

What constitutes illegal logging?

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Senator Eric Abetz, Australia's Minister for Fisheries, Forestry and Conservation, in his forward to the discussion paper *Bringing down the axe on illegal logging* (Australia 2006), states that there are 'significant volumes of illegally sourced timber and timber products that continue to be imported into this country [worth] an estimated (over) \$400 million'. The Finnish consultancy firm, Jaakko Pöyry Consulting (JPC), provided this estimate in their report to his Department (Jaakko Pöyry Consulting 2005). This 'Comment' evaluates the JPC estimate and suggests that it is influenced by the Australian Government's objective to promote the growth of Australia's domestic industry (Australia 2006:5). That objective would be advanced by removing competition from imported timber, whether legally or illegally sourced, by outright bans, or by requiring countries like Indonesia and Papua New Guinea to undertake costly certification programs that would reduce the competitiveness of their timber relative to Australia's higher-cost domestic industry.

This link between attacks on the 'legality' of logging in tropical countries and its impact on domestic timber products in other countries is even more evident in an earlier

report (cited by JPC) published by the American Forest Product Association (AFPA), *Illegal Logging and Global Wood Markets: the competitive impacts on the US wood products industry*. This report analysed illegal logging activities in Brazil, Central and West Africa, Indonesia, Malaysia, and Russia, and claimed that¹

- each year, US\$23 billion of forest products are produced globally from illegally harvested timber. About 5 per cent of that is traded internationally
- timber of suspicious origin is involved in 5–10 per cent of logs, lumber and panels traded globally
- almost 25 per cent of hardwood lumber traded globally is of suspicious origin
- almost 30 per cent of hardwood plywood traded globally is of suspicious origin, and
- if all exports associated with illegally harvested logs were curbed, the price of roundwood would increase by 19 per cent; lumber by 7 per cent; and wood panel by 16 per cent.

The final bullet suggests that what appears to be a major concern to JPC's client, the

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Australian government (representing that country's timber industry), and to the US government, is not illegal logging *per se* but its downward pressure on international timber prices. Similarly, the AFPA seized on the Seneca Creek study's claim that eliminating 'suspicious' timber from world trade would enable the United States to increase its sawnwood, wood panel and roundwood exports by over US\$460 million annually (Seneca Creek 2004:2). Thus, on 7 January 2007 the US government and the EU Commission announced a joint program to help Indonesia combat 'illegal' logging. The main aim of *Bringing down the axe on illegal logging* would appear to be to price 'illegal' logging out of Australia's domestic timber business.

The impression that it is not the legality or otherwise of forest products in countries such as Indonesia and Papua New Guinea that is of concern, but rather their competitiveness with domestic production and exports, is reinforced when close inspection of the JPC Report, *Overview of Illegal Logging*, reveals that it provides no evidence that any of Australia's imports of timber products have an 'illegal' provenance. For example, no fieldwork is cited, such as tracer studies tracking the journey of an 'illegal' log to an Australia port. Such studies are available in the Papua New Guinea case from the Swiss firm SGS, which has been monitoring Papua New Guinea's log exports since 1995 and has a system of tagging each exported log to document its provenance. SGS has found no evidence of 'illegal' logging in Papua New Guinea (see Asumadu 2006).

The JPC Report provides only 'estimates' with either no source or a source that also cites estimates. The Report's overview states that 'illegal logging' can be defined in a number of ways, for example

- harvesting without authority
- harvesting in excess of authority
- failing to report harvesting activity to avoid royalty payments or taxes
- misclassification of species or deliberate undervaluation
- violation of international trading agreements such as the Convention on International Trade and Endangered Species.

However, JPC does not identify any violations of these criteria by any exporter of timber products to Australia (or by any of the suppliers of those exporters). In defining 'illegal' logging, JPC adopt a short summary of this list, viz

Harvesting either without, or in excess of authority or in some way avoiding full payment of royalty, taxes, or charges (JPC 2005:1).

That is unexceptionable, but their overview provides no examples of consignments of timber imported into Australia that meet this definition. They also ignore the SGS evidence of no shipments of logs from unauthorised sources in Papua New Guinea, and 'full payment of royalty, taxes, or charges' in Papua New Guinea (see Asumadu 2006).

Instead, JPC provides 'Estimates of Illegal Logging' in Table 2.1, almost all sourced from anti-forestry non-government organisations, such as Friends of the Earth, whose estimate of illegal timber in the market in Indonesia is 90 per cent, Greenpeace, whose 'estimate' is that in Papua New Guinea 'it is likely that all [sic] industrial logging is illegal' (Greenpeace also repeats the Friends of the Earth figure of 90 per cent for Indonesia), and the estimate of the World Wide Fund for Nature (WWF) that in 'some countries in Southeast Asia, Africa, and Latin America, up to 80 per cent of all trees cut are done so illegally' (JPC 2005:2).

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Somewhat surprisingly, JPC admits that perhaps these estimates are less than dispassionate, as they greatly exceed the estimates of the AFPA that 'illegally produced roundwood represents between 12 per cent and 17 per cent of the volume of roundwood that enters international trade' (JPC 2005:2). Although more nuanced than the wild estimates, or guesses, of the non-government organisations in JPC's Table 2.1, the AFPA also reports only 'suspicions', with again no evidence other than the estimates of Seneca Creek (2004: Table 2.2). The Seneca Creek study does not cover Papua New Guinea, other than to estimate that 60 per cent of that country's hardwood log exports to China in 2002 were 'suspicious', as compared with the JPC claim of 100 per cent (Seneca Creek 2004:137).

JPC does not verify the estimates it cites. It is therefore quite wrong for their clients, the Department of Agriculture, Forestry and Fisheries, followed by the Australian media, to claim that its report provided hard evidence that over US\$400 million of timber products entering Australia from abroad were of illegal provenance.²

JPC simply ranked the source countries of Australia's timber product imports, first by Transparency International's Corruption Perceptions Index (TICPI), and then by JPC's own assessment of their governance and management capacity (GMC). When the TICPI gives an OECD country a low rating, implying low perceptions of corruption, JPC gives that country a high GMC rating for 'good' governance and management. If imports are from a country with the latter, its exports of timber products to Australia are deemed to be legal. It so happens that all the 'Good' countries by the JPC criterion are western or European. But if countries like Malaysia and Singapore are rated to have a low level of corruption under the TICPI, they are invariably deemed by JPC to have worse governance (GMC) ratings than their

corruption status, and then JPC considers that their total timber exports to Australia can safely be deemed illegal or at best 'suspicious'. Hence, Singapore's plywood exports to Australia contribute to the A\$400 million of 'illegal' exports (JPC 2005:8).

Canada, the United States and New Zealand score well on both the TICPI and the GMC, so their timber products can be safely accepted as legal in Australia. The Czech Republic does not score well on the TICPI, suggesting moderate corruption, but JPC rates it highly for governance and management (which may surprise those who have been there, especially as it had no government at all for the seven months from July 2006), so any sawnwood or other exports to Australia are above suspicion. Using this useful criterion, JPC has no difficulty in concluding that 8 per cent of Australia's sawnwood imports has been sourced illegally from suspicious sources, namely all of the exports from the three countries with its low GMC ranking, Indonesia, Papua New Guinea, and the Solomon Islands. No matter that much of Papua New Guinea's sawnwood (and all its woodchip) exports derive from companies based in Japan that enjoys a low TICPI, and for all, except no doubt JPC, a high GMC (JPC 2005: Table 3.1).

The joint Government of Papua New Guinea and World Bank Forestry Review (2004) found that the Japanese company that runs the Open Bay timber project in Papua New Guinea is exemplary in terms of sustainable forestry, with 80 per cent of its output from the plantation it established. However, JPC deems all timber products imported into Australia from Papua New Guinea to be illegal, even when they mostly derive from Open Bay (Papua New Guinea's raw log exports mostly go to China). Even the UK government deems timber from plantations to be sustainable, but not when sourced from Papua New Guinea. Thus the UK High Commissioner in Port Moresby

endorsed and financed (Gordon-Macleod 2006) the latest study of 'illegal' logging in Papua New Guinea (Australian Conservation Foundation 2006:2).³ The British government-funded publication of this report even though it merely recycled the Greenpeace and Forest Trends attacks on forestry in Papua New Guinea (Forest Trends 2006b:72).⁴ The ACF Report cites the claim by the JPC Report that 'around [US]\$400 million worth of illegally logged timber forest products are imported into Australia every year' (Australian Conservation Foundation 2006:6).

JPC proceeds to apply the same methodology to Australia's imports of veneers and plywood, some of which come from a former Australian company (Commonwealth Timbers, now PNG Forest Products, majority owned by a Singaporean group, but with its top management in Australia). However their Tables 3.2 and 3.3 omit Papua New Guinea, because of small volumes, and 100 per cent of such imports from Indonesia are deemed illegal on the grounds only of the country's low GMC rating, irrespective of the companies involved.⁵

In practice, JPC's estimates of the volume and value of illegally sourced timber imported into Australia derive solely from its assessment that 100 per cent of imports from a country with a low GMC rating can be considered to be illegal irrespective of the degree of integrity of the companies involved. In no case does the JPC Report refer to its own definitions of 'illegality' (see above). It is enough for a country to have 'low governance and management capacity' for all its exports, presumably not just timber, to be deemed illegal, while by implication, if its governance and management are considered only mediocre by JPC, as for Singapore, then all its exports must be deemed 'suspicious'.

Sustainable forestry

Allegations of illegal logging by forestry non-government organisations are largely dependent on their own definition of sustainable logging cycles. Given Jaakko Pöyry's reputation as forestry consultants, their report's uncritical acceptance of what constitutes unsustainable logging is surprising. Their report should have contained some reference to the standard method of determining the optimal stock of old growth forests like those in Papua New Guinea, which is based on the classical Faustmann rotation model (Conrad 1999). Had they done so they would have found that current logging rotations in Papua New Guinea are acceptable, given its climate, soils and topography.

The JPC Report's reference list omits all the independent assessments of the timber industry in Papua New Guinea sponsored by the World Bank and others in recent years. The website of the PNG Prime Minister provides the text of various of these reports; see also Forest Trends (2006) for selective summaries of reports of five separate Independent Reviews working to Terms of Reference approved by the World Bank and carried out by its approved teams of experts. Forest Trends conceded that the experts' five Reviews 'found that forest resources were being managed according to four main elements of the statutory framework, including supervision of all large-scale logging operations by the statutory Forest Authority, broad conformity with the National Forest Plan, and licensing of all large-scale operations in accordance with the relevant legislation' (2006a:14).

Unfortunately, Forest Trends then proceeded to redefine Papua New Guinea's legislation in such a way as to determine that its large-scale forestry is nevertheless illegal.

Forest Trends' determination that legally sanctioned logging operations were none-

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theless illegal was arrived at because, allegedly, the operations were not being conducted sustainably. Forest Trends' own arbitrary definition of sustainability is a logging cycle of not less than 40 years, so that even if all major licensed logging operations did conform with the terms of the respective licenses issued under the Papua New Guinea's Forestry Act in terms of prescribed logging rates, they could still be deemed illegal if they had a term of less than 40 years (as they all do because the World Bank insisted that Papua New Guinea's Forests Act of 1991 should reduce the cutting cycle from the Government's proposed minimum of 40 years to 35 years).⁶ Forest Trends provides no source or authority for their arbitrary determination that tropical forests require 40 years to regenerate. Yet tropical timber experts who have worked in Papua New Guinea and Solomon Islands have demonstrated that much shorter logging cycles are perfectly feasible and sustainably productive. For example, John McAlpine, a pioneer of satellite mapping of Papua New Guinea's timber resources, has estimated sustainable yield at one cubic metre per hectare per annum, or double the rate implied by Forest Trends.⁷

It should be noted first that plantation yields in Australia are in the range 160–300 cubic metres per hectare per annum (Sam Paton and Associates 2006), and second, that McAlpine's estimate of sustainable yield of one cubic metre per hectare per year could be considered conservative as that equates to just half a utility's load of firewood from an area as large as ten of the standard quarter-acre housing blocks in Australia. Many species indigenous to Papua New Guinea are capable of yielding much more, for example, *Acacia auriculaeformis* (tan wattle) 10–20 cubic metres per hectare per annum, *Anthocephalus chinensis*, 10–40 cubic metres, *A. klinkii* (Norfolk pine) 20–30 cubic metres, and *Eucalyptus deglupta*, 21–28 cubic metres.⁸

To claim that primary forest necessarily yields less than 10 per cent of plantation potential requires more substantiation than is provided by Greenpeace and Forest Trends.

Non-government organisations frequently claim the sustainable rotation in tropical forests is as long as 70 years; however Jant, operator of the Gogol wood chip project in Papua New Guinea's Madang province is still in business after 30 years, having established rotations of 15 years for *eucalyptus deglupta* and nine years for *acacia* (on plantations established jointly with local landowners on the previously logged primary forest area) (ODI 2007). Similarly, despite its low GMC rating by JPC, the Papua New Guinea government still manages the 8,000 hectare *klinkii* plantation established by the Australian Government in 1952 and has successfully reduced the initial rotation of 45 years to a 30–35 year cycle (ODI 2007). This plantation provides the feed for the country's only plywood operation, which mainly supplies the domestic market but whose exports to Australia would be deemed 'illegal' by JPC because the exporter is Singaporean and the country of origin is Papua New Guinea, with their less-than-perfect GMCs.

Papua New Guinea's Forestry Act states that forests are to be 'conserved and renewed as an asset for succeeding generations' while the associated National Forest Policy interprets this as requiring that timber harvesting be managed on a sustained yield basis. 'Sustained yield' is one of those feel-good phrases that are seldom if ever defined, least of all in the Forestry Act and related PNG legal instruments. That makes it easy for non-government organisations to deem that Papua New Guinea's annual log exports of 2–3 million cubic metres per annum are 'unsustainable', whereas New Zealand's annual log harvest of 18 million cubic metres is never criticised, any more than similar

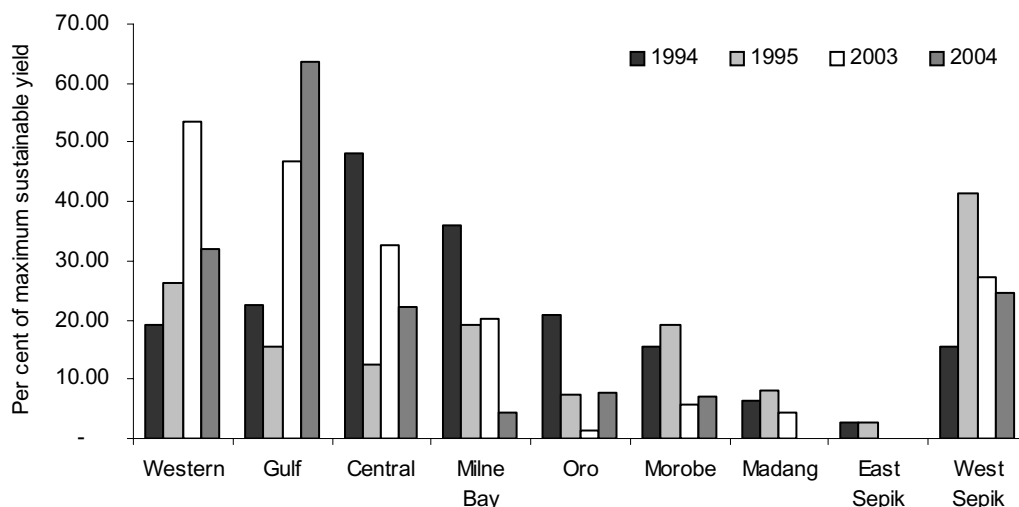
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levels in countries such as Australia, Sweden (over 50 million cubic metres a year), Canada and the United States.

It is true that logging in the latter countries is mostly on a plantation basis, while plantations provide only a relatively small, albeit growing, proportion of Papua New Guinea's log exports (more than 10 per cent in 2004). Sustainable yields are different on plantations—where yields of over 40 cubic metres per hectare a year are well documented—from what is feasible in natural forest where species, ages and hence dimensions of the tree stock are highly variable. The FAO's annual forestry report (2005) yields a rule of thumb for the potential sustainable yields of primary and plantation forests in the ratio of 1:4. Thus, plantation yields of 20 to 40 cubic metres per hectare a

year are comparable with primary forest yields of 5 to 10 cubic metres; well above McAlpine's conservative one cubic metres per hectare per annum. Yet even McAlpine's cautious estimate of the potential logging capacity of Papua New Guinea's forests and therefore of the maximum sustainable harvesting potential, has yet to be exceeded in practice. In the 1980s, before its capture by the anti-logging non-government organisations, the World Bank estimated that these forests could sustain logging at an annual rate of 6 million cubic metres, a rate more than double the average achieved since 1985. McAlpine slightly raised this estimate to 6.3 million cubic metres a year, which implies a cutting cycle of 26 years. Against that may be placed the data in Figures 1 and 2 showing Papua New Guinea's log exports

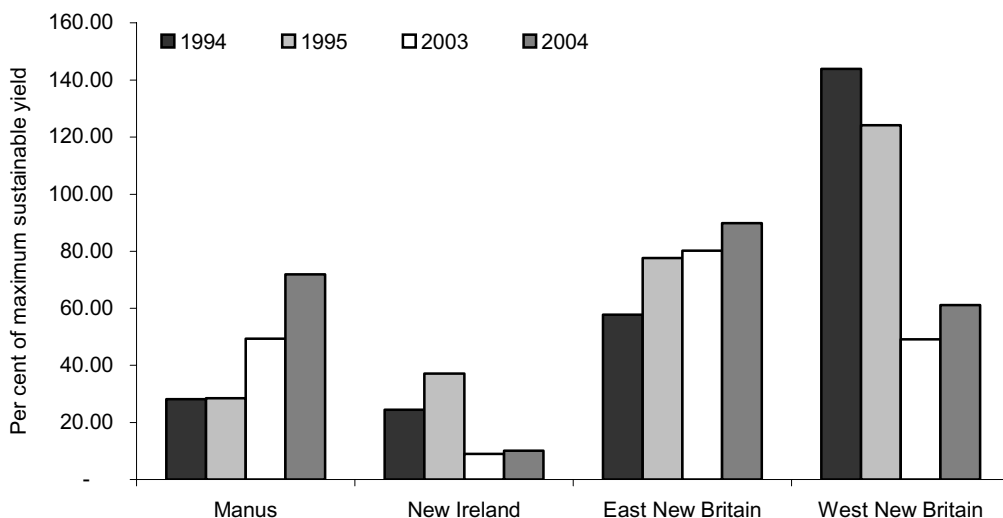
Figure 1 Papua New Guinea mainland: log exports as a percentage of maximum sustainable yield, 1994–2004



Source: Data for 1994 and 1995 from Filer, C., 1997. 'A statistical profile of Papua New Guinea's log export industry', in C. Filer (ed.), *The Political Economy of Forest Management in Papua New Guinea*, International Institute for Environment and Development (IIED) and National Research Institute, London and Port Moresby:207–48; data for 2003 and 2004 from Papua New Guinea Forest Industries Association, 'Log export statistics', Forest Industries Association, Waigani.

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Figure 2 Papua New Guinea islands: log exports as a percentage of maximum sustainable yield, 1994–2004



Source: Data for 1994 and 1995 from Filer, C., 1997. 'A statistical profile of Papua New Guinea's log export industry', in C. Filer (ed.), *The Political Economy of Forest Management in Papua New Guinea*, International Institute for Environment and Development (IIED) and National Research Institute, London and Port Moresby:207–48; data for 2003 and 2004 from Papua New Guinea Forest Industries Association, 'Log export statistics', Forest Industries Association, Waigani.

in 1994 and 1995 (the record years) and in 2003–04, mostly at less than half of the maximum sustainable annual total estimated by McAlpine (Filer 1997).

The other main basis for the claim that all logging in Papua New Guinea is illegal is the claimed lack of informed landowner consent, but this opinion is ill-informed (see Curtin and Lea 2006). There is no documented landownership in or of any part of Papua New Guinea's forest areas; the country's customary land tenure system is based on individual usufruct rights to one's own home and cultivated gardens. In the primary forest, which is the subject of logging permits, there is no cultivation, and so no usufruct.

Instead, the forest is a commons in which all living around it have rights of access for

hunting and gathering, but there are no rights of any one individual or family to exclude others. Excludability is the main criterion for determining land ownership as much in Papua New Guinea as in Australia. Ignoring this criterion it becomes all too easy for non-government organisations to find disaffected putative 'landowners' in the vicinity of a timber permit area eager to claim that they knew nothing of the project before its inception, gave no consent to it, and have gained no benefit in the form of a share of royalties paid by the logging contractor (Curtin and Lea 2006).

Yet it is clear from the Forest Review that, first, all major logging contractors have had a government-approved agreement with incorporated landowner groups before they

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can acquire Timber Rights, and second, that there are large numbers of landowners who have over the years received significant cash payments. For example, the Review reported that even at the allegedly illegal Wawoi Guavi project, the operator was compliant with the requirement to recompense landowners, to the tune of no less than US\$11.6 million by 2003 (Forest Trends 2006). If these landowners had never consented to the project, they weakened their case by accepting payments from the operator.

Conclusion

It is to be hoped that the Australian Federal Minister for Forests and his Department will reappraise what appears to have been their uncritical acceptance of—and payment for—the report by Jaakko Pöyry, lacking as it does any attempt at due diligence in the form of verifying the illegality of even a single shipment of timber products into Australia. The same applies to the British government's financial support of the equally tendentious report by the Australian Conservation Foundation. Instead of seeking to undermine the economic development of Papua New Guinea and Solomon Islands by denying access to Australia for products of by far their largest resource, the Australian and British governments would do better to help those countries develop that resource in accordance with best practice. Much of their tropical hardwood timber is not in fact competitive with Australia's, and the Australian market for processed forest products is large enough to accommodate the relatively small volumes that Papua New Guinea and Solomon Islands are able to supply, given that the main markets for their hardwood log exports are in Southeast Asia.

Australia needs to support the economies of Papua New Guinea and the

Solomon Islands. If they are not allowed to export the products in which they have a comparative advantage, Australia will deserve all it gets in terms of future foreign policy debacles in these countries.

Notes

- ¹ One of the sources for this report was the study by Seneca Creek Associates (2004) that, as normal in this field, relied heavily on a Greenpeace report (Greenpeace 2002).
- ² 'Furniture a big offender in \$450m of imports using illegally logged timber' (Philip Hopkins, Age, 3 February, 2006): 'Australia imports about \$450 million of illegally logged timber products a year. Most from Southeast Asia; main areas Indonesia, Malaysia and possibly China, consultancy Jaakko Pöyry says in a report for the Department of Agriculture, Fisheries and Forestry'. See also Greg Roberts in *The Australian*, 28 June 2006, reporting Senator Abetz' views on the extent of 'illegal' forestry in Papua New Guinea.
- ³ The racism that is only implicit in JPC's methodology is more than latent in the ACF Report, with its extraordinary attacks on Malaysian-Chinese companies' operations in all countries. When a stockbroking firm and newspaper in Port Moresby (*Kina Securities* and *The National*) are owned by Rimbunan Hijau, which is the forestry arm of the conglomerate founded by the Tiong family, then ACF implies that they are necessarily implicated in illegal activity of some kind if not logging (Australian Conservation Foundation 2006:25).
- ⁴ Although the Government of Papua New Guinea and World Bank team of experts found that Open Bay was fully compliant with all legal requirements, *Forest Trends*, using its own opinion of what the laws of the country should be, decided that Open Bay was not 'legal' (*Forest Trends* 2006a:16), on the grounds that it did not satisfy 'sustainable yield' criteria even though 80 per cent of its output was by 2004 from its plantation (*Forest Trends* 2006b:72). It seems that timber

operations in third world countries are damned if they do sustainable forestry just as much as when they do not. But then the ACF Report (2006:30) states that it is unlikely that large-scale logging 'could ever be considered a form of sustainable development in Papua New Guinea' (unlike in Jaakko Pöyry's Finland).

⁵ JPC 2005: Table 3.2. This table shows a total of 15.34 thousand cubic metres for veneer imports, of which 0.17 thousand cubic metres were from Indonesia, and 176.3 thousand cubic metres of plywood, of which 36.5 thousand cubic metres were from Indonesia. They state that 'of the 320,000 cubic metres of wood panels imported into Australia during 2003/04, approximately 11 per cent is suspected to be produced from illegally [that is, Indonesian] sourced material' (JPC 2005:8). The correct figures would appear to be 150,340 cubic metres for veneer imports, (not 15,340), and 326,640 cubic metres for total wood panel imports. Again, 100 per cent of Indonesian exports are deemed to be illegal, more even than the Friends of the Earth 'estimate' of 90 per cent.

⁶ Personal communication from Bob Tate, PNG Forest Industries Association; the World Bank had established 35 years as the norm in Indonesia and wanted uniformity. See also Filer (1998:173–79).

⁷ McAlpine estimated (see Filer 1997:221) that the forest area in Western Province with commercial potential in 1993 was 1.27 million hectares with a sustainable yield of 1.051 million cubic metres per annum. Rimbunan Hijau was awarded 448,300 hectares in 1992, or 35 per cent of that area, with a limit on its average annual cut of 350,000 cubic metres (Forest Trends 2006b:53). The Government of PNG/World Bank Review found that this allowable cut had not been exceeded, but Forest Trends still deemed that it exceeded their own criterion and was therefore 'illegal'. Rimbunan Hijau's mill using that resource raised Papua New Guinea's exports of veneer from 1,700 cubic metres in 1999 to 71,615 cubic metres in 2002 and its plywood exports from 7,000 cubic metres in 1999 to

70,083 cubic metres in 2002 (requiring total annual log inputs of around 300,000 cubic metres), and it is these increases that rile the US and Australian governments and timber industries, not to mention the European Union (see JPC 2005:8).

⁸ These data are for growth cycles in Solomon Islands (Webb et al. 1980). See also Shimamoto et al. (2004:27) who state that the cutting cycles for *A. falcataria* and *E. deglupta* are 'around 15 years'.

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