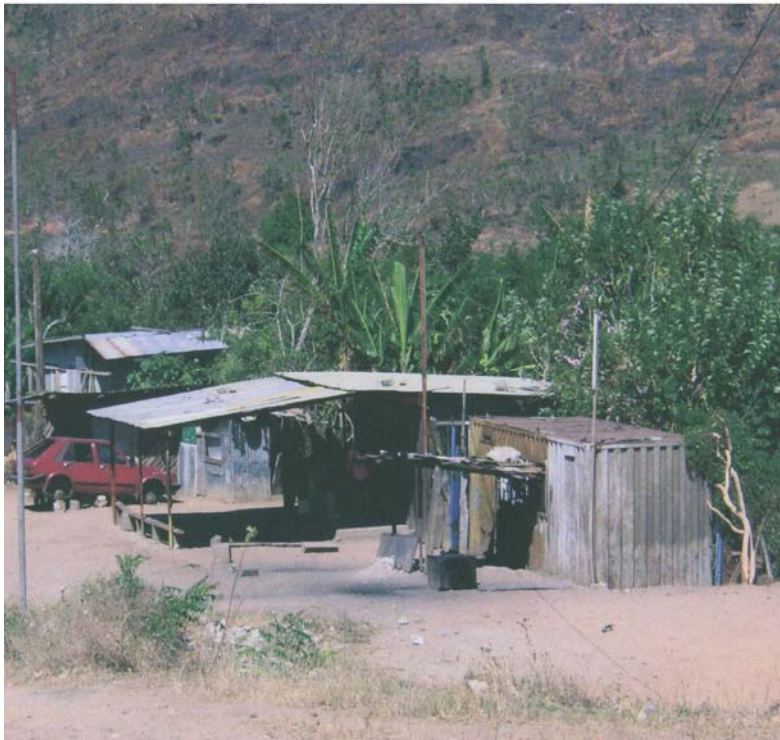


The National Research Institute

NRI Special Publication No. 49



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SETTLEMENTS OF PORT MORESBY**



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SETTLEMENTS OF PORT MORESBY**

**by
Satish Chand and Charles Yala**

**NRI
The National Research Institute**

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Acronyms

CL	Customary Land
EHP	Eastern Highlands Province
ENBP	East New Britain Province
ESP	East Sepik Province
K	Kina
MBP	Milne Bay Province
NCD	National Capital District
NSO	National Statistical Office
ODC	Oro Development Community
PNG	Papua New Guinea
SCL	State – Customary Land
SHP	Southern Highlands Province
SL	State Land
WHP	Western Highlands Province
WSP	West Sepik Province (Sandaun)

Abstract

Improving access to land in the Pacific Region remains a difficult problem. This paper presents results from a field survey conducted in twelve randomly selected settlements in Port Moresby, the capital of Papua New Guinea, to find out how settlers acquire land for housing. The analysis shows that several means for land acquisition are used, ranging from outright occupation; that is, land invasion, to the purchase of use-rights from the customary landowners.

The security of tenure on land held under customary title is maintained using mechanisms ranging from group occupation by members of a clan or tribe to the use of the traditional systems of reciprocation and token exchange. In contrast, security of tenure on land held by the State is maintained through political patronage. Settlers fear eviction from the State more than the customary owners, which suggests that ownership rights are relatively more secure on land held under customary title.

The length of occupation is viewed by the settlers as cementing their ownership rights to the occupied land. Similarly, some of the settlers have overcapitalised into permanent housing, with the understanding that the State would have to compensate them for the improvements if they are evicted.

Chapter 1: Introduction

Improving secure and long-term access to land as a means of accelerating the pace of economic development is receiving widespread international attention. It has been repeatedly pointed out that the absence of formal title to land occupied by the millions of people living in urban squatter settlements has impeded development. The lack of secure title to land has dissuaded savings and investment by the settlers (Deininger 2003). The lack of formal title has also raised the cost of credit to the poor (Feder *et al.* 1988), and taxed the transferability of their assets (Besley 1995).

These channels concerning lack of formal title have sucked life out of often the only major asset of the poor, which led De Soto (2000) to label land without formal title as ‘dead capital’. The recognition of the drag that insecure rights to property places on poverty reduction has led to land-titling programs in several developing and transition countries, including Cambodia, Columbia, Egypt, Ghana, Honduras, the Philippines, South Africa, Turkey, and Vietnam (Galiani and Schargrodsy 2006).¹ However, this land-titling wave has yet to reach the Pacific island nations.

The demand for land for housing within the urban centres of the Pacific islands has grown rapidly over the past fifty years, and this trend is likely to continue for the foreseeable future. In Papua New Guinea, the population has been growing at an annual average of 2.7 percent for the decade to 2005. Some 87 percent of the population live within rural districts, where access to basic services and employment opportunities remain poor. Settlements around the urban centres, and the national capital, in particular, have grown rapidly over the past three decades (Koczberski *et al.* 2001).

With only three percent of the total land area being alienated, the majority of the new settlements are on land held under customary title. While settlers without legal title on state land may be classified as squatters, those on land held under customary title have usufruct rights to their place of abode. The latter group has used a combination of modern and traditional institutions to secure their rights of access to land for settlement. The presence of a market for houses built on this land is evidence that these institutions do provide some degree of transferability of assets, and that the underlying title to land, albeit informal, is more secure than that for settlers on state land.

The question is whether the systems that have evolved so far could be used – and possibly strengthened — to provide long-term security for housing in these settlements. The diversity in the systems that have evolved between land which is owned by the State and that which is customarily owned, and that amongst the various customary owners themselves, is used to draw lessons on the feasible policy choices.

On the former, a number of settlers claim their rights to state land on the basis of political patronage. The settlers acknowledge that this right remains while their patrons remain in office. As a consequence, settlers have been far more active in national elections compared to the rest of the population. This was evident during the survey

¹ *The Economist* warns that, ‘Giving land titles to the poor is no silver bullet’ (*The Economist* 2006:62).

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when the whole settlement of Erima was found to be away attending a political rally organised by the incumbent Governor for the National Capital District (NCD) in the lead up to the NCD By-election. A number of politicians continue to reward such participation through providing services such as ‘free’ water, electricity, and land.

Systems that have evolved within settlements on land that is held under customary title have ranged from explicit arrangements on the purchase, sale, and rental of land and properties built on this land, to nil payments and overt occupation without any compensation. On the latter, one group of landowners, while being unable to evict those settled on their land, have refrained from accepting any payments in fear of legitimising the claims of the settlers.

The systems that have developed to date are far from complete or efficient in rationing land for housing. However, they do offer many lessons on what could be done to progress this agenda. These differences are exploited in order to draw policy lessons on improving access to land for settler housing in Port Moresby.

This paper offers several original contributions. First, it documents how institutions have evolved to cater for the rising demand for land for housing, in the settlements of Port Moresby. In sharp contrast to ongoing efforts at land registration, the evolution of institutions at the household level, which have had some success in providing long-term and secure access to land for settlement, are investigated. Our ‘bottom-up’ approach complements, rather than acts as a substitute for, the ongoing ‘top-down’ efforts at land surveys and land registration.

Second, the study draws on data collected through a purpose-designed survey that was conducted in twelve randomly selected settlements, covering a total of 441 households. The analysis of these data offers several insights into the functioning of settlements in Port Moresby. Third, the analysis reveals that institutions have evolved, and continue to do so, to fill at least some of the void left by formal systems in enabling access to land for housing. The incentives to acquire security to land for housing are significant to the settlers.

Furthermore, the landowners have similar incentives in ensuring that the value from their assets is maximised. However, the transactions take place in conditions of imperfect information on several dimensions, including the murky rights of the purported owner, and the capacity of the buyer to enforce his or her rights of settlement. Transactors learn, over time, as news concerning past deals is readily shared within the community.

The rest of this paper is organised into six chapters. Chapter 2 provides a succinct summary of the linkages between property rights and development. Chapter 3 provides information on the settings for this analysis — the settlements of Port Moresby, the capital of Papua New Guinea. Chapters 4 and 5 present the methodology, data, and some of the preliminary findings from our analysis. Chapter 6 presents some of the policy implications, while Chapter 7 presents the conclusion.

Chapter 2: Property Rights and Development

The lack of security to land has long been considered an obstacle to economic development. De Soto (2000:147) notes that a market economy is ‘inconceivable’ without an integrated formal property system. He attributes migration of the poor from rural to urban areas as resulting from a lack of their rights to own land, and their inability to improve their well-being. De Soto (*ibid.*) identifies migrants as a source of entrepreneurship, and labels them as ‘noble pioneers’, in contrast to their common stereotyping as ‘trespassers on unoccupied property’. Consequently, providing migrants with land titles has been seen as a means of unleashing their entrepreneurial potential and propelling them down a path of poverty reduction.

The broader literature attributes at least four distinct channels through which land-titling lowers poverty. First, having exclusive rights to a house provides intrinsic value to the owner. This, together with the ability to transfer it at will, enables the householder to restrict family and clan members from residing at their premises and feeding off their incomes.²

Second, possession of exclusive rights to a property affects the incentives to save and invest. A house, minus perfect factor markets, provides the householder with an instrument to save and invest, such as through ongoing improvements that are undertaken by sacrificing leisure time. For example, most of the houses in the settlements of Port Moresby are continuously being upgraded, which is often undertaken with family and clan labour. An individual who is unsure of his or her ability to reap the benefits of any investment in a long-term, lump asset, such as housing, is likely to underinvest when asset security is lacking.

Furthermore, collective (overcrowded) living, which is common in the settlements, dissuades investment in the education of the siblings. In turn, this lowers the income potential of the next generation. Third, secure title to an immovable asset, such as land or housing, allows the owners to ‘collateralise’ the asset to acquire credit from the formal sector. This credit could be used to acquire capital, and thus increase income by raising labour productivity. Fourth, secure title saves the household the expense of providing security. Ownership rights to a house in a settlement are often maintained through continuous occupation. A lapse in occupation risks capture of the asset by others. The last risk situation explains why settlers coalesce around the family and clan, as this enables them to credibly commit to being able to ‘fight off’ an invasion.

This may explain why there are overcrowded households and the dominance of male-headed households in several of the settlements in Port Moresby. The absence of secure title to land for housing lowers the income of the household through reduced savings and investment, while raising expenditure in maintaining ownership rights to the property. The cumulative effects of lack of secure title is higher poverty than what

² Ownership incorporates a bundle of rights, including the right to occupy, use, develop, sell, give, and exclude others from the property. Settlers’ rights expand over a subset of these rights, which seldom extends to being able to exclude the landowner from accessing his or her asset.

would prevail, if there was secure rights to the property.

While secure rights to property may induce greater investment and growth in income, a higher income may also induce a greater demand for secure property rights. The feedback between security of access to property and income, over time, leads to bifurcation of households into those with income and property, as opposed to others without the basic amenities of life. This makes the task of establishing the direction of causality between security of access to land and the level of poverty in any empirical work extremely difficult. Moreover, the allocation of property rights across households, is not random. It is based on their capacities to acquire these rights and the intrinsic value they attach to these rights. Controlling these idiosyncratic differences between households in establishing causality between the two variables complicates the task even further.

However, there is an emerging body of evidence which supports the proposition that secure property rights are a necessary — albeit not sufficient — condition for development. Galiani *et al.* (2006:1) used survey-level evidence from a poor suburb in Buenos Aires to show that families with land titles ‘increased housing investment, reduced household size, and improved the education of their children, relative to the control group’. They showed that, having land title, in comparison to a control group that did not, raised the probability of having good quality walls and roofs, by 40 percent and 47 percent, respectively. However, their evidence in support of the proposition that secure property rights also improves access to credit is weak. As suggested in this paper, this may be because of the underlying insecurity of the formal title, and the inability of the credit providers to repossess property on loan default.

Lanjouw and Levy (2002:1009) use survey-level evidence from Ecuador to show that ‘the unconditional expected mean of titling a property is to raise its expected sale price by an estimated 23.5 percent’. This evidence is consistent with the claim of Galiani *et al.* (2006:3) who suggest that the benefit of entitling property flows through the ‘slow channel of increased physical and human capital investment’. Thus, while entitlement may not open the door to formal credit channels, it does improve incentives for increased investment and savings.

Much of the research that has been conducted has assumed that properties with formal titles are secure, and that those without are not. This research suggests that such a demarcation is artificial, and that settlers and landowners, knowing the value of secure property rights, negotiate some level of security which falls in between the binary extremes that are used in the literature. Settlers choose the longevity of their investment in houses, depending on their perception of the degree of security of the land on which the building takes place.

The dynamics of savings, investment, and continual exchange with the owner of the land that is settled upon, and with neighbouring settlers, influences the level of ongoing investment. Therefore, new settlers may construct temporary (makeshift) shelters, not only because they lack the means to build something more permanent, but also as a first step in testing the security of their investment on the newly acquired piece of land for housing.

The passage of time — at least in Port Moresby — has tilted the balance in favour of settlers, with respect to their entitlement to the land that has been built upon. Many of the long-settled households now claim ownership rights to the land, which suggests that their deceased forebearers had ‘paid their dues’ to the original owners to have acquired these rights. These claims are more potent, with respect to land held under customary title, than that held under state ownership. This could — at least partly — be explained by the fact that the former is consistent with the traditional (precolonial) institutions of land acquisition.

Colonisation saw the introduction of land registration and the use of legislative barriers to the alienation of land. This followed the colonisers concerns that the natives would lose their main – and only – asset. Thus, land in-alienation was seen as being critical to preserving the ‘native race’ (Ward and Kingdon 1995). The genesis of land registration and customary tenure was in post-colonial legislation, which forbade the outright sale of land or issue of title in the name of an individual. However, this ban was envisaged to be temporary and maintained until ‘the native race [was] ripe for a division of community rights among individuals’ (*ibid.*: 207).

The Minister for Territories in colonial Papua New Guinea announced that the indigenous people would decide on what to do with their land, at their own choosing (Wright 2002). This led the colonial government to allow the development of a voluntary system of private property rights. The agricultural settlement schemes that were trialled during the 1950s and 1960s were an attempt to induce demand for private property rights. It was then suggested that a settler, after having successfully established himself, would have a positive demonstration effect on others. The anticipated increase in income was expected to stimulate demand for private property rights (Cheetham 1963). However, this failed to materialise.

Restrictions on land acquisition that were introduced following colonisation were in sharp contrast to the ancient practice of land boundaries being determined by the military might of a tribe, vis-à-vis its neighbours. Occupation and use rights to a particular piece of land in the prehistoric period were both fluid and destructible (Sukuna, as quoted in Ward and Kingdon 1995:207). In-alienation was introduced in the post-colonisation period, and froze the fluidity of usufruct rights to land. It was germane to the notion of customary title; that is, outright ownership in the name of the clan, in contemporary Papua New Guinea. Not surprisingly, concepts, such as perpetual title to land and institutions to ensure that these rights were respected, are absent from the traditional systems.

The institutions that have evolved within settlements in Port Moresby reflect the confluence of the traditional notions of land acquisition, with their modern precepts of ownership. Moreover, the newly conferred ownership rights have become entrenched, over time, as any change from the status quo now creates winners and losers.

The traditional systems evolved and catered for the demands of the individual, without compromising the collective right of the family and the tribe. Clan members had, and continue to have, an understanding of the specific rights to a particular piece of land. A system is in place for the transfer of land across generations, and land

boundaries across clans and tribes are common knowledge and part of oral tradition. However, none of these conditions are codified, and the details of the above-mentioned transactions differ across tribes. Occasional disputes concerning land boundaries do take place, and have done so historically, but systems have evolved to resolve these issues, when and if they occur. Furthermore, violence has always been the last resort to resolving these disputes.

Land held under customary title has been successfully accessed for enterprise. Large resource projects in Papua New Guinea, such as the Ok Tedi mine in Western Province, are cases in point. While resource projects, such as mining and logging, have proven successful under very difficult circumstances, their high returns have been adequate to defray the large transaction costs incurred in accessing land (and natural resources such as indigenous timber) that is held under customary title. Economic activities which lack large rents of resource projects have failed to emerge in these environments. Moreover, newly arrived settlers in urban settings lack the information, scale, and means to acquire formal titles to the land on which they have settled.

Proposals to facilitate access to communally owned land in the Pacific islands have drawn considerable political sensitivity. A World Bank sponsored 'land mobilisation' project in Papua New Guinea, in 2001, drew protests in Port Moresby that led to the deaths of four university students, when police allegedly fired on the protestors. Sensitivities in relation to settlers benefiting from the owners of land held under customary title in Honiara is alleged to have been one of the sources of the four-year civil conflict in Solomon Islands that was brought to an end in July 2003 through the intervention of an Australian-led military and police intervention. The failure of past attempts at titling land held under customary ownership continues to act as a burden on fresh attempts at progressing this agenda.

Chapter 3: The Setting

Papua New Guinea has some 5.89 million people, with the population growing at an annual rate of 2.03 percent (data for 2005 is the most recent available). Papua New Guinea is located in the South West Pacific, just north of Australia. The World Bank reports purchasing power parity; that is, PPP, adjusted per capita income, as of 2005, of US\$2 370, an average life expectancy of 56 years, and an infant mortality rate of 68 for every 1000 live births. With a population density of 13 people per square kilometre, Papua New Guinea is a land-abundant, but highly fragmented nation. The people and country are divided into three major geographic regions — the Highlands, which encompasses the interior mountainous region of the mainland, the coastal zones of the main island, and the numerous smaller islands.

There are some 800 languages, defined as mutually unintelligible speech, which Cooter (1991) suggests is a reflection of the historical isolation of the individual communities and their cultural heterogeneity. English is the nation's official language, while Tok Pisin, which is a combination of English, German, and indigenous vocabulary with a rudimentary grammar, is the *lingua-franca*. Only 13 percent of the total population resides in urban areas, thus there remains significant potential for further growth in the urban population. Moreover, kinship groups remain pervasive, albeit variegated, within urban settings.³

According to the National Census conducted in 2000, Port Moresby had a population of 254 158 (National Statistical Office 2002) and is located on the Gulf of Papua on the south-eastern coast of the island of New Guinea. The city acquired its name from Captain John Moresby of HMS *Basilisk*. He was the first European to have landed there, on 20 February 1883. Captain Moresby claimed the land for Britain, thus New Guinea became a British colony.

Electricity was first supplied to the city in 1925, and piped water in 1941. The Second World War saw the city turn into an important base for the allied troops, with thousands of soldiers being stationed there, under the then Australian colonial administration. The war period also led to the evacuation of the resident (indigenous) Papuans away from the city and the enlisting of Papuan men from the surrounding regions as carriers for the allied troops.⁴ One of the twelve settlements surveyed — Koki — was created during the war on land alienated by the colonial administration for the enlistees, while another, Hohola, was used as an army gallery range.

Papua New Guinea gained independence from Australia on 16 September 1975, with Port Moresby becoming the capital of this newly created nation. The whole of the National Capital District (NCD), which spans a total land area of 240 km², is classified as urban, and for the purposes of this paper, is referred to as Port Moresby. Its population increased by 226 percent in the two decades to 2000, from 112 000 in 1980.

³ These data are sourced from the World Development Indicators at: <http://devdata.worldbank.org/dataonline/>; accessed on 13 September 2006.

⁴ The historical information on Port Moresby has been accessed from http://en.wikipedia.org/wiki/Port_Moresby; accessed on 13 September 2006.

This implies an annual average population growth rate of four percent. The (crude) population density of Port Moresby, as of the 2000 Census, was 1 059 persons per km².⁵ For the two decades to 2000, the fastest growing areas, in terms of population, were the outer settlements. Laloki and Napanapa grew at an annual average of 12 percent while the Town-Hanuabada area experienced the lowest population growth rate of 2.6 percent.

In 2000, some 58 percent of the population in the NCD comprised migrants, with more than 90 percent of them having migrated from the other provinces over the past decade. Of these migrants, some 56 percent were males, and approximately 50 percent were between 25 and 29 years of age. The number of residents in the NCD, who were born outside the NCD, was 118 680, while for those residing in other provinces, but who were born in the NCD, it was 41 556 (2000 National Census). This implies a net immigration to the NCD of 77 124. The major sources of migrants to the NCD, by province, with the numbers in parenthesis were:

- Central (21 810);
- Eastern Highlands (13 356);
- Gulf (12 208); and
- Chimbu (10 060).

The major destinations for those born in the NCD were:

- Central (19 182);
- Morobe (4 504); and
- Eastern Highlands (1 452).

Some 30 percent of the interprovincial migrants remained in the NCD for up to four years, with a further 25 percent staying for between five and nine years. Labour force participation rates for males and females were 60 and 34 percent, respectively (National Statistical Office 2002). Of these, 21 percent of the males and 13 percent of the females were unemployed.⁶ These data show a significant churning of the NCD population, with an increasing number of young males arriving in the district, possibly in search of income-earning opportunities. Most of these new arrivals move into the settlements.

There are three snapshots covering the growth of settlements in the NCD between 1945 and 2000. In 1945, there were six villages, but no settlements. The 1980 Census enumerated 34 settlements housing a total population of 11 270. In contrast, the 2000 Census recorded a total of 55 settlements housing a total population of 53 390. Although, on average, a new settlement was established each year for the twenty years to 2000, the total settlement population grew by 7.8 percent during the period; that is, close to twice the NCD average. The March to June 2006 survey suggests that this

⁵ Port Moresby is deemed not to have any arable land, thus statistics for physiological population density cannot be presented.

⁶ NSO defines persons over 10 years of age in private dwellings as unemployed, if the individual over the reference period was either actively looking for work or was waiting to start a job. It does not include those engaged in the subsistence sector.

process of expansion is far from over. Existing settlements are expanding, while new ones are also appearing, with one taking shape just behind the premises of the National Research Institute. At this current rate, the settlement population in NCD will double every nine years, while that for the actual NCD, as a whole, will take twice as long.

Chapter 4: Methodology and Data

The data for the following analysis were derived from a survey of 441 households within twelve randomly selected settlements in Port Moresby. These data were collected using a purpose-designed household survey. The survey drew on the 2000 National Census for the National Capital District, which enumerates 54 settlements, ranging in population size from 35 for Kialova, to 5 927 for 9-Mile. The census data provide settlement-level details, as per census units, with the name of the settlement, the settlement's location, giving latitude and longitude, the number of households, the population, and a breakdown of the population, by gender.⁷

The criteria for selecting settlements for the survey comprised the following steps. First, the settlements were grouped into three categories — those built on customary land (CL), those built on state land (SL), and a third group comprising those built on land having a mixture of state and customary ownership (SCL). The data on ownership of land, as per settlement, were sourced from the National Capital District Commission.

Next, settlements with less than five percent of the total number of households in the respective groupings were dropped from the subsequent selection process. This was done in order to avoid narrowing down the selection process to just a few households. For example, some twelve settlements, with a total population of 6 486, spanning 1 163 households, are built on customary land. Of these settlements, six had fewer than 58 households (the survey threshold), and were dropped from the selection process.

Four of the remaining six settlements were randomly selected, and from each of these, ten percent of the households were again randomly selected for interviews.⁸ This process led to the selection of 71 households that were settled on land held under customary title, for interview. A similar process was used to select six settlements on state land, that led to a total of 338 households being selected for interview. Finally, two settlements on land which was owned by both the State and customary landowners were selected, that led to a total of 32 households for interview. A summary of settlement characteristics is presented in Table 1.

The rigorous sampling methodology that was chosen enabled the researchers to draw inferences on the population parameters on the basis of the analysis undertaken for the sample of households which were interviewed. The sample characteristics were cross-checked with the available population parameters to ensure that the selection process did not introduce biases. The available comparisons provide reasons for optimism on this front. Census data show that males constitute some 55.2 percent of the total NCD settlement population, while our sample gives a corresponding 55.4 percent. The number of people per household for the total NCD population is 6.4, while the corresponding statistic for the sample, as provided in the census data, is 6.0.

⁷. We are grateful to Bryant Allen for helping us access these data.

⁸ The number of households interviewed in 9-Mile fell short by one of the ten percent threshold. The interviewers encountered problems while interviewing this household.

Table 1: Summary Data on Settlement Characteristics

Settlement Land Type	Year First Settled	Population (2000 Census)	Number of Households	Number of Households Interviewed
Koki	SL	4 939	450	45
Saraga	SL	2 243	446	45
9-Mile	SL	5 927	922	91
Erima	SL	4 063	673	67
Gordon Ridge	SL	2 702	441	44
8-Mile	SL	2 683	458	46
Gorobe	SCL	1 070	128	13
Hohola	SCL	1 015	188	19
Savaka-Bundi	CL	970	154	15
Popondetta	CL	799	140	14
Vadavada	CL	2 048	363	36
Taurama	CL	447	62	6
Total		28 906		441

Notes: CL, SL, and SCL denote land owned by customary owners, the State, and a mixture of the two, respectively. Data have been sourced from 441 completed survey questionnaires. Settlements are arranged by type of land and first year settled.

Two interviewers from the National Research Institute conducted the surveys. Prior arrangements were made with the community elders from each of the selected settlements to enable the interviewers to conduct these surveys. Each household that was sampled was asked to designate a person most knowledgeable of their circumstances. The household head was invariably nominated.

A short questionnaire was then administered, and the responses recorded in full view of the interviewee. Questions were asked about household characteristics, including the age, occupation, provincial origin, and year settled for the household head. Questions were asked about access to basic services, the type of dwelling and costs of improvements, and the perceptions of security to land on which the household has settled. Notes were also taken on views expressed regarding the arrangements in place between the settler and the landowner, with respect to payments of rents and any rights to the land settled upon.

5: Some Preliminary Findings

The first settler within our sample of 441 interviews was from Koki, and he settled there in 1952 (see Table 1). On the whole, state land was settled on before land held under customary title. Settlement on state land commenced immediately following the Second World War, probably because able-bodied men were recruited as carriers from the neighbouring regions. The majority of these settlers were from Central Province and remain there today. Saraga came next on this count, with one of our interviewees having first settled there in 1960. In terms of composition, a third of the settlers are from Central Province, while Simbu comes a close second, with some 27 percent of the residents stating this as their province of birth. Gordon Ridge was the last settlement to be formed on state land, with settlements first appearing on land held under customary title, in the early 1970s.

The provincial origin of the household head and the extent of churning within the settlement population are shown in Table 2. Gorobe, which was first settled around the mid-1960s, has some 54 percent of its household heads originating from Gulf Province, another 23 percent were from Central Province, and the remaining heads were from Madang and Western Provinces. The distribution of people from the various provinces across the settlements is far from uniform. If anything, the data suggest that people from a given province have a strong tendency to coagulate within the settlements, and this observation seems to hold true, even within the spatial confines of a single settlement.

The early migrants into the NCD were from the surrounding provinces, with settlers from the Highlands Region coming later. This is particularly evident from the data for Hohola (see Table 2). This settlement came into being in the early 1980s, and comprises household heads from Eastern Highlands, Enga, and Southern Highlands Provinces, with households from each province in approximately equal proportion.

The Highlands migration has been equally strong in several areas:

- 8-Mile, which was settled in the early 1980s, and where migrants from Enga Province comprise 37 percent;
- Taurama, which was settled in the early 1980s, with a third of the people from Simbu Province, and another third from Gulf Province;
- Vadavada, with migrants from Simbu and Eastern Highlands Provinces making up 39 percent and 33 percent, respectively; and
- Erima, which was established in the early 1970s, and where migrants from Eastern Highlands Province comprise more than 50 percent of the population.

Data on the household characteristics of the settlers are shown in Table 3. While there is a considerable range on all of the variables for which data have been collected, the common features of households within the settlements include:

- the majority of the households are headed by males around 40 years of age;
- a significant proportion of these household heads are self-employed; and
- these households are generally large, comprising up to 48 individuals and 23 dependents.⁹ Household monthly income, as reported in the survey, ranged from K8 000 for a self-employed contractor, to K100. However, the quality of these data is suspect, given that several household heads refused to answer this question. While the interview did not delve into the details of the specific activities in which the self-employed engaged, similar field work has suggested that a significant proportion of self-employed people engaged in extra-legal activities. Levantis (1997) reported that crime accounts for some 14.8 percent of the total urban work force, while prostitution accounts for some 13.6 percent of the female urban work force. There is considerable anecdotal evidence to suggest that the crime statistics for the settlements could be even higher.

The settlements are also hives of entrepreneurial activity. Every settlement had at least one store (tucker shop), with many having several of them. In addition to tea houses, settlements had snooker tables, poultry and piggery businesses, hairdressers, bottleshops, transport providers, rent collectors, mechanics, money lenders, carpenters, traditional healers, vegetable suppliers, and nearly every other imaginable service that the community is likely to demand. A number of permanent structures were seen with some having septic toilets, television antennas, and electricity generators. In one case, a commercial centre, which was valued (by the proprietor) at K300 000, was built on land that did not have a formal title in the name of the investor.

While a number of settlements had rooms within the houses for rent, there was only a single house that was being rented, but the owner was no longer able to collect the rent. Surprisingly, both land and houses were bought and sold within several settlements, despite the lack of proper title to these properties, and often without the consent — or even knowledge — of the landowners.

Table 4 provides summary data on access to utilities and sanitation facilities. The permanent features within the homes varied considerably, with some having the most modern conveniences, while others lacked basic sanitation facilities. Only one of the 45 households that was surveyed in Saraga had access to a telephone, while all 15 households that were surveyed in Savaka-Bundi had telephone services. Access to water and electricity was better in comparison to telephone, except that nine of the 15 families that were interviewed in Savaka-Bundi accessed their water from ground wells.

Pits were the most common form of toilets, with only a few households having

⁹ Dependents include children younger than 15 years of age, adults older than 65 years of age, and sick and disabled who are unable to independently support themselves. The number of individuals in a household in our interviewed sample is larger than in the census data — an issue that we suspect results from the difference in how households have been defined in the two studies. The census data identify the citizen population living in private dwellings by relationship to the head of household. Relationships include spouses, own children, step/adopted children, other relatives, and non-relatives. Our data rely on the definition of household.

septic systems with water-flush conveniences. Some 67 percent of the households in Taurama and 62 percent in Gorobe did not have toilets at all. Sixty-nine percent of households in Koki had raw sewage draining straight into the sea, while 25 percent of the households reported that they did not have any toilet at all.¹⁰ The evidence highlights the fact that sanitation is a serious issue in the settlements, and in all likelihood, a health disaster waiting to happen.

Table 4: Access to Basic Services

Settlement	Water (%)	Electricity (% yes)	Telephone (%)	Toilet Pit (%)	None/Outside ^a (%)
8-Mile	80	22	9	83	15
9-Mile	98	67	11	68	30
Erima	91	58	1	88	1
Gordon Ridge	73	57	22	91	2
Gorobe	62	62	8	31	62
Hohola	100	74	21	31	74
Koki	100	78	44	69	24
Popondetta	79	43	14	64	29
Saraga	84	60	2	89	4
Savaka-Bundi	100	100	100	93	7
Taurama	50	17	0	33	67
Vadavada	97	17	0	56	41

Note:^a 'Outside' refers to use of the sea in the specific case of Koki. The difference between the last two columns is made up of nil responses and those reporting use of water-flush toilets hooked up to septic tanks.

The link, if any, between security of access to the land built upon and the level of investment in permanent housing had the most surprises.

Security of Tenure to Land Settled Upon

Table 5 provides a summary of land transactions that have taken place, particularly with respect to providing greater security to housing in the settlements that were surveyed. The second column shows that between 11 and 71 percent of the households had acquired the land from the original owners. In the case of state land, this was the Department of Lands and Physical Planning, and, it was for land under customary title from those claiming to be the owners by customary law. The settlements on state land are cases of outright land invasion. Those who did not acquire land from the original owners bought their land, often with the improvements, from others. There is clear

¹⁰ Koki is built over water, thus those without toilets reported using the open sea or outside areas as the places of convenience.

evidence of sale and purchase of houses, despite the lack of a clear legal title to these properties.

Table 5: Details of Land Transactions

Settlement	Land Acquired from Original Owner	Average Cost of Land (Kina)	W/O Legal Title (%)	Average Value of Improvements (Kina)	Properties for Rent
8-Mile	33	n.a.	67	17 500	No
9-Mile	46	7 173	59	23 350	Yes
Erima	28	2 265	55	15 686	Yes
Gordon Ridge	30	2 532	80	23 351	Yes
Gorobe	46	1 000/50–100	100	n.a	Yes
Hohola	58	5 000	89	30 694	Yes
Koki	11	5 250	84	54 145	Yes
Popondetta	71	3 000/30 per year	86	44 885	Yes?
Saraga	69	251	100	9 600	Yes
Savaka-Bundi	13	12 500	93	3 867	Yes
Taurama	33	n.a	67	17 500	No
Vadavada	31	950	94	6 744	Yes

Note: n.a.= not available

The price paid for land varied considerably between settlements. There were no clear and discernible differences in the prices paid for land between the three land types. Similarly, there was no distinct demarcation in the level of investments made by the settlers between CL, SL, and SCL.¹¹ The price for land differed, depending on the terrain, the size of the block, and the distance from the main road. In the cases of Gorobe and Popondetta settlements, the customary landowners offered a choice between two schemes to acquire land for housing — one that involved an upfront lump sum payment for the land, or one that entailed a smaller down payment with annual rents.

In one specific case, the settler reported that he had bought beer worth K200 for the landowner, and now contributes K10 each time the landowner comes with a request for brideprice, funeral expenses, and so on. The proportion of households without formal title to their blocks of land on which homes were built ranged from 55 percent in Erima to everyone who was interviewed in Gorobe and Saraga not having a formal title.

¹¹ This issue will be tested vigorously as part of future research.

There was considerable heterogeneity relating to the arrangements across settlements built on customary land in terms of how land was accessed for housing. This ranged from a few cases of outright land invasion, where a pioneer identified an empty piece of land and built on it, following which the members of his clan and tribe joined in, to other cases where explicit arrangements were made with the customary landowners to access their land for settlement. In the latter case, landowners have invariably disallowed the sale of land, and placed restrictions on the renting of property. However, rental transactions have taken place regardless, and often without the knowledge of the landowners.

There were mechanisms developing to increase security of tenure within the settlements. However, this system has a long way to go before the land market reaches full efficiency. Rooms within houses were available for rent in all except three settlements. With one exception, houses in the settlements were unavailable for rent. The reasons for this anomaly was made clear from the single case in Gordon Ridge where the owner of the property was unable to collect rent after the settlers had moved in. He informed us that he did not have the powers to evict them either.

Several household heads who were interviewed reported that they were ‘caretakers’ of the property that was owned by a member of their immediate family. This is evidence in support of the proposition that continual occupation of a property is critical to maintaining ownership. Not surprisingly, houses were not available for rent in the settlements. Even in the renting out of a room, the capacity to be able to evict a non-complying tenant would be critical in acceding to this in the first place. Therefore, those people who rented rooms had some family link to the household head.

Institutions were developing to provide greater security to the land on which people were building. Surprisingly, the forms of institutional evolution differed markedly between state land and land held under customary title. In the case of state land, the settlers were a lot more active in national elections. Settlers in four of the six settlements — 8-Mile, 9-Mile, Erima, and Koki — that were established on state land attributed their security to land on which they had settled to national politicians, who reportedly encouraged them to settle on the land in question.

Most of these politicians have since left politics or died, but the settlers remain active in national elections, which provides them with ongoing security. A number of settlers acknowledged that the State could evict them, consequently, their security rests very much on their ability to sustain strong political patronage. However, the politicians who depend on such support have an incentive not to provide secure property rights, as it may erode their electoral base.

Settlers on land held under customary title have also ‘negotiated’ arrangements that provide some level of security. Some have signed statutory declarations with a Commissioner of Oaths concerning their rights to settle on the land, while others keep receipts for all payments made, as evidence of their claim to the land. The Popondetta settlement, where approximately 50 percent of the settlers are from the Oro Province, has established an Oro Development Community (ODC) as an intermediary between the settlers and the customary landowners. The ODC mediates payments from the settlers to

the landowners and keeps records of these transactions. The settlers stated in the interviews that the landowners had refused to provide formal title to the land. However, they held comfort in that the ODC held records of all payments that had been made, and that the majority of the residents in the settlement were soldiers, who would be able to resist any threats of eviction.

Settlers have had a clear tendency to coalesce around boundaries of the family, clan, tribe, province, profession, and so on. The conglomerations that evolve around multiple dimensions strengthen the settlers' claims to the land on which they have settled. The incentives for such groupings were strong in the pre-colonial era when occupation rights to any piece of land had to be defended with force, and where personal security was provided via groupings of the nature observed in the settlements. Villages then, as they do now within rural districts, tended to comprise a cluster of houses built on hills or ridges for security. These incentives for clustering remain, particularly in the settlements where the presence of the State is weak, at best, and where the breakdown in law and order is a constant threat.

Traditionally, a family's claim to a piece of land is strengthened by 'spilling blood on it, burying dead in it, planting permanent crops, or building a permanent house on it' (Cooter 1991:768). The latter reason is particularly relevant in the urban settlements. However, the agglomeration around family, clan, and tribe creates risks of inter-tribal conflicts by having pseudo-tribes living close to each other. Moreover, these groupings create competition between the settlers and the landowners in respect of their respective rights to the land which has been settled. The uncertainty created by these actions limits investment in housing, while inducing greater clustering around kin and clan.

The customary landowners, being cognisant of the settlers' desires, have resisted settlements on their land, as far as possible, and have tried to control them whenever they have emerged. The rapidly rising population in the NCD, which has a fixed quantity of alienated land, and will continue to, put pressure on customary land for settlement. Although some customary landowners have been proactive in engaging with the settlers, and putting in place arrangements for access to their land for compensation, others have refused to acknowledge the presence of settlers, for fear that, by doing so, they will legitimise the settlers' claim to their land. For example, Vadavada landowners have appointed a rent collector who provides this service on an ongoing, competitive basis, while Gorobe landowners refuse any payments, for fear of legitimising the settlers' claims to their land.

Settlers from three settlements — Gordon Ridge, Koki, and Saraga — reported that they paid customary owners for the land on which they had settled, although NCDC records show that this land is owned by the State. This is a clear case where right of ownership of land has regressed from the State to those who claim to have customary rights to the land. Moreover, the settlers acknowledge these claims, as evidenced by them paying rent to those claiming such ownership.

In this particular case, the customary rights have successfully encroached on formal title, with the absent State losing a valuable asset in the process. This may not be an isolated case, as a number of the settlers who were interviewed reported having a

perception of greater security of tenure under the customary system, given the arrangements in place, and the fact that the customary owners lacked the might to use force to evict them from the land on which they had settled.

Although arrangements may have evolved to provide greater security to settlements on state land, the systems that are in place are well short of providing the level of security that is demanded by the settlers. For example, several interviewees reported having applied for title, while others reported that they were working towards acquiring a legitimate claim to the land on which they had settled.

Acquiring individual title to a piece of land involves going through an elaborate legal process. In the case of state land, physical and survey plans have to be prepared and submitted to the National Land Board for adjudication. A favourable decision on this submission then entails the lodgement of an application to the Registrar of Titles, for legal title. This process is not only resource intensive, but faces the risk of falling foul at any stage. For customary land, the only legal mechanism that is currently available for obtaining a formal title is through the *Land Tenure Conversion Act 1963*. Most of the survey respondents stated clearly that they wished to acquire greater security to the land, and expressed a willingness to pay for such a right. This underpins the urgency to improve land administration for state land, and the need to provide a legal framework that facilitates transactions on customary land.

The increasing NCD population, in conjunction with the increasing number of settlements — most of which will be on customary land — points to the fact that the demand for land, for housing, will only increase, over time. There is evidence of inter-tribal conflicts across settlements, but conflicts between settlers and customary landowners have yet to emerge. Land disputes between settlers and landowners that have reached the courts have, to date, been adjudicated in favour of the settlers — particularly those who have lived there for a long time. The majority of the existing settlements, are there to stay, and with the passage of time, are likely to cement their claim to the land on which they have settled. For example, settlers in Koki lay their claim to the land on the grounds that their forefathers were settled there by the colonial administration, and that they had paid their dues during the Second World War. The policy issue is how to transgress this agenda, by providing the settlers with the security that they demand, while ensuring that the landowners are not shortchanged in the process.

6: Policy Implications

The survey revealed a range of systems that have evolved to cater for the demands of both the settlers and the landowners in providing greater security to land for settler housing. However, the system of availing land for settlement is far from complete. Insecurity of rights to land is encouraging the conglomeration of settlers around points of common affinity, which has social ramifications in a society with a long history of tribal conflicts. The insecure rights to property are forcing settlers to continually occupy their property to maintain a claim to it. Moreover, the renting of houses is severely curtailed, which increases the pressure on rents.

The survey also revealed a lack of sanitation facilities in a significant proportion of settler houses, which poses a health risk to the wider community. Furthermore, the lack of security limits the ability of the landowners to effectively utilise their assets and places them at risk of losing the land upon which they have settled. The issue is whether the market for secure access to land for housing can be improved. This paper argues in the affirmative.

In trying to address this issue, the best of the mechanisms that have evolved to date have been considered. The first assumptions are that the settlers in Port Moresby are there to stay, that they can be a resource for growth of production, and that schemes can be designed to ensure mutual benefits for the settlers and the landowners. The policy challenge is one of unshackling the entrepreneurial potential of the settlers and the value of the land on which they have settled for the benefit of their owners, in order to raise income in a manner that is acceptable to both parties.

However, a simple entitling process would not achieve much, particularly where customary rights are already well-entrenched. Entitling in such a climate will be counterproductive, as it will increase insecurity by creating a parallel system of rights. This is already the case in the settlements at Gordon Ridge, Koki, and Saraga, where the rights conferred by the formal title have regressed to those of the traditional system. Our concept for improving security to land which has been settled involves helping the systems that are already working, in order to provide even greater security to that land.

By its very nature, this process involves picking some of the successful schemes and fostering their evolution towards meeting the demands for greater security. This is consistent with Cooter's (1991) concept of customary practice shaping common law concerning property in Papua New Guinea. Our evidence suggests that this concept is realistic for Port Moresby's settlements.

The establishment of intermediaries within the settlements, modelled on the Oro Development Community system, provides a useful start in formalising arrangements between the settlers and the landowners. These intermediaries could assume the responsibilities of ensuring that the land which has been settled conforms to the needs of the planning authorities, particularly in terms of the provisions for the development of basic infrastructure. Records, in the form of receipts, could then be used to provide for the title to the property, should this be acceptable to the landowners. A formally constituted body for the settlement would then be in a position to negotiate with the

landowners for access to greater security for land which has been settled. The National Capital District Commission (NCDC) has a role in 'seeding' and facilitating such a process.

Any plans that are submitted for entitling would need to have the approval of the landowners and the city planners. The NCDC could facilitate such a transition by ensuring that the cost of acquiring title to the land which has been settled is kept low, to induce participation. However, the transfer of the land has to take place at market prices, to deter land invasion. The proceeds of the sale of land could be used to pay the landowners, and any remaining balance could be invested in improving access to basic services in the settlement. The NCDC could incorporate municipal government levies and property taxes to fund ongoing infrastructure provisions to the entitled settlements. If that is done transparently, it will increase the legitimacy of the levies and create the demand for better accountability as to how these funds are used.

The initial step would be a pilot scheme of land titling, following an extensive public campaign that informs all of the stakeholders of the need for such a scheme. Calls could then be made for interests from the stakeholders in progressing down the path to entitling land which has already been settled. It is most unlikely that all of the settlements and every landowner will agree to this process. This would be all the better, as it would provide the policy space for experimentation. It will give the authorities time to learn, as the system matures. Moreover, a voluntary move down the path to entitlement of land is the least threatening means of seeding this process. Starting such a process on long-established state land at Koki and Saraga could provide the lessons for other settlements.

Chapter 7: Conclusion

Could land titling within Port Moresby's settlements be an instrument of poverty reduction? If so, how could such a program be seeded? The international evidence on the former issue provides considerable reason for optimism. However, land mobilisation programs in Papua New Guinea — and the Pacific more generally — have a poor record of success. This paper concentrates on the latter issue. Our analysis suggests that the evolution of traditional institutions can be hastened to provide improved security to land that is used for settler housing in Port Moresby.

Such a system, if it is to be stable, has to be imbedded within the existing and evolving arrangements that have had at least some success in meeting the demands for greater security to land which has already been settled. Most importantly, voluntary participation by the stakeholders in an entitling scheme can be of benefit to all of the participants in the exchange.

Indigenous institutions have evolved, over time, to enable access to land without formal title, for the construction of houses in settlements. These arrangements have provided adequate security to land for the construction of permanent houses in a number of settlements, and the creation of a nascent market for houses built on such land. Investors have negotiated with landowners to reach a 'Coasian bargain', which will possibly lead to a better social outcome than one that would have prevailed otherwise. However, the transaction costs of such a 'bargain', the associated information costs, and the externalities of insecure property rights on the wider population justify greater public efforts at making this market operate with greater efficiency.

Perhaps the systems that are already in place could be improved, with the State possibly playing a catalytic role. This paper argues in the affirmative, making a case that there are some 'big bills left on the sidewalk' (Olson 1996). Policies that facilitate and hasten the evolution of indigenous institutions which have, to date, had some success in availing land held under collective ownership for long-term housing within an urban planning setting have the potential to deliver large gains in social welfare.

The analysis of survey data from a stratified sample of 441 households in settlements in Port Moresby offers a number of pertinent lessons. First, settlers and customary owners of land which has been settled have developed institutions to make the market for long-term and secure access to land for housing within their settlements. The contrast between the customary owners on the one hand and Government on the other provides several distinct lessons. Second, land that has been settled, and which is customarily owned, is perceived by the settlers as being more secure than that under state ownership.

A number of settlements on state land were formed at the inducement of individual politicians, who did so to consolidate and grow their own electoral base. The clan/tribe-based settlement population is partly the result of this 'power strategy'. However, the politicians, having championed this course, are likely to lose from the provision of greater security to settlements from which they draw their support. Convincing these leaders of the value of greater security to land for settler housing is a necessary step in

progressing this agenda.

The differences in institutions that have developed on settlements which have been built on state and customary land, respectively, provide many lessons on what could be done in terms of policies to encourage improved and long-term access to land for housing in the settlements. On the one extreme, landowners have adopted a semi-formal practice of allowing access to their land for housing, but with many caveats on what the settlers are permitted to do. At the other extreme, we see landowners as ‘nervous wrecks’, refusing to accept anything from settlers on their land for fear of legitimising the settlers’ claim to the land which has been settled. On their part, settlers have kept receipts of all payments made, and in a few cases have had statutory declarations prepared to formalise their claims on the land which has been settled.

The ‘fuzzy’ rights of ownership and settlements across the two groups have left considerable room for debate, dispute, and murky deals. Many incidents have been reported, where people pretending to be landowners have claimed rents from the settlers, while equally as many genuine landowners have been chased out of the settlements as being ‘pretenders’.

Even the best of the systems that have evolved to date are inadequate to provide the required degree of security on land for housing, given that houses are unavailable for rent, and that settlers are unable to use the land as collateral for accessing credit from the formal sector. There is anecdotal evidence of money lenders within the settlements who are providing credit, but at rates that reflect the risks of such practices. Settlers fear eviction by the State more than by customary landowners. This fear may be justified, given the recent eviction of settlers from Mendi, in Southern Highlands Province.¹²

Settlers have proceeded to ‘breathe life’ into their ‘dead capital’ by making arrangements with the landowners, building around immediate family, tribe, and clan connections, and through keeping records of all payments made as formal proof of their legitimate claim to the land which has been settled. Although these claims cannot, as yet, be consisted as ‘banking collateral’, they are proving to be of value in the informal transfer of their houses. The settlers coalesce around family and kinship groups to safeguard against forceful eviction and for reasons of personal safety. However, such groupings pose risks of broader social conflicts and the breakdown of law and order. Those settlers who are on state land have remained active in national and local-level politics in order to maintain the political patronage that is necessary to secure their rights to the land on which they have settled.

This process offers a number of policy options in facilitating the evolution of institutions for availing land for long-term housing. As a first step, adopting the ‘best practice’ informal mechanisms within the formal system would be a move in the right direction. The provision of information on the systems that have already evolved in some settlements, and their costs and benefits could hasten the evolutionary process within those settlements that are lagging behind. The State may consider entitling land

¹² *The National* reported that soldiers were to move into the 120 houses owned by the National Housing Commission, and which were then occupied by illegal tenants (19 December 2006).

that has already been settled, but at full market prices, in order to avoid inducing further land invasion. The details of such a proposal are well beyond the purview of this paper, but are part of ongoing research work on land matters.

The lessons from this study have relevance and applicability beyond Port Moresby and Papua New Guinea. Settler communities have mushroomed around urban centres in Lae, Honiara (Solomon Islands), Port Vila (Vanuatu), and Suva (Fiji), and the majority of these settlements are on land that does not have secure title. As much as the lessons from Port Moresby would have applicability in these situations as well, these ideas are initially being tested in Port Moresby.

References

- Besley, T., 1995. 'Property Rights and Investment Incentives: Theory and Evidence from Ghana', *Journal of Political Economy*, **103**: 903-937.
- Cheetham, R., 1963. 'The Development of Indigenous Agriculture, Land Settlement, and Rural Credit Facilities in Papua New Guinea', *The Papua New Guinea Agricultural Journal*, **15 (3&4)**:67-78.
- Cooter, R.D., 1991. 'Inventing Market Property: The Land Courts of Papua New Guinea', *Law and Society Review*, **25 (4)**:759-801.
- Deininger, K., 2003. **Land Policies for Growth and Poverty Reduction**. Washington D.C.: World Bank and Oxford University Press.
- De Soto, H., 2000. **The Mystery of Capital: Why Capitalism Triumphs in the West and Fails Everywhere Else**. New York: Basic Books.
- Economist, The, 2006. 'Giving land titles to the poor is no silver bullet — Economics Focus: The mystery of capital deepens', *The Economist Magazine*, 26 August 2006:62.
- Feder, G., Onchan T., Chalamwong, Y. and Hongladarom, C., 1988. **Land Policies and Farm Productivity in Thailand**. Baltimore: Johns Hopkins University Press.
- Galiani, S. and Schargrotsky, E., 2006. 'Property rights for the poor: Effects of land titling', <http://tinyurl.com/ndw69>, accessed on 11 September 2006.
- Goddard, M., 2005. **The Unseen City: Anthropological Perspectives on Port Moresby, Papua New Guinea**. The Australian National University, Canberra: Pandanus Books.
- Koczberski, G., Curry, G.N. and Connell, J., 2001. 'Full circle or spiralling out of control?: State violence and the control of urbanisation in Papua New Guinea', *Urban Studies*, **38 (11)**:2017-2036.
- Lanjouw, J. and Levy, P., 2002. 'Untitled: A study of formal and informal property rights in Urban Ecuador', *Economic Journal*, **112**:986-1019.
- Levantis, T., 1997. 'Urban unemployment in PNG: It is criminal', *Pacific Economic Bulletin*, **12 (2)**:73-84.
- National Statistical Office, 2002. **2000 National Census: National Capital District Report**. Port Moresby: National Statistical Office.
- Olson, M., Jr., 1996. 'Distinguished lecture on economics in government — Big bills left on the sidewalk: Why some nations are rich and others poor', *Journal of Economic Perspectives*, **10 (2)**:3-24.

- Powell, P.T., 2005. 'The development link between state legitimacy, property rights, and urban unemployment: Insights from the Pacific island states', mimeograph, Indiana University.
- Varley, A., 2002. 'Private or Public: Debating the Meaning of Tenure Legalization', *International Journal of Urban and Regional Research*, **26** (3):449–461.
- Ward, M., 1970. 'Urbanisation — threat or promise?', *New Guinea*, **5** (1):57–62.
- Ward, R.G. and Kingdon, E., 1995. **Land, Custom, and Practice in the South Pacific**. United Kingdom: Cambridge University Press.
- Wright, H., 2002. 'A Liberal 'Respect for Small Property: Paul Hasluck and the Landless Proletariat in the Territory of Papua New Guinea, 1951–963', *Australian Historical Studies*, **33** (119):55–72.