

# **MELANESIAN LAND: THE IMPACT OF MARKETS AND MODERNISATION**

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New formal markets often have a damaging impact on rural livelihoods in Melanesia by displacing undervalued and sustainable informal economic activities. The regular focus on large formal markets also serves to distract attention from the promising potential of emerging 'hybrid' livelihoods. This interaction warrants attention because around 80 percent of people in Melanesia live in rural livelihoods with a quite unique and fairly well distributed access to customary land.

Colonial occupation of the south west Pacific was late, diverse and (unlike in Australia, Latin America and large parts of Asia and Africa) left traditional land tenure systems largely intact. To this day more than 96 percent of all land in Papua New Guinea, and 80 to 85 percent of all land in the Solomon Islands and Vanuatu, is held under legally recognised but unwritten customary title held by clans and families. Attempts to 'reform' this customary land appeared more strongly in the post-colonial period. However such programs have faced popular resistance as well as constitutions and land law which explicitly recognise traditional law and customary tenure.

While island communities have engaged in various new cash economies, customary land and its associated small farming, along with varieties of informal and cultural exchange, remain strong and underwrite viable livelihoods. These land systems remain vehicles for food security, housing, widespread employment, social security, biodiversity protection, and ecological stability; they are also a store of natural medicines, as well as a source of social cohesion and inclusion and cultural reproduction (see Lee and Anderson 2010). There are pressures from overpopulation in some areas, such as the islands and parts of the highlands (Bourke and Allen 2009), but land is mostly good quality and generally quite well distributed and there are no large, feudal

landowners. As Bourke (2005: 7, 11) points out, subsistence agricultural production in PNG is ‘arguably the most important component of PNG agriculture’ and has kept up with population growth.

The diverse production and social value from customary land embodies many elements of what elsewhere has been called the ‘multifunctionality’ of small farming. Small and diverse rural social and productive relations make multiple economic and social contributions, many of which escape the normal measurements of formal economies (Rosset 2000; Moxnes Jervell and Jolley 2003). Nevertheless, modernist ‘land reform’ programs persist. These are driven by commercial interests and modernist mindsets, which insist on the economic benefits of land registration, individual property rights and commercial land markets. The enthusiasm for such ‘reform’ seems barely dampened by the serious environmental and social problems catalysed by land rationalisation and the dismal legacies of large chemically-intensive monocultures (see e.g. Shiva 1993; Kimbrell 2002; Altieri 2004).

This article will discuss the impacts of formal markets and ‘modernisation’ in Melanesia, with special attention to Papua New Guinea, the largest of the Melanesian nations. It will follow the ‘economic logic’ of land modernisation and related formal rural markets, along with the problems generated. Using a critical institutional method, which disaggregates macroeconomies, the paper traces the historical development of land modernisation ideas and their application in Melanesia, looking beyond ‘the economy’ to particular economies. It considers the sometimes competing livelihood options open to Melanesian families, and then looks to the social relations of land for an explanation of the manifest failure of the new formal land ‘markets’.

## **Colonialism and Land Modernisation**

The history of land modernisation is rooted firmly in the late colonial era when ‘modernist’ processes of formal registration and commercialisation came to replace overt colonial privilege. The more inclusive sounding British arguments in East Africa, from the 1950s onwards, were that the modernisation of customary lands would benefit the natives by bringing about: (i) greater security of title, (ii) a strong boost to formal economies, (iii) improvements in agricultural productivity, (iv) access to rural credit, and (v) benefits for subordinate groups (in particular women) which had

been excluded in traditional systems (Swynnerton 1955; Lawrence 1970). The rationale was to 'develop African agriculture', by providing 'greater security to landholders, and to enhance the freedom to transact land and serve as a basis for agricultural credit'. However, it was also a response to indigenous rebellions, with the strategic aim of creating 'a class of African freeholders, yeoman farmers' who would have a stake in colonial and post-colonial regimes (Dickerman *et al* 1989: x-xi).

Kenya, with the greatest extent of registered land in Africa, did not show the claimed benefits. A leading Kenyan expert concluded that any benefits of registration were outweighed by specific disadvantages. Economic disparities and a political disequilibrium were generated, there was a failure to develop rural credit and a general failure to build agricultural productivity. Of the new registered land owners, less than 5 percent were women; further, the new land regime was 'creating new forms of stratification and status differentials' amongst the small farming sector (Okoth-Ogendo 1982). Yet, the processes continued and similar criticisms were subsequently repeated. A more recent study by Cotula *et al* (2004) concluded that 'the hoped for benefits of registration do not accrue automatically and, in some circumstances, the effects of registration may be the converse of those anticipated'. Elite groups claimed land beyond their entitlements, those without education or influence found their land registered to someone else, rural credit did not advance and women were 'expropriated' by simply not appearing in registers (Cotula *et al* 2004: 3-5).

Nevertheless, during the 'Green Revolution' period of the 1960s, land modernisation was given a boost by economic theorists. Ester Boserup, for example, saw agricultural growth as a means of escaping population pressures, arguing for land tenure systems which supported the growth of the new large scale monocultures. She suggested an induced response to higher 'shadow prices' of land would encourage longer term investments (Boserup 1965). Greater formalisation would lift productivity. This idea was picked up by others, for example Deininger and Feder (1998: 35), who back the classical liberal 'transition from traditional to [individual] private property rights' to help 'productivity enhancing land-related investments'. They did concede that 'traditional systems are associated with a wide range of equity benefits not all of which can normally be preserved in a system characterized by private land ownership' (Deininger and Feder 1998). Deininger went on to write more comprehensive reports on land for the World Bank (*e.g.* Deininger 2003),

which urged modernisation and new markets, yet also partially recognised the problems of imposing outside land tenure models in distinct cultures.

In a more forthright way, and while claiming a developing country voice, the Peruvian-born Hernando de Soto urged greater formalisation of property rights (De Soto 2000). He argued that failures in such formalisation held back capitalism in developing countries. Clearly documented property rights were an essential foundation for systems of credit, share ownership, contracted services and so on. De Soto (2002: 349) argued ‘capitalism requires the bedrock of the rule of law, beginning with that of property’. These ideas were not new. De Soto followed the British in East Africa, Boserup, Deininger and others in claiming that the ‘greater security’ of (registered, individual and transferable) land tenure would stabilise investment and help increase agricultural productivity and the growth of formal economies.

As with the East African case, there has been an abundance of empirical refutation of De Soto’s ideas. It has been pointed out, a number of times, that imported models of formal rights are ‘too often ... not grounded in local realities’ and can make things worse for ordinary people (Meinzen-Dick 2009: 5; see also Lavigne Delville 2006: 18-19; Hunt 2004: 174). A South African study observes that greater formal property rights had not increased tenure security, nor promoted greater lending to the poor, and had instead been expensive, exposing many poor people to homelessness (Cousins *et al* 2005: 4).

Land modernisation in the Pacific persists, based on similar arguments and backed by powerful interest groups. For example, the World Growth Institute (WGI) and International Trade Strategies Global (ITS Global), contracted by logging, wood pulp and oil palm industries, present arguments on the value of giving over Melanesian land to those ‘high productivity’ industries (see ITS Global 2011). Similarly an Australian corporate ‘think tank’, the Centre for Independent Studies (CIS), backed by banks and mining companies, regularly produces reports asserting the need to convert customary land systems into systems of individual property rights. For example, Helen Hughes (2004:4) claims that customary land is ‘the primary reason for deprivation in rural Pacific communities’; and that PNG is not ‘viable’ with customary tenure (Gosarevski, Hughes and Windybank 2004). Similarly, and referring to the Solomon Islands, Gaurav Sodhi argues ‘[a]griculture is the key ...

without land surveys, registration and long term leases there can be no progress.’ (Sodhi 2008).

The attacks on customary tenure from the corporate-funded ‘think tanks’ such as the CIS have led to published responses from researchers and community activists. One compilation was titled ‘Privatising land in the Pacific - a defence of customary tenures’ (Fingleton *et al* 2005); another was ‘In Defence of Melanesian Customary Land’ (Anderson and Lee 2010). Both volumes stressed the productivity of customary land, its social value and the livelihood possibilities it continues to support. An important point made was that the productive value of customary land is far greater than (and not accommodated by) the value allowed for by financialised ‘dollar a day’ or ‘two dollars a day’ poverty measures (Anderson and Lee 2010: 8, 17, 32).

AusAID, which has run land titling and administration projects for decades, claims that its projects enhance the security of land rights and target rural poverty (AusAID 2000). However, AusAID has become more cautious in its demands for ‘land reform’ since the mass protests of the late 1990s and early 2000s over ‘land mobilisation’ in PNG and following the resistance offered to land registration under RAMSI in the Solomon Islands (see Anderson 2008b). Yet the agency urges updating land registers, as a pre-condition for commerce in land, and looks for a ‘middle way’ with new forms of leases (AusAID 2006) or to ‘assist’ customary land owners get better value from their land (AusAID 2008). Similarly, New Zealand’s aid agency, under its ‘markets that work better for the poor’ objective, says it will ‘[a]ssist partners to review and where necessary implement changes to traditional land management and tenure systems’ (NZAID 2007: 19). Some Papua New Guinean academics and officials (*e.g.* Yala 2010) have joined in this ‘land reform’ chorus, apparently oblivious to the achievements of their own cultural systems.

## **Growth Arguments and Land Modelling**

Contemporary arguments for formal land markets in Melanesia come from the international aid agencies, companies with direct interests in resource extraction, foreign academics and some Melanesian government officials. The main arguments address economic growth, government revenue and development finance; only occasionally do they touch on

family livelihoods. For example ITS Global, an Australian company contracted by the peak logging group body in Papua New Guinea (dominated by Malaysian companies), has prepared a series of reports that argue the case for logging and oil palm plantations. These arguments focus on the contribution of those land-intensive industries to PNG's gross economy, the contributions to public finances (in the case of logging, through export taxes) and consequent revenue for development spending. In the case of oil palm there is a partial discussion of livelihoods, through 'smallholder' incomes.

ITS Global thus calls for an expansion of PNG's wholesale log exports, on the basis that logging generates a substantial amount of income (about 300 to 400 million Kina per year). Even though most of this accrues to the logging companies, it is said that the PNG government reaps almost one third (about K100 million) in export taxes per year, while local landholders receive 'substantial' royalties (ITS Global 2006: 12). Furthermore, there are said to be 'significant benefits' to local people from infrastructure spending (airstrips, roads, health centres), although it is acknowledged that such works 'are constructed primarily for the purposes of the project' (ITS Global 2006: 39, 41). This report refutes the claims of environmental damage, unsustainability and limited benefit to landowners (*e.g.* IFRT 2004), and boldly asserts that 'there is no economic case against fostering a vibrant and productive forestry industry in PNG' (ITS Global 2006: 27).

However, in addition to the constant environmental criticisms of wholesale logging (*e.g.* Laurance *et al* 2011), the economic returns to customary landowners are poor. For example, local communities are paid \$11 per cubic metre of Kwila wood, which typically returns \$240 in China (EIA-Telapak 2005; Bun, King and Sherman 2004). Meanwhile, the roads and bridges built by the loggers are not maintained and do not survive much beyond the logging operation, while the importance of logging taxes is falling rapidly as mining and gas revenues rise. Many agencies have accepted the need to support more sustainable alternatives, such as eco-forestry. Yet logging survives in league with large plantation developments, which in South East Asia and Melanesia has meant oil palm. Logging permits have been made conditional on 'back end' oil palm development, and all the major international financial agencies in the region (AusAID, the Asian Development Bank, the World Bank) have subsidised oil palm development, often under the guise of

‘community participation’ and enhancing the ‘productivity’ of smallholder agricultural development (*e.g.* World Bank 2007).

Here we see some departure from the more general, modernist arguments about growth and government revenue into a limited engagement with livelihoods and family incomes. The World Bank (2010), for example, claims that incomes for landowners who give over part of their land to oil palm are equivalent to 2,793 Kina per hectare per year, a figure greater than an estimated K1,136 for cocoa cultivation. On this basis the Bank claims that ‘oil palm currently provides small holders with higher returns on their land and labour than most other agricultural commodities’ (World Bank 2011: 2). ITS Global makes use of this data, urging a removal of the ‘restraints’ on land availability for logging and oil palm (ITS Global 2010; ITS Global 2011).

Yet there are several problems with the World Bank’s calculations. First, the returns on oil palm are gross income, and oil palm is a more expensive crop to maintain, using a great deal of fertiliser and other chemicals. Second, oil palm is a very productive but greedy plant, which cannot be companion planted. It competes with and reduces the diversity of other local crops. Third, the comparison made is with export crops, without reference to incomes in domestic markets. Yet returns on crops like peanut, taro, melons and betel nut can be much higher, and with no chemical inputs (Anderson 2008a). Fourth, the environmental damage from oil palm is stark: rivers are silted up and algae clogged from fertiliser run-off. Like other large chemical-intensive monocultures (see Kimbrell 2002), oil palm has a range of costs.

Limited and selective engagement with livelihood issues does not seem to dent the enthusiasm for generalised growth arguments. A modelling exercise developed by two Papua New Guinean academic-officials and an Australian purports to show a several billion dollar addition to PNG’s GDP by extending formal tenure over just another 2.5 percent of land over a decade (Fairhead, Kauzi and Yala 2010: 29). However, they abandon the old idea that land registration will enhance rural credit for small land owners, because of the consistently negative evidence (Fairhead, Kauzi and Yala 2010: 26). They also maintain the modernist notions that private, individual title will allow capitalisation, investment and thus a more productive agriculture. These authors build on a PNG process, backed by international agencies, which included a ‘land summit’ in 2005 and a ‘land taskforce’ to put PNG faces on what had

previously been an unpopular foreign process, driven by the World Bank (see World Bank 1989; Seneviratne 1995).

Fairhead, Kauzi and Yala (2010) suggest that only those who individually invest in land and engage in projects separate from the needs of the clan or family are to be considered 'productive'. Individual investment and benefit - contrary to the customary ethos of land as a shared community asset - is implied. These 'productive' people (whether clan members or outsiders) are said to be denied (by customary law) 'exclusive access' to 'optimal amounts' of the clan's best land, as well as 'exclusive access' to the income that might be generated from that land. Thus individuals who make exclusive business for themselves through clan or family land are said to be the superior economic agents. Yet the pre-condition for such 'success' is that the clan is specifically excluded from sharing the benefits of land development. This would amount to an anti-social act (and probably a criminal act) under customary law. The reference to 'productive' and 'non-productive' people is backed by reference to 'the bankability of land' (Fairhead, Kauzi and Yala 2010: 3). This is the idea that land is productive only when it becomes a financial asset. Customary land is therefore not 'valuable' until it can be financialised, and thus separable from its community. These concepts make it certain that the model which follows both undervalues the current productive functions of customary land and constructs a 'productivist' argument for land commercialisation.

The computer generated model used by Fairhead, Kauzi and Yala (2010) was a modification of the Australian ORANI and Austem techniques, even though Australia's land tenure system is entirely different to that of PNG. Cash crops are important inputs to the model, but there is no indication that there is any estimate of non-market production (i.e. subsistence, cultural exchange and ceremonies). Yet even one AusAID study estimated that Melanesian staple food production (of sweet potato, cassava, taro, banana and coconut) was about 0.92 tonne per person, with a money equivalent of between A\$693 (wholesale) and A\$876 (retail) per person (Bourke *et al* 2006: 24). That is before we talk about other agricultural produce. Apparently none of this went into the model. Nor is there any indication that the authors considered productive exchange in informal markets, including domestic produce markets. They rely instead on an old Rural Development Handbook which said that "93% [of rural residents] ... earned less than 200 [Kina] per year from the cash economy" (Hansen *et al* 2000: 25). In fact, that estimate was based on



1990s data, a highly valued Kina and only on incomes from ‘21 agricultural cash crops’, mostly export crops (Hansen *et al* 2001: 2, 296).

The failure to include an economic value of subsistence production, and the apparent failure to properly include exchange in domestic markets, should render the model’s results of little consequence. Yet there is another serious flaw in the model. The authors explain that:

Given the significance of land for this analysis, the PNG CGE database has been expanded to include land as a separate primary factor for each industry ... [by using] the weighted sum of the land price in each industry (Fairhead, Kauzi and Yala 2010: 12).

Very interesting. So how do they calculate a price for land in a country which has virtually no rural land market? If it were on the western basis of previous land sales, the value could be zero. Alternatively, based on local practice, it might be the tiny 20 Kina per hectare per year (plus 10 percent royalties) that is charged as rent for oil palm ‘mini-estate’ leases in Oro Province (Gou and Higaturu 1999). On the other hand, if it were on the basis of the opportunity cost of productive land lost, it could be more than 17,000 hectare per year (Anderson 2006: 146). Which method do they use? None. Without any attempt to develop or apply a PNG-based method of land valuation, they borrow some land prices from Fiji, another Melanesian country, but one with a quite distinct land tenure history. They say: ‘Given that forestry and subsistence agricultural practices across the Pacific are not dissimilar, this [Fijian] data is used in the PNG database’ (Fairhead, Kauzi and Yala 2010: 13). The whole model, therefore, is made dependent on whether land valuation in Fiji had any reasonable and comparable basis or, better said, whether such prices reflected values that might enhance rather than undermine rural livelihoods.

The model goes on to set a baseline estimate for GDP growth in PNG, *without* land reform, then a model giving three possible growth outcomes (low, medium and high impact) *with* land reform. The overall conclusion – predictable, given the assumptions and input valuations – is that the economy will grow strongly with land reform. They assert there would be additions of between six and sixteen billion Kina to national income, if only a few percent more customary land would enter the formal system (Fairhead, Kauzi and Yala 2010: 29). For the reasons given above, I suggest these calculations are worthless.

Yet ‘the sting is in the tail’ of the argument. The authors say that the investor demand for land must be met ‘by customary landowners bringing their land into the cash economy’ (Fairhead, Kauzi and Yala 2010: 27). They claim that customary owners could benefit from this ‘land reform’ as it would:

open up alternative income earning opportunities for rural residents, leading to a strong shift away from subsistence to market based agriculture, employment and income generation (Fairhead, Kauzi and Yala 2010: 25).

Yet no reference is made to any particular ‘alternative income earning opportunities’ for those PNG landowners who have leased or otherwise alienated their land. The major benefits are said to be a general expansion of the formal economy, large agricultural projects and other land based investments, and an assumed increase in formal sector jobs.

This modelling exercise relied heavily on growth arguments that embody generic problems particularly as they relate to rural-livelihood dominated developing countries. These problems could be spoken of under three themes: economic formalisation, distributional issues and environmental concerns. ‘Growth’ strategies always favour the rise of new, formal economies and private businesses with formal employees, especially export industries. This emphasis ignores, undervalues and often actively displaces more traditional rural ‘hybrid’ livelihoods, which combine informal and subsistence economies. Growth models are also quite blind to key distributional issues, including the marginalisation of large populations and the development of critical shared services, such as in education and health. Finally, it is notorious that environmental benefits and costs are perversely included or excluded by economic growth measures. Economic measures grow with the impetus of environmental disasters and wars, yet fail to incorporate the costs of degradation and unsustainable practice.

## **Comparative Rural Livelihood Options**

There is often a jaundiced view of ‘subsistence’ and informal sectors (which might better be seen as the basis of a range of livelihood ‘hybrids’) alongside overly-sanguine notions of new formal economies (mainly leasing land and employment). To resolve this, it is useful to

compare the actual returns on the various elements of rural livelihoods in PNG, bearing in mind that families with customary land can engage in several forms of income earning activities, some of which have greater ‘opportunity costs’ (i.e. excluding valuable alternative options) than others. Table One below shows a range of income options (or income equivalents, in the case of subsistence consumption), based on fairly recent PNG experience.<sup>1</sup> The main division in the table is between formal and informal sector incomes. In rural PNG both often supplement subsistence production for consumption.

The first thing to note is that rural rents in PNG bear little relationship to the productive capacity of land. Rents return only 1 percent or less the value of subsistence production for family consumption; between 1 and 2 percent the value of marketing garden produce; and between 1 and 5 percent the value of a range of other formal and informal sector activities. These fractions grow even smaller for the more economically active families engaged in livelihood ‘hybrids’. Why anyone would agree to lease out their land in these circumstances deserves consideration.

The second matter deserving attention is the great variability in informal sector incomes, in particular the marketing of garden produce, which can draw in just a few hundred Kina per year, or many thousands. Typically, we see those lower incomes coming from an unplanned marketing of surplus production, while the higher incomes are seen amongst those who focus on specific crops for domestic markets (Anderson 2008a).

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1 Additional data in Tables 1 and 2 comes from the June 2011 surveys of roadside sellers in three PNG provinces. These surveys were carried out by a small team led by this author and were identical to those reported from the earlier Madang study in 2007 (Anderson 2008a). Sample sizes, population sizes, and estimated sampling errors were: Morobe (50, 1460,  $\pm 13.6$ ); Eastern Highlands (55, 260,  $\pm 12$ ), East New Britain (56, 350,  $\pm 11.8$ ). I do not think that weighting individual roadside markets adds anything to these very similar groups of markets (there are almost always greater differences within each market than between them). Nevertheless I have given ‘raw’ average incomes as well as weighted (% population divided by % total interviews) data, in brackets.

**Table 1: Formal and Informal Sector Incomes in PNG**

<b>Income</b>	<b>AWE (Kina)</b>
<b>Formal Sector Incomes –</b>	
Ramu Sugar basic wage, 2006 (Madang Pr, 2007) A8	42
RD Tuna factory wage, 2006 (Madang Pr., 2007) A8	34
Ramu Nickel construction wage, 2006 (Madang Pr, 2007) A8	50
VOP/LSS (oil palm) growers (Oro Pr., 2002 / 2009) WAB, WB	60 / 107
Mama Lus Frut (oil palm) income (WNB, 2000 / 2006) WAB, KB	29 / 49
Chicken factory workers (Morobe Pr.,2011) A11	102
Private store workers, Kokopo (ENB, 2011) A11	45
Papindo store workers, Kokopo (ENB, 2011) A11	100
National minimum wage, (2006 / 2011) – IB	37.20 / 91.60
Leasing family land to OP company (per ha, K20-100/year) A6	2
<b>Informal sector incomes –</b>	
Family subsistence production (7 people, Kina <i>equivalent</i> ) A6	[258]
Informal sector business (Central Pr.) S3	158
Informal sector business 2003 (ENB Pr.) S3	124
Informal sector business 2003 (Morobe Pr.) S3	130
Informal sector business 2003 (Western Highlands Pr.) S3	138
Roadside sellers (mainly women), 2006 (Madang Pr) A8 [weighted]	286 [138]
Roadside sellers (mainly women), 2011 (Morobe Pr) A11 [wtd]	285 [144]
Roadside sellers (mainly women), 2011 (Eastern Highlands) A11 [wtd]	230 [230]
Roadside sellers (mainly women), 2011 (East New Britain) A11 [wtd]	198 [144]

*Sources:* A6=Anderson 2006; A8=Anderson 2008a; A11=Anderson 2011; S3=Sowe et al 2003; WAB Warner and Bauer 2002; KB=Koczberski 2007; WB=World Bank 2010; IB=Matbob 2011; *Notes:* AWE = average weekly earnings in Kina

The third feature of note is that the formal economy options listed (Village Oil Palm, Mama Lus Frut, various basic employment options) typically have lower incomes than the other informal and small business options and, in particular, they were less than the incomes of those who market fresh produce. In my survey of women roadside sellers in Madang, the weighted average income (for three days a week at market) was significantly higher than the highest reported incomes for Village Oil Palm (Anderson 2008a; World Bank 2010). Importantly, there seem to be ‘ceilings’ on these formal sector schemes, as wages are set by employers and oil palm fruit prices for growers are set by a single local company. That is, the potential of formal sector options for families is limited by other powerful players who dominate those markets.

Finally, the opportunity costs are greater, and there is less flexibility, in the formal sector options that involve leasing of land or turning one’s

own land over to oil palm cultivation. Oil palm allows no companion planting and ties up good quality land for many years (e.g. Wilcove and Koh 2010; Danielson *et al* 2009). On the other hand, land use for high return domestic crop options such as peanut, taro, betel nut and melons can be adjusted from year to year. Export crops such as cocoa and vanilla can be companion planted, and do not consume the fertiliser and other chemicals that oil palm demands.

**Table 2: Roadside Sellers: Additional Livelihood Activities**

	Also Participate In?			Highest Income From?			
	Exports	Other business	Family member employed	Local markets	Unknown	Exports	Other business
<b>Morobe</b>	24 (48%)	18 (36%)	9 (18%)	37 (74%)	7 (14%)	4 (8%)	2 (4%)
<b>EHP</b>	34 (62%)	9 (16%)	8 (15%)	40 (73%)	9 (16%)	1 (2%)	1 (2%)
<b>ENB</b>	41 (73%)	7 (13%)	27 (48%)	41 (73%)	6 (11%)	7 (13%)	0 (0%)
<b>[Madang]</b>	36 (82%)	27 (61%)	5 (11%)	33 (75%)	10 (23%)	0 (0%)	1 (2%)

*Sources:* rural surveys by this writer in June 2011 (Anderson 2011); further to the Madang rural surveys of 2007 (Anderson 2008a)

Table 2 shows another interesting feature of the roadside seller surveys (2007 and 2011). Most local fresh produce sellers also participate in growing and selling export crops; however in very few cases (zero to 13 percent) do the incomes from export produce equal or exceed the cash income from local markets. This tells us that domestic markets are usually much more important to these small farming families. Further, a very high (but variable) proportion of roadside sellers have family participation in other businesses (like small stores and poultry businesses) as well as in formal sector employment. This data suggests the need to rethink the emphasis given to export crops, and to pay more attention to the multi-faceted or ‘hybrid’ livelihood options being adopted by small farming communities.

The ‘land modernisers’ (e.g. Fairhead, Kauzi and Yala 2010; Hughes 2004) have put the case for the ‘growth and state revenue’ contributions of land-using formal sector activities, like logging and oil palm, often ignoring family and community livelihoods. Where it has been suggested that landowning families would benefit from these activities (ITS Global 2006; ITS Global 2010; World Bank 2010), the evidence neither matches the assertions nor considers the full range of options. Overall, the

evidence makes it plain that neither rural rents nor engagement with formal economies in rural PNG provide either the range of options or the income earning potential of the better hybrid livelihoods. In these hybrids, families retain their customary land and subsistence production, while engaging in various supplementary informal and formal sector activities, some of them quite successful, yet incompatible with land alienation.

### **‘Market Failure’ and the Social Relations of Land**

The failure of formal markets in rural Melanesia can be seen in the great landowner dissatisfaction with existing leases and plantation options. These formal economy options have been unable to deliver even a fraction of the benefits of the better hybrid livelihoods based on ongoing family control of customary land. I suggest this ‘market failure’ is best understood through a study of the social relations of rural land. This can help explain the poor logic of substituting viable, emerging hybrid livelihoods, based on customary land, for low paid formal sector options.

The main obstacle to land registration in PNG is that it is unwanted; a fatal obstacle, in the view of the chief colonial administrator of land in colonial Kenya (Lawrence 1970). There is no popular demand for it and, on the contrary, popular opposition has been expressed strongly on several occasions (see Uni Tavor 2001).

The second obstacle is the absence of a functioning rural land market with anything approaching symmetry of power; that is, a market which might deliver some satisfaction to all parties concerned. The small amount of rural land that has been given over, leased, sold or simply stolen from customary owners is ridden with disputes. These disputes involve complaints about: misappropriation of customary land (*e.g.* Yambai 2003; Tararia 2003); environmental damage to land and surrounding areas (*e.g.* from logging and mining); failure of promised benefits from land development (*e.g.* promised roads or health centres); and unfair sharing of benefits of commercial development (*e.g.* from plantation cash crops; Koja 2003). These complaints help illustrate the widespread dissatisfaction with past land agreements and transactions.

Rural land markets in PNG are highly limited; the customary land owners are asset-rich, cash poor and have very little information on the real opportunity cost value of their land and the range of cash economy

options open to them. Of course, better information on the opportunity costs would encourage higher lease values. However, an oversupply in the unlikely event of large scale registration and transactions could theoretically lower them, if existing lease prices were not already at 'rock bottom', and fuelling discontent.

Furthermore, the 'invisibility' of customary landowners, to the formal sector, is constantly used against them. For example, in calculating the 'costs' incurred by village oil palm farmers, for the purpose of a profit sharing agreement with milling companies, Burnett and Ellingsen (2001: 31) did not include any rent component. The fixed capital and depreciation costs of the company were considered as costs, but the villagers' contribution of customary land was not. It does seem to be a common assumption that customary land, because of the virtual absence of rural land markets, has no economic value at all. Apart from the narrow logic of such ideas, these assumptions have serious consequences for small families.

The gross undervaluing of customary rural land in business dealings is to some extent understood by customary owners as evident in the constant resistance to moves on customary land. Given this, why have some of them agreed to tiny rents on leased land, or to engage in plantation schemes with limited returns and high environmental costs? I suggest several elements in the social relations of rural land are at work. First, landowners generally lease just some of their land, maintaining enough for houses and gardens. This is not necessarily 'surplus' land, as prime fertile agricultural or forest land is most often targeted by outsiders. However, at the same time, land that has not been developed for gardens is not necessarily given an exchange value, and the strong custom of sharing assets has generally not contemplated a 'market premium'.

Second, the lessees are most often a single company, often backed by the regional or national government. There is no real competition, in the sense of another bidder for the lease, and there is very limited information on the terms of leases, or on alternative options. In addition, false promises over the likely benefits from 'development' are common in PNG. Logging companies promise roads and health centres, which often do not materialise. Mining and logging companies do not properly advise of environmental and social impacts. Oil palm companies promise inflated income opportunities. Poor families are vulnerable in the face of such misinformation. Thus competition and full information, key

ingredients of the liberal theory of ‘allocative efficiency’ in markets, are missing.

Third, cash poor, asset rich families are vulnerable in exchange, as there are pressures to earn money to pay their children’s school fees and health service fees. They are vulnerable to cash offers, and can easily undervalue their assets. In addition, cash crops are valued in exchange terms, but undeveloped or potential cash crops are often not factored into the calculations of customary land owners. Similarly, the subsistence value of land (for most villagers with productive land) is usually regarded as a given (until it is taken away) rather than an equivalent exchange value, which might have to be compensated. This is particularly the case for customary land owners with little information and limited education. Not only are the customary landowners vulnerable to cash offers and not well educated in matters of exchange value, their own traditions often militate against such exchange calculations.

Finally, there is fraud in the setting up of Incorporated Land Groups (ILGs) and the leasing of customary land. One such case at Collingwood Bay (Oro Province) was overturned by the courts, in 2002 (Tararia 2003). Combinations of these factors, I suggest, have led to a massive undervaluing of customary land in PNG, on the few occasions that there have been transactions. A general sense of this undervaluation feeds substantial dissatisfaction and disputes over land.

## **Concluding Remarks**

This article has suggested that land modernisation processes began in the colonial era and continue to this day, with very similar arguments. The development of land markets was said to be able to deliver greater security of title, a boost to formal economies, improvements in agricultural productivity, access to rural credit, and empowerment of women. Little in these claims is supported by the experience of either East Africa or Melanesia.

While the arguments were broad, the principal aims were establishing privileged classes, and allied groups, to assist a colonial (and later a neo-colonial) process of capturing the value of traditional lands. The main elements of the process were the formalisation and financialisation of land, and the dismantling of the traditional and complex social relations of land. Building on this, contemporary growth arguments and models of



the supposed aggregate economic benefits of land modernisation (through registration and commercialisation) have been applied in Melanesia, despite considerable resistance. A key theme has been that the dismantling of traditional land tenure is a precondition for superior economic options for the general population.

However, when consideration is given to rural livelihoods and emerging hybrids (incorporating subsistence production and cultural exchange as well as informal and formal sector activities) rather than just the new formal economies, we find distinct results. The emerging hybrids (for families which retain control of their land and do not live in remote areas) are already superior in income terms to most of the formal economy options. A large number of hybrid livelihoods, which do not require surrender or leasing of land, provide incomes several times higher than the formal economies alternatives in rent and wages. While small farmers like to access export markets, their best opportunities mostly remain in domestic markets. The higher income earners are those who exploit specific commercial opportunities or combine employment and small business with intelligent farm produce marketing.

From the family and community point of view, the integrity of emerging hybrid livelihoods remains founded on the community and family control of their own customary lands. Formal sector options, properly calculated, offer little at the base level. Yet 'transactions' in rural land markets are promoted by powerful interest groups. The lessons here are that public debate needs a much broader view of land and livelihoods, and Melanesian families need better access to quality information on their livelihood options.

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