Gates, Hired Guns and Mistrust: Business Unusual
The Cost of Crime and Violence to Businesses in PNG
Sadaf Lakhani and Alys M. Willman
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This paper has been prepared as part of a broader study to understand the socioeconomic costs of crime and violence to businesses, government agencies, Civil Society Organizations (CSOs) and households in PNG. This work was requested by the Prime Minister and was undertaken with extensive input from international partners and local stakeholders.

The papers in this Research and Dialogue series are informal publications of the World Bank. They are circulated to encourage thought and discussion. The findings, interpretations, and conclusions expressed herein are those of the author(s) and do not necessarily reflect the views of the International Bank for Reconstruction and Development/The World Bank and its affiliated organizations, or those of the Executive Directors of The World Bank or the governments they represent.
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Introduction and Key Findings

“Every day my staff and I go to work, [we are] always looking over our shoulders.” (Staff Administrator, financial sector firm)

Introduction

High levels of crime and violence are widely viewed as a critical constraint to development in PNG. The most casual discussion on the topic inevitably elicits stories of personal experiences of victimization, or those of friends or family. Reports of violent incidents appear in the media on a daily basis. Despite 10 years of strong economic growth, with an increase in GDP of over 8% in 2011, there is a perception that crime and violence have an impact on the business climate in the country, and that the costs to development are significant.

This paper is the fourth in a series produced by the World Bank as part of the study “Socioeconomic Costs of Crime and Violence in PNG,” undertaken from 2011 to 2013 at the request of the Prime Minister. The aim of the study has been to conduct targeted data collection and mine existing information sources, creating new analyses, in order to feed an informed dialogue among key stakeholders in PNG, and to help the business community in their ongoing discussions. As such, the study provides an overview of costs according to key themes along with presenting relevant empirical evidence, rather than a detailed accounting.

The description of costs in the sections that follow is broken down into direct and indirect costs. These include, first, direct financial costs incurred in preventing and responding to crime that can be estimated using basic accounting methods. Second, indirect costs are those associated with, but not directly related to, a criminal or violent incident, such as estimated losses from businesses having to close early, missed work or lowered productivity of employees. Indirect costs also included other types of investments businesses made into managing more broadly the risks from crime and

1 The full Research and Dialogue Series on the Socioeconomic Costs of Crime and Violence can be found here: http://documents.worldbank.org/curated/en/docadvancesearch/docs?query=&sType=2&author=Alys%20Willman&aType=2&docTitle=2&gDate=3&fromDate=&toDate=&disclDate=3&fromDisclDate=&toDiscl Date=&region=119225&cntry=82505&lang=&lnstr=&prdln=&envcat=&majorDocTY=&docTY=&teraTopic =&topic=&disType=&report=&loan=&credit=&projId=&trustFunds=&UNRegnNbr=&sortDesc=docdt&s ortType=desc.

violence—such as medical treatment for female staff who have been victimized, the costs of re-training employees fired because of involvement in crime, or who are unable to work after being victimized, extra layers of security, and foregone investments in geographic expansion or new product lines due to the high costs of security. Finally, the broader societal costs are discussed. These comprise impacts of crime and violence that cannot be easily quantified in monetary terms, such as decreased quality of life, limited mobility, fewer choices and higher prices for consumers, and the erosion of trust and social cohesion.

**Methodology**

A mixed-method approach was used to collect data on how and the extent to which crime and violence impact businesses. A set of questions on crime and violence were added to the annual survey of the business community conducted by the Institute of National Affairs in 2012, covering 135 businesses. The results of the survey provided the team with an overview of the perception and impacts of crime and violence on business, and informed the design of the qualitative instruments used in the study. Twenty in-depth, semi-structured interviews were subsequently conducted by the World Bank team in 2013. Interviewees were selected based on detailed business profiling with national data drawn from the International Finance Corporation (IFC). The team organized three separate Town Hall Meetings in Port Moresby, in October 2012, April 2013, and March 2014, and one in Lae in March 2014 convening business leaders, government officials and members of civil society organizations. Finally, the team met individually with businesses, civil society groups, and government agencies. A more detailed description of the methodology is included in Annex A and a full list of entities consulted for the study can be found in Annex B.

While the data is not nationally representative, the perspectives represented go beyond businesses in the two main urban areas. The INA survey covered primarily businesses from urban areas (80 percent) and NCD (30 percent) but also had substantial coverage of provinces and across different sizes of business, and different sectors. A detailed description of the sample is given in Annex A. For the in-depth interviews, the sample included businesses outside of Port Moresby and Lae. The team also interviewed a variety of other stakeholders including employees, managers, owners, suppliers and customers of businesses, as well as government officials, insurance and financial operatives, media, police, official development agencies and NGOs.

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3 Methods do exist to assign monetary estimates to reduced quality of life, such as Disability Adjusted Life Years (see Skaperdas et al 2009) but these require larger datasets and are beyond the scope of this study.

4 In total 150 businesses were contacted, while only 20 gave an interview. This may indicate ‘survey fatigue’ in the business community. Some contacts indicated a frustration in providing information, as they were skeptical about the possibility for change, or of the possibility of an impact from their information.
Summary of Key Findings

1. Crime and violence are a serious concern for businesses, and influence their investment decisions. Sixty-seven percent of firms identified crime as a major constraint to their business. This number is more than four times the regional average for firms in East Asia and the Pacific (16 percent) and higher than all of the regional averages reported in the World Bank Enterprise Surveys. Rates in PNG were comparable to those in El Salvador (51.4 percent), Venezuela (60) and Democratic Republic of Congo (63). Eighty-one percent of businesses reported that their decisions for further investment or expansion of their operations were affected by the law and order situation in the country, with only 3 percent of businesses saying that their decisions were not affected at all.

2. Businesses shoulder large costs from PNG’s high crime rates. They make substantial investments to protect themselves from crime and violence. Eighty-four percent of companies said they pay for security in the form of security personnel or hardware such as specialized gates and security alarms. This number is significantly higher than the average for the East Asia and Pacific region (52 percent); Sub-Saharan Africa (61) and Latin American (62) regions. Yet, it is comparable to that of some countries in which it is known that crime creates significant costs to businesses such as El Salvador (87 percent).

3. Private security services constitute a significant and growing expense for many businesses. More than two-thirds of businesses use the services of private security, and spend an average of 5 percent of their annual costs on this. Roughly 30 percent of firms said they spend at least 10 percent of annual costs on private security. These represent high costs in comparison to the rest of the region: firms in East Asia spend on average 3.2 percent of annual sales on security (infrastructure and personnel). Cambodian and Vietnamese firms spend around one percent of annual sale on security, while firms in Timor-Leste report spending 6.9 percent of annual sales. In interviews and Town Hall Meetings, many firms noted that they were spending more than they had previously on

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5 “Crime” was defined as break-ins, vandalism, vehicle theft, property theft without force, arson (burning of premises), assault of employees on the business premises, kidnapping of employees, employees suffering violence/ being attacked on the way to and from the business premises, misappropriation of funds or petty theft by employees, and extortion.

6 The regional averages for Latin America and Sub-Saharan Africa are 34 and 28 percent, respectively. World Bank Business Enterprise surveys: [http://www.enterprisesurveys.org](http://www.enterprisesurveys.org)

7 ibid

8 The statistics from the Enterprise Surveys are not exactly comparable to the statistics from the PNG survey because the Enterprise Surveys report costs of security (infrastructure security and personnel) as a percentage of annual sales, rather than annual costs while the PNG survey reports only the costs of security personnel as a percentage of total costs.

9 World Bank Business Enterprise surveys: [http://www.enterprisesurveys.org](http://www.enterprisesurveys.org)
private security; some had even made formal arrangements with law enforcement so that their private security guards could perform police functions, including arrests.

4. Direct losses due to crime victimization are also substantial. Businesses reported losing an average of K89,000 per year in stolen property and K71,000 to petty theft by employees. Over a third (38.5 percent) reported closing early to avoid victimization, with losses of an average K93,000 per year.

5. Indirect costs are borne not only by businesses, but also by each consumer. While businesses pay the costs of crime prevention and response in their operations and through limiting their business options, these costs are also passed on the consumer. The fact that very few firms are able to scale up in the face of high crime rates means fewer products are developed and made available, and cost more.

6. While the financial costs of crime and violence are important to businesses, it is the indirect, longer-term social costs that, they reported, that are really concerning. High levels of crime and violence create fear that constrains mobility of staff and clients, erodes trust, and reinforces stigma toward certain groups perceived to be dangerous, especially youth. Domestic violence, in particular, intrudes into the workplace.

7. Societal costs of crime and violence are immense and pervasive, with the business sector’s perspective presenting just one lens to look at how crime and violence are limiting economic growth, permeating the way in which social relationships are conducted, and challenging the achievement of state-building and broader development goals.

8. There was consensus within the business community that crime and violence are a significant problem and that it needs to be addressed, but there are a range of opinions on what should be done, and by whom. Some in the business community proposed short term-solutions such as improving policing. In general, however, there is a strong sense that, while improving performance of law and justice institutions—particularly police—is important, violence is related to a broader range of social issues that will not be resolved by these means alone. Nor can the private sector, they felt, be expected to ‘go it alone’ on this issue.

9. Businesses also realized that some of their own practices, and the solutions that they are proposing for the short-term, may not be the best options for addressing crime and violence in the longer-term. One is the use of private security or sponsoring of dedicated police services as a response to weak state capacity to provide justice services, another is the continued hiring of internationals for positions that could be filled by skilled national staff.

1.1 Businesses are concerned about crime

“`The management of the crime situation in PNG, its prevalence and ongoing threat is regarded as a cost of doing business in PNG. Businesses who are unable to work with government to protect their assets and their people will invariably cease to operate profitably.”`

(Business manager of a foreign-owned company)

Businesses feel that crime and violence is a significant problem in PNG, and that it affects many of their business decisions. Well over half (67 percent) of businesses said crime is a major constraint. This is more than four times the regional average for East Asia and the Pacific (16 percent) and higher than all of the regional averages reported in the World Bank Enterprise Surveys. Eighty-one percent reported that their decisions were to some extent influenced by the law and order situation in PNG.

There is a strong perception that, while crime and violence may not be getting worse, the situation is not improving. Over half of the businesses who participated in the in-depth interviews felt this way, while about a third felt it was getting worse, and only a few said the situation was getting better. These sentiments were echoed in the Town Hall Meetings, with many participants sharing personal stories of crime victimization, and stressing that the situation had been this way for a long time.

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10 “Crime” was defined as break-ins, vandalism, vehicle theft, property theft without force, arson (burning of premises), assault of employees on the business premises, kidnapping of employees, employees suffering violence/being attacked on the way to and from the business premises, misappropriation of funds or petty theft by employees, and extortion.

11 [http://www.enterprisesurveys.org](http://www.enterprisesurveys.org). The regional averages for Latin America and Sub-Saharan Africa are 34 and 28 percent, respectively.
Given that a high crime rate is a longstanding feature of the PNG business environment, these concerns are well-founded. On a national level, rates of crime and violence in PNG have remained stubbornly high, although with important fluctuations year on year. According to RPNGC data, the homicide rate—widely considered the most reliable indicator of overall crime—was 10.4 per 100,000 habitants in 2010, which is roughly the same as it was in 2000 (see graph 1). The homicide rate varies widely across regions, with an estimated rate of 66 per 100,000 in Lae and 33 in NCD, among the highest in the world.\textsuperscript{12} Robbery and assault are the most commonly reported crimes in PNG, and property theft is also widespread, especially in urban areas. A large proportion of criminal activity in PNG is conducted using violence, often with firearms or other weapons.\textsuperscript{13}

![Graph 1: Homicide rate, PNG (2000–2010)](image)

Source: Institute of National Affairs 2012 annual business survey; World Bank survey on crime and violence.

Concern about crime varies slightly by the type of business, although these differences were not statistically significant. Businesses in the retail, construction and transport sectors were more likely to view crime as a big problem, while mining, agriculture and hotels and restaurants were less likely to see crime as a big problem (Graph 2).

\textsuperscript{12} These estimates are based on data obtained by the World Bank from the Royal Papua New Guinea Constabulary. Estimates using data from victimization surveys implemented by the Law and Justice Sector Secretariat (LJSS) are much higher—750 and 323 for Lae and NCD, respectively. See Lakhani S. and Willman, A. (2014a) for a full discussion.

\textsuperscript{13} Lakhani, S. and Willman, A. (2014a), Paper No. 1 in this series.
The interviews conducted with businesses added some nuance to perceptions about crime. One important example is that the majority of survey respondents (65 percent) reported feeling safe in the area where their business is located, even though a similarly large proportion reported being concerned about crime. In interviews, people noted feeling more secure in the areas where they do business because of the security measures they have taken, and familiarity with the environment.
1.2 What types of crimes are concerning?

Businesses across sectors are concerned by largely the same kinds of crime. The survey results suggest that break-ins, property theft and petty theft by employees are among the most concerning crimes to business owners, but the differences are small. Break-ins are one of the crimes about which business are most concerned: close to three-quarters of all sampled companies (74 percent) consider break-ins a problem. The concern is slightly greater for overseas-owned companies: 88 percent of these companies were concerned about break-ins compared to 75 percent of PNG-owned businesses. There was no significant difference in the level of concern over break-ins by the size of the business. The retail and construction sector businesses are most concerned, while the agriculture and mining companies are least concerned about this type of crime. The degree of concern that different types of businesses assign to break-ins is roughly the same as that for crime overall (graph 4).

Graph 4: How much of a problem are break-ins? (By sector)

Source: Institute of National Affairs 2012 annual business survey; World Bank survey on crime and violence.

The crimes about which businesses are least concerned is consistent across business sectors. These are arson, extortion and threats from government officials. Again, mining/petroleum companies are least concerned of all businesses about this crime. A full breakdown of the differences in concerns about types of crimes by type of business is given in Annex C.

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14 Not all respondents categorized each of the listed crimes but the non-response rate is lower than 16 percent for each crime.
The interviews also highlighted a concern about violence against employees, particularly cases of family and sexual violence (FSV) that intruded into the workplace. Levels of domestic violence in PNG are among the highest in the world, representing the most common form of violence in PNG, and sexual violence against women and children is also common. Of the survey respondents, 36 percent said this violence was not a problem at all, and another 31 percent considered it only a small problem. However, nearly all of the businesses interviewed said that their employees had probably been victims of this crime, and some noted examples of abusive partners coming to the workplace to harass employees. One participant noted that, “work is often the only safe place for female staff.”

Business leaders repeatedly emphasized the ways this violence affects not only individual employees, but the workplace environment in general.

“I have faced domestic problems and that affected my work as an office supervisor. One staff member has domestic problems and from time to time husband gets violent and hits her. This affects her work.” (Female senior staff manager)

In many cases, violence may actually occur on the work site:

“Domestic violence is always a problem for female staff. Recently, [there was] a guy with internal security who was harassing his wife at work, because of her tasks as a sales woman. She is a good worker and talks to customers and her husband would get jealous. He was confronted but continued several times. He was asked to resign.” (Male Human Resources Executive)

Corruption was not ranked by survey respondents as a priority concern. Over half of respondents said threats from government officials were “not a problem,” and this was relatively consistent across types of businesses (see Annex C). However, the issue of corruption was mentioned by several businesses in the interviews conducted by the World Bank, indicating that while it affected them, they had developed ways of

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15 One study found that 80-90% of injuries treated at health clinics were the result of domestic abuse (Amnesty International 2006). Another found that the majority of pregnant women seeking attention at an antenatal clinic had been beaten during pregnancy by their husbands (PNG Law Reform Commission 1992 quoted in Kopi 2010).
18 The concern seems to be stronger for businesses with higher turnover; of the survey respondents, 68 percent of small companies (less than K500,000 in annual turnover) do not consider violence against employees on the way to and from work a problem, versus only 23 percent of companies in the largest size category (more than K50 million in annual turnover).
managing it. Some asserted that corruption is present at all levels of the business cycle, and that it compromises business practice. One business professional felt:

“(One has to) pay to other persons or organizations in order to gain a contract, a license, a commercial service etc. [One must] pay money to the civil registry to obtain birth certificates for my clients, pay money to foreign affairs to process my client’s passports, pay money to the court registry clerks so that they can seal my court orders and file my court documents quickly.”

Part 2: Costs to Businesses

2.1 Direct financial costs due to losses from crime

Direct financial losses due to crime are substantial. Businesses reported that fraudulent activities and ‘petty theft’ by employees was common, and resulted in significant financial loss. One business, a haulage firm, estimated the loss of fuel, siphoned off by some employees, was costing the business between $1 and 3 million per year. Others reported that they didn’t even track all losses, since petty theft by employees was so widespread, including theft of tools, office equipment and stationary, for example. The losses to crime victimization (summarized in Table 1 below) that businesses were able to quantify vary substantially by the size of the firm.

<table>
<thead>
<tr>
<th>Direct Losses</th>
<th>Avg Kina/year</th>
<th>Foreign-owned firms</th>
<th>PNG-owned firms</th>
<th>Micro</th>
<th>Small</th>
<th>Medium</th>
<th>Large</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stolen merchandise or other property</td>
<td>89,122</td>
<td>88,111</td>
<td>88,037</td>
<td>20,178</td>
<td>36,231</td>
<td>51,350</td>
<td>185,091</td>
</tr>
<tr>
<td>Petty theft by employees</td>
<td>71,271</td>
<td>107,318</td>
<td>42,746</td>
<td>16,413</td>
<td>29,120</td>
<td>59,575</td>
<td>133,952</td>
</tr>
<tr>
<td>Losses associated with extortions</td>
<td>39,731</td>
<td>43,250</td>
<td>29,400</td>
<td>2,000</td>
<td>10,000</td>
<td>51,583</td>
<td>41,250</td>
</tr>
<tr>
<td>Losses from broken security infrastructure</td>
<td>25,966</td>
<td>27,167</td>
<td>20,254</td>
<td>2,013</td>
<td>30,083</td>
<td>20,786</td>
<td>45,583</td>
</tr>
</tbody>
</table>

Source: Institute of National Affairs 2012 annual business survey; World Bank survey on crime and violence. Note: Micro businesses are classified as those with under K500,000/year in turnover; small have K500,000-K5 million; medium are K5million–K50million; and large have over K50 million/year in turnover.

20 The number of firms that reported cost figures was low for some answers (see Annex C).
Losses due to stolen merchandise and damaged property averaged K89,000, with important differences by size of business. Companies with annual turnover of more than K50 million report average annual losses of about K185,000 due to stolen merchandise and property theft, while smaller companies with annual turnover of less than K500,000 report average losses of about K20,178. Similarly, losses from petty theft by employees averaged K71,000 overall, but micro businesses reported much lower losses (K16,000 per year), compared to the largest businesses (K134,000).21

2.2 Direct financial costs of preventing crime

Businesses are incurring financial costs in adopting special measures in order to protect themselves from crime and violence. They employ a range of special measures in an effort to avoid victimization from crime and violence, ranging from installing security hardware, employing private security, and preventative measures such as closing early or providing transport for staff to and from work. Most businesses employ more than one strategy to prevent crime: for example, 94% of businesses that install security hardware also hire security personnel.

More than three-quarters of businesses (76 percent) installed special hardware; this includes fencing and gates, locks (not simply on doors and gates), alarm systems, cameras and other forms of hardware. Some important differences among companies are worth noting (see Annex C for a full breakdown). First, overseas owned companies spent substantially more on locks and gates than PNG owned businesses, and larger firms spent more than smaller firms.

<table>
<thead>
<tr>
<th>Type of loss</th>
<th>Avg Kina/year</th>
<th>Foreign-owned firms</th>
<th>PNG-owned firms</th>
<th>Micro</th>
<th>Small</th>
<th>Medium</th>
<th>Large</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expenditures on locks/gates (PGK/year)</td>
<td>18,102</td>
<td>27,080</td>
<td>14,351</td>
<td>682</td>
<td>14,956</td>
<td>15,970</td>
<td>31,525</td>
</tr>
<tr>
<td>Expenditures on Cameras (PGK/year)</td>
<td>28,714</td>
<td>40,811</td>
<td>24,800</td>
<td>1500</td>
<td>21,630</td>
<td>16,467</td>
<td>42,750</td>
</tr>
<tr>
<td>Expenditures on alarms (PGK/year)</td>
<td>15,998</td>
<td>18,939</td>
<td>14,845</td>
<td>500</td>
<td>3,224</td>
<td>11,123</td>
<td>29,000</td>
</tr>
</tbody>
</table>

Source: Institute of National Affairs 2012 annual business survey; World Bank survey on crime and violence.

Note: Micro businesses are classified as those with under K500,000/year in turnover; small have K500,000-K5 million; medium are K5million–K50million; and large have over K50 million/year.

21 One potential explanation could be reporting biases—larger firms may be more likely to report petty theft than smaller ones.
Private security services constitute a significant and necessary cost for many businesses. More than two-thirds of businesses surveyed (79 percent) employ private security staff, comprising, on average, nine percent of employees. On average, businesses reported spending about 5 percent of their annual costs on private security. However, roughly 30 percent of firms who hire security said they spend at least 10 percent of their total costs on this.

In interviews, many business owners and staff emphasized that they felt they had little choice in this matter, and simply rolled it into the cost of doing business in PNG. As one small, independent business owner put it:

“The money that I could use to meet other demanding needs of running my firm, I now have to spend on paying the security guard.” (Operator of a small professional services business)

Larger firms are much more likely to employ private security, and to spend more on it (Table 3). Every single business in the sample with turnover above K50 million reported employing private security, versus half of businesses with turnover under K500,000.

<p>| Table 3: What percentage of annual costs do businesses spend on private security? |</p>
<table>
<thead>
<tr>
<th>% of annual costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>All firms</td>
</tr>
<tr>
<td>Ownership</td>
</tr>
<tr>
<td>Overseas</td>
</tr>
<tr>
<td>PNG Owned</td>
</tr>
<tr>
<td>Part overseas owned</td>
</tr>
<tr>
<td>Annual turnover</td>
</tr>
<tr>
<td>Less than K500,000</td>
</tr>
<tr>
<td>K500,000–K5 Million</td>
</tr>
<tr>
<td>K5 Million–K50 million</td>
</tr>
<tr>
<td>More than K50 million</td>
</tr>
<tr>
<td>Type of business</td>
</tr>
<tr>
<td>Agriculture/fisheries</td>
</tr>
<tr>
<td>Building/construction</td>
</tr>
<tr>
<td>Finance and investment</td>
</tr>
<tr>
<td>Hotels/restaurants/bar</td>
</tr>
<tr>
<td>Manufacturing</td>
</tr>
<tr>
<td>Mining/petroleum</td>
</tr>
<tr>
<td>Other services</td>
</tr>
<tr>
<td>Retail/wholesale</td>
</tr>
<tr>
<td>Transport/communication</td>
</tr>
</tbody>
</table>

Source: Institute of National Affairs 2012 annual business survey; World Bank survey on crime and violence.

22 Table C in Annex D breaks down the number of firms employing private security by ownership and size.
Smaller businesses report spending a larger proportion of their annual costs on private security staff; however these differences were not statistically significant. Likewise, the average proportion of total costs allocated for security personnel appear to be higher among PNG-owned business compared to overseas owned business (6 percent versus 4 percent) but the difference is not statistically significant. Finance and investment companies appear to spend the most on private security, reportedly spending more than twice as much as businesses in the agriculture sector and nearly four times as much as companies in the mining sector.

### Private security: A viable solution, or complicating the problem?

The hiring of private security was seen as something of a double-edged sword by many interviewees. On the one hand, a business in some areas cannot operate without hiring private security. At the same time, many raised concerns that the provision of security shouldn’t fall exclusively to businesses themselves, and that this practice may be undermining the long-term foundations for law and order in PNG.

Businesses acknowledged that they hired private security to help secure their premises, but also often turned to private security in lieu of the police in the event of an incident. For example, some businesses said they reported attempted break-ins to their private security company rather than to the police.

Some of the businesses reported less than effective performance on the part of security companies that they had hired. One company even noted that security employees had themselves had stolen property from the business and left the premises open to theft by their wantoks. Some interviewees expressed the feeling that they had little choice but to hire private security, hinting at feelings of ‘extortion’ by these companies. One recent example is the October 2013 armed robbery of a G4S Cash and Valuable Transport (CVT) vehicle in Port Moresby. The CVT vehicle was carrying cash from Maybank to Bank of Papua New Guinea (the Central Bank) and the driver and commander were placed under duress by armed G4S personnel inside the vehicle and were forced to drive to a waiting vehicle where approximately 6 million kina (slightly less than US$3million) was transferred to a getaway vehicle.

Public concern is also growing over the displacement of police functions by the private security industry. A recent example of this was the announcement by the Governor of Port Moresby, in January 2013, that G4S security has been contracted to provide and operate security cameras across the city, and that the company, rather than the police, will provide first-response services to some types of security incidences.

(continued next page)
The number of private security providers in PNG has mushroomed in the last decade. Private security personnel now outnumber the Royal PNG Constabulary forces. This reflects a global trend toward reliance on private security, which in many nations are larger and better equipped than the official police forces. In PNG, there is substantial movement of personnel between police and private security forces, and it is not uncommon for police to “moonlight” with private security companies. It was also suggested by businesses and others interviewed in the course of this study that police weapons are finding their way into the possession of private security companies.

With the growth in the industry and the highly lucrative contracts that are often awarded—particularly by the large resource firms, it has been speculated that private security companies may also create ‘security incidents’ by staging an attack on a business premises. This, allegedly, is done in order to create demand for their services or to undermine their competitors.

Note:

a. According to the findings in the report of the UN Special Rapporteur on torture and other cruel, inhuman or degrading treatment or punishment, 2010, Security Companies in PNG employ more personnel than does the Royal PNG Constabulary.

b. There have recently been reports in the PNG and Australian media about private security companies ‘staging’ security situations or deliberately carrying out attacks on competitors’ clients in order to win contracts. A number of interviewees expressed similar beliefs. See for example Australian ABC network’s coverage of an attack at the Lae Yacht club in 2012, available at http://www.abc.net.au/pm/content/2013/s3714982.htm.

Many informal measures were also mentioned, to secure policing services. Several businesses noted that they ‘sponsor’ the local police force, via practices ranging from funding Christmas meals and gifts to paying a monthly fuel allowance.

A handful of larger businesses reported a using a special Reserve Police Force arrangement whereby they their security guards receive formal police training and are permitted to perform certain police functions, including arrest. These security guards are tasked with protecting the business premises, and stationed on site, but can be called upon to join police forces if needed, for example if police are called to respond to an emergency elsewhere.

Business incurred costs through measures to prevent their employees from being victimized by crime and violence en route to work or home, such as the provision of transport and accommodation. Forty-five percent of businesses said they arranged transport of the business owner or employees to and from work. This practice varied widely with the size of business. Forty-one percent of large businesses (with more than K500 million annual turnover) arrange for transport for at least some of their staff, compared to just 7 percent of small businesses (less than K500,000 turnover). Businesses
also reported providing accommodation for employees, particularly shift workers, in dongas or dormitories at the business site, largely in order to mitigate risks of crime to employees. This was the case even for businesses outside of the mining sector—where dongas are common. Business noted that the high cost of housing created financial pressures for their staff. More affordable housing in settlements came with an increased risk of crime and increased costs for the businesses to transport employees to and from work and home.

### 2.3 Indirect costs

Indirect costs of responding to crime and losses due to crime victimization are also substantial. The indirect costs measured by the survey included having to close early due to threats or experience of crime, and lost time at work or lowered productivity of employees (Table 2).

**Table 4: Average indirect costs reported by businesses**

<table>
<thead>
<tr>
<th>Indirect Losses</th>
<th>Avg Kina/year</th>
<th>Foreign-owned firms</th>
<th>PNG-owned firms</th>
<th>Micro</th>
<th>Small</th>
<th>Medium</th>
<th>Large</th>
</tr>
</thead>
<tbody>
<tr>
<td>Closing temporarily</td>
<td>93,422</td>
<td>87,846</td>
<td>96,560</td>
<td>107,240</td>
<td>125,000</td>
<td>21,714</td>
<td>112,353</td>
</tr>
<tr>
<td>Employees missing work</td>
<td>32,429</td>
<td>32,250</td>
<td>27,545</td>
<td>31,000</td>
<td>11,400</td>
<td>33,333</td>
<td>45,200</td>
</tr>
</tbody>
</table>

Source: Institute of National Affairs 2012 annual business survey; World Bank survey on crime and violence.

A substantial percentage of businesses (38 percent) reported that they closed early in order to protect their business from crime. Most firms that closed early said that they did so between one hour to several hours early compared with when they felt they would have closed if crime and violence were not such a problem. These losses vary somewhat by size of business.

Businesses incurred losses due to missed work-days or lowered productivity as a result of employee’s injuries from violence victimization. The costs of lost productivity due to victimization can be hard to quantify, but are arguably much higher. One business manager running a primary industry operation gave the following example:

> “Two of our staff members were assaulted on separate occasions. One incident happened in the morning and the other in the afternoon at different times and dates. Consequently this affected productivity at work. Morning start and end of work times were looked at and changed accordingly to ensure staff safety and movements were taken care of.”
Productivity is impacted even simply by the fear of crime. A common theme was that of employee absences. One interviewee who ran a small suburban finance facility told us, ‘fear of being held up at bus stops and of using public transport sometimes results in staff coming late to work or not coming to work at all.’

This victimization can cause ripple effects all along the supply chain. One mid-size business owner noted that his business had recently been affected when the owner of a business in his supply chain had been harmed and was unable to run his business while he was recovering from the trauma. There can also be profound community impacts in areas dependent on particular business activity. As one senior employee in a remote rural business remarked:

“Recent community violence resulted in the shutting down of government and privately owned business premises. Consequently the community was denied access to essential services. This impacts on economic activity and growth. Businesses are under threat of having to leave the region because of violence of this nature.”

The cost of crime in terms of foregone investment is impossible to quantify, yet many firms felt this was one of the highest costs both to their businesses and to the economy more broadly. The overwhelming majority of businesses reported crime and violence to be an important factor in their business decisions (Graph 7).

Graph 7: To what extent does the law and order situation affect your business decisions?

Source: Institute of National Affairs 2012 annual business survey; World Bank survey on crime and violence.
Businesses spoke candidly of new products that were never developed because of the cost of protecting inventory, franchises that were closed down after too many break-ins, and expansions to new sites that were never undertaken because safety could not be assured. One business noted that expanding geographically involved not only costly investment in infrastructure but paying off more people, building new relationships with landowners, police and communities; that there were too many ‘unknowns’ and risks to make it worthwhile. Another business told us that after the second armed robbery at one of their newly opened retail stores, they decided, without conducting a cost-benefit analysis, to shut down the newly expanded arm of the business; they simply didn’t want to manage the risks to employees.

Other businesses said that the risk of crime has forced them to stay low-tech. Several businesses mentioned that they preferred to use paper accounting methods rather than computerized systems because it was easier to avoid theft. Another business reported that they were unwilling to invest in expensive new equipment or technology, other than that to help manage the risk of crime, because they were worried it would only be stolen. This lack of investment, they recognized, meant that they were not as productive as they could be, nor as responsive to consumer needs.

Part 3: Broader Societal Costs

“The real social cost is our loss of rights—our loss of self-esteem.”
(Owner of medium-sized business)

The socio-economic costs of crime and violence in PNG are often hard to define and even harder to quantify, but the impacts ripple through society. In Town Hall Meetings and interviews, businesses stressed the societal impacts of foregone investment in new products and regions. When high crime rates restrict companies from expanding or diversifying—or in many cases prevent new companies from starting-up—the result is a decrease in market competition. It is the consumer who ultimately pays the cost via higher prices, less choice and the absence of some products and services.

This dynamic generates a downward spiral whereby new businesses that would provide employment, goods and services and economic growth simply can’t get off the ground. It is impossible to know how many business ventures have been thwarted by crime and violence, and how many jobs might have been created. The contraction of economic opportunities, coupled with higher prices, contributes to inequalities and in turn, results in incentives for crime perpetration by those who don’t have access to employment opportunities or can’t afford the products they want or need.

There are consequences for individual careers and professional advancement as well. The high-crime environment makes employers quite risk-averse, reluctant to hire or
promote people from particular groups. **Fear of reprisal attacks from employees or wantoks was mentioned by some businesses,** in instances where they had to take disciplinary against an employee:

“There is a strong culture of intimidation, even reprisal from everyone even the government. When someone speaks out about something that shouldn’t be happening at the village level, there is retaliation. How do you ensure a solution in an environment when reprisals and intimidation are the norm?” (Business Executive, consortium of state and private sector)

One business owner noted that, as a rule, she generally did not promote local staff to senior positions, because of what she saw as inevitable social pressure from wantoks to steal from the company. Instead, she and other companies preferred to hire international staff as managers. Some also mentioned they spent a disproportionate amount of financial and human resources supervising entry level staff, because of fear of petty theft. In addition to higher costs for employing international staff, these views, if widespread amongst businesses, would clearly limit both entry into quality jobs as well as professional advancement and the building of valuable skills within the work force.

This adds to a sense of declining quality of life in PNG, particularly related to restricted mobility created by fear of crime. Interviewees spoke of feeling of isolation, fuelled by living and working in gated compounds. Respondents variously described living and working in such conditions as a “…garrison society.” As another respondent put it, “I am living in a prison.” In interviews, business owners noted how this fear restricts peoples’ ability to get to and from work, their willingness to take on new job or education opportunities, or to reach markets for goods and services they need. One business owner pointed out that he loses customers as a result of the risk the client faces in accessing the business premises. Another providing unsecured micro-loans, noted that customers were frightened off by their location in a Port Moresby settlement which suffered from high crime rates. Another business claimed that he felt unsafe in their area of operation, but could not afford to move the business premises elsewhere.

**Over time, decreased mobility can contribute to a breakdown in trust and social cohesion.** This lack of mobility was seen to be affecting people’s quality of life by limiting their participation in social and economic life, and by creating lowered expectations of the state and communities in which they live. “You cannot trust beyond your front door,” commented one interviewee. Over time, this can result in reduced trust and social cohesion that make it harder to break out of the cycle of violence and crime. Some interviewees said they did not feel comfortable reporting or even speaking openly about crime and violence, for fear of retaliation.

**Women and youth bear a disproportionate share of the social costs of crime and violence.** While some women may actually be safer in the work-place than at home,
women are particularly vulnerable to crime and violence while travelling back and forth from work. Some women, for example those working in market places in urban areas, face extreme insecurities in selling their goods at market—being vulnerable to assault, harassment and theft both in the market place and on transport to and from there.\textsuperscript{23} These dynamics are recognized by employers, some of whom expressed reluctance to hire women because of security concerns, despite the view amongst many businesses that women, in some ways, were better employees than men. One human resources administrator bluntly asserted, “the work situation is too dangerous so we don’t hire female staff.” Another manager who would have preferred more female employees because he felt they were trust-worthy, hard-working, operated machinery with greater attention to safety compared with men, said that crime victimization made it more costly or him to employ women:

“You can’t put a value on it but employing female staff is costly, due to their safety, family values and obligations.”

Young people were often mentioned by businesses as both part of the problem and a necessary part of the solution. Businesses often referred to young people in the discussions about crime and violence. While many perpetrators of crime were young, there was a common perception that not all youth were committing crimes, but that a small number were, and causing great harm. Ethnic factionalism and loyalties were also identified as being related to the problem; there was a sense of that the police were not willing to become involved when perpetrators were from their ethnic groups or had links to their family:

“Police choose not to do anything when crime occurs in the neighborhood. They know the boys and their families.” (small business owner)

Criminal behavior amongst young people was seen as the result of several factors and challenges they face. Among these are a poorly functioning education system, the availability of drugs and alcohol, and frustrated dreams of economic mobility in the cities. In this sense, there was a certain level of compassion for the challenges today’s youth face.

**Part 4: Business Looking Forward**

The following points represent the views of businesses on the possible solutions that could be found for addressing crime and violence and highlight some of the

\textsuperscript{23} UN Women Pacific Safer City Project, see http://unwomenpacific.org/pages.cfm/our-programmes/evaw/safe-city-project/.
initiatives already taken by individual businesses. In some cases, as businesses recognized, there is a tension between short and long-term solutions—particularly those currently being employed by businesses in order to mitigate risks. Further, businesses recognized that they may not have a sufficient knowledge base upon which to make sound policy recommendation, and that ongoing dialogue within the business community and between businesses, community leaders and government is important.

Business articulated the sense that the root of the problem is more complex than simply being a result of poverty, or inequalities, although these are a part of the problem. High levels of crime and violence are related to a range of social issues and societal changes that have been transforming PNG. Weaknesses in education that leave the work-force ill-prepared and frustrated, large-scale rural-urban migration and rapid urbanization along with the continuation of ethnic factionalism are some of the factors businesses identified. In addition, entrenched norms that tolerate violence—in particular against women, and a troubled relationship between the formal state and societies in PNG all together result in many unmet expectations, attitudes and frustrations that drive crime and violence.24

A perception of a divide between communities and the state in PNG, particularly as represented by the police, was articulated by businesses. This perception has persisted despite recent reforms and positive initiatives undertaken by the police and other state agencies. The state is perceived to have failed in its responsibility to lead on social and justice-related issues and to provide essential protections against victimization and alternative opportunities for perpetrators. In interviews, most businesses said they avoid reporting crimes to police when they are victimized. The most common reasons were that the police took too long to respond or that they did not consider the crime ‘serious enough’ to report. Several businesses noted that they reported the incidences to private security instead of police, and relied on private security to handle the matter. A few businesses reported crime to local community leaders.

Businesses acknowledged that multiple institutions are involved in managing conflict and security in PNG and that the police are just one of these. Businesses have been creative in navigating the traditional and formal law and order institutions. The security situation is embedded in the system of traditional dispute management within the wantok system, with ethnic ties and rivalries influencing the security environment. This means that businesses, in their own efforts to protect themselves from crime and violence, must navigate both systems and multiple actors. Many businesses spoke of contracting “community liaisons” in the communities along their transport routes or business centers. On one hand, this strategy served as a form of corporate social responsibility. As one owner stated, “companies need to reach out to communities and

24 See also Paper No 2. in this series, on Drivers of Crime and Violence.
give something back.” At the same time, it was seen as a smart, and necessary, business strategy in securing a social license to operate. In the experience of one mining manager:

“Many companies have village liaisons on the payroll and they don’t do much except when a truck capsizes they are there to rescue it, or when something gets stolen they find out who did it and take them to the village courts and if that doesn’t work, then the police. The community will take on the problem if you engage them. If you don’t they have no incentive. They know who is stealing.”

The tasks performed by these liaisons vary, but generally are within the range of community responsibilities already being performed. The liaisons serve as the key point of contact for the companies for communicating information about the company and its activities, and also for providing information back to the company about community dynamics, particularly when there is a problem. One local business entrepreneur shared that:

“We give some money to old men from the surrounding neighbourhood to hang around our front gate and just to watch what goes on. It seems to improve security because the elders keep an eye on things and the younger men respect them.”

Some companies intentionally reached out to potential spoilers, in order to win their support, or at least minimize the risk that they would cause trouble.

“I employ the chief, and the head raskol. The chief gets mad but then I tell him ‘hey, now he’s on our side’. The raskol I tell ‘hey, you are causing trouble and I will give you a chance to make things right. You are a leader...we sit down with the leaders and we formalise this in a MOU. So we know there is a protocol for when our trucks go through the community that we’ve agreed upon. We’ve been doing business for 40 years and that’s how it works.” (Industrial supplier)

Businesses have also taken the initiative to use the workplace as an entry point for changing behavior and helping victims. Many have begun offering services like employee training in conflict management, sports and recreational programs for youth, and even small emergency loans to help employees leave abusive relationships.

Many of the businesses reported taking special measures to ensure the safety of female staff, and for health costs associated with FSV. Businesses said it was common for one or two female staff to come in each week with injuries. One business noted that at its clinic in Lae, approximately half of all the treatment given to employees was to female employees who had suffered from FSV.
At present, these initiatives are mostly small in scale and fragmented. There was a sense that much could be learned from sharing these experiences. One interviewee suggested, “There is a big potential for businesses to learn from each other’s experiences in crime prevention but there is not enough opportunity for sharing knowledge.”

While businesses are looking for opportunities to play a greater role in finding long-term solutions to crime and violence, they also felt that police and other state law and justice institutions should be performing their functions. Despite the enthusiasm from many businesses about their role, many were reticent that they should be put in such a position at all. While many businesses relied on private security services, there was a sense of concern over the growth of the private security industry as a solution to the problem of crime and inadequate police response. Some business owners suggested that this industry deserves further attention by law makers. Many felt they had no option but to hire such services, but are unhappy to have to do so. One experienced local business leader asserted:

“Companies should not take on the role of the police. This is why we pay our taxes. Companies may ask why we should add these more to the roles we have. This is where the government should see efforts at crime prevention as investment efforts”

Addressing a range of social problems is seen as key to reducing crime and violence in the country. While improving performance of law and justice institutions—particularly police—was seen by interviewees and businesses surveyed as important, crime and violence are perceived as related to a broader range of social problems that would not be resolved by simply ‘more police’. Businesses interviewed said that they believed that the problem of crime and violence is rooted in a range of social issues that go beyond poverty and inequality. Exposure to violence at a young age, low education standards and the existence of values that legitimize the use of violence were some of these issues mentioned. The provision of income-earning opportunities, better living conditions and improving community infrastructure were noted by a significant number of interview respondents as ways of addressing the security situation in the short and medium term. Businesses, in many ways, are fulfilling core state functions- for example in the provision of affordable housing, apprenticeships, basic education and training for employees, giving employees access to credit and providing medical services. Some even talked about delivering sexual and reproductive health classes for female employees.

Some respondents proposed that there is not just the need for investment in skills training to prepare people to work in private businesses, but a more careful and evaluated training experience which leads to the building of vital social skills and gainful employment outcomes. This was viewed as a promising area of collaboration for communities, businesses and the state to work together to alleviate the disadvantage of (particularly) young males, and contribute to a renewal of positive community values.
One interviewee suggested that the state invest in “educating and training in country and overseas so that our people can get exposed and actually can change the way they live.” Another felt that more business opportunities were needed for recent graduates in order to connect them to productive enterprises.

**Conclusions**

The business community is a critical constituency on the issue of crime and violence. Crime and violence strongly impacts the private sector, and they are concerned about the effects it has on their individual companies and the general business climate.

The direct and indirect costs of preventing and responding to violence and crime are substantial, even by international comparison. The more intangible socio-economic costs are difficult to quantify, but have ripple effects through society. Most businesses said that worry about crime affects their business decisions, resulting in untold losses in foregone investment, decisions not to expand to new markets, foreign direct investment diverted toward contexts with lower crime rates, and so on. These decisions filter down to the individual level as well; for example, some businesses said they were reluctant to hire women because the costs associated with women’s vulnerability to violence (both at home or on the way to work) were higher than for men. Broader social costs include a loss of trust and lack of mobility for fear of being victimized.

A range of issues were identified by businesses that they feel would help address the crime and violence situation and impact positively on doing business in PNG. Improving the performance of the police and justice institutions is important, but was seen as only part of a more complex response needed to address a range of social issues. Many businesses have adopted creative solutions, acting to address these issues, but these efforts remain largely isolated from one another and some from broader policy responses by government.

Innovative solutions to social issues have been initiated by businesses, such as the provision of healthcare and housing, that provide lessons for addressing drivers and stressors of crime and violence. Businesses have also illustrated that community outreach is essential, and working with communities is a vital crime prevention tool. Many businesses have engaged community leaders and youth along their supply chains with success. There is a sense that these efforts can be scaled up in collaboration with the public sector, to develop preventative and responsive partnerships.

There is a need for critical reflection on the increasing role of private security. This paper has highlighted some of the concerns with the expansion of this sector, including the potential for private security to undermine the needed efforts to improve law and order. There is a need for more regulation of this sector. Strengthening registration and oversight of the set-up of companies could be accompanied by regulations on functions they are permitted to perform, particularly vis-à-vis national security forces, on employees, and additional tracking of arms obtained and used by private security.
Businesses see a need for furthering dialogue with government, as well as with the communities where they do business. Continuing dialogue on addressing crime and violence and its impacts in PNG, should be seen as an essential element of effective strategy. Because the problem affects everyone, there is a strong sense that identifying effective solutions must also be a shared effort.
Annex A: Study Methodology

This project is situated in a history of research about the law and justice sector in PNG, and the disabling effects of crime and violence on its communities. Research particularly concerned with the cost of crime and violence when doing business in PNG is not new and the findings of our work are disturbingly consistent with the knowledge already available on this national dilemma. What makes this report novel is its conscious focus on the nature and extent of the social costs of crime and violence to those involved in business; managers, workers, consumers, the local communities where businesses operate, and PNG society at large. Our conscious focus on social cost promoted the other original feature of our work, which is the conversational methodology.

The research team became convinced, having surveyed the pre-existing knowledge, and reflecting on what was missing from the picture, that we needed to enter into and facilitate a variety of dialogue settings in order to drill deeper into the daily life experience of those touched by crime and violence as they go about their working lives. This method, while not attempting to be representative of these experiences nationwide, or not claiming to cover the gamut of social cost situations, has delivered stories from those who live and work under the constant fear and oppressive reality of regular crime victimization.

Such a methodology does not enable this report to push for conventional policy solutions or to definitively address the failings of control and prevention strategies as they currently operate in PNG. Even if our data and understandings were such as to make this more specifically possible, the research team would remain more interested in empowering the victims of crime and violence, and those agencies, institutions and processes that are tasked to assist the prevention and control process (and to redress and restore the shocking social costs which our stories have uncovered) to improve the quality of life for those who want to live and work in PNG, safely and securely.

An interactive methodology such as that which the project has employed should be no less rigorous than more standard research schemes. The three prior briefing notes in the series surveyed the existing knowledge and gave a data spread against which the empirical components of our work can be contrasted for the limited purposes of trend analysis. When it came to selecting the people with whom we had dialogue, and the business experiences they represented, we carried out a detailed business profiling exercise with the national data. We spoke to bosses, employees, managers, owners, suppliers, customers, government officials, community agencies, insurance and financial operatives, media, police, international organizations and NGOs, and many ordinary PNG people who had much to say about the way crime and violence touched their lives. Our conversations covered the range of business activity from micro to multi-national, from local to national and beyond.
To ensure that the conversation format was as realistic as possible, we mixed up dialogue sessions including:

- A set of questions added to the annual INA survey (N=135) of the business sector (see below);
- Small round tables at which participants interacted around set fields of questions;
- One-to-one conversations;
- In depth personal interviews (20) governed by a detailed survey template;
- Two Town Hall Meetings (October 2012 and April 2013) at which a variety of small case-study and personal experience sharing sessions were a feature;
- Follow up conversations;
- Discussions with representatives of community and special interests groups;
- Site visits and fieldwork where business communities were addressed in their working environments

**Description of INA survey sample**

Survey data for this study was obtained via a set of questions added to the annual survey conducted by the Institute of National Affairs of the business sector in PNG. The full sample is 135 firms. The sample is not nationally representative but attempts were made to expand representation by surveying businesses outside the National Capital District (NCD). Forty-one of the sampled businesses are located in the NCD, fourteen are located in Lae and the rest are located elsewhere or have multiple locations. The majority of businesses, 81, are PNG owned, 45 are overseas owned and 9 are partially overseas owned. Among the ones that are partially owned overseas, the overseas ownership represents between 40 and 90 percent of total ownership. Eighty percent (or 105 businesses) are located in urban areas, about 18 percent (or 24 businesses) are in rural areas, and about 4 percent (or 6 businesses) are both in urban and rural setting. All overseas owned businesses including those with only partial overseas ownership, are registered. Most PNG owned business are also registered with only seven businesses admitting to not having registrations and 2 being in the process of registering.

The majority of businesses in the sample are well-established judging by the number of years in operation—about 90 percent of all businesses have been in operation for more than 5 years. With respect to turnover, the interviewed businesses are relatively evenly distributed among four different categories: less than K500,000 (28 firms or 21.21%), K500,000—K5 Million (32 firms or 24.24%), K5 Million—K 50 million (38 firms or 28.79%), and more than K50 million (34 forms or 25.76%) 25. PNG owned business are more likely than overseas owned businesses to be in the lowest turnover category.

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25 Three firms, all of which were PNG owned and registered, did not respond to the question about annual turnover. Later in the analysis when statistics are broken down by size of business (measured by annual turnover), the sample is restricted to the 132 firms that provide information on annual turnover.
About 38 percent of all overseas owned businesses have annual turnover of more than K50 million while only about 19 percent of all PNG businesses report annual turnover of more than K50 million.

Among PNG owned businesses a relatively large fraction is in the retail/wholesale sector (13 firms), followed by finance and investment (10), agriculture/fisheries (8 firms) and the construction, manufacturing, and transport/communications. Among the overseas-owned businesses, 10 are in retail/wholesale, 10 in building/construction followed by about even distribution among agriculture/fisheries, manufacturing, finance and investment, mining/petroleum, and transport/communication. Most businesses do not export—only 25 out of 132 firms, who responded to the question, do export something but the fraction of exports out of all annual turnover is rather low for many companies—10 percent or less for 16 of the 25 exporting companies. Seven companies report exporting 100 percent of all output (3 of these companies are in mining/petroleum and 4 are in agriculture/fisheries/forestry sector).

**Description of World Bank team interview sample**

In-depth interviews were conducted with a purposive sample of 20 businesses in Papua New Guinea. Overall, 150 businesses were contacted for interviews to achieve this sample of 20. The full universe of 150 companies was determined in partnership with the IFC office in POM, and attempted to stratify a sample based on size of business and sector. Because the sample was not randomly selected, the conclusions of the analysis are valid only for the particular sample. No external validity is claimed. Eight of the businesses in the sample are PNG owned and the rest are equally divided between fully overseas owned and part overseas owned. The mean number of years of operation of all businesses is 16 (std. dev. = 15.132) but the numbers of years of operation vary from 1.3 years to 55 years. The sample is biased toward larger businesses: eleven of the 20 businesses report annual turnover of more than K5 million. Two businesses do not reveal the size of their operations and the remaining five report annual turnover of less than K5 million.
Annex B: List of Businesses, Organizations and Agencies Consulted

This list includes all businesses, agencies and individuals interviewed or having participated in Town Hall Meetings only. It does not include survey respondents for reasons of confidentiality.

**Private Sector**

Air Nuigini
Applus Velosi
Ashurst PNG
Atlas Steel
Bank South Pacific
Barrick PNG Ltd
BCPNG
British American Tobacco
Cardno
Carpenters WIR
Caveman
Chamber of Mines
Coca-Amatil
Coffee International
Concrete Engineering
Coral Sea Hotels
Courts PNG
CPC
Credit Corporation
Culux Group
Curtain
Daltron
Digicel
Esso Highlands
Express Freight Management
Gadens
Garamut/Food World
GDS
Global
Global Technologies
Guard Dog Security Services
Handy Finance
Helifix
Henao Lawyers

InterOil
ipi Group
KK Kingston
Lae Builders
Lamana Group
L&A
Manufacturers Council
Mampai Transport
MHL
Morobe Mining
Nasfund
Nationwide Micro-bank
Newcrest
OM Holdings
Oil Search
Ok Tedi
OPIC
Orica
Pacific Legal Group
Papindo Trading
Paninda
Paraka
Petromin
PNG Kina Group
PNG Micro-finance
PNG Ports
PNGSDP
Post Courier
Price Waterhouse Cooper
Raintree Lodge
Ramu Agri Industries
RIOTINTO/BCL
SGS Group
South seas Tuna
SP Brewery
Supreme Industries
SVS
Steamships Ltd
Talisman Energy
The National
Tisa Investments
Trukai

TST
URS
WestPac
Women in Mining Initiative

PNG Government Agencies

Office of the Prime Minister
Department of National Planning
Department of Justice and Attorney General
Law and Justice Sector Secretariat
Royal PNG Constabulary (RPNGC)
Public Prosecutor’s Office
Constitutional Law Reform Commission
Investment Promotion Authority
Law and Justice Sector
PNG Chamber of Commerce
National Statistics Office
Ombudsman’s Office
Magisterial Services, District Courts
Village Courts Secretariat, Gordons
Office of the Commissioner, CIS
Independent Consumer and Competition Commission

Official Development Agencies/Multilaterals

PNG-Australia Law and Justice Partnership
UN Women
World Health Organization

Civil Society

Institute of National Affairs
Peace Foundation Melanesia
Consultative Implementation and Monitoring Council
Family and Sexual Violence Action Committee (National)
Oxfam
Doctors without Borders
Business Council PNG
PNG Women’s Business Association
Manufacturers Council
The Nature Conservancy
Maisin Integrated Conservation and Development
Greenpeace
Wildlife Conservation Society
Igat Hope PNG
UNPNG
City Mission
Haus Ruth
Annex C: Additional Data

C.1 Concern about specific crimes by type of business

Source: Institute of National Affairs 2012 annual business survey; World Bank survey on crime and violence.

Source: Institute of National Affairs 2012 annual business survey; World Bank survey on crime and violence.
The Socio-economic Costs of Crime and Violence in Papua New Guinea

Source: Institute of National Affairs 2012 annual business survey; World Bank survey on crime and violence.

Source: Institute of National Affairs 2012 annual business survey; World Bank survey on crime and violence.
Source: Institute of National Affairs 2012 annual business survey; World Bank survey on crime and violence.
The Socio-economic Costs of Crime and Violence in Papua New Guinea

Source: Institute of National Affairs 2012 annual business survey; World Bank survey on crime and violence.

Source: Institute of National Affairs 2012 annual business survey; World Bank survey on crime and violence.
Source: Institute of National Affairs 2012 annual business survey; World Bank survey on crime and violence.
C.2 Expenditures

Graph 5 shows the reported expenditures on different security hardware by type of business. Hotels, Restaurants and Bars reported spending the most overall, and primarily on locks, gates and cameras. No firm in the hotel/restaurant/bars business reported closing early as a result of crime which is not surprising because it is property theft without force that poses a great constraint on such firms. Manufacturing companies also spent a higher amount on cameras than other types of business. Expenditures on alarms were lower overall, and more common among construction and finance companies. Interestingly, retail/wholesale and transport/communication, which are most likely to identify break-ins, vandalism, and misappropriation of resources as a problem, spend the least on locks/gates and even cameras. This is likely due to the fact that these measures are ineffective in thwarting off the listed types of crimes. Another explanation may be related to the size of business in each sector. For example, the majority of businesses in the lowest annual turnover category are in “Other service”, followed by “Retail/wholesale” and “Building/construction.” Exactly three-fourths of manufacturing businesses are in the highest two categories of annual turnover which may explain the rather high security expenditure numbers, especially on cameras. Two-thirds of businesses in the hotels/restaurants/bars sector are also in the highest two categories of annual turnover. Other measures that were reported by businesses included keeping a weapon on the business premises. Only 20 percent of businesses reported doing this. (See Annex C for full breakdown.)
Graph 5: Expenditures on security hardware by type of business

Source: Institute of National Affairs 2012 annual business survey; World Bank survey on crime and violence.

Table A: Annual expenditures on different security measures to protect business by type of ownership and size of business

<table>
<thead>
<tr>
<th>Security Measures</th>
<th>N</th>
<th>Mean (PGK)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expenditures on locks/gates (PGK/year)</td>
<td>68</td>
<td>18,102</td>
</tr>
<tr>
<td>Expenditures on Cameras (PGK/year)</td>
<td>38</td>
<td>28,714</td>
</tr>
<tr>
<td>Expenditures on alarms (PGK/year)</td>
<td>38</td>
<td>15,998</td>
</tr>
<tr>
<td>Expenditure on other security measures (PGK/year)</td>
<td>22</td>
<td>820,041</td>
</tr>
<tr>
<td>Expenditure on locks/gates (PGK/year)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overseas</td>
<td>25</td>
<td>27,080</td>
</tr>
<tr>
<td>PNG Owned</td>
<td>38</td>
<td>14,351</td>
</tr>
<tr>
<td>Part overseas owned</td>
<td>5</td>
<td>1,727</td>
</tr>
<tr>
<td>Less than K500,000</td>
<td>10</td>
<td>682</td>
</tr>
<tr>
<td>K500,000–K5 Million</td>
<td>17</td>
<td>14,956</td>
</tr>
</tbody>
</table>
### Table B: Losses associated with various crimes by type of ownership and size of business

<table>
<thead>
<tr>
<th>Crime Description</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full sample (with positive values)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Losses from closing temporarily (PGK/year)</td>
<td>36</td>
<td>93,422</td>
<td>130,010</td>
<td>2,000</td>
<td>520,000</td>
</tr>
<tr>
<td>Losses from stolen merchandise or other property (PGK/year)</td>
<td>68</td>
<td>89,122</td>
<td>159,078</td>
<td>200</td>
<td>1,000,000</td>
</tr>
<tr>
<td>Losses from petty theft by employees (PGK/year)</td>
<td>65</td>
<td>71,271</td>
<td>113,394</td>
<td>100</td>
<td>600,000</td>
</tr>
<tr>
<td>Losses associated with extortions (PGK/year)</td>
<td>13</td>
<td>39,731</td>
<td>57,112</td>
<td>500</td>
<td>200,000</td>
</tr>
<tr>
<td>Losses from broken security infrastructure (PGK/year)</td>
<td>41</td>
<td>25,966</td>
<td>38,371</td>
<td>100</td>
<td>200,000</td>
</tr>
<tr>
<td>Losses due to employees missing work (PGK/year)</td>
<td>21</td>
<td>29,429</td>
<td>25,584</td>
<td>1,000</td>
<td>100,000</td>
</tr>
</tbody>
</table>

Source: Institute of National Affairs 2012 annual business survey; World Bank survey on crime and violence.
### Losses from closing temporarily (PGK/year)

<table>
<thead>
<tr>
<th>Category</th>
<th>Overseas owned</th>
<th>PNG Owned</th>
<th>Part overseas owned</th>
<th>Less than K500,000</th>
<th>K500,000–K5 Million</th>
<th>K5 Million–K50 million</th>
<th>More than K50 million</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>13</td>
<td>20</td>
<td>3</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>17</td>
</tr>
<tr>
<td>Losses</td>
<td>87,846</td>
<td>96,560</td>
<td>96,667</td>
<td>107,240</td>
<td>125,000</td>
<td>21,714</td>
<td>112,353</td>
</tr>
<tr>
<td>(PGK/year)</td>
<td>130,905</td>
<td>137,240</td>
<td>117,189</td>
<td>230,765</td>
<td>144,879</td>
<td>17,337</td>
<td>116,366</td>
</tr>
<tr>
<td></td>
<td>2,000</td>
<td>2,000</td>
<td>10,000</td>
<td>10,000</td>
<td>10,000</td>
<td>2,000</td>
<td>10,000</td>
</tr>
<tr>
<td></td>
<td>500,000</td>
<td>520,000</td>
<td>230,000</td>
<td>520,000</td>
<td>360,000</td>
<td>50,000</td>
<td>500,000</td>
</tr>
</tbody>
</table>

### Losses from stolen merchandise or other property (PGK/year)

<table>
<thead>
<tr>
<th>Category</th>
<th>Overseas owned</th>
<th>PNG Owned</th>
<th>Part overseas owned</th>
<th>Less than K500,000</th>
<th>K500,000–K5 Million</th>
<th>K5 Million–K50 million</th>
<th>More than K50 million</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>27</td>
<td>35</td>
<td>6</td>
<td>9</td>
<td>16</td>
<td>20</td>
<td>22</td>
</tr>
<tr>
<td>Losses</td>
<td>88,111</td>
<td>88,037</td>
<td>100,000</td>
<td>20,178</td>
<td>36,231</td>
<td>51,350</td>
<td>185,091</td>
</tr>
<tr>
<td>(PGK/year)</td>
<td>132,843</td>
<td>175,090</td>
<td>196,749</td>
<td>31,490</td>
<td>53,521</td>
<td>196,749</td>
<td>243,643</td>
</tr>
<tr>
<td></td>
<td>3,000</td>
<td>200</td>
<td>5,000</td>
<td>200</td>
<td>700</td>
<td>5,000</td>
<td>10,000</td>
</tr>
<tr>
<td></td>
<td>600,000</td>
<td>1,000,000</td>
<td>500,000</td>
<td>100,000</td>
<td>180,000</td>
<td>250,000</td>
<td>1,000,000</td>
</tr>
</tbody>
</table>

### Losses from petty theft by employees (PGK/year)

<table>
<thead>
<tr>
<th>Category</th>
<th>Overseas owned</th>
<th>PNG Owned</th>
<th>Part overseas owned</th>
<th>Less than K500,000</th>
<th>K500,000–K5 Million</th>
<th>K5 Million–K50 million</th>
<th>More than K50 million</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>22</td>
<td>37</td>
<td>6</td>
<td>8</td>
<td>15</td>
<td>20</td>
<td>21</td>
</tr>
<tr>
<td>Losses</td>
<td>107,318</td>
<td>42,746</td>
<td>115,000</td>
<td>16,413</td>
<td>29,120</td>
<td>59,575</td>
<td>133,952</td>
</tr>
<tr>
<td>(PGK/year)</td>
<td>139,345</td>
<td>66,522</td>
<td>192,717</td>
<td>24,739</td>
<td>42,800</td>
<td>69,432</td>
<td>168,123</td>
</tr>
<tr>
<td></td>
<td>1,000</td>
<td>100</td>
<td>5,000</td>
<td>100</td>
<td>1,000</td>
<td>300</td>
<td>2,000</td>
</tr>
<tr>
<td></td>
<td>600,000</td>
<td>300,000</td>
<td>500,000</td>
<td>60,000</td>
<td>120,000</td>
<td>208,000</td>
<td>600,000</td>
</tr>
</tbody>
</table>

### Losses associated with extortions (PGK/year)

<table>
<thead>
<tr>
<th>Category</th>
<th>Overseas owned</th>
<th>PNG Owned</th>
<th>Part overseas owned</th>
<th>Less than K500,000</th>
<th>K500,000–K5 Million</th>
<th>K5 Million–K50 million</th>
<th>More than K50 million</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>6</td>
<td>5</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>Losses</td>
<td>43,250</td>
<td>29,400</td>
<td>55,000</td>
<td>2,000</td>
<td>2,000</td>
<td>51,583</td>
<td>141,250</td>
</tr>
<tr>
<td>(PGK/year)</td>
<td>79,133</td>
<td>26,015</td>
<td>63,640</td>
<td>2,000</td>
<td>10,000</td>
<td>82,545</td>
<td>24,622</td>
</tr>
<tr>
<td></td>
<td>500</td>
<td>60,000</td>
<td>100,000</td>
<td>2,000</td>
<td>10,000</td>
<td>200,000</td>
<td>60,000</td>
</tr>
</tbody>
</table>
### Losses from broken security infrastructure (PGK/year)

<table>
<thead>
<tr>
<th>Category</th>
<th>Count</th>
<th>Losses</th>
<th>Crime</th>
<th>Security</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Overseas owned</strong></td>
<td>12</td>
<td>27,167</td>
<td>32,079</td>
<td>1,000</td>
</tr>
<tr>
<td><strong>PNG Owned</strong></td>
<td>26</td>
<td>20,254</td>
<td>24,973</td>
<td>100</td>
</tr>
<tr>
<td><strong>Part overseas owned</strong></td>
<td>3</td>
<td>70,667</td>
<td>112,077</td>
<td>2,000</td>
</tr>
<tr>
<td><strong>Less than K500,000</strong></td>
<td>8</td>
<td>2,013</td>
<td>1,864</td>
<td>100</td>
</tr>
<tr>
<td><strong>K500,000–K5 Million</strong></td>
<td>6</td>
<td>30,083</td>
<td>40,793</td>
<td>500</td>
</tr>
<tr>
<td><strong>K5 Million–K50 million</strong></td>
<td>14</td>
<td>20,786</td>
<td>21,755</td>
<td>1,000</td>
</tr>
<tr>
<td><strong>More than K50 million</strong></td>
<td>12</td>
<td>45,583</td>
<td>56,161</td>
<td>2,000</td>
</tr>
</tbody>
</table>

### Losses due to employees missing work (PGK/year)

<table>
<thead>
<tr>
<th>Category</th>
<th>Count</th>
<th>Losses</th>
<th>Crime</th>
<th>Security</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Overseas owned</strong></td>
<td>8</td>
<td>32,250</td>
<td>20,013</td>
<td>2,000</td>
</tr>
<tr>
<td><strong>PNG Owned</strong></td>
<td>11</td>
<td>21,818</td>
<td>21,255</td>
<td>1,000</td>
</tr>
<tr>
<td><strong>Part overseas owned</strong></td>
<td>2</td>
<td>60,000</td>
<td>56,569</td>
<td>20,000</td>
</tr>
<tr>
<td><strong>Less than K500,000</strong></td>
<td>2</td>
<td>31,000</td>
<td>41,012</td>
<td>2,000</td>
</tr>
<tr>
<td><strong>K500,000–K5 Million</strong></td>
<td>5</td>
<td>11,400</td>
<td>8,234</td>
<td>1,000</td>
</tr>
<tr>
<td><strong>K5 Million–K50 million</strong></td>
<td>3</td>
<td>12,333</td>
<td>6,807</td>
<td>7,000</td>
</tr>
<tr>
<td><strong>More than K50 million</strong></td>
<td>10</td>
<td>45,200</td>
<td>25,108</td>
<td>2,000</td>
</tr>
</tbody>
</table>

*Source: Institute of National Affairs 2012 annual business survey; World Bank survey on crime and violence.*