

12 November 2003

The Secretary
Standing Committee on Transport and Regional Services
House of Representatives
Parliament House
CANBERRA ACT 2600 Trs.Reps@aph.gov.au

Dear Secretary,

re INQUIRY INTO NATIONAL ROAD SAFETY

It would be appreciated if you would accept this letter as a submission to the present inquiry which broadly address the second and third terms of reference:

2. Identify any additional measures or approaches that could or should be adopted by the Commonwealth, States and Territories, local government and non-government agencies and bodies (including industry) to reduce road trauma.
3. Identify factors that may be impeding progress in reducing road trauma, and suggest how these could be addressed.

It is stressed that the comments in this submission are general. To do justice to the topic, considerable resources and time would be required for statistical and other analysis. Indeed, the time able to be allocated to the present inquiry will probably limit the outcomes.

Some excerpts relating to road safety from a book *Back on Track: Rethinking transport policy in Australia and New Zealand* by Laird, Newman, Bachels and Kenworthy, published in 2001 by UNSW Press are attached as Appendix A..

1. People drive too far each year

The Australian Bureau of Statistics (ABS) in their 2001 Survey of Motor Vehicle Usage (SMVU 9208.0 - Table 1, p9) suggests passenger vehicles registered in Australia now drive an average of 14,600 kilometres per year. Most passenger vehicles are driven in capital cities and other urban areas (104.0 billion km (Table 6, p 15) out of a total of 143.9 billion km.

If you drive 7 300 km at an average of 40 km/hr and a further 7 300 km in 'open road' conditions at an average of 90 km/hr, that is a total of about 264 hours. That is, on average, the best part of an hour each day. It stands to reason that for some of these days, you will be prone to fatigue, or poor driving. There is also a chance you will feel impelled to drive when for your own safety, or the safety of others you should not be driving, or you may feel impelled to drive too fast.

2. People are encouraged to drive

Both our 'car culture' and taxation system encourage both car ownership and use. This is explored further in the 2001 book *Back on Track: Rethinking transport policy in Australia and New Zealand*.

Once someone has made an outlay to buy a car, the cost of the car plus high annual charges for registration and insurance, perceived low running costs further encourage use unless offset by parking restrictions or road congestion. Even with petrol at about \$1 a litre, for some people, the cost of travel is perceived at 10 cents a kilometre.

Measures that will reduce vehicle kilometres travelled, including optimal road pricing are set out in the Bureau of Transport and Regional Economics's 2002 report "Greenhouse Policy options for transport", and the National Strategy for Lowering Emissions from Urban Traffic approved by the Australian Transport Council in August 2002.

3. Many people drive too fast

The drivers who are caught exceeding legal speed limits are simply 'the tip of the iceberg'. Society has the people power and/or technology to deal with the problem; it simply does not have the will. One older example of reluctance within NSW to deal with a major problem causing road carnage was shown by the delay of the NSW Parliament to introduce random breath testing in December 1982, and then it was only for three years. This was despite the fact that it was proven in Victoria by the late 1970s to be literally saving a life a day.

Not enough people power or technology to solve the problem? One solution would be to increase excise by an extra cent a litre on petrol and diesel, and to employ the people and buy more speed cameras and processing equipment.

Modify the vehicles? Apart from speed limiters, either tachographs or the simple requirement to have an LED mounted above the roof which indicates the speeds of the vehicle are feasible to monitor, or indicate, the speed of any vehicle.

Given present complaints at speed cameras etc, it is easy to imagine the howls of protest to any escalation of measures to effectively curb speeding. However at least 'something should be done' to enforce 50 km/hr urban speed limits on residential streets.

4. How to control fatigue?

This is a major challenge. In the first instance, if people did not drive so far, it would not be such a problem.

If, as reported on a TV current affair program in 2000, a successful legal defence could be brought on behalf of a driver who fell asleep at the wheel and then caused a fatal road crash, the law could well be changed. The responsibility should be fully on the driver not to drive when incapacitated by fatigue (just like drink).

More rest areas on the side of NSW non-urban roads are long overdue. More rest areas were recommended by a National Road Freight Industry Inquiry in 1984. The need for sufficient roadside rest areas was noted in the Committee's 2000 report 'Beyond the Midnight Oil'.

5. Do we need more dual carriageways?

The popular answer, as currently advocated by the NRMA, is yes. There is no doubt that some would help. However, if highway upgrading results in appreciably more car traffic, or assists in transferring freight from rail to road, the benefits of the road upgrading are offset by more than the costs of construction.

This appears to be case on the Pacific Highway at present, where the upgrades to date have encouraged some heavy traffic to move from the New England to the Pacific Highway. On 19 October 2003, following the loss of over 40 lives in 2003 to that date, the NSW Government announced an investigation into road safety on the Pacific Highway.

6. Do too many people have driver's licenses?

The possession of a driver's license is perhaps perceived by society as a right rather than a privilege. This is despite the fact that some people with licenses are at risk to themselves and others when driving.

Some mechanisms for removing or suspending licenses are in place. Some people accept this, whilst others in the past have resorted to the device of licenses from other jurisdictions. One problem group in the past was heavy vehicle drivers, which required in the 1990s a national licensing system.

A further problem group is elderly drivers. Some 80-year-old drivers are better than many half their age; however, other 80-year-old ones are a real danger to themselves and others on the road. Poor public transport options and high taxi fares do not encourage the decision to give up a drivers license.

The difference between States is dealt with in an article in The Australian in February 2001. One example of a NSW driver 70 plus with a good record coming to grief is as follows. Admitted to hospital in winter 1999 with a serious illness, he fortunately recovered and went home. A month later, he went driving, to apparently cause a road crash and end up in hospital again. Fortunately again, he recovered and the driver the other vehicle was not injured.

7. What about people who drive without licenses?

To what extent such people are involved in road crashes is a good question. The suggestion is made that vehicles could be impounded where appropriate.

8. The cost of road crashes

Attention is drawn to the May 2000 publication of the Bureau of Transport Economics, 'The cost of road crashes in Australia' and their estimate of about \$15 billion in 1996. **An update of this estimate could well be of assistance to the Committee.**

As noted in the book, *Back on Track: Rethinking transport policy in Australia and New Zealand* successful insurance claims in 1997-98 were about \$7 billion, with total claims at about \$8 billion (APRA). The high cost of crashes warrants higher road user charges (preferably petrol and diesel taxes) to try and reduce the incidence of road crashes, AND, more appealing options to driving a motor vehicle.

Incidentally, if we accept \$15 billion (perhaps more like \$20 billion - say \$19 billion) as the cost of road crashes in 2001, and the ABS total of about 190 billion kilometres driven by all vehicles in 2001, the average road crash cost is about 7.9 cents per kilometre (say 10 cents per km). It would simply not occur to most people, when getting in their cars, and starting to drive that the average road crash cost is the same order as the cost of petrol.

9. Heavy vehicle crashes

These are not the severe problem they were in the late 1980s, when at their worst, some 250 lives were lost in road rashes involving articulated and heavy rigid trucks in 1988. However, as shown by ongoing road crashes involving heavy trucks, heavy vehicle safety remains an important issue.

A Government response was made on 7 August 2001 to the House of Representatives Standing Committee on Communications, Transport and the Arts 2000 report "*Beyond the Midnight Oil. An inquiry into managing fatigue in transport*". Most of the 41 recommendations related to road transport. The responses to the recommendations were generally positive, but many were qualified with the need to obtain agreement with the States and Territories (via the Australian Transport Council including a recommendation to extend the SAF-T-CAM truck monitoring scheme with over 20 sites within NSW to all of Australia).

A few recommendations were rejected, including one to the effect that a national road transport operator licensing scheme should be developed for the road transport sector. Of interest is that fatigue in road transport had been considered by COAG at its meeting of 3 November 2000 COAG discussed the issue of owner-drivers. Noting that whilst "*this is essentially a matter for the industry to resolve, the Australian Transport Council should expedite its consideration of work currently before it on this matter*" - <http://www.pmc.gov.au/docs/coag031100.cfm>). As well, transport safety was regarded as a suitable topic for an inquiry by the Productivity Commission.

On 4 December 2001 a report of the Safety Inquiry into Long Haul Trucking Industry conducted by Prof Michael Quinlan for the NSW Motor Accidents Authority (book ref. Ch 4 page 75) was released (see website <http://www.maa.nsw.gov.au>)

The full report gave a disturbing review of the long haul trucking industry, and its conditions of work safety. The report questioned some of the truck mass limit increases in Australia, without increases in safety measures. Reference is made to an accident at Blanchetown in August 1996 that claimed six lives (book ref Ch 4, p74), and strong opposition of the road transport industry to tachographs (book ref Ch 6, p123). The inquiry also found that *"externalities (such as the full cost of the resulting injuries, deaths and illness) and the absence of competitive neutrality (for example, in terms of road/rail infrastructure investment/cost recovery and regulatory requirements) act as a hidden subsidy to freight rates."*

A NSW Government response was made on release of the report which supported many of the recommendations and noted the establishment of a NSW Task Force on Trucking Safety, which will approach other States, particularly Queensland and Victoria. However, a central and major recommendation to establish a NSW Long Distance Trucking Safety Authority was not adopted by the Government.

The Committee is invited to consider revisiting the issue of heavy vehicle operator licensing.

10. The cost of heavy vehicles crashes

As per Appendix B, the average unit cost for road crashes involving articulated trucks appears to be at least **0.5 cents per net tonne km.**

From Australian Bureau of Statistics (ABS) data in their 2001 Survey of Motor Vehicle Usage (SMVU 9208.0 - Tables 5 and 12) the articulated truck freight task was 103.5 billion tonne km using 2823 million litres of diesel. This gives an average fuel efficiency of 36.7 net tonne km per litre of diesel used. This suggests an external road risk cost corresponding to about 18 cents a litre. However, as part of the New Tax System, the excise on diesel for heavy truck operations fell from about 43 cents per litre to 20 cents per litre which is the RTC road user charge.

By way of comparison, as per Appendix C, the average unit cost for accidents involving rail freight appears to be about **0.03 cents per net tonne km.**

11. Rail freight development

Rail freight development is given much attention by the Committee, including in its major 1998 report *"Tracking Australia"* and the follow up 2001 report *"Back on Track: Review of progress in rail reform"* with recommendations calling for action by the Minister for Transport and Regional Services including:

- * establishment of a National Rail Transport Commission.
- * giving the highest priority to declaring a national track for interstate rail services on the standard gauge network from Brisbane to Perth.

* urgently putting in place a 10 year track infrastructure re-development program of a magnitude comparable to that recommended in Tracking Australia.

The Government's response, and that of the NSW Government, suggests that there is much 'unfinished business' in the area of interstate freight. Whilst the East - West corridor under management is working well under the Australian Rail Track Corporation (ARTC) management, the North - South rail corridor linking Australia's three largest cities is not working well.

The ARTC Track Audit was released in May 2001. Two and a half years later, despite a heads of agreement being signed in August 2001 to facilitate ARTC control and upgrading of the North - South rail corridor, a formal agreement is still to be reached. The promising press releases issued throughout the year are balanced by ongoing failure to make a real start on working towards making this track 'Fit for Purpose'.

The ARTC Track Audit examined minimum market improvements along with significant track improvements and after economic analysis, recommended optimised investment of \$507 million with a combined benefit cost ratio of 3.2. This was in part due to the *external cost items of noise pollution, air pollution, greenhouse gas emissions, congestion costs, accident costs, and incremental road damage costs.*

Of the proposed optimal investment, \$398 million was recommended for works on the North - South Corridor including a total of \$146 million for Stage 1 of a Sydney Freight Priority Project. The ARTC Track Audit identifies present terminal to terminal times of 13 hr 30 min for Melbourne - Sydney, 21 hrs for Sydney - Brisbane, with 36 hrs for Melbourne - Brisbane. These transit times would be expected to be reduced to 10 hrs 30 min, 17 hrs 30 min and 29 hrs 30 min respectively, on completion of the optimal capital works.

The consequent efficiency improvements were calculated to result in a transfer of 128,000 long haul truck movements each year to rail.

Wide support for the findings of the track audit included that of an Australian Infrastructure Report Card released on 5 July 2001 by the Institution of Engineers, Australia (see www.InfrastructureReportCard.org.au). This Report Card gave rail ratings ranging from A for the Pilbara iron ore railways to F for the Melbourne - Sydney - Brisbane track.

The Federal Government's Green Paper on 'AusLink' released 7 November 2002 appeared to be a step forward. However, the White Paper due to be released in May 2003 is still awaited. AusLink, as announced on 21 May 2002 includes *"sweeping changes to the development and funding of Australia's land transport infrastructure.... The amount of freight carried throughout Australia is projected to double by 2020. The current fragmented approach to land transport planning will simply not be able to cope. AusLink will make our land transport system safer and more efficient, with less impact on the environment"*.

As Minister Anderson noted on 21 May 2002 "**We cannot go on this way. We have to make changes now.**" However, "**now**" is being increasingly stretched out. This is despite the Prime Minister's support of AusLink as per his November 2002 speech to the Committee for Economic Development of Australia at Sydney, that noted, inter alia, that transport policy was one of his Government's nine key priorities,

As noted in a Background Briefing Paper for a concurrent inquiry by the Committee, Regional railways are *"An emerging issue is that of perceived cost shifting from the States to local government with rail branch line closures. The effect has been to transfer heavy grain haulage off of local branch lines onto local government roads with a consequential blow-out in road and bridge maintenance costs."* [plus increased road crash risk]

11. Rail passenger development

In respect of **urban rail for moving passengers**, Australia's five largest greater metropolitan regions now house 60 per cent of Australia's population and have urban 'heavy' rail systems. Melbourne, Sydney and Adelaide also have light rail. As noted by numerous reports, including those prepared by Mr Ron Christie for former NSW Transport Minister Mr Carl Scully, Sydney's urban rail system faces the risk of *"strangulation"* unless \$20 billion is invested in infrastructure by 2010, and rolling stock upgraded at an extra \$2 billion.

The value of selective urban rail investment is clearly demonstrated by Perth. In 1991, this system was carrying about 10 million passengers per year. Following electrification and extension to Perth's northern suburbs, trains are now carrying over 31 million passengers per year. The system is now being further extended, and by 2006 will include the growing city of Mandurah to the south west of Perth. Perth's trains are expected to carry 61 million passengers per year by 2011.

In Queensland, Caboolture - Landsborough duplication with track straightening combined with a new Grandchester to Gowrie route will cost about \$1 billion. If Adelaide, Melbourne and Brisbane/Gold Coast are to match Perth's current urban rail investment, at least a further \$3 billion is required. As above, Sydney's Greater Metropolitan Region was estimated to require of \$20 billion over 10 years,

Federal Grants to assist the States in improving public transport under the Whitlam, Fraser, Hawke and Keating Governments assisted in advancing many worthwhile urban rail projects. There reinstatement would help much needed projects in all mainland state capital cities. There is no reason why Federal land transport funding in the United States should be 20% on public transport and now almost zero in Australia.

It is of note that the for a **ten point plan** for Australian land transport cited in Appendix A, no fewer than eight of the ten proposed measures involve urban public transport.

Although rail now only accounts for just under 2 per cent of all non-urban passenger kilometres, it does have potential to move more people in a safe manner. The potential of regional rail is demonstrated by the success of the Queensland tilt trains, the replacement by Western Australia of The Prospector by new trains due December 2003 and the \$550 million investment by Victoria in Regional Fast Rail.

However, recent NSW proposals to cut back CountryLink rail services, and the threat to Sydney - Canberra rail services, as opposed to investment in track upgrades and new trains are of concern. The excessive Federal Government pre-occupation with Very Fast Train proposals in the late 1990s, leading to release of a negative report in 2002, is also of concern. The Committee is invited to consider encouraging Federal Government to invest in interstate track upgrades for faster passenger trains as well as faster and heavier freight trains.

13. Changing the culture

This is a challenge, and it is suggested that the way the Federal and other Parliaments have tackled smoking can give some guidance.

As a start, some control could be exercised over the content of television advertisements for cars that show them being driven in a dangerous and/or stupid manner.

There is no reason why each TV, print media or radio advertisement for a motor vehicle should not be compelled to carry a road safety message. For the humble classified advertisement for a used car, it could simply be 'drive safely'. For larger advertisements, it could be initially at least 10 per cent of the advertisement dealing with safe driving. A further 10 per cent could be required for the safety features of the vehicle.

Undoubtedly there would be howls of protest from the car sales industry, and related groups. The NRMA and other motoring clubs may also choose to oppose it. However, the benefits of reminding people every time a car advertiser seeks their attention of the need to think road safety are wide.

Other culture changes include the need to shift annual motoring costs to 'upfront' costs (petrol, parking or congestion tolls), the need to review taxation policies that encourage motor vehicle use (eg allowing an aggregate of more than \$12 billion a year of motor vehicle expense deductions a year) whilst discouraging the use of public transport, and, the need to invest more in off road modes such as rail and urban public transport.

As noted below (Appendix A) Australia's Transport Minister's adopted a National Road Safety Strategy 2001-2010 and a National Road Safety Action Plan for 2001 and 2002. As well as seeking to improve road user behaviour through education, enforcement and information, and improving the safety of roads and vehicles, there is a suggestion to encourage alternatives to motor vehicle usage, including public transport. However, neither the longer term strategy or the shorter term plans suggest more use of rail to move freight.

The Committee is asked to support the earlier suggestion in the official reports to encourage alternatives to motor vehicle usage including public transport; and, to consider the view that "...shifting freight to rail should be seen as part of road safety."

Please contact me if you would like further information.

Yours sincerely,

P G Laird

APPENDIX A BOOK EXCERPTS

From Chapter Four *Back on Track: Rethinking transport policy in Australia and New Zealand* by Laird, Newman, Bachels and Kenworthy, published 2001 by UNSW Press

Road crashes

A very real cost of motor vehicle usage on public roads to the community is the pain and injury, some serious and some even fatal, resulting from road crashes. A detailed discussion of road crashes is outside the scope of this book. However, brief mention is given of some facts, with estimates of the total cost of road crashes in Australia.

Statistics relating to aggregate numbers of fatalities, serious injuries, and other injuries have been kept for many years by State Government agencies, plus the Australian Bureau of Statistics to 1989 and then a Federal Office of Road Safety (FORS) which was absorbed during 1999 into a new Australian Transport Safety Bureau. These statistics show a general increase in the number of persons killed each year throughout the 1950s and 1960s until 1970 when 3798 persons were killed in road crashes on Australian Roads. This number of road fatalities was the worst ever in Australia, and led to the introduction of major counter measures with the compulsory fitting and use of seat belts in cars, and protective helmets for motor cycles riders (Year Book No. 61, 1977, p395). Other factors identified by Searles (1986 see also Inter-State Commission 1990 Vol.2 p.182), included "*...the effects of the economic recession in bringing about an overall decline in vehicle usage, ageing of the population and increased unemployment resulting in less driving by young people, improvements to vehicles and tyres, increased availability of improved medical services, and road engineering improvements, including the widespread provision of multi-lane motorways.*"

These road safety measures assisted in reducing the number of persons killed each year during the 1970s, and in 1979, 3508 persons were killed in road crashes. This high level of road fatalities required further action and social change

The second major advance was the introduction of random breath testing. Victoria was one of the first states whilst NSW resisted for some years. A valuable contribution was made by the late Mr. Ken Thomas (founder of Thomas Nationwide Transport (TNT)) who formed the Save-A-Life-A-Day or SALAD movement in the 1970s. Mr. Thomas also stood for election for the NRMA Council in 1979 to advance SALAD objectives and also

promoted the advantages of rail for safer inter-capital city freight movements. In Spring 1982 the NSW STAYS SAFE Parliamentary Committee on Road Safety in its first report 'Alcohol, Drugs and Road Safety' recommended random breath testing, and the Wran Government was moved to introduce it in December 1982 for a three year trial. This action was a major contributor in reducing persons killed on NSW roads from 1303 in 1980 to 960 in 1990. Within the three years, random breath testing was seen to be saving almost a life a day in NSW, and it became an ongoing measure.

On a national scale, the numbers killed on Australian roads fell during the 1980s from 3272 in 1980 to 2331 in 1990. The 1990s have seen an ongoing drive to reduce the number and severity of road crashes including a Ten Point Plan as outlined in Box 4.1. In return for the States and Territories giving a commitment to implement the package by 1 July 1990, the Commonwealth allocated an additional \$100 million of road funding. The extra funding was for the purpose of eliminating known 'black spots' at intersections, bridgeworks or other traffic points noted for involvement in accidents. This conditional payment was an example of how the Federal Government could use a 'carrot' approach to the States in issues they consider to be of national significance. The approach could be extended to a number of the issues in this book. Even after a decade, the ten points are still relevant.

BOX 4.1

AUSTRALIA'S TEN POINT ROAD SAFETY PLAN

- National 0.05 level of alcohol limit
- National licensing of heavy truck and bus drivers
- National uniform speed limits
- Adopt zero alcohol limits for young drivers
- Increase enforcement to ensure that 1 in 4 drivers are random breath-tested for alcohol in a year
- Implement a graduated licensing system for young drivers
- Introduce compulsory bicycle helmet wearing
- Introduce daylight running lights for motorcyclists
- Increase enforcement of seat belt, and, child restraint wearing

END OF BOX

Whilst there has been a general reduction in the number of fatalities in Australian road crashes until 2000, the rate is still unacceptably high as shown by the comparative data in chapter 3. There are also large numbers of injuries. Road accident injuries are classified as either serious injuries or other injuries. In Australia, during 1999, along with the loss of 1759 lives, there were over 20,000 serious injuries from road accidents requiring

hospitalisation. Of increasing concern is the growth in the numbers of long term disabled persons who were injured in road crashes.

Further road safety initiatives in the late 1990s include a reduction in urban residential road speed limits to 50 km per hour. The fact that the limit was 60 km per hour for so long in Australia when most of the rest of the world, including New Zealand, used a 50 km per hour limit, raises some interesting questions. Australia was also slow by western world standards to introduce 40 km per hour or less speed limits outside schools.

The numbers of persons killed on Australian roads, coupled with serious injuries and other injuries, plus loss of earnings, pain and suffering, and vehicle damage was estimated by the Bureau of Transport Economics (BTE - 1995b) to be costing Australia some \$6135 million in 1993. This estimate for road accidents far outweighed BTE (1995b) estimates for aviation accidents at \$75 million, rail accidents at \$69 million and maritime accidents at \$316 million. However, this very conservative estimate for the cost of road crashes was later revised by the BTE (2000a) to be \$14 980 million in 1996. The marked increase from \$6 billion reflects inclusion of an estimated cost of \$2 billion for long term care, and, a more realistic estimate of nearly \$1.5 billion of the costs of traffic delays resulting from road crashes. This is an almost daily phenomenon on freeways in any major city.

Even so, the new BTE estimate of the cost of road crashes of some \$15 billion is considered to be conservative by the Australian Transport Council (2000). At the end of the day, there is no way that money can compensate for the loss of a dearly loved person in a road crash. Other road crash costs, not included in the BTE estimate, include veterinary costs for the injury of domestic pets, the work done by voluntary organisations to assist animals injured, or the death of domestic pets or native fauna.

Australian vehicle operators paid motor vehicle insurance premiums of some \$8 billion in 1999. This amount is calculated by the Australian Prudential Regulation Authority (APRA) and includes Compulsory Third Party insurance (CTP) which is covered by the private and public sectors, plus domestic vehicle insurance (comprehensive) and commercial vehicle insurance. The difference between the cost of motor vehicle insurance, and the cost of road crashes to Australia is about \$7 billion. This difference is ultimately born by society as a whole.

In November 2000, Australia's Transport Minister's adopted a National Road Safety Strategy 2001-2010 and a National Road Safety Action Plan for 2001 and 2002. As well as seeking to improve road user behaviour through education, enforcement and information, and improving the safety of roads and vehicles, there is a suggestion to encourage alternatives to motor vehicle usage, including public transport. However, neither the strategy or the shorter term plan suggested more use of rail to move freight.

In January 2001, public attention in Australia was focussed on the increase in NSW road fatalities during the summer holidays. In addition, the number of road fatalities on Australian roads had risen to 1817, as opposed to the loss of 1759 lives in 1999 (one more

than 1998). This ended a thirty year trend of declining numbers of road fatalities, and suggests that stronger road safety measures will be needed.

The cost of road injury crashes in New Zealand in 1998 was estimated by the New Zealand Land Transport Safety Authority to be \$2.8 billion.

Heavy Vehicle Safety

Heavy vehicle safety has been of concern for most of the 20th Century. One long standing reason is men working very long hours on truck driving and related activities such as loading, or waiting for loads. During the 1970s, such concern gave rise to a House of Representatives Standing Committee on Road Safety (1977) holding an inquiry into Heavy Vehicle Safety. A concurrent 1977 study (Linklater, as reported by Staysafe, 1989) found *"...evidence of fatigue amongst the drivers in the form of 40.7 % of the 615 drivers using stimulant drugs, 28.8 % reporting hallucinations whilst driving within the preceding year, and an average 71.6 hour working week."*

Safety issues were addressed by the Commission of Inquiry into the NSW Road Freight Industry (1980) and a National Road Freight Industry Inquiry (1984). Both inquiries found a case for operator licensing of heavy trucks. The National Inquiry found the number of fatal crashes involving articulated trucks was about 7.4 per 100 million kilometres in 1983, as compared with 2.1 per 100 million kilometres for cars.

Compulsory tachographs were also recommended for most articulated trucks by the National Inquiry in 1984. This was part of a package of 98 recommendations that included a proposal that interstate truck owners would cease to receive effectively free registration for their trucks. Partly on the grounds that many heavy trucks were already defying the 80 km per hour speed limit, the Inquiry found that there was a case for the lifting of legal speed limits for heavy vehicles. On 1 January 1987, as part of a package including a modest \$675 registration fee for interstate semitrailers, the open road legal speed limit for trucks was lifted to 90 km per hour. This was followed by a report of the Federal Office of Road Safety giving strong support to the open road speed limit for trucks being lifted to 100 km per hour. On 1 July 1988, as part of another package, this speed limit was granted. However, the higher speed limit was without compensatory measures such as operator licensing and tachographs. The reasons for Australia not requiring tachographs for heavy trucks, whose installation has been compulsory in Europe since 1986, are explored in chapter 6.

By 1989, as shown in Table 4.1, there had been an alarming increase in the number of fatalities from road crashes involving articulated trucks. There were also reports of problems on the Hume Highway linking Melbourne and Sydney where in 1988-89, no fewer than 37 lives were claimed for such crashes. One such report was that of the Anglican Bishop of Canberra and Goulburn, Bishop Dowling (Church Scene September 29, 1989)

who, as a frequent traveller on the Hume Highway found "...Late night travelling on that road is an extraordinarily intimidating experience. The cumulative effect of a large number of enormous vehicles, travelling in many cases beyond the speed limit in the middle of the night, is terrifying. ...The drivers are clearly pushed hard and the number of accidents, even on good sections of the road, show that errors of judgement are easily made in that dangerous environment. The more the road is improved, the more commercial traffic seems to increase, and the more tragedies that happen".

TABLE 4.1 FATALITIES FROM ROAD CRASHES IN AUSTRALIA 1986-1999

Year	Involving Articulated trucks	Involving Buses	Involving All Vehicles
1986	232	46	2888
1987	243	51	2772
1988	320	57	2887
1989	335	104	2801
1990	263	46	2331
1991	183	32	2113
1992	181	39	1974
1993	204	49	1953
1994	179	40	1928
1995	199	23	2017
1996	194	38	1970
1997	171	27	1768
1998	179	29	1758
1999	189	na	1759

Reference Road Fatalities in Australia Time Series Statistics supplied by the Australian Transport Safety Bureau. The time series for fatalities involving rigid trucks is only available between 1990 and 1995, with numbers of loss of life varying from 215 in 1995 to 320 in 1991. na = not available

On Friday 20th October 1989 at Cowper, near Grafton, a tragic accident claiming the lives of 20 people resulted from a collision between a semi-trailer and a long distance coach. This fatal crash highlighted excessive working hours - both loading and driving - for the truck driver. As well as recommending better roads, the NSW State Coroner (1990) recommended that consideration be given to quality licensing. This was to give entry controls as a means of removing from the industry that minority of truck operators who put safety at undue risk and persistently overloaded their trucks.

A study by the Australian Road Research Board (1991) found that throughout the 1980s, about 400 lives a year were claimed in fatal crashes involving trucks with a further 1700 serious injuries a year, and, the total cost of all accidents involving trucks was conservatively estimated at about \$500 million a year. The ARRB report also noted that whilst comparisons are difficult, fatal truck accident rates in Australia were approaching double that of the United States, Britain and Finland. The National Transport Planning Taskforce (1994, p27) noted that the number of fatal road crashes involving articulated vehicles had almost halved from 1988 to 1992 and appeared to then remain at the lower level.

The reduction in fatal crashes involving articulated trucks was due to improved roads, better trucks, and more attention to truck driver training. Despite the gains made during the 1990s, heavy vehicle safety remains an important issue in Australia. This is shown by ongoing tragic fatal crashes involving articulated trucks with drivers who were found to have been under the influence of drugs, which include the following.

One driver of WRB Transport, placed in voluntary liquidation in April 2000, was found to have been providing “stay-awake” drugs to drivers, including one who was involved in a fatal crash at Blanchetown, on the Sturt Highway, in South Australia. *“He was on his fourth trip between Sydney and Adelaide in five days when he fell asleep at the wheel, crossed to the wrong side of the Sturt Highway and hit two oncoming cars.”* (The Advertiser, 27 May, 2000).

A truck driver of Hoppers Crossing, Victoria who had pleaded guilty in the NSW Supreme Court to the manslaughter of two persons at Strathfield in September 1998, was convicted and sentenced to jail. *“In the days before the accident, Ryan drove from Victoria to Brisbane to Sydney, back to Victoria and then again to Sydney during which time he had taken methamphetamine and had little sleep.*

He falsified his log book entries to pretend he had complied with his break requirements.

While driving his 36-tonne semitrailer at about 80km/h along the six-lane highway at Strathfield, Ryan crossed the median strip and drove along the wrong side of the road for 500m before colliding with the two cars.” (The Illawarra Mercury, 15 July, 2000).

A further fatal crash involving an articulated truck occurred in Victoria on the Hume Highway on the night of 9 April 1999. The driver of the truck, bound for Brisbane, reportedly (Owner/Driver, April 1, 2000) *“...drove his truck into the back of a caravan being towed by a 4WD, causing it to leave the road and roll over, killing one of the passengers.”* The truck driver then diverted from the Hume Highway to the Newell Highway, and failed to stop at the accident or notify the Police. It took the Police many months of careful investigation to apprehend the truck driver, who was subsequently jailed for three years.

Faced with increasing problems of fatigue in road transport, and larger insurance payouts, the Motor Accidents Authority of NSW established in 2000 an inquiry into the Long Haul Trucking Industry. The terms of reference included: lack of client responsibility for driving hours, driver performance and remuneration for drivers, extent of proper enforcement in the industry of driving hours, speeding and drug use, and, current forms of regulation in the industry, whether a self-regulation or external regulation model is most appropriate for the road transport industry and what forms this should take.

The NSW inquiry supplemented an inquiry by a House of Representatives Committee (2000) into fatigue in all modes of transport. Most of the 41 recommendations related to road transport, and included one to the effect that if there had '*...not been an appreciable improvement in the way in which the road transport sector is addressing the problem of fatigue management*' by mid-2002, a national operator accreditation scheme should be developed for the road transport sector.

The involvement of heavy trucks in fatal crashes also may result in the loss of life of the truck driver. According to the Australian Transport Safety Bureau, 34 truck drivers lost their lives in road crashes involving articulated trucks during 1996. This makes truck driving one of the most dangerous occupations in Australia.

The New South Wales Parliamentary Committee on Road Safety (STAYSAFE, 1989) noted a total annual heavy vehicle crash cost to NSW of \$218 million. Based on the NSW road freight task, this resulted in an average unit accident cost of about 0.5 cents per net tonne km for road freight using heavy trucks.

As noted above, the incidence of trucks involved in road crashes has fallen. The Bureau of Transport Economics (1996) assumed the cost of accidents involving articulated trucks at 0.2 cents per net tonne km. However, with the revaluation of the cost of road crashes outlined above, this figure must now be regarded as conservative. In view of the recent BTE revision of the cost of all road crashes, and based on recent NSW road crash data, the earlier estimate of 0.5 cents per net tonne km road crash risk for road freight is now considered more appropriate.

New Zealand has also had to deal with excessive numbers of fatal truck crashes. An inquiry by the New Zealand House of Representatives Transport Committee (1996) noted that whilst fatal road crashes had been declining significantly, the number of deaths from truck crashes had been steadily growing to 1995. In that year, there were no fewer than 118 fatalities from crashes involving trucks. The inquiry report (page 9) further found that 30 per cent of the trucks on the road were taking "unacceptable safety-related risks" including: drivers who have a high risk of being fatigued; steering faults; worn tyres; insecure loads; and overweight or over-dimension loads. The Committee concluded that *"Until truck drivers and management start respecting and obeying the law, no attempts to reduce truck crashes will succeed. At present, law breakers are being given an economic advantage*

which will not disappear until a commitment to safety has a greater economic benefit. This severely handicaps the majority of responsible operators who operate within the law."

Four years later in 2000, there was still cause for concern in New Zealand. An editorial "Scary Statistics" of the magazine *Rails* for July 2000 noted that in May 2000, evidence was tendered by expert witnesses to a Court hearing a charge resulting from a logging truck crash where four people were killed. This evidence included "...that nearly 30 per cent of trucks had been found to exceed 100 km/h during speed surveys", no fewer than 60 logging trucks had overturned in 1997 out of a national fleet of 650, with excessive speed being the primary cause of the fatal crash being examined by the Court.

As summarised by this editorial : *"It's clear that there is an element in road transport which persists in flouting the law - and rising fuel prices will put more pressure on marginal operations leading to more dodgy practices."*

Concluding remarks

The broad principles outlined in this Chapter (Eight) are not meant to be exhaustive. Undoubtedly there will be new technologies like "intelligent transport systems" which will have a role to play in the future, but their evolution should not be used as an excuse by the Federal Government for further delays in getting 'back on track'. Thus, there is a need to introduce now, rather than in the next term of office, road vehicle use demand measures, and more even-handed investment between roads, rail track and urban public transport systems.

In 1990, the Federal Government produced a ten-point road safety program, with the eventual cooperation of the States and Territories. In return for additional Federal Funding (\$100 million) for 'black spot' works, the ten-point program produced good results during the 1990s. The following is an example of a ten-point plan that would be consistent with the broad principles listed above. We would further suggest that all Federal funding for transport be conditional on the State and Territories adopting such a plan. A similar plan could be developed for New Zealand. This would include improved road pricing, and development of an adequate urban rail system for Auckland.

BOX 8.1 A TEN POINT PLAN FOR AUSTRALIAN LAND TRANSPORT

1. Road safety measures such as those in the National Road Safety Strategy 2001-2010 for Australia need to be implemented, with stronger provisions to further reduce the loss of life and injury on the roads. Shifting passengers to all other non-car modes whilst reducing the need to travel along with shifting freight to rail should be seen as part of road safety.
2. Vehicle technology needs to be regulated to world best practice for new vehicles, with high standards for maintenance of the existing fleet through vehicle inspections. Standards need to include reducing transport greenhouse gas emissions by 2010 to their 1990 levels.
3. All 'road funds' should be replaced by 'transport funds' and Australia should instigate a more democratic funding-allocation process like the New Zealand and United States

process of Regional Transport Plans involving all local stakeholders linked to broad national goals.

4. All cities need to levy a CBD parking fee with proceeds used to improve urban public transport facilities.
5. All States need to ensure that their capital cities use congestion tolling on at least one major urban arterial road, and part of the National Highway System linking the city to an outlying urban area as part of a process of educating motorists of the real costs of transport.
6. All States, Territories and the Commonwealth need to increase the aggregate level of road cost recovery from heavy vehicles to at least 25 per cent of road system costs, with development of the New Zealand style mass distance charges in the populous zone of Australia.
7. The problems of continuing oil vulnerability and the full costs of transport fuel use need to be explained to the Australian and New Zealand public. Fuel excise needs to be progressively increased so as to recover all external costs of road vehicle usage and to allow for a reduction of annual charges for small energy efficient cars along with improvement of urban public transport and rail freight.
8. Agreed world best practice standards need to be set for delivery and coordination of urban public transport in major urban areas including high service delivery, the integration of land use, the development of public-private joint projects and fully integrated ticketing.
9. Federal taxation benefits need to be reduced for motor vehicle ownership and use, and improved for urban public transport use.
10. Formation of a National Bureau of Transportation Statistics needs to occur with the publication of accurate, comprehensive and up to date information on all modes of transport including energy use and greenhouse gas emissions.

END OF BOX

As observed by the Industry Commission in its 1994 report on Urban Transport, the important steps are to actually start the reform process, and then to keep it moving. The process can be assisted by open Government inquiries such as an inquiry into road provision, funding and pricing as proposed by the Productivity Commission in 1999. However, an inquiries should not be used as an excuse by the Federal Government to further delay the allocation of adequate levels of investment in rail and public transport, and making an early start on road pricing reform.

The main need for both Australia and New Zealand is to develop land transport systems with less reliance on cars and trucks. Many reasons, including reductions of hidden road deficits, have been given in this book as to why such a 'culture change' is desirable. The prospect of higher world oil prices is yet another reason why such change must occur sooner better than later.

APPENDIX B ROAD ACCIDENT COSTS

Excerpt from EXTERNAL COSTS IN ROAD AND RAIL FREIGHT

National Rail Infrastructure Summit LLDCN Conference Proceedings 20 June 2002

In this section, we use data supplied by the Australian Transport Safety Bureau (ATSB) for 1996. Table 4 gives ABS estimates for freight tasks, the numbers of fatal injuries and serious injuries (requiring hospitalisation) from both sources, with estimates of total costs using BTE (2000) 1996 estimates of \$1.5 million for each fatal injury, \$325,000 for each serious injury, and \$12,000 as the average cost of other injuries. In addition, estimates of numbers of other injuries are given for NSW from the NSW Roads and Traffic Authority. It is of note that the ATSB does not supply numbers of other injuries due to questions of their definition, and State based differences; also, the inclusion of the cost of other injuries adds 0.03 cents per net tkm for NSW. It is also of note that the ATSB numbers of serious injuries in road crashes involving articulated trucks differs from NSW numbers.

In regards to estimates of freight tasks the 1995 ABS estimates were published as preliminary estimates, with later qualifications, and as per Table 2.1, ABS gave a lower estimate for 1997-98 than for 12 months ending 30 September 1995. Use of a lower freight task would result in a higher unit road crash risk cost for articulated trucks.

Based on the above data, it is reasonable to conclude that the average unit cost for road crashes involving articulated trucks for 1996 is about 0.55 cents per net tkm in Australia. It would be preferable to gain a unit average cost over five years, but such an average is not expected to be below **0.5 cents per net tonne km.**

Table 4 Summary of road crash data for articulated trucks

		1996 road crash involvement				Freight Task unit cost	
		FI	SI	OI	Cost \$M	btkm	cents/ntkm
NSW (RTA)	1996	56	208	439	156.9	27.7	0.57
NSW	56	202	-	149.6	27.7	0.54	
VIC		39	187	-	119.3	18.9	0.63
QLD		42	147	-	110.8	16.1	0.69
SA		23	42	-	48.2	9.2	0.52
WA		26	68	-	61.1	12.3	0.50
TAS		4	8	-	8.6	2.1	0.41
AUSTRALIA	193	663	-	505.0	89.4	0.56	

FI = fatal injuries SI = serious injuries OI = other injuries

AUSTRALIA includes territories.

References: Each State and Australia from the ATSB for 1996 unless otherwise indicated.

NSW (RTA) = NSW Roads and Traffic Authority

For all road freight tasks, the 1996 estimates are from the ABS Survey of Motor Vehicle Usage for twelve months ending 30 September 1995.

Data provided by the NSW Roads and Traffic Authority for the twelve years from 1988 to 1999, which shows for the National Highway System and the Pacific Highway within NSW, about 36 per cent of the lives that were lost on road crashes were in crashes involving articulated trucks. It would be of interest to gain such data for the National Highway System throughout Australia.

APPENDIX C THE COST OF RAIL CRASHES

Excerpts from External costs and evaluation of major track upgrading projects

AusRail Plus, November 2003 P Laird, M Michell, and G Adorni-Braccesi

The cost of rail accidents was estimated by the BTRE (2003, Report No. 108) to be, under one set of assumptions, about \$133 million in 1999. These assumptions included costing all accidents including death, serious injury and other injury (respectively assigned \$1.9 million, \$27 000 and \$2,000) involving all trains but excluding suicides and accidents at level crossings involving road vehicles. Most fatal rail accidents involved persons on or near rail track as opposed to train collisions or derailments.

Data relating to injuries for rail freight operations as provided by Queensland Transport for the five calendar years from 1996 to 2000 shows that there were a total of 18 fatal injuries, 28 serious injuries and 59 other injuries from accidents involving freight trains. Using BTE (2000) costs for road crashes, as cited above, the accident cost over 5 years for Queensland freight trains was \$36.8 million. Queensland Rail's published freight task over

the five financial years to 30 June 2000 amounts to 150.9 billion tkm. This gives an average unit cost of 0.024 cents per net tonne km.

Further analysis shows that over the five years to 2000, freight trains were involved in 24 per cent of all Queensland rail fatalities, 47 per cent of all serious injuries and 54 per cent of other injuries. Using BTE unit road crash costs, freight trains accounted for 27 per cent of the cost of all rail accidents.

A list of no fewer than 12 NSW rail accidents between August 1998 and August 2002 is given by Bisits (2002). This includes the Glenbrook accident on 2 December 1999 but excludes the Waterfall derailment on 31 January 2003. Both train accidents involved loss of life, serious injury, a Royal Commission, further reorganisation of NSW Government rail structures, and called rail safety into question. [However, it may be noted that in Queensland, *"There has not been a passenger death, as a result of train operations, for a decade."* (speech by Bob Scheuber, QR CEO, LLDCN Conference, 30 Oct 2003)].

Based on the above BTE (2003) report with higher rail accident costs, and above comment, it is suggested that for the present, the earlier [ARTC Track Audit] estimate of 0.03 cents per tonne-km for rail freight in Australia be maintained.

The average cost per passenger kilometre for train travel is a good question.