HIGHLANDS HIGHWAY CRIME SURVEY, 2005

by

Dr. Gerard Guthrie

A report prepared for the Government of Papua New Guinea's Law and Justice Sector's National Coordinating Mechanism

The National Research Institute
and
Justice Advisory Group
First published in February 2007

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NRI Special Publication No. 42

Published by the National Research Institute

This report has been prepared by the National Research Institute and the Justice Advisory Group for the Government of Papua New Guinea’s Law and Justice Sector’s National Coordinating Mechanism, which was funded by AusAID.

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ISBN 9980 75 140 1
National Library Service of Papua New Guinea

ABCD 200987

Printed by the NRI Printery

Cover map adapted from Shell Papua New Guinea (1990).

The opinions expressed in this report are those of the authors and not necessarily those of the National Research Institute.
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ACKNOWLEDGEMENTS

The researchers, the Justice Advisory Group and the National Research Institute would like to acknowledge the contributions of all the people and organisations that have participated in the research:

- the Governments of Papua New Guinea and Australia, which sought out the information and made the research possible;
- the members of the heavy trucking industry in Lae, where all nine companies freely and openly contributed views and information;
- the Royal Papua New Guinea Constabulary, which contributed to the study; and
- the Lae Chamber of Commerce and Industry, which facilitated the research.

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Indicative exchange rate: PNG K1.00 = AUD$0.42
EXTENDED SUMMARY

High levels of highway crime in Papua New Guinea affect transport security and costs, not only for exporters, but also for importers and internal trade. Crime on the Highlands Highway is a widespread daily matter for the transport industry. This study aimed to provide independent, reliable information concerning highway crime so that it can be responded to effectively.

The Highlands Highway is the single most important road in Papua New Guinea. The road services more than half of the country’s population in the Highlands Region, and Morobe and Madang Provinces. It also services six provincial capitals, major resource projects (involving gold, copper, hydro-electricity, and gas) and the agriculture sector (especially coffee, but also timber, cocoa, tea, and vegetables). Even without heavy transport, the Highlands Highway is the most important road in the country because it services a large rural population with a significant informal economy.

The Study

The Government of Papua New Guinea’s Law and Justice Sector Strategic Framework, Strategy 1.3.2 is to improve highway and resource project safety, especially in the Highlands. Consistent with this strategy, a transport industry study was undertaken to measure and monitor the impact of crime on the Highlands Highway. The study focused on the heavy trucking industry which services Highlands resource projects and the agriculture sector. In effect, this was a situation analysis on which more detailed research can be based, if warranted. Aspects may be repeated annually.

The objective of the Highlands Highway Crime Study was to provide information on the types and costs of crime on the highway, in order to:

• enable the heavy transport and law and justice sectors to ascertain trends in crime levels;
• provide data that can inform programs and strategies to counter crime; and
• monitor outcomes of crime prevention and control measures.

The study was mainly qualitative. It focused primarily on the nine trucking companies that comprise the heavy trucking industry on the Highlands Highway, as defined in the study. Because of the small, but complete, numbers involved, sampling was not necessary, and all nine companies cooperated. Additionally, the limited police statistics that were available identified volume, type, and location of reported crime in two of the six provinces along the highway. Introductory interviews took place in Lae, in August 2005. The main field work took place in Lae and Goroka, in November 2005.

Road Conditions

The state of infrastructure, particularly roads and bridges, is a considerable factor in highway crime and significantly increases the risks of travel. Uneven and poor road maintenance contributes to slow travel, involuntary stoppages, and breakdowns, which are preconditions for much of the crime that occurs. Road conditions have implications for the location of staging points for crime.
Research in 2002 showed that average annual daily traffic ranged from 500 to 10,700 vehicles, over 30 sections of the Highlands Highway, from two to 44 km in length, with an average of 3,420 vehicles per section. Estimates of the average breakdown of traffic along the highway were:

- 15.4 percent were medium and heavy trucks;
- 50.5 percent were light rigid trucks (for example, coffee trucks);
- 22.7 percent were PMVs (generally light buses with 10-25 seats, but also including small and medium-sized trucks that carry passengers on the tray); and
- 11.3 percent were private passenger vehicles.¹

Data on truck loading weights are not available. If it is assumed that heavy vehicles have average loads of 25 tonnes per vehicle, and all other vehicles average three tonnes, the heavy vehicles carried some 60 percent of cargo, by weight. The Road Transport Association estimated that, in 2004, there was 164,000 tonnes of freight, of which 67 percent (110,000 tonnes) was fuel.²

**Location of Highway Crime**

Trucking industry and police force managers agreed that crimes against trucks occur:

- mainly when trucks stop or are moving slowly;
- because the driver has stopped for a break;
- when the vehicles are bogged or have to stop because the road is impassable;
- when they break down; or
- when they are held up.

If a vehicle is hijacked, it may be taken several kilometres off the highway to loot cargo and strip parts. Companies and police reported that the further trucks go from Lae the worse the highway crime gets. Violence or the threat of violence is an integral part of the problem. The following synthesis from interviews reflects the collective view:

> From Lae to Kassam, the main problem is fuel being stolen from truck tanks. We have a lot of problems with drivers in the Markham. They stop for a break and sell diesel. They use it to pay for food, drink, and sex. Otherwise, speeding is a problem in the Markham. Sometimes there are road tolls at the bridges.

> It's not so bad in Morobe, but increasingly through the Highlands crime happens ... the further you go, the worse it gets. When vehicles move slowly or have to stop is when trouble occurs. The thieves jump on trucks and cut locks. Generally though, fuel rather than cargo is stolen because the cargo is locked in containers, unless trucks tip over and containers are broken into. If loads are stolen, truck parts can also be taken and the vehicles trashed.

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After the Kassam Pass, robbery happens. Through the Eastern Highlands, the worst area is around Barola, from Kainantu to Henganofi. Hold ups and guns are common, but the Goroka community police are attempting to influence the situation. The Daulo Pass can be very slippery towards the top. At least one company puts a tow truck there for days at a time to help pull trucks up when the road is really bad.

The road through Simbu is very poor. Especially after Kundiawa, towards the Western Highlands, hold ups and road tolls are a problem. Our drivers won’t pass there at night.

Drivers know where the safe spots are — Yung Creek, the Goroka depots, Kundiawa, the Hagen depots, Mendi, and the Kutubu and Porgera depots. There aren’t as many safe places to stop as before.

The road in Enga past Wabag is maintained by the Porgera mine and is in quite good condition, except for some very steep and slippery parts. The road in Southern Highlands is very poor. Past Mendi, it is even worse — semi-trailers can’t go to Tari.

Once you are in the Highlands, compensation claims become a problem — traditional laws apply ... The farther you go, the worse it gets ... it is tribal, hostile, and violent. If you break down or have an accident, your cargo’s gone ... Landowners outside the mine areas attack the trucks because they say they don’t get any revenue from the mines ... fuel tankers are the main target.

An extended interview with a driver on a truck trip from Lae to Goroka gives a close up on what this means in practice on one part of the highway (see Chapter 2). One effect of crime is a progressive reduction in road services, especially by the smaller trucking companies.

The Heavy Trucking Industry

The study identified nine companies that use prime movers to carry freight on the Highlands Highway, to and from Lae. The nine companies comprised the entire industry, as defined. They:

- had been in business an average of 26 years;
- were nearly all headquartered in Lae, with depots throughout the Highlands, but mainly in Mt. Hagen;
- employed about 1,400 staff;
- had a total of 195 prime movers;
- made around 1,500 trips per month; and
- had a total turnover of approximately K112 million a year.

The three largest companies had 35-45 prime movers, four medium-sized companies had 15-20 prime movers, and two small ones had 3-4 prime movers. All companies also had smaller trucks and other equipment. Some specialise solely in road haulage, and all have extensive workshop facilities. Most have diversified into other transport businesses,
while several are part of larger commercial and industrial groups, which they service. Industry organisations are limited in scope.

Senior company managers shared the following views:

- law and order and business crime are major problems for them;
- the Highlands Highway is of critical importance to Papua New Guinea’s economy; and
- crime on the highway is a major problem, not just for the heavy trucking industry, but also for other forms of transport, and for people living along the highway.

During the previous year, managers considered that crime on the Highlands Highway had increased (75 percent of answers), or stayed the same (25 percent of answers). No-one thought that it had decreased.

One senior national manager encapsulated the collective view:

_The Highlands Highway is a national asset ... it is the only means of transport for the Highlands. The Government must look after it – it is the lifeline for the five Highlands provinces and Morobe Province._

The study’s findings on law and order issues, as they affected the companies, were:

- the main reasons for crime worsening were perceived as the _raskols_ getting worse, and the police and the community doing bad jobs;
- six of the nine companies reported that theft was their main concern. Their primary response was to treat crime as a pragmatic prevention issue for management, for example, by maintaining high levels of depot security;
- on the Highlands Highway, a range of measures was taken to reduce the chances of crime:
  - six companies used radio call-up systems;
  - five altered travel times for trucks;
  - trucks often ran close together to support each other; and
  - a common practice was to engage assistance from roadside villagers, when a truck does have to stop; and
- companies indicated that weapons had been used an estimated 68 times in armed robberies in the previous 12 months. The main ones used were sticks, iron bars, and axes (37 times), knives (21 times), and firearms (10 times).

Findings on macroeconomic and broader governmental policy conditions included:

- generally, company managers were not as concerned about government regulatory and policy environments as they were about law and order issues;
- companies regarded the business crime problem in Papua New Guinea as large or very large. They considered that fear of crime (including government corruption) was the main reason for poor business confidence and investment;
- governmental corruption was perceived to be increasing or staying the same by all of those who had an opinion;
the companies considered that the Government was dealing inadequately with maintenance of the Highlands Highway and highway crime;

• the main regulatory issue affecting the industry was the government's fuel pricing policy, which added to high prices in New Guinea;

• otherwise, macroeconomic conditions, such as exchange and interest rates, had stabilised over the past few years. Market volatility was not an issue for the trucking companies at present; and

• the main market issue that concerned companies was an undersupply of trained drivers.

The main suggestions for the Government to improve the crime situation for businesses focused on long-term preventive measures, especially more employment and improved community infrastructure.

Crime on the Highway

The limited police statistics that were available reflected industry concerns, particularly about theft. Provincial police statistics showed that, in Morobe Province:

• approximately 40 percent of reported crimes involved theft;
• approximately 20 percent of all cases involved armed violence;
• drugs were involved in one-third of cases; and
• accidents involved 47 percent of reported events, while crimes were 53 percent.

In Eastern Highlands Province, Police statistics showed that:

• approximately 90 percent of reported crimes involved theft;
• approximately 60 percent of all cases involved armed violence;
• police shooting occurred in five percent of cases, with half resulting in death;
• heavy trucks were involved in approximately 20 percent of reported highway crimes;
• accidents involved 63 percent of reported events, while crimes were 37 percent; and
• two-thirds of the reported crimes occurred at night, while the safest time was between 6 a.m. and midday.

The main types of crime reported by the industry were:

• theft of cargo (predominantly fuel) by villagers along the highway;
• theft of trucks' own fuel and equipment;
• trashing of vehicles for spare parts;
• village road tolls;
• violence against drivers; and
• fraudulent compensation claims against trucking companies for damage to village property, which are sometimes accompanied by extortion.

Currently, the main theft involved fuel. Minor theft from the trucks' own tanks was a constant problem for all companies. Seals on fuel cargo tankers make petty theft from them difficult, which has led to a situation where whole tankers can be stolen. General
freight was usually less of a problem. Additionally, law breaking occurred within the industry, especially by drivers and mechanics, with drivers often involved in fuel theft.

A central element in much of this crime is the high frequency of unlicensed alcohol and fuel sellers along the highway. Fuel buyers create a demand for stolen fuel. The ready availability of beer along the Highlands Highway creates a demand for cash, and contributes to drink driving.

The Cost of Highway Crime

The study was able to make the following estimates of the financial cost of crime to the nine trucking companies for the 12 months from Quarter 4, 2004 to Quarter 3, 2005. Caution should be exercised in using all these financial statistics, as they are approximations based on managers' estimates, rather than detailed analyses of company accounts:

• K7.1 million (approximately AUD$3.0 million), or 6.3 percent of total industry turnover was the estimated direct cost of crime from theft, damage, compensation, fraud, and preventive security;
• K10.1 million (AUD$4.2 million), or nine percent of total industry turnover was the indirect cost of crime through loss of revenue because companies cannot travel through certain areas at night, or even at all; and
• K17.2 million (AUD$7.2 million), or 15.3 percent of the estimated total industry turnover of K112.5 million (AUD$47.3 million) was the total cost of crime.

These statistics are approximations. They are based on managers' estimates, rather than detailed analyses of company accounts. They do not include crime-related capital costs, management overheads, or high insurance premiums.

Costs incurred on the Highlands Highway, at K5.6 million (AUD$2.4 million), were some 83 percent of total direct crime costs:

• the cost of fuel theft was K2.1 million (AUD$0.9 million), or 30 percent of the total direct crime costs;
• theft of general cargo at K0.8 million (AUD$0.3 million) was 11 percent of total direct crime, and one-third of reported fuel losses; and
• other petty theft was somewhat smaller, at K0.2 million (AUD$0.1 million) or two percent of the total.

The cost of theft was only part of the direct crime costs:

• the single largest cost was vehicle repairs, following parts theft and vandalism. The total of K2.2 million (AUD$0.9 million) was 31 percent of total direct costs;
• false compensation and fraud, which were often interrelated in the companies' view, were K0.6 million (AUD$0.3 million), or eight percent of the total; and
• security costs for crime prevention were K1.3 million (AUD$0.5 million) or 18 percent of the total.
However, direct costs were only 70 percent of indirect losses through reduced revenue.

In the long term, the effect of these cost drives up the prices to customers for a single truck trip by some 15 percent. Without crime, the price of a typical trip from Lae to Mt. Hagen and return, might reduce by a minimum of K750, from K5 000 to K4 250.

Another effect is to force smaller companies out of the industry because they cannot spread the financial risk. While this situation can be regarded as normal competitive forces pushing out smaller, less financially secure companies, the outcome is a reduction in services, especially to smaller businesses, a concentration of the industry among larger companies, and less choice for customers.

The study does not support the view that crime is a cost of doing business that big companies can afford to meet from their profits. The costs of crime and the supplementary security are high, even for large trucking companies. As a business item, companies pass the cost of crime on to clients as higher freight charges, and clients pass them on to their own customers. Companies treat crime as a business expense, which is a standard and legally acceptable accounting and taxation practice.

**Highway Crime and the Police**

A critical element in the prevention and control of crime on the Highlands Highway is the actions of the RPNGC. The RPNGC decided to restart a separate Highway Patrol Command in 2006, to be based in Mt. Hagen. At the time of the study, Highway patrolling came under provincial police commands. There are some 25 highway patrol stations along the Highlands Highway. Normally, each station should have a vehicle and about ten staff, but in practice, this is not usually the case. Police headquarters in Port Moresby was aware that the stations lack fuel and vehicles, but there were competing priorities for available funds, and the stations had insufficient resources for continual patrolling. Housing provision and other conditions of service were often inadequate, and there are no special financial incentives for regular officers to work in difficult provinces.

The common theme in interviews with senior Royal Papua New Guinea Constabulary officers was an inability to deliver services because of lack of funds. Comments on the problems they faced were consistent with the 2004 Ministerial Review of Police Services.

All parties thought that more vehicle patrols by the police was the key to reducing crime, but lack of funding meant insufficient vehicles, equipment, and supplies, and poor vehicle maintenance. The police received assistance from the trucking companies and viewed this very favourably.

Companies had ambivalent perceptions of the RPNGC. On the one hand, they felt that they had quite good official relations, and that many police were trying to do their job. On the other hand, they were frustrated by lack of policing action. They did recognise the funding shortages that underlay the situation and were very sympathetic to police morale problems. They attributed lack of action over funding and morale to poor police management, but individual police officers could also be inefficient and/or corrupt.
Company managers reported that the lack of police presence meant that police assistance on the roads was variable, and even if present during a robbery, the police sometimes might not provide assistance. However, some managers considered that a balance of power applies on the roads and limits the ability of the police to act.

There were allegations about involvement by some police in fuel theft. While comfortable with official contributions to the RPNGC, a grey area was demands from individual police officers for fuel. Some industry sources alleged that unofficial police demands for assistance could verge on extortion. They felt pressured to assist in such situations, partly because of the risk of reduced cooperation when they did need assistance.

All parties recognised that poor morale and living conditions affected police behaviour and contributed to corruption. On the positive side, official action over corruption could occur.

Ambivalent perceptions of the police meant that companies often decided not to report some of the crimes affecting their companies, in general, because of scepticism about the likelihood of the police being able to deal with the crime. Only two of the seven companies that answered (29 percent) stated that they were satisfied with the result of reporting to the police. The satisfaction with different elements of the police response was highly variable; sometimes companies were satisfied, and other times they were not.

Despite their reservations about corruption, individual police officers’ performance, and concerns about police management and morale, the trucking companies stated that there were ways in which their workplace communities could better assist the police to play their core professional role in crime control.

Policy Implications

The study has some broad policy implications, as well as some specific ones. The first two broad implications reinforce findings from the 2004 Port Moresby and Bougainville household crime victimisation surveys:

1. **Income Generation**: Employment creation was nominated in the Highlands Highway study as an important way of reducing criminal activity, as also occurred in the community crime victimisation studies. Employment, especially for young men, who are both perpetrators and victims of crime, is widely believed to be the key measure for reducing crime.

2. **Police Reform**: The survey found that the police and the heavy trucking industry have very similar views about the need to improve police living and work conditions, with a view to lifting morale and lessening the motivation for poor performance and corruption. This finding further reinforces the desirability of implementing the findings of the 2004 Ministerial Review of Police Services, funding for which was provided in the 2006 Budget.

3. **Road Rehabilitation**: The state of infrastructure, particularly roads and bridges, is a significant factor in highway crime, as slow travel and involuntary stoppages
increase the opportunities for crime to occur. This finding reinforces the need for ongoing action on road rehabilitation and improved maintenance.

4. Whole of Government Approaches: The specific recommendations that follow, heavily involve the police in closing down unlicensed fuel and alcohol sellers. However, other key stakeholders need to be brought into these issues and accept that they have a role to play. Along some parts of the Highlands Highway, there have been whole of government approaches involving provincial governments and the RPNGC, in particular, in enforcing liquor bans. These approaches should be reinforced so that attempts to close down illegal sellers (of alcohol as well as fuel) are not just seen as a problem for the police force.

The specific recommendations derive from the fact that a major contribution to much of the crime reported on the Highlands Highway, by both the RPNGC and the heavy trucking industry, is the high frequency of unlicensed alcohol outlets. The ready availability of beer along parts of the highway creates a need for cash (which drivers meet by illegally selling fuel), and contributes to drink driving and other problems in the community.

Licensed outlets also contribute to the problem. Those provincial governments that permit the sale of alcohol need to balance the revenue that comes from licensing against the social and financial cost of crime to the community and the transport industry.

Earlier community policing work along the Highlands Highway has demonstrated that the vast majority of people are not criminals, and that they want stability, safety, and harmony. Women are especially likely to support further restrictions on the supply of alcohol.

5. Liquor Licences: A whole of government approach should be taken to support the RPNGC in closing down unlicensed alcohol outlets along the highway. Also, where provincial governments permit the sale of alcohol, they should not issue or renew liquor licenses for outlets within 500 metres of highways in rural areas.

Illegal fuel sellers along the Highlands Highway are also a significant factor in crime. Fuel buyers create a large demand for stolen fuel, and this is having a considerable financial impact on the heavy trucking industry.

6. Unlicensed Fuel Outlets: A whole of government approach should be taken to support the RPNGC in closing down unlicensed fuel outlets along the highway.

Recommendations 5 and 6 would be well-approached on a section-by-section basis along the Highlands Highway. These problems do not exist everywhere, as there are different provincial government policies to consider, different community perceptions of the problems, and differing balances of power between the police and the criminals along different parts of the Highlands Highway.

One trucking company’s general manager stated that he was sure that his company, and others would provide considerable sums of money to support official police action if
they mounted an operation to close down illegal fuel and alcohol sellers along the highway. This option could come under consideration.

These options are in the collective interest to reduce crime on the Highlands Highway. The ultimate financial cost of crime on the Highlands Highway means higher prices for everyone. Crime becomes a cost to the community. The economic outcomes of Highlands Highway transport crime include reduced returns on exports for producers from the Highlands Regions, and increased prices for consumers of imports into the Highlands.

As one manager commented:

*In the community, they don’t understand yet that they are paying for the cost of crime. Eventually, the tradestore goods will be more expensive.*
CHAPTER 1

STUDY BACKGROUND

The Government of Papua New Guinea's Law and Justice Sector Strategic Framework Strategy 1.3.2 is to improve highway and resource project safety, especially in the Highlands. To measure the impact of crime on the Highlands Highway, which is the biggest road freight route in Papua New Guinea, a transport industry study was necessary. Consistent with Strategy 1.3.2, the study focused on the heavy trucking industry, which services resource projects and the agriculture sector.

The sector strategy is consistent with the government's policy to promote economic development through export industries. This policy is consistent with international studies, which show that open, export-oriented economies grow faster and reduce poverty, more so than closed ones. The nation's road infrastructure is vital to export industries. Whether these industries involve foreign-owned companies, nationally-owned ones, or are based on village agriculture, they stand to generate income, and create employment and revenue, so that the Government can provide services.

High levels of highway crime in Papua New Guinea affect transport security and costs, not only for exporters, but also for importers, and for internally derived trade. Crime on the Highlands Highway is widespread. Within the transport and business sectors, it is a daily matter often reported through the media (for example, an EMTV series on the Highlands Highway and an advertising campaign by the Road Transport Association in 2003). However, apart from some police statistics, no objective independent studies have analysed the situation to explain it to decision makers. The present study is intended to provide a reliable picture of highway crime so that it can be responded to effectively.

The present study was intended to scope highway crime, as it affects the heavy trucking industry. In effect, it was a situation analysis on which more detailed research can be based, if warranted. The study also complements a survey of crime affecting businesses in Port Moresby, and community crime surveys in Lae and Mt. Hagen.

3 No studies on transport crime on highways in Papua New Guinea were uncovered in preparation for this study. Searches of the NRI and PNG University of Technology libraries, and consultations with stakeholders, academics and government and industry bodies, such as the CIMC and LCCI, revealed a number of transport planning studies from the 1970s. All current work appears to be contained in background papers for aid-funded infrastructure projects. The relevant ones that AusAID made available focus on maintenance and engineering issues and make little or no mention of crime. These papers also note the absence of important baseline data (for example, Toole, T. and Preski, K., 2004. Rapid Literature Review: Impact Assessment of Developmental Road Works in Papua New Guinea, Final Report. ARRB Transport Research, p.38).

However, the study did not focus on the impact of highway crime on the communities adjacent to the Highlands Highway, which may be the subject of later research.

The Highway transport crime study is an integral part of the Law and Justice Sector performance monitoring, where it is intended to supplement official data. The study was approved on 25 August 2005 by the Law and Justice Sector National Coordination Mechanism, which is a committee comprising the heads of all sectoral agencies. The design was commented on and accepted by the LJS Working Group, which comprises senior departmental managers, and by AusAID.

Responsibilities for technical advice on monitoring and evaluation of sector performance are held by the Australian-funded Justice Advisory Group (JAG). In developing the study, the JAG took advice from the trucking industry. Facilitation and quality assurance was provided by the Lae Chamber of Commerce and Industry, the JAG, and the Australian Institute of Criminology. One RPNGC member of a sector technical working group on monitoring and evaluation contributed to the study, which was implemented with the collection of baseline data in Lae and on the Highlands Highway in August and November 2005.

Objective

The objective of the Highlands Highway Crime Study was to provide information on the types and cost of crime on the highway in order to:

- enable the heavy transport and law and justice sectors to ascertain trends in crime levels;
- provide data that can inform programs and strategies to counter crime; and
- monitor outcomes of crime prevention and control measures (see Appendix A).

Research Options

Four potential areas exist for research into Highlands Highway crime:

1. *The Effect of Crime on the Heavy Trucking Industry:* This industry carries the bulk of imports and exports along the Highlands Highway. The advantages of studying it are:
   - consistency with the government’s export-driven economic policies and Strategy 1.3.2 in the Law and Justice Sector Strategic Framework, concerning improvement in highway safety;

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• the high proportion of Highlands Highway freight carried by the industry; and
• the widely flowing economic and social consequences of crime and crime prevention.

The heavy trucking industry comprises a small number of specialist companies, which are easy to research from a practical point of view. All these reasons made this area the prime target for the study.

2. The Effect of Crime on the Lae Wharves and at Resource Project Sites: Sector Strategic Framework Strategy 1.3.2 covers both the Highlands Highway and key resource projects. In turn, their security is affected by the Lae wharves. To study the port and the resource sites would add considerably to the time and logistics, and in any case, mine site data would be obtained more efficiently direct from the mining companies, as part of sector performance monitoring. The study did not include wharf or resource site issues.

3. The Effect of Crime on Light Road Transport: Light and medium vehicles carry the bulk of passengers along the Highlands Highway, and passengers and cargo from villages to markets on the highway. This industry includes PMVs (Public Motor Vehicles), and small and medium trucks that generally travel between towns, and from villages to towns, rather than along the length of the Highlands Highway. Study of this industry would have extended the work from the formal sector to the informal sector (many of the vehicles are privately and village-owned), which is highly desirable, in principle, but complex in practice. As this industry is further from Strategy 1.3.2, research was left for later.

4. The Effect of Crime on Communities along the Highlands Highway: Crime can be expected to have two types of community impact — a financial benefit for successful criminals in villages close to the Highlands Highway, and a negative economic impact for villagers elsewhere, agricultural producers, and urban consumers. The perpetrators of crime have no incentive to expose their activities. Indeed, field work among them could well be dangerous. The community impacts, including any impacts of police activity, were also left for later research.

This study concentrated on the first of these areas, by providing a situation analysis of the heavy trucking industry, because this was most consistent with Sector Strategy 1.3.2. A second phase could focus on light, town, and village-based transport, and/or the impact of highway crime on communities.

**Methodology**

Much of the methodology was exploratory in nature and subject to modification, as the study proceeded. As an investigative study, an open-ended approach was adopted which mainly focused on the trucking companies. The entire industry comprised nine companies, which were identified through the 2005 Yellow Pages under Transport Services, and through industry sources. Because of the small numbers involved, sampling was not necessary, and all nine companies cooperated with the study.

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5 Safety for survey personnel was a major issue in the 2003 UNDP Safer Cities Survey in Port Moresby, which endangered researchers by asking raskols about their criminal activities.
Introductory interviews were conducted in Lae in August 2005. The main field work occurred in Lae and Goroka during November 2005.

The research was primarily qualitative, but did mix qualitative and quantitative research techniques. The research centred on open-ended, unstructured interviews with key personnel in the trucking and associated industries, some of whom were interviewed more than once (see Appendix B). An adaptation of the JAG/NRI Business Crime Victimisation Survey questionnaire was also used (see Appendix C). Information from these sources gave estimates of the types and cost of crimes and security issues affecting the trucking companies.

Methodologically, using company data had the attraction of validity through being based on the companies' real-world problems and costs. Using existing data was desirable to gain company cooperation by making their business concerns an important element of the study, and by reducing their costs of participation in the study. However, there were reliability issues in obtaining comparable financial data between companies. For example, it may be in their interests to exaggerate the effects of crime, they have different operational and accounting systems, they do not normally treat crime as a cost centre and therefore do not readily have cost data to hand, and financial statistics are commercially sensitive because companies are protective of their competitive positions in regard to other trucking companies and to major clients. The study therefore aggregated data at the industry level. This report does not present findings about individual companies. The Lae Chamber of Commerce and Industry (LCCI) vetted a draft report to reassure companies that there would be no inadvertent exposure of confidential information.

### Table 1: Data Collection Methods

<table>
<thead>
<tr>
<th>Data</th>
<th>Source</th>
<th>Number</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Road situation</td>
<td>Interviews with trucking company senior managers and police. Detailed observation on truck trip.</td>
<td>17</td>
<td>Chapter 2</td>
</tr>
<tr>
<td>General information about the industry</td>
<td>Interviews with trucking company managers and associated business.</td>
<td>13 managers from all 9 companies, 5 others.</td>
<td>Chapter 3</td>
</tr>
<tr>
<td>Official crime data</td>
<td>Police records.</td>
<td>2 of 6 provinces.</td>
<td>Chapter 4</td>
</tr>
<tr>
<td>Company experience of crime</td>
<td>Interviews with senior company managers.</td>
<td>13 managers from all 9 companies.</td>
<td>Chapter 4</td>
</tr>
<tr>
<td>Crime costs</td>
<td>Company questionnaires.</td>
<td>All 9 companies.</td>
<td>Chapter 5</td>
</tr>
<tr>
<td>Police role</td>
<td>Police interviews.</td>
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<td>Chapter 6</td>
</tr>
<tr>
<td></td>
<td>Company interviews.</td>
<td>13</td>
<td></td>
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<tr>
<td></td>
<td>Company questionnaires.</td>
<td>All 9 companies.</td>
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Police crime reports from Morobe and Eastern Highlands Police Commands were reviewed, and members of the Morobe and Eastern Highlands Commands were interviewed to gather police data and perspectives. Additionally, a trip on a heavy truck...
under real operational conditions, gave firsthand experience of the Highlands Highway and crime spots along it, from Lae to Goroka.

The various data sources gave a representative study of the nine trucking companies and their experience of crime on the Highlands Highway, crosschecked against police data and observation on the road. Separately insufficient, the data collectively generated a full picture (see Table 1).

Additionally, in March 2006, presentations on the findings, including copies of the Extended Summary and Chapter 5 on costs, were given to ten industry members from eight of the nine companies in Lae and Mt. Hagen, including a senior Lae RPNGC officer and the LCCI. They had the opportunity to review the study and comment on it then, or advise by email of any inaccuracies. Apart from strong cynicism by the industry about the likelihood of reports to government leading to any action, feedback on the content was positive, stating that it accurately reflected the situation, although noting that costs are difficult to pass on. One written comment from Mt. Hagen also confirmed that the description was accurate, and that the costs given in Chapter 5 were within industry expectations.
Outside contact only came to the Highlands in the 1930s. Initially, travel was by foot patrol then, after the Pacific War, freight was moved by plane. The Highlands Highway—linking the Southern Highlands, Enga, Western Highlands, Simbu and Eastern Highlands Provinces to Morobe Province—was only completed during the late 1960s. It was mostly a gravel road, but sealing progressed during the 1970s and 1980s. While budgetary and management difficulties have meant that the Papua New Guinean Government’s resources have been unable to keep up with maintenance, the road has been improved considerably with inputs from the World Bank, the Asian Development Bank, Australian Army Engineers, and the Australian aid program during the past 30 years.

There is little doubt that the Highlands Highway is the most important road in Papua New Guinea (see Map 1). The Highlands Highway services more than half of Papua New Guinea’s population — some two million people in the Highlands Region (38 percent of the population), and another 900 000 in Morobe and Madang Provinces. It also services six provincial capitals, major resource projects (involving gold, copper, hydro-electricity and gas), and the agriculture sector (especially coffee, the major export crop, but also timber, cocoa, tea, and vegetables). Even excepting heavy transport, the Highlands Highway is the most important road in the country because of the large rural population and informal economy that it services.

Map 1: Highlands Highway

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8 Allen (ibid.: p.99).
The Highlands Highway spans extreme conditions across the Highlands Region, for a distance of some 575 km. The road starts at sea level in the tropical town and seaport of Lae in the east, and goes north-west past Nadzab Airport along the Markham Valley, where temperatures often exceed 40°C. The Highlands Highway connects with the Ramu Highway to Madang, some 140 km from Lae, before climbing to Kassam Pass 165 km from Lae, and rising from an altitude of 500 metres to 1 480 metres in Eastern Highlands Province. The highway traverses Eastern Highlands Province at an altitude around 1 600 metres, past the Yonki hydroelectric power station, and through the coffee-growing areas of Kainantu (210 km from Lae) and Goroka (300 km from Lae), before climbing again up through the Daulo Pass (325 km from Lae) to Simbu Province.

From the top of Daulo Pass, at 2 480 metres, the road goes down again to Kundiawa (380 km from Lae), at 1 525 metres, and then continues through Simbu to Western Highlands Province and Mt. Hagen (465 km from Lae), at 1 700 metres. Outside Mt. Hagen, the road splits. One branch goes south-west to Mendi, at 1 800 metres, in the cool, wet, mountain climate of Southern Highlands Province. Beyond Mendi, the road extends past the gas fields to Koroba. The other branch goes north-west to Wabag (575 km from Lae) in Enga Province, after which it extends 100 km to the Porgera gold mine, which is a major destination for fuel, mining supplies, and general freight from Lae.

Most of the road is two lanes, and only eight metres wide. It is sealed, but is subject to heavy wear and tear. The passes are steep, difficult to negotiate, and often slippery. The high rainfall generates slips and exacerbates potholes. Heavy rainfall also means that there are many rivers and streams to cross. The 86 bridges have frequent maintenance problems. The combination of the very rugged terrain, tropical rainfall, and high temperatures means that the Highlands Highway is very tough on vehicles.

Damage to trucks affects freight rates considerably. The sheer physical make up of the highway increases the cost of road maintenance. Recent repairs have brought many sections into good condition, while other sections are far from it. The road deteriorates rapidly, especially during wet periods. Sporadic maintenance means that, to a considerable extent, the capital investment from aid donors has provided, not so much upgrades, as rehabilitation, which is effectively delayed maintenance on a failing road system:

road deterioration in Papua New Guinea has reached the point where reconstruction or rehabilitation is necessary. The concept of managed maintenance has fallen into disuse.9

Papua New Guinea's transport networks are failing. Major roads, including the crucially important Highlands Highway, have deteriorated alarmingly, raising costs, and reducing the availability of transport services ... For roads, annual maintenance budgets are now little more than 10 percent of estimated needs ... An earlier maintenance culture has been lost. Investment is wasted, and the benefits soon dissipated by poor quality control and lack of maintenance ... Almost half of the

7 800 km of national roads and two-thirds of the 5 350 km of provincial roads need rehabilitation or reconstruction before they can be properly maintained.\(^\text{10}\)

The state of infrastructure, particularly roads and bridges, is a significant factor in highway crime. Clearly, road conditions have implications for speed of travel, breakdowns, and staging points for crime, which significantly increase the risk to victims. All of the managers who were interviewed in this study reported that stealing and vandalism happens when trucks are travelling slowly or have to stop. Uneven and poor road maintenance contributes to slow travel and frequent involuntary stoppages, which are preconditions for much of the crime that occurs.

**Highway Traffic**

Average annual daily traffic in 2002 ranged from 500 to 10 700 vehicles over 30 sections of the Highlands Highway from two kilometres to 44 km in length, with an average of 3 420 vehicles per section. Estimates of the average breakdown of traffic along the highway were:

- 15.4 percent were medium and heavy trucks;
- 50.5 percent were light rigid trucks (for example, coffee trucks);
- 22.7 percent were PMVs (generally light buses with 10-25 seats, but also including small and medium-sized trucks that carry passengers on the tray); and
- 11.3 percent were private passenger vehicles.\(^\text{11}\)

No data on truck loading weights appear to be available, as the Ten Mile Weighbridge near Lae has not functioned for several years. If it is assumed that heavy vehicles have average loads of 25 tonnes per vehicle, and all other vehicles average three tonnes, the heavy vehicles carried some 60 percent of cargo, by weight. The Road Transport Association estimated that, in 2004, there was 164 000 tonnes of freight, 67 percent (110 000 tonnes) of which was fuel.\(^\text{12}\)

**Location of Highway Crime**

The trucking industry and police force managers share similar views on the nature and location of crime on the Highlands Highway. They both reported that crimes against trucks occur mainly when trucks stop or are moving slowly because the road is steep, the driver has stopped for a break, the vehicles are bogged or have to stop because the road is impassable, the vehicles break down, or when they are held up. If a vehicle is hijacked, it may be taken several kilometres off the highway, to steal the cargo and strip parts off the vehicles. The companies and the police agreed that the further trucks go from Lae the

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worse the highway crime gets. Violence, or the threat of violence, is an integral part of the problem.

The following description is a synthesis of police, company manager, and driver interviews:

From Lae to Kassam Pass, the main problem is fuel stolen from truck tanks. We have a lot of problems with drivers in the Markham. They stop for a break and sell diesel. They use it to pay for food, drink, and sex. Otherwise, speeding is a problem in the Markham. Sometimes there are road tolls at the bridges.

It’s not so bad in Morobe, but increasingly, through the Highlands, crime happens. The further you go, the worse it gets. When vehicles move slowly or have to stop, that is when trouble occurs. The thieves jump on the trucks and cut the locks. Generally, fuel rather than cargo is stolen because the cargo is locked in containers, unless trucks tip over and containers are broken into. If loads are stolen, truck parts can also be taken and the vehicles trashed.

After Kassam Pass, robbery happens. Through Eastern Highlands Province, the worst area is around Barola, from Kainantu to Henganofi. Hold ups and guns are common. The Goroka community police are attempting to influence the situation. Daulo Pass can be very slippery towards the top. At least one company puts a tow truck there for days at a time to help pull trucks up when the road is really bad.

The road through Simbu Province is very poor. Especially, after Kundiawa, towards the Western Highlands, hold ups and road tolls are problems. Our drivers won’t pass there at night. They stop over, and sometimes that leads to trouble, if they get drunk and upset the villagers.

Drivers know where the safe spots are — Yung Creek, the Goroka depots, Kundiawa, the Hagen depots, Mendi, and the Kutubu and Porgera depots. There aren’t as many safe places to stop as before.

The road in Enga, past Wabag, is maintained by the Porgera mine and is in quite good condition, except for some very steep and slippery parts. The road in Southern Highlands Province is very poor. Past Mendi, it is even worse. Semi-trailers can’t go to Tari.

Once you are in the Highlands Region, compensation claims become a problem — traditional laws apply. The further you go, the worse it gets. It is tribal, hostile, and violent. If you breakdown or have an accident, your cargo is gone. Landowners outside the mine areas attack the trucks because they say they don’t get any revenue from the mines. Fuel tankers are the main target.

In Southern Highlands Province, this perception is consistent with a 2005 survey which found that the western region of the province was disproportionately affected by armed violence, and that victimisation rates from violence were among the highest reported anywhere in the world (Haley, N., 2005. "Armed Violence Assessment: Summary of Preliminary Findings", a paper presented at the Papua New Guinea Guns Control Summit, University of Goroka, 4-8 July 2005.)
All this has resulted in a progressive reduction in road services, especially by the smaller trucking companies:

*We don't go from Goroka to Mt. Hagen unless we have to keep a client happy. We don't go past Kundiawa. We have stopped going to Tari because of extortion over compensation claims.*

**The Highway under Operational Conditions**

As part of the study, road and operational conditions were observed from a heavy truck travelling between Lae and Goroka. This trip gave an opportunity to have a six-hour, in-depth interview with a driver about road and crime conditions, and to observe road, operating conditions and crime locations, albeit on a better part of the Highlands Highway:

*It's 12.20 p.m. on Thursday, 18 of November 2005 when John [a pseudonym], the driver, wheels us out of ABCO's gate, through a few streets in the business area near the Lae wharves, and westwards onto the Highlands Highway. The vehicle is big - three metres wide and 20 metres long - but we have a very clear view with our heads nearly four metres from the ground. Although this is not John's normal truck, it is very similar, and he quickly adjusts to a different gearbox as he makes the constant gear changes required. Twenty-five years of experience show as he makes two or three gear changes even starting off around a roundabout, and then moves steadily with the light traffic, giving other vehicles and pedestrians plenty of room and allowing space on all sides of the truck and trailer.*

*We are in a Western Star Series 390 prime mover, which was recently bought second hand, in Queensland. Like most highway trucks here, it has a Cummins diesel engine, although at 480 horsepower, this is more powerful than most. John, who is a trained diesel mechanic, says that it has six cylinders, six litres, and is turbocharged. Attached is an 18-speed Fuller manual transmission, with a two-speed diff and overdrive which give a gear for every situation. It is good for the Markham, John says, but he prefers his normal box, which has fewer gears, for the hills.*

*The cabin is not intended for passengers. It is only the size of a small car, with a sprung driver's seat, an unsprung passenger seat, and an array of dials, switches, signal lights, and fuses. An insect deflector adorns the front of the bonnet and a mesh stone guard protects the bottom of the windscreen. An opening behind us gives entry into a sleeper cabin. John says that the flexible rubber seals between the passenger and sleeping cabins break. They are expensive to replace and he expects that the sleeper will be removed when they do. There is an ineffectual air conditioner, but even that is unusual and, in any case, once up in the Highlands, it is unnecessary. The bush knife under John's seat is not standard equipment either.*

*We are underway after some delays. Truck maintenance is conducted after each sector. Gearbox and diff bolts often need tightening because of the amount of torque going through them, I was told. There was also some checking of the container load weight and a change of trailer to one more suited to a single, heavy container - all common operational matters for a hands-on management.*
Behind is a triple bogie (three axle) trailer with a single 20-foot container positioned in the middle so that enough weight is distributed to the trailer wheels to maintain traction under braking. The container is heavily laden with 22.8 tonnes of salt and cement for a trading company in Goroka. The truck has a tare (empty) weight of 11.5 tonnes, the trailer has a tare weight of six tonnes, and the container weighs 2.4 tonnes. With a tonne of diesel, there is a total weight of about 43-44 tonnes.

John says that Four Mile, which we pass through, is a place where road blocks occur, but roadside clearance has reduced this. Like elsewhere on the Highlands Highway, criminals carrying handguns put up roadblocks to rob PMVs, and they might steal from the big trucks when they have to stop, but here it has improved. Tree clearance (which I saw in August) means the raskols cannot hide in the bushes and they can be seen more easily, John adds.

We stop briefly at the company's Six Mile depot for John's radio, but another driver has taken it, so we continue out of Lae towards the airport. For the first part of the trip, as we pass through populated housing, settlement, and business areas, John keeps the truck at 60 to 70kph, with the engine at about 1500 to 2000 rkins.

John is highly experienced. He is a Western Highlander, who was born in 1958 and brought up in Lae. After school, he completed his apprenticeship as a diesel mechanic and worked at Ok Tedi for a while. However, he got involved in an industrial dispute and was fired. So he turned to driving, which he has been doing for some 25 years, for three or four companies. He is married to a local girl from Lae and they live in the company compound. They have five children aged from three to 21.

John's English is far better than my Tok Pisin, and as we go he tells me about particular crime spots, the troubles drivers have, and the sorts of crime they face. He keeps up a running commentary for the rest of the trip and I make untidy notes in my pad as we bounce along. John paints a very similar picture to the company managers and the police, but adds the drivers' perspective. Some of the things John talks about have happened to him, some he has witnessed, and others are second hand from his friends in the compound and in other companies.

John used to drive to Porgera and Kutubu, but now he mainly drives to Goroka, Mt. Hagen, and Mendi. Over the years, he has been held up four times — in Barola in Eastern Highlands, in Simbu, at Nebilyer in Western Highlands, and near Tari in Southern Highlands. He has had three or four tipovers when containers were looted. For several years, because he was a trained mechanic as well as a driver, he worked the highway breakdown truck, escorting small convoys through difficult places and coming to the aid of breakdowns. Nowadays, he says, it isn't safe to have breakdowns. If there is a small problem, you need to get it fixed as soon as you can and keep moving.

Now that we are at Twenty Mile, the road is clearer and we are averaging around 70-80kph. Out as far as Nadzab Airport, there are plenty of potholes, and these have become much worse in the last three months since I was last here. But past Nadzab and all the way to Goroka I am pleasantly surprised by the condition of the
road. 'Highway' is a slightly grand name for a two-way road, which is only about eight metres wide. It is quite narrow, and once up in the Highlands, winding and hilly, but the road surface is good. Even the places where it is not, repairs are encouraging. An area is being sealed near Wartisan in Morobe Province, in Eastern Highlands, four bridges are under repair in the Kompi Valley between Kainantu and Barola, and another strip is being sealed.

John has mixed sympathies for the places along the Highlands Highway that are affected by crime. The solution, he says, is for the Government to build roads from each province to the northern coast. If cargo doesn’t get to each province, that would be their problem, he says. He also talked several times without prompting about environmental issues – he is well aware of global warming, which he says is making local weather patterns less regular. The impact of tree clearance upstream on flood patterns downstream is a problem that affects the bridges which we cross over, and he points out exotic cattle grass, which he regards as a weed, spreading from the Markham up to Kassam Pass.

In the hills that we reach after Nadzab, I ask John about a burned out truck body on the side of the road. He tells me he saw it happen when he was on breakdown patrol. The driver went off the road and was jammed in his cabin when leakage from the load of gas cylinders caught fire. John heard him screaming, but could do nothing to save him.

Soon, we are on the open road, keeping 90-100kph on the straights as we climb slowly but steadily towards the start of Kassam Pass. John changes down two or three gears for bridges or badly cambered corners and slows down for safety, wherever there are roadside markets, which are quite common. On either side, there is much more extensive commercial agriculture than when I last travelled on the road through the mid-1970s.

I ask about fuel selling on the roadside, and over the next few hours John points out features from here to Kainantu. Part of the problem, he says, is that there is no fuel station between Forty Mile and Kainantu, a gap of some 250 km, although there is one at Ramu on the way to Madang. However, if they open one, John thinks people would still buy black market fuel because it is cheaper. The police should clear the sellers off, he says.

At Fifty Mile, John points to a small bush material shelter where fuel is sold on the side of the road. Soon we pass some 200-litre drum stands with five-litre plastic containers of fuel for sale on top. It is quite common to see several fuel sellers within a few metres of each other. I soon lose count, but we must pass well over 50 between here and Kainantu. Some have signs. The first one is K8 for a five-litre container; that is, K1.60 a litre, which is 90 toea a litre cheaper than the bowsers in Lae. As we go along the Highlands Highway, prices increase. We see K20 for 12 litres (K1.67/litre), then K10 for five litres and K40 for 20 litres (K2/litre) and K45 for 20 litres (K2.25/litre). We even see K14 for 5 litres, which is K2.80/litre and about 30 toea more than the fuel stations. But, by then, the nearest fuel station is 45 minutes away. Clearly, market forces are at work – the further the sellers are from a station, the more they can charge.
Several sellers are within 500 metres of the Mutzing Police Station. John thinks the police know that the fuel is stolen, but they buy it, too, because they have no choice. We see two police vehicles during the trip, and John's comment about one is libellous. His more considered view is that the committed police do their best, but some are drunken womanisers who sell bullets for money or beer. If companies want police escorts, the police may ask for fuel, and you might have to pay the police something on top of their wages, he says (and I look to see if the play on words is intended). There's a lot of give and take.

John, speaking carefully in the third person to distance himself from other drivers, says that they often sell diesel. Drivers earn a lot, he says, but they spend a lot. Some drivers have their families in Lae, and their company pay goes into bank accounts. However, if they want beer on a trip, or want a woman, or if they have a village wife or a girlfriend, they need more money, and they sell diesel to get it. Out on the open road he points to some spots where truck drivers stop to sell fuel. They look like they are stopping to relieve themselves, he says, but someone will be buying fuel. Even with the companies setting fuel allowances for trips, and fining drivers if they exceed their allowances, he reckons it is possible for some drivers to drive economically, then sell fuel and still stay within company limits. The companies give drivers good pay, he says, and entrust them with half a million kina trucks, but still they sell fuel. It often depends on whether they have good relationships with their supervisors and are treated with respect. If not, they give themselves an excuse to sell fuel. They give the companies lots of reasons for losing diesel, but often they are not true.

Fuel buyers are a common sight, at least if you are a truck driver subject to their signals. Later, near Yonki, for example, a buyer holds a single finger up to the truck. He is carrying a 30-litre container and a flexible black plastic siphon. He wants one containerful, says John. Maybe he would pay K50 and sell it for K75.

John thinks that truck drivers can also make money carrying cargo on the trailer or passengers in the cab: maybe even K200 on a trip (which can be over half a drivers pay for a trip). Sometimes a group will pay money, but if there is a spare woman, the driver can have sex. Drivers know about AIDS, but the young ones don't take it seriously, he reckons.

We pass Umi Market, where fruit, soft drinks, and trade store goods are for sale. Not too long after, at Yung Creek, near the bottom of Kassam Pass, we curve around past a dozen or so bush huts on the roadside. Everyone stops here, John says – there's beer, smokes, and women, and even music and dart boards.

It has taken about two and a half hours to reach Yung Creek, at an average speed of 66kph. We didn't stop, says John, so that is faster than normal. The rest of the trip up Kassam Pass to Goroka will average only 38kph, making the truck more vulnerable to looters.

The stalls at Yung Creek prompt John to tell me that drivers have a long tradition of heavy drinking. I used to do it, too, John admits. I would carry a six pack in an esky. I would have about one beer an hour to keep me awake. Now I get sleepy, so I
don't do it. People drink drive a lot on Fridays and Saturdays after payday. You must be careful on the roads then, he says.

John tells me about this as we make a slow and steady 20kph up the 1 000 metre climb at Kassam Pass, through u-bend after u-bend. He negotiates carefully past a few heavy trucks coming down, keeping an eye on the temperature gauge for the diff, which is heating up under the strain. We pass an old lookout, which people don't use any more.

"If you stop here", says John, "you will be surprised to see someone come out of the bush and say, 'Hey, give me your money'".

In the Kassam Pass area, since 2004, he says, the people come out at night with bolt cutters, especially when it is foggy. They open the container and if you stop they will kill you. Some drivers might stop for wantoks and share some of the gain, he reckons.

Over the top of Kassam Pass, gardens on both sides of the road stretch for five or ten kilometres where John and I both remember seeing forest in the 1970s. The huts are not the typical Eastern Highlands round houses, but are rectangular. I ask John about this. He says that people come here from all over the Highlands because of fighting or population pressure. Villages used to be further from the highway, John comments, but now they are closer. Other people also come in. They might buy land from the traditional owners, or settle within the highway easement, which looks about 100 metres wide. John says that some of the "so-called" landowners are just squatting on the side of the road. I can remember it when I was a little boy, he says; there was nobody along the road, now they are looking for free money.

Eastern Highlands is much cooler than Morobe. The road is undulating and winding. Population density is higher than in the Markham, and the road is busier. John says that the road seems narrower because of the people, who continually walk on the roadside. He occasionally does 70 or 80kph, but even small hills slow the heavy truck, both uphill and down. I notice in the offside mirror that he leaves plenty of room between the left hand side of the trailer and the ditch. Get in there, he comments, and you are in trouble. We pass Yonki Dam, the source of hydroelectric power, and now full of fish. You used to be able to sleep next to the dam, John says, but not now.

As we head towards Kainantu, John explains that this is a big marijuana growing area (this is commonly acknowledged by the police, too). It is full of guns here and in other growing areas all along the Highlands Highway, he says. The raskols take marijuana as far as Jayapura in Indonesia and Daru in Western Province. Logging companies bring in guns and exchange them for marijuana, he claims. Raskols generally only use the guns to scare people on the road, but if you resist they will shoot you. The guns are mostly used for tribal fights, he says, and the police can't do much about it.

We stop briefly at Kainantu at 4.10 p.m., about four hours and 210 km from Lae. Kainantu isn't safe for sleepovers any more, John says, only Yung Creek and company depots in the towns. He checks the tyres before we continue to Goroka.
because we will pass through the danger areas of Kompri and Barola ahead. "You can't afford to stop there for a tyre or anything else", he says. Soon we catch up to another company truck with a less powerful motor. The driver lets us pass, and John keeps an eye on the mirror over the next hour to see that he gets through.

Before Borala, four bridges are being reconstructed in the Kompri Valley. The technical people come from outside, John explains, but the workers and the guards (who carry bows and arrows) are local villagers.

As we pass through the Barola area, John shows me several hold up spots. "Here they used to stop trucks", he says, "then the trucks were driven up that side road into some trees and stripped ... there are some lookouts where the raskols watch out for the police and signal their friends to hide ... that load of dirt blocks another dead road that was used for stripping trucks ... here the trees are too close to the road ... that is where some people jump onto the trucks".

John recounts what happened to him here. "I was stopped by raskols with a rifle", he says pointing out the place. "I told them, 'I have no money and the cargo isn't good for you'. They said, 'that is okay, but you must give us your shoes and clothes'. They stripped me naked and let me drive on".

After the long slow run down the Barola Hill, the road is narrow and winding to Henganofi, which can also be a problem area, he says. He maintains about 50kph. Rain starts and John is quite pleased because it keeps people off the road, including thieves and raskols. It is somewhat darker now, and he puts the lights on. At night, small vehicles sometimes follow the trucks for safety, he says. We use our indicators to tell them if we see trouble up front.

Towards Goroka, John says that there is little trouble unless you break down. The road is easier and he maintains a slightly faster 60-70kph, partly because he is now tired and wants the trip to end. We talk less. I observe that the abundant potholes that were here two years ago have been repaired, as have the bad ones alongside the airstrip in West Goroka.

At 6.20 p.m., John steers us into Goroka. We have taken five hours and 50 minutes driving time from Lae. According to the truck's odometer, we have travelled 283 km, at an average speed of 49 kmh, using about 275 litres of diesel. I climb stiff and sore from the truck, pleased, like John, that the trip was uneventful.
CarTrans, Distribution and Supply Services, East West Transport, Kutubu Transport, Mountain Fuel Freighters and Mountain Transport (these are two separate companies financially, but are one operationally, and were treated as one for this study), Traisa Transport, Transwest, and Wagi Valley Transport.

While the heavy trucking industry is a small one, it has many of the structural complexities found in large economies. Six companies stated that they were solely Papua New Guinean-owned, while three had some overseas ownership (Questionnaire, Q.1.4). Some were part of larger groups that may have been operating in Papua New Guinea since before Independence (for example, East West Transport, which is owned by Steamships), or been formed since (for example, ABCO which is part of Mainland Holdings, a large Morobe provincial group). Others were closely associated with mining projects (for example, Mountain Fuel Freighters and Mountain Transport supply Porgera Joint Venture Mine). Some companies were now, or had been, previously owned by landowner groups (for example, Kutubu). Others were owned by individual entrepreneurs.

Additionally, some companies had more than one of these characteristics. Some could be joint ownership in ventures (for example, Mountain Fuel Freighters had ownership by landholders and two other companies), and still other linkages could exist with companies outside the study (for example, trucking companies servicing Lae, Madang, and Wau-Bulolo), and with customs clearance companies on the Lae wharves. To make things even more complicated, change of company ownership also occurs.16

The nine companies had been in business from five to 50 years, with an average period of 26 years (Q.1.5). Lae was the main centre of operations, with eight having their headquarters in commercial areas of Lae — most near the seaport. The other company's headquarters was in Mt Hagen, and it had a depot in Lae. Four companies had depots in Mt. Hagen, three in Goroka, two in Southern Highlands, and one in Enga.

The companies indicated a total industry turnover of about K112 million a year (see Chapter 5).

The companies reported an average of 150 full-time staff, but no part-timers, and about 60 casuals in total, depending on the time of year (Q.1.7). The total number of people directly employed by the industry was approximately 1 400. Between them, the companies had 195 prime movers, which made about 1 500 trips a month or 18 000 trips a year.

The three largest companies had between 35-45 prime movers in November 2005, four medium-size companies had between 15-20, and two small companies had between 3-4. Additionally, all companies had a variety of smaller trucks and other equipment.

Some companies specialised solely in road haulage and they all had extensive workshop facilities capable of totally rebuilding wrecked trucks. However, most

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16 Data here and elsewhere in this section came from interviews, questionnaire S.1, and the Yellow Pages.
companies, including the smaller ones, had horizontal diversification into other transport businesses, such as sea and air freight, wharf and customs clearance, removals, warehousing and distribution, logistics, fuel retailing, and plant hire. They might also be part of vertical diversification with other industries that are owned by the parent groups, for example, meat, sugar, or coffee production, processing, and packaging. Particular companies, while independent of each other, might cooperate, for example, by passing excess loads to one other.

Interviews showed that industry organisations were limited in scope. The Road Transport Association (RTA) was currently not very active. A drivers’ association did not exist. The Papua New Guinean Government has created the National Roads Authority (NRA), which is a private sector initiative, to manage the road maintenance problems on the national toads. NRA will be funded mainly from the fuel excise, and hopes to take control of the Ten Mile Weigh Bridge, near Lae, which will give greater control over the weights of trucks travelling on the Highlands Highway. The NRA has widespread commercial and governmental membership, including the RTA.

The Lae Chamber of Commerce and Industry (LCCI) also provided some coordination and is a member of the RTA. The LCCI has put combating crime as its first priority. It had a program in Lae, which included monthly Law and Order Committee meetings (to provide a forum for members of the business and government communities), support for the RPNGC (for example, encouraging the business community to help with vehicle maintenance, fuel, credit, radios, and phones), and funding of an emergency phone number for the Lae public to call the police. LCCI’s role extended to Nadzab Airport, and encouraged roadside clearance to lessen opportunities at crime hotspots around Two, Four, and Six Mile, at the start of the Highlands Highway.

Overview of Industry Issues

Interviews were held with six national and seven expatriate senior company managers. They shared the views that:

- law and order law is a major problem for them;
- the Highlands Highway is of critical importance to Papua New Guinea’s economy; and
- crime on the Highlands Highway is a major problem, not just for the heavy trucking industry, but also for other forms of transport, as well as for people living along the road.

The priority that managers put on issues affecting them is shown in Table 2. However, no comparison is made with the 2005 JAG/NRI Business Survey, which used some different items. Issues concerning law and order and crime filled four of the top five ranks, while governmental regulatory issues and market conditions were ranked lower, with the exception of fuel prices.
Law and Order Issues

Eight out of the companies stated that they were highly affected by the law and order situation. This was more so than other businesses in the JAG/NRI Business Survey, presumably because of greater exposure to crime (see Table 3).

Table 2: Issues Affecting Your Business Operations and Future Investment Decisions

<table>
<thead>
<tr>
<th>Issue</th>
<th>Rank</th>
<th>Median Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Law and order issues</td>
<td>1</td>
<td>2.0</td>
</tr>
<tr>
<td>Fuel prices</td>
<td>2</td>
<td>2.0</td>
</tr>
<tr>
<td>Cost of crime prevention</td>
<td>3</td>
<td>3.5</td>
</tr>
<tr>
<td>Standard of policing</td>
<td>4=</td>
<td>5.5</td>
</tr>
<tr>
<td>Safety of you and your staff</td>
<td>4=</td>
<td>5.5</td>
</tr>
<tr>
<td>Corruption</td>
<td>6</td>
<td>7.0</td>
</tr>
<tr>
<td>Stability of rules and regulations</td>
<td>7=</td>
<td>8.0</td>
</tr>
<tr>
<td>Exchange rate fluctuation</td>
<td>7=</td>
<td>8.0</td>
</tr>
<tr>
<td>Availability of employer expertise</td>
<td>7=</td>
<td>8.0</td>
</tr>
<tr>
<td>Consistency of goods and services</td>
<td>10</td>
<td>8.5</td>
</tr>
<tr>
<td>Market volatility</td>
<td>11</td>
<td>11.0</td>
</tr>
</tbody>
</table>

Note: Questionnaire Q.1.16, N=8 or 9.

Table 3: To What Extent Has the 'Law and Order' Situation in Papua New Guinea Impacted on Your Business?

<table>
<thead>
<tr>
<th>Level of Concern</th>
<th>Responses (No.)</th>
<th>Responses (%)</th>
<th>Business Survey (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highly affected</td>
<td>8</td>
<td>89</td>
<td>42</td>
</tr>
<tr>
<td>Fairly affected</td>
<td>1</td>
<td>11</td>
<td>47</td>
</tr>
<tr>
<td>Unaffected</td>
<td>0</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>Total</td>
<td>9</td>
<td>100</td>
<td>N=169</td>
</tr>
</tbody>
</table>

Note: Q.1.15.
During the previous year, managers stated that crime on the Highlands Highway had:

- increased (75% of answers); or
- stayed the same (25% of answers); and
- none thought that it had decreased (see Table 4).

One manager encapsulated everyone's view by stating that 'The Highlands Highway is a very risky environment'.

Table 4: Has Crime on the Highway Changed in the Past 12 Months?

<table>
<thead>
<tr>
<th>Level of Concern</th>
<th>Responses (No.)</th>
<th>Responses (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>More</td>
<td>6</td>
<td>75</td>
</tr>
<tr>
<td>Less</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Stayed the same</td>
<td>2</td>
<td>25</td>
</tr>
<tr>
<td>Total</td>
<td>8</td>
<td>100</td>
</tr>
</tbody>
</table>

Note: Q.2.3.

The main reasons for crime worsening were perceived as the raskols getting worse and the police and the community doing bad jobs (see Table 5). The courts and the prisons were not seen as important factors.

Table 5: If You Think the Level of Crime on the Highlands Highway Has Changed in the Past 12 Months, Is It Because the Following Groups or Institutions Are Doing a Good/Bad Job?

<table>
<thead>
<tr>
<th>Group</th>
<th>Good (No.)</th>
<th>Bad (No.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Raskols (getting Better/Worse)</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>Police</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Community</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Courts</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Prisons</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

Note: Q.2.2.

Except where noted as comments from questionnaires, italicised comments are taken from notes in open-ended interviews. They essentially reflect the substance and much of the phrasing of comments, but have been edited and sometimes reordered and paraphrased to make the comments flow more smoothly.
CHAPTER 3
THE HEAVY TRUCKING INDUSTRY

This chapter presents information about the nine companies servicing the Highlands Highway, and their views on law and order and how it affects the industry. Where appropriate, some comparisons are made with questionnaire data from the 2005 JAG/NRI Business Survey.14

Senior company managers shared the following views:

- law and order and business crime are major problems for them;
- the Highlands Highway is of critical importance to Papua New Guinea’s economy; and
- crime along the Highlands Highway is a major problem, not just for the heavy trucking industry, but also for other forms of transport, as well as for people living along it.

Compared with the wider range of companies in the 2005 JAG/NRI Business Survey, the heavy trucking industry was:

- more concerned about law and order issues (presumably because of greater direct exposure to crime);
- similarly concerned about corruption; and
- less concerned about government and regulatory issues.

The main suggestions for the Government to improve the crime situation for businesses focused on long-term preventive measures, especially more employment and improved community infrastructure.

A fuller summation is given in the Extended Summary.

The Trucking Companies

The study identified nine companies which met its working definition of companies in the heavy trucking industry currently using prime movers to carry freight on the Highlands Highway to and from Lae.15 The nine companies were ABCO Transport,

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15 This definition is quite particular. Heavy trucks are prime movers used to tow double and triple bogie (axle) trailers, and not rigid chassis medium-sized trucks. Typically, ten-wheel prime movers pull trailers (carrying two, 20-foot containers), or fuel tankers (comprising seven 5,000 litre tanks). The study focused on companies that typically contract direct with clients and not on a few small companies that subcontract to the major companies. The definition excludes companies that did not carry freight on the Highlands Highway, but were confined to Lae, the Wau-Bulolo Road, or the Ramu Highway to Madang, companies based in the Highlands
Two comments were made on questionnaires about the role of the community:

- village people are also turning to highway crime, such as compensation extortion; and
- for more of the community with nothing to do, trucks are targets.

Additionally, 78 percent of managers did not feel safe and secure from crime in the area where their businesses were located (Q.3.1). The main concern that companies had about security for their main depots was stealing, with 67 percent reporting this as their main concern (Q.2.8).

Companies indicated that weapons had been used 68 times in armed robberies in the previous 12 months. The main weapons that had been used were sticks, iron bars and axes (37 times), knives (21 times), and firearms (10 times). Three companies reported that 105 work days had been lost as a result of injury to staff during crimes (Q.4.6). Although no companies shut down as a result of crimes (Q.4.5), they reported payments of K290,000 arising in compensation (Q.4.7).

Consistent with the law and order approach, help to the police and involvement in crime prevention activities were the two most commonly perceived actions that the companies could undertake to make themselves safer from crime (see Table 6).

**Table 6: What Could Your Business Do Better to Make It Safer from Crime?**

<table>
<thead>
<tr>
<th>Action</th>
<th>Responses (No.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Help the police</td>
<td>7</td>
</tr>
<tr>
<td>Help fund, or participate more in, crime prevention activities</td>
<td>6</td>
</tr>
<tr>
<td>Avoid some particular hours of business</td>
<td>3</td>
</tr>
<tr>
<td>Praying for help from God</td>
<td>3</td>
</tr>
<tr>
<td>Make your premises more secure</td>
<td>2</td>
</tr>
<tr>
<td>Belong to a business or industry group</td>
<td>1</td>
</tr>
</tbody>
</table>


Two comments (Q.3.7) were:

- reintroduce highway patrols, as they were out on the road more, and were pretty tough on people. It made a difference; and
- crack down on the sale of alcohol on the side of the road.

In practice, the companies' main response was to manage crime pragmatically as a prevention issue. Six out of eight companies reported that they had increased their
percentage of expenditure on crime prevention measures over the past five years (Q.3.5). Comments were (Q.3.6):

- lawlessness has increased partly because of the cost of living;
- crime comes in cycles; and
- increased violence.

Crime prevention measures meant that all company depots were fenced (Q.1.11) and had security lighting. Eight companies reported that they used caretakers or guards, seven used guard dogs, six employed security companies, five employed their own security, and four used alarm systems (Q.3.2).

On the Highlands Highway, six reported that stealing was their main concern. A range of measures was taken to reduce the chances of crime, although these varied from company to company. Companies indicated the following responses to crime on the highway (Q.3.2):

- six used radio call-up systems (one was also installing satellite tracking);
- five altered travel times for trucks; and
- three altered transport routes (in interviews, this was explained as being an option within Lae, but not once on the Highlands Highway).

Additionally, managers reported that they took a range of measures (Q.1.17):

- establish a good relationship with the police along the Highlands Highway;
- rely on the police;
- establish a good relationship with the community;
- word of mouth on trouble spots;
- all trucks fitted with security screens on the windows;
- all containers padlocked;
- all truck fuel tanks locked;
- time movements; and
- breakdown patrol truck hired.

In interviews, managers stated that trucks often run close together for support. They also stated that:

We have two-way radios. We don’t have satellite radios, but Lae to Daulo is okay for radio contact from Lae, after that the drivers talk to Mt. Hagen, and then to Kutubu.

Most of our trucks travel during the day. We leave [from Lae] at 4 a.m. or 5 a.m. in the cool of the morning and do the day in the Highlands ... Sometimes we do leave at night for urgent loads.

General cargo is loaded into containers. Two are put on a semi-trailer with the doors to the centre. However, container roofs rust out from the heavy rain and become weak, and raskols can chop through the tops with axes.
A common practice in the industry is to engage assistance from roadside villagers once a truck has to stop:

Once a truck stops, the driver appoints security from the village – maybe 20 or 30 people. They pay them to take control, and they may have fights with other groups. We usually pay about K10 a day and K10 a night. This is paid by the driver on the next trip, or the villagers can go to the depot.

Companies reported that village security costs were increasing:

When trucks break down along the road, we pay the people some money to look after the trucks, but they are getting greedier.

If there’s a breakdown, people in the area usually provide security and look after the truck, if it doesn’t tip over. That might cost one to two thousand kina.

We had a breakdown near Henganofi. Ten guys nominated themselves to be security. We got six or seven workers to transfer the coffee to another truck, which saved most of the cargo, but two coffee bags weighing 60kg went missing, despite the ‘security’.

The security guys came up with a claim for K5 000 on the grounds that they had stopped a bigger theft. They said that there was K60 000 of coffee aboard, so they wanted a share because they had saved us a lot of money.

Although the companies helped each other out on the road, outsiders might not:

We had a truck go into a barret [ditch] on the way to Madang. The cargo was intact, but the truck was stuck. Later that day, a road construction crew raided the container and stole Coke and food. Villagers got involved, too.

I went to the construction site and spoke to the expat foreman. He said it wasn’t his problem, and he wouldn’t cooperate, despite stolen goods being obvious around the camp.

**Governmental and Market Issues**

Generally, company managers were not as concerned about the government regulatory and policy environment as they were about law and order issues (see Table 2 and Table 7). They were also less concerned than the companies in the JAG/NRI Business Survey.
Table 7: Do You Have Concerns about the Stability of Government Rules, Regulations, and Policies that Influence Your Business?

<table>
<thead>
<tr>
<th>Level of Concern</th>
<th>Responses (No.)</th>
<th>Responses (%)</th>
<th>Business Survey (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highly concerned</td>
<td>3</td>
<td>33</td>
<td>46</td>
</tr>
<tr>
<td>Fairly concerned</td>
<td>6</td>
<td>56</td>
<td>45</td>
</tr>
<tr>
<td>Unconcerned</td>
<td>1</td>
<td>11</td>
<td>8</td>
</tr>
<tr>
<td>Total</td>
<td>9</td>
<td>100</td>
<td>N=172</td>
</tr>
</tbody>
</table>

Note: Q.1.14.

Seven of the nine companies (77 percent) regarded the business crime problem in Papua New Guinea as large or very large, which was slightly lower than the 89 percent in the JAG/NRI Business Survey (see Table 8).

Table 8: How Do You View the Business Crime Problem in Papua New Guinea?

<table>
<thead>
<tr>
<th>Level of Problem</th>
<th>Responses (No.)</th>
<th>Responses (%)</th>
<th>Business Survey (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very large</td>
<td>3</td>
<td>33</td>
<td>49</td>
</tr>
<tr>
<td>Large</td>
<td>4</td>
<td>44</td>
<td>40</td>
</tr>
<tr>
<td>Average</td>
<td>2</td>
<td>22</td>
<td>7</td>
</tr>
<tr>
<td>Not large</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>9</td>
<td>100</td>
<td>N=172</td>
</tr>
</tbody>
</table>

Note: Q.5.27.

The eight companies that answered stated that, in their opinion, fear of crime (including government corruption) is the main reason for poor business confidence and investment in Papua New Guinea (Q.5.28). This compared with 67 percent in the JAG/NRI Business Survey.

Various comments were made about what could be done to raise business confidence (Q.5.29):

- more time and effort put in to revamp government departments. Time management with maximum output (government departments that assist in infrastructure);
- more grassroots policing, more funds for police in rural areas, and more mobile squads;
- more and better police; and
provide more employment, which must come from a positive direction by the Government.

While corruption did not appear to be as immediate an issue as law and order problems, governmental corruption was perceived to be increasing or staying the same by all those who had an opinion (see Table 9, and comments about police corruption in Chapter 6). The findings were quite similar to the JAG/NRI Business Survey.

Table 9: How Do You View Corruption in Government in Papua New Guinea?

<table>
<thead>
<tr>
<th>Level of Concern</th>
<th>Responses (No.)</th>
<th>Responses (%)</th>
<th>Business Survey (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increasing</td>
<td>4</td>
<td>50</td>
<td>52</td>
</tr>
<tr>
<td>Staying the same</td>
<td>2</td>
<td>25</td>
<td>36</td>
</tr>
<tr>
<td>Decreasing</td>
<td>0</td>
<td>0</td>
<td>8</td>
</tr>
<tr>
<td>Don’t know</td>
<td>2</td>
<td>25</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>8</td>
<td>100</td>
<td>N=172</td>
</tr>
</tbody>
</table>

Note: Q.2.6.

The main regulatory issue affecting the industry was fuel pricing (see Table 2). This was not just the current fact of high prices. Managers claimed that government policy added to high prices in Papua New Guinea. The effect of an agreement with InterOil, which is the company that refines PNG-produced oil in Port Moresby, was that retail prices for diesel in Lae were about 12 toea a litre dearer than Port Moresby, in November 2005:

Now the problem is that fuel prices are up. International parity pricing is based on the cost of oil in Singapore, plus shipping to Port Moresby. Before, fuel for Lae was imported direct at the same landed cost as Port Moresby. Now, we have to pay extra for the freight cost from Port Moresby to Lae.

One general manager stated that macroeconomic conditions, such as exchange rates and interest rates, had stabilised recently:

The exchange rate fell heavily in 2002, but it has now stabilised. Imports such as vehicles and spares are expensive, but predictable. Interest rates have also been stable.

Market volatility was not an immediate issue for the trucking companies. They were more concerned about being unable to meet the demand for trucking from the expected increase in mining projects in the Highlands Region over the next few years. Several managers indicated that there was a shortage of trucks. The effect of this, as one manager explained, was that companies did not need to compete aggressively for customers.
The main market issue that concerned the companies was an undersupply of trained drivers. All managers agreed that the companies had difficulty in recruiting drivers:

*There is little choice on drivers. There is a lack of training expertise in Papua New Guinea. Bougainville Copper used to train them, but nothing has replaced that. Any apprenticeship schemes within the companies are self-supporting. They are not generating drivers for the market place.*

*The lack of trained drivers is a real bottleneck. We have about 20 drivers. We sent three drivers for some training, paid for by AusAID. They were to be trainers, but they didn’t stay. Mt. Hagen Technical College offers apprenticeship courses for mechanics, but there are no courses available for drivers. We have to train them on the job.*

Another comment was that the danger on the roads makes driving unattractive as a career. Companies also recognised that crime makes driving stressful:

- drivers don’t carry anything valuable or original copies of their licences, as they will be stolen; and
- thieves threaten drivers and steal their watches and food money.

When it came to suggestions to the Government for improving the crime situation for businesses, the focus was on preventive measures. More employment and improved community infrastructure topped the list (see Table 10).

**Table 10: If You Could Tell the Government What to Do to Make Your Business Safer from Crime, What Would It Be?**

<table>
<thead>
<tr>
<th>Action</th>
<th>Responses (No.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>More employment</td>
<td>5</td>
</tr>
<tr>
<td>Improved community infrastructure</td>
<td>5</td>
</tr>
<tr>
<td>More police</td>
<td>4</td>
</tr>
<tr>
<td>Fight corruption</td>
<td>4</td>
</tr>
<tr>
<td>Improved highway maintenance</td>
<td>4</td>
</tr>
<tr>
<td>Better living conditions</td>
<td>3</td>
</tr>
<tr>
<td>Harsher penalties from the courts</td>
<td>3</td>
</tr>
<tr>
<td>Provide more dispute resolution options</td>
<td>2</td>
</tr>
<tr>
<td>Crack down on gangs</td>
<td>1</td>
</tr>
</tbody>
</table>

Better living conditions also received a positive response, paralleling the findings of the 2004 community crime surveys in Port Moresby and Bougainville. More police and fighting corruption also featured for the companies.

Major concerns that the trucking companies had about the Government was that it was dealing inadequately with highway maintenance and highway crime. One senior national manager encapsulated the collective view:

*The Highlands Highway is a national asset ... it is the only means of transport for the Highlands Region. The Government must look after it. It is the lifeline for the five Highlands provinces and Morobe Province.*
CHAPTER 4  
CRIME ON THE HIGHLANDS HIGHWAY

Highlands Highway crime is widely reported through the media. For example, in 2003, there was an EMTV series about the highway and an advertising campaign by the Road Transport Association. However, reliable hard data on crime types and levels are not available from government or the road transport industry. This chapter quantifies crime, as reported by the RPNGC and the trucking industry.

The main types of crime affecting the industry are:

- theft of cargo (predominantly fuel) by villagers along the Highlands Highway;
- theft of trucks’ own fuel and equipment;
- trashing of vehicles for spare parts;
- village road tolls;
- violence against drivers; and
- fraudulent compensation claims against trucking companies for damage to village property, which is sometimes accompanied by extortion.

Currently, the main theft involves fuel. A central element in much of the crime is the high frequency of unlicensed alcohol and fuel sellers along the Highlands Highway. A fuller summation is given in the Extended Summary.

Police Crime Statistics

The RPNGC maintains provincial crime statistics, but these do not normally disaggregate Highlands Highway crime. Disaggregated data was only available from Morobe and Eastern Highlands Provinces.

**Morobe Province:** Data provided for the Morobe section of the Highlands Highway showed that: 18

- three patrols were operating on the Highlands Highway at Nadzab, Chivasing, and Mutzing;
- on an annualised basis, 70 crimes were reported;
- violence and arms were involved in 19 percent of the cases;
- additionally, 19 percent of cases involved theft without reported violence;
- thirty-three percent of cases involved drugs, probably involving the carrying of marijuana from the growing area around Kainantu, to Lae; and
- highway trucks were not specifically mentioned.

On an annual basis, 63 motor vehicle accidents were also reported to the police.

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18 Interview on 10 November 2005, including a table provided on “Crime Statistics Highlands Highway, Lae-Kassam Pass”. The data were for Nadzab and Mutzing Stations, but not Chivasing, for the 17 months from June 2004-October 2005. In this report, total crime has been annualised; that is, monthly averages applied for 12 months, to allow comparisons with data for different periods from other provinces. Inconsistent labelling of crimes prevents any further breakdown of their types.
Eastern Highlands Province: Data provided for the Eastern Highlands section of the Highlands Highway showed that:19

- five patrols were operating at Goroka, Kainantu, Yonki, Henganofi, and Asaro;
- on an annualised basis, 92 incidents were reported. As the report commented, the police believe that there is considerable underreporting. Even so, the number was 27 percent higher than the estimated 70 for Morobe;
- violent theft, predominantly with arms, was the main type of crime reported to the police. Violence and arms were involved in 57 percent of the cases, for example, armed hold ups and stealing. Nine percent of these cases included rape, with four percent being pack rapes. Police shooting occurred in five percent of cases, half resulting in deaths. The 57 percent in Eastern Highlands Province was well above the 19 percent in Morobe Province;
- additionally, 32 percent of cases involved theft without reported violence;
- only 10 percent of cases did not involve theft or violence. These were mainly marijuana smuggling, which, at five percent, was considerably below the 33 percent in Morobe; and
- highway trucks were specifically mentioned in 19 percent of cases. By implication, 81 percent of reported crime involved other types of vehicles.

The reported crimes were concentrated in specific hot spots along the Highlands Highway. Of the 88 percent of cases where a location was reported:

- twenty-five percent were at Barola, near Kainantu, of which 88 percent of these involved mostly armed violence; and
- theft was particularly common on hills. Kassam Pass, Bena Hilltop, Barola, and Daulo Pass are places where trucks move very slowly up and down steep hills.

Two-thirds of the reported crimes occurred at night:

- 38 percent between 6 p.m. and midnight; and
- 28 percent between midnight and 6 a.m.

The safest time was from 6 a.m. to midday (13 percent).

On an annualised basis, 156 motor vehicle accidents were also reported to the police, which was well above the 63 reported in Morobe Province:

- accidents involved 63 percent of the Eastern Highlands Highway Patrol’s reported events, while crimes were 37 percent; and
- seven percent of the accidents involved fatalities, and another 44 percent involved injuries. The data did not identify whether any of the accidents involved heavy trucks.

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19 Highway Patrol Section Goroka, “Crime Statistics for Highway Patrol, Eastern Highlands Province, 25 October 2005”. The data were reported for a 10-month period from January-October 2005. Total crime has also been annualised. Inconsistent labelling of crimes prevents any further breakdown of their types.
Industry Perceptions of Highway Crime

Interviews with the trucking companies in Lae, in August and November 2005, identified theft, violence, and false compensation claims as their main problems. The senior company managers who were interviewed were very consistent with their perceptions, whether they were Papua New Guineans or expatriates. Clearly, the conditions they faced on the Highlands Highway were the overriding element in their perceptions, and they all had similar views about them. One senior manager expressed the collective opinion:

*It's not so bad in Morobe, but increasingly through the Highlands Region crime happens ... the further you go, the worse it gets.*

Essentially, crimes against trucks occur when they stop for breaks, or when they are moving slowly because of the terrain or the condition of the road. Violence, or the threat of violence, was an integral part of the problem:

*Young people haven't stopped big trucks to steal, but once they come to a halt because of a puncture or a breakdown, then stealing occurs. Guns, knives, and axes are used to threaten the drivers, and then they help themselves. This is a daily occurrence.*

*We lose one or two loads a month to looting. They take fuel as well as general freight. It happens when trucks break down.*

*Generaly, our trucks have stopovers at our depots in Goroka and Mt. Hagen. For brief stops on the roads, they go to safe places, but people then go for the fuel in the tanks. They [roadside stopovers] don't have security guards ... sometimes raskols take the trucks at the stopovers.*

Additionally, law breaking within the industry, especially by drivers and mechanics, was reported. They were alleged to be parties to theft and fraud, in particular. Minor crimes and offences involving drivers and/or companies included:

- theft of spare parts, perhaps to order.
- use of illegal alcohol outlets and prostitution that cater for highway traffic,\(^{21}\)
- drunken driving;
- speeding;
- overcrowding of vehicle cabins; and
- overloading of trucks.

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\(^{20}\) Section 4 of the questionnaire requested companies to state the frequency of various types of crime. Companies usually stated that they did not keep complete records, consequently this section was incompletely and unevenly filled out. On two occasions, when the researcher used the questionnaire as an interview schedule, it was obvious that interviewees were making guesses about frequency. The S.4 data were not considered reliable enough to present in this report.

\(^{21}\) Prostitution is a well-known factor in the spread of venereal disease and HIV infection along the Highlands Highway.
Fuel Theft

The high cost of fuel (around K2.50 a litre for diesel in Lae, in November 2005) is passed on to consumers in Papua New Guinea under its parity pricing policy. There was wide agreement in the industry that high prices currently made fuel the main target for theft.

Fuel is carried in two ways on truck — in the trucks own tanks, and as freight, in tankers.

Theft from Truck Tanks

Trucks can carry 500 to 1 200 litres of diesel in their own tanks, depending on the destination. It is not uncommon for companies to lose between 50 and 200 litres a trip to theft.

Stolen fuel mainly comes from the trucks' own tanks. This is less than before because companies are doing more, but it happens on perhaps one-third of stops.

Theft from tanks was evidenced from two sources. One is fuel losses calculated from estimates of normal fuel consumption. This loss was usually attributed to drivers:

Some of our truck drivers are very honest, but we have a few who are not. They sell diesel at the top of the Markham Valley.

The fuel situation is that the drivers will steal fuel to buy food, booze, and women. They will siphon out between 20 and 200 litres. They used to charge 50 toea a litre, but now, with inflation, the price is one kina!

We get estimates when we refuel trucks. However, it's difficult to be exact.\(^2\)

From Lae to Mendi return, we can lose 200 litres. The average is 120-140 litres. It's not just the drivers, it can also be the fuel attendants.

We put in 1 200 litres for a return trip to Enga. We can tell if it is missing, but the drivers give many excuses. They say that the police took it, or there was a road block.

The maximum capacity of the tanks on the trucks is 1 200 litres, which is about K3 000 of fuel. We can lose 100 to 200 litres on a trip, which is worth K200 to K500.

We suspended all boss-crews on the highway trucks because of stealing of fuel by staff members.

\(^2\) The companies pointed out that fuel consumption can vary by up to 20 percent, normally because of variations in road conditions (such as road stoppages, headwinds, evaporation, and driver skills. In the absence of computer fuel monitoring systems on the trucks, fuel loss estimates are not precise.
At least two companies were installing computer-based monitoring systems on depot pumps and on trucks to give exact data on fuel supplied. Many companies charge drivers for excess fuel consumption and some companies were laying down travel schedules and consumption levels that drivers must meet or have money docked from their pay. One company reported that tighter controls on drivers had reduced its fuel losses from 13 000 litres a month to 1 000 (an annual saving of K250 000-K300 000, depending on the wholesale price of fuel).

The second type of evidence of fuel theft is the common availability of small amounts of very cheap fuel for sale by the large number of unlicensed sellers along the roadside near truck stop areas. The sourcing of the fuel from theft is indicated by sale prices, which are generally well below both wholesale and retail prices from licensed outlets. Where fuel is coloured (for example, the supplies to Porgera), it can be specifically identified. Otherwise, it is difficult to identify the source of stolen fuel.

**Theft from Tankers**

Fuel tankers have complex seals designed to prevent theft and spillage, even if they overturn. One company stated that:

> On a tanker, there are about 25 seals on the fuel system. They are checked four or five times on a trip. There are 175 checks made on a one-way trip from Lae to Porgera. They can be opened up ... but now they are stealing complete tankers. This has happened three times to us in the past year. There are 37 500 litres, on average, on a truck, so there must be service stations involved. Then they destroy the truck to get rid of the evidence. This happened twice in the past year. Each truck is worth about K800 000, and this was at a time when we could not get insurance. The other truck we got back after ransom was paid ... drivers were involved, and all three are still at large. One service station that was involved repaid 40 600 litres. There was no arrest for receiving, and the word gets around that you can get away with. One driver has been seen driving a new vehicle!

Another company stated that:

> We measure tankers using a meter at the depot in Lae, and calculate the amount of fuel with an allowance for evaporation on the trip. We also measure the fuel using a dipstick. At the destination, you also measure by dipstick. It is usually okay, more a case of one-off instances ... However, if trucks break down, we can lose a load in two hours. This happened in 2004, and we lost about K70 000 kina of fuel.

**Compensation Claims**

The managers stated that fuel spillage is a key element in fraudulent compensation claims against trucking companies for damage to village property. Compensation claims

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23 As reported in an interview, in 2004 the Road Transport Association found 72 unlicensed outlets selling diesel, petrol, and kerosene between Lae and the Kassam Pass for around K1/litre, which was well below service station costs. Chapter 2 shows that, in November 2005, prices generally ranged from K1.60-K2.20 litre, compared to the Lae retail price of K2.50.
might range from demands for compensation for environmental damage from fuel spills, to compensation for the death of people or animals allegedly killed by trucks:

Approximately 20 to 30 percent of claims are genuine, for example compensation for a driver's death.

Some compensation claims are dodgy. We get environmental claims. For example, the truck might jackknife, and the seals are broken to steal fuel. If this happens, the claim is dodgy.

We especially get claims for polluting the ground. They steal fuel and then claim compensation. However, we have self-sealing valves, if loads do tip, and we can tell if tanks have been opened for stealing.

If fuel is looted, we sometimes get claims, for example for environmental damage. We have had one or two in the past year. There are some smart lawyers around the place ... counterclaims don't work.

Two or three times we have had bodies thrown under trucks for compensation. Autopsies showed that they were already dead.

The most gruesome story was:

One of our fuel tankers tipped over. The villagers emptied the tanker overnight. When we got it back to the depot, we found a dead woman in a compartment. She had been put in there to scoop fuel out and died from the fumes. The next day the villagers were in asking for K260 000 compensation for her death!

A major compensation case from 2004, which is well-known in the industry, was described as follows:

A truck got bogged in a barret in Enga. With the driver's permission, villagers collected fuel from the overflow valves to stop contamination. The police were passing and thought they were looting, so they chased them away. The villagers then fought back and the police brought in reinforcements. Shots were fired at the villagers, and the driver was also shot ... although the shooting wasn't our fault, we gave a food gift, but the leaders from the village said it was all the company's fault and claimed K500 000 in compensation. There was a series of meetings and the trucking company was left to carry the blame and had to pay K50 000. The police went with the opposition side in a situation where there was no fault by the trucking company. They sided with the villagers and there was also a claim from the Police Force Commander for compensation for an injured policeman. We were in the wrong place at the wrong time, but we were seen to have money and had to pay the claim. We were held to ransom over this. The villagers stopped trucks from passing through for ten days. The mine told us to fix it, so we had to pay up. This payment opened Pandora's Box. Since then we get two to three summonses a month for claims, some of which are three to four years old.

Other comments from the companies were:
When compensation is paid, there can be several groups claiming that they are relatives. You have to pay the money to the right people.

I used to settle claims from villages by myself. Now, I go with half a dozen men.

Compensation claims could be accompanied by threats to pay up or suffer damage, which amounts to extortion:

We can’t go past Wabag to Porgera. We lost a truck, which was burnt out. There is an unpaid compensation payment involving K105 000 on a house, and K1.5 million general environmental damage. Since February 2004, we haven’t been able to service the mine.

We have stopped going to Tari because of extortion over compensation claims.

Companies could also be affected by payback in the Highlands Region.

If it involves the driver, they will go against him rather than the truck. If it is against the company, they will go for the truck.

Other Theft

Generally, freight companies stated that cargo theft was less of a problem than fuel theft, for several reasons. Nonetheless, one company had recently lost 20 tonnes of flour valued at K52 000.

One reason for the lesser concern about cargo theft was that it was less prevalent because freight is generally carried in containers that are loaded on the trailers with the doors facing each other in the centre. Another reason was that general cargo often has a lower value than fuel. A third reason was that the theft of cargo is generally a cost to the customer, not the carrier, because the trucking companies cannot usually get insurance for cargo, and usually refuse to indemnify customers for its loss.24

Large-scale cargo theft mainly occurred following breakdowns or accidents, when containers could be broken into. One company reported lethal consequences:

When trucks slow down on hills, people will try to jump up and steal cargo. There have been a number of accidents where people have killed themselves. In August last year, near Yonki, a young man jumped onto the spare tyre carrier to cut the chain. He fell off and was run over. The driver didn’t even know he was there and kept driving. Another vehicle travelling behind told him, and he did the right

24 The study did not get a full understanding of insurance matters, which are somewhat of a side issue. An insurance broker maintained that trucking companies could get full cover if they put all their policies with one insurance company. The trucking companies consistently reported that insurance is difficult to obtain, and is expensive, and that, from time to time, insurance companies would refuse to insure for some parts of the Highlands Highway. The types of cover that could be obtained in Papua New Guinea, especially for cargo, were unclear. The situation is further confused by international cover for goods shipped into Papua New Guinea, and whether they are consigned to Lae or other centres.
thing and reported to the Kainantu Police Station. We had to pay K10 000 even though we weren’t at fault and he was trying to steal.

All companies reported petty theft as a constant problem, often involving quite expensive items, such as spare tyres, radios, jacks, and batteries, as well as drivers’ personal items.

Companies reported that a major expense for them could be the cost of vehicle repair. When a truck was stopped, it could be totally stripped of parts and vandalised, at a repair cost of up to K200 000:

If a tip over or an accident occurs, the containers will be cleared out and they will trash the truck. They take what they can as quickly as they can. You get back what’s left.

Theft of truck components was an increasing problem. It could occur with the stripping of trucks on the highway, but was also occurring from depots:

Component theft is becoming a big business. It has become an ulcer.

Some parts now seem to be stolen to order.

Driver Crime

A central element in much of the crime is the proliferation of unlicensed alcohol and fuel sellers along the Highlands Highway. Fuel buyers create a demand for stolen fuel. The ready availability of beer along the highway creates a need for cash, and contributes to drink driving. All companies stated that one of their major operational problems was driver reliability, especially in relation to drinking and fuel theft, which were interrelated:

There is a lot of trouble, especially with drinking drivers buying beer on the side of the road. They siphon fuel out of the trucks to buy beer. There are too many licensed, as well as unlicensed outlets, and they are too close to the highway.

Drivers sell fuel for beer money on the Highlands Highway, for example along the Markham. It never stops.

Our own drivers are involved. They sell the fuel off. It is sold along the Markham, past Nadzab, at prices below those in the fuel stations.

The drivers think that they own the trucks, and they take fuel as their right.

Virtually, on every trip, fuel is taken out of the tanks. Most of the drivers sell fuel to villagers.

Police should get tougher on fuel sellers and beer outlets on the Highlands Highway. There is a black market. Drivers sell fuel for beer. This leads to drink driving. Also, they carry passengers. We have a heavy fine for this. We take K100 per person from their pay packets.
We hear stories about our own drivers. These are rumours and we don't see it with our own eyes. Some drivers are honest, but others are not. If fuel losses are greater than 100 litres, we take the fuel cost from the driver's pay. Anything less might be normal variation.

One manager stated that there used to be a mistaken belief amongst drivers that beer would keep them awake, and it used to be common for drivers to carry a carton of beer for this purpose. Another stated that:

*I make my drivers have five hours sleep before they leave, and I breathalyse them. The police should do this on the road.*

Companies alleged that drivers may speed and that some overcrowd vehicle cabins with fare-paying passengers and friends. Stealing equipment from trucks (for example, radios, jacks, fire extinguishers, and spare tyres) is common, and most managers believed that drivers could have a hand in this. One manager alleged that some drivers smoke marijuana.

One factor in this might be the wage levels for the drivers. Drivers are paid good wages by Papua New Guinean standards.25

However, all of the managers who were interviewed stated that not all drivers were guilty of crime. Three put particular emphasis on preventive measures. One company that did not have many driver problems put considerable emphasis on Christian values, which are central to its weekly management meetings with drivers:

*We have a zero tolerance policy on drinking. If they drink, they have to go.*

Another national company manager stated that:

*We try to build to be a better family. We look after families, therefore, the drivers are less worried. They are not wanting to lose their jobs and they steal less.*

*We try to look after drivers as well as the communities along the road. We send a 10-seater along the road to check with the villagers to see if the drivers are abusing them or driving too fast through villages. If we respect them, they will respect us.*

All the companies considered driver shortages to be a major problem and stated that there was not an effective industry system to identify the bad drivers. They could be

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25 Drivers' wages vary. They are often paid per trip, varying with the length of the trip. In one company, a long trip taking four or five days might earn K400, with a driver averaging four or five a month. Total annual wages in this situation might come to around K22 000, but bonuses or penalties for stolen fuel might vary this. Another company paid a base wage plus trip bonuses, making an average annual wage of K16 600 plus free housing, electricity, and water. While drivers' wages are a small proportion of company costs, they are quite respectable by Papua New Guinea standards. These wages compare very favourably with the starting pay of around K7 000 a year for a first year police constable.
fired and get jobs with other companies. Some even show up at the old company in a few years time, when, as result of office staff turnover, new managers do not know them.

Drivers’ Perceptions of Crime

Company views on the prevalence of road crime have been supported by drivers’ views. A small, non-random, investigatory study by the Justice Advisory Group, in October 2004, interviewed 19 drivers who drove every week on the Highlands Highway for one medium-sized freight trucking company. According to the drivers, crime on the Highlands Highway was rife, and it was a dangerous place to be:

- some 84 percent of the drivers considered that the Highlands Highway was not safe at all, and that crime in general was increasing compared to a year previously;
- all 19 drivers stated that they heard reports of crime every week;
- all but one of the drivers had been victims of crime along the Highlands Highway — 37 percent within the previous six months;
- some 53 percent stated that they had to pay village tolls on every trip;
- most of the crime involved hold ups and theft of cargo and personal belongings. One driver had been shot at in his cabin, and threats were common; and
- some 53 percent of drivers stated that they took no safety measures. The other 47 percent stated that they took a variety of measures, including driving during daylight and in convoys, and carrying knives and axes.

The in-depth driver interview that was reported in Chapter 2 was consistent with these views and with management views that some drivers were involved in crime, especially fuel theft.

Overloading

Overloading can add considerably to the amount of damage that trucks cause to pavement and bridges, which ultimately contributes to slower travel, higher costs, and increased opportunities for theft.

Overloading is an unsupported, but common, allegation made by trucking companies against each other. In the absence of the weighbridge, hard evidence cannot be found for this. However, managers stated that experienced personnel can readily recognise an overloaded vehicle.

The weighbridge is not working. There is an opportunity, therefore, for some overloading. This makes trucks slow and causes breakdowns and road and bridge damage. Twenty-five tonnes is the load limit for dual axle trailers but five to ten tonne overloads are common.

Axle overloading is very destructive of the Highlands Highway. Bad maintenance is part of the problem, but overloading quickly creates damage. Sixteen tonnes is

the regulation axle limit [for triple axle trailers], but some are carrying 25 tonnes per axle.

Highlands Highway maintenance is not regularly done, therefore, there is damage to vehicles. Chuave and Kundiawa are really bad at the moment. There is a lack of ongoing maintenance. We need the weighbridge and control. The truck drivers are not a party to this. They will not know if a vehicle is overloaded until they feel the effect of the load on the travelling vehicle.

Only one company actually admitted to overloading:

We often carry about 30 tonnes compared to the 26-tonne limit. We put the extra weight over the drive wheels, otherwise we just can't get up some passes. The problem there isn't the overload, it's the wheels slipping. We get only 30 000-40 000 km from a set of drive tyres compared to 240 000 km in Australia. We are f***ed if we do over load, and f***ed if we don't. If it's going to stop, the Government has to build better roads.
CHAPTER 5

THE COST OF HIGHLANDS HIGHWAY CRIME

The estimates of the annual financial cost of crime on the Highlands Highway for the heavy trucking industry that the study was able to make were for the 12 months from Quarter 4, 2004, to Quarter 3, 2005:

- K7.1 million (6.3%) of total industry turnover was the direct cost of crime from theft, damage, compensation, fraud, and preventive security;
- K10.1 million (9.0%) of total industry turnover was the indirect cost of crime through loss of revenue because of travel restrictions; and
- K17.2 million (15.3%) of total industry turnover was the total cost of crime.

Caution should be exercised in using these statistics because they are approximations based on managers' estimates, rather than detailed analyses of company accounts. However, the data are probably accurate within 10 percent. They do not include crime-related capital costs, management overheads, or high insurance premiums.

The effect has been to drive up the price to the customer for a single truck trip by some 15 percent. Without crime, the price of a typical trip from Lae to Mt. Hagen return might reduce by a minimum of K750, from K5 000 to K4 250. A fuller summation is given in the Extended Summary.

Financial Scope of the Industry

Large financial amounts are involved in the heavy trucking industry. These derive particularly from three sources:

- the value of freight carried:
  - one large fuel trucking company delivered 65 million litres of fuel a year (a total bulk value of over K100 million). The company had an average of 15 trucks on the road each day, and delivered five to six million litres of fuel a month;
- the capital costs of establishing and operating companies with very heavy wear and tear on vehicles:

27 The researcher's view is that the financial totals are probably accurate within ±10 percent. Unless companies were prepared to allow access to their accounts, more reliable statistics are unlikely. However, some confidence can be gained from the feedback sessions with the industry, where the view was that the data were consistent with the industry's own estimates. The general manager of a medium-sized company wrote, "These figures are close estimates .... your costings are in line with the industry's approximate costs". Additionally and independently, the estimated Highlands Highway cost element of K5.6 million in Table 11 is similar to the equivalent sum in a 2001 estimate that put the costs of crime as being annual losses of cargo of some K5-6 million (AusAID, 2001. PNG Highlands Highway Bridge Replacement Project: Volume I Draft Project Design Document. Canberra: AusAID, p. 6). The basis of this estimate was not stated, but it excluded high truck and cargo insurance costs, significantly higher vehicle operating costs for security, maintenance, and more frequent replacement, and limitations on times of travel.
managers stated that new prime movers cost about K800 000 each, and fuel tankers about K350 000 each;
- a large forklift crane capable of lifting 40-foot containers recently cost one company K1.3 million; and
- considerable capital can also be tied up in trailers. One company had 41 prime movers and 110 trailers; and
- annual turnover is estimated at K112.5 million per annum.

Direct Costs of Crime

Direct costs refer to the costs of theft, damage, false compensation claims, fraud, and preventive security. All statistics used are approximations, which have been based on managers’ estimates, rather than detailed analyses of company accounts.28

The study’s estimate of their cost to the heavy trucking industry for the 12 months encompassing Quarter 4, 2004 to Quarter 3, 2005 was K7.1 million, or 6.3% of total industry turnover.

The main direct crime elements were estimated costs incurred on the Highlands Highway itself, at K5.6 million, which is some 83 percent of total direct crime costs (see Table 11).

28 Because crime is considered to be an expected operational cost, companies do not keep crime data separately. The statistics in Tables 11-13 are approximations which were derived from data usually calculated by managers from unit cost estimates, manager and accountant interviews, and from the questionnaire (S.4 and Questions 1.6, 3.3, 3.4, and 5.21). The data should be used cautiously.

Using existing data was desirable to gain company cooperation by making their business concerns an important element of the study; and by reducing their cost of participation in the study. However, in addition to the need to make estimations, data were subject to other errors. It may be in a company interests to exaggerate the effects of crime, they have different operational and accounting systems, and financial data are commercially sensitive because companies are protective of their competitive positions in regard to other trucking companies and major clients. While some of these elements might have tended to inflate the statistics, the data did not include crime-related capital costs, management overheads, or high insurance premiums.

Individual cost components were estimated as follows:

- **Depot Security:** generally includes guard costs only and excludes hardware costs.
- **Repairs:** based on estimates from particular major incidents.
- **Fuel Theft (cargo tankers):** based on estimates from particular major incidents.
- **Fuel Theft (truck tanks):** based on unit cost estimates of average losses per trip.
- **General Cargo Theft:** based on estimates from particular incidents, but some costs were possibly omitted, as costs to the customer, not the carrier.
- **False Compensation:** based on actual payouts in some cases, and estimates from particular incidents in other cases, where the claims were considered by the companies to be false.
- **Fraud:** based on estimates from particular incidents.
- ** Petty Theft:** based on estimates of frequency and unit costs.
- **Highway Security:** based on actual payouts in some cases, and unit cost estimates in other cases.
Table 11: Estimated Direct Costs of Highlands Highway Crime to the Heavy Trucking Industry, Quarter 4, 2004-Quarter 3, 2005

<table>
<thead>
<tr>
<th>Type of Crime</th>
<th>Estimated Cost (K)</th>
<th>Estimated Cost (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Highlands Highway Costs</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Repairs (from damage caused by crime)</td>
<td>2 196 500</td>
<td>31</td>
</tr>
<tr>
<td>Theft - Fuel (cargo tankers)</td>
<td>1 549 170</td>
<td>22</td>
</tr>
<tr>
<td>Theft - Fuel (truck tank)</td>
<td>588 060</td>
<td>8</td>
</tr>
<tr>
<td>Subtotal Theft – Fuel</td>
<td>2 137 230</td>
<td>30</td>
</tr>
<tr>
<td>Theft - General Cargo</td>
<td>769 200</td>
<td>11</td>
</tr>
<tr>
<td>Theft – Petty</td>
<td>176 350</td>
<td>2</td>
</tr>
<tr>
<td>Subtotal Theft – Other</td>
<td>945 550</td>
<td>13</td>
</tr>
<tr>
<td><strong>Theft</strong></td>
<td>3 083 380</td>
<td>43</td>
</tr>
<tr>
<td>False Compensation</td>
<td>412 630</td>
<td>6</td>
</tr>
<tr>
<td>Fraud</td>
<td>161 500</td>
<td>2</td>
</tr>
<tr>
<td><strong>False Compensation and Fraud</strong></td>
<td>574 130</td>
<td>8</td>
</tr>
<tr>
<td><strong>Total Highlands Highway Costs</strong></td>
<td>5 585 195</td>
<td>83</td>
</tr>
<tr>
<td><strong>Security Costs</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depot Security</td>
<td>1 230 360</td>
<td>17</td>
</tr>
<tr>
<td>Highway Security</td>
<td>31 185</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total Security Costs</strong></td>
<td>1 261 545</td>
<td>18</td>
</tr>
<tr>
<td><strong>Total Direct Crime Costs</strong></td>
<td>7 115 555</td>
<td>100</td>
</tr>
</tbody>
</table>

- Theft totalled some K3.08 million, which is 43 percent of industry direct crime costs;
- The largest theft was fuel, at K2.13 million (30%):
  - One large company stated that losing a fuel tanker with 35 000 litres of diesel valued at some K60 000 was not uncommon, and the company typically lost 500 000-800 000 litres (valued at more than K1 million) each year;
companies cited different costs for losses from the trucks' own tanks. A usual company estimate was that trucks have a maximum capacity of 1 200 litres (worth about K2 500 wholesale), and it typically lost 100-200 litres (about K100-K220 a trip) a trip; and

one company reported that it had been losing 13 000 litres a month (an annual cost of over K300 000, depending on the wholesale price of fuel), but tight controls on drivers had reduced losses to 1 000 litres;

other theft was K0.9 million, which is 13 percent of the total; and

theft of general cargo was K0.8 million, which is about one-third of the reported fuel losses.

The cost of theft was only part of the problem. Table 11 shows that:

- the single largest cost was vehicle repairs, following parts theft and vandalisation. The total cost was K2.2 million, which is 31 percent of total direct costs. While not frequent, the cost of individual incidents could be very high:
  - two companies each had three trucks stolen or written off in accidents in the previous 12 months;
  - one large company reported that refit and maintenance could cost it up to K450 000 a month, depending on the number of incidents and the extent of damage; and
  - a small company estimated that it had cost some K200 000 to refit a truck that had been trashed. It had been off the road for 12 months;

- false compensation and fraud, which were often interrelated in the companies' view, were K0.6 million, which is 8 percent of the total; and

- security costs for crime prevention were K1.3 million, which is 18 percent of the total.

An impression from the interviews was that some managers may have become somewhat blase about crime, and begun accepting it as just another operational matter to be handled. When they thought about their estimates, some commented that they were surprised at how much crime might be costing their companies.

Indirect Costs of Crime

Another element in crime is the indirect costs attributable to it, which were considerably higher than the direct costs. The main indirect net loss of revenue was from travel restrictions. The loss was estimated at K10.1 million, which is nine percent of industry turnover.

In the trucking industry, indirect losses particularly affect companies when they cannot travel through certain areas at night, or even at all. Two managers of large companies specifically commented on the effect of crime on the frequency of trips:

At present we can do fewer trips per truck because drivers won't go through certain areas in Simbu at night and sleep over. This throws our schedules right off. The trip to Mt. Hagen takes 12-15 hours longer than it should.

I estimate that we lose an average of 1.25 trips per month, per vehicle, which is a total of some 50 trips a month, or 600 a year.
The effect on companies is that reduced trips result in loss of revenue (here net costs are considered because there are some operational savings, such as reduced fuel usage and lower truck maintenance). Two companies were able to provide estimates of their net losses from reduced trips. Table 12 shows that this form of indirect loss outweighed direct losses about 1.4 times; that is, direct losses were 70 percent of indirect losses.

Table 12: Estimated Indirect Net Costs of Highlands Highway Crime for Two Heavy Trucking Companies, Quarter 4, 2004-Quarter 3, 2005

<table>
<thead>
<tr>
<th>Type of Cost</th>
<th>Estimated Cost (K)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Direct Cost of Crime</td>
<td>3 059 300</td>
</tr>
<tr>
<td>Total Indirect Net Cost of Crime from Lost Trips</td>
<td>4 340 000</td>
</tr>
<tr>
<td>Ratio of Indirect to Direct Costs</td>
<td>1.42</td>
</tr>
</tbody>
</table>

The two companies accounted for 40 percent of industry turnover, and 43 percent of the industry’s direct losses. Table 13 shows that, if their ratio of indirect to direct costs is applied to the whole industry:

- the total indirect net cost of crime to the heavy trucking industry, over the 12 month period, can be estimated at K10.1 million; and
- the total cost of crime to the heavy trucking industry was approximately K17.2 million.

From these statistics, a further estimate can be made of the costs of crime as a percentage of total industry turnover, which was approximately K112.5 million. As Table 13 shows:

- the total direct cost of crime was estimated to be 6.3 percent of industry turnover;
- the total indirect cost of crime was estimated to nine percent of industry turnover; and
- the total cost of crime was estimated to be 15.3 percent of industry turnover.

The effect of the cost of crime was to drive up the price to the customer for a single truck trip by some 15 percent. Without crime, the price of a typical trip from Lae to Mt. Hagen return might reduce by a minimum of K750, from K5 000 to K4 250.\(^9\)

\(^9\) This is a minimal estimate because it assumes that the 15 percent is a deduction from the companies’ gross costs. However, the direct costs, at 6.3 percent, would be a deduction from the net cost, to which companies add their mark up for overhead costs, capital investment, tax, and profit. This research was not party to confidential financial information on mark ups, and therefore, more precise estimates of the flow-on effect of the cost of crime cannot be made.
Table 13: Estimated Total Costs of Highlands Highway Crime to the Heavy Trucking Industry, Quarter 4, 2004-Quarter 3, 2005

<table>
<thead>
<tr>
<th>Type of Cost</th>
<th>Estimated Cost (K million)</th>
<th>Percentage of Turnover</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Direct Cost of Crime</td>
<td>7.1</td>
<td>6.3</td>
</tr>
<tr>
<td>Ratio of Indirect to Direct Costs</td>
<td>1.42</td>
<td>-</td>
</tr>
<tr>
<td>Total Indirect Net Cost of Crime</td>
<td>10.1</td>
<td>9.0</td>
</tr>
<tr>
<td>Total Cost of Crime</td>
<td>17.2</td>
<td>15.3</td>
</tr>
<tr>
<td>Total Industry Turnover</td>
<td>112.5</td>
<td>-</td>
</tr>
</tbody>
</table>

Financial Risk

One of the effects of the costs of crime is that it has forced smaller companies out of the industry, leaving it to the larger companies. Essentially, the problem was that small companies could not spread the financial risk:

*We have a small fleet. If we lose a truck we are in deep trouble ... even the cost of highway security can be the profit on a load.*

The effect was that this company rarely drove past Kundiawa in Simbu Province, and it had diversified to what it regarded as safer coastal routes and towns.

Another small company manager described the impact of crime on his company:

*We've largely got out of trucking on the Highlands Highway. We still do other trucking and have diversified into plant hire. A few years ago, we decided to go to Goroka and Madang only. We sometimes go beyond Goroka, for example, to Mt. Hagen if we have to please a customer. We go to Goroka every day or two, but we only go to Mt. Hagen maybe less than twice a month. We haven't been to towns past it for five years. Without a depot in Mt. Hagen, we can't stockpile loads, if there is fighting beyond it. Big companies can stockpile their loads and keep using their trucks.*

*We can't get insurance. We say to customers that we will carry cargo on an all care, no responsibility basis. Typically, clients owe us money for previous trips. They may owe up to K100,000 and they just don't pay up if we lose a container of cargo, even when there isn't any negligence on our part. For example, we lost a load of stock feed and flour worth K5,000, and the client just won't pay us.*

*We stopped carrying for tradestores. They see the full responsibility with the trucks, and there is no way of negotiating a settlement. It was hard to get paid anyway, so we stopped doing it ... Now we only have contracts with bigger companies, like supermarkets. However, when we lost a load of soft drink, they*
said, pay up, or no business. So we stopped carrying for them because the rates weren’t high enough to cover theft.

While this situation can be regarded as normal competitive forces pushing smaller, less financially secure companies out of business, the end result is a reduction in services, especially to smaller businesses, a concentration of the industry among larger companies, and fewer choices for customers.

Flow-on Effects

During this study, people outside the business community informally expressed their views that crime is a cost of doing business which big companies can afford to meet from their profits. This study does not support such a view.

Crime and the supplementary security requirements add to financial costs for the trucking industry. All companies stated that they did not record crime costs separately from operational costs. Crime is such a routine event and so intertwined with accidents and breakdowns that its costs are not separated from maintenance and repair.

As a business item, companies pass the cost of crime on to clients, as higher freight charges, and clients pass them on to their own customers. Companies in this study and the JAG/NRI Business Survey stated that they treat crime as a business expense, which is standard and legally acceptable accounting and taxation practice.

As a normal operating cost, all companies factor crime into their freight rates. In setting freight rates, some smaller companies attempted to estimate major losses, but stated that they were vulnerable to their unpredictability. For example:

*Big companies can be pretty consistent in their rates because they can afford to spread the risk. We are smaller, and have to adjust rates according to the conditions at the time.*

The cost of crime is high, even for large trucking companies. Companies with large fleets commented that losses can vary considerably from year to year, but stated that 2005 had been difficult for them. As one manager commented:

*You look at your costs, and you put your freight rates up to cover them.*

Industry members made it clear that this is not a simple exercise, because clients resist increased rates, and other companies may charge lower rates. However, in the long term, the effect of crime on the Highlands Highway is that consumers have to pay a 15 percent transport price ‘surcharge’, together with the multipliers that are applied by businesses in the Highlands Region, to cover the extra cost to them for their stock.

The ultimate financial cost of crime on the Highlands Highway is higher prices for everyone along the highway, whether government or private business, supermarket or tradestore, rich or poor, urban or rural. Crime becomes a cost to the community. The economic outcomes of Highlands Highway transport crime include reduced returns on exports for producers from the Highlands Region, and increased prices of imports into the Highlands. As one senior manager stated:
In the community, they don't understand that they are paying for the cost of crime. Eventually, the trade store goods will be more expensive.
CHAPTER 6

HIGHLANDS HIGHWAY CRIME AND THE POLICE

A critical element in prevention and control of crime on the Highlands Highway is the actions of the RPNGC. This chapter reports on police perceptions of their situation, and company perceptions of them.

The RPNGC decided to restart a separate Highway Patrol Command in 2006, to be based in Mt Hagen. At the time of the study, Highlands Highway patrolling came under provincial police commands.

All parties thought that more highway patrols would be the key to reducing crime. However, lack of funding meant insufficient vehicles, equipment, and supplies, and poor vehicle maintenance. Police Headquarters in Port Moresby was aware that the stations lack fuel and vehicles, but there were competing priorities for available funds, and the stations had insufficient resources for continual patrolling. The police viewed very favourably the assistance they received from the trucking companies. A full summation is given in the Extended Summary.

The Police Force

The Police Force is organised into commands. Lae and Mt. Hagen have separate metropolitan commands, otherwise, at the time of the study, each Highlands province had a provincial command which was responsible for its section of the Highlands Highway. From soon after independence, to the mid-1990s, there was a separate Highway Patrol Command based in Goroka, which was responsible for the whole Highlands Highway. The RPNGC has decided to restart this arrangement in 2006, but to be based in Mt. Hagen.

The police reported that there were some 25 Highway Patrol Stations between Lae in Morobe Province, and the ends of the Highlands Highway in Enga and the Southern Highlands Provinces. The stations mainly report direct to the provincial police commanders. Normally, each station should have a vehicle and approximately 10 staff, but in practice, this was usually not the case. The police were particularly reluctant to staff the stations in Enga and Southern Highlands Provinces because they are high danger locations. The provision of housing and other conditions of service were often inadequate, and there were no special financial incentives for regular officers to work in those provinces.

Four mobile squads also operated out of Mt. Hagen, two out of Enga, two out of Southern Highlands, and one out of Goroka. Their prime responsibilities were to deal with civil unrest, such as riots and tribal fights, and provide security to the resource projects. Their secondary role was to provide support for general duties policing, including assisting with highway policing. However, coordination of their activities with provincial commands and highway stations varied. Ideally, their presence should reduce Highlands Highway crime, but sometimes this was not the case. On occasion, they could be volatile and were known to get out of control. Payback generated by policing may be targeted at the travelling public and trucking companies, rather than the mobile squads. Commenting on this, one trucking company manager stated:
We don't have a problem with the police. But if they burn houses and villages, transport companies get caught, too.

Police Management Perspectives

The common theme in interviews with senior RPNGC officers in two of the six provinces served by the Highlands Highway was the inability to deliver services because of lack of funds.

One commander highlighted findings from the 2004 Ministerial Review of Police Services. The commander stated that the review had shown that law and order across Papua New Guinea was breaking down, and there were service discipline and morale problems in the RPNGC. Housing, transport, and manpower were key issues. He also stated that many of these problems were linked. He had developed an action plan to deal with these issues in 2005, but had been unable to implement it because of lack of funds. Now it would have to roll over into 2006.

From a highway patrolling perspective, the main requirement for improving the situation was an increased presence, where mobility on vehicles is the key. More patrols were needed, but lack of funding prevented this from happening.

Another senior police officer explained the problems in detail:

There are a lot of contributing problems for the RPNGC. The current financial problems in the country are affecting the Police Force. They are unable to supply the necessary equipment to patrol the Highlands Highway – vehicles, guns, and fuel ... At present we have a total of 31 people on highway patrol. One station hasn’t had a vehicle for nine years, another has one old vehicle, another has just got its vehicle out of the workshop after two years, the capital has one, and the other station has an old one in and out of the workshop.

We only get 30 to 40 litres for a Landcruiser, three times a week. It is enough for one and a half days at low speed. We had to reduce from two shifts a day to one. We have enough fuel for one patrol plus an emergency.

For vehicle maintenance, money is allocated by the department to a private company, but the quality of their work is rubbish. When they have a problem they can’t fix, we have to take the vehicle to a trucking company. They help a lot.

We are lacking all sorts of office equipment, too, and we can only receive phone calls because we can’t afford outgoing calls.

The officer made the following estimates of the resources needed to do the job properly in his province:

If we are to do the job properly and ensure that the Highlands Highway is covered 24 hours a day, we would need 70 people (actually we used to have 80). We would need seven good vehicles and 80 litres per day for each one ... At present, we only get a quarter of what we need.
The police viewed assistance from the trucking companies favourably:

Fortunately, the trucking companies' depots are very helpful. One gives us a 200 litre drum each month, and all the others help, too. We have a very good working relationship with the trucking industry.

Companies' Views of the Police

Companies had ambivalent perceptions of the RPNGC. On the one hand, managers stated that they had reasonably good official relations with the RPNGC, and they felt that many police were trying to do their job. On the other hand, they were frustrated by lack of policing action, although they recognised the funding shortages underlying the situation and were very sympathetic to the morale problems. They attributed lack of action over funding and morale to poor police management, but individual police could also be inefficient and/or corrupt.

Managers certainly wanted to see a greater police presence on the Highlands Highway. Similar to the police commanders, transport managers and drivers thought that lack of police patrolling was one factor which contributed to Highlands Highway crime.

The sooner the police are there, the more likely we are to save the cargo. We need the law and order people to assist us to stop theft. We pay our taxes, but where does the money go?

The interest of the companies lay in assisting the Police Force. They made occasional donations of vehicles, helped with vehicle maintenance, and especially, provided fuel:

We provide some 200 litres per month for the highway patrol to help; that is, about K500 worth. Other operators are doing much the same. We also supply fuel to other police.

We help highway patrolling with fuel, tyres, and maintenance.

Managers were well aware of the practical difficulties that the RPNGC faced:

The infrastructure is there, but the police need money and management control. There is almost no patrolling on the Highlands Highway.30

The police need better pay and housing. They need more police officers and vehicles.

Response rates are very slow. The police only patrol if they have fuel.

However, there were many negatives. Lack of a police presence meant that assistance on the roads was variable, managers reported:

30 This was broadly consistent with drivers' views. Fifty-three percent of the 19 drivers who were interviewed by the JAG in October 2004 stated that they saw the police at least once during each journey. However, a journey could take several days.
Sometimes they do assist us, but not frequently ... We need a prompt response, but the police often say they have no vehicle, or they will come a few hours later, when all the cargo has gone. We do assist the police, if they say they are out of fuel.

However, even if present during a robbery, the police sometimes might not provide assistance:

Police are the first people who can stop the law and order problems on the road, but that doesn’t happen. For example, police stood by when a 25-tonne load of rice was taken, after a truck broke down on the Lae-Madang road. They said they only had three officers, and that wasn’t enough, but they did have two rifles and they could have scared the people away.

Another company manager stated:

We lost a cargo of Coke following a breakdown. The police came to stop looting of the cargo and said they would take it to a DPI station. They took the load away on two three-tonne trucks, and the cargo has never been seen since.

However, managers did acknowledge that the work of the police could be dangerous:

I admire the police who work along the Highlands Highway. They’ve got a difficult task. These guys are doing it tough – they run out of fuel, and get shot at. They get abused by the village people and the business people, but they can’t be everywhere at once ...

I sometimes travel in the police vehicles and hear their side of the story. Sometimes, the robbers have high-powered weapons, so what can the police do? They can only use side arms. Police don’t use their rifles because they have to use minimum force or face the law themselves. They have to be in danger and get shot at first [before they can use their rifles].

Some managers also considered that a balance of power applied on the roads, and this limited police officers’ ability to act:

In one case, the police wouldn’t attempt to recover fuel from a village near Mendi. The Hagen police then went in, but said that there were too many guns there, so we had to do a deal and pay K6 000 to get the truck back.

Police Morale and Corruption

Several managers referred to corruption issues in dealing with the police. One stated that:

In general, the police are pretty good, but there are some rogues.

While comfortable with official contributions to the RPNGC, a grey area was demands from individual police officers. Coordination of assistance through industry bodies did not stop individual requests for fuel, for example, by police from out of town who were
visiting Lae. The companies were often ambivalent about helping. They were not sure when requests might be legitimate (when the requests were for assistance for fuel to conduct official work), or when they might not be (when the police use vehicles improperly or on-sell the fuel). They felt pressured to assist in these situations, partly because of the risk of reduced cooperation when they did need assistance:

Over the past couple of years, police have asked for fuel, including asking for fuel from drivers. It is hard to know if they are fair dinkum.

Sometimes we give private fuel in order to maintain cordial relations.

Some industry sources alleged that unofficial police demands could verge on extortion:

Sometimes they ask drivers for fuel. One driver was hit on the head with a gun butt when he refused to give fuel. Yes, there are some corrupt people around the place.

Some stations [namely] are especially corrupt.

One manager also claimed that illegal roadside fuel sellers bribe the police:

The fuel sellers top up the police fuel, and that keeps them off their backs.

Senior police did not deny that such problems could occur, but made links between police morale, low pay, and corruption:

Morale and living conditions are often poor. A lot of things contribute to our morale problems. One is living conditions. Our houses have been condemned because there has been no maintenance ... There haven’t been any changes as a result of the Ministerial Police Review. They say it will be in next year’s budget [a 20 percent increase in the Budget, from K125 million in 2005 to K150 million in 2006, was announced during the field work].

Another police officer stated:

It is fair comment that morale and discipline are problems. Police are often expected to work extra hours, but their overtime isn’t paid, and so they are reluctant to work extra hours. For the past 17 years or so, there has been no maintenance of police housing, and no new ones have been built. The single barracks have been condemned for almost a year. No maintenance has been done, but people are still living there. The roofs leak. I can tell you that, when the big rain comes, you have to get your pots and collect the water.

However, he added, wantokism could be a problem:

The wantok system means favouritism. For example, if a wantok is dealing in marijuana, by custom, a policeman cannot stop him, and might even assist. If he doesn’t, he’s not accepted when he returns home. Not every member of the Army and the Police Force is perfect.
Police views about morale, living conditions, and corruption were widely supported in the trucking industry. Surprisingly, managers could be very sympathetic:

A major problem with police is morale. Let's start with improving their living conditions. The conditions they work under are very poor. Their housing is substandard. For what the police have got to work with, I think they do a good job.

It is easy to be critical, but law and order issues do come from poor police management. For example, irregular pay and poor housing means that police look for other means to survive, such as corruption. They will take the highest bribe from the biggest bidder — but why not, and who wouldn't? For example, in one incident [see Chapter 4], the police sided with the opposition in a situation where there was no fault by the trucking company.

One company manager alleged that the highway patrols, the mobile squads, and regular police all sold ammunition to the raskols — but have a look at what they live in and what they get.

While expressed sympathetically, such views were nonetheless an explicit indication that police corruption was an issue. On the positive side, official action over corruption could occur. One company manager said that he had complained about a provincial police commander who sought money, and this had eventually led to his dismissal from the force.

Reporting Crime to the Police

The questionnaire data showed that ambivalent perceptions of the police meant that seven of the companies decided not to report some of the crimes affecting their companies (Q.5.1). Reasons for not reporting crimes were various, including long response times, lack of action and interest, and too much paperwork (see Table 14). Some crimes were considered too minor to report, but in general, the failure to report was because of scepticism about the likelihood of the police being able to deal with the crime.

Six of eight companies denied that insurance claims were a reason for reporting crimes (Q.5.17). Two companies also added that they reported crimes so that the RPNGC had more complete statistics.
Table 14: If You Decided Not to Report a Crime to the Police, Was It for Any of the Following Reasons?

<table>
<thead>
<tr>
<th>Reason</th>
<th>Responses (No.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>The police take too long to respond</td>
<td>5</td>
</tr>
<tr>
<td>You relied on private security to deal with it</td>
<td>5</td>
</tr>
<tr>
<td>Not serious enough</td>
<td>4</td>
</tr>
<tr>
<td>It wouldn’t have changed anything</td>
<td>4</td>
</tr>
<tr>
<td>The police would not have done anything about it</td>
<td>3</td>
</tr>
<tr>
<td>The police are not interested</td>
<td>2</td>
</tr>
<tr>
<td>You got back the property or received compensation</td>
<td>2</td>
</tr>
<tr>
<td>It would take too much time or paperwork</td>
<td>2</td>
</tr>
<tr>
<td>You knew the offender</td>
<td>1</td>
</tr>
<tr>
<td>The offender was a staff member</td>
<td>1</td>
</tr>
<tr>
<td>You were not sufficiently insured</td>
<td>1</td>
</tr>
<tr>
<td>You were frightened</td>
<td>0</td>
</tr>
</tbody>
</table>


Only two out of the seven companies that answered (29 percent) stated that they were satisfied with the result of reporting to the police (Q.5.3). The satisfaction with different elements of the police response was highly variable. Sometimes companies were satisfied, other times they were not (see Table 15).

Of the companies that reported crime and answered the questions:

- five reported that arrests were made (Q.5.6);
- two attended court for cases (Q.5.7), with cases taking an average of one to six months to get to court (Q.5.8); and
- overall, in four cases, companies were satisfied with the way the authorities (police/prosecutor/public solicitor/judge) handled the case, while in two cases they were not (Q.5.9).
Table 15: If You Reported Any Crimes to the Police, Were You Satisfied with Their Action?

<table>
<thead>
<tr>
<th>Action</th>
<th>Yes</th>
<th>No</th>
<th>Sometimes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Response time</td>
<td>2</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Decision to investigate or not</td>
<td>0</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Conduct of investigation</td>
<td>2</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Keeping you informed of developments</td>
<td>2</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Having the property returned</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

Note: Q.5.5. N=9. Multiple responses possible.

Nearly all companies reported crimes to people other than the police (seven out of eight responses to Q.5.10) — six times to local community leaders, and in three cases, to private security firms, business/industry organisations, and staff.

Five companies reported that they did recover some property (Q.5.11). Avoiding victimisation (6 companies) and recovering property (5 companies) were the most important things for companies to do after the crimes were committed (Q.5.12). Taking the criminals off the street (3 companies), punishment for the criminals (2 companies), and compensation (2 companies) were less important.

Police-Community Participation

Despite their reservations about corruption, the performance of individual police, and their concerns about police management and morale, the trucking companies stated that there were ways in which their workplace communities could better assist the police (see Table 16). These actions mainly focused on assisting police to carry out their core role in crime control.

All companies agreed that they would report crimes to the police in future (Q.6.4). When asked why (Q.6.5), comments were:

- cooperate with police, and as a community, establish understanding to assist to minimise crime;
- so they know all the details and perhaps can stop this in future; and
- more chance of some action than if not reported at all.

One company’s general manager commented that he was sure that his and other companies would provide a considerable amount of money to support official police, if they mounted an operation to close down illegal fuel and alcohol sellers along the Highlands Highway.
Table 16: In What Ways Could Members of Your Workplace Community Better Assist the Police?

<table>
<thead>
<tr>
<th>Reason</th>
<th>Responses (No.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provide more information to the police</td>
<td>7</td>
</tr>
<tr>
<td>Cooperate with the police</td>
<td>7</td>
</tr>
<tr>
<td>Call the police when they see criminal activity</td>
<td>6</td>
</tr>
<tr>
<td>Participate in peace and good order committees</td>
<td>5</td>
</tr>
<tr>
<td>Be more respectful to the police</td>
<td>3</td>
</tr>
<tr>
<td>Assist police with fuel and vehicles</td>
<td>3</td>
</tr>
</tbody>
</table>

APPENDIXES
APPENDIX A

TERMS OF REFERENCE

Rationale/Background

Consistent with the Papua New Guinean Government’s policy to promote economic development through export industries, the Government’s Law and Justice Sector Strategic Framework has identified Strategy 1.3.2 as being “to improve highway and resource project safety, especially in the Highlands”. To measure and monitor the impact of crime on the Highlands Highway, which is the biggest road freight route in the country, a transport industry study was necessary. Consistent with Strategy 1.3.2, this particular study focused on the heavy transport industry and the export industries that it especially services.

Apart from some police statistics, no crime surveys appear to have been undertaken on the Highlands Highway. Independent, ongoing studies will provide a reliable picture of crime levels and trends so that highway crime can be measured and responded to effectively. This study stands to be an integral part of the Papua New Guinean Government’s sector performance monitoring, and complements a survey of crime affecting business in Port Moresby, and community crime surveys in Lae and Mt. Hagen. The study is intended to supplement official data and not to replicate it.

Purpose

The objectives of the Highlands Highway Crime Study are to provide information on the types and cost of crime on the highway in order to:

• enable the heavy transport and law and justice sectors to ascertain trends in crime levels,
• provide data that can inform programs and strategies to counter crime; and
• monitor outcomes of crime prevention and control measures.

The JAG will provide quality assurance and overall oversight, as well as ensuring that this work is closely coordinated with the Papua New Guinean Government’s Law and Justice Sector Strategic Framework, and other stakeholders in Papua New Guinea, including the National Coordinating Mechanism (NCM), the Law and Justice Sector Working Group (LJSWG), all Law and Justice Sector Agencies, and provincial governments.
APPENDIX B

PERSONNEL

Research Team

All members of the research team are listed in alphabetical order in their respective groups.

**Principal Researcher**

**Research Assistance**
- Senior Inspector Joanne Clarkson, RPNGC.

**Peer Review**
- Mr. Paul Bacon, Data Collection and Analysis Adviser, JAG.
- Mr. Glenn Crannage, Police Adviser, JAG.
- Mr. Bob Holland, Team Leader, JAG.
- Mr. Alan McLay, President, Lae Chamber of Commerce & Industry.
- Mr. Steven Miller, Monitoring & Evaluation Adviser, JAG.
- Dr. John Rivera, Monitoring & Evaluation Adviser, JAG.
- Dr. Natalie Taylor, Senior Research Analyst, Australian Institute of Criminology.

**AusAID**
- Mr. Romias Waki, Project Officer, Australian High Commission, Port Moresby.

**Other Persons Consulted**

<table>
<thead>
<tr>
<th>Person</th>
<th>Organisation</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jeff Baker</td>
<td>Niugini Transport, Lae</td>
<td>Area Manager</td>
</tr>
<tr>
<td>David Black</td>
<td>East West Transport, Lae</td>
<td>General Manager</td>
</tr>
<tr>
<td>Terry Barrett</td>
<td>Kutubu Transport, Lae</td>
<td>General Manager</td>
</tr>
<tr>
<td>Joanne Choe</td>
<td>AusAID, Port Moresby</td>
<td>Second Secretary, Law &amp; Justice</td>
</tr>
<tr>
<td>Arnold Derks</td>
<td>CarTrans, Lae</td>
<td>Managing Director</td>
</tr>
<tr>
<td>Klaus Dorrich</td>
<td>ARI Logistics, Lae</td>
<td>General Manager</td>
</tr>
<tr>
<td>John Ehava</td>
<td>Eastern Highlands Police Command, Goroka</td>
<td>Highway Patrol Commander</td>
</tr>
<tr>
<td>Lloyd Galbraith</td>
<td>Distribution &amp; Supply Services, Lae</td>
<td>Director</td>
</tr>
<tr>
<td>James Gilai</td>
<td>Kutubu Transport, Lae</td>
<td>Operations Manager</td>
</tr>
<tr>
<td>Les Holland</td>
<td>Advisory Support Facility, Port Moresby</td>
<td>Management Development Adviser</td>
</tr>
<tr>
<td>Cathy Hurst</td>
<td>AusAID, Port Moresby</td>
<td>First Secretary, Rural Development</td>
</tr>
</tbody>
</table>
### Other Persons Consulted (continued)

<table>
<thead>
<tr>
<th>Name</th>
<th>Organisation</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marto Kapio</td>
<td>Wagi Valley Transport, Lae</td>
<td>Manager Operations</td>
</tr>
<tr>
<td>Kevin Kasimbua</td>
<td>Transwest, Lae</td>
<td>Managing Director</td>
</tr>
<tr>
<td>Gordon Kere</td>
<td>Transwest, Lae</td>
<td>Accountant</td>
</tr>
<tr>
<td>James Laki</td>
<td>National Research Institute, Port Moresby</td>
<td>Senior Research Fellow</td>
</tr>
<tr>
<td>Joseph Maras</td>
<td>ABCO Transport, Lae</td>
<td>Logistics Manager</td>
</tr>
<tr>
<td>Gin Masere</td>
<td>Aon Insurance Brokers, Lae</td>
<td>Manager</td>
</tr>
<tr>
<td>Alan McLay</td>
<td>National Roads Authority, Lae</td>
<td>Chairman</td>
</tr>
<tr>
<td>Nick Menzies</td>
<td>Consultative Implementation Monitoring Committee, Port Moresby</td>
<td>Executive Officer</td>
</tr>
<tr>
<td>Peter Nessatt</td>
<td>Morobe Police Command, Lae</td>
<td>Deputy Divisional Commander</td>
</tr>
<tr>
<td>Joseph Noah</td>
<td>Morobe Police Command, Lae</td>
<td>Senior Inspector</td>
</tr>
<tr>
<td>Doug Sharp</td>
<td>Wagi Valley Transport, Lae</td>
<td>General Manager</td>
</tr>
<tr>
<td>Peter Stitt</td>
<td>KK Kingston, Lae</td>
<td>General Manager</td>
</tr>
<tr>
<td>Craig Sugden</td>
<td>Law &amp; Justice Sector Program, Port Moresby</td>
<td>Economist</td>
</tr>
<tr>
<td>Koi Trappe</td>
<td>Traisa Transport, Lae</td>
<td>Managing Director</td>
</tr>
<tr>
<td>Charles Vee</td>
<td>AusAID, Port Moresby</td>
<td>Senior Program Officer, Rural Development</td>
</tr>
<tr>
<td>Neil Woodford</td>
<td>Mountain Fuel Freighters and Mountain Transport, Lae</td>
<td>Manager Transport and Logistics</td>
</tr>
</tbody>
</table>
The Justice Advisory Group and the National Research Institute are conducting a study of the impact of crime along the Highlands Highway on the heavy trucking industry. We need senior managers' views on crime and safety in their business to help the Government develop practical ways to combat crime and victimisation of the business community. This is a chance for business people to have a say in crime prevention planning.

It would assist us if you had the time to answer a few questions about your views on crime and policing. The main questions in the survey will take approximately 30 minutes, although Section 4 may require more time.

Please answer as honestly and accurately as you can. Your answers will be confidential. No-one outside the survey team will have access to your private information. Anything you say about your business operations will only be used for the purposes of this survey. Data will be aggregated to industry level and will not be presented for individual companies. If you are uncomfortable with any question, then don’t answer.

The final report will be a public document published by the National Research Institute. We will send you a copy.

Thank you for your cooperation.

Gerard Guthrie
PNG Justice Advisory Group

Time commenced:  

---

APPENDIX C

QUESTIONNAIRE

PNG Highlands Highway Study, 2005

| Respondent No. (coders to insert) |  |
| Location | Lae |
| Date |  |

Introduction

The Justice Advisory Group and the National Research Institute are conducting a study of the impact of crime along the Highlands Highway on the heavy trucking industry. We need senior managers' views on crime and safety in their business to help the Government develop practical ways to combat crime and victimisation of the business community. This is a chance for business people to have a say in crime prevention planning.

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Gerard Guthrie
PNG Justice Advisory Group

Time commenced:
Section 1 – Screening Questions and Demographics of the Business

This section contains background questions about your business and security issues affecting its main base of operations. Please answer by circling the correct number.

1.1 Do you or your organisation do business for the police, the courts, or the prison service?

[ ] Yes [ ] No. If Yes, please specify ____________________________

1.2 Where is your business mainly located? ____________________________

1.3 Is your business:

[ ] 1 Located only at this address
[ ] 2 Located at this and one or two other addresses, or
[ ] 3 Part of a larger chain or bigger business

1.4 Please state the form of ownership of your business (Circle one only):

[ ] 1 PNG owned
[ ] 2 Overseas owned, or
[ ] 3 Part overseas owned

1.5 How long has your company done business? _____ (years)

1.6 Please indicate the range of your business turnover for the last financial year:

[ ] 1 Less than K500,000
[ ] 2 K500,000 - K1,000,000
[ ] 3 K1,000,000 - K5,000,000 or
[ ] 4 More than K5 million

1.7 How many people (including yourself and business partners), on average, worked in your business during a typical week in the last financial year?

Full-time workers ( )
Part-time workers ( )
Casual workers ( )

1.8 Please describe the main activity of your business: ____________________________

1.9 Which of the following best describes the area in which your main depot/compound is located? (Circle one only)

[ ] 1 Industrial
[ ] 2 Shopping centre
3 Business complex
4 Business and commercial area
5 Local area
6 Isolated area
7 Home based
8 Professional offices, or
9 Other (please explain).

1.10 Are your business premises (depot/compound) protected by private security services?
1 Yes  2 No.

1.11 Are your business premises (depot/compound)...? (More than one response possible)
1 Walled
2 Fenced
3 Unfenced
4 Monitored electronically, and/or
5 Monitored by cameras

1.12 - 1.13 -

1.14 Do you have concerns about the stability of national government rules, regulations, and policies that influence your business?
1 Highly concerned
2 Fairly concerned
3 Unconcerned, or
4 Don’t know

1.15 To what extent has the ‘law and order’ situation in Papua New Guinea impacted on your business?
1 Highly affected
2 Fairly affected
3 Unaffected, or
4 Don’t know
1.16 Please rank the following as issues affecting your business operations and future investment decisions in the order of their significance (i.e. 1-11)

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Corruption</td>
<td></td>
</tr>
<tr>
<td>Stability of rules and regulations</td>
<td></td>
</tr>
<tr>
<td>Law and order issues</td>
<td></td>
</tr>
<tr>
<td>Cost of crime prevention</td>
<td></td>
</tr>
<tr>
<td>Safety of you and your staff</td>
<td></td>
</tr>
<tr>
<td>Standard of policing</td>
<td></td>
</tr>
<tr>
<td>Availability of employee expertise</td>
<td></td>
</tr>
<tr>
<td>Consistency of goods and services</td>
<td></td>
</tr>
<tr>
<td>Market volatility</td>
<td></td>
</tr>
<tr>
<td>Exchange rate fluctuation</td>
<td></td>
</tr>
<tr>
<td>Fuel prices</td>
<td></td>
</tr>
</tbody>
</table>

1.17 In addition to the protection you employ at your depots, what security and safety measures do you adopt for trucks on the Highlands Highway?

1. ____________________________
2. ____________________________
3. ____________________________
4. ____________________________
5. ____________________________
6. ____________________________
Other (Specify) ____________________________

Section 2 - General Thinking about Crime on the Highlands Highway

This section has questions about opinion of Highlands Highway crime.

2.1 Do you think the level of crime has changed in the past 12 months?

1 More
2 Less
3 Stayed the same, or
4 Don’t know *(If Stayed the same, or Don’t know, go to Q. 2.3)*
2.2 If it has changed, is it because? *(More than one response possible)*

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The police are doing a good job</td>
</tr>
<tr>
<td>2</td>
<td>The police are doing a bad job</td>
</tr>
<tr>
<td>3</td>
<td>The courts are doing a good job</td>
</tr>
<tr>
<td>4</td>
<td>The courts are doing a bad job</td>
</tr>
<tr>
<td>5</td>
<td>The prisons are doing a good job</td>
</tr>
<tr>
<td>6</td>
<td>The prisons are doing a bad job</td>
</tr>
<tr>
<td>7</td>
<td>The community is doing a good job</td>
</tr>
<tr>
<td>8</td>
<td>The community is doing a bad job</td>
</tr>
<tr>
<td>9</td>
<td>The raskols are getting better</td>
</tr>
<tr>
<td>10</td>
<td>The raskols are getting worse, and/or</td>
</tr>
<tr>
<td>11</td>
<td>Other (specify)</td>
</tr>
</tbody>
</table>

2.3 Has crime on the Highlands Highway changed in the past 12 months?

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>More</td>
</tr>
<tr>
<td>2</td>
<td>Less</td>
</tr>
<tr>
<td>3</td>
<td>Stayed the same, or</td>
</tr>
<tr>
<td>4</td>
<td>Don’t know</td>
</tr>
</tbody>
</table>

2.4 - 2.5 -

2.6 How do you view corruption in government in Papua New Guinea is?

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Increasing</td>
</tr>
<tr>
<td>2</td>
<td>Decreasing</td>
</tr>
<tr>
<td>3</td>
<td>Staying the same, or</td>
</tr>
<tr>
<td>4</td>
<td>Don’t know</td>
</tr>
</tbody>
</table>

2.7 -

2.8 What one crime are you most concerned about when carrying out your business in the area where the main depot/compound is located?

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Stealing</td>
</tr>
</tbody>
</table>
Section 3 - Crime Prevention

The next questions ask about what you believe that you and others can do to alter the level of crime.

3.1 Do you feel safe and secure from crime in the area where your business is located?
   - Yes
   - No

3.2 Please indicate which of the following crime prevention measures you have employed for your business during the past financial year. (More than one response possible)

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Entry controls</td>
</tr>
<tr>
<td>2</td>
<td>Caretakers or guards</td>
</tr>
<tr>
<td>3</td>
<td>Guard dogs</td>
</tr>
<tr>
<td>4</td>
<td>Alter transport routing</td>
</tr>
<tr>
<td>5</td>
<td>Employ security companies (onsite/radio call-up)</td>
</tr>
<tr>
<td>6</td>
<td>Employ your own security (full-time/day or night)</td>
</tr>
<tr>
<td>7</td>
<td>Alarm systems</td>
</tr>
<tr>
<td>8</td>
<td>Electronic surveillance</td>
</tr>
<tr>
<td>9</td>
<td>Cameras</td>
</tr>
<tr>
<td>10</td>
<td>Alter travel times for trucks</td>
</tr>
<tr>
<td>11</td>
<td>Warning signs</td>
</tr>
<tr>
<td>12</td>
<td>Security lighting</td>
</tr>
<tr>
<td>13</td>
<td>Window protection</td>
</tr>
<tr>
<td>14</td>
<td>Security fencing</td>
</tr>
<tr>
<td>15</td>
<td>Stock/money kept under lock and key</td>
</tr>
</tbody>
</table>
3.3 Approximately how much was spent by your business on crime prevention measures in the past financial year?  

3.4 Estimate, if you can, what percentage this represents of your gross annual turnover?  

3.5 Has this percentage increased or decreased considerably over the past 5 years, or as long as you have been in business here (whichever is the shorter period)?  

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>No</td>
</tr>
<tr>
<td>2</td>
<td>Increased</td>
</tr>
<tr>
<td>3</td>
<td>Decreased, or</td>
</tr>
<tr>
<td>4</td>
<td>Increased and decreased</td>
</tr>
</tbody>
</table>

3.6 Please explain why the change occurred, if any:  

3.7 What could you and your business do better to make your business safer from crime?  (More than one response possible)  

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Help the police</td>
</tr>
<tr>
<td>2</td>
<td>Make your premises more secure</td>
</tr>
<tr>
<td>3</td>
<td>Help fund, or participate more in crime prevention activities in the community (like peace and good order committees)</td>
</tr>
<tr>
<td>4</td>
<td>Belong to a business/industry group</td>
</tr>
<tr>
<td>5</td>
<td>Avoid some particular hours of business</td>
</tr>
<tr>
<td>6</td>
<td>Carry weapons</td>
</tr>
<tr>
<td>7</td>
<td>Improved road conditions</td>
</tr>
<tr>
<td>8</td>
<td>Praying for help from God, and/or</td>
</tr>
<tr>
<td>9</td>
<td>Others (specify)</td>
</tr>
</tbody>
</table>

3.8 3.14 3.15 If you could tell the Government one thing to do to make your business safer from crime, would it be?  (More than one response possible)  

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>More police</td>
</tr>
<tr>
<td>2</td>
<td>Harsher penalties from the courts</td>
</tr>
<tr>
<td>3</td>
<td>Crack down on gangs</td>
</tr>
<tr>
<td>4</td>
<td>Fight corruption</td>
</tr>
<tr>
<td>5</td>
<td>Provide more dispute resolution options</td>
</tr>
<tr>
<td>6</td>
<td>More employment</td>
</tr>
<tr>
<td>7</td>
<td>Better living conditions</td>
</tr>
<tr>
<td>8</td>
<td>Improved community infrastructure, and/or</td>
</tr>
<tr>
<td>9</td>
<td>Improved highway maintenance</td>
</tr>
</tbody>
</table>

**Section 4 – Experience of Crime**

This section is about your business experiences of crime over the past 12 months.

4.1 Please indicate, from the following list, the types of crimes attempted or carried out against your trucks on the Highlands Highway during the past financial year, and their frequency?

**Stealing of fuel by employees from the cargo tankers:**

<table>
<thead>
<tr>
<th>1</th>
<th>Number of times:</th>
<th>Reported to police</th>
<th>Loss</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Yes/No</td>
<td>K</td>
</tr>
</tbody>
</table>

**Stealing of fuel by others from the cargo tankers:**

<table>
<thead>
<tr>
<th>2</th>
<th>Number of times:</th>
<th>Reported to police</th>
<th>Loss</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Yes/No</td>
<td>K</td>
</tr>
</tbody>
</table>

**Stealing of fuel by employees from the trucks own tanks:**

<table>
<thead>
<tr>
<th>3</th>
<th>Number of times:</th>
<th>Reported to police</th>
<th>Loss</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Yes/No</td>
<td>K</td>
</tr>
</tbody>
</table>

**Stealing of cargo:**

<table>
<thead>
<tr>
<th>4</th>
<th>Number of times:</th>
<th>Reported to police</th>
<th>Loss</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Yes/No</td>
<td>K</td>
</tr>
</tbody>
</table>

**Theft from vehicle (truck equipment or driver's possessions):**

<table>
<thead>
<tr>
<th>5</th>
<th>Number of times:</th>
<th>Reported to police</th>
<th>Loss</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Yes/No</td>
<td>K</td>
</tr>
<tr>
<td></td>
<td>Number of times:</td>
<td>Reported to police</td>
<td>Loss</td>
</tr>
<tr>
<td>---</td>
<td>------------------</td>
<td>--------------------</td>
<td>------</td>
</tr>
<tr>
<td>6</td>
<td></td>
<td>Yes/No</td>
<td>K</td>
</tr>
<tr>
<td>7</td>
<td></td>
<td>Yes/No</td>
<td>K</td>
</tr>
<tr>
<td>8</td>
<td></td>
<td>Yes/No</td>
<td>K</td>
</tr>
<tr>
<td>9</td>
<td></td>
<td>Yes/No</td>
<td>K</td>
</tr>
<tr>
<td>10</td>
<td></td>
<td>Yes/No</td>
<td>K</td>
</tr>
<tr>
<td>11</td>
<td></td>
<td>Yes/No</td>
<td>K</td>
</tr>
<tr>
<td>12</td>
<td></td>
<td>Yes/No</td>
<td>K</td>
</tr>
<tr>
<td>13</td>
<td></td>
<td>Yes/No</td>
<td>K</td>
</tr>
<tr>
<td>14</td>
<td></td>
<td>Yes/No</td>
<td>K</td>
</tr>
<tr>
<td>15</td>
<td></td>
<td>Yes/No</td>
<td>K</td>
</tr>
</tbody>
</table>
4.2 If your business has been a victim of an armed robbery (or robberies) in the past 12 months, indicate the occasions in which the following weapons were used?

<table>
<thead>
<tr>
<th>Weapon</th>
<th>Number of times</th>
</tr>
</thead>
<tbody>
<tr>
<td>Firearm</td>
<td></td>
</tr>
<tr>
<td>Imitation Firearm</td>
<td></td>
</tr>
<tr>
<td>Knife</td>
<td></td>
</tr>
<tr>
<td>Stick or iron bar</td>
<td></td>
</tr>
<tr>
<td>Axe</td>
<td></td>
</tr>
<tr>
<td>Other (specify)</td>
<td></td>
</tr>
</tbody>
</table>

4.3 - 4.4 -

4.5 Regarding these and other crimes in the past 12 months, how many days would your business have been closed as a consequence? 

4.6 If any of your staff were injured during the commission of these crimes in the past 12 months, how many work days were lost as a consequence?

4.7 Have you had to pay out any compensation as a result of any of these crimes?

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>

Section 5 – Responses to Crime Victimisation

The next questions are about your attitude to reporting crime and your satisfaction with the responses to any such reporting. The first few questions are for those of you who have been the victims of crime.

5.1 Did you decide not to report any of the crimes against your business to the police?

| Yes | No |

5.2 If not, why? (specify) 

5.3 If you did report any of these crimes to the police, overall were you satisfied with the response?

| Yes | No |

5.4 If, at any time, you decided not to report a crime against your business to the police, was it for any of the following reasons? (More than one response possible)

<table>
<thead>
<tr>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not serious enough</td>
</tr>
<tr>
<td>It wouldn’t have changed anything</td>
</tr>
<tr>
<td>The police are not interested</td>
</tr>
<tr>
<td>The police would not have done anything about it</td>
</tr>
</tbody>
</table>
5. You knew the offender
6. The offender was a staff member
7. You got the property back or received compensation
8. You relied on private security to deal with it
9. It would take too much time and paperwork, and/or
10. You were not sufficiently insured

5.5 If you reported any of these crimes to the police, overall were you satisfied or not satisfied with their action:

<table>
<thead>
<tr>
<th></th>
<th>Response time</th>
<th>Yes</th>
<th>No</th>
<th>Sometimes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Decision to investigate or not</td>
<td>Yes</td>
<td>No</td>
<td>Sometimes</td>
</tr>
<tr>
<td>2</td>
<td>Conduct of investigation</td>
<td>Yes</td>
<td>No</td>
<td>Sometimes</td>
</tr>
<tr>
<td>3</td>
<td>Keeping you informed of developments</td>
<td>Yes</td>
<td>No</td>
<td>Sometimes</td>
</tr>
<tr>
<td>4</td>
<td>Having the property returned</td>
<td>Yes</td>
<td>No</td>
<td>Sometimes</td>
</tr>
</tbody>
</table>

5.6 Were any arrests made in any cases where your business was the victim of crime?

1. Yes
2. No, or
3. Don't know *(If No, or Don't know, go to Q. 5.10)*

5.7 Did you have to attend court for any of these cases?

1. Yes
2. No, or
3. Case ongoing *(If No, or Case ongoing, go to Q. 5.10)*

5.8 On average, how long did it take before the case came to court?

1. Up to 1 month
2. 1 - 6 months
3. 6 - 12 months
4. More than 1 year
5. More than 2 years, or
5.9 Overall, were you satisfied with the way the authorities (police/prosecutor/public solicitor/judge) handled the case (cases)?

<table>
<thead>
<tr>
<th></th>
<th>1 Yes</th>
<th>2 No</th>
</tr>
</thead>
</table>

5.10 Did you report any of the crimes against your business to anyone else (other than the police)?

<table>
<thead>
<tr>
<th></th>
<th>1 Yes</th>
<th>2 No</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Private security</th>
<th>Business/industry organisation</th>
<th>Business dispute resolution body</th>
<th>Local community leaders</th>
<th>Staff, or</th>
<th>Other (specify)</th>
</tr>
</thead>
</table>

5.11 Was any property ever recovered?

<table>
<thead>
<tr>
<th></th>
<th>1 Yes</th>
<th>2 No</th>
</tr>
</thead>
</table>

5.12 Overall, after the crime(s) was committed, what was the most important thing for you as the business victim? (More than one response possible)

<table>
<thead>
<tr>
<th></th>
<th>1 Getting your life back to normal</th>
<th>2 Recovering what you lost</th>
<th>3 That the criminals suffer for the crime</th>
<th>4 Avoid being victimised again</th>
<th>5 That the criminals be taken off the street</th>
<th>6 That the criminals pay for the loss or damage, and/or</th>
<th>7 Nothing</th>
</tr>
</thead>
</table>

5.13 Were you always insured at the time of any of these crimes to cover the loss you sustained?

<table>
<thead>
<tr>
<th></th>
<th>1 Yes</th>
<th>2 No</th>
</tr>
</thead>
</table>

5.14 If No, why not?
5.15 As a result of crimes against your business, did you ever make a claim for insurance?

1 Yes    2 No

5.16 If Yes, specify ________________________________________________

5.17 If you did not claim at any time when you were insured, why not? __________________________________________

5.18 Was the main reason you reported any of these crimes to the police, so that you could claim insurance?

1 Yes    2 No

5.19 Have you changed your business behaviour as a result of these crimes your business experienced?

1 Yes    2 No (If No, go to Q. 5.27)

5.20 If Yes, in what way? ____________________________________________

5.21 Have you changed your crime prevention measures?

1 Yes    2 No

5.22 If Yes, specify ____________________________________________ If Yes, how much has this cost you in the past financial year? $__________

5.23-5.26 -

5.27 How do you view the business crime problem in Papua New Guinea?

1 Very large
2 Large
3 Average
4 Not large, or
5 Don’t know

5.28 In your opinion, is crime and the fear of crime (including government corruption) the main reason for poor business confidence and investment in Papua New Guinea?

1 Yes    2 No

5.29 If Yes, what should be done about it? ________________________________
Section 6 - Police - Community Participation

Interviewer to read out: This section focuses on comments on the way in which the police and the workplace community might better interact in order to prevent crimes against business.

6.1 In what ways could members of your workplace community better assist the police? (More than one response possible)

1. Participate in peace and good order (crime prevention) committees
2. Provide more information to the police
3. Call the police when they see criminal activity
4. Cooperate with the police
5. Be more respectful to police
6. Assist police with fuel and vehicles, and/or
7. Other (specify)

6.2 Generally, are people in your workplace community willing to give information about crime to the police?

1. Yes
2. No, or
3. Don't know

6.3 Why? 

6.4 If your business becomes a victim of a crime in the future would you report it to the police?

1. Yes
2. No, or
3. Don't know

6.5 Why? 

This ends the questionnaire. Thank you very much for your time and cooperation.

Time concluded: