Land Transport Policy Development: A Safety Regime for Road Controlling Authorities

This paper is provided for discussion purposes only. It does not represent Government policy.

Issue

The causes of road crashes can be grouped into three broad categories: **user factors or human factors, vehicle factors** and **road factors.**

Over recent years, a number of initiatives have been taken to address user factors and vehicle factors. It is now timely to consider what mechanisms could be put in place to address road factors, which this year are the third largest cause of fatalities after speed and alcohol.

In 1996, the Ministry of Transport issued the discussion document *Road Management: Options for Reform.* This document set out for public comment a range of options for enhancing road safety outcomes through improved road and traffic engineering. Submissions were received from most local authorities. There was widespread agreement that the status quo was unacceptable and that some form of safety regulation was needed. The majority of submissions favoured a regulatory regime based on a safety management system.

Safety Management System

A safety management system is a form of quality assurance based on periodic internal audits and clear individual accountability for safety outcomes.

In the transport sector, civil aviation, maritime and rail operators are required to adopt and comply with safety management systems. A safety management system documents all standards, practices and procedures to promote and maintain safety, and the responsibilities of staff for implementing these standards, practices and procedures. The detail of a safety management system is negotiated between the operator and the industry regulator, so that the safety management system is appropriate to the circumstances of the operator.

Regular internal audits monitor compliance with the safety management system.

A major benefit of the safety management system model is that it promotes a new sense of personal accountability and "ownership" of the end product. It achieves this by identifying those persons responsible for key steps in a process, and encouraging

them to recognise and address safety problems themselves (rather than rely on Government inspections to find them).

A safety management system is designed to be dynamic and, through the audit process, produce continual quality improvements.

A roading safety management system would incorporate many existing manuals and guidelines relating to the provision of safe roads and good traffic management. In other words, this approach would build on and formalise many existing practices.

Special Characteristics of Roading

There are crucial areas of difference between roading and other network organisations such as railways and airlines:

- **Road controlling authorities cannot control users of their networks:** they are not responsible for driver training, testing and licensing; and they cannot exclude unsafe drivers, or vehicles, from their networks.

- **Roads are a public place:** road users comprise practically the entire population - from heavy and light vehicle operators to motorcyclists, pedestrians and cyclists of all ages.

- **Road controlling authorities' control of the road is constrained by** the utilities' special rights of access to the road.

Therefore the safety regime for roading must be carefully designed to ensure that road controlling authorities are held accountable only for matters that are within their control.

Content of Safety Management System

A roading safety management system would cover the planning, design and construction of new works and the operation and maintenance of the existing network. In other words, for the reasons set out above, the primary focus of the safety management system would be **road factors.** This would not mean that road controlling authorities could walk away from their responsibility to work with others to reduce the total number of crashes on their networks.

Specifically, it is proposed that a roading safety management system would:

- Set out applicable traffic management and road engineering standards, guidelines, manuals. codes of practice. and the expertise and procedures for providing a safe road network.

- Provide for regular internal audits by approved persons to ensure compliance with the safety management system.

- Set out the management structure responsible for implementing and maintaining the safety management system.

- Include a methodology for identifying safety problems and recommending solutions.

Role of Land Transport Safety Authority

It is proposed that the Land Transport Safety Authority (LTSA) be responsible for overseeing the roading safety regime, as it is the Crown entity formally responsible for promoting safety in land transport. It already administers the safety system regime for rail service operators.

The principle of the safety management system model is that organisations should manage their own safety risk. The more a road controlling authority is allowed to manage its own risks, the more likely it is to take ownership of its safety problems and develop a culture of accountability.

Accordingly, the LTSA would not have an interventionist role. Generally speaking, it would become involved only if the regular internal audit reports showed that persistent problems were not being dealt with. In such cases, its first response would be to offer advice and assistance to resolve these problems.

Safety at Reasonable Cost

In all its activities, the LTSA would have to comply with the principle of safety at reasonable cost.

This means that the LTSA must be able to show that, when intervening or imposing any requirement, the expected benefits are clearly greater than the cost (both direct and indirect). For example, whilst it would ideally be desirable to reduce the number of road crashes to nil it is not possible to do this at a reasonable cost.

Land Transport Rule

While the detail of each road controlling authority's safety management system would be negotiated between the LTSA and the road controlling authority, the general framework would be specified in a Land Transport Rule. Land Transport Rules are tertiary legislation prepared by the LTSA in consultation with the industry and the general public. The consultation process would provide transport stakeholders and other community groups the opportunity to participate in the development of the safety regime.

Issue for discussion

Are there any issues arising from the safety management system approach?

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Land Transport Policy Development: Environmental Management of Land Transport

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Issues

The key issues for the environmental management of land transport in New Zealand are:

- A lack of information and data about some of the actual effects that land transport has on the environment.

- The need to incorporate environmental issues into decision making on land transport infrastructure and activities.

- Deficiencies in the current regulatory framework for managing the environmental effects of land transport.

Progress to date

Local air quality

The Ministry has already developed a comprehensive Vehicle Fleet Emissions Model (VFEM), which is unique. This has enabled the development of the *Vehicle Fleet Emission Control Strategy* (VFECS), which the Ministry is currently in the process of implementing. The objective of the VFECS was to develop a rational and measured approach for managing the impacts of vehicle emissions on local air quality based on New Zealand's specific conditions. The VFECS includes the following measures:

- The development of an emissions standards rule to ensure that vehicles entering the New Zealand fleet comply with the applicable emissions standards in our major source markets, i.e. Australia, America, Japan and Europe, at the time of their manufacture. A draft rule will be presented to the Minister for his consideration by the end of the 2000 calendar year.

- An amendment to Regulation 28 of the Traffic Regulations 1976 to provide the Police with a simpler test to identify and prosecute more effectively the owners of vehicles that produce excessive smoke. This amendment will be presented to Cabinet for consideration by September 2000.

- Ministry officials will report back to Cabinet later this year on what further complementary measures could be adopted to address smoky vehicles.

- The development and promotion of Environmental Capacity Analysis (ECA) tools that will enable road controlling authorities to assess the impact of different types of traffic management techniques on emissions from their roading networks. An ECA report and CD-ROM containing the ECA modelling software will be released in August of this year.

- A review of the automotive fuel specifications to be led by the Ministry of Economic Development in the 2000/2001 financial year.

- A review of the national Ambient Air Quality Standards, led by the Ministry for the Environment (MfE), to provide a consistent and measurable basis for managing local air quality in New Zealand. MfE will report back to Cabinet on this review later this year.

Noise and water quality impacts

- The Ministry has also commenced further projects on the noise impacts of land transport systems and the impacts of land transport of water ecosystems. These projects, like the VFECS, involve the development of quantitative models to provide a rational and measured basis for developing policy responses to address any identified environmental effects. As with the VFECS, these projects will aim to provide management authorities with the "tools" necessary to factor environmental impacts into their decisions on land transport infrastructure and activities. The development of these quantitative models will proceed during the 2000/200 1 financial year.

Climate change

- As part of the Government's current climate change policy process, the Ministry is also currently employing the Vehicle Fleet Fuel Model (a derivative of the VFEM) to assess the relative effectiveness of different policy options for the abatement of greenhouse gas emissions from the land transport sector

Further issues and proposed solutions

- The Resource Management Act (RMA) is presently unclear about whether road controlling authorities (Transit New Zealand and District Councils) actually "discharge" emissions from their roading networks. As a consequence, resource consents and District Plans issued and prepared under the RMA often fail to adequately address all the environmental effects of land transport systems.

- Section 15 of the RMA could be amended to make road controlling authorities accountable for the cumulative environmental effects associated with the use of their roading network. This proposed amendment would ensure that road controlling authorities are subjected to the same levels of control for discharges to air by regional councils as other resource users such as industry.

- Despite the Ministry's current projects on emissions (the VFECS), water quality and noise, there are still gaps in the information base available on the environmental impacts of land transport. For example, little is known about the actual impacts of transport systems on urban amenity and its contribution to community severance.

- Once the VFECS, water and noise impact work is further advanced, the Ministry will scope out the other environmental impacts of land transport that need to be addressed. This will include the possible impacts of land transport systems on urban amenity values and urban continuity.

Issues for discussion

Is the suggested amendment to section 15 of the RMA still broadly acceptable?

If so, what are the preconditions?

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Land Transport Policy Development: Public Transport Funding and Management Consultation Framework

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Objectives

1.   The Government's objectives for public transport are:

-       To help people without personal transport to improve their access to social and economic opportunities

-       To contribute to the improvement of the environment in our major urban areas

-       To contribute to the reduction of traffic congestion in major urban areas by enhancing the availability of appropriate alternative transport services

-       To contribute to the safety of personal travel in our major urban areas.

2.   In achieving these objectives the Government wants to:

-       Integrate funding of passenger transport services and infrastructure

-       Maintain an integrated approach to corridor management

-       Maintain accountability for expenditure of public funds

-       Focus on moving people rather than vehicles.

Key issues

3.   To achieve the above goals, the Government sees a number of areas for action building on the existing passenger transport system:

-       The implementation in October 2000 of the patronage funding system already approved by the Government and any consequential changes

-       Development of the process by which passenger transport funding is allocated from the National Roads Fund and the long term level of that funding

- Development of funding systems and accountabilities for social services (including the Total Mobility system)

- Development of an integrated ticketing system

- Integrated management of passenger transport infrastructure

Implementation of patronage funding

4.   The Government has recently approved the introduction of patronage funding of Regional Councils for public transport services, and is concerned to see that this takes place on time in October 2000. It is accepted that the system will then need ongoing development as information sources improve.

5.   A possible consequential issue may arise in the licensing system, which deals with services on a route by route basis rather than area by area (Transport Service Licensing Act 1989). An area-based approach to contracts may be more consistent with patronage funding, but could raise a number of fundamental competition issues. Transfund consider that area-based contracts could be introduced through changes to the CPP process, but this needs to be further examined in view of the competition implications and the likely response of operators.

6.   There may also need to be an examination of any barriers in the current system to funding all operators on a "per passenger carried" basis.

Funding from the National Roads Fund

7.   Currently all outputs in the National Road Programme are ranked against a common efficiency test. However, comparing Total Mobility funding with motorway development, for example, has proved virtually impossible, and the practice has tended to become the setting of different funding thresholds for outputs covering public transport services, road maintenance, road construction and alternatives to roads. Cost effectiveness requirements then apply *within* each of these outputs.

8.   The Government believes that the funding system may need to formally recognise the need for different efficiency tests for some of the outputs within the total National Road Programme. Patronage funding has already introduced this approach for passenger transport. Previous funding limits have been removed, and Regional Councils will be funded in relation to the levels of passenger carryings they actually achieve. This income is additional to that from rates, other local sources (such as Infrastructure Auckland). and the potential for income from various forms of congestion pricing.

9.   Specific dedication of outputs from the NRF could also similarly apply to possible new funding outputs for modes such as walking and cycling. Expenditure on these modes is currently "hidden" within general road outputs.

Social services

10.   A proportion of current public transport funding is directed at social services for the transport disadvantaged, including the funding of beneficiaries, school children and Total Mobility services for those with significant physical and intellectual disabilities.

11.   Services such as these are under severe financial pressure as demand increases, particularly as a consequence of demographic changes and relocation of health services. A number of regional councils have previously favoured full government funding of social services and management by a national agency. Social welfare agencies have preferred the funding liabilities associated with providing transport assistance for the transport disadvantaged to remain with the NRF and the regions.

12.   The Government believes that there is a significant opportunity to review the provision of funding for social services and to put these services on a long term basis to provide transport that maximises the accessibility of a wide range of community groups both in urban and rural areas. The Government sees this approach as a potentially key element of its *Closing the Gaps* programme.

13.   Travel assistance of this sort could be delivered directly to users, possibly through some form of travel card, which could be used for specialised door-to-door services by taxis and shuttle vans as well as more traditional scheduled bus, train and ferry services.

Integrated ticketing

14.   The Government believes that ticketing technology has now reached the point at which a single integrated passenger transport ticketing system could be developed throughout New Zealand. This system would not merely improve the management of urban transport services, but would also provide a platform for the social services approach outlined in the previous section.

Integrated management of management and funding

15.   Management of appropriate infrastructure for public passenger transport is also an issue that needs attention, so as to ensure that the management of passenger transport interchanges and appropriate corridor assets is handled in an integrated way to maximise user benefits. An important element of this approach will be to ensure that passenger transport facilities are properly integrated into land transport management structures.

Issues for discussion

•   The implementation in October 2000 of the patronage funding system

- Development of the process by which passenger transport funding is allocated from the National Roads Fund and the long term level of that funding

- Development of funding systems and accountabilities for social services (including the Total Mobility system)

- Development of an integrated ticketing system

- Integrated management of passenger transport infrastructure

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Land Transport Policy Development: New Zealand Transport Strategy

This paper is provided for discussion purposes only. It does not represent Government policy.

Issue

The Government intends to develop a New Zealand Transport Strategy (NZTS) setting out its strategic objectives and policies for the transport sector overall. We are in the process of developing a range of NZTS form and scope options for consideration by the Government. This paper summarises our thinking to date on this question.

Key Issues

Sustainable Transport

Developing a transport policy framework that integrates environmental, economic and social goals is one of the major challenges in developing the NZTS. Transport policy development over recent years has addressed various aspects of sustainability through improving the economic, environmental and safety performance of the sector. The challenge now is to bring the three strands alongside each other in transport policy decision-making.

At this stage, the framework could involve the development of a strategy that:

- Sets out an overall direction through guiding principles and objectives

- Outlines key actions to implement the strategy, including the assignment of responsibilities

- Shows how success would be measured through performance indicators.

The suite of principles, objectives, implementation mechanisms and indicators would provide the framework against which trade-offs between competing objectives would be made.

Relationship to the Resource Management Act

Some stakeholders have expressed concern about the quality of regulatory performance with respect to management of land transport environmental effects. A key issue may be the nature of central government direction in this area. and the mechanism to provide that direction. The answer to these questions may have implications for transport policy and may in part determine the scope of the NZTS.

Relationship to the existing land transport strategies framework & key policy initiatives

The land transport strategies framework, including the national land transport strategy, and regional land transport strategies, will need to be reviewed against the wider scope of the NZTS. The role of the land transport strategies will also be reviewed as part of the land transport policy process.

The review of land transport policy and policies to meet the Government's Climate Change obligations are likely to have some influence on the shape and content of the NZTS.

Form and Scope Options

For the NZTS to have any value it must be built into policies and decisions. The following options are under consideration at this stage:

Legislative

(a)   The core principles of the NZTS would be set out in either:

    (i)   A new piece of legislation; or

    (ii)   Legislation empowering the development of the core principles with the process for their development set out in the legislation

    Once the core principles are enacted or developed, the Governor General would then have the power to issue from time to time, an implementation document setting out how the Government intends to implement the principles. Those parts of the NZTS that fall within the scope of the RMA would be deemed a national policy statement in terms of the RMA.

Administrative

(b)   Develop the NZTS without statutory underpinning. The NZTS would be a statement of Government policy but would in effect be the result of a collaborative process between central and local government, the transport industry and user groups, and other key stakeholders.

    Implementation of the NZTS would draw on the full suite of government mechanisms, including regulation, subsidies and education, as well as community/private sector commitments.

Comment

The advantage of statutory underpinning is that parties will know the regulatory purpose and scope of the NZTS in advance and how the strategy may affect them. The main disadvantage is that a statutory process can be too rigid and inflexible. and open to interpretation by the Courts. In these days of rapid technological and social change. it is difficult, if not

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impossible, to develop a long-term strategy that will remain of value for any great length of time.

A non-statutory approach tends to be more co-operative with parties coming together according to the incentives they face, with the challenge being to craft a strategy that provides value and is responsive to change.

Outline proposals for the form of the NZTS will be put to the Government by November 2000. This will include a process design and timetable for the development and implementation of the NZTS.

Issues for discussion

What is the best approach to form and scope?

What should the focus of an NZTS be?

What should be the relationship between the NZTS and the Resource Management Act?

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Land Transport Policy Development: Road Safety Strategy to 2010

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The Minister of Transport has approved the development of a draft road safety strategy for public consultation later this year, which will guide road safety policy to the year 2010. The National Road Safety Committee is currently developing a consultation plan and compiling the material that will form the basis for the consultation process.

The new strategy will replace the 1995 National Road Safety Plan and 2001 road safety targets, which will expire at the end of December 2001. A detailed work programme that will commit the road safety partners to undertaking certain activities that contribute to safety outcomes will support the strategy.

The draft strategy incorporates a number of models, which will enable Ministers and the public to see the types of interventions that can be employed to achieve a given level of safety, and the resultant costs of the different mixes of interventions.

The approach provides a much greater level of transparency than previous road safety strategies and safety target development processes.

A number of government agencies have already been briefed on the key concepts underpinning the draft road safety strategy. The Ministry of Transport anticipates seeking Cabinet approval to release the draft road safety strategy for consultation in August.

Public consultation is likely to take place for at least two months, beginning provisionally in mid-October.

ATTACHMENT TWO

10 August 2000

**Summary of Central Government Proposals relating to: Safety;
Environment; Public Transport and the "New Zealand Transport
Strategy" and initial response of Local *Government New Zealand* to
those proposals**

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1. A Safety Regime for Road Controlling Authorities

Minis try of Transport Proposals

- develop and apply a safety management system as a form of quality assurance, based on periodic internal audits and clear individual accountability for safety outcomes. Design this system to:

    - incorporate many existing manuals and build on existing practices
    - cover the planning, design and construction of new roads and the operation and maintenance of the existing network
    - set out the management structure responsible for implementing and maintaining the safety management system
    - include a methodology for identifying safety problems and recommending solutions

- make the Land Transport Safety Authority responsible for overseeing the roading safety regime and require them to comply with the principle of "safety at reasonable cost"

- establish the detail of each road controlling authorities safety management system through negotiation between the Land Transport Safety Authority and the road controlling authority within the general framework specified in a Land Transport Rule. (These rules would be prepared by the Land Transport Safety Authority in consultation with industry and the public).

Our Initial Response

- agree that a more comprehensive safety regime should be applied by road controlling authorities

- make the Land Transport Safety Authority more accountable to road controlling authorities than it is at present

- recognise that adoption of the regime implies that roads would need to be reclassified to reflect use and their purpose

- note that consideration of a road safety management system is not possible in isolation from consideration of the relative importance of vehicle factors and user / human factors. Note that the safety regime for roads must be considered subsequent to the proposed "Road Safety Strategy to 20 10"

- recognise that the safety regime for road controlling authorities must also consider and embrace the safety needs and effect on safety of other parties e.g. utility companys' use of the corridor; amenity issues and roadside planting; and the commitment of Tranz Rail to the resolution of railway crossing issues etc

2. Road Safety Strategy to 2010

Ministry of Transport Proposal

- develop a draft road safety strategy for public consultation later this year and use this to guide road safety policy to the year 20 10. (NB: this will replace the 1995 National Road Safety Plan).

Our Initial Response

- support the intention to prepare a road safety strategy to 2010

- ensure the document encompasses: pedestrian safety; community severage; and the needs of cyclist's and pedestrians alongside road user behaviour, vehicle standards and road construction and maintenance standards.

- use the document to: set vision; objective; achievable targets and the actions through which these may be achieved and monitored

other.. .?

3. Environmental Management of Land Transport

Ministry of Transport Proposals

- develop an emission standard and adopt measures to ensure that vehicles entering the new fleet comply with that standard

- amend traffic regulations to allow Police to identify and prosecute the owners of vehicles that produce excessive smoke

- further develop tools to enable road controlling authorities to better assess the relationship between traffic management techniques and emissions

- review fuel specifications

- review national ambient air quality guidelines

- develop models to further assess the noise and water eco-system impacts of land transport systems

- assess different policy options for abating the contribution of the land transport sector to climate change

- possibly amend the Resource Management Act to allow road controlling authorities to take into account the cumulative environmental effects associated with the use of the roading network e.g. vehicle discharges to air in confined spaces

- assess the impacts of transport systems on urban amenity and community severance.

Our Initial Response

- note that the suggested policy solutions only partly address the impact of land transport infrastructure and activities on the environment

- support policies to control emissions from new vehicles and identify and prosecute the owners of vehicles that produce excessive smoke

- note that all other mechanisms appear to be at a very early "proposal and investigation" stage

- support proposals that will have road users more clearly meet the true cost of their road use, including the effect of discharges to air, land and water but note that the details about how/where the funds accruing from application of a "true

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cost" approach may be used to manage the effects of transport are not well developed

- note that the key environmental effects of road transport relate to community cohesion and urban form. Support that this implies that governance arrangements will need to be established that retain opportunities for community participation in transport decisions. Note that environment cannot be dealt with in isolation from a consideration of institutional, funding and functional arrangements

- draw attention to other environmental issues that need to be addressed including: the influence of the provision of public passenger transport on the achievement of environmental outcomes; the impact, if any, of local government being both a road service provider and an environmental regulator; the potential contribution of congestion charging and tolling as a mechanism to reduce environmental effects; the importance of the "designation" powers granted to road controlling authorities; the importance of cycle ways, walkways, traffic calming and amenity provisions; the need for and effect of planning instruments such as regional land transport strategies on environmental management and the need for mechanisms through which all utility networks operating within the roading corridor may be coordinated in order to reduce impacts and disruptions

- other.. .?

4. Public Transport Funding and Management

Ministry of Transport Proposals

- confirm and operationalise patronage funding systems

- further develop:

    - the process by which passenger transport funding is allocated from the National Roads Fund
    - the long term level of that funding
    - the mechanisms for funding social services and associated accountabilities
    - an integrated ticketing system
    - the integrated management of passenger transport infrastructure

Our Initial Response

- support patronage based funding, as announced in the Budget

- support the setting of a different funding threshold i.e. a lower benefit cost ratio for public transport outputs. in comparison to those for road maintenance and road construction

- support better specification of outputs that relate to passenger transport, including capital works

- strongly support funding of services to the transport disadvantaged from welfare, education and health votes

- suggest that the development of an integrated ticketing system at central government level is not a high priority, nor is the integrated management of passenger transport infrastructure

- give ongoing attention to the definition of the optimal level of funding of passenger transport services; the use of congestion charges as a funding mechanism for passenger transport services; the resolution of the issues associated with the use of the rail corridor for commuter passenger transport services

- other.. .?

5. New Zealand Transport Strategy

Ministry of Transport Proposals

- develop a New Zealand Transport Strategy that integrates environmental, economic and social goals and defines principals, objectives, key actions and performance measures

- review the role of national and regional land transport strategies against the wider scope of the New Zealand Transport Strategy and other matters, such as the role of the Resource Management Act and Government's climate change obligations

- set out the principles of the New Zealand Transport Strategy either in new legislation or in legislation empowering the development of those principles.

Our Initial Response

- build the New Zealand Transport Strategy on the basis of the good material developed as part of processes leading to the initial National Land Transport Strategy (eventually shelved)

- as a fundamental consideration in developing a strategy, develop a clear understanding of the value of transport to our economy

- endorse the need for the document to integrate transport in all its dimensions (water. rail, air and land)

- adopt processes that provide for community input to the development of the strategy

- not undermine the purpose and principles of current legislation, including the Resource Management Act, when developing the strategy

- develop the strategy on the basis of the core principles outlined in a new Transport Act and develop the details by way of a separate implementation document

- other.. . .?