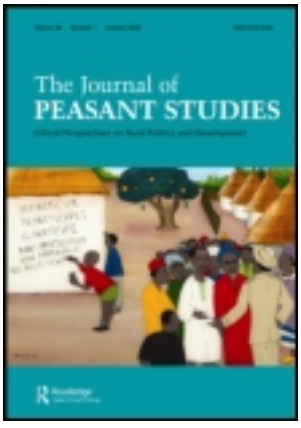

Journal of Peasant Studies
Publication details, including instructions for authors and subscription information:
http://www.tandfonline.com/loi/fjps20

Why green grabs don't work in Papua New Guinea

Colin Filer

Available online: 19 Apr 2012

To cite this article: Colin Filer (2012): Why green grabs don't work in Papua New Guinea, Journal of Peasant Studies, 39:2, 599-617

To link to this article: http://dx.doi.org/10.1080/03066150.2012.665891

The Journal of Peasant Studies
Vol. 39, No. 2, April 2012, 599–617

Why green grabs don't work in Papua New Guinea

Colin Filer

In recent years, private companies have acquired long-term leasehold titles to more than five million hectares of what was formerly customary land in Papua New Guinea (PNG), but hardly any of this land has been devoted to production of the four green commodities in which PNG might have some comparative advantage – sustainable palm oil, bio-ethanol, biodiversity and carbon credits. Nearly all of it is dedicated to so-called 'agro forestry' projects that appear to be short-term salvage logging projects justified by the promise of a purely virtual form of large-scale agricultural production. I argue that the 'agro foresters' have been more successful than the green investors because of a set of political and institutional factors that distinguish PNG from many of the other countries where land grabbing has become the order of the day.

Keywords: Papua New Guinea; land tenure; forestry; agriculture; conservation

Introduction

There is no doubt that Papua New Guinea (PNG) experienced a land grab of some sort between July 2003 and April 2011. During that period, more than five million hectares of customary land (11 percent of PNG's total land area) passed into the hands of national and foreign corporate entities through a legal mechanism known as the 'lease-leaseback scheme'. This peculiar scheme was originally devised in 1979, four years after PNG achieved its independence from Australia, as a stop-gap measure to compensate for the absence of any effective legal mechanism for the registration of customary land titles. It was later incorporated into PNG's Land Act in the form of specific provisions that enable the state to lease customary land from the customary landowners and then lease it back to these same landowners, or to other persons or organizations of which they approve, for periods of up to 99 years. The Act says that 'an instrument of lease in the approved form, executed by or on behalf of the customary landowners, is conclusive evidence that the State has a good title to the lease and that all customary rights in the land, except those which are

The author thanks Brian Aldrich (AKT Associates Ltd), Goodwill Amos (PNG Forest Authority), Damien Ase (PNG Centre for Environmental Law and Community Rights), Arthur Ganubella (PNG Department of Environment and Conservation), Moon Hong (former student at the Australian National University), Ian Orrell (PNG Palm Oil Council), Bob Tate (PNG Forest Industries Association), Ambupad Thakur (Changhae Tapioka [PNG] Ltd) and Michael Wood (James Cook University) for their contributions to the information contained in this paper, and two anonymous reviewers for their contribution to the argument.

ISSN 0306-6150 print/ISSN 1743-9361 online

http://dx.doi.org/10.1080/03066150.2012.665891
http://www.tandfonline.com

specifically reserved in the lease, are suspended for the period of the lease to the State'.

Between 1979 and 2002, the total amount of land removed from customary tenure through this legal mechanism was less than 150,000 hectares. During that period, there are only three known cases in which a substantial area of more than 10,000 hectares was covered by a single Special Agricultural and Business Lease (SABL), and in two of these cases, the lease was later revoked as a result of legal action by dissident landowners. However, the land grab that began in 2003 is marked by a steady acceleration in the rate at which customary landowners have supposedly agreed to the transfer of increasingly large areas of land to private companies, in most cases for the maximum allowable period of 99 years. In the first three years (2003–05), six SABLs were issued to private companies for more than 56,000 hectares of former customary land; in the second three years (2006–08), 32 such leases were issued for roughly one million hectares; and in the final three years (2009–11), another 30 leases were issued for more than four million hectares.

There was nothing very 'green' about this land grab. Most of the SABLs issued for large areas of more than 10,000 hectares have been for things commonly known in PNG as 'agro forestry' projects. These are projects that involve the clearance of large areas of native forest to make way for the large-scale cultivation of export crops. Local companies holding SABLs have typically aligned themselves with foreign investors who promise to use the revenues derived from logging the forest to subsidize the agricultural investment. In most cases, the foreign investors turn out to be logging companies whose interest in developing the agricultural component of an agroforestry project tends to evaporate after two or three years of forest clearance. If the recent land grab has a colour, it is surely brown, not green, and it does not even count as part of the trend that the World Bank (2010) politely described as a 'rising global interest in farmland'.

But herein lies a paradox – or at least something of a puzzle. Despite a rapid rate of population growth since 1975, PNG still has a relatively low population density (about 15 people per square kilometre); more than 70 percent of rural land is not used for any form of agricultural production (not even shifting cultivation); the country's ecosystems are commonly said to contain about 5 percent of the world's biodiversity values; and in 2005, PNG became a founding member of the Coalition for Rainforest Nations, an organization dedicated to the pursuit of carbon credits for reducing greenhouse gas emissions from tropical deforestation and forest degradation (now commonly known as REDD). One might, therefore, expect that if any kind of land grab is feasible in PNG, a big part of it ought to be green. If that is not the case, we have to wonder why.

I shall not try to answer this question by referring to the growing body of literature that explains why green land grabs of various sorts have been taking place in other countries. This would be a long and circuitous path to the identification of obstacles that are more readily identified in a straightforward account of PNG's own physical and institutional landscape. What I shall do instead is to describe the obstacles that have in fact confronted four types of corporate investors distinguished from each other by the nature of their 'green products' – sustainable palm oil, bio-ethanol, biodiversity and carbon credits. To set the scene for this description, I shall first explain how the obstacles arise from an incomplete process of territorialization (Vandergeest and Peluso 1995), through which thousands of tribal slots (Li 2000) have been partially colonized by an indeterminate number of incorporated land

groups and landowner companies representing a nation-load of customary landowners. Having shown how each type of green investor is spatially confined by this multitude of indigenous interest groups, I shall then return to the question of whether and how the 'agro foresters' have managed to escape such confinement.

The ideology of landownership

Incorporated land groups (ILGs) are normally the entities that lease land to the state under the lease-leaseback scheme and ILGs may also be the entities to which that same land is leased back. However, ILGs are incorporated under a different law, the Land Groups Incorporation Act of 1974. While most of the provisions of the Land Act are part of the legal regime inherited from the Australian colonial administration, the Land Groups Incorporation Act was one of a number of laws enacted around the time of Independence that was meant to realize the fifth goal of the National Constitution, which is 'to achieve development primarily through the use of Papua New Guinean forms of social, political and economic organisation' (Filer 2007, 137).

In a strictly legal sense, an ILG is a 'customary group of persons' whose corporate nature has been officially recognized by the state. The first step in the process of recognition is a notice published in the *National Gazette* recording the application by a customary group to be incorporated under a certain name. This notice normally describes the group as a 'clan' whose members belong to a particular 'village' and claim ownership of some land in a particular local government area. If this claim is not challenged within two months, the Lands Department will grant a certificate of incorporation. No one seems to know exactly how many of these 'incorporated clans' are currently recognized by the state. There have been roughly 18,000 applications for incorporation published in the *National Gazette* and nearly all of these will have been successful, but the legislation allows for groups to be 'wound up' in a variety of circumstances. Although notices of dissolution are also published in the *National Gazette*, no one seems to have taken the trouble to count them, nor does the Lands Department publish any summary statistics on this matter. What does seem clear is that the number of ILGs has grown dramatically since 1992, when there were only eight of them (Whimp 1995, 67).

The proliferation of ILGs over the past two decades can partly be explained by changes in the laws regulating the logging industry and the oil and gas industry (Filer 2007). The Forestry Act of 1991 expresses a strong preference for ILGs to be the vehicle of landowner consent to a Forest Management Agreement (FMA) that transfers timber harvesting rights to the state in return for royalties and other benefits from a commercial logging operation, which the state alone can authorize. The Oil and Gas Act of 1998 expresses a similar preference for landowners to be organized in this way before they can receive such benefits from the exploitation of hydrocarbon resources that are legally owned by the state itself. The lease-leaseback scheme under the Land Act is, therefore, one of three legal incentives for such proliferation. And since the brown land grab has mainly been directed towards the removal of timber from areas that are not covered by the FMAs which now cover roughly 4.5 million hectares of customary land, it seems reasonable to assume that most extant ILGs are creatures of the forest.

Filer (1997, 2007) has argued that 'landowning clans' are figments of an ideology of landownership that may draw part of its inspiration from the fifth goal of the

National Constitution, but also reflects the social relations of 'resource development' in the rural areas where most people still reside. In this aspect of the post-colonial imagination, every automatic (or indigenous) citizen of PNG counts as a 'customary landowner' by virtue of his or her membership in one of the multitude of clans that each own one portion of the country's total land area. Even the small amount of land that was alienated during the colonial period (less than 3 percent of the total land area) can still be represented as the subject of these customary claims, and no land anywhere is free of them. Each 'customary group of persons' is then conceived as a landlord waiting to collect a rent from the development of natural resources on or underneath its block of land.

In this conception of the world, the clan is the basic unit of social and political organization within the nation-state. In the current division of political space, each clan belongs to a village, which belongs to a council ward, which belongs to a local government area, which belongs to one of the 89 open electorates and, hence, to one of the 20 provincial electorates that have members representing them in the national parliament. This can be understood as a neo-traditional division of political space if a distinction is drawn between those council wards, mostly in rural areas, that count as modern versions of traditional political territories, and the much smaller number, in both rural and urban areas, that do not. Between 5,000 and 6,000 council wards count as traditional political territories in this sense because most of their residents would count as customary owners of the land on which they reside. In the national imagination, the collection of customary landowners and landowning clans in each of these wards is the remnant of a sovereign 'tribe' that existed before the establishment of the colonial state. If each indigenous person belongs to one and only one of these pseudo-tribal entities, then each of PNG's modern 'tribes' would have between 1,200 and 1,400 members, most of them living on their own customary land, some living elsewhere. And if the whole of the national land mass is divided between these pseudo-tribal territories, the average size of each one would range between 7,500 and 9,000 hectares.

In theory, it should be possible to assign each extant ILG to one of these neo-traditional political communities and then, by making the further assumption that all the clans in any one community are either incorporated or not incorporated, it might be possible to determine the proportion of the total land area that is owned by ILGs, the average area owned by each of them, and the number of unincorporated clans that might therefore exist in the space where ILG formation has not yet begun. The total area of land on which extant leases and licences have been granted on the assumption of a prior process of ILG formation accounts for roughly 25 percent of the country's land-mass. If there are currently 17,000 ILGs officially recognized by the Lands Department, there could be room for three times that number to be added to a list of all the nation's modern 'clans'.

But things are not so simple. The many thousands of ILGs that now exist have not been required to indicate the extent of their landholdings as a condition of their incorporation. As a result, it is possible for the same piece of land to be owned (or at least claimed) by any number of ILGs. Furthermore, despite the ideology of landownership, it is also possible for individuals to belong to any number of ILGs or to be represented as such (with or without their knowledge) by those individuals who make the applications for incorporation. Certificates of incorporation are therefore only evidence that some individuals have been allowed to represent the customary owners of some unspecified piece of land in a certain part of the country. Nor is there

any way to determine what proportion of ILGs have been established by people hoping to collect some rent from a process of resource development for which no lease or licence has yet been granted by the state.

The indeterminate status of ILGs as constituent parts of neo-traditional political communities has not prevented their certificates of incorporation from becoming a sort of paper currency in the world of indigenous economic enterprise (Weiner 2007, Bell 2009). That is because many of them are registered as shareholders in what are commonly known as 'landowner companies', that is to say, companies whose official records commonly show that they have little or nothing in the way of tangible assets aside from their 'ownership' of these customary shareholders. One of the main innovations of the new Forestry Act was to remove the right of such companies to deal in timber rights over customary land: they could not be parties to FMAs and were no longer allowed to participate in 'private dealings' between landowners and foreign logging companies. Twenty years have now passed since the Act came into effect, but landowner companies still act as if they have the rights that were supposedly denied them. The key to their success has been the capacity of their directors to function as the clients or allies of national politicians and foreign investors by manipulating the various pieces of paper which appear to represent the wishes of their shareholders (Holzknecht 1998, Bell 2009).

The growing evidence of corruption in this virtual forest of corporate bodies was one of the factors behind the national government's decision to establish a National Land Development Taskforce in 2005. This body, which included representatives from both the public and private sectors, failed to notice such evidence in the operation of the lease-leaseback scheme, but it did recommend substantial amendments to the Land Groups Incorporation Act to prevent the registration of spurious ILGs and oblige applicants to provide a lot more information about their assets and their membership (GPNG 2007, 92–5). It also recommended that legal provision be made for ILGs to register titles to their land. Legislation incorporating these proposals was passed by the national parliament in 2009, much to the annoyance of the green populists who are opposed to any form of territorialization (Anderson and Lee 2010). However, these amendments had yet to be made effective when pressure from a rainbow coalition of stakeholders, including the green populists and the erstwhile members of the Taskforce, forced the national government to announce that the lease-leaseback scheme would be suspended until a commission of inquiry had investigated the allegations of abuse (Filer 2011a). In theory, the amended land legislation should have the combined effect of making the lease-leaseback scheme redundant, since customary landowners should be able to register their own titles to their own customary land without granting any sort of title to the state (Moore 2011). However, the law would require that all existing ILGs be reincorporated within a five-year period or else be wound up, and many people doubt the capacity of the Lands Department to manage this process of reincorporation.

It is evident that the PNG government does not entirely lack the ambition or the power to engage in a territorialization of rural land rights and resource development, yet this engagement has not led to the articulation of specific forms of tribal or indigenous identity in opposition to specific forms of resource development in particular parts of the countryside. Instead, it has created a single form of national identity, which is the ideal type of landowner who inhabits a uniform world of customary social groups. But beyond this semblance of uniformity, actual rights in

customary land remain quite opaque to those 'landowners' who make up the country's laws and policies, and the various arms of executive government continually fail to make these rights more legible.

Four forms of green confinement

I now turn to an examination of the ways in which the four types of corporate investors have tried to make their way through this messy institutional landscape in order to gain control over parts of the physical landscape and the reasons why their efforts have only met with a moderate reward. The two types of investors in the agricultural sector need access to land in a more complete and exclusive sense than the two types of investors in the conservation sector, but all four need to assert some sort of control over the people who claim customary ownership of the land in question and all four need to maintain such control for long enough to make their investment worthwhile. And they generally have to do this with little or no assistance from politicians and public servants, who number themselves amongst the ranks of the nation's customary landowners.

Sustainable palm oil

The established oil palm industry in PNG currently accounts for roughly 1 percent of global palm oil production, but more than one third of the global output that has been certified by the Roundtable on Sustainable Palm Oil (Nelson *et al*. 2010). One company, New Britain Palm Oil Ltd (NBPOL), operates five schemes in five different provinces and accounts for roughly 85 percent of national output; the remaining 15 percent is produced by a second company, Hargy Oil Palms Ltd. In 2010, the two companies exported about 485,000 metric tonnes of crude palm oil and derivative products, all of which was shipped to Europe. Their joint interest in developing and maintaining a global reputation for environmental sustainability and corporate responsibility is partly based on a straightforward economic calculation. Their costs of production are too high for them to compete with Malaysian and Indonesian producers in markets where certification carries no price advantage (Ian Orrell, personal communication, February 2011). Since the certification of their products has created an obligation to ensure that their activities do not lead, directly or indirectly, to the clearance of native forests, especially those with high conservation value, PNG's existing producers have been in the vanguard of opposition to those agroforestry projects that promise to plant more oil palm as a pretext for logging such forests.

This does not mean that the established oil palm industry has no interest in the acquisition of additional rights over customary land. The nucleus estates in the six current schemes have all been established on land that was purchased from its customary owners during the colonial period; their combined area is less than 60,000 hectares. Three of these schemes have migrant smallholders attached to them on small (six-hectare) family blocks that were also alienated during the colonial period; the combined area of these blocks is roughly 6,000 hectares. The total area planted with oil palm began to exceed this area of alienated land in the 1990s as the nucleus estate operators were able to expand the supply of fresh fruit bunches from so-called 'village oil palm' planted on customary land. However, this form of production did not entail any immediate transformation of customary land rights, nor did the

smallholders have much incentive to maintain a constant or rapid rate of growth in their output (Koczberski *et al*. 2001). In 1998, the industry opted to make use of the lease-leaseback scheme to develop so-called 'mini-estates' on customary land in order to increase the total land area committed to a more efficient form of production. However, industry representatives would say that their application of the scheme does not count as a land grab of any kind because it has consistently placed all SABLs in the hands of ILGs and not in the hands of landowner companies (let alone foreign companies).

In this application of the scheme, former (white) government officials with a thorough knowledge of PNG's land legislation have been engaged as consultants to organize the entire process by which land groups are incorporated, then lease blocks of land to the state, then lease it back from the state, and then grant sub-leases to the nucleus estate operators on terms negotiated between the parties (Oliver 2001). The period of the leases and sub-leases was limited to 40 years on the assumption that oil palm has a 20-year life cycle. The volume of intellectual labour invested in this version of the lease-leaseback scheme is reflected in the slow rate of growth in the total area of mini-estates that have been established in this way. By the end of 2000, an area of more than 10,000 hectares had been established in the vicinity of three of the five oil palm schemes that were then in operation, but this figure was artificially inflated by the creation of one large mini-estate of 6,000 hectares – the largest created to date. Ten years later, the total area converted or in the process of conversion was roughly 32,000 hectares (Ian Orrell, personal communication, January 2011). The rate of conversion seems to have been decelerating since the idea of the mini-estate was first mooted in 1998.

This deceleration is partly due to the very standards of sustainability that the industry has now imposed on itself. A recent interpretation of satellite images from 1989 and 2000 found that more than 43,000 hectares of land on the island of New Britain (or 15 percent of the whole island) had been converted to 'plantations' during that period, almost three quarters of which had been 'forested' in 1989 (Buchanan *et al*. 2008, 60). The planting of additional oil palm in the two schemes operating in West New Britain Province would account for most of this conversion. The industry has since made a commitment to ensure that '[n]ew plantings since November 2005 . . . have not replaced primary forest or any area required to maintain or enhance one or more High Conservation Values' (RSPO 2006, 40). Under standards specific to PNG, another commitment has been made to ensure that further expansion of the planted area should 'actively seek to utilize previously cleared and/or degraded land', that '[p]lantation development should not put indirect pressure on forests through the use of all available agricultural land in an area', and that 'independent smallholders must not establish plantings on lands containing one or more HCVs or covered by primary forests' (RSPO 2008, 45).

It should now be clear why the established oil palm industry is so concerned about the brown land grab. First, its own use of the lease-leaseback scheme has been tainted by association with the land grabbers, who seem to have saved themselves the expense of securing the informed consent of customary landowners to a complex sequence of transactions that takes a long time to yield new leasehold titles to relatively small areas of land. Second, it faces another type of reputational risk because oil palm is the crop of choice for many of the proponents of agroforestry projects, and if these are only logging projects in disguise, the existing industry will be further tainted by association with forms of deforestation that it has undertaken

to avoid. And last but not least, it faces an awkward dilemma when the proponents of these new 'oil palm' projects ask to purchase oil palm seed from NBPOL, which happens to be one of the world's main producers and exporters of this particular commodity (Nelson *et al*. 2010, 12).

One might wonder why the agroforesters would bother to purchase oil palm seed at all if they have no intention of producing any palm oil. The simple answer is that this serves to distract the local landowners while their development partners get on with the serious business of forest clearance. In recent years, there have been regular newspaper reports of nurseries being established and seedlings being transplanted. But there are also well-documented cases of baby oil palms abandoned like weeds in the care of disgruntled landowners once the foreign investors have completed a number of log shipments. The first example of this practice occurred on one of the three large areas covered by an SABL before the new land grab started in 2003 (Filer 1998, 198); the second occurred on the second of the large areas to be covered by an SABL during the course of this new land grab (Filer 2011a, 10).

The moral hazards that confront the existing industry have been compounded by the fact that PNG has its own domestic version of the global campaign against the evils of oil palm, and local non-governmental organizations (NGOs) involved in this campaign have an important role in opposing the brown land grab. One of these NGOs, the Centre for Environmental Law and Community Rights (CELCOR), has provided legal advice to groups of dissident landowners mounting court challenges against some of the larger SABLs granted to private companies. In 2009, CELCOR made a complaint to the World Bank Inspection Panel about one of the Bank's few remaining investments in the oil palm industry, which is a loan to the PNG government for the Smallholder Agriculture Development Project (WBIP 2010). One of the arguments in the complaint was that the project would encourage further acts of deforestation in some of the existing oil palm schemes.

The established industry's concern about the true motives of the companies that have secured SABLs for big agroforestry projects is not only based on suspicion of the methods by which they have gained access to customary land, but also on doubts about the technical and economic feasibility of their agricultural project proposals. Industry sources estimate that the capital cost of an entirely new oil palm scheme in PNG would be close to US$100 million, and only one or two of the recent project proponents have looked like they could access this amount of capital (Ian Orrell, personal communication, February 2011). If the investor had to remove some primary forest from such an area, the project would not be certified as sustainable, the price premium would be lost, and production costs would have to be cut back if the enterprise were to stand a chance of making a profit. However, a cursory examination of proposals for new oil palm schemes reveals that most of them would face environmental constraints, such as poor soil or high rainfall, which are greater than those faced by the six existing schemes and would, therefore, tend to raise production costs.

The rainbow coalition of interest groups that has emerged in opposition to the brown land grab includes representatives of the existing oil palm industry as well as their most outspoken critics in the national NGO community. The key point at issue between these two groups has been the sale of oil palm seed to the new generation of agroforestry projects. Industry representatives have argued that their refusal to sell seed to companies that have not been convicted of any wrongdoing would itself be a violation of national and international rules of trade and, in any case, if their refusal

caused the buyers to purchase seed from other countries, that could expose the existing industry to diseases from which it has so far been protected by quarantine regulations. The environmentalists have continued to attack the existing industry in public, while privately demanding that their new-found 'allies' suspend the sale of seed as evidence of their good faith. An opportunity for compromise was created when the commission of inquiry was announced in May 2011. This enabled the industry to impose some limits on the sale of seed to some of the agroforestry projects under investigation. However, the moratorium then imposed on the grant of new SABLs made no special exemption for the leases organized around existing oil palm schemes. So, the cumbersome process of expanding these schemes through the creation of mini-estates also ground to a halt.

One biofuel project

Neither the real nor the virtual forms of palm oil in PNG has so far been described as a biofuel feedstock. A national newspaper editorial in October 2011 heaped praise on jatropha as 'the wonder plant of the next decade or so, in PNG at least', but only in the context of complaining that none had so far been planted except in a few trials conducted by the Department of Agriculture and Livestock (*The National*, 12 October 2011). Jatropha has figured as one of the crops mentioned in agroforestry project proposals, but no equivalent of the oil palm nurseries has so far been reported. In all of the five million hectares of former customary land now covered by SABLs granted to private companies since 2003, there are only 33,000 hectares where the foreign investor is quite clearly a company with a genuine interest in the production of biofuel, and in that case, the primary feedstock is cassava.

In 2005, after almost two years of negotiations, PNG's Prime Minister, Michael Somare, signed an agreement with Changhae Ethanol Corporation, a South Korean company, to develop PNG's first bio-ethanol project (Filer 2011a, 12). Korean newspapers reported that the PNG government had agreed to grant Changhae a local monopoly over ethanol production, along with state subsidies and tax concessions, while the company undertook to build five factories with a combined annual output of 200 million litres of ethanol (Moon Hong, personal communication, March 2009). PNG newspapers reported that Changhae would invest US$6 million in the commercial cultivation of cassava, to be followed by the construction of the first bio-ethanol plant at a cost of US$26 million, which would create 5,000 jobs for local people. The Secretary of the Department of Agriculture and Livestock reportedly said that domestic consumption of ethanol would help PNG meet its greenhouse gas targets under the Kyoto Protocol, while Changhae's chief executive officer reportedly said that the project would help local farmers become 'biofuel sheiks' (*The National*, 12 December 2006). By 2007, the government's excitement was reflected in a calculation that the project would now be worth as much as US$90 million (Filer 2011a, 12). However, four years later, the company had not been able to start work on the construction of even the first factory (Ambupad Thakur, personal communication, October 2011).

The original agreement made provision for Changhae to gain access to 20,000 hectares of land in Central Province and at least as much again in New Ireland Province. In December 2006, an SABL of 20,000 hectares of land in New Ireland Province was issued to a company called Cassava Etagon Holdings Ltd for a period of 99 years. Two months later, in February 2007, SABLs for seven tracts of land with

a combined area of roughly 13,000 hectares in Central Province were issued to a company called Changhae Tapioka (PNG) Ltd for a period of 40 years. These are amongst the few cases in which SABLs have been granted directly to a foreign investor, rather than a local landowner company or ILG. The balance of Changhae's land requirements in Central Province was met by the grant of separate leasehold titles over blocks of state land that had been purchased from the customary owners during the colonial period.

Changhae's biofuel project does not count as an 'agro forestry' project since there is very little in the way of primary (or even secondary) forest left on the land that the company has acquired. The 20,000 hectares in Central Province have never been subject to any kind of large-scale logging activity, so logging is not responsible for this lack of forest cover. The 20,000 hectares in New Ireland Province were 'selectively' logged in the 1980s and 1990s and were then subjected to another round of 'salvage' logging between 2000 and 2004. This last activity might have been described as a sort of agroforestry project because the forest clearance was justified as preparation for an oil palm scheme that never materialized, but it seems to have been conducted under a Timber Rights Purchase agreement that dates from the late colonial period (Filer 2011b, 7). The distribution of costs and benefits from previous logging operations in this area has long been the subject of internal disputes amongst the customary owners. The persistence of such disputes is thought to be one of the reasons why Changhae has made no progress with its plans for the area since the SABL was granted in 2006.

A little more progress seems to have been made in Central Province, where the project nursery site had already been established at the beginning of 2008 (Filer 2011a, 13). In September that year, Changhae was said to have 40 staff employed on its nucleus estate, with eight local university students helping to develop the project as part of their studies. The plan was to export the first shipload of cassava chips to one of the company's Korean ethanol plants in 2009 and to finish construction of the local factory within five years. The 20 hectare nursery was expected to yield 1,000 tonnes of cassava, including the planting material required for the next 500 hectares of the nucleus estate to be planted in the following year.

Little progress has been made since then; only 300 hectares of state land have so far been planted with cassava. The current project manager maintains that this is due to the inability of national government agencies to achieve any sort of consensus amongst the squatters and landowners who reside on the combination of state land and customary land that was earmarked for the project (Ambupad Thakur, personal communication, October 2011). Managers of the two oil palm companies have long since learnt that politicians and public servants cannot be expected to resolve this type of problem without the active support of company staff or consultants.

Biodiversity conservation zones

Only one of the 73 SABLs granted to incorporated bodies other than ILGs between July 2003 and April 2011 was granted to an entity whose title suggests that the lease might have been granted for the purpose of biodiversity conservation. This was in fact the last SABL to be granted before the national government announced its commission of inquiry in May 2011. The *National Gazette* records the name of the entity as Nungawa Rainforest Management Alliance Ltd and states that the area covered by its 99-year lease is approximately 110 hectares of land in East Sepik

Province. This sounds like a community-based organization dedicated to the protection of a small area of rainforest. It is certainly hard to imagine that any sort of agroforestry project would be feasible on such a small area of land. But it is far more likely that someone has made a typographical error and the land covered by this lease is the 110,000 hectares that 370 ILGs are said to have made available for the development of the Nungwaia-Bongos agroforestry project (*The National*, 23 February 2011).

There is one simple and obvious reason why organizations with an interest in biodiversity conservation would not have tried to make use of the lease-leaseback scheme to achieve their aims: in rural areas at least, there has been a general assumption that SABLs are granted for some sort of agricultural activity. The conservation of indigenous agricultural systems has not been a high priority for people interested in the conservation of PNG's biological diversity, nor would anyone see much benefit in alienating customary land for this purpose. The only reason for conservationists to contemplate a broader definition of the activities that could be authorized or controlled under the cover of an SABL is the weakness of the institutional framework that currently allows for the creation of protected areas.

When the PNG government ratified the Convention on Biological Diversity in 1993, the National Executive Council directed that 20 percent of the country's land area should be allocated to protected areas. At that time, about 800,000 hectares of land (less than 2 percent of the total land area) and 300,000 hectares of sea lay within the boundaries of protected areas officially recognized by the state. Since then, about 650,000 hectares of land and 25,000 hectares of sea have been added to the national stock of protected areas. So, the proportion of the total land area that is formally protected has risen from less than 2 percent to just over 3 percent since 1993.

Areas protected under the Land Act or the National Parks Act must by definition be areas of public land, which means that they must have been alienated from their customary owners by mutual agreement or compulsory acquisition. The combined extent of all terrestrial parks and reserves established under these two laws is less than 10,000 hectares. Nearly all of this land was alienated during the colonial period and much of it has since been subject to encroachment by descendants of the customary owners. All the remaining land that is officially protected from development is still customary land, unless parts of it happen to have been included in one of the areas now covered by an SABL. Most of this customary land is protected under the Fauna (Protection and Control) Act; the remainder is protected under the Conservation Areas Act.

The Fauna (Protection and Control) Act was originally devised by the Australian colonial authorities in 1966. Its original aim was to regulate local hunting practices once the 'natives' had been allowed to purchase shotguns in the 1960s (Healey 1986). Amendments made in 1974 and 1976 were intended to remove the elements of colonial paternalism and to reflect the constitutional recognition of 'custom' in the management of local affairs (Eaton 1997). Most of the protected areas established under this legislation are Wildlife Management Areas (WMAs), the 'management' of which is vested in a committee of customary landowners who can make up rules for the 'propagation, protection, encouragement and management' of different species of birds and animals. The Act allows for a maximum fine of 20 kina (currently worth about US$8) to be imposed on people who break these rules. It is not possible for a WMA to be declared over any area of land on which the state has already authorized some form of large-scale resource development, like a mining lease or a logging

concession. On the other hand, there is nothing in the Act that prevents some form of resource development from being negotiated and authorized on land that has previously been included within the boundaries of a WMA.

The Conservation Areas Act dates from 1978, but did not come into effect until quite recently. Management of a Conservation Area is vested in a committee that includes provincial and local government representatives as well as local landowners. This body is supposed to collaborate with the Minister for Environment and Conservation and the National Conservation Council in the production of rules for the 'protection, development, land use activities, management and control' of the area. A consortium of American NGOs spent 12 years and several million dollars to achieve the declaration of PNG's first Conservation Area in 2009. This is an area of 76,000 hectares in Morobe Province, most of which consists of blocks of customary land belonging to around 10,000 inhabitants of 35 different villages in one local government area (TKCP 2009). It is too early to tell whether this experiment is likely to be replicated in other parts of the country or whether the exercise of ministerial discretion will suffice to protect its biodiversity values from the threat of development.

Aside from PNG's first Conservation Area, there are ten Wildlife Management Areas that contain more than 10,000 hectares of customary land, and three of these contain more than 100,000 hectares. The establishment and management of these other large areas have also attracted a very substantial volume of foreign investment since 1993. However, experience has shown that the different levels of government have almost no capacity to support the management of these areas, let alone to influence the activities of their resident customary owners, many of whom are more interested in protecting their territory from invasion by other people than in protecting the local wildlife (King and Hughes 1998, Filer 2004). Custody of PNG's protected area network has thus devolved to a collection of national and international NGOs whose managers sometimes collaborate, but often compete, in bids to secure the foreign money required to sustain their own engagement with local communities. The net result has been a mixture of donor-funded conservation projects that normally last for a limited period of time and rarely have any long-term impact on local livelihoods (Van Helden 2005). The longest period of continuous engagement by conservationists with groups of customary landowners in any of the 10 large WMAs has been 15 years (West 2006).

In some cases, the engagement has not established any sort of protected area. Immediately after the PNG government ratified the Biodiversity Convention in 1993, the Global Environment Facility (GEF) invested US$5 million in a Biodiversity Conservation and Resource Management Program to be executed by the PNG Department of Environment and Conservation. The core mandate of this programme was to conduct experiments in the design of 'integrated conservation and development projects' and apply the lessons learned from these experiments to the expansion of PNG's protected area network (Filer 1998, 246). The first experiment took the form of an effort to persuade local landowners to forgo the benefits of an existing large-scale logging operation by offering three alternative and more sustainable forms of development – a 'sustainable forestry project', a carbon offset scheme, and an 'early rewards schedule'. The landowners were not persuaded and were able, instead, to take strategic advantage of the contest between the loggers and the conservationists by offering support to both sides at different times (Filer 1998, 250).

The second experiment looked more likely to succeed because the target area was not only rich in biodiversity values, but almost devoid of human inhabitants and not obviously under threat from large-scale industry. Indeed, a large part of this target area (perhaps 80,000 hectares) had almost been designated as a national park during the colonial period because it appeared to have no customary owners (Filer 1998, 250). However, this type of vacancy cannot be recognized under the post-colonial ideology of landownership, so this experiment still took the form of building local community support for biodiversity conservation, this time by means of an elaborate form of participatory rural appraisal (Filer 1998, 252). This second experiment was terminated in 1998 because the GEF could not see the point of investing more money in the protection of an area that was not under any obvious threat. The end result was not another WMA with no semblance of management, but the creation of a national NGO – the Bismarck-Ramu Group – which has found other sources of foreign funding to pursue its mission of helping or persuading local landowners to oppose any kind of large-scale development in rural areas and any attempt by the state to register their customary land rights (Van Helden 2009).

Carbon sequestration fiasco

Papua New Guinea's status as a founding member of the Coalition for Rainforest Nations dates back to a speech made by Prime Minister Michael Somare to a World Leaders Forum held at Columbia University in 2005. Since then, proposals for 'rainforest nations' to be compensated for actions taken to reduce carbon dioxide emissions from deforestation and forest degradation have gained traction through successive conventions of the parties to the United Nations Framework Convention on Climate Change. As noted above, this was not an entirely novel idea in the national discourse of forest conservation because a carbon offset scheme (through the Clean Development Mechanism) had already been mooted as one alternative to destructive logging operations back in 1993. For the best part of a decade, the World Bank and other members of the donor community tried to limit this form of environmental degradation by funding PNG's National Forestry and Conservation Action Program, but the political influence of the logging industry stayed undiminished (Filer 1998, 2000). In 2000, the Bank persuaded the PNG government to place a moratorium on the granting of new logging concessions as one of the conditions attached to a Governance Promotion Adjustment Loan, and this should have been followed by a second loan for a new Forestry and Conservation Project. However, when Somare and his allies came to power in 2002, their relationship with the Bank deteriorated to the point where that project was finally cancelled in 2005 (World Bank 2006). The idea of REDD was thus conceived by a government that was clearly bent on granting a new raft of selective logging concessions under the provisions of the Forestry Act and was already making space for a new raft of 'agro-forestry' projects to be approved in apparent breach of those same provisions. So, there appears to be an element of moral hazard – if not downright hypocrisy – in the way that PNG has since presented its case for REDD to the international community.

International support for REDD was consolidated at the UN Climate Change Conference in Bali (COP 13) in December 2007. The government official in charge of PNG's new Office of Climate Change then decided to launch a wave of speculative investment in potential REDD projects by authorizing potential investors to

negotiate with the customary owners of those areas already covered by FMAs where the capacity of the PNG Forest Authority (PNGFA) to grant new Timber Permits under the Forestry Act had been called into question by legal proceedings or other disputes. Some commentators have described the subsequent wave of speculation as a sort of 'cargo cult' orchestrated by a bunch of 'carbon cowboys' (Callick 2009, Gridneff 2009). Within two years of the Bali conference, it was estimated that the speculators were claiming to have done deals with local landowners for more than 90 carbon trading schemes covering more than five million hectares of native forest (Melick 2010, 360). However, by the time of the UN Climate Change Conference in Copenhagen (COP 15) in December 2009, the PNG government had realized the extent of this new risk to its international reputation, the errant government official had been fired, and the Prime Minister himself had told the national parliament that his government would not countenance Voluntary Carbon Agreements as part of its climate change policy framework (Somare 2009).

If there were ever 90 voluntary schemes in the pipeline, all but three of them had vanished from the political radar screen by the end of 2009. Two are of particular interest because they did eventually take the form of proposals to the Climate, Community and Biodiversity Alliance, an organization that seeks to validate projects of this kind.[1] One involved an area of roughly 520,000 hectares known as the April Salumei forest area in East Sepik Province; the other involved an even larger area of roughly 790,000 hectares known as the Kamula Doso forest area in Western Province. In both cases, the government's previous acquisition of timber harvesting rights from the customary owners was especially problematic.

The April Salumei area was originally subject to a Timber Rights Purchase agreement between the state and various 'clan agents' signed immediately before the new Forestry Act came into effect in 1992. When this became the subject of a legal dispute, the PNGFA decided to replace that agreement with an FMA that was signed by a number of ILG executives in 1996. But in 1997, an international NGO helped another set of landowners to secure government recognition of a WMA covering 230,000 hectares of land, of which 180,000 hectares was already covered by the FMA to which these landowners said they had never consented (GPNG 2001a). Although there are only about 10,000 people resident in the FMA area, they speak more than a dozen languages between them and their political representatives are divided between three national electorates and four local-level governments. The social and political fragmentation of the area explains the lack of consensus, while the very low population density and lack of social infrastructure explains the capacity of a few individuals to misrepresent themselves as representatives of the whole area. The 'carbon cowboys' who briefly engaged with some of the local residents in 2008 only added to the general level of confusion that already prevailed (Leggett 2009).

The same sort of confusion has been added to a rather different constellation of dubious property rights in the Kamula Doso area, which has an even lower population density, but not the same degree of social and political fragmentation. In this case, an FMA was signed in 1998, but promptly led to a dispute between two landowner companies, each claiming to represent the ILG executives who had signed it (GPNG 2001b). One of these companies supported a subsequent decision of the National Forest Board to treat the area as an 'extension' to an adjacent logging

[1]See http://www.climate-standards.org/projects/index.html

concession, while the other one supported an investigation by the Ombudsman Commission, which found that this decision contravened the provisions of the Forestry Act (GPNG 2002). It was this decision that also prompted the World Bank to persuade the PNG government to place a moratorium on the grant of new logging concessions in 2000. When the Bank's influence over national forest policy was eliminated in 2005, the decision was resurrected by the National Forest Board, but a local NGO then used the Ombudsman's findings as the basis for a legal challenge that was not resolved until 2010, when the National Court finally ruled that there had never been a legally valid FMA over the area. In the meantime, a collection of 'carbon cowboys' had tried to negotiate a deal with the board of the dissident landowner company, but their efforts were thwarted by the proponents of an agroforestry project who arranged for an SABL over the whole area to be granted to this same landowner company in 2009. This provoked a further dispute between the directors themselves. The net result has been the disappearance of the carbon speculators and the prospect of a new dispute between the supporters of the agroforestry project and the original supporters of a conventional logging project (Michael Wood, personal communication, August 2011).

Kamula Doso is the only area where there is clear evidence of competition between carbon speculators and agroforesters, both of whom were planning to take advantage of a very big question mark over the legal validity of an FMA. By and large, the carbon speculators were encouraged to congregate in those areas where the state had already acquired timber harvesting rights from the customary owners, but had not yet allocated these rights to a logging company. Aside from Kamula Doso, there were (and still are) roughly three million hectares of land in this category. The agroforesters have largely avoided these areas because the existence of a (legally valid) FMA establishes a commitment to 'sustainable forest management' and, under the terms of the Forestry Act, that means selective logging on a 35-year cutting cycle. The PNGFA consistently opposed the wave of carbon speculation in these areas because it had no control over the Office of Climate Change. But once Voluntary Carbon Agreements were ruled out of the national policy framework, forestry officials grew more confident in their assertion that any acquisition and management of customary land for REDD (or REDD-plus) purposes should simply become an extension of the current forest management regime for which they were responsible. In the absence of any alternative policy framework, they have therefore proposed a set of 'pilot projects' in areas where the state currently holds the timber harvesting rights (Goodwill Amos, personal communication, February 2011). It remains to be seen whether local landowners will be satisfied with this form of 'resource development'.

Conclusion

There is one point on which national forestry officials would surely agree with the foreigners who have largely failed to impose a fresh green mantle on the use of customary land in PNG. It is very difficult to get a large number of customary landowners to agree to anything, and even harder to make that agreement last for a long period of time. So, perhaps, the puzzle is not so much the absence of a green land grab as the presence of a brown one. How is it that national politicians, landowner company directors and their foreign development partners have actually

managed to alienate five million hectares of customary land for 'agro forestry' projects?

One simple answer would be that they have gone behind the backs of the customary landowners in ways that are either unavailable or unattractive to 'green' investors. This answer certainly appeals to the most radical opponents of the brown land grab, who are also the most radical defenders of customary land rights (Anderson and Lee 2010). But does this just involve the corrupt, secret and private accumulation of land, money and power by a small elite group of urban power-brokers at the expense of the rural masses? Although there are many mysteries about the operation of the lease-leaseback scheme in recent years, it is not uncommon for agroforestry projects to be launched at public ceremonies attended by many of the customary landowners whose land has supposedly been grabbed without their consent as well as by those who have supposedly grabbed it (Filer 2011a, 19). On the other hand, the negative publicity generated by opponents of the new land grab has been sufficient to persuade the National Executive Council to institute an official inquiry into a process in which many of its own members have been implicated. So, there are also proven limits to the capacity of national government ministers and other national politicians to advance their own economic and political interests in defiance of public opinion.

Proponents and opponents of the logging industry, the oil palm industry and all other industries that seek access to customary land are equally aware of the political divisions that exist in most rural areas. These divisions are manifest in the national elections held at five-year intervals, when the numerous candidates standing in each electorate seek to persuade rural voters of their own capacity to deliver some form of 'development'. The winner rarely captures a majority of the primary vote, but still has to deliver on the promises made to his own supporters if he wants to be re-elected, while the losing candidates and their primary supporters will often try to prevent him from doing so. As a result, no single development proposal is likely to win the support of *all* the landowners or villagers in any given area, but *any* development proposal – however implausible – has a chance of gaining some popular support. A few of the national politicians implicated in the brown land grab may have garnered enough money from their 'public-private partnerships' to buy the votes required for their re-election in 2012, but many others will join the ranks of the majority who, to judge by past experience, will probably lose their seats.

Individual members of the national elite are engaged in an ongoing competition to exclude each other from any available opportunity to turn a profit from transactions in customary land and other natural resources. From time to time and place to place, one member can trick local people out of their property or arrange for it to be taken without their knowledge, but there are nearly always other members, even at a local level, who can mobilize enough power to end these acts of dispossession before too much is lost. The ideology of landownership exerts its own power to prevent outsiders from attempting to remove customary landowners from their land by force, and while the people on the ground remain in occupation of that ground, all outsiders competing to make money out of it must also compete to win local support for their different schemes. Absentee (or 'paper') landowners may have some advantage in this competition, but they are still not exempt from the need to practise the art of 'landowner awareness' in order to secure that advantage.

Time scales are of the essence here. The available evidence indicates that each of the large SABLs recently allocated to private companies has been the result of

several years of planning and preparation, but there is no reason to assume that agroforestry projects authorized under these leases will last that long. Two or three years of rapid forest clearance and log shipments to China may be the sum of the 'development' that takes place on the land. By the end of that time, disputes amongst the customary owners or their leaders provide a perfect excuse for the agroforesters to take their logging machinery elsewhere and start all over again (Filer 2011b). This is why a brown land grab works much better than any of the green varieties. Green investors of the kind discussed in this paper really do need to secure access to reasonably large areas of customary land for a long period of time if they are going to recoup the cost of their investment. This means that they have to secure the support of a majority of the customary owners for periods that exceed the limits of PNG's electoral cycle – and that is no mean feat.

The apparent alienation of more than five million hectares of customary land to landowner companies and their foreign development partners does not necessarily mean that the recipients have obtained a new 'power of exclusion' (Hall *et al*. 2011). If the new land titles are not revoked or invalidated by a legal and bureaucratic process at the national level, then a realignment of political forces at the local level is liable to overturn the deals done in an earlier phase of the electoral cycle. In the long term, customary landowners are not being displaced or excluded from their land; if anything, they are getting more attached to it. The persistence of a national ideology of landownership will not allow the process of territorialization to become a process of genuine dispossession or 'primitive accumulation'. Instead, it enables the 'true' customary owners and occupants of any given space to exclude other citizens who have a lesser customary right to be there and should therefore go back to their 'own place' (even if they do not really have one). The real paradox in this process is that a national fixation on the permanence of primordial land rights is accompanied by a chaotic accumulation of lesser use rights granted by the state to various corporate tenants who cannot keep their customary landlords in order for more than a few years, and sometimes cannot even get them to the starting post.

References

Anderson, T. and G. Lee, eds. 2010. *In defence of Melanesian customary land*. Sydney: Aid/Watch.

Bell, J. 2009. Documenting discontent: struggles for recognition in the Purari Delta of Papua New Guinea. *Australian Journal of Anthropology*, 20(1), 28–47.

Buchanan, G.M. *et al*. 2008. Using remote sensing to inform conservation status assessment: estimates of recent deforestation rates in New Britain and the impacts upon endemic birds. *Biological Conservation*, 141(1), 56–66.

Callick, R. 2009. The rush is on for sky money. *Weekend Australian*, 5 September, p. 13.

Eaton, P. 1997. Reinforcing traditional tenure: Wildlife Management Areas in Papua New Guinea. *In:* S. Stevens, ed. *Conservation through cultural survival: indigenous peoples and protected areas*. Washington, DC: Island Press, pp. 225–36.

Filer, C. 1997. Compensation, rent and power in Papua New Guinea. *In:* S. Toft, ed. *Compensation for resource development in Papua New Guinea*. Port Moresby: Law Reform Commission (Monograph 6), pp. 156–90.

Filer, C. 1998. *Loggers, donors and resource owners*. London: International Institute for Environment and Development in association with the National Research Institute (Policy that Works for Forests and People, Papua New Guinea Country Study).

Filer, C. 2000. *The thin green line: World Bank leverage and forest policy reform in Papua New Guinea*. Port Moresby and Canberra: National Research Institute and Australian National University.

Filer, C. 2004. The knowledge of indigenous desire: disintegrating conservation and development in Papua New Guinea. *In:* A. Bicker, P. Sillitoe and J. Pottier, eds. *Development and local knowledge: new approaches to issues in natural resources management, conservation and agriculture*. London: Routledge, pp. 64–93.

Filer, C. 2007. Local custom and the art of land group boundary maintenance in Papua New Guinea. *In:* J.F. Weiner and K. Glaskin, eds. *Customary land tenure and registration in Australia and Papua New Guinea: anthropological perspectives*. Canberra: ANU E Press (Asia-Pacific Environment Monograph 3), pp. 135–173.

Filer, C. 2011a. The political construction of a land grab in Papua New Guinea. Canberra: Australian National University, Crawford School of Economics and Government (READ Pacific Discussion Paper 1).

Filer, C. 2011b. The new land grab in Papua New Guinea: a case study from New Ireland Province. Canberra: Australian National University, College of Asia and the Pacific, State Society and Governance in Melanesia Program (Discussion Paper 2011/2).

GPNG (Government of Papua New Guinea). 2001a. April Salumei (East Sepik Province). Port Moresby: PNG Independent Forestry Review Team (Individual Project Review Report 25).

GPNG. 2001b. Kamula Doso (Western Province). Port Moresby: PNG Independent Forestry Review Team (Individual Project Review Report 16).

GPNG. 2002. Investigation into the decision of the National Forest Board to award Kamula Doso to Wawoi Guavi Timber Company (a subsidiary of Rimbunan Hijau) as an extension to the Wawoi Guavi Timber Resource Permit: final report. Port Moresby: Ombudsman Commission of Papua New Guinea.

GPNG. 2007. *The National Land Development Taskforce report: land administration, land dispute settlement, and customary land development*. Boroko: National Research Institute (Monograph 39).

Gridneff, I. 2009. Aust company caught in PNG carbon fiasco. *Post-Courier*, 31 July, p. 2.

Hall, D., P. Hirsch and T.M. Li. 2011. *Powers of exclusion: land dilemmas in Southeast Asia*. Singapore: NUS Press.

Healey, C.J. 1986. Men and birds in the Jimi Valley: the impact of man on birds of paradise in the Papua New Guinea highlands. *Muruk*, 1(2), 1–34.

Holzknecht, H. 1998. Problems of articulation and representation in resource development: the case of forestry in Papua New Guinea. *Anthropological Forum*, 7(4), 549–573.

King, B. and P.J. Hughes 1998. Protected areas in Papua New Guinea. *In:* L. Zimmer-Tamakoshi, ed. *Modern Papua New Guinea*. Kirksville (MO): Thomas Jefferson University Press, pp. 383–405.

Koczberski, G., G.N. Curry and K. Gibson. 2001. *Improving productivity of the smallholder oil palm sector in Papua New Guinea: a socio-economic study of the Hoskins and Popondetta schemes*. Canberra: Australian National University, Research School of Pacific and Asian Studies, Department of Human Geography.

Leggett, M. 2009. '*Selim win bilong yumi*': the social dimensions of carbon forestry in Papua New Guinea. MA thesis, Edinburgh University.

Li, T.M. 2000. Articulating indigenous identity in Indonesia: resource politics and the tribal slot. *Comparative Studies in Society and History*, 42(1), 149–179.

Melick, D. 2010. Credibility of REDD and experiences from Papua New Guinea. *Conservation Biology*, 24(2), 359–361.

Moore, E. 2011. The administration of special purpose agricultural and business leases: customary land and the lease-lease-back system. Boroko: PNG National Research Institute (Discussion Paper 118).

Nelson, P.N. *et al*. 2010. *Environmental sustainability of oil palm cultivation in Papua New Guinea*. Canberra: Australian Centre for International Agricultural Research (Technical Report 75).

Oliver, N. 2001. Lease, lease-back: an instrument for forestry? *In:* C. Hunt, ed. *Production, privatisation and preservation in Papua New Guinea forestry*. London: International Institute for Environment and Development, pp. 59–74.

RSPO (Roundtable on Sustainable Palm Oil). 2006. RSPO principles and criteria for sustainable palm oil production: guidance document. Zurich: RSPO.

RSPO 2008. The Roundtable on Sustainable Palm Oil (RSPO) PNG National Implementation Working Group (PNG NIWG): indicators and guidance required to establish the RSPO principles and criteria. Zurich: RSPO.

Somare, M. 2009. The Prime Minister's parliamentary statement: carbon trading and Office of Climate Change and Environmental Sustainability. *Post-Courier*, 3 August, p. 48.

TKCP (Tree Kangaroo Conservation Program). 2009. 2008 annual report. Seattle: Woodland Park Zoo.

Van Helden, F. 2005. Lessons learned in community-based conservation in Papua New Guinea. Unpublished report to The Nature Conservancy and Worldwide Fund for Nature.

Van Helden, F. 2009. 'The report was written for money to come': constructing and reconstructing the case for conservation in Papua New Guinea. *In:* J.G. Carrier and P. West, eds. *Virtualism, governance and practice: vision and execution in environmental conservation*. New York: Berghahn Books, pp. 155–176.

Vandergeest, P. and N.L. Peluso. 1995. Territorialization and state power in Thailand. *Theory and Society*, 24(3), 385–426.

WBIP (World Bank Inspection Panel) 2010. Papua New Guinea: Smallholder Agriculture Development Project (SADP) (IDA Credit No. 43740–PNG). Washington, DC: WBIP.

Weiner, J.F. 2007. The Foi incorporated land group: group definition and collective action in the Kutubu oil project area, Papua New Guinea. *In:* J.F. Weiner and K. Glaskin, eds. *Customary land tenure and registration in Australia and Papua New Guinea: anthropological perspectives*. Canberra: ANU E Press (Asia-Pacific Environment Monograph 3), pp. 117–134.

West, P. 2006. *Conservation is our government now: the politics of ecology in Papua New Guinea*. Durham: Duke University Press.

Whimp, K. 1995. Representative resource owner bodies for forestry projects. Boroko (PNG): Forest Management and Planning Project.

World Bank. 2006. Note on cancelled operation of an IBRD loan in the amount of US$17.36 million equivalent and a GEF grant in the amount of US$17.00 million equivalent to the independent state of Papua New Guinea for a forestry and conservation project. Washington (DC): World Bank.

World Bank 2010. *Rising global interest in farmland: can it yield sustainable and equitable benefits?* Washington, DC: World Bank.

Colin Filer has a PhD in Social Anthropology from the University of Cambridge. His research has mainly been concerned with the social context, organization and impact of policies, programmes and projects in the mining, petroleum, forestry and conservation sectors, with particular reference to Papua New Guinea and other parts of Melanesia. Email: colin.filer@anu.edu.au