



RMAP WORKING PAPERS

Resource Management in Asia-Pacific

Working Paper No. 9:

The state versus custom—regulating Papua New Guinea's timber industry

Rod Taylor

Post-graduate environmental law student at the Australian National University and former member of the PNG National Consultative Committee on Forest Law and Policy (1989-90) and legal adviser to the National Forestry and conservation Action Plan (1992-4).

DRAFT

Resource Management in Asia-Pacific

Working Papers

The Resource Management in Asia-Pacific Working Paper series seeks to provide readers with access to current research on environmental and resource issues in the Asia-Pacific. Working Papers produced by the Project aim to facilitate discussion and debate on critical resource management issues in the area, and to link scholars working in different disciplines and regions.

Publication as a 'Working Paper' does not preclude subsequent publication in scholarly journals or books, indeed it may facilitate publication by providing feedback from readers to authors.

Unless otherwise stated, publications of the Resource Management in Asia-Pacific Project are presented without endorsement as contributions to the public record debate. Authors are responsible for their own analysis and conclusions.

Resource Management in Asia-Pacific Project
Research School of Pacific and Asian Studies
The Australian National University
Canberra ACT 0200
Tel: +61 2 6125 9978
Fax: +61 2 6125 4896
Email: rmap@coombs.anu.edu.au

The State versus Custom - regulating Papua New Guinea's timber industry. by Rod Taylor¹¹

Introduction

This paper examines attempted forestry reforms in Papua New Guinea geared to three broad objectives - environmental protection, sustained timber yield and equitable rent sharing. On all three fronts the reforms have met considerable resistance. Much of the resistance can be attributed to competition between the state and customary landowners²² for control of timber harvesting.

The paper explores possible justifications for state intervention. It concludes that custom is better placed than the state to define the local public interest and that the state, landowners and logging companies can best reconcile local and national interests through project-specific agreements. This suggests the state should abandon reforms that attempt to dictate to landowners how their forest resources are to be managed - for their own or the nation's good. Instead, the state could direct its resources to providing extension services to customary landowners. The aim would be to strengthen the capacity of landowners to make an informed judgement of, and protect, the local interest and to negotiate on an even footing with other stakeholders.

Background

A unique feature of the Papua New Guinea Constitution is its recognition of custom. Custom is defined as "The customs and usages of indigenous inhabitants of the country existing in relation to the matter in question at the time when and the place in relation to which the matter arises, regardless of whether or not the custom or usage has existed from time immemorial" (Constitution Sch. 1). Except where it is inconsistent with statute law, custom forms part of the underlying law along with adopted principles of English common law and equity. Through custom, local kinship groups own 97 per cent of Papua New Guinea's land mass and most of its natural forest resources.

Most of Papua New Guinea's natural forests with commercially accessible timber volumes are found in lowland and coastal areas with low population densities. The people in these areas generally practice shifting cultivation within well defined pockets of secondary vegetation (Allen, Bourke & Hide 1993). Through kinship groupings they claim customary ownership of the large tracts of natural forest, between their gardening areas, that contain the timber resources targeted for industrial logging.

At independence Papua New Guinea inherited NO very different forestry laws: the highly interventionist *Forestry Act* and the *laissez faire Forestry (Private Dealings) Act*. Under the *Forestry Act*, only the state could acquire timber rights from customary landowners. The state purchased these rights under a standard-form timber rights purchase agreement. Landowners received royalties at a prescribed rate and had no legal say over which logging company held the timber permit, what infrastructure was built or the rate at which the timber was harvested.

The *Forestry (Private Dealings) Act* permitted customary forest landowners to sell their timber privately. The usual practice was for a Landowner company to acquire timber harvesting rights from landowners and

¹¹ The author is a postgraduate environmental law student at the Australian National University and former member of the PNG National Consultative Committee on Forest Law and Policy (1989-90) and legal adviser to the National Forestry and Commemation Action Plan (19924). This paper is written with the luxury of hindsight and the author admits being a past advocate of many of the approaches here criticised.

²² The term 'landowners' is a generic term used in Papua New Guinea to describe groups or individuals with customary rights to land and resources . The term covers resource rights as well as land rights and masks the distinction between group ownership rights and individual use rights (see Fingelton 1993:43).

then on-sell the rights to a foreign logging company. Provided the Minister assented to the Dealings, the logging company could operate without a timber permit under minimal state supervision.

In 1989 the Commission of Inquiry into Aspects of the Forest Industry (Barrett 1989), documented an rout of controls timber industry characterised by pervasive corruption, transfer pricing and reckless logging practices. The Commission recommended comprehensive reform of the industry. The new National Forest Policy (approved in 1990) and the new *Forestry Act* (passed in 1991 and gazetted in 1992) respond to the Commission of Inquiry's call for increased state control and planning in the forestry sector. The new Act incorporated the Papua New Guinea Forest Authority and vested it with responsibility for timber industry regulation under the guidance of the National Forest Board.

Under the new *Forestry Act*, the state has reserved to itself a monopoly on the right to enter a forest management agreement with landowners. If landowners cannot strike an acceptable deal with the Forest Authority, they are barred from arranging industrial- scale logging on their land.³ If a forest management agreement is concluded, the Forest Board, not the landowners, selects a forest industry participant to implement the agreement and recommends to the Minister that a timber permit be granted.⁴ The Act also calls for the formulation of a national forest plan and requires all forest development to accord with it (S.54). The plan is to comprise a policy statement – the national forestry development guidelines (the “Guidelines”), a development programme and a statement of annual allowable cut (S. 47). While Guidelines have been approved “in-principle” (PNG 1993b), the other components of the plan are still outstanding.

The new Act saved all projects and agreements approved under former legislation but gave the new Forest Board power to make variations to bring them in line with the new regime (S. 137). At the time of writing (February 1996), the Board had not exercised this power nor issued any permits under the new Act. Thus all current projects operate under arrangements that predate the new regime.

Environmental protection measures

Strategic land-use planning

The *Forestry Act* (S. 54) requires all forest resources to be developed in accordance with the national forest plan. According to the Forest Policy (PNG 1991:5), the Forest Authority should help provincial governments to identify forest areas for long term timber production protection for ecological, cultural or environmental reasons or clearance for other uses⁵. These classifications are to form the basis for provincial forest development programmes within the national forest plan (above: 13-14).

Forest classification as proposed in the Forest Policy has proved difficult to implement. First, political friction between national and provincial governments has constrained provincial input.⁶ Second, the

³ No timber permit over customary land can be granted unless landowners have entered into a forest management agreement with the Forest Authority (*Forestry Act* S.55). Logging can be carried out under a timber authority without a forest management agreement but the timber harvested cannot exceed 5,000 cubic metres per year and cannot be exported in round log form (*Forestry Act* S.87).

⁴ ~ It is possible for landowners, through the terms of their forest management agreement to insist that the selected industry participant be contracted to a permit-holding landowner company rather than hold the permit itself.

⁵ The policy allowed provincial governments to defer a land-use decision by classifying an area as a 'reserve forest.

⁶ Increasingly, provincial and national politicians saw themselves as competitors for control over the distribution of resources and delivery of government services. In the early 1990's the national government considered a series of reform proposals clearly intended to undermine the political base of provincial governments (Axline 1993). The Bi-partisan 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 local government leaders. The recommendations formed the basis of reforms that became law in 1995.

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. Though perhaps the major obstacle to completion of the exercise, has been growing doubt over its ability to win the respect of Landowners.⁷ The view came to prevail that landowners would reject, outright, any lines drawn on maps at the whim of government officials or politicians that 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. The existence of some form of national forest plan remains a key component of the *Forestry Act*. Without a plan in place it is questionable whether permits can be validity granted given the stipulation in S.54 that forest resources can only be developed in accordance with the plan.

Logging practice standards

Nearly all commercial forestry operations in Papua New Guinea's natural forests are conducted under a Selective logging regime.⁸ Beyond this common ground, current timber permits, logging agreements, environmental plans and forest working plans contain piecemeal, and often contradictory, controls on logging. The lack of consistent and comprehensive standards combined with poor compliance monitoring has resulted in excessive canopy removal, damage to residual trees, soil erosion and siltation of rivers and reefs (see Cameron & Vigus 1993).

In August 1995, the Forest Authority and the Department of Environment and Conservation circulated a final draft "logging code of practice" (PNGFA & DEC 1995). The two agencies intend for the code to be brought into force through regulations under the *Forestry Act*, once it is finalised.⁹ The proposed regulations will give the Forest Authority power to enforce the code against all commercial logging projects, including those within local forest areas that currently operate outside its jurisdiction.¹⁰

The draft code prohibits logging on steep slopes, permanently inundated land, karst country and mangrove areas. Thus the code will operate as a land-use planning instrument, but one that is more manageable and less confrontational to landowners than a nationwide forest zoning strategy of the kind described above. The code sets clear and unequivocal standards for protection of watercourses and coastlines, curtailing soil disturbance and damage to residual trees, managing waste and operational planning. If it can be enforced, the code should substantially reduce the environmental impacts of logging.

⁷ 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'. In the version approved by the National Executive Council in December 1993, omitted the whole chapter on preparation of the rest of the Forest Plan and made no reference to forest classification or land-use zoning.

⁸ Exceptions are clear-felling operations for plantations, road-lines etc. In selective logging projects, the common bottom-line constraint is the prohibition on felling trees of less than 50cm in diameter at breast height. It could be argued that the form of selective logging practised in Papua New Guinea is determined purely commercially due to the wide dispersion of commercially-valued species within the forest (Louman Nicholls 1994: 160).

⁹ According to the preface to the draft, comments are to be considered before a final draft is prepared and presented to the relevant ministers with a recommendation for adoption and implementation.

¹⁰ Operations in a local forest area are conducted in accordance with a private agreement (usually between the resources owners and a Landowner company-) approved under the now repealed Forestry (Private Dealings) Act. With no permit to enforce in these areas, Forest Authority officers have had no direct role to play in monitoring logging operations. As it moves to bring logging operations in local forest areas under its control, the Forest Authority may face considerable resistance to its intrusion.

In-principle resistance to new controls might be avoided if forest landowners are given the option of bringing their operations under the code rather than having it forced on them.

Local impact assessment and planning

Before the Forest Authority can sign a forest management agreement with landowners, it must arrange a development options study over the area concerned (*Forestry Act S.62*). According to the Guidelines (PNG 1993b:6), the study should assess social, economic and environmental considerations in the area to identify possible uses of the forest with the potential of offering “viable and sustainable development”. For uses acceptable to landowners, the study should make “a preliminary assessment of their likely socioeconomic impact”. This information will be presented to landowners “in order that they can make an informed decision on the nature of the project to be established”.

After landowners have signed a forest management agreement, the screening process for issue of a timber permit requires the submission of an environmental plan for approval under the *Environmental Planning Act*. In preparing the plan, the project proponent is required to undertake an environmental impact assessment.

Landowners are the clients of the development options study with responsibility for its completion falling to government. By contrast, the environment plan is prepared by the private sector proponents of a project for consideration by government consent authorities. The government's record in fulfilling its obligations under either process is poor. With development options studies, 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.¹¹ As for environmental plans, the under-resourced Environment and Conservation Ministry, has failed to reject poor-quality plans and undertaken monitoring on an *ad hoc* basis only (Hedemark & Sekhran1994:341).

Sustained timber yield

Poore (1989:12) defines sustainable forest use as maintaining the forest's potential to provide a sustained yield of certain products while maintaining the forest ecosystem in a desired condition. The Forest Policy adopts 'sustained yield management' as a 'guiding principle'. This section of the paper focuses on control of harvest rates. The forest condition component of sustained yield can be addressed through the environmental protection measures examined in the previous section.

The *Forestry Act* (S.47) requires the Forest Board to prepare a yearly statement of the allowable cut for each province. The statement forms part of the national forest plan and its purpose, according to the Act, is to ensure that designated production forests within each province are “harvested on a sustained yield basis”. The Act provides no definition of “sustained yield”. According to the Forest Policy (PNG 1991:5), it means “continuous production on a provincial basis with the aim of maintaining, at the earliest practical time, desirable net growth at least in balance with harvest”.

The Forest Policy proposes that the allowable cut for each province be set initially by dividing the estimated volume of merchantable resources zoned for production by an assumed cutting cycle of 40 years. The statements of allowable cut are thus predicated upon the designation of production forests through the currently-stalled forest classification exercise. Thus, to date, no official statements have been made.

The Forest Policy (PNG 1991: 5) proposes reduction of the “permitted harvest volumes” where they exceed a province's allowable cut,¹² but is silent on the vexed issue of how to fairly apportion the reduction between existing projects. The apportionment will need to take account of the poor correlation between permitted, actual and sustainable cut levels. Another issue not addressed is whether landowners and logging companies in existing projects should absorb the entire cut to the exclusion of those seeking new project approvals.

¹¹ Personal Communication, Ben Everts, Team Leader, Forest Management and Planning Project, Hohoa, Papua New Guinea, February 1996

¹² Presumably such reductions could be effected under S. 137(2) of the *Forestry Act*. This transitional provision gives the Forest Board power to vary any condition in an old pemmit or agreement that, in its opinion, is At variance with the provisions of [thej Act to an extent which makes it unacceptable.

The Guidelines make no reference to allowable cuts by province. Instead they introduce the notion of a "sustainable unit", being an area "large enough to provide a viable operation on a sustained yield harvest basis"(PNG 1993b: 11). To achieve this they propose a review process in which existing permitted cuts will be reviewed as necessary to achieve a sustained yield within each unit.¹³ To date the Forest Board has not reduced the permitted cut for a single project on sustained yield grounds.

Capture, distribution and investment of rent

The state, landowners, landowner companies and logging companies are in competition for the economic surplus from timber extraction. The state appropriates its share through the tax laws. The remaining surplus is distributed according to private agreements between the parties. Under existing contractual arrangements the proceeds of log sales accrue to the logging contractor who is then required to make distributions to landowners, and under more recent agreements, to the landowner company. The landowners' share usually comprises an agreed package of infrastructural development plus payment at a kina amount per cubic metre of timber extracted. Landowner companies usually receive an unconditional payment known as a premium and special purpose levies¹⁴ (Shedden, 1991).

All current agreements were made before the new Act commenced and thus reflect the low log prices that prevailed up to 1992. Because landowner entitlements are inelastic to log prices, landowners were largely denied a share of the increased surplus, when timber prices rose dramatically in 1993.¹⁵

The new *Forestry Act* (S. 119) calls for a new "forest revenue system" of prescribed royalties and other charges. Few constraints are imposed on the charges that can be levied (see S. 121). The Guidelines proposed that these provisions be used to install a comprehensive new revenue regime that would override existing contractual arrangements.

The draft Guidelines presented to the Forest Board in May 1993 (PNG 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". The 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,

¹³ The state faces possible legal challenges if it moves to reduce current permitted cuts. Landowners could claim that such cuts amount to unjust deprivation of their property rights in breach of Section 53 of the *Constitution*. In defence the state could argue that landowners have contractual rights to receive royalties but not a right to sell timber at a set rate, and thus will not be deprived of property rights through a cut reduction. Second, s.53(5)(f) of the *Constitution* exempts property acquisitions reasonably necessary for the preservation of the environment - arguably, sustained yield reductions can be characterised as environmental preservation measures. Alternatively, foreign logging contractors may challenge on grounds that reductions will breach their investment guarantees under the Investment Promotion Act. In defence the state could argue that any adjustment of permitted harvest rates does not comprise an expropriation because permits do not confer property rights or because the "creeping expropriation" through regulation is not protected by the guarantees against expropriation.

¹⁴ The agreements typically earmark the levies for "agricultural" or Community infrastructure development but are otherwise silent on how the levy funds should be administered and applied. The potential for misuse of the funds is great, given these vagaries and the fact that they are often not held in an account separate from the operating funds of the landowner company.

¹⁵ In some projects landowners and landowner companies achieved more favourable arrangements by renegotiating these arrangements during the 1993 boom. The average fob price per cubic metre of mixed logs from Papua New Guinea stayed within the SUS 50-80 range from 1987 to 1992. In 1993 prices boomed to a peak of \$US200 before slowly declining to around \$US100. In 1994 prices peaked again at \$US150 then declined to a new plateau of around \$US110 where they remained until the end of 1995 (ITTO 1995:113).

the Forest Industries Association were highly critical of the proposal. Yet the strongest protests were voiced by “the Papua New Guinea Forest Resource Owners Association” (FROA), a body whose membership comprised the directors and senior management of landowner companies.

The motives behind FROA's opposition 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 rent-share 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. Papua New Guinea 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 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 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 they had justly earned their prominent positions through the role 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 (1996) 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.

The proposed controls over additional stumpage were substantially revised in response to the FROA-led protest. The final version of the Guidelines, approved in principle by the National Executive Council in late 1993, proposes that additional stumpage be paid to “a representative body appointed by landowners in each project area”. Thus the Guidelines left open the possibility of landowner companies securing the additional stumpage by gaining recognition as representative bodies. These concessions were not enough to win FROA's endorsement. In the face of continuing opposition the state abandoned the revenue proposals in 1994, yet alternative models that would override existing contractual arrangements remain under active consideration (Whimp 1995). So far, the revenue provisions of the *Forestry Act* remain unimplemented.

The state moved swiftly, in the meantime, to secure a better revenue share for itself. It made two successive increases in export duty on round logs - a 10% increase in November 1993 and a further 13% in March 1994 (Duncan 1994:13). No intervention was made on behalf of landowners. Their share of rent continues to be determined contractually under arrangements predating the timber boom. Their potential to negotiate a larger proportion of the economic rent is constrained by the hike in export duty.

Justifying state intervention

So far, this paper has chronicled the Papua New Guinea government's forestry reform efforts across diverse objectives - environmental protection, sustained timber yield and equitable rent sharing. On all three fronts implementation has faltered over reforms that threaten the right of customary landowners to exploit their forests as they see fit. The state's waning commitment suggests growing doubt, on the part of politicians and government, that the proposed forestry interventions are warranted.¹⁶

A state usually claims protection of the public interest as the justification for its private sector interventions. In the language of economics, the state intervenes in the market to correct or prevent

¹⁶ This trend is evidenced by the state's policy rhetoric. The Forest Policy makes the bold assertion that overall responsibility of ensuring that the country's forests are managed and replenished will rest with the state (PNG 1991:7). Only two years later the state's official stance had softened. According to the Guidelines “Responsibility for forest management will be allocated between landowners and the [Forest] Authority according to the terms of the forest management agreement” (PNG 1993b:12).

negative externalities. In legal terms, the state exercises common property rights to restrict private property rights (see Boer 1993:52). In political terms, the elected government has a mandate to curb private interests in the public interest.

Another possible justification for state intervention in Papua New Guinea is paternalistic protection of customary landowners. Customary systems have generally evolved to serve subsistence and barter economies. Those systems, and the people who control natural resources within them, are newly exposed to the intricacies, technology and scale of commercial industry. Arguably, state intervention is justified at the interface between custom and commerce to protect customary landowners who are vulnerable due to their inexperience. This justification is founded on the questionable belief that landowners will do better under the state's benevolent guidance than if left to make their own naive choices.

The local public interest

Under the Papua New Guinea Constitution, customary authority and state authority coexist. Locally at least, the two forms of authority are in competition for the right to govern community affairs. Thus state intervention on public interest grounds raises a threshold issue of whether customary authority or the state should divine the local public interest. Intervention grounded in paternalism a similar issue. If the state assumes the right to decide what course of action best serves the interests of local landowners, will it be better placed than customary authority to do so? The state's options are to –

- ignore custom and make its own judgement of the local interest; or
- accept the preference of those who claim customary authority.

Principles of self-determination

At one extreme it can be argued that customary processes command automatic respect because they have been honed by the wisdom of the ages and underpin community life. The counter view is that the state should judge customary systems on their merits and support only those that meet reasonable standards of governance. The Constitution suggests a course somewhere between. Its fifth goal calls for development “primarily through the use of Papua New Guinean forms of social, political and economic organisations”. Yet under Schedule 2. 1, custom is not recognised as part of the underlying law if it is “repugnant to the general principles of humanity or inconsistent with state-made laws”.

A developing body of international law supports the view that customary leaders should self-determine the development paths of their constituents.¹⁷ In the Papua New Guinea context, deference to these principles would require the state to defer to customary authority rather than define the local public interest Itself. The state could intervene to protect and strengthen customary decision-making processes, but its objective should be to support, rather than supplant, custom.

A practical consideration is whether a state definition of local priorities will be respected in any event. As Jackson (1992:82) notes “clans or other localised forms of loyalty are of far greater importance to most Papua new Guineans than are loyalties to the state”.

¹⁷ The draft *United Nations Declaration of Indigenous Peoples Rights* sets a contemporary standard for state relations with indigenous peoples (UNWGIP 1993). Article 26 describes a right of indigenous peoples to “own, develop, control and use” their traditional lands and resources. This includes the right to full recognition of their “laws, traditions and customs, land-tenure systems and institutions for the development and management of resources” and the right to the benefit of “effective measures by States to prevent any interference with, alienation of or encroachment upon these rights”. These rights are buttressed by Article 30, which describes the right of indigenous peoples to “determine and develop priorities and strategies for the development and use” of their lands and resources. This includes the right to “require that States obtain their free and informed consent” before approving projects affecting their lands and resources. Article 31 asserts a right of “autonomy or self-government” in relation to a range of matters including “economic activities, land and resource management, environment and entry by nonmembers”.

Technical capacity

The state might lay claim to the right to define the local interest on the ground that it has technical skills and resources that rural landowners lack. While landowners may have direct knowledge of local ecosystems, social relationships, culture and aspirations, they may lack capacity to assess impacts beyond their experience. Without first-hand exposure to large-scale logging operations, landowners are likely to underestimate physical and social impacts. Even after logging commences, there is a time lag before long-term effects on subsistence lifestyles, such as contaminated water supplies, loss of bush foods and medicines, decline of fish stocks on silt-covered reefs, and increased malaria due to pending, become apparent.

Yet the state's skills-base is heavily concentrated in urban centres, and notoriously absent in the sparsely-populated rural areas where large tracts of natural forest are found. Problems of mismanagement, waste, incompetence, corruption, disruptive political conflict, over-government and neglect further constrain its ability to make efficient use of its resources (Axline 1993:5). In forestry the state has a poor record on technical input to help define the local interest. It has not managed to arrange a single development options study and is notoriously incompetent in its scrutiny of environmental plans.

Even if the state is better equipped than landowners to make technical assessments, the weight attached to the assessments is ultimately a matter of political judgement. The state can make its assessments available to landowners as readily as it can to its own politicians. The state is not a disinterested party. Its self-interest as a rent-seeker undermines any claim to neutrality. If landowners are armed with technical information as well as local knowledge, they are arguably in a better position than the state to judge the local interest.

The proposed code of logging practice neatly demonstrates these issues. The use of state expertise to compile a code of logging practice is an important step towards eliminating offending practices. Yet the real challenge lies in enforcing that code on the ground. Historically, the state's forestry inspectorate has been poorly resourced and vulnerable to petty corruption (Barrett 1989). The group with the most direct stake in the code's enforcement are the landowners themselves. Unlike career public servants, landowners tend to live on-site and have intimate knowledge of the local environment. However, their past acquiescence to reckless logging practices suggests that landowners either place little value on the environmental amenity of their forests (relative to their commercial worth) or lack knowledge of logging methods and impacts. Thus landowners are unlikely to support the new code unless they understand its purpose and perceive that it correctly balances their environmental and commercial interests. To gain this support, the state will need to explain the objects of the code to landowners and, more than likely, permit variation to suit the priorities of individual landowner groups. If landowners are convinced of the merits of the code, they will also see the self-interest in mobilising to enforce the code themselves. The state could assist with technical training. If landowners reject the code, then arguably their political judgement of the local interest should be respected.¹⁸

In summary, the state cannot, on grounds of technical capacity alone, 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 to every logging project.

Political capacity

The local interest in a logging project needs to be defined at two levels. First, a single landowner group needs to decide whether and on what conditions it should exploit its timber resources. Second, the collective interests of the various groups within the catchment or catchments affected by the logging need to be reconciled.

¹⁸ The code, or elements of it, might nevertheless be imposed on national interest grounds. Processes for reconciling the local and national interest are discussed later in this paper.

Under most customary systems in Papua New Guinea the landowning group or clan is the basic social and poetical unit (Lakau 1994:80, Power 1993:3). Clan leaders are well-practised at making decisions at the clan level, though seldom with as much at stake as where a logging project is proposed.¹⁹ Traditional Melanesian forms of political organisation seldom extended to broader levels than the clan or village. Thus, in agreeing to take part in logging ventures that covered many clans and villages, most landowners were acting in concert on a scale beyond traditional experience (Hide 1990: 17). It is at this level that custom's ability to steer events in the direction of the local interest, is most open to question.

Yet generalisation on custom's sway over events across a catchment is difficult. For example, in some areas bush groups may get away with approving logging that damages the reefs of saltwater groups without compensating them. In other situations a saltwater group may use a bush group's dependence on continued access to marine resources as leverage to persuade the bush group to restrain logging that would harm the local reef ecology (Hviding 1992:6). In some areas non-assertive marginalised dens will be unable to enforce claims against dominant clans. In other situations a clan that is excluded from a logging agreement that purports to cover its resources, may be able to invoke custom, (or perhaps a state-sponsored mechanism for resolving customary disputes), to either be instated as a party to the agreement or exclude logging in its area.

One method of testing custom's effectiveness at a catchment level might be to explore whether it ranks the competing factional interests through some form of due process. However, the flaw with this approach is its assumption that customary systems should only be relied upon to define the local interest if they conform to external of fairness. Customary systems, even when not distorted by unfamiliar pressures of scale and urgency, are unlikely to meet such criteria. Filer (1990) debunks the romantic notion that Melanesian customary societies typically choose their leaders by consensus, settle arguments by compromise or ensure that everyone enjoys the same condition of "subsistence affluence". Big men have traditionally assumed and exercised power autocratically. Tradition often excludes women from important village meetings. Customary resource rights tend not to be matters of fact capable of objective identification and protection, but the outcomes of constant, and often aggressive, assertion and counter-assertion (Wolfers 1992:246). Thus if the state expects custom to meet standards of participatory democracy, custom is likely to fail, not just within the context of logging negotiations, but generally. Unless the state is prepared to intervene systematically wherever custom fails to require procedural fairness, then it should not do so over forestry issues alone.

A second approach is to accept custom's systems as having inherent legitimacy and not evaluate them against external criteria of good governance and equity. Assessment of custom's ability to resolve the local interest across a catchment would then become an investigation of whether logging company negotiations occur within custom's systems or outside them. The difficulty is in identifying what is and what is not a custom-sanctioned action. Custom is unwritten, constantly evolving and differs from place to place. Customary authority is not administered by discrete and accessible institutions but pervades all facets of village life. Where custom is confronted with issues of a scale and complexity beyond its traditional experience, innovative and opportunistic behaviour can equally be diagnosed as a breach of custom or healthy adaptation to modern times. Anarchy and progressive adaptation are separated by a thin line. Ward and Kingdon (1995:15) suggest that many practices evolving to meet new conditions in the Pacific are "neither traditional, nor customary, nor legal".

The experience with landowner companies illustrates the complexities of these issues. On one view the landowner company is the vehicle that has evolved to take custom into the new territory of project-wide cooperation. Landowner companies can claim political and commercial legitimacy through having received legal or *de facto* endorsement from landowners.²⁰ Privileges enjoyed by landowner company

¹⁹ Some local residents may not be members of any land-owning group. However, they will derive their land occupation rights from the landowning groups under custom and are thus incorporated within the customary tenure system.

²⁰ Under the forestry (*Private Dealings*) Act, the legal expression of this endorsement was the making of the dealings agreement with the landowner company rather than directly with a logging company. Where landowner companies secured permits over timber rights purchase areas under the old *forestry Act* the endorsement is not so obvious, but can be traced through the fact of formation of a landowner company and successful lobbying of the Minister to grant it the permit.

principals (salaries, housing, travel, vehicle-use and “entertainment”) might be regarded as custom-sanctioned rewards for initiative and leadership. The community of right-holders under custom could be seen as having consented to logging and its internal distributional inequities. If less assertive clans were not consulted or did not secure a share of royalties these are custom-sanctioned outcomes of competitive claim-making. Custom always has been responsive to “pressure of circumstances and dominant interests” due to the general lack of a superior neutral body charged with its administration (Harding 1972:606).

The counter view is that landowner company directors and executives, in concert with foreign logging interests, have unfairly exploited custom’s inability to control events at the scale and pace of a logging project. In operating beyond the reach of traditional customary checks and balances, they have pushed personal and factional interests with little regard for the local public interest. From this viewpoint, a catchment or project area can be regarded as a plurality of individuals and factions not effectively constrained by custom and whose self-interested behaviours generate externalities. Because customary authority cannot be asserted at this level, the local public interest is unprotected.

The conflicts of interest and apparent lack of accountability of landowner companies and clan agents can be cited in support of this view. Both landowner company principals and clan agents may have conflicting loyalties to the logging contractor that helped to install them in the process of setting up the project. Individual landowner company shareholders are rarely bound by any trust deed formally requiring them to act on behalf of their clan. Legal requirements such as lodgement of company returns and calling of general meetings are often not understood and poorly enforced. Landowner company headquarters are often located in provincial capitals rather than the project area. Clan agents are largely unchecked in their distribution of royalties.

Future projects have better prospects of achieving project-wide representation for landowners through bodies having greater formal accountability than existing landowner companies. The *Forestry Act* (S.57) encourages landowners to form ‘land groups’ under The *Land Groups Incorporation Act* before entering into a forest management agreement. Through this device clans become legal corporations run according to customary law. These land groups can then become building blocks for larger representative bodies with commercial or welfare objectives. If future landowner companies can be encouraged to incorporate along these lines they will be less susceptible to allegations of unrepresentativeness than the current models.

Assessment of whether custom can cope with the events surrounding a logging project will also depend on whether a short or long term view is taken. A snapshot analysis presents a gloomy picture. Timber resources have been sold cheaply and to date only a small portion of the proceeds have been reinvested productively. Reckless logging practices severely diminish the capacity of the forest to supply clean water, halt erosion and regenerate commercial timber. The pressures of change and influx of cash have escalated alcohol abuse and associated violence (particularly against women) and heightened internal tensions (eg saltwater and bush clans, landowner companies and “splinter groups” and between land claim disputants).

Yet a dynamic analysis may yield a conclusion that is less bleak. The involvement of landowners in the timber industry so far can be viewed as one stage in a longer term process of self-determination. Landowners have retained their land, have generally not been displaced from their traditional villages and are not under immediate threat of encroachment by new settlers. Past mistakes and negative impacts might serve as important, though expensive, lessons for the future. The evolution of landowner companies, despite the initial impetus provided by foreign logging companies, might result in the development of corporate experience that can serve local communities in the mid to long term.

It is too early to judge whether landowners will emerge from the landowner company experience in a stronger position to advance their own welfare. An important test will come with the cessation of logging. Some groups may have squandered too much of their Wealth through consumption spending, environmental damage and delinquent social behaviour. The greed and/or apathy of the current generation may seriously disadvantage future generations. Other groups may take remedial action before it is too late. They may negotiate a better resource rent. They may establish agricultural enterprises and other investments to provide for the years between logging cycles. They may make their contractor employ less destructive logging practices. Their landowner company may evolve into a socially responsible organisation that reinforces custom by helping it to adapt to the times.

National, future and global interests

The National Interest

If the state is to trust in the open-ended processes of custom to decide local preferences, it will need to play a role in reconciling those preferences with the national public interest.

The sustained yield issue shows this very clearly. The terms of existing logging agreements show the combined preference of landowners and logging companies as favouring rapid, rather than sustained, timber extraction. For logging companies, the high portability of equipment, the cost of maintaining roads, economies of scale and uncertainty of tenure due to the prospect of land disputes, are all incentives to harvest as quickly as possible. Most operators have not invested in substantial milling facilities and thus do not require a steady timber supply over the life of the mill.²¹

Sustained yield may also run counter to the financial interests of landowners. If mature timber in a forest is regarded as a fully grown crop, landowners have an incentive to harvest the crop as quickly as possible to take advantage of economies of scale and allow production of the next ‘crop’ to start sooner. Provided the same selective logging practices are used in both cases, the harvest rate should have a neutral effect on the forest’s capacity to regenerate the desired mix of timber and to supply subsistence services. Both logging companies and landowners may want flexibility to increase production when market demand is high and reduce production when demand is low.

However, from a national perspective, sustaining the timber yield offers clear advantages. For the national economy, continuous timber production provides a constant revenue flow, encourages installation and maintenance of permanent infrastructure and offers lasting employment. These national interests may be reinforced by external pressure. For example, the International Monetary Fund and World Bank require the national government to adopt sustained yield policies as a condition of the current Structural Adjustment Programme.

Future interests

The state has a constitutional duty to protect future generations from the self-interested actions of the current generation. The fourth National Goal requires that natural resources are Conserved and used for the collective benefit of all [Papua New Guineans] and replenished for the benefit of future generations. All government bodies are under a duty to pursue the goal, though the duty is not enforceable through the courts.²²

Future generations of landowners have an interest in maintaining their inheritance of natural, financial and manufactured resources yet lack a direct voice in today’s market. Their preferences are external to current commercial dealings except to the extent that the current generation is concerned with their welfare. Arguably the Constitution gives the state a mandate to curtail decisions of current customary leaders on grounds of intergenerational equity.

Global interests

According to neoclassical economics, the global interest in the biodiversity and anti-greenhouse values of rainforests, should only concern rational landowners to the extent that it offers a potential ‘in situ’ market for their forest resources. The market in these global values is generally weak due to the free-rider

²¹ Even if a mill is installed this will not necessarily create pressure for a sustained yield - if the plant is to be written off over say 15 years, the operator may prefer a higher wood flow for that period than a permanent supply at a slower rate.

²² Section 25(2) of the Constitution. The Ombudsman Commission can investigate alleged neglect of the duty, but can only recommend, not order, remedial action.

syndrome. People in far away places cannot easily be excluded from enjoying a rainforest's 'option' and 'existence' values nor its carbon sequestration services.²³

Sekhwan (1994) investigates the potential of various mechanisms to reward Papua New Guinea landowners for global benefits derived from the maintenance of biodiversity within their forests. The problems and countervailing pressures identified, suggest that short- term prospects for successful application of such mechanisms are generally poor.

Foreign interests are increasingly imposing their environmental concerns through the demand side of the timber market. According to the International Tropical Timber Organisation's Target 2000, all exported tropical timber is to be sourced from 'sustainably' managed forests by the year 2000 (ITTO 1 990:i). Environmental pressure groups and government timber purchasing policies in developed countries have prompted timber trade associations to develop sustainability criteria and audit systems to enable 'eco-labelling' of timber. The prospect of these measures taking hold has provided landowners with a perverse incentive to harvest their forests as quickly as possible to beat the Year 2000 deadline.

Where global interests in maintaining Papua New Guinea's forests fail to establish real markets for landowners, the state may need to intervene to protect the national interest as far as it is aligned with these global interests. For example, the nation may have an interest in honouring commitments under environmental conventions, avoiding the consequences of global warming and in capturing donor funding conditioned upon forest conservation efforts.

Reconciling local, future, national and global interests

While a strong argument can be made that custom should define the local public interest, non-local interests external to the market, require protection through state intervention. The state could intervene unilaterally as a regulator (eg through mechanisms such as the proposed national forest plan, provincial harvest limits and statutory revenue system). Alternatively it could seek to negotiate contract-based outcomes with the other stakeholders (eg through forest management agreements with landowners and project agreements with landowner and logging companies).

Under the latter approach, the state could retain its monopoly power to make forest management agreements with landowners as its negotiating base. Landowners would also negotiate from a position of strength due to their property-based veto over logging. Where agreement is not reached, no logging could proceed. The state's fragile rule over remote areas would serve as a pressure against its adoption of belligerent negotiating positions. The alternative of restricting landowners with detailed regulations and nationwide plans, is flawed by inflexibility and the state's poor enforcement capacity. Customary autonomy and resource rights would face the threat of creeping regulation, with landowners having no comeback other than to defy the imposed rules.

Protection of the right of landowners to bargain in their own interest is particularly important given the government's limited accountability to the electorate. In Papua New Guinea, political success depends primarily on maintaining support in the local electorate and has little dependence on party politics. Politicians, including Ministers, derive personal legitimacy from delivering goods and services to their electorate and have little interest in the wider legitimacy of government (Jackson 1992:82, Oh 1995:10). Thus the Westminster systems of executive responsibility and parliamentary democracy are less able to check government actions. Landowners need property rights derived from custom as a means of checking the government where the ballot box fails to do so.

Whereas regulations tend to be inflexible and insensitive to local circumstances, negotiation can be a "quick, flexible and less adversarial means" of managing land-use conflicts (Commonwealth of Australia 1993:102). The conflict generated by the state's proposal to impose a statutory revenue system illustrates this point. Had the state and FROA (or individual landowner companies) sought to negotiate new revenue

²³ 'Existence value' refers to the non-consumption benefits derived from the mere knowledge that a thing exists. 'Options value' refers to the benefit in keeping future use options open by not destroying a thing (eg undiscovered uses of existing species).

arrangements, they might have found an acceptable compromise on the issue of landowner company accountability while advancing their mutual interest in extracting a higher share of rent from the logging companies (see Simpson 1996).

A negotiation process should help landowners acquire political, administrative and technical skills. Landowners should also have better awareness of environmental safeguards and enforcement rights if they have had to negotiate for them.

The difference between a negotiated settlement of competing local and national interests and a regulatory solution can be illustrated through the example of environmental impact assessment. In a negotiated settlement, the landowners would have freedom to decide whether the conduct of an environmental impact assessment is in their interest and, if so, who should do it. In this context it is important to note that even if the developer pays for the study, it will not come free to the landowners. If the project goes ahead, the cost of the environmental impact assessment will reduce the economic rent available for division between the developer and landowners. If the assessment requirement is not imposed but negotiated, landowners can bargain for a process that meets their need to define the local interest as well as the states needs. For example, the environmental impact assessment might be jointly managed by the landowners and the developer although the developer pays for it.

Landowners will also have to negotiate with logging companies in a contractual framework. Through the forest management agreement they will need to entrench their right to be actively involved in the formation of an operating entity or in contracting logging expertise. Yet past experience confirms the vulnerability of landowners in dealing with logging companies. By playing a prominent role in setting up landowner companies, foreign logging interests were able to "install" sympathetic directors and clan agents. By handing out inducements and advances, the logging companies were able to compromise the ability of landowner representatives to negotiate at arms' length. Logging companies were able to exploit the volatility of local politics to push quick agreements. Landowner leaders of the moment were keen to entrench their prominence while they had the chance. Some representatives were illiterate, many had no business experience, and nearly all had very limited knowledge of the logging industry and the complexities of legal contracts.

To avoid these problems, the state could take steps to improve the bargaining strength of landowners, without attempting to bargain on their behalf. Measures to strengthen the landowner negotiation capacity could include -

- publication of model contract provisions;
- legislation providing for court review of manifestly unfair contracts;
- redirection of government planning and enforcement resources to landowner capacity strengthening;
- finance arrangements where landowners can borrow against future income to pay for preliminary investigations and professional advice; and
- founding a non-government negotiation service for landowners (perhaps funded by international donors).

Yet in any system where the use and management of forest resources is resolved through negotiation, landowners will ultimately have to look after themselves. In the end they will be negotiating against the state. The state's recent move to raise export tax but not royalties shows very clearly that it is a competing stakeholder not a benefactor. As Wolfers (1992:244) notes, "interests which [rural landowners] might wish to oppose have little reason to help them to express or organise themselves".

Conclusion

Proposed Papua New Guinea timber industry 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. This paper suggests the reforms were not justified in any event.

Where customary authority still functions, it displaces the need for state intervention. If custom can divine the public interest at a local then the state should limit its role to the provision of technical information to assist that process. Where custom is failing locally, the state can try to either reinstate customary authority or usurp its role in resolving local resource management conflicts. The latter is what the state has attempted, without success, through the stalled forest reforms.

This experience suggests that the state should be cautious in assuming custom's demise. Custom's resilience and pervasive influence should not be underestimated. 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 introduced ideals of participatory democracy. Furthermore, 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 sparked the rise of landowner companies in the first place.

The state can claim a legitimate role in balancing local landowner interests with the national interest, though the forestry experience suggests that it lacks the political confidence and enforcement capacity to impose its will over resources on customary land. A negotiated resolution of national and local interests would seem to be a more realistic and sensitive approach. Landowners can then assert their property rights to protect the local public interest. The alternative of unilateral state regulation leaves them exposed to the dictates of Ministers who lack accountability beyond their own electorates and urban bureaucrats who will tend to favour national or provincial concerns over local ones.

The above 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 revenue. 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 negotiations. 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. For existing agreements, the parties can rely on periodic review Causes and the transitional review power in the *Forestry Act* (S. 137) to negotiate project reforms. The code of logging practice will serve as a useful standard for incorporation in new or revised agreements.

The state's purpose would thus transform from regulator to stakeholder. To ensure that landowners are sufficiently organised and informed to participate effectively in project negotiation and enforcement, the state may also wish to provide extension services to landowners, again redeploying resources formerly allocated to its regulatory function. Yet landowners should not count on such assistance, nor accept it without question, given the state's conflicting interest as a stakeholder. The bottom-line is that landowners are the only party with a direct interest in local impacts. Landowners may have to endure the disadvantages of poor bargaining strength and technical incapacity for the greater gain of retaining the right to negotiate for the protection of their interests and of developing their own capacity in the long term.

References

- Allen, BJ, Bourke RM & Hide R, 1993, *Agricultural systems of Papua New Guinea*, Department of Human Geography, Australian National University, Canberra.
- Axline WA. 1993, *Governance in Papua New Guinea – Approaches to Institutional Reform*, INA/NRI Discussion paper, Port Moresby.
- Barnett T, 1989, *Final Report of the Commission of Inquiry into Aspects of the Forest Industry*, Port Moresby.
- Boer BW, 1990, 'Some legal and ethical issues', in Boer BW & Somes (eds), *Property Rights and Environmental Protection*, Environmental Institute of Australia Inc., Melbourne.
- Cameron AL & Vigus TR, 1993, *Regeneration and Growth for the Moist Tropical Forest in Papua New Guinea and the Implications for Future Harvest*, CSIRO, Brisbane.
- Commonwealth of Australia, 1993, *Mabo Discussion Paper*, AGPS, Canberra.
- Duncan, RC, 1994, *Melanesian Forestry Sector Study*, Australian International Development Assistance Bureau, Canberra.
- Filer, C 1990, The Bougainville rebellion, the mining industry and the process of social disintegration in Papua New Guinea, in May RJ & Spriggs M (eds), *The Bougainville Crisis*, Crawford House, Bathurst.
- Fingleton J, 1993, Conservation, Environment Protection and Customary Land Tenure, in Alcorn J (ed), *Papua New Guinea Conservation Needs Assessment, Volume 1*, Biodiversity Support Program, Washington DC.
- Harding, TG, 1972, Land Tenure, in P Ryan (ed) *Encyclopaedia of Papua and New Guinea*, Melbourne University Press, Melbourne.
- Hedemark M and Sekhran N, 1994, Overview of Current Conservation Oriented Policies, Legislation and Interventions, in Sekhran N & Miller S (eds), *Papua New Guinea Country Study on Biological Diversity*, Department of Environment and Conservation & Africa Centre for Resources and Environment, Waigani.
- Hide R, 1990, *Kandrian Gloucester Integrated Development Project, Community Development – Working Paper K*, Australian International Development Assistance Bureau, Canberra.
- Hviding E, 1992, *Upstream Development and coastal Zone Conservation: Pacific Islands Perspectives on Holistic Planning*, A discussion paper commissioned by Greenpeace Pacific Campaign, Bergen.
- International Tropical Timber Organisation, 1990, *Guidelines for the sustainable management of natural tropical forests*, ITTO Technical Series 5, Yokohama.
- International Timber Organisation, 1995, *Elements for the Annual Review and Assessment of the World Tropical Timber Situation*, ITTO (XIX)/3, Yokohama.
- Jackson R, 1992, Undermining or determining the nature of the state, in Henningham S and May RJ (eds), *Resources, Development and Politics in the Pacific Islands*, Crawford House Press, Bathurst.
- Lakau AAL, 1994, Customary Land Tenure and Economic Development in Papua New Guinea, in Crocombe R and Meleisea M, *Land Issues in the Pacific*, Macmillan Brown Centre for Pacific Studies, Christchurch & Institute of Pacific Studies, Suva.

- Louman B and Nicholls S, 1994, Forestry in Papua New Guinea, in Sekhran N & Miller S (eds), *Papua New Guinea Country Study on Biological Diversity*, Department of Environment and Conservation & Africa Centre for Resources and Environment, Waigani.
- Oh J, 1993, Issues in Governance, in Forster M (ed), *Governance and Good Government: policy and implementation in the South Pacific*, National Centre for Development Studies, Australian National University, Canberra.
- Papua New Guinea Forest Authority, 1993, Notice to Customary Owners of Forest Resources, *Post Courier*, December 29 1993, Port Moresby.
- Papua New Guinea Forest Authority & Department of Environment and Conservation, 1995, *Final Draft Papua New Guinea Logging Code of Practice*, Boroko.
- Papua New Guinea, Minister of Forestry, 1993a, *Draft National Forestry Development Guidelines*, Document presented to the meeting of the National Forest Board in May 1993, Hohola.
- Papua New Guinea, Minister of Forestry, 1993b, *National Forestry Development Guidelines*, Hohola.
- Poore, D, 1989, *No timber without trees*, Earthscan, London.
- Power AP, 1993, Untitled paper presented for Forest Management and Planning Project Landowner Groups Workshop, 11 October 1993, Port Moresby.
- Sekhran N, 1994, Capturing Global Values for Biodiversity to Enable Conservation in Papua New Guinea, in Sekhran N & Miller S (eds), *Papua New Guinea Country Study on Biological Diversity*, Department of Environment and Conservation & Africa Centre for Resources and Environment, Waigani.
- Shedden Agribusiness Pty Ltd, 1991, *Papua New Guinea: Forest Revenue and Financial Study*, Australian International Development Assistance Bureau, Canberra.
- Simpson, G, 1996, 'Get What You Can While You Can' – Landowner and Government Relations in the Forest Industry of West New Britain, *Papua New Guinea*, Unpublished paper.
- United Nations Working Group on Indigenous Peoples, 1993, "United Nations Draft Declaration of Indigenous Peoples Rights, reproduced in Ewen, A (ed), voice of Indigenous Peoples: a plea to the world, 1994, Native American Council, New York City.
- Ward, RG & Kingdon E, 1995, *Land Custom and Practice in the South Pacific*, Cambridge University Press, Cambridge.
- Whimp K, 1995, *Representative Resource Owner Bodies for Forestry Projects, Forest Management and Planning Project*, PNG Forest Authority, Boroko.
- Wolfers EP, 1992, Politics, development and resources: reflections on constructs, conflict and consultants, in Henningham S & May RJ (eds), *Resources, Development and Politics in the Pacific Islands*, Crawford House Press, Bathurst.