

Crime catastrophe—reviewing Papua New Guinea's most serious social and economic problem

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Over three decades the law and order situation in Papua New Guinea has deteriorated to a level at least as bad as anywhere in the world, with profound consequences for the legitimacy and integrity of property rights and personal rights. This state of affairs undercuts the attainment of objectives of economic and social development. A fundamental paradigm of economic and social development is effective legal institutions. It is due to poor policy that Papua New Guineans suffer these kinds of socioeconomic conditions, and it is in effective policy that a cure can be formulated.

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A question of anarchy or enforcement of rights

Effective legal institutions are fundamental for a country to embark on a path of economic and social development. Without them there can be no confidence in the enforcement of property rights or personal rights. People would be free to commit acts of violence or theft, and contracts between parties would have little value. If contracts are not enforceable, transactions will only be made on a pay-and-go basis. Long-term deals would not be made, investment would not be possible. Moreover, without an

enforceable right of possession over property, there would be no incentive to make purchases of any kind of durables. There would be no point in buying land or making a deal to use land if the right to the land could be taken away without proper redress. No one would grow crops or embark on any production processes if the output could be taken away unchallenged. There would be no point to saving as the right over savings would not be enforceable. Without effective legal institutions, society is not able to function and there can only be anarchy where success is contingent on being powerful enough to resist any violation of what would



otherwise be basic rights and to prosper in imposing on the rights of others.

Since independence in 1975, the standard of enforcement of property rights and personal rights in Papua New Guinea has steadily declined and has been the basis of its desperately poor record of economic achievement. But the poor enforcement of rights in modern Papua New Guinea is not a characteristic that has carried over from traditional society. Rights over land and other possessions have always been enforceable within the confines of the community, as have been the boundaries of acceptable behaviour towards other people. There have always been unwritten rules and taboos to which people are confined. But the transition towards western society with centralised institutions and legal arrangements has been less than successful.

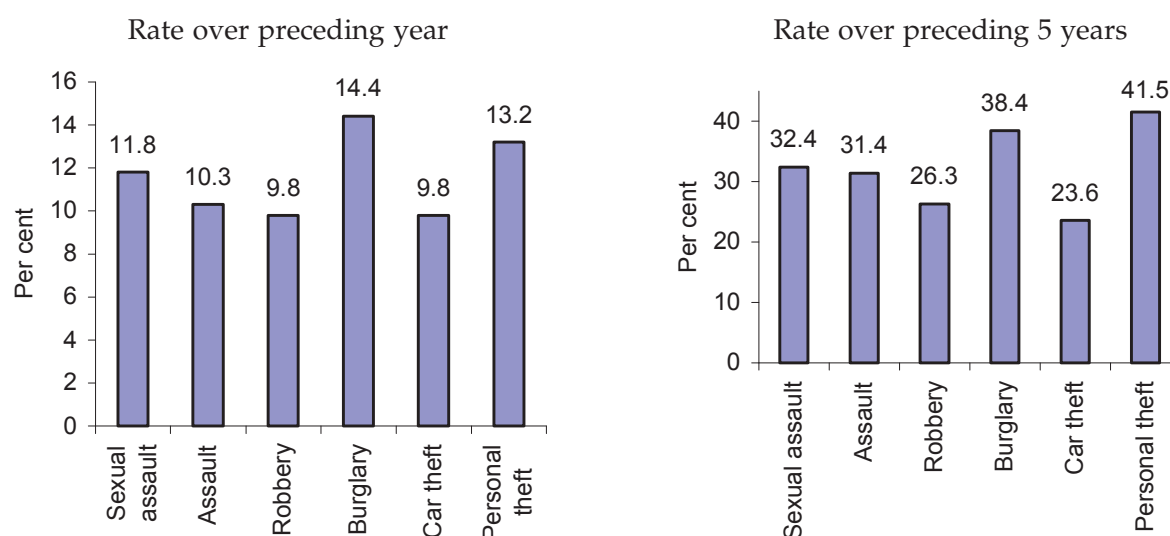
There are some difficulties in the transition that still need to be reconciled, the most notable of which is the issue of land ownership. For example, the concept of land

as a tradable commodity is foreign to Melanesian traditions. However, the paramount concerns in the transition to a western style centralised system of legal institutions are that the state has failed to implement those legal institutions effectively that have been established, and the extent of the failure has been growing steadily for a quarter of a century. The failure to enforce property rights and personal rights adequately has destroyed the confidence of the people and businesses in the legitimacy of these rights. Papua New Guinean society is undergoing a transition towards anarchy and, in turn, this has been catastrophic for the economic health and goodwill of society.

The size of the crime problem in Papua New Guinea

If we were to draw a scale with complete anarchy on the far left and complete and total law and order on the far right, we would find

Figure 1 Victimisation rates in Papua New Guinea, 1991 (per cent)

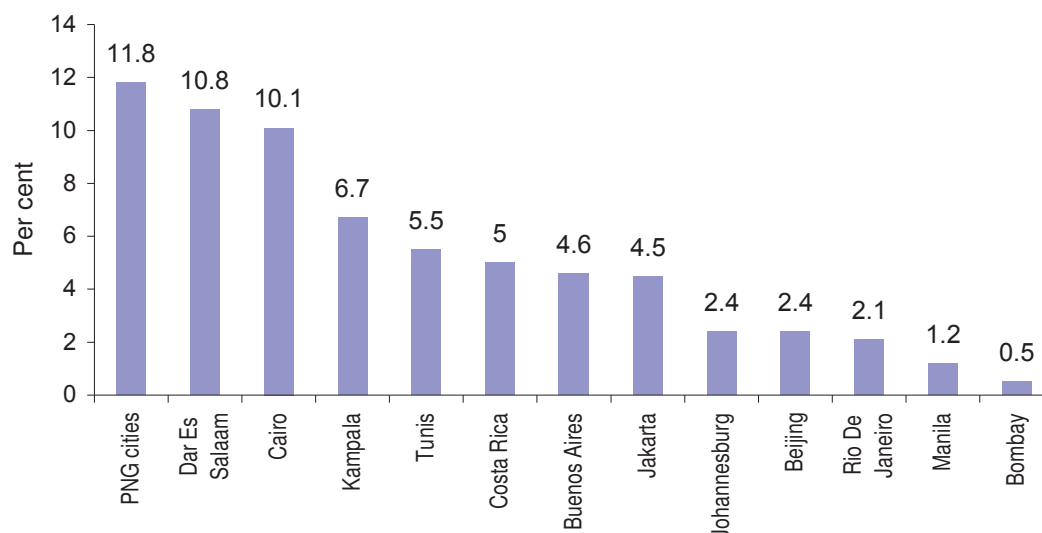


Note: These figures compare victimisation rates among those aged 16 and over. The victimisation rate for sexual assault is among females only. For car theft it is based on owners of cars only.

Source: Constructed from survey data in Zvekic and Weatherburn, (1995). *Crime and Criminal Justice Information in Papua New Guinea*, Interregional Crime and Justice Research Institute, New York.



Figure 2 International comparison of sexual assault, 1991 (per cent)



Note: This figure compares victimisation rates among females aged 16 and over.

Source: This figure is constructed from survey data in Zvekic and Alvazzi (1995). *Criminal Victimisation in the Developing World*, Interregional Crime and Justice Research Institute, New York.

countries such as Japan, Singapore and Switzerland furthest to the right, and Papua New Guinea among some nations of Africa most to the left. International comparisons are generally very difficult as the standards of crime statistics and the definitions of crime vary considerably between countries. The reliability of police statistics on crime in Papua New Guinea has always been dubious for all but the most serious crimes, and in any case, such statistics have not been released publicly since 1990. However, an international victimisation survey carried out by the United Nations Interregional Crime and Justice Research Institute (UNICRI) (Zvekic and Alvazzi 1995; Zvekic and Weatherburn 1995) permitted a reliable comparison to be made between the law and order situation in Papua New Guinea's urban centres and other surveyed cities in developing countries of Latin America, Africa and Asia.

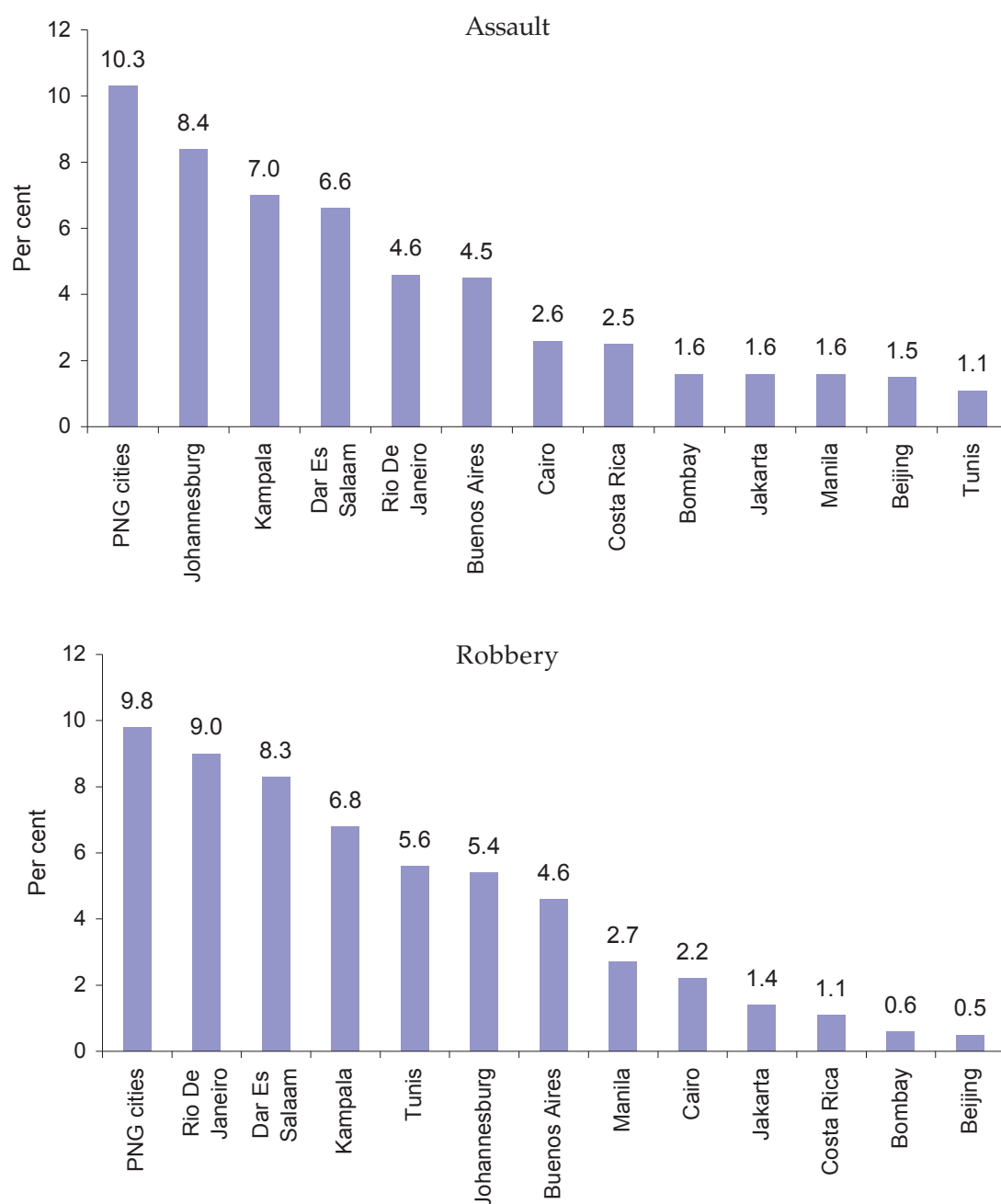
The victimisation survey was undertaken to learn what percentage of people had been victim to a crime at least

once in the year to the time of the survey and at least once over the past five years. Across most categories of crime, it was found that Papua New Guinea's urban centres fared worst among the surveyed cities—a trend most evident for the more serious crimes. This is strong verification of the failure of the state to adequately enforce personal rights and property rights, particularly when put in context of the notoriety of other cities in the survey such as Johannesburg, Rio de Janeiro and Kampala which are widely renowned for their lawlessness.

Papua New Guinea had easily the highest incidence of sexual assault. With nearly 12 per cent of women 16 years and over victim to sexual assault at least once in the preceding year and more than 32 per cent in the preceding five years, the state of human rights in Papua New Guinea's cities can be thought of as nothing short of catastrophic (Figure 1). Around one-quarter of the sexual assault cases were rape. Next highest among the surveyed cities was Dar-es-Salaam at just under 11 per cent for the preceding year and



Figure 3 International comparison of assault and robbery, 1991 (per cent)

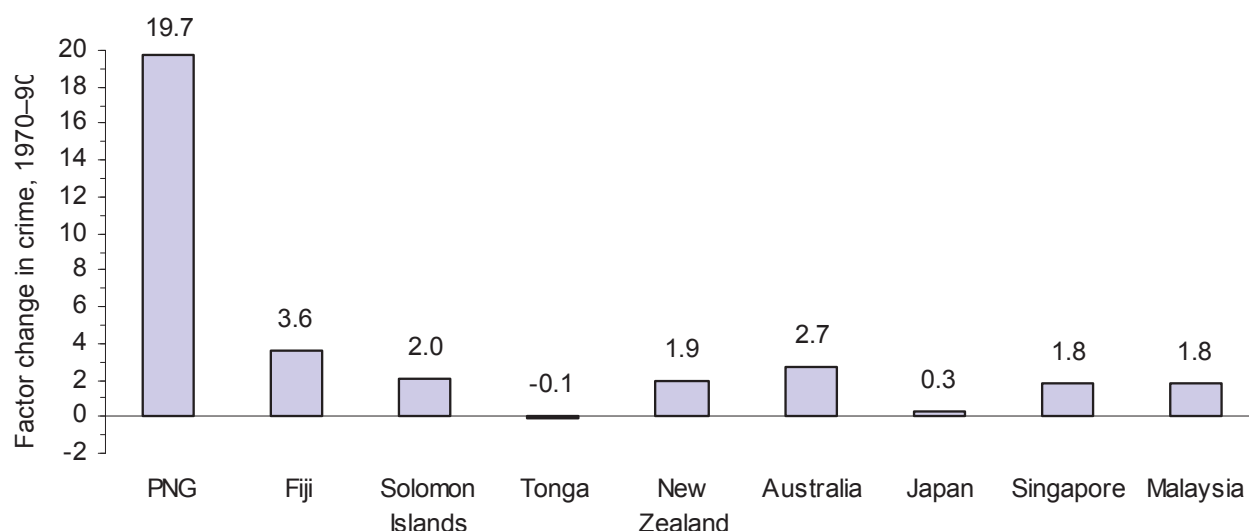


Note: Compares victimisation rates among those aged 16 years and over.

Source: These figures are constructed from survey data in Zvekic and Alvazzi (1995). *Criminal Victimisation in the Developing World*, Interregional Crime and Justice Research Institute, New York.



Figure 4 Comparison of crime trends in the Asia Pacific region; factor increase 1970–90



Source: This figure is constructed from data in Levantis and Gani (2000), 'Tourism demand and the nuisance of crime', *International Journal of Social Economics*, (forthcoming); and from United Nations Crime and Justice Information Network database.

Cairo at 10 per cent (Figure 2). Papua New Guinea's rate of sexual assault was found to be more than double that of Costa Rica and Jakarta, five times that of Johannesburg, six times that of Rio de Janeiro, and ten times that of Manila.

The violent crimes of common assault and robbery were also found to be more serious in Papua New Guinea's cities than the other surveyed cities. More than 10 per cent of respondents were found to be victim of an assault at least once in the past year and 31 per cent at least once in the past five years (Figure 1). This compares with 8 per cent of respondents over the previous year for Johannesburg, which was next highest. Papua New Guinea was around 50 per cent higher than the sub-Saharan cities surveyed and six times higher than the Asian cities in the sample (Figure 3). The victimisation rate for robbery was just under 10 per cent in Papua New Guinea, ahead of Rio de Janeiro at 9 per cent, close to double that of

Tunis, four times that of Manila and about 20 times higher than the rates in Beijing and Bombay.

Trends in crime

Between 1970 and 1990, crime in Papua New Guinea increased nearly 20-fold (Figure 4). Among neighbouring countries in the Asia Pacific region, New Zealand's crime rate doubled over the same period, Australia's crime rate increased 3-fold, and Fiji's 4-fold. These too were considerable increases, stirring up serious public unease, yet they pale into insignificance compared with what has happened in Papua New Guinea. Crime in Solomon Islands doubled, which is notable in view of the country's strong parallels in terms of culture, development and geography.

The removal of the prohibition on alcohol consumption in 1962 was perhaps the

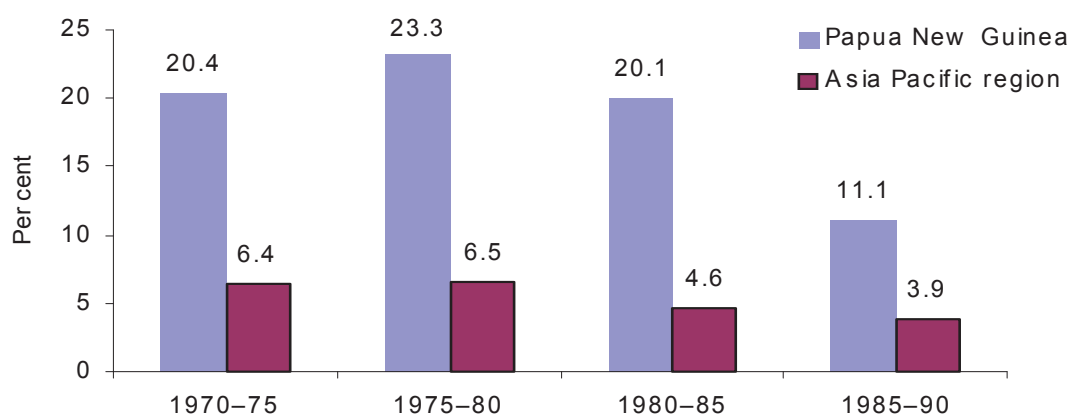


catalyst that saw crime emerge from its embryonic state (Harris 1988). The law and order problem grew steadily thereafter before rapidly deteriorating in the 1970s (Harris 1988). In the period 1970–75, the crime rate exploded, increasing by an average of 20 per cent per annum (Figure 5). The annual average rate of growth in crime continued to exceed 20 per cent right up until the mid 1980s; increasing in the years 1975–80 to 23 per cent and dropping back to 20 per cent for 1980–85. In contrast, the Asia Pacific region recorded average annual increases of 6.4 per cent, 6.5 per cent and 4.6 per cent over the same periods (Figure 5). For the period 1985–90, the average annual rate of increase in Papua New Guinea fell sharply to 11.1 per cent, but still well ahead of the regional rate of 3.9 per cent. The average growth rate fell again in the years 1990–95 to 6.2 per cent. It may be reasonable to postulate that the tapering in the growth of crime is evidence that opportunities are approaching saturation levels.

The *raskols*

Criminals in Papua New Guinea are referred to locally as *raskols*, which is a Tok Pisin term for ‘rascals’. But perhaps a more appropriate translation would be ‘mafia’. In his landmark work, Harris (1988) provided powerful insights into the way crime operates in Papua New Guinea, and he learnt that crimes should not be considered as random occurrences but are in fact highly organised by *raskol* gangs. He found the gangs to have strong hierarchical structures with membership sometimes in excess of 500 and in which the payoffs from those at the bottom are channelled up. Strong organisation extends to the distribution networks for stolen goods, even to the extent that international networks have formed for the distribution of such things as car parts and jewellery. The gangs have also entered into the international drug trade, and the supply of cannabis through the Torres Strait Islands into Australia is well established.

Figure 5 Average annual rate of increase in crime, Papua New Guinea versus the Asia Pacific region, 1970–90 (per cent)



Note: Asia Pacific region refers to the average across the sample countries indicated in Figure 4.

Source: This figure is constructed from data in Levantis and Gani (2000), ‘Tourism demand and the nuisance of crime’, *International Journal of Social Economics*, (forthcoming); and from United Nations Crime and Justice Information Network database.



Table 1 **Participation and average earnings of unskilled labour in urban centres by principle income-earning activity, 1995**

	Number	Per cent of adult population	Cash earnings (kina p.a.)	In-kind earnings (kina p.a.)	Total earnings (kina p.a.)
Crime	32,243	9.9	1,960	1,590	3,550
Prostitution	7,686	2.4	2,071	-	2,071
Informal sector	27,623	8.5	2,193	-	2,193
Unemployed	10,149	3.1	-	-	-
Formal unskilled	15,785	4.8	2,913	-	2,913

Note: 'Unemployed' refers to those looking for work but not participating in any income-earning activity.

Sources: Data is compiled from Levantis (1997b), 'The urban labour market of Papua New Guinea, post deregulation', *Pacific Economic Bulletin*, 12(2):54–72; Levantis (1997c), 'Urban unemployment in Papua New Guinea—it's criminal', *Pacific Economic Bulletin*, 12(2):73–84.

Both Harris (1988) and Goddard (1992) gained from their fieldwork the insight that the primary motivating force for joining *raskol* gangs is the available income earning opportunities. Levantis (1997c) estimated from 1995 survey data that there were about 32,000 *raskols* in Papua New Guinea's urban centres for whom crime was the most important means of earning an income (Table 1). Almost all *raskols* were male and they made up about 17 per cent of the adult male population, and 10 per cent of the total adult population. This astonishing figure reaffirms the findings of the UNICRI survey. Crime was found to be a more popular income-earning activity than even the legitimate informal sector in which 28,000 people participated for their principle means of livelihood (Table 1). A further 8,000 females were found to engage in prostitution as their principle means of earning an income—more than 5 per cent of the adult female population. An adult male population about one-third higher than the adult female population in urban centres may go some way to explaining this figure.

It was also found that the earnings of *raskols* compared favourably with earnings of those in the legitimate informal sector and even against low-level labour in the formal

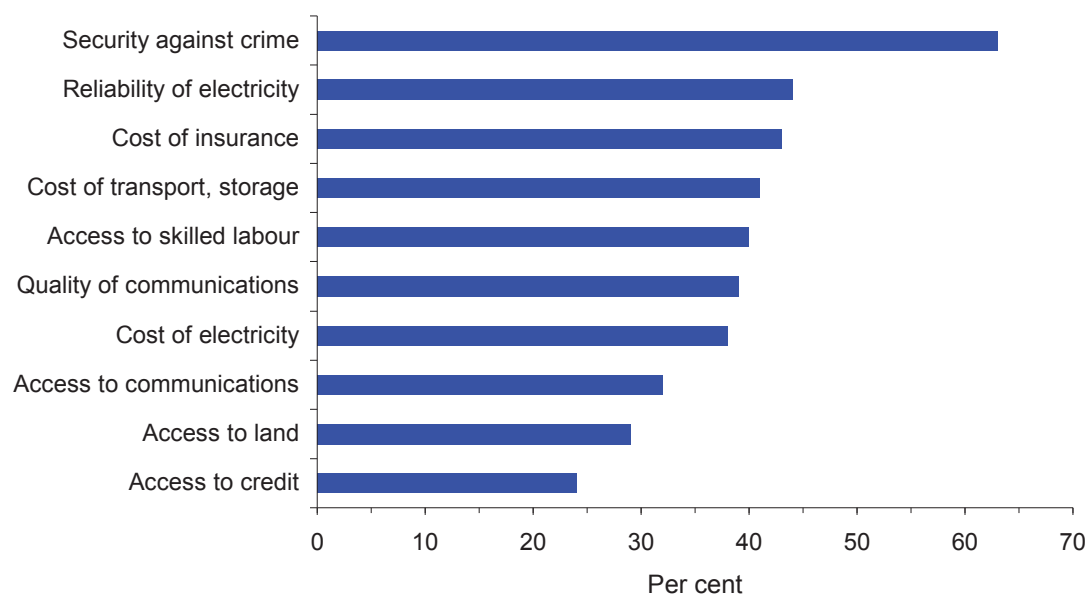
sector. Average annual cash earnings for *raskols* in the 1995 survey was K1,960, which compared to K2,071 for prostitutes, K2,193 in the informal sector, and K2,913 for formally employed unskilled workers in the private sector. Cash earnings of criminals are sourced from the theft of cash and from the proceeds of stolen goods laundered through the *raskols'* distribution networks. But beyond this, *raskols* earn amounts in kind by retaining stolen goods for their own use. Based on the respondents' valuations, annual non-cash earnings in kind averaged a further K1,590, but respondents may have tended to over-state the true market value of the stolen goods if valuations are to be based on black market prices.

The cost to the community

Based on the number of participants in crime and their average earnings reported in Table 1, the total value of theft in urban areas reached K115 million in 1995 or 1.8 per cent of GDP (see Table 2). But this represents a mere fraction of the total losses to society due to crime. Beyond the value of losses to thieves, the community incurs immeasurable physiological costs and other costs to utility



Figure 6 Factors considered a serious problem affecting business; per cent of businesses, 1996



Source: Compiled from data in Duncan and Lawson, 1997. *Cost Structures in Papua New Guinea*, Institute of National Affairs, Port Moresby: Table I.16.

associated with infringement of property rights and the right to freedom of movement. Moreover, substantial costs can be identified in three further categories: losses due to damage to property (often incurred in the act of theft), security costs and opportunity costs.

Opportunity costs are those losses associated with forgone production opportunities. The proliferation of violations of property rights due to crime and the inability of the state to adequately enforce these rights gives rise to profound disincentives for business and investment, which in turn has resulted in much lost opportunity in economic activity. The enormous law and order problem sees common breaches of businesses' rights of ownership over inputs and outputs of the production process. In fact, the most targeted victims of *raskol* activities are businesses from which 56 per cent of thefts occur (Levantis 1997a: Table 3.4). A further 26 per cent of thefts are from the public sector and the remaining 18 per cent from households or

individuals. Those businesses that continue to operate in Papua New Guinea do so only after big investments in security measures to defend their property rights.

In a survey of business costs, Duncan and Lawson (1997) found that businesses considered security of their property rights against crime to be easily the most serious issue affecting their business—and this is considering that by nature those businesses surviving in Papua New Guinea would be those most resilient to the crime situation (Figure 6). Nearly 63 per cent of businesses surveyed considered the security issue to be a serious problem, which compares to 44 per cent for the next most serious issue: the reliability of electricity supplies. Associated with the law and order problem is the high cost of insurance and this was considered the next most serious issue. Manning (1999) also found law and order to be the most serious concern in his 1999 survey, with crime the most important obstruction to business, followed by corruption, then poor infrastructure.



The magnitude of the impediment to business and investment and so the opportunity cost of crime in terms of lost economic activity is such that it perhaps represents the biggest cost associated with crime in Papua New Guinea, exceeding direct losses due to theft. According to Duncan and Lawson 'many firms said they were no longer doing business which they had otherwise done because of the risks of criminal activity' (1997:33). Moreover, the law and order problem has had an enormous impact on international tourism demand, and in view of the comparative advantage that one would expect Papua New Guinea to otherwise have in tourism, the lost opportunities are immense—perhaps running into billions of kina (Duncan and Lawson 1997).

The value of losses due to lost opportunities will never be known with any degree of accuracy, nor will we ever confidently place a value on the physiological costs or the costs associated with infringement of basic human rights. The measurable costs were estimated at K191 million in 1995, or 3 per cent of GDP (Table 2), yet these may be just a fraction of all costs due to crime. Apart from losses by way of theft estimated at K115 million in 1995, there

were additional losses due to damage to property of K16 million and K11 million due to disruption to production processes. Security costs reached nearly 1 per cent of GDP at just under K50 million.

Clifford et al. (1984) argued that expenditure on the security industry should be thought of as an offsetting stimulation in economic activity brought on by the crime problem. This is totally false. Resources spent on security services should be thought of as resources diverted from spending on other activities. Moreover, the objective of security is to reduce the risk of violations of personal and property rights. In other words, the motivation of security purchases is not due to its consumption adding to utility *per se*, but is to reduce the risk of disutility (or losses in the case of businesses) due to crime. If the crime problem were under control, the household or business would gain both in terms of reduced violations of rights and reduced expenditure on security.

To see this, consider the model of optimal security expenditure in Figure 7. The vertical axis represents the expected losses due to crime for a household or business, the horizontal axis represents security costs, and the function $c(s)$ traces the expected losses for that household or business at each level

Table 2 Estimated losses due to crime, 1995

	Kina million	Per cent of GDP
Thefts (transfers to criminals)	114.5	1.8
Losses due to property damage	16.4	0.3
Direct losses in production	10.5	0.2
Security costs	49.6	0.8
Sub-total: measurable costs	191.0	3.0
Opportunity costs in production	unknown	unknown
Physiological costs	unknown	unknown
Losses in basic human rights	unknown	unknown

Sources: Data compiled from Levantis, T., 1997a. The labour market of Papua New Guinea: a study of its structure and policy implications, PhD thesis, The Australian National University, Canberra (unpublished). Calculations of these estimates draw upon survey data in Clifford et al (1984), *Law and Order in Papua New Guinea*, Discussion Paper No. 16, Volumes I and II, Institute of National Affairs, Port Moresby.



of expenditure on security. The function is convex as it would be expected that there would be diminishing marginal effects on expected crime of outlays on security. With no security, the expected losses due to crime would be $c^{\max}$ and with security expenditure of $s^{\max}$ the risk of losses from crime is eliminated. Optimal expenditure on security is at s^{opt} and is determined by the tangent point of the 45° line. The expected losses from crime will then fall to c^{opt} . The net reduction in total expected losses due to expenditure on security of s^{opt} will be $[c^{\max} - (c^{\text{opt}} + s^{\text{opt}})]$. In this way it can be seen that security costs form an integral part of the cost of crime, and the decision to outlay s^{opt} is made so as to reduce direct losses from criminal activities by $(c^{\max} - c^{\text{opt}})$. Hence, the total expected losses due to crime are reduced from $c^{\max}$ to $(c^{\text{opt}} + s^{\text{opt}})$.

Causes

Why has Papua New Guinea's transition from traditional society towards Westernisation been accompanied with

such lawlessness? It is understandable that disrespect for the state's legal institutions is influenced by a recent history of stateless society. But to lay the blame on traditional culture and institutions would be ignorant in view of the relative order normally found in neighbouring Melanesian countries—the recent tribal disputes in Solomon Islands and constitutional difficulties in Fiji excepted. The problem of disrespect for Papua New Guinea's legal institutions has its roots in the standard of law enforcement. If one is able freely to breach a law of the state without fear of sanction, then why should we expect that law to be respected? 'Raskols feel they have the ability to perpetrate whatever crimes they like, virtually without fear of arrest or punishment' (Harris 1988:2).

Public resources allocated to enforcing the law and upholding the legal institutions are a futile response to the law and order situation. There are only about 5,000 police to contend with the law and order problem across the entire nation (Dinnen 1998). Compare this, for example, to Singapore which has a similar population but more than double the police numbers, yet does not have

Figure 7 Model of optimal security expenditure

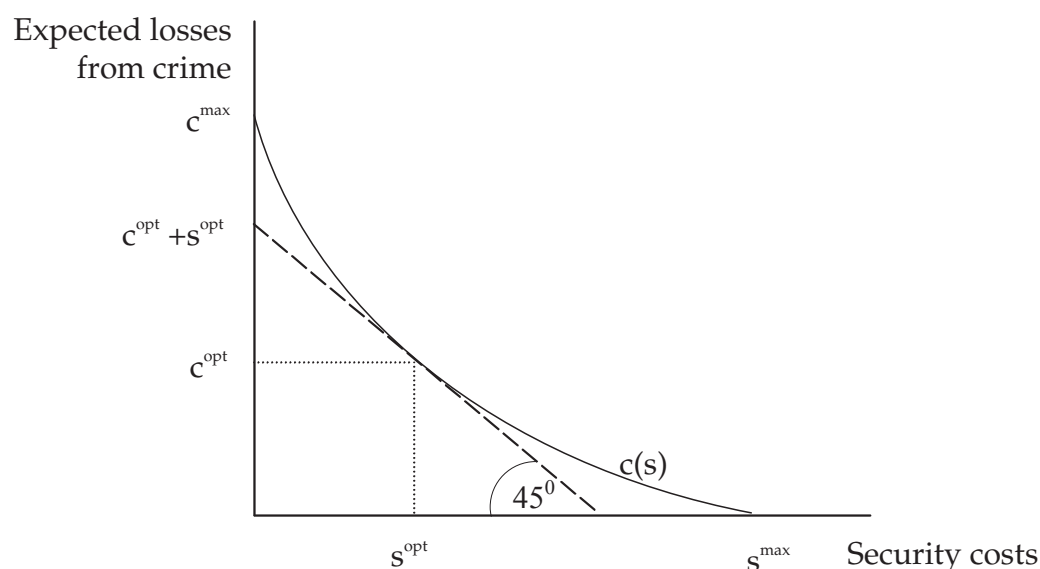
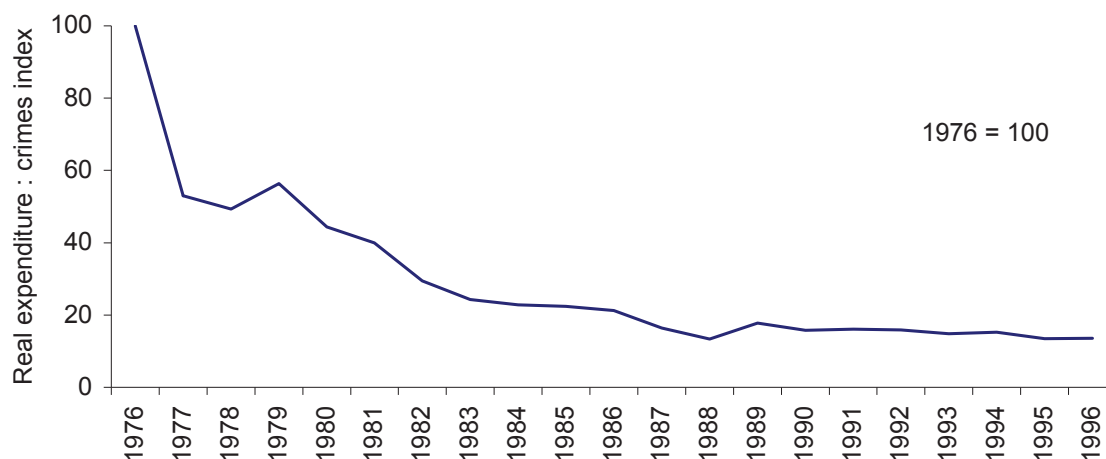




Figure 8 **Index of ratio of real public expenditure on law enforcement to crimes, 1976–96**
(1976=100)



Sources: This index is constructed from data in Levantis and Gani, 2000. 'Tourism demand and the nuisance of crime', *International Journal of Social Economics*, (forthcoming); the South Pacific Economic and Social Database at the National Centre for Development Studies, and unpublished police data.

to contend with the vast and difficult terrain (Curtin 1999). Moreover, besides the lack of resources, the productive use of the resources that are made available has been questionable. But Papua New Guinea is constrained in its ability to allocate scarce budget resources to law and order, particularly in recent years of fiscal mismanagement, and is also constrained in improving productivity in view of a shortage of skilled labour. On the other hand, business, investment and economic development will continue to be severely curtailed by the law and order problem, which in turn will constrain the ability of the government's budget revenues to grow.

The fact that the law and order problem grew so quickly in the 1970s directly implies an inadequate response from the law enforcement agencies. Resources allocated to law enforcement have increased slowly in contrast to the rapid rate of growth in crime, leaving the law enforcement agencies completely overwhelmed by the problem. By 1996, expenditure on law enforcement per crime committed fell to less than one-seventh

the level of 1976 (Figure 8). This is a big statement of the improved conditions for *raskols*, given that any decline in this ratio is indicative of an increase in the chances of law-breakers escaping from the authorities. Growth in real expenditure on law and order gathered strength in the early 1990s, allowing the ratio of expenditure to crimes committed to stabilise. However, of serious concern is that since the mid-1990s there has been a big cut-back in funding and by 1998, real budgeted resources were just 70 per cent of the 1994 level.

There are at least two further issues to consider for their contribution to Papua New Guinea's propensity for crime. First, rapidly increasing minimum wage rates in the early 1970s caused wages to be disproportionately high in urban areas, enticing strong rural-urban migration. At the same time, demand for labour tightened in response to higher wages, leaving an explosion of surplus labour in the urban centres and so a pool of desperate people to be drawn into crime for survival (Levantis 2000). But after independence in 1975, real wages stabilised



and then in 1992, the labour market was completely deregulated, so the wages issue can only be considered important as an early contributor to the development of *raskol* gangs. In any case, crime would not have emerged as a popular alternative income earning activity for those without jobs if the standard of law enforcement was such as to contain its profitability.

Second, through petty capitalism, the informal sector is highly visible in urban areas across most of the developing regions of neighbouring East Asia. An uninhibited informal sector has tremendous scope for diverting surplus labour into legitimate income earning activities while nurturing enterprising behaviour. As a legacy of its colonial past, Papua New Guinea instead has had strict regulations curtailing petty capitalism. The consequences for law and order are profound as the stern restriction on informal sector opportunities implies a strong substitution towards income earning opportunities in crime and prostitution (Levantis 2000).

Cures

The causes of Papua New Guinea's crime problem are legacies of policy, so to formulate a cure is to address the offending policies. The concern over the contribution of high wages to crime via its effects on the surplus labour problem has now lost its relevance since the 1992 decision to deregulate the labour market. However, the policy on restriction of informal activities has gone in the opposite direction with a crackdown during 1999 on street vending in Port Moresby—the pretence of improving city appearance given as the justification. Both a complete removal of regulations restricting petty capitalism and an affirmative action campaign to educate people in both the opportunities in petty businesses and how to operate them would have far reaching benefits in diverting surplus

labour from crime to the informal sector. This would attack the problem at its core by recognising that those without jobs go into crime for want of a better earning opportunity.

By providing the incentive and opportunity for people to move out of crime, the enormity of the problem with which the law-enforcement agencies must contend will fall. The effectiveness of the law-enforcement agencies will then rise due to the increase in the ratio of resources to crimes committed. There will therefore be an ensuing multiplier effect of promoting the informal sector. But beyond this, the state must recognise how imperative properly working legal institutions are to social order and economic development, and with this recognition will come a realisation of the need for upgrading the quality and reach of the functions of government that enforce the law and uphold legal institutions.

There is a corollary to this two-pronged remedy: the role of education. With higher educational achievement comes greater opportunity and greater hope of success in the formal workforce. Moreover, a better educated population will deliver a multiplier effect in economic development by opening up more opportunities for businesses who now suffer desperate shortages of skilled labour (Figure 6). Instead, the bulk of the population has no secondary or tertiary education and is destined to join the queue of surplus labour with no opportunity and no hope (Curtin 1996). This worthlessness is a powerful state of mind, exploited by recruiters of *raskol* gangs (Harris 1988). Success in an urban environment invariably requires at least secondary education, a factor less important in the village environment. There is therefore much to be said for refocusing education priorities as a means of redressing the present imbalance between the opportunities for lawful and illegal economic activities. A final point: consider how the effectiveness of the police would improve if they were better educated.



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Acknowledgements

Helpful comments from Ron Duncan and Timothy Curtin are acknowledged.