
<td>0.00</td>
</tr>
<tr>
<td>Income to provincial government:</td>
<td>8.29</td>
<td>7.79</td>
<td>14.36</td>
<td>26.80</td>
<td>30.78</td>
<td>50.42</td>
<td>51.04</td>
<td>57.59</td>
</tr>
<tr>
<td>Royalties</td>
<td>7.10</td>
<td>6.60</td>
<td>13.17</td>
<td>25.61</td>
<td>29.59</td>
<td>49.23</td>
<td>49.85</td>
<td>56.09</td>
</tr>
<tr>
<td>Royalties</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Royalties</td>
<td>0.19</td>
<td>0.19</td>
<td>0.19</td>
<td>0.19</td>
<td>0.19</td>
<td>0.19</td>
<td>0.19</td>
<td>0.50</td>
</tr>
<tr>
<td>Income to provincial government:</td>
<td>55.12</td>
<td>50.75</td>
<td>64.66</td>
<td>132.16</td>
<td>122.33</td>
<td>97.82</td>
<td>99.15</td>
<td>96.30</td>
</tr>
<tr>
<td>Income to provincial government:</td>
<td>38.23</td>
<td>42.51</td>
<td>47.33</td>
<td>49.50</td>
<td>49.50</td>
<td>50.29</td>
<td>57.79</td>
<td>66.96</td>
</tr>
<tr>
<td>Income to provincial government:</td>
<td>16.89</td>
<td>8.24</td>
<td>17.33</td>
<td>82.66</td>
<td>72.83</td>
<td>47.53</td>
<td>41.36</td>
<td>29.34</td>
</tr>
<tr>
<td>Income to provincial government:</td>
<td>29.58</td>
<td>12.98</td>
<td>24.51</td>
<td>111.82</td>
<td>98.52</td>
<td>63.28</td>
<td>47.93</td>
<td>29.34</td>
</tr>
</tbody>
</table>

Note: The ‘93-94’ column shows the distribution of log export revenues between the budget of November 1993 and the mini-budget of March 1994. The adjoining columns show the distribution during the remaining months of those years.

Source: PNG Forest Authority.