RIME MINISTER

12 December 1997

In May 1997, the Government appointed a Roading Advisory Group to provide it with robust proposals to ensure a safe, sustainable, fair and efficient road system at reasonable cost.

The Roading Advisory Group was instructed to recommend the essential components of a new road system; to address related development and operational issues and to outline proposals for transition to the new system. In carrying out its task, the Group has built on the work of the Land Transport Pricing Study, considered the submissions to the discussion document *Options for the Future*, and met with a range of interest groups.

The *Final Report* is a comprehensive proposal, and makes a series of detailed recommendations on the way forward for our roads and their management. The overall thrust of these recommendations has been considered by the Government, and the *Final Report* is now released for public comment.

In order to have a road network that meets the needs of a growing economy in the Twenty First Century, the Government believes that the road system will have to be managed within a structure that:

- is responsive to user demands;
- ensures all users face the actual costs of their decisions;
- maximises national efficiency;
- does not distort road user decisions and permits choice; and
- gives the correct incentives to manage and optimise risk.

The Government supports the principle of a more commercial approach to the management and funding of New Zealand's roads.

We will soon have to make the detailed decisions that will give us a road system capable of meeting the rapidly changing needs of our economy and our society. The issues involved in a commercial approach to road management have wide implications, and there will need to be careful consideration of the costs and benefits of a considerable range of issues.

This document will be a key factor in making those decisions. Your submissions will be welcome.

Hon Jenny Shipley
Prime Minister

PARLIAMENT BUILDINGS, WELLINGTON, NEW ZEALAND.

Minister of Research, Science & Technology
Minister of Statistics
Minister of Local Government
Minister of Communications
Minister for Information Technology MP for Pakuranga

11 December 1997

EMBARGOED RELEASE
Thursday 11 December, 3.00pm

Hon Maurice Williamson
Minister of Transport

"THE WAY FORWARD" ROADING ADVISORY GROUP REPORT

The Roading Advisory Group's Final Report to Government entitled *The Way Forward*, was released today by the Minister of Transport, Hon Maurice Williamson.

Mr Williamson said the Government supports the adoption of a commercial model for New Zealand's roading network. But this does not mean that privatisation of our roads is on the agenda.

The Roading Advisory Group chaired by the Hon J McLay has recommended in its report the establishment of 4-6 companies jointly owned by the Crown and territorial local authorities to take over the pricing and management of New Zealand's public roading network.

Mr Williamson said one of the key recommendations contained in the report, is that rates should as soon as possible be replaced as a means of paying for road use. However legislation would be required for the implementation of any new charging systems and for the establishment and operation of the proposed roading companies.

"The Government has become increasingly concerned with the problems confronting the current road funding and management system, and in particular the severe congestion being experienced in Auckland and in parts of Wellington," the Minister said.

"There is concern also at the difficulty that some rural authorities are having in meeting their share of necessary road maintenance and investment in light of increased pressures related to the growth in tourism and forestry.

Parliament Buildings, Wellington, NZ. Telephone: (04) 471 9974 Facsimile: (04) 472 7095

Copies of the report are available from:

Jo Cranshaw, Ministry of Transport	ph 04 498 0649 fx 04 498 0648

Minister and Ministry contacts:

John Bullock, Press Secretary, Minister of Transport	ph 04 471 9974
Sarah Francis Communications Manager, Ministry of Transport	ph 04 498-0621

11 December 1997

Roading Advisory Group Final Report: The Way Forward

Please find enclosed a copy of the Final Report of the Roading Advisory Group called *The Way Forward*. The Roading Advisory Group was set up by the Government in May 1997 to give advice on the future of road funding and management in New Zealand.

The Government has now released the Report, together with a statement by the Prime Minister that it supports the principle of a more commercial approach to the management and funding of New Zealand's roads.

The Ministry of Transport is now seeking comments on the Roading Advisory Group Report. In addition to any general comments that your organisation may wish to make on the report and the proposed model, we would appreciate specific comments on the various recommendations.

Please send your comments to

Roading Advisory Group: Final Report
P O Box 3175
Wellington

Fax: 04-498-0648
Email: roadfund@transport.govt.nz

no later than 5pm, Friday 20 February 1998.

Thank you for your interest.

Stewart Milne
Secretary for Transport

Enc

38-42 Waring Taylor St PO Box 3175
Wellington New Zealand
Tel 64-4-472 1253 Fax 64-4-473 3697

ROAD REFORM

The Way Forward

Roading Advisory Group
Final Report
December 1997

Contents

Roading Advisory Group's task

Our task was:

To provide the Government with robust proposals that will ensure a safe, sustainable, fair and efficient road system at reasonable cost.

We were:

To recommend the essential components of a new road system; to address operational, cost-benefit and viability issues; and to outline proposals for transition to the new system.

The Government required us:

To provide our own substantive advice to the Government; to review the advice given to the Government by officials; and to consult widely.

This report sets out the Roading Advisory Group's considered views on achieving, over time, a fair and efficient road system. It has been prepared by the Group for consideration by the Government and does not purport to be Government policy.

Chairman's foreword

The historian, Arnold Toynbee, wrote: *"A city that outdistances man's walking powers is a trap for man. It threatens to become a prison from which he cannot escape unless he has mechanical means of transport, the thoroughfares for carrying these and the purchasing power for commanding the use of artificial means of communication."*

We have long since outdistanced our walking powers. Command of the means of transport is now essential to social and economic cohesion; and roads are by far the most common transport thoroughfares.

While New Zealand's road system has many excellent features, it is also widely recognised as having major faults. Much of the present system is inefficient and delivers outcomes that are unfair to many users and payers. These problems are widening as the system comes under ever-greater pressure from the increasing demand, congestion and changing traffic patterns that accompany economic growth. This means that the present system is unsustainable and that, if nothing is done, fewer roads will be funded from existing sources of roading revenue.

Outstanding problems are the inefficient use of our road system and unfair allocation of costs for that use. Both of these problems are anchored in the same cause. There is no direct relationship between road providers and road users or between road charges and road use.

Inappropriate management and funding structures result in distorted pricing. This means many people pay far more for roads than is justified, either by their use of the roads or the quality of the service they receive, while others do not pay their share. Imbalances in pricing also encourage people to use cars and trucks when public transport or rail, sea or air freight might be a more efficient option. They undermine New Zealand's economic growth and international competitiveness.

Problems arising from lack of direct charging for road use are manifested in a growing sense of injustice among different road user groups. In Auckland and to a lesser extent Wellington, traffic congestion is a pressing issue. At present, this cannot be addressed adequately for a variety of reasons, resulting in frustration among road users in these cities, who believe more of the funds they contribute to roading should be targeted at alleviating their particular problems.

Similarly, rural road users believe that, proportionally, they contribute a far greater amount to roading revenue through local body rates than people in cities. Generally, while New Zealanders accept that everyone benefits from a comprehensive and cohesive road network, there is some sense of injustice when people feel they do not benefit more directly from their financial contribution.

A transport system that is efficient, neutral and as fair as possible to all road users is fundamental to New Zealand's economic growth. We do not have that now.

Road reform is about addressing the weaknesses and building on the strengths of the existing road system. Reform must be user driven and responsive to the diverse requirements of the New Zealand community in the widest sense.

In May 1997 the Government established the Roading Advisory Group to provide independent, strategic advice on key issues raised by the Land Transport Pricing Study discussion document *Options for the Future*, a landmark in road reform, released by the Ministry of Transport the same month.

The Roading Advisory Group has carefully considered all five options for road reform as outlined in *Options for the Future*, and has widened its view to include further possibilities put forward in more than 500 submissions and 25 presentations made by industry, local government, road user and other interest groups and individuals.

A hui organised by the Group, the Ministry of Transport and Te Puni Kokiri at Parliament in September heightened our awareness of issues of concern to Maori, particularly those arising from the Treaty of Waitangi. It also highlighted the particular problems of Maori and others living in remote rural areas. Such people are often in economically deprived circumstances, and are required to travel considerable distances over inferior roading to access even the most basic services that those living in cities take for granted.

The Group also commissioned research to further assess public opinion on a number of road reform issues. This showed, overwhelmingly, that there is widespread agreement that New Zealand's current road system does not fairly or efficiently meet current or future requirements. There is a clear mandate for change.

The Group's examination of the options for road reform has been assisted by expert advice provided by government officials from five road reform working groups focusing on issues associated with each of the options presented in *Options for the Future*. Government officials are developing a separate report to the Government on the *Options* discussion paper with input from the working groups. The Roading Advisory Group has also provided a strategic overview to their work.

Through consultation and analysis the Group has identified inefficiencies and inequities within the current system, or modifications of it as proposed in Options One, Two and Three, which need to be addressed. We believe a commercially structured roading system, as proposed in Options Four and Five, is the fairest and will best serve the long-term interests of all New Zealanders, but have not accepted either of the Option Four or Five models in their original form.

In this report the Roading Advisory Group presents a proposed framework for managing, funding and pricing New Zealand's road network which seeks to balance efficiency with fairness. We have called this *"The way forward"*. In developing this framework we have focused on the users' perspective. This has been assisted by the broad membership of the Group which represents an excellent cross section of general and specific interests including the rural sector, manufacturing sector, local government and government transport sector.

What we have proposed is a dynamic model with the flexibility to accommodate diverse and changing requirements, with consideration given to important environmental and safety goals and community interests. It will deliver benefits to all New Zealanders.

More than anything, resistance to change tends to come from fear of the unknown. However, New Zealanders have a proud record of innovation; pushing out past boundaries to achieve fairness, efficiency, growth and competitiveness. We have led the world in many areas, including our transport reforms to date. There is no reason why we cannot show the way in road reform. We have an opportunity to develop a road system that will serve the changing needs of this nation well into the next century. We must act now to safeguard New Zealand's future.

J K (Jim) McLay
CHAIRMAN
ROADING ADVISORY GROUP

Executive summary

The need for change

Much of New Zealand's transport system has been reformed successfully so that shipping, railways and aviation now innovatively provide flexible and cost efficient services to support economic growth.

Extensive consultation with a wide range of road user and sector groups on options for road reform has shown that there are still widespread concerns regarding both the fairness and the efficiency of the road system, and that this is adversely affecting New Zealand's economic growth.

There is general acknowledgement that the management of roading has improved steadily over the last two decades. However, there are still major problems with our current road system. These include:

- Lack of a direct relationship between road pricing and road use.

  Charges do not reflect actual road use. This results in an inefficient and unfair allocation of costs and means that consumers' transport choices are based on distorted price signals.

- Lack of a direct relationship between road service providers and road users.

  Road service providers are not responsive to user needs and there is no direct accountability for the way in which road revenue is spent.

- Lack of commercial incentives to invest in roading infrastructure.

  Investment decisions are made on a short-term basis, governed by the amount of road funding available in any one year. This means pressing problems such as congestion are not being addressed.

Further road reform is necessary to address these problems.

The predominant message from the many submissions received on the *Land Transport Pricing Study: Options for the Future* discussion document on road reform was one of opportunity. Opportunity not for revolution, but to progressively improve our national road network to make it capable of dealing with an inevitably uncertain future in a safe and sustainable manner at reasonable cost.

New Zealand now has the opportunity to further develop its road system so that it can serve changing user needs both fairly and efficiently, in response to domestic and international demands.

Benefits of change

In this report the Roading Advisory Group recommends the establishment of a competitive, commercially structured road system which should operate fairly and efficiently and deliver long-term benefits to New Zealand road users, the environment and the economy by ensuring that:

- The road system is responsive to user demands.
- Road users pay the actual cost of their road use.
- Clear price signals encourage consumers to make transport choices based on actual cost.
- The road system delivers the maximum benefit to the New Zealand economy at the minimum cost, to achieve agreed safety, social and environmental goals.
- Road service providers have strong incentives to manage and optimise risk.

The Roading Advisory Group was advised by the Minister of Transport that in making its recommendations it should take two Government policy goals into account. These were:

- The existing national road network, including State Highways and roads managed by territorial local authorities, is to remain in public ownership. This principle will be established in any relevant legislation.
- The principles of the Treaty of Waitangi should be incorporated in any recommendations.

The Group's recommendations for managing, funding and pricing New Zealand's road system support these goals.

Key recommendations

The Group's key recommendations are:

Management structures and behaviour

- All road assets currently managed by Transit New Zealand and territorial local authorities, comprising State Highways and local roads, should be transferred to road companies.
- An Establishment Commission should determine the number of road companies and oversee the establishment process.
- Road companies should be financially viable.
- Road companies should be owned by the Crown and/or local government, who will be prohibited by statute from disposing of their shares in such companies to third parties. Shareholders in road companies should be allowed to trade shares with each other.
- Road companies should be required to be successful businesses, including making profits and paying tax.
- Road companies should have both governance and equity shares.
- Road companies should be established and directors appointed along the lines of local authority trading enterprises in the transport sector.
- All regulation of road companies should be explicit, and not be handled through ownership structures.
- The rights of all classes of road users should be defined in legislation.
- The rights of current utility operators using the road corridor should remain, subject to reasonable allocation of costs to both utility operators and road companies, and the right of road companies to coordinate access.
- To enable better management, road companies, utility operators and local authorities should establish a process for information exchange.

Assets and valuation

- Road companies should own the entire road corridor, from boundary to boundary, including the land and all improvements related to road use.
- If land ownership is not transferred to a road company, then the company should have an unencumbered lease on the land (apart from any issues related to the Treaty of Waitangi), and clear title to all of the roading related improvements.
- Paper (unformed) roads should not be transferred to road companies. A mechanism should be set up to review their future on a case by case basis.
- Any amenities in the road corridor which are not related to the management of roads, should continue to be owned and maintained by local authorities. Utility assets in the road reserve should remain the property of their current owner.
- Optimal Deprival Value (ODV) methodology should be applied to road companies.
- All road companies should be required to earn a return on the existing road network.

Commercial regulation

- Road companies should be regulated by normal commercial law, including the provisions of the Commerce Act, the Fair Trading Act and the Consumer Guarantees Act.
- A comprehensive information disclosure regime should apply to all road companies.
- Road companies should be required to consult appropriate road users before setting or changing prices.
- Where pricing systems technology is to be altered or introduced, road companies should be required to adopt systems that are compatible with systems used by other road companies.
- All road companies should be required not to close any part of the network without appropriate user and landowner consultation.
- All road companies should be required to provide access to roads owned by adjoining road companies, subject to reasonable traffic management provisions.
- These recommendations should apply to current and future owners and operators of private roads who charge the public for the use of their roads.

Community interests

- Road companies should have a Corridor Management Plan that is developed in consultation with the appropriate local authorities, and is subject to a legal test of reasonableness.
- Territorial local authorities may issue a requiring order for work they pay for on a road corridor.
- All road transport planning and operation should be consistent with the National Land Transport Strategy.
- The Regional Land Transport Strategy process should be assessed to determine its long-term value in a commercial road system.

Safety

- Road companies should be responsible for the safe design and management of their roads and traffic flow over those roads.
- Road companies should be subject to financial penalties and, in extreme cases, road closures if their roads are unsafe.
- A safety audit regime should be put in place for all road companies, similar to that now in use for other transport modes.
- The Land Transport Safety Authority should audit and regulate the safety regime.
- To ensure safe traffic management, road companies should purchase traffic safety services from the Police.
- The Land Transport Safety Authority should remain responsible for driver behaviour and vehicle safety, and should purchase related safety services from the Police.
- Where any road safety services can be provided by agencies other than the Police, these services should be contestable.
- These recommendations should apply to all road service providers whose roads are open to the public on a regular basis.

Environmental management

- The Ministry of Transport's work programme to identify and manage the environmental impacts of roading activity should be completed as soon as possible. Once Government decisions have been made these should be implemented by the appropriate agencies without delay.
- Road companies should be subject to the full provisions of the Resource Management Act.
- Road companies should be network requiring authorities.

Pricing and charging

- Every user should pay the actual costs of their use of the road system, where practicable.
- As soon as possible, road companies should take over full responsibility for price setting and direct charging for road use.
- All price changes proposed by road companies should be subject to a statutory process of consultation and information disclosure.
- Pricing should encourage the most efficient maintenance, use of and investment in roads.
- Direct charging should allow for variable charging by vehicle type, weight, distance covered, location and time of day, subject to the cost effectiveness of available technology.
- The present system of Road User Charges should be retained and administered by Transfund New Zealand until it is replaced by direct charging systems.
- Rates should be replaced as a means of paying for road use as soon as possible, but should continue to be used as a means of payment for amenities in the road corridor.

- Road companies should be able to replace the dedicated nationwide petrol tax with a regional petrol levy, subject to a statutory consultation process.
- Road companies would have to consider network issues in setting prices, and could rebalance prices between geographic areas.
- Road companies should be able to introduce a fixed charge for road use, in special circumstances and subject to a statutory consultation process.
- The Annual Vehicle Relicensing fee should be set at a level to fund its collection and only those safety activities which are the responsibility of the Land Transport Safety Authority. Responsibility for the motor vehicle registration system should be transferred to the LTSA.

Interim pricing and charging

- Pending the introduction of the proposals in this report, the Government should alter charges to allow Transfund New Zealand to continue to fund projects down to a target benefit/cost ratio of 4.0 on current assumptions.
- To achieve this goal, the current cost allocation model indicates that:
    - the dedicated petrol tax would have to rise from 9.4c/litre to between 13-16c/litre, with a matching increase for gas fuels.
    - Road User Charges for light diesel vehicles would have to increase by approximately 10-12%.
- If rates were eliminated as a means of funding and the motor vehicle annual licensing fee was dedicated to safety outputs, then the current cost allocation model estimates that, if these changes occurred in 1999/2000:
    - the dedicated petrol tax would have to rise further to between 20-21c/litre, with a matching increase for gas fuels.
    - Road User Charges for light diesel vehicles would have to increase by a total of 45% to 50% over their level in 1997.
    - Road User Charges for heavy vehicles would have to increase by approximately 4-5%.
    - Rates would be reduced by an average of 20% nationwide.

    (Note that the Roading Advisory Group does not recommend that these changes take place until 2001, but these figures provide some guidance as to the scale of charges required.)

Overview

"All we want to see is a good road."

Our public road network, including State Highways and local roads, is the economic backbone of the nation and the vital link between our communities. Commerce relies heavily on road transport, and roading alone represents 1% of New Zealand's GDP. Roads provide access to property and are an integral part of every settlement, whether urban or rural, helping to define their unique identity. Roads bring New Zealanders together.

The Roading Advisory Group recognises road use in the widest sense. In addition to the private cars, commercial vehicles and public transport that use the carriageway itself, a myriad of activities takes place within the road corridor, from boundary to boundary. Utilities such as water, power and telecommunications are delivered through the road corridor. It also provides facilities such as footpaths, bus stops, lighting and signage; and land where stock graze and children play.

Road users represent the many faces of New Zealand: a commuter crossing the Auckland harbour bridge; a tourist exploring the Southern Lakes in a campervan; a truckie carrying freight on State Highway 1; and a cyclist on a city street all have right of access to our roads. That must continue.

Fairness and efficiency

While roads mean different things to different people, all users share the same expectation that roads will meet their needs efficiently and at a fair price.

The present road system does not meet these basic requirements.

There are other major problems. While traffic is growing at an average rate of 3% every year (and up to 8% per year in Auckland), funding for roading development is not keeping up with the pace. There is increasing congestion on some city roads and pressure to address this with short-term solutions. Economic growth in sectors such as forestry is resulting in overuse of roads never intended to carry heavy commercial traffic.

Investment in much needed roading development is constrained by the present "cash up front" road funding system where the majority of roading projects must be paid for fully at the time they are undertaken and there is limited ability to borrow money to pay for future needs. As a result, roading investment is inadequate and this is a potential barrier to New Zealand's economic growth.

To address these problems we need to match benefits closer to costs and have a forward looking roading investment programme.

Road reform is required to achieve the Government's overall goal for transport: *The provision of a safe, sustainable transport system at reasonable cost.*

The Ministry of Transport's Land Transport Pricing Study has shown that road transport is not operated efficiently because the real costs of road transport are neither allocated fairly nor charged directly to road users.

At present, about 50% of the cost of local roads is funded indirectly from rates, irrespective of the level of road use by property owners. The remainder of New Zealand roading, including the State Highways, is funded from the National Roads Fund with income from petrol tax, Road User Charges for commercial vehicles, and Motor Vehicle Registration and Licensing Fees.

Current road users pay the full cost of benefits enjoyed by future road users. Although this inter-generational cross subsidisation has been the case historically, past under-investment in roading means present users face an exponential increase in costs because of the extent of the infrastructural development now required. It is questionable whether today's users alone should carry the full weight of this financial burden.

The Roading Advisory Group believes a fair road system is one where users face the costs they impose on the system.

Using rates to meet part of roading costs clearly disadvantages many New Zealanders. Rates are not linked to the amount or type of road use by any individual. For instance, they do not reflect whether drivers use roads at peak hours or at times of the day when there is less traffic.

The problem can be put in perspective by setting out the question that the Roading Advisory Group posed to itself: *"Is it fair for an elderly couple, who use their car a couple of times a week to visit friends, relatives or the doctor, to contribute the same amount to roading through rates as the family that uses two cars every day to commute and ferry children to school and activities, or the electrician who runs a constant vehicle shuttle to service call-outs?"* We believe the answer to this question (and its almost infinite variations) is *"no"*.

Rail, sea, and air transport already operate in commercial structures that provide a direct relationship between the transport provider and transport user so that costs fall where they are incurred (see **Figure 1**).

A pricing regime for roads that is consistent with other transport modes is required to give the correct price signals to users and to encourage the efficient provision and use of roads, ensuring economic contestability between transport operators and consumers.

Commercial structure

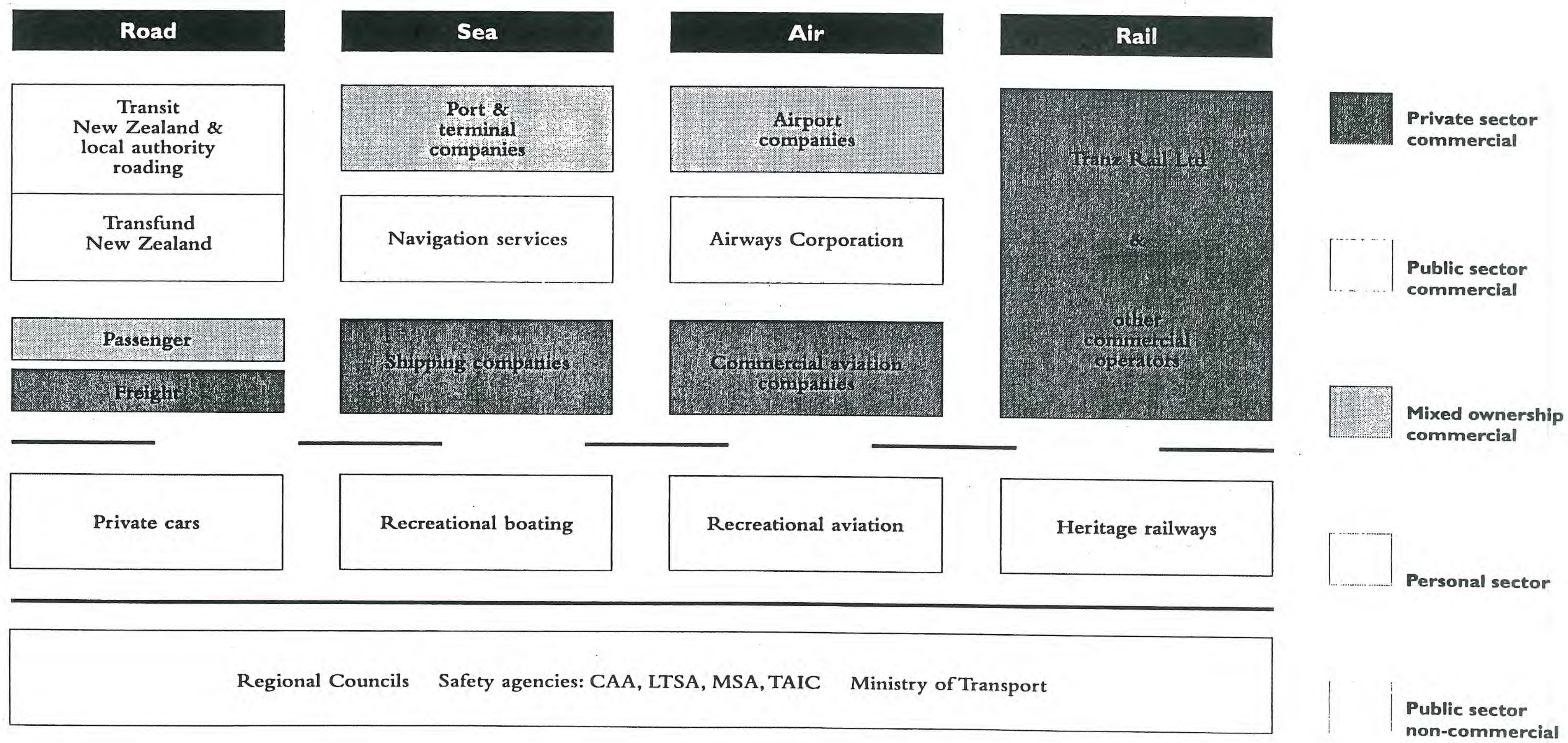
A move to direct user charges, including the removal of rates for road funding, coupled with the introduction of longer-term investment decisions inevitably points to a commercial model. It must be remembered that users presently pay for roads, and do so through a variety of mechanisms such as the petrol excise and road user charges. This funding already generates a "surplus" (conceptually similar to a return on investment) that is invested in new roads. The problem is that this funding is collected on an unfair basis and bears little relationship to the payer's use of roads.

The Roading Advisory Group strongly recommends that New Zealand's road network be managed, funded and priced on a commercial basis. A commercial structure will develop a close relationship between road users and road service providers, giving incentives for efficient use of existing roading assets and efficient investment in new roading assets. Over time, prices will reflect the actual costs of road use, (in economic, environmental and safety terms) and people will be encouraged to make efficient transport choices. This should lead to a balanced level of road use and less congestion and pollution, with a corresponding reduction in costs.

In this report the Roading Advisory Group proposes a commercial model for the structure and operation of our public road network. This will deliver the key benefits of fairness and efficiency to all road users and provide for a competitive transport system to support New Zealand's long-term economic growth. This model is described in the section *"The way forward"*.

In summary, the Group recommends that all roading assets currently managed by Transit New Zealand and local authorities - the State Highways and local roads - be transferred to road companies that should be required to operate as successful businesses. Each road company would assume responsibility for a part of the road network which was viable in both financial and geographic terms.

Figure 1: New Zealand transport sector model



Optimum performance

While the roading network is effectively a monopoly, and the network is to be retained in its present form, commercial principles can still be applied effectively to ensure optimum performance of the road system.

The 91,864 km of roads that make up the public roading infrastructure are New Zealand's single biggest transport asset. It is essential that we are good caretakers of this national asset and that it is managed in a business-like manner to gain the maximum return in terms of performance.

Sometimes, it may make commercial sense for road companies not to charge the full cost of road use in every part of the network. They may choose to rebalance prices among their customer base, particularly in regard to low volume and high cost areas.

Public ownership

It is Government policy that the existing road network be kept in public ownership. Furthermore, privatisation is impractical for a number of reasons. Many roads lack legal title and perfecting such title would be a long and perhaps pointless process. Also, the land underlying roads and the roads themselves could be subject to claims under the Treaty of Waitangi which Maori could legitimately activate if privatisation were contemplated.

The Group's research shows that New Zealanders are prepared to pay for the cost of retaining the road network including those roads with lower traffic volumes. Our survey shows that 64% of New Zealanders agree with the statement: *"It is fair to expect me as a road user to pay towards the cost of providing a nationwide network of roads, some of which I may never use."* However, while people subscribe to the network principle, the amount they would be prepared to pay to retain the network has not been measured.

Retention of the network does not preclude development of new roads or the future closure of roads where the economic and social value and impact of such decisions is measured properly. The Group proposes that road companies be required to consult extensively with road users and interested parties before making such decisions.

There should be provision for entities other than the road companies to own and operate private roads which are open to the public, as happens now.

Road management

A major problem with New Zealand's road system is the inefficient division of road management between 74 territorial local authorities, which manage local roads, and Transit New Zealand, which manages State Highways.

This means roads, even in the same area, are managed by both national and local entities, each following different practices and consultative procedures. Funding is often from a remote source and responsibilities often "blurred". It would be far better if all roads in the same area were administered by the same entity, with maximised local ownership and input; and if funding were focused on local requirements being met from local resources.

The Roading Advisory Group recognises that New Zealand's road network functions as an integral whole and recommends that road companies be responsible for the management of both State Highways and local roads. This will avoid issues relating to inter-connection between local roads and State Highways, and ensure co-ordination of the multiple uses of the road network and consistency between road management, funding and pricing.

In the same way, it makes sense for road companies to manage the whole of the road corridor including carriageway, land and improvements. This allows for the efficient co-ordination of the many services the road corridor provides. However, under the Group's proposals, local authorities will retain the right to choose (and pay for) the amenities that they require, subject only to safety requirements.

We firmly believe that the requirements of the different communities the road network serves can be met in the commercial structure outlined in this report. The Group's proposed commercial framework provides for maximum community input through a number of existing and new processes which this report outlines. In some instances, communities will have more say about roading than they do now (see section *Community Interests*).

Regulation

The Group's proposed changes to the structure and management of New Zealand's road network will not alter its monopolistic tendencies, but they will protect users from the excesses of monopolistic pricing. This protection does not presently exist. We recommend that an appropriate regulatory regime be set out in legislation to ensure that road companies operate fairly and efficiently. The Group recognises that correct incentives must be given to manage the risks and conflicts of interests inherent in any system.

Road companies should operate within financial and regulatory structures that manage financial and other risks in the most efficient way. Further work is required on the existing environmental regulatory framework to ensure roads are managed with the same degree of environmental control as other transport modes. It is proposed that the safety audit regime used for other transport providers be applied to road companies.

Redistribution of costs needs some care. A user-pays approach to roading raises the issue of economically disadvantaged users being unable to meet the full costs of their road use. This was highlighted at a hui on road reform attended by the Group in September. It is also acknowledged that for many people, for instance those in more remote settlements or suburbs, there is no viable alternative to road transport. Specific social impacts need to be considered in the implementation of any reform, and this is no exception.

Pricing

The road system must be structured and operated in an appropriate way to deliver accurate pricing. The Roading Advisory Group recommends a flexible pricing regime which encourages innovation and can accommodate different useage patterns and new pricing technologies as they become available. Pricing mechanisms, such as congestion pricing, can be introduced relatively quickly, subject to compliance with regulatory and consultative requirements, to address increasing traffic congestion in particular areas. New technology will soon allow direct charging by location and time.

In a commercially structured road system, pricing can be used to reduce future demand on our roads. Other benefits of direct user charges include consistency, transparency and accountability. A direct user charges regime will make charges for road use more transparent so that users know what they are paying for and where their money is going.

A progressive process

The Group stresses that road reform is a progressive process, building on the initiatives put in place over the last twenty years. While many of these changes have been innovative and successful and have helped place New Zealand at the forefront of transport reform internationally, injustices remain and must be addressed.

The Group's preferred approach to the introduction of a commercially structured road system with direct charging for road use is a four-staged one. While the process could take up to ten years, some steps could be taken relatively quickly. As a priority, the Group recommends the introduction of an interim pricing regime to deal with the immediate shortfall in roading revenue. Successive key steps would be the introduction of legislation to establish road companies and the removal of rates as a means of road funding. A series of ongoing changes would follow, driven by the road companies themselves and by the availability of new pricing technology at reasonable cost.

The pace of future change will be determined by a number of factors, such as budgetary constraints, the development of new technology, and the need to consult with Maori, local government and road user groups. Policy decisions will be subject to a stringent consultative process.

The road system itself is continually evolving to meet changing user needs. This means no solution can ever be perfect and that change and refinement will continue to occur. The commercial model proposed by the Roading Advisory Group is not the answer to all road problems, but is an important step on the way. What we are seeking is the establishment of a system that will be responsive to diverse user needs now and in the 21st Century and which has a clear focus on fairness and delivering greater economic efficiency. That is *"The way forward"*.

The Roading Advisory Group readily understands that most people are far less interested in structures and much more concerned with outcomes. As one submitter said at the national hui on road reform in September: *"All we want to see is a good road"*. In this report, we have sought to deliver that outcome in the fairest and most efficient manner.

Importance of the road system

The road network

Roads are a key part of the economy. New Zealand has 91,864 kilometres of public roads*. State Highways and motorways total 10,464 km, while there are 81,400 km of local roads, managed by territorial local authorities. Of the total road network 39% are metal or gravel roads. The depreciated replacement cost of the total road network has been estimated at $23 billion.

Expenditure on road construction and maintenance, including both local roads and State Highways, is estimated at nearly $900 million per annum, excluding expenditure by the New Zealand Police and the Land Transport Safety Authority on safety education and enforcement.

Road vehicles

There are 2,540,006 registered vehicles on our roads. In terms of cars alone, there are 2.2 New Zealanders to every car - believed to be the lowest ratio in the world after the United States of America and Australia. At a conservative estimate, the road vehicle fleet is worth at least $25 billion.

The number of vehicles on our roads increased by nearly 7% in the four years to 1996, while the total distance travelled increased by an average of 3% a year throughout the 1990's, with increases in the Auckland area of up to 8% a year.

Commercial road transport

Commercial road transport, including passenger and freight vehicles is a very substantial business. In 1994/1995 road transport earned just over $3 billion, using assets with a book value of $2.1 billion and equity of $819 million.

Efficiency of the road system

The contestable nature of New Zealand's domestic transport industry, with competition between road, rail and coastal shipping in many areas, provides considerable incentive for the whole transport system to be efficient.

With such large private and public investments in roads and road vehicles it is of the utmost importance to our economy that we obtain maximum value for the money invested in the network.

* New Zealand Official Yearbook 1996 figures. Source: Statistics New Zealand

Road reform to 1997

The overall goal of New Zealand's transport policy is to achieve and maintain *"a safe, sustainable transport system at reasonable cost"*. Aviation, maritime and rail transport already operate in fully commercial structures in support of this goal to the benefit of users and operators. A steady programme of road reform over the last 20 years has moved road transport towards a similar business-like structure so that all modes of transport can compete on a fair and efficient basis.

Major steps along this path have been:

- Introduction of Road User Charges in 1977 as a distance/weight charge, to ensure that heavy vehicles pay for the wear and tear they impose on the roads.
- Removal of extensive restrictions on competition between road transport and the former New Zealand Railways Corporation between 1980 and 1986.
- Creation of Transit New Zealand in 1989 to replace the National Roads Board. Transit took over responsibility for management of the State Highways and the Land Transport Fund. Transit New Zealand was required to make funding and other management decisions on the merits of particular cases, without direct political intervention.
- Requirement from its establishment for Transit New Zealand to tender out all road works and maintenance on a competitive basis to ensure efficiency of costs. Similar requirements were introduced for all local authority roading expenditure in 1996.
- The Government created Transfund New Zealand, a new Crown entity in 1995. Transfund took over the funding allocation role, and managed the new dedicated National Roads Fund. Transit New Zealand continued to manage the State Highways.
- Commencement of the Land Transport Pricing Study in 1993 by the Ministry of Transport to determine the real economic, social and environmental costs of road use. Between 1995 and 1996 the findings were released for public discussion in five documents.
- Consultation on these documents led to a further document, *Land Transport Pricing Study: Options for the Future,* being published in 1997. This presented five options for the future management, funding and pricing of New Zealand's road network.

Each of these steps has played its part in improving the performance of road transport and has led to the road system that is in place today.

The current road system

This section outlines the key features of New Zealand's current road system, prior to an evaluation of the major problems with the system and a summary of the Roading Advisory Group's proposed solutions to address these.

Management structures

- Transit New Zealand, a Crown entity, manages the State Highway network. State Highways are fully funded by road users through the National Roads Fund.
- 74 territorial local authorities manage local road networks, which are funded partly by road users through the National Roads Fund and partly by ratepayers.
- Private roads to which the public is granted access are managed by the Department of Conservation, airport companies, skifields, electricity companies and iwi. These roads are generally self-funded.
- Transfund New Zealand, a Crown entity, manages the Government's role in road funding, including administration of the National Roads Fund. Transfund is independent of political decision-making processes.
- All matters relating to vehicle registration are the responsibility of the Ministry of Transport and are delegated to the Land Transport Safety Authority (LTSA), a Crown entity, which incorporates the Transport Registration Centre. Driver licensing is the responsibility of the LTSA. A variety of agents are contracted to carry out much of the actual licensing work. The LTSA also collects Road User Charges under delegation from the Ministry of Transport.
- Road safety activities are undertaken by the Land Transport Safety Authority and the New Zealand Police. These activities are also funded from the National Roads Fund.

The structure of the New Zealand road system is shown in **Figure 2**.

Regulation

The road network and its managers are subject to a number of regulatory regimes.

Since roads are managed by territorial local authorities or by a Crown entity (Transit New Zealand), they are generally subject to statutory and other rules of management applying to those entities.

The State Highways are owned by the Government and shown as Crown assets, not as Transit New Zealand assets. Local roads now appear in local government accounts, following the implementation of the Local Government (No.3) Act.

All prices for road use are subject to approval by central or local government. Central government approves Road User Charges and the level of petrol tax. Local authorities approve the level of rates and are bound by Annual Plan procedures on consultation in this regard.

Transit New Zealand has powers to borrow money, subject to the approval of the Minister of Finance. These powers have not been allowed to be used since the establishment of Transit in 1989. Local authorities have a general power to borrow against rates income.

Transfund New Zealand cannot incur debt and can only commit to expenditure up to the amount contained in the National Roads Fund.

Utilities, such as gas, water, electricity and telecommunications, have access to the road corridor but road service providers cannot manage this access to minimise disruption to traffic flows.

Community input

Local communities can influence Transit New Zealand's decisions through the Resource Management Act, the preparation of the National Roading Programme, and regular consultation.

They have input to decisions about local roads through local authorities' District and Annual Plans, informal consultation, the ballot box and, again, through the Resource Management Act.

In either case, the input of local iwi can vary greatly, depending on the attitudes and policies of those involved. For instance, in the Gisborne region, Transit New Zealand and Te Runanga O Turangonui A Kiwa, a group of three iwi, have signed a Memorandum of Understanding regarding future consultation in respect of State Highways, but such agreements are not universal.

Safety management

While there is an extensive body of law governing vehicle and driver safety, there are few laws regarding the safe design and management of roads. Transit New Zealand has a general requirement to operate safely, but there is no such obligation on local authorities or any other road service provider. Laws administered by the LTSA specify standards for road signs and the management of speed, but there is no road safety regime, in marked contrast to the rules applying to rail, sea and air transport.

Environmental management

The Resource Management Act applies to the road investment decisions of both Transit New Zealand and local authorities, as far as land and water impacts are concerned. There are currently no laws specifically dealing with vehicle emissions. Local authorities, who administer the Resource Management Act, may appoint commissioners to minimise any conflict of interest between their roles as regulator and road provider.

Pricing and charging

Road users pay a number of specific taxes and charges to the Government.

- A dedicated petrol tax of 9.4c / litre, which is used for road construction, maintenance and safety activities.
- A general petrol tax of 20.8c / litre, which goes to general Government revenue.
- Users of all vehicles over 3.5 tonnes and all diesel powered vehicles pay a distance/weight charge (Road User Charges).
- All vehicle owners pay an initial Motor Vehicle Registration fee and an Annual Vehicle Licensing fee. This income is paid into the National Roads Fund and is used for road construction and maintenance, and road safety services.
- Part of the Motor Vehicle Registration and Licensing fees and a further petrol tax of 2c / litre are used to fund the no fault Accident Compensation scheme.

There is also a fuel levy relating to funding of local authorities.

In addition, all property owners pay rates (property taxes). Approximately 20% of the total amount of rates collected nationwide goes into local roads, although this proportion can vary from 10-15% in urban areas to 60-70% in rural areas.

The recent income and expenditure of the road network, including roads managed by Transit New Zealand and territorial local authorities, is set out in the following table:

Current income and expenditure

Summary receipts & payments account (GST exclusive)

for the year ended 30 June ($ million)	1993	1994	1995	1996
RECEIPTS				
Central Government	1,225	1,252	1,325	1,365
Territorial Local Authorities	265	294	297	297
Total receipts	**1,490**	**1,546**	**1,622**	**1,662**
PAYMENTS				
Local roads	234	244	264	257
State Highways	309	338	337	363
Territorial Local Authorities	265	294	297	297
Administration	25	26	27	28
Total Payments	**833**	**902**	**925**	**945**
Balance to Crown Account	657	644	697	717
	1,490	**1,546**	**1,622**	**1,662**

This table covers only road construction and maintenance.

Problems with the present system: the need for change

There is general acknowledgement that the system for managing and funding New Zealand's roads has improved steadily in the last two decades. However, extensive consultation with a wide range of road user and sector groups undertaken over the last two years as part of the road reform process has shown that there are still widespread concerns about the fairness and the efficiency of the road system. There are also concerns as to how this is affecting New Zealand's economic growth.

Lack of fairness

While some elements of the present system of charging for roads - such as the weight/distance Road User Charges (RUC) for heavy vehicles - have started to relate price to the service received, many elements of pricing are still unfair.

- **Road users do not pay the actual cost of their road use.**

There is no direct relationship between road use and road charges in terms of the time of travel, type of roads travelled on, location of those roads, or the type of vehicle used. Road users currently pay an average price for road use throughout New Zealand and this automatically results in price distortions. The following examples illustrate this point:

- The price paid for using a kilometre of unsealed, rural road with a low road cost but few users is exactly the same as the price paid for using a kilometre of six lane urban motorway with a high road cost but many users.
- Drivers who use major arterial roads at peak hours, thus contributing to traffic congestion and environmental pollution, pay the same as those who use the same roads at off-peak times.
- Owners of heavy vehicles who have invested in superior suspension systems that reduce wear and tear on roads receive no corresponding reduction in Road User Charges.
- Users of petrol driven vehicles pay an average charge (the dedicated petrol tax) that bears no relation to type of vehicle or location and time of travel. Increasing efficiency of fuel use in new vehicles will reduce the effectiveness of this tax as a source of roading revenue. Tax income from petrol has been static for a number of years, even though total vehicle kilometres travelled have risen by at least 3% a year. (see **Figure 3**)
- Commercial users and owners of diesel vehicles pay a charge that is related to vehicle weight and distance travelled, but not to time of day or the location of the road.
- Motor Vehicle Registration and Annual Vehicle Licensing fees are not clearly targeted at any particular level of service, and are treated as general revenue for roading purposes. They have no obvious relationship to road use, and their high cost creates problems with non-compliance and challenges the integrity of the registration system.

- **Drivers of petrol driven vehicles are targetted for revenue.**

Petrol is also taxed for general revenue purposes not related to road use. Few people would question that petrol tax is still a simple and effective way for petrol-driven vehicle owners to pay for road use. However, many road users challenge the fairness of also using petrol tax as a major source of general Government revenue and of taxing only drivers of petrol driven vehicles in this way.

■ **Property owners subsidise road users.**

Rates contribute approximately 20% of total road income. In urban areas road funding accounts for 10-15% of local rates, while in rural areas more than half of rates go on roads. The extent of this funding is often little understood by ratepayers.

Rates are based on the value of property, and have no relationship to road use. Property owners can therefore subsidise other road users. Rates can be an unfair means of charging for road use because there is no link between payment and consumption. For example, in forestry areas ratepayers have to meet the cost of damage to lightly built local roads caused by logging trucks.

Inefficiency

■ **Average pricing distorts transport decisions.**

As long as road charges bear no relation to actual road use, supply of and demand for roading cannot be managed in an efficient and sustainable manner. The absence of clear pricing signals distorts roading and other investment decisions, adds substantial costs to the entire economy, has negative environmental impacts and worsens New Zealand's overall competitive advantage.

■ **There is no direct relationship between road service providers and road users.**

While distanced from some political decision-making processes, many road management and investment decisions do not deal with the core issue of supply and demand. Ratepayers naturally object to (and often struggle to meet) rate increases to fund roading for which they can see little direct benefit. Local authorities then find it difficult to fund their share of necessary road improvements even if money from the National Roads Fund is available. When property values in a particular area are low this further drives down the ability of local road managers to provide roads that cater for local traffic levels. Lower socio-economic areas suffer as a result.

With up to 50% of funding for local roads coming from Transfund New Zealand, and the remainder sourced from rates, accountability for roading decisions is unclear to road users. It is sometimes easy for councils to "blame" a remote Wellington-based agency for failure to fund new local roading investment. This is an inevitable consequence when intermediary agencies sit between road service providers and road users.

■ **Investment decisions are short-term.**

The ability to link supply and demand is worsened by the inability of road managers to make long-term investment decisions. Road expenditure generally works on a short-term funding structure that places all development costs on current users, with little regard for the proper allocation of costs and benefits. This is particularly unfair when traffic is increasing at its current rate. For example, should current users be expected to meet the total capital cost of a new motorway which will benefit future road users over the next 40 years or more?

■ **Dual management structures blur responsibilities for road management, planning, development and funding.**

The present arrangements for funding, building, maintaining and managing roads involve significantly "blurred" responsibilities. The division of New Zealand's roads into State Highways and local roads is increasingly artificial. While there is an obvious national strategic role for the State Highway network, many local roads carry heavier traffic than some State Highways. Different funding systems for the two road networks fail to flexibly meet the diverse needs of economic development.

■ **Inflexibility of present system stifles innovation.**

The present pricing and charging system does not allow for future flexibility. Possible new methods of powering road vehicles, such as fuel cells, hydrogen, battery electric or auxiliary systems (electric vehicles with petrol or diesel generators) cannot be accommodated easily in the present charging systems.

Nor does the present environment encourage innovation. Road managers have little real incentive to provide individual roads and other services that meet users' actual needs.

Regional impacts

The poor relationship between supply and demand in our road system is having visible impacts in every part of New Zealand.

■ **Congestion is reaching unacceptable levels in some cities.**

In Auckland inaccurate pricing and inadequate investment have resulted in growing traffic congestion, currently estimated by the Auckland Regional Council to be adding at least $100 to $150 million in annual costs to Auckland's economy.

■ **Road system does not support regional growth.**

While the problem in Auckland is large and visible, it is not confined to major urban areas. Regions such as Gisborne or Marlborough are faced with growing road demands from the forestry industry that cannot be met by the current funding systems. Areas with lower property values, yet with rapidly increasing traffic levels, such as Northland with its growing tourist traffic, are also in a "no win" situation. Local councils lack resources and incentives to meet demands imposed on them by road users who live outside the area, such as tourists, who make minimal contribution to meeting the costs they impose.

The key to the future fair and efficient management of our roads will be a pricing system where road users pay the actual costs of their use.

Objectives of road reform

The Roading Advisory Group has set out to achieve the following objectives related to the fairness and efficiency of the road system.

The aim of road reform is to develop a safe, sustainable road system at reasonable cost that is fair because it :

- **Is responsive to user demands.**

  A wide variety of social, economic, safety, environmental and technological factors will affect the demand for road use. Management structures and relevant regulatory regimes must enable rapid and flexible response to that demand.

- **Ensures all users face the actual costs of their decisions.**

  The road corridor caters for a wide range of users, including: "carriageway users", such as commercial vehicle operators, private vehicle users and cyclists; pedestrians; and suppliers of utilities, such as gas, water and electricity. To maximise efficient use, all users should face the actual costs they impose on the road network

and is efficient because it:

- **Maximises national efficiency.**

  The road system must deliver the maximum benefit to the New Zealand economy at the minimum cost, within whatever safety, social and environmental goals that society may explicitly indicate are important.

- **Does not distort consumer decisions and permits choice.**

  National efficiency will be maximised when consumers make transport choices based on the actual cost of each mode. This goal will be achieved when each mode is structured along similar commercial lines, has a direct supplier/customer relationship with all of its users, operates within similar regulatory frameworks and, wherever possible, continually competes for its share of the total transport task.

- **Gives the correct incentives to manage and optimise risk.**

  Agencies responsible for road ownership and management should operate within financial and regulatory structures that manage financial and other risks in the most efficient way.

In addition to these objectives, the Roading Advisory Group was advised by the Minister of Transport that it should take two wider Government policy goals into account. These were:

- The existing national road network, including State Highways and roads managed by territorial local authorities, is to remain in public ownership. This principle will be established in any relevant legislation.

- The principles of the Treaty of Waitangi should be incorporated in any recommendations.

The way forward: a model for change

Features of a fair and efficient road system

The Roading Advisory Group has identified the basic characteristics of a road system that meets the stated objectives of road reform.

In a road system that is fair:

- Road users would pay the road service provider directly for the actual costs of their road use and thereby directly influence the services provided.
- Road users would pay only for services they used, and would pay in direct relation to the quality and quantity of those services.
- Communities would have the opportunity to influence the development of their local road system if it affected their social or physical environment.

In a road system that is efficient:

- Road service providers would operate in an innovative business environment to meet user needs, within clearly stated public regulatory guidelines that protect road users.
- Investment in roading would be on a long-term basis and would clearly reflect actual or expected demand from road users, who would pay for the costs of roads as they used them.
- Road service providers would operate within a multimodal transport framework which ensured that individual or business choices to use one or other mode of transport were based on reliable and comparable information on prices and levels of service.

Developing the framework

The Roading Advisory Group has developed a model for the road system which has these characteristics. The model, which is set out in detail in the *Framework* section of this report, builds on what has been achieved to date, while proposing a way forward that addresses the problems with the present system (see section *Problems with the present system).*

The framework seeks to achieve the Roading Advisory Group's objectives for road reform by :

- Building a direct relationship between road users and road service providers.
- Ensuring that road users pay for the actual costs of the services that they use.
- Developing a framework for cost effective future investment in roads, thereby supporting New Zealand's future economic growth.
- Establishing clear business, safety and environmental rules within which road service providers will work.
- Enabling local people to be closely involved in the development of all road networks in their communities.
- Putting roads into a management structure that allows easy comparison of price and service with other modes of transport.

A commercial model

The Roading Advisory Group believes that the long-term interests of New Zealanders will be served best by placing the national road network in a publicly owned commercial structure. This will provide for a safe, sustainable road system at reasonable cost.

The Group believes that a commercial structure will give the right incentives to manage roading assets for the overall benefit of the New Zealand economy and road users.

A commercial structure will begin the move towards a close relationship between road users and road "suppliers", as illustrated in **Figure 4.**

It will gradually replace the present complex web of bureaucratic linkages that distance road users from road service providers in the current road system, as shown in **Figure 5.**

By moving away from the present system of cash-based road funding (known as PAYGO) towards a capital investment approach, a commercial road system will encourage efficient use of existing roading assets and efficient investment in new assets. Road users will receive clear price signals so that they make transport decisions that will contribute to more efficient use of New Zealand's total transport infrastructure.

A commercial road system will have the right incentives to relate pricing to capital investment and to charge users for the actual costs of their road use. For example, road companies will have strong incentives to ease congestion on heavily trafficked urban roads through pricing systems so that people shift their use of roads to off-peak times or choose alternative transport modes. As a result, management of traffic flow on existing roads will improve and inefficient capital investment in new roads will be avoided.

The Group believes that managing road use through pricing is both fair and efficient. Non-price mechanisms for regulating traffic demand, such as the carless days trialled in New Zealand in the 1970's, are fundamentally unfair because they are avoided easily by higher income groups and impact more on lower income groups who are unable to purchase alternatives. Non-price mechanisms to regulate demand are essentially the product of a centralist planning philosophy which has the effect of removing individual choice from those with limited resources.

In the broader perspective, operating the road network on a commercial basis will put road transport in a structure that is comparable with other transport modes, ensuring that overall transport choices will be made efficiently.

The proposal

The Roading Advisory Group recommends that the 75 existing road service providers, including Transit New Zealand and the roading services of the 74 territorial local authorities, be merged into a small number of viable commercial road companies, jointly owned by local authorities and the Government. The actual number of companies will be determined by an independent Commission; but, as a guide, the Group believes the optimal number will be between 4 and 6. Shares should be apportioned in accordance with the value of the roads that each contributes to the company.

These road companies would be subject to commercial, safety and environmental management regimes that would set out clear and specific structures within which they would have to work.

Road companies would be able to invest in roads on a long-term basis, spreading costs across current and future generations of road users.

Community interests in the development of specific parts of the road network would be set out in Corridor Management Plans developed by road companies in consultation with local communities.

The current road network would be retained.

The present tax-based road funding system should be replaced gradually by a system where road users directly pay road service providers for the actual costs of their road use.

Figure 4: Customers and suppliers - the proposed model

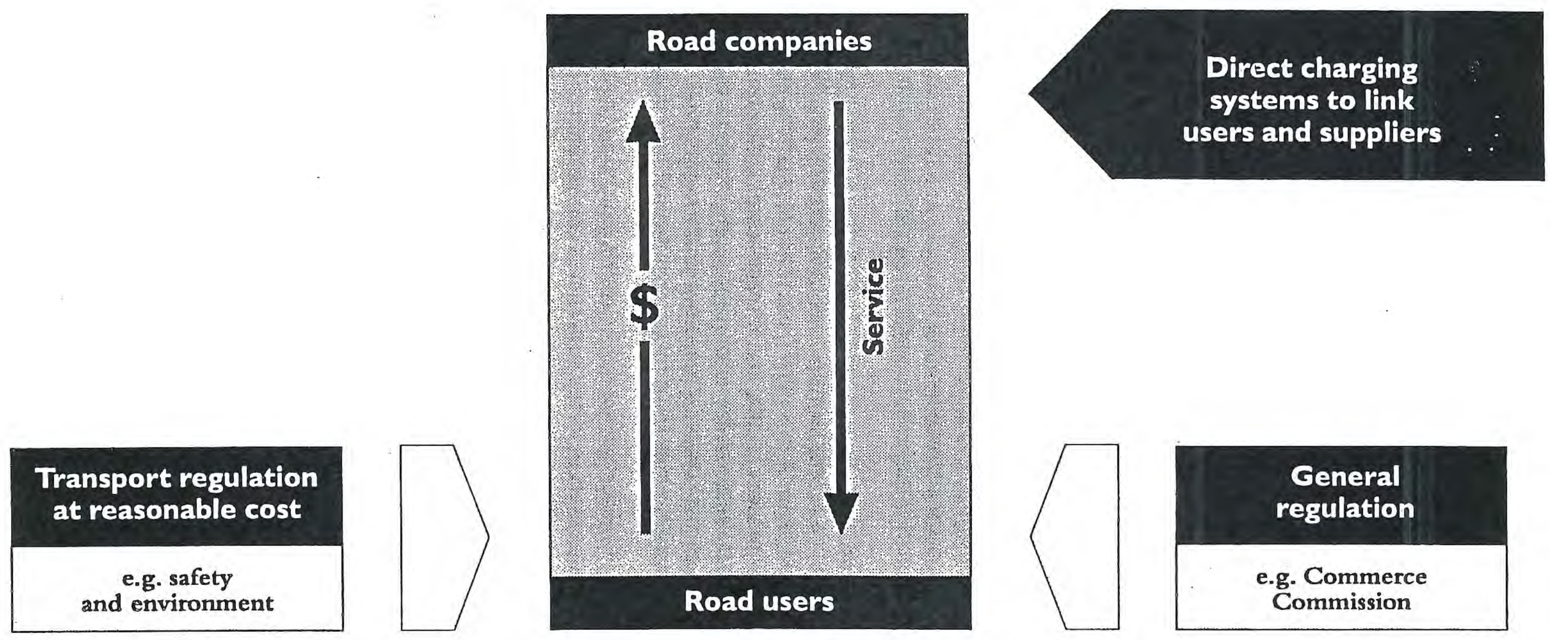
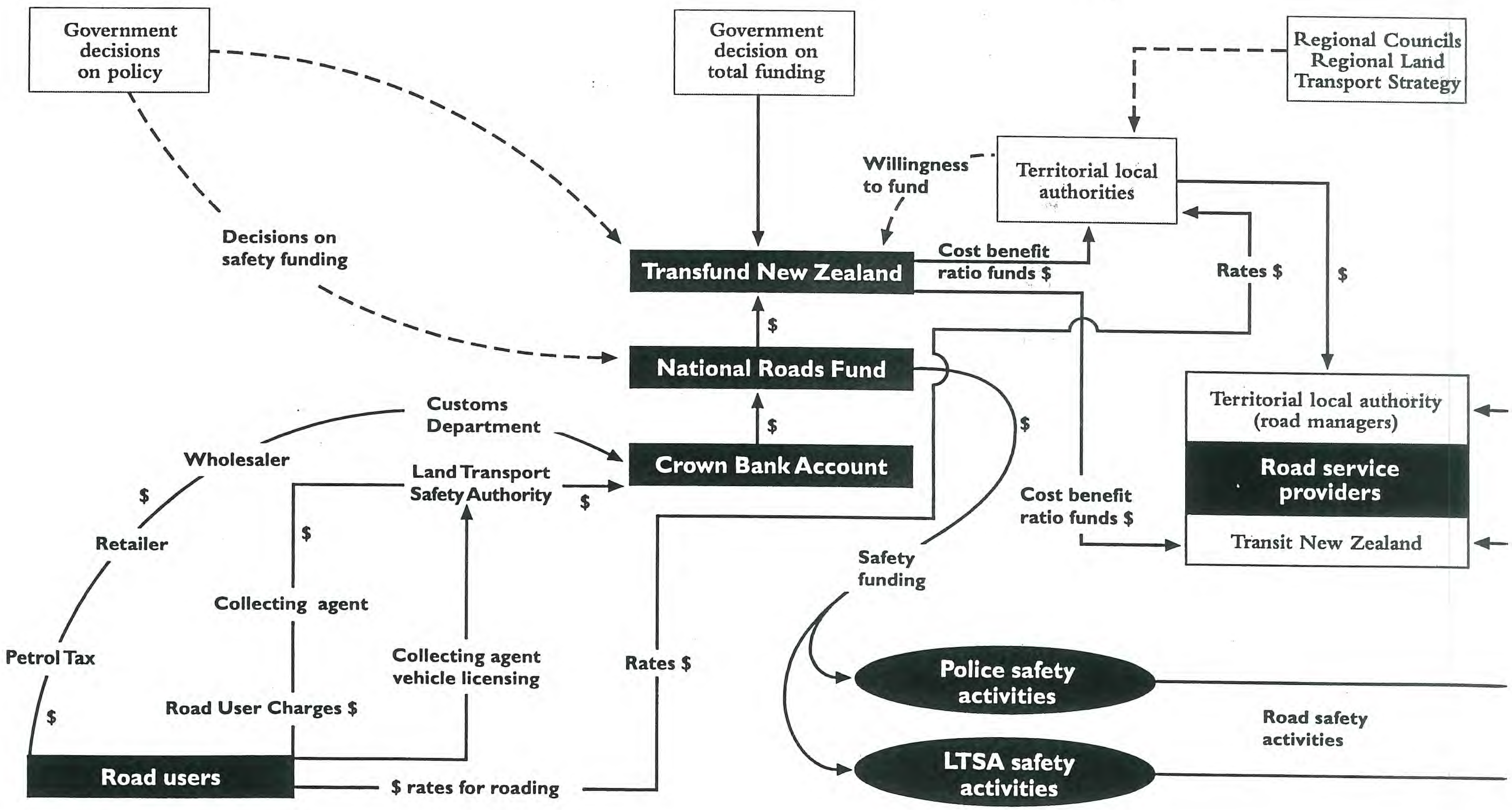


Figure 5: Customers and suppliers - roading in 1997



The process

The Roading Advisory Group carefully considered the five options set out in *Land Transport Pricing Study: Options for the Future*, as well as all of the other options and variations proposed in the 500 submissions made by groups and individuals.

The Group met with a wide range of interested parties including industry, local government, and road user groups; and members attended many of the roadshows held by the Ministry of Transport around New Zealand at which options for road reform were discussed. A hui held at Parliament gave Maori the opportunity to personally present their views to the Group.

Throughout its discussions, the Group was constantly mindful of its and the Government's responsibilities under the Treaty of Waitangi. As will be apparent from our report, we had full regard to these in considering and finalising our recommendations.

During its deliberations, the Group received much detailed advice from a range of central and local government agencies, as well as commissioning independent research initiatives.

The Group's proposals are the outcome of this process.

Considering the options

In its examination of the options that were addressed in *Land Transport Pricing Study: Options for the Future* and in the submissions on that document, the Roading Advisory Group came to the conclusion that retaining or modifying the status quo in road management is not a viable long term prospect.

The problems of the present system (Option 1 in *Land Transport Pricing Study: Options for the Future*) are set out in detail elsewhere in the section on *Problems with the Present System*, and do not need repeating. Far from offering a sustainable future for the roading system, the status quo means increasing problems and continued unfairness for users and inefficiency for the economy. The status quo cannot even continue existing levels of road funding.

Option 2 was rejected by the Roading Advisory Group because it does nothing more than extend the problems of the existing system by injecting increased financial resources without the long term certainty of improvement in accountability for and quality of decisionmaking. Option 2 is as unsustainable as Option 1, while putting additional burdens on both users and the economy. Very simply, people would end up paying more money into a system already acknowledged as unfair and inefficient.

Option 3 appears, on the surface, to offer a significant step forward from Options 1 and 2 while offering fewer risks than the more commercial approach. The main features proposed include:

- Replacing rates by increases in petrol tax and Road Users Charges.
- Maintaining the present administrative structure.
- Allowing borrowing for capital works.
- Allowing the introduction of some form of direct charging, with particular reference to congestion pricing.

While superficially attractive, the Group believes that this option is essentially unstable, and would not provide a sustainable basis for the management of roading. Replacing rates would offer greater fairness to users, but the accountability for levels of future road funding would essentially be centralised around the national tax system.

The Government would, as now, be under continual pressure from road managers seeking extra funding. Bidders for extra funding would be secure from the consequences of their actions given that accountability for setting charges would be separated from accountability for expenditure.

Accountability for capital borrowing would be similarly weak. While local authorities are currently able to borrow for capital works, this borrowing is currently against general rate income. If rates no longer paid for roads, then borrowing could only be against expected income from road use, through a central funding distribution system. Since neither local nor national road managers would be responsible for setting road income, this option would similarly provide a poor link between borrowing and accountability for income generation to service loans. There would be a high risk that borrowing might outrun the ability to service debt, with resultant pressure on central decisionmakers for increases in road charges. While it would at least be possible to create a separate accounting structure to overcome some (but far from all) of these issues, the structure would have to be of a scope that would closely resemble a company's accounting system.

Moving away from the present charging systems towards some form of direct charging is likely to be a difficult exercise and should not be underestimated. However, substantial international experience makes it clear that attempting to introduce any form of direct charging into a road management model such as that currently in operation in New Zealand, has only the most limited chance of success. Direct charging - whether congestion pricing or tolls - relies for its success on a clear and unequivocal relationship between supplier and provider that is absent from the present system. The expensive failures of many overseas toll based systems are a warning against introducing direct charging before the underlying management structures are in place.

Moving forward

We have an ideal opportunity to move forward in a measured and careful way to an improved road system which fairly and efficiently meets user needs and supports New Zealand's economic growth.

The changes proposed in this report will help to achieve these outcomes.

The Group's proposals are not an instant solution to every problem associated with roading. There will still be conflicts when communities want new roads that road companies do not think are necessary. There will still be conflicts when strategic roads have to be built that local communities do not want. There will still be conflicts between road builders and environmental interests. The Group has sought to identify and recommend mechanisms to enable such conflicts to be managed and resolved in a manner that is to everyone's long-term benefit.

Change in any environment is about opportunity and risk. While there are risks associated with any change, they can be identified and managed to capture the benefits of seizing opportunities.

While these proposals do not attempt to solve every potential roading problem, they do provide the means and structures through which issues can be addressed in a sensible and sustainable way.

Management structures and behaviour

Key recommendations

- All road assets currently managed by Transit New Zealand and territorial local authorities, comprising State Highways and local roads, should be transferred to road companies.
- An Establishment Commission should determine the number of road companies, and oversee the establishment process.
- Road companies should be financially viable.
- Road companies should be owned by the Crown and/or local government, who will be prohibited by statute from disposing of their shares in such companies to third parties. Shareholders in road companies should be allowed to trade shares with each other.
- Road companies should be required to be successful businesses, including making profits and paying tax.
- Road companies should have both governance and equity shares.
- Road companies should be established and directors appointed along the lines of local authority trading enterprises in the transport sector.
- All regulation of road companies should be explicit, and not be handled through ownership structures.
- The rights of all classes of road users should be defined in legislation.
- The rights of current utility operators using the road corridor should remain, subject to reasonable allocation of costs to both utility operators and road companies, and the right of road companies to coordinate access.
- To enable better management, road companies, utility operators and local authorities should establish a process for information exchange.

Commercial structure

The Roading Advisory Group recommends that the current road assets held by Transit New Zealand and territorial local authorities be transferred to a number of road companies, which should be structured and managed as commercial businesses.

Ownership of companies

Government policy requires that all road companies formed out of Transit New Zealand and territorial local authorities should continue to be owned by central or local government. There would be an explicit statutory provision preventing sale of shares in road companies to any third party. Shares in road companies would be able to be transferred between local authorities and the Crown.

Structure of companies

Road companies will require some specific legislation, probably modelled on the similar joint Crown and local authority company established to manage Auckland International Airport. While the general structure of such companies should embody the principles of the Companies Act 1993, there will need to be a number of provisions specific to road companies:

- The Statement of Corporate Intent will need to address investment criteria, debt levels and a hurdle rate of return, at least for the period in which the companies receive a significant proportion of their income from tax based sources.

- There will need to be provisions clarifying who may be deemed to be a director. Specifically, officials of local or central government (whether elected or otherwise) should not be deemed to be directors by reason only of the fact that they might have participated in any process of corporate planning or negotiation of a Statement of Corporate Intent.

Purpose of road companies

Road companies formed from Transit New Zealand and territorial local authorities should be restricted to activities related to the management and funding of road corridors, and should be prevented from engaging in activities unrelated to roads. They should be able to enter into joint ventures for the construction and maintenance of roads. Road companies should be allowed to buy and sell roads and related assets, subject to these restrictions.

Once the road companies have been established, the Crown and local authorities should be prohibited from directly owning roads, unless such ownership is through a road company.

Where a territorial local authority currently has shares in a Local Authority Trading Enterprise that is involved in road construction and maintenance, this company should be retained under separate management. Its assets should not be transferred to a road company.

Successful businesses

Road companies would be able to own and manage their assets, charge for their use, borrow and invest capital against future demand, and deliver appropriate returns to their shareholders in terms of their overall goal to be a successful business. This goal would be defined in their Statement of Corporate Intent, which would be approved by shareholders.

Profits would be a payment for the shareholders' equity in the business. Shareholders (the Crown and local authorities) should not be legally restrained from making decisions on appropriate profit targets, and the purpose to which profits would be applied. Profits could be returned to the business in order to fund growth, which is effectively what happens at present. Profits could also be taken out in the form of dividends.

The Roading Advisory Group recognises that some road user groups may regard the profit focus of road companies as inappropriate. However, it should be noted that the present road system generates a 'surplus' or 'profit' in the vicinity of $200 - $400 million per annum, which is reinvested in capital works. The Group believes that the commercial approach is crucial to establishing the correct level of investment in the road sector, and that the requirement to operate as a successful business is a core part of this approach. Requiring a profit does not prejudge whether the profit is distributed as dividends to shareholders or is reinvested in the business.

To maintain appropriate commercial discipline and to ensure competitive neutrality in the transport sector, road companies should be required to pay tax on their earnings.

In making this recommendation the Roading Advisory Group believes that the Crown should not automatically and non-transparently benefit from additional revenue. The change in tax status may automatically increase tax revenues from roading as capital expenditure would no longer be deductible. To offset any such automatic tax increase, the Crown should make an appropriate, fiscally neutral reduction in other tax revenue, such as the general petrol tax.

It is important to recognise that the concept of a successful business does not imply that roads would necessarily cost more than they do at present. Requiring a payment for equity in the roading business would be a powerful driver of greater dynamic efficiency in major future investment decisions, and could be serviced out of existing cash flows.

Shareholding

The complexity of identifying all of the assets to be transferred to the new road companies would mean that the shareholding of road companies should be structured to allow a separation of governance and equity shares. Governance shares could be established at time of vesting, while equity shares could follow as assets are identified and valued.

The distribution of equity shares to shareholders should be based on the net value of the assets transferred to the road companies.

Where several territorial local authorities held shares in a single road company, these authorities would need to include arrangements for deciding on the appointment of directors. Alternatively, local authorities might prefer to set up a joint holding company to hold shares in a road company, and appoint directors through that holding company.

Debt on formation of companies

As Transit New Zealand has been unable to borrow, the Crown has no current debt associated with roads.

Local authorities are estimated to have approximately $200m - $250m of debt associated with roads. When the road companies were vested, local authorities would have three possible ways of dealing with this debt. They could:

- Retain the debt and use general non-roading revenue to repay it, thus keeping a higher level of equity in the road company.
- Retain the debt, and use income from the road company to repay it, possibly through a dividend.
- Transfer the debt to the road company.

Whichever method is chosen, the low level of debt associated with existing roads means that the road companies would have a high level of equity when they were established.

Formation of road companies

The Roading Advisory Group recommends that an Establishment Commission be set up with Statutory powers to manage the formation of the road companies and the associated management charges.

The Establishment Commission would be modelled on the Local Government Commission which successfully managed the reform of local government structures in the late 1980s. Members of the Commission would be appointed by the Minister of Transport after consultation with local government and road users.

The primary tasks of the Establishment Commission would be to:

- Decide on the final number and geographic boundaries of road companies to be established, in line with broad principles to be set out by the Government.
- Work with local government and Transit New Zealand to establish the chosen number of road companies.
- Oversee the establishment process of each road company, including developing appropriate procedures for valuation of company assets and other establishment issues.
- Co-ordinate the work of the individual Establishment Units for each road company.

The Establishment Commission would be expected to achieve its goals through consultation and negotiation in the first instance. However, the Roading Advisory Group recommends that all road companies should be set up on a single date and that the Commission be required to work to that date. Where the Commission is unable to achieve its goals by negotiation, it should have statutory powers to impose a solution after appropriate consultation.

The work of the Establishment Commission, and the individual Establishment Units for each road company, should be funded from the National Roads Fund.

The Establishment Commission would remain in existence until the main initial stages of the full reform process had been completed.

A key step in the formation of road companies would be negotiation with the Crown and territorial local authorities on the purchase of the road assets. It would be important that this process of negotiation reflected the natural tension between future directors of the road company, who would seek to minimise the value of the assets they were purchasing, and the Crown and local authorities, who would seek to maximise asset value at the time of sale. There should be an explicit provision for single figure arbitration in this process.

Directors

It is vital that directors of the new road companies should have a clear commercial focus. The Roading Advisory Group recommends that elected members of local authority or community boards, public servants, local government officials and road company chief executives be excluded from serving on the boards of the road companies.

Number of companies

To identify the appropriate number and scope of road companies, the Roading Advisory Group believes that a number of principles should apply:

- The preferred configuration should deliver the greatest gains in fairness and efficiency for users.
- Road companies should be financially viable.
- Companies should be geographically coherent, and have an obvious relationship to specific communities.
- The configuration should facilitate the introduction of a degree of contestability in the road system to help address its monopolistic tendencies.
- There should be a sufficient number of companies to enable effective benchmarking of performance to encourage efficiency and accountable management.
- Companies should be large enough in area to allow for regional pricing, if appropriate.
- Companies should be large enough to develop economies of scale.
- The number of companies should be sufficient to encourage the introduction of innovative road management and pricing technologies.

Using these principles, the Roading Advisory Group considered a range of configurations, including:

- A single road company for the whole of New Zealand.
- One company in the South Island and another in the North Island.
- A State Highway company, together with 74 regional companies managing local roads.
- A State Highway company, together with a number of regional companies managing local roads.
- Up to ten road companies each combining State Highways and local roads in a region or series of regions.

After reviewing these options in the light of the principles outlined, the Group is of the preliminary view that there should be a minimum of four and a maximum of six financially viable road companies to take over the current roading functions of 74 local authorities and Transit New Zealand. Each of these companies would manage regional networks combining State Highways and local roads.

In reaching this preliminary view, the Group had to balance the various principles it established. It recognises that the Establishment Commission should finalise this question, and the Group's comments are provided only as a preliminary opinion.

While the options of one or two road companies would certainly be viable and offer economies of scale, it was felt that these options offered too few companies to compare performance or to encourage innovation. Most importantly, it was felt that one or two companies could run the risk of having inadequate regional identity or relationship with communities of interest.

A large number of road companies would certainly achieve greater community linkages, but would be financially unviable, with increased overall costs.

The Group also considered the concept of a national holding company to manage a series of local subsidiaries, but felt that this would create unnecessary administrative structures and costs.

In the Group's view, a separate State Highway company with a series of regional road companies derived from territorial local authority networks would generate too many interconnection problems throughout New Zealand and may create unviable local businesses. The Group believes that to be financially viable each road company would need revenue from users of the State Highways in their area. In particular, the Group felt that the problems of the Auckland region would need to be dealt with by a single road company covering the whole urban area.

On balance, it appears that the number of companies would be in the range of 4 -6, but that the final number would be determined by the Establishment Commission based on actual viability. This would allow for geographical coherence and possible regional pricing, and enable benchmarking of company performance.

The Group has not attempted to define the specific geographical boundaries of the companies, recognising that this would be a detailed task for the Establishment Commission. However, a possible four company configuration could be:

- A company covering the South Island.
- A company covering Auckland and Northland.
- Two companies covering the rest of the North Island.

Whatever structure is selected, the Group is concerned that every road company should be viable from the start. The ultimate number and scope of the road companies should be a matter to be finalised by the Establishment Commission. Benefits to users should be the ultimate determinant of this issue.

Regulation

Road companies would be subject to two levels of regulation.

At the national level, there would be specific business legislation, including laws on competition, pricing and information disclosure, as well as safety and environmental regulation.

At the individual company level, there would be requirements for consultation with road users on pricing and charging systems. Road companies would also be required to recognise in their stated business objectives the interests of communities through which their roads passed.

Road companies and road users

The rights of road users originate in the common law right to "pass and repass" over a public highway. Gradually over the last five centuries, as the pattern of road use has become more complex, common law rights have been modified by statute, and very few of these rights now remain in their original form.

While the creation of road companies would not alter current rights of access or passage, the Group believes that it would be desirable in the long-term to codify clearly in law the rights of all road users, including pedestrians, cyclists, vehicle drivers and utility operators. It is not intended that these rights be changed; but simply that they be contained in a single, comprehensive statute that is readily accessible to and understandable for both road users and road providers, rather than in a diverse range of complex common law and statutory sources as at present. As with similar codifications in other areas of law, this task will be a complex one, and should not delay the establishment of road companies.

Utility access

Road companies should be the coordinating agency for utility access to the road corridor. The current rights of existing operators of utilities (such as water, gas, storm water, electricity and telecommunications) to access the road corridor should be preserved, subject to the principle of reasonable actual costs being paid by the party responsible for imposing such costs.

Road companies should be able to charge for unreasonable access to the road corridor, so that utility operators minimise disruption to traffic flows. For example, utility operators seeking to dig up a road at peak traffic time, where no emergency has occurred, should pay a premium for interrupting the traffic flow and creating possible road safety and environmental risks. Conversely, if road companies altered a road in such a way that utility services had to be diverted or rebuilt, then they should pay the costs incurred. Similarly, contractors on building sites who disrupt traffic unnecessarily at peak times should be subject to some charge.

Given that utility networks along road corridors are usually parts of much wider networks across whole communities, road companies and utility operators should be required to maintain records of such use of the road corridor and to make these available to relevant local authorities and to each other.

Assets and valuation

Key recommendations

- Road companies should own the entire road corridor, from boundary to boundary, including the land and all improvements related to road use.

- If land ownership is not transferred to a road company, then the company should have an unencumbered lease on the land (apart from any issues related to the Treaty of Waitangi), and clear title to all of the roading related improvements.

- Paper (unformed) roads should not be transferred to road companies. A mechanism should be set up to review their future on a case by case basis.

- Any amenities in the road corridor which are not related to the management of roads, should continue to be owned and maintained by local authorities. Utility assets in the road reserve should remain the property of their current owner.

- Optimal Deprival Value (ODV) methodology should be applied to road companies.

- All road companies should be required to earn a return on the existing road network.

Ownership of the road corridor

The Roading Advisory Group believes that each road company ideally should have a clear, unencumbered title to all of the land and control of all of the improvements in any road corridor. Ownership of amenities in the road corridor would remain with the appropriate territorial local authority. Utility assets in the road reserve would remain the property of their current owner. "Improvements" mean any facilities and structures in the corridor which are directly related to road carriageway management, including tarmac, road structures, signage, and traffic management systems. "Amenities" include all structures and facilities within the corridor which are not related to road carriageway management. Footpaths and street lighting may fall in either category, depending on their primary purpose.

Figures 6 and 7 illustrate a typical road corridor in urban and rural environments.

Asset transfers

The assets (other than amenities) in any road corridor should be transferred from Transit New Zealand and territorial local authorities to the new road companies in exchange for shares to an equivalent value. This process should incorporate any provisions in Treaty of Waitangi settlements, as well as providing for Treaty claims in process. It would also have to provide for any rights of first refusal granted in Treaty settlements such as Tainui or Ngai Tahu. Road companies would have full property rights over such assets, subject to any Treaty of Waitangi memorials or other provisions.

Some of the land purchased for roading in the last few decades, by both Transit New Zealand and local authorities, has clear title to both land and improvements. These titles should be able to be transferred directly to the new road companies, subject to any provisions associated with claims or settlements under the Treaty of Waitangi. All future land purchases and the asset management of land and improvements would then be the responsibility of the road companies.

However, because of title and other uncertainties, it is likely that much of the land associated with the existing road system would be unable to be transferred in this way. There are no titles for much of the land under roads which were first built in the 19th Century and such land could also be subject to claims associated with the Treaty of Waitangi. Some local authorities might also wish to retain their land holdings separately from their ownership interest in a road company.

The Roading Advisory Group therefore recommends that the following process be used to transfer roading assets to road companies in exchange for shares:

i) When a local authority or the Crown is willing to transfer land used for roading or related services, and had a clear title, then that land should be transferred at time of vesting to the road company, which would then have normal property rights over such assets.

ii) When a local authority or the Crown is willing to transfer land used for roading or related services, but the land had an uncertain title, then the local authority or the Crown should transfer the equitable interest in that land to the road company until the title was perfected. At that point, the land could be transferred as in (i).

iii) If a local authority or the Crown does not wish to transfer land under any road to a road company, then the local authority or Crown should be required to lease the land to the road company at a peppercorn rental. Any such leases should be unencumbered, except for Treaty memorials, and be under statutory lease terms.

Figure 6: Urban road corridor

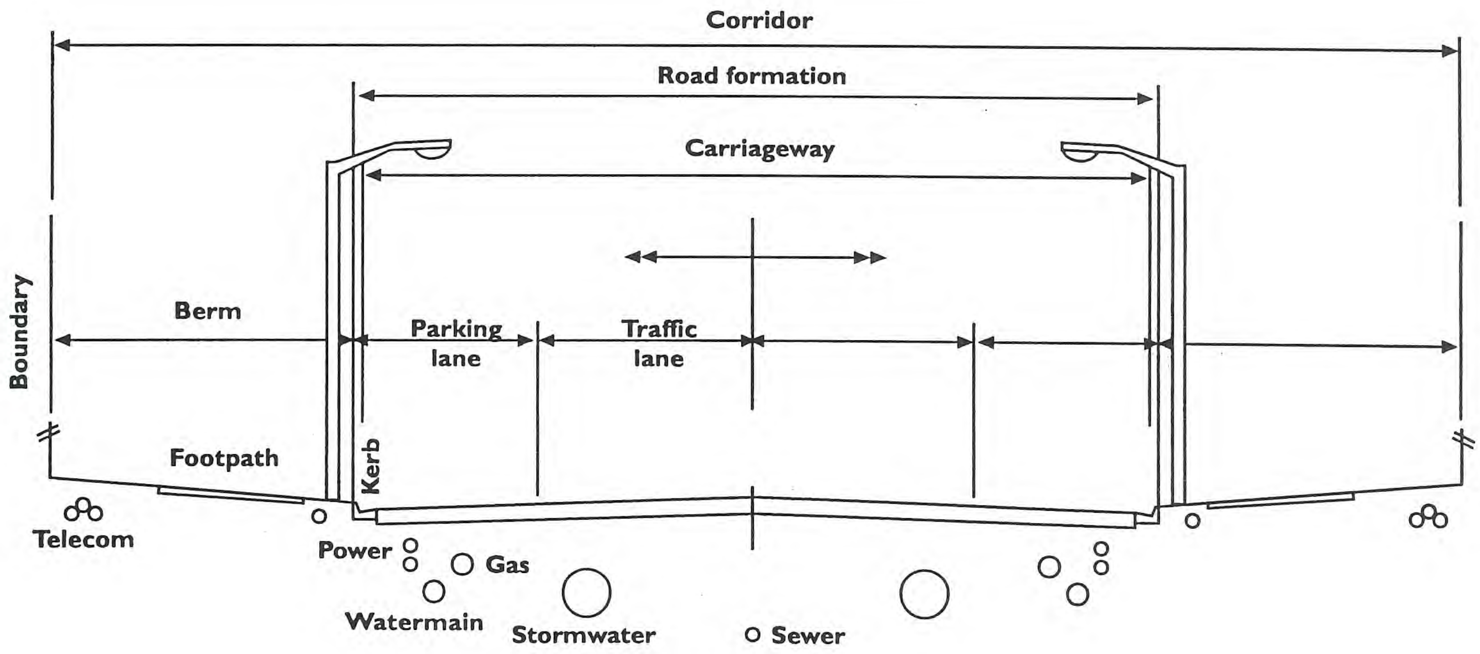
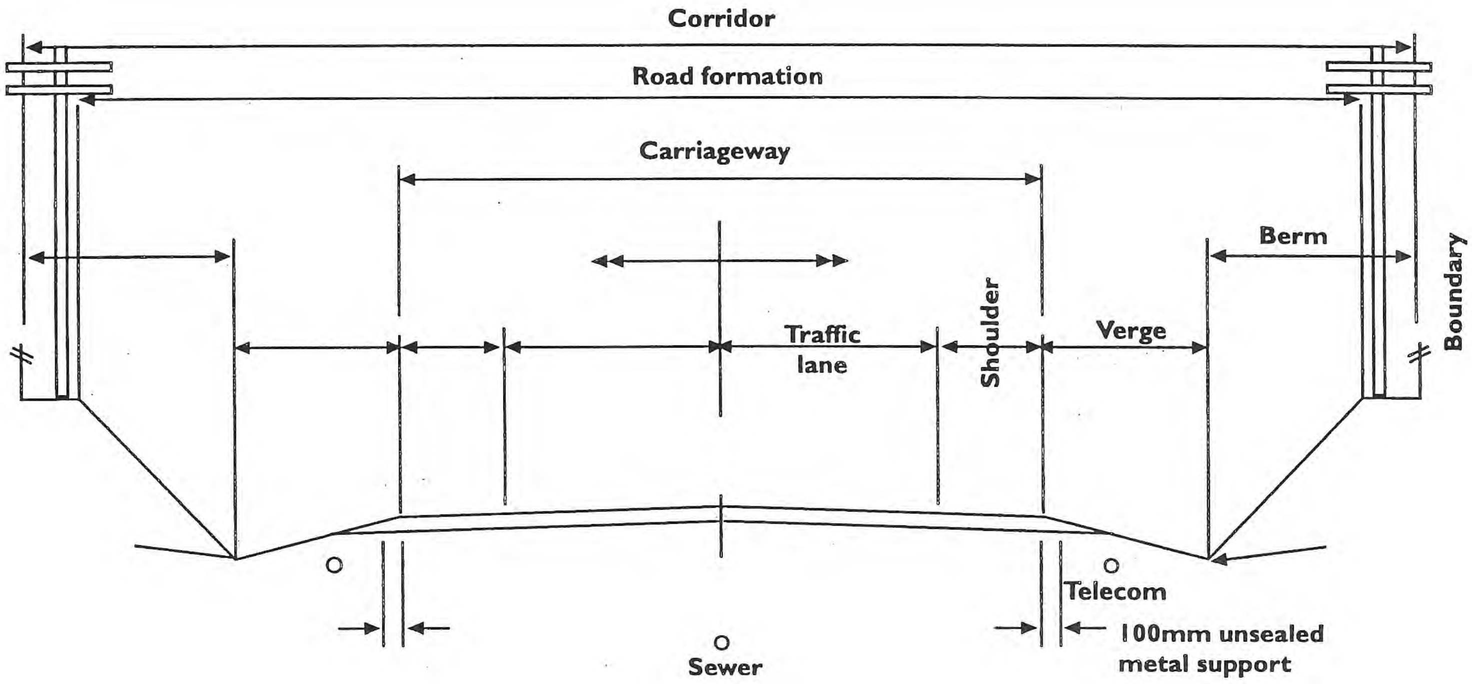


Figure 7: Rural road corridor



iv) Where land has been purchased for roads but had not been used for that purpose at time of vesting, then the current owner of the land would need to develop a process to decide whether the land should be transferred to the road company or, if required, offered back to its original owner. This would require an assessment by both the companies and current road managers as to whether the land could reasonably be needed for roads in future.

v) All improvements in the road corridor (other than utilities, and amenities owned by local authorities) should be transferred at time of vesting to the road company, which would then have normal property rights over such assets.

Amenities and other features on roading land

Some road corridors have amenities and other features that are not directly connected with road carriageway management. For example, many war memorials and recreational areas are in road corridors. Such facilities should continue to be owned and maintained by the relevant local authority under an agreement with the road company.

Paper roads

New Zealand has an extensive network of unformed (or "paper") roads. These nominal roads should only be transferred to the road companies if they are clearly required for future roading purposes. Otherwise, they should remain with the present landowners. A formal process should be established to review the need to retain paper roads, on a case by case basis.

Valuation

In the context of road reform, valuations are necessary to:

- Establish, when combined with notions about appropriate rates of return, the cost of capital to the various road companies. The cost of capital will be used in judging the appropriateness, or otherwise, of any proposed price changes in the future.
- Establish the value at which the managements of the new entities acquire the assets from their current owners. These valuations, when compared to profits in the future, will provide some benchmarks for performance.
- Assist in establishing the relative values of the assets contributed to the new road company entities by the various territorial local authorities and the Crown. These will be one component in determining the relative equity stakes in the road companies of the various contributors of assets.

Concerns about the valuation of assets, and rates of return on capital were expressed in a number of submissions. Underlying the concern is a fear that "high" valuation on road assets and/or a requirement for significant rate of return would necessitate, and justify, sharp increases in charges for road use.

The monopoly market power that any organisation that operates road networks inevitably enjoys heighten that fear. While there is competition between road and rail and coastal shipping for medium and long haul business, and between road and air for some passenger and freight movements, for much of the activity carried out on roads, competition is limited, and can not be relied upon on its own to constrain rises in road charges. The Roading Advisory Group recognises this, and recommends an enhanced regulatory regime requiring road companies to consult with users before introducing or changing charges, as set out in the section on *Pricing and Charging*.

If the roads were put into commercial entities, the sustainable free cash flow would increase even without a further general price rise. Experience with reform across a broad range of industries in New Zealand - ports, airports, railways, telecommunications, postal services, coal companies, electricity generators, etc - has shown that commercial entities achieve efficiencies and improvements that the former departments and local bodies responsible for these activities considered unattainable.

In the context of roads, gains could be expected from areas such as: optimising maintenance and replacement expenditure; rationalising capital expenditure decisionmaking; reducing administration from the current 75 entities to 4-6 road companies; improving the efficacy and efficiency of enforcement of charges; and introducing congestion pricing in selected locations.

It has been estimated that an improvement in free cash flow from roads of around $170 million might be expected from these sources, and that optimistically $335 million might be achieved. These gains would increase the estimated free cash flows to $520 million and $685 million, respectively.

Assuming that after corporatisation, the Government does not seek any increase in general revenues from road reform, the above estimated free cash flows can be considered as aftertax returns. While an individual road is likely to be a reasonably risky investment, a regional road company operating a network should be relatively riskless. Long term Government bond rates are under 7 percent, and investors have to pay tax on these returns, so an after tax return of 5.35 percent (pre-tax = 8.0 percent) for a road company appears reasonable.

The following table summarises the estimates of free cash flow and the approximate Economic Value of the road network, under the various scenarios considered.

	Estimated Free Cash Flow $m	Capitalisation Rate %	Estimated Economic Value $m
Base Case (Current Pricing)	235	5.35	4,393
Prices funding B/C = 4	350	5.35	6,542
Prices funding B/C = 4 and "Reasonable" Efficiencies"	520	5.35	9,720
Prices funding B/C = 4 and "Optimistic" Efficiencies"	685	5.35	12,804

The purpose of this table is to demonstrate that even with prices raised to sustain investment at the B/C ratio of 4 under the current regime, the combined estimated Economic Value of road companies at roughly $13 billion is well short of the estimated $23 billion depreciated replacement cost of the public road network, even when an "optimistic" view of likely efficiency improvements is taken.

Recommended valuation approach

The Roading Advisory Group recommends that Optimal Deprival Value methodology be applied to road companies. It also recommends that in carrying out such valuations particular care should be taken to:

- Ensure optimisation is thoroughly and consistently carried out when deriving the ODRC values of assets. Experience with the methodology suggests there can be a bias against declaring assets to be surplus, technologically obsolescent or over-designed. The outcome is a tendency to overstate ODRC, particularly of redundant, little utilised and old assets.

- Thoroughly and consistently scrutinise the estimated efficiency gains to be achieved by commercial entities to ensure they are not under-estimated.

- Check that the pricing assumptions adopted are consistent with policy decisions about appropriate initial set-up pricing, and what future changes might be if the market were competitive.
- Determine that the capitalisation rate employed is a realistic estimate of the (after tax) return investors would require from companies, given their riskiness as investments.

The Group also notes that in drafting the detail of the regulatory regime care should be taken to counter the possibility of a road company subsequently unilaterally re-estimating its ODV upwards, and then justifying price rises on the basis of its need to earn a return on its revalued asset base.

The Group does not recommend that road companies be exempted from earning a return on the existing road network. A return is being made already from these assets. It is currently the source of investment in the network. It would be perverse to preclude road companies from access to this source of funding for developments in view of the clear demand for higher investment levels. Moreover, such a restriction would not be consistent with efficient investment in the road system as it would result in prices that are inappropriately biased against new roads, and in favour of existing roads. Not having a return is also unsustainable where investments are funded by debt.

Benefits

There is considerable practical experience available in applying the ODV methodology, and most of the risks are well known. The methodology is consistent with the approach to valuation usually adopted in private sector mergers and acquisitions, and this should also enhance credibility. Experience with the establishment of other commercial entities from local authority and Government agencies suggests an ODV valuation should be able to be achieved in an acceptable time frame.

The ODV methodology entails not only determining an enterprise Economic Value but also requires the estimation of ODRC's and Net Realisable Values (NRV's) for its assets. This process would:

- Produce a precise identification of the assets to be transferred to each road company, and provide information on their suitability for use and likely remaining life. This information would be useful for future operational purposes.
- Utilise work that is already underway. The Local Government Amendment Act (No.3) 1996 requires all local authorities to prepare their financial statements in accordance with generally accepted accounting practice from 1 July 1998. This has been interpreted by local government officials, with the support of the Office of the Auditor-General, as requiring assets to be stated as a mixture of replacement cost and ODRC.
- Provide a useful input to assess the relative contributions made by the Crown and various territorial local authorities to the assets of a particular road company. This information will undoubtedly be a component in the determination of the allocation of equity shares.

Some proposed road companies may not be financially viable without significant increases in prices. The ODV methodology will reveal whether any proposed companies will be viable at prices close to current levels, and permit them to be merged with other entities to ensure viability prior to establishment.

Risks

Assets typically will be contributed to each road company by the Crown and several territorial local authorities. The possibility of disagreement among the various parties about valuations and relative contributions is reasonably high. A mechanism to decide the outcome in the event of disagreement needs to be established. Single figure arbitration encourages negotiating parties to seek agreement between themselves and the Group recommends that this be used in resolving disputes as to value.

The use of ODV is likely to require the current road owning entities that have valued road assets at (optimised depreciated) replacement cost to write-down the value of their assets in their accounts. This will mainly affect the Crown, but territorial local authorities that have conformed early to the accounting requirements in the Local Government Amendment Act (No.3) 1996 will also be affected.

Commercial regulation

Key recommendations

- Road companies should be regulated by normal commercial law, including the provisions of the Commerce Act, the Fair Trading Act and the Consumer Guarantees Act.
- A comprehensive information disclosure regime should apply to all road companies.
- Road companies should be required to consult appropriate road users before setting or changing prices.
- Where pricing systems technology is to be altered or introduced, road companies should be required to adopt systems that are compatible with systems used by other road companies.
- All road companies should be required not to close any part of the network without appropriate user and landowner consultation.
- All road companies should be required to provide access to roads owned by adjoining road companies, subject to reasonable traffic management provisions.
- These recommendations should apply to current and future owners and operators of private roads, who charge the public for the use of their roads.

Monopolistic tendencies

While the Roading Advisory Group believes that roads would be more fairly and efficiently managed within a commercial framework, it recognises that New Zealand's road network has monopolistic tendencies. The Group notes that many of the submissions on the *Options for the Future* document complained about the inefficient and unfair outcomes of monopolistic pricing in our existing road system.

The nature of the asset itself is monopolistic and changes in the management structure will not alter this. While there is competition among transport modes for some *classes of road traffic*, competing *road networks* in a lightly populated country such as New Zealand are not a viable proposition. The key issue is how to price and ensure efficient provision and use of roads in a manner that is fair to all road users.

In short, an appropriate regulatory regime is required.

Regulating road service providers

In recommending that roads be managed on a commercial basis, the Roading Advisory Group recognises that an appropriate commercial regulatory regime should apply to all road service providers, not just the new road companies.

This regulatory regime would provide a framework for present and future road suppliers, including private sector investors, and should be set out clearly in legislation, rather than incorporated in ownership requirements. It would be based on the principles of transparency, disclosure and consultation with road users.

The proposed regime should follow the light-handed approach taken with other networks, such as electricity, but should be empowered to address issues specifically related to road management:

- Road companies should be subject to normal commercial legislation, including the Companies Act 1993, the Commerce Act 1986, the Consumer Guarantees Act 1993 and the Fair Trading Act 1986.
- There should be a statutory information disclosure regime for appropriate pricing and business decisions to ensure public accountability.

Most importantly, given the unique importance of the road network, there should also be a statutory requirement for road companies to consult road users before changes to prices are introduced. The legislation would set out the terms on which such consultation should take place (see section *Pricing and Charging*).

Compatibility of technology

Road companies should be required to consult with road users to ensure that any charging or related technology they introduced was compatible with, although not necessarily identical to, systems used by other road companies. Experience overseas - for example, in Sydney - has shown that different road service providers might be unwilling to cooperate in the development of coordinated charging technology that benefits all road users, rather than just those on one part of the network. While the New Zealand experience in technology management tends to indicate that cooperation would be more likely to occur here, open architecture technologies should be an integral part of the road management system.

The goal should be to ensure that the introduction of any pricing and charging technology retained the ability of all road users to drive the total New Zealand road network in a seamless manner.

Retaining the network

A survey undertaken for the Roading Advisory Group confirmed that 64% of road users are prepared to pay towards the cost of maintaining a total road network, even if they never use all of it themselves. However, it is very difficult to measure how much people would actually be prepared to pay if they could be charged directly.

Road users and ratepayers currently pay an estimated $50-$100 million to maintain the New Zealand road network. This is the estimated cost of maintaining those lightly used roads (both urban and rural) whose current level of user income is exceeded by expenditure on maintenance. Given the complexity involved in calculating this figure within a total network, it should be recognised that it may well be overstated.

Many of the submissions in response to *Land Transport Pricing Study: Options for the Future* were concerned that any move to a more commercial road system might pose a threat to the more lightly used parts of the road network. From evidence in other commercially structured transport modes, such as rail, the Roading Advisory Group believes that this risk may be overstated, particularly as the financial benefits from closing lightly used roads are likely to be small.

Many lightly used roads are "uneconomic" only because of the current average pricing system. If road users could be charged the fair and reasonable cost of using specific groups of roads, then very few roads would in fact be "uneconomic".

However, such clear linkage between service levels and pricing would be likely to be introduced only over a substantial period of time. Furthermore, it is far from certain that commercial businesses would move to charging the full cost of using lightly used roads, even when the technology required to do this became available. Experience with other commercial networks suggests that they do not cut themselves off from customers in lightly used parts of the network. Instead they tend to seek cost effective means of retaining business. A reasonable possibility is that road companies would allow some continued cross subsidisation within a network to reduce the transaction costs involved in fully charging for the use of every length of road. The empowering legislation should not prevent this.

While there is substantial evidence that a road company would be unlikely to reduce its network the Roading Advisory Group recognises that, for many people, retention of the existing network requires something more than faith in commercial self interest.

There are three types of possible road closures which need to be considered: legal closure; catastrophic events; and cessation of maintenance.

1. **Legal closure**

   Where an existing road is uneconomic the Local Government Act already spells out a procedure for its formal closure and legal disestablishment. This includes provisions for a road controlling authority's decision to close a road to be reviewed by the Environment Court. Similar provisions should apply to future road companies.

2. **Catastrophic event**

   The most visible examples of "uneconomic" roads occur when a natural event such as a flood or earthquake destroys a bridge or section of road. On low volume roads the traffic will often be insufficient for full reinstatement to be profitable. Very occasionally reinstatement may even be uneconomic.

In such cases, companies and property owners/road users should be encouraged to work out mutually acceptable reinstatement/payment packages. A requirement for such a process should be included in legislation.

3. **Reduction or cessation of maintenance**

   There will be many roads that earn insufficient revenue, under existing uniform charges, to meet current maintenance costs. While a uniform charging system exists, road companies might justifiably cross-subsidise maintenance on such roads from more profitable roads in their network.

   Alternatively they might seek to reduce maintenance costs by reducing standards.

   Road companies should continue to be permitted to reduce maintenance or even cease maintenance altogether where justified, subject to an information disclosure requirement. Road users and property owners should have the option of paying a surcharge to retain a higher standard of maintenance. Information disclosure would enable interested parties to scrutinise revenue and expenditure figures for affected roads and ensure that the reasons for reduced maintenance or proposed surcharges are valid. A safety system should cover how safety is maintained when road standards are reduced.

   Road companies should retain the existing ability to cease maintaining a road altogether, subject to providing suitable signs to alert users to the road's status. Such decisions should also be subject to information disclosure, including the revenue and expenditure figures leading to the decision.

New roads and interconnection

There should be opportunities for road service providers, including private sector businesses, to respond to economic growth and development opportunities. They should be able to meet traffic demands by building new roads that link to existing networks.

All road service providers should be required to provide appropriate access to adjoining networks or individual roads, subject only to reasonable and safe traffic management requirements.

Legislation should not prevent road service providers from entering into agreements with third parties to build new roads or develop existing ones on their behalf.

Community interests

Key recommendations

- Road companies should have a Corridor Management Plan that is developed in consultation with the appropriate local authorities, and is subject to a legal test of reasonableness.

- Territorial local authorities may issue a requiring order for work they pay for on a road corridor.

- All road transport planning and operation should be consistent with the National Land Transport Strategy.

- The Regional Land Transport Strategy process should be assessed to determine its long-term value in a commercial road system.

Introduction

The road corridor has a number of amenity and social functions that are valued by communities. There needs to be a clear relationship between community expectations and the behaviour of road companies and provision for community input to the management of the road corridor.

Under the Roading Advisory Group's proposals, elected territorial local authorities would continue to represent community interests in the road system through their planning and purchasing processes and their ownership interests.

The Group recommends that a Corridor Management Plan, developed by each road company in consultation with the appropriate territorial local authorities in its area of operation, be the key to a cooperative approach in which road companies would manage the carriageway, and the local authorities would continue to provide amenities not directly connected with roads.

Community Input

The Roading Advisory Group identified five ways in which a community might have an interest in the management of a road corridor, and the way in which such interests could be expressed in a commercial roading structure.

1 Land use

The way in which land in a community can be used, including where and whether a road is built.

Community influences this through:

Resource Management Act designation by road company and consent procedures by local authority.

2 Environmental impacts

The way in which a road and its traffic impact on the environment, including air emissions and water runoff.

Community influences this through:

Resource Management Act consent procedures.

3 Road utilisation procedures

The restriction of some types of road use in particular areas. Examples include the construction of traffic free pedestrian precincts or the routing of heavy vehicles away from particular areas.

Community influences this through:

Negotiation between road company and local authority with local authority funding developed through Annual Plan process.

4 Amenities on road reserve

The provision of non-road related services in the road corridor.

Community influences this through:

Negotiation between road company and local authority with local authority funding developed through the Annual Plan process.

5 Utility policies

The management, construction and design of utility services, such as power lines, to a higher standard than either the road company or the utility operator believe justifiable in terms of cost and safety management.

Community influences this through:

Negotiation between road company, utility operator and local authority with local authority funding developed through the Annual Plan process.

Corridor Management Plans

The Roading Advisory Group believes that long-term community influence on roads would be achieved most effectively through a Corridor Management Plan.

As each road company could be dealing with several local authorities, it would be logical for the road companies to manage the Corridor Management Plan.

A Corridor Management Plan would be prepared by each road company in consultation with the appropriate local authorities. It would include reference to all planned amenities to be funded by the relevant local authority. Although the emphasis will be on agreeing these aspects of the Corridor Management Plan, in the absence of agreement local authorities will have the right to require such provisions, subject only to tests of reasonableness and safety.

The Corridor Management Plan would effectively be the road company's annual business plan and would set out all of the proposed actions under the five areas outlined, together with details of local authority financial contributions in areas 3 - 5. In areas 1 & 2, the Plan would indicate future areas of development, but would not replace the consent processes required under the Resource Management Act.

Development of the Corridor Management Plan would be subject to a test of reasonableness in law, with particular reference to the road company's safety requirements and other legal obligations. All local authority funding would be managed through the Annual Plan process, and generally would be sourced through rates.

Improvements and amenities

Road companies would be responsible for funding and managing all road carriageway related facilities, that is, "improvements". While this would cover any structures on the carriageway, it could also cover facilities such as street lighting and footpaths where these were integral to carriageway management and safety.

Any facility or structure in the road corridor that was not related to the management of the carriageway or road user safety would be defined as an "amenity". They would be funded by territorial local authorities. If local authorities were not prepared to fund such facilities, then the road company would not be required to provide them.

In some cases, road companies may elect to contract the day to day management of aspects of the corridor to local authorities. The legislation should permit but not require this.

Negotiation and cooperation

The goals inherent in the corridor management approach are annual negotiation and mutual agreement. While there should be a provision for a legal test of reasonableness, the Group sees this as a safety valve, rather than an integral part of what should be an ongoing cooperative process.

It should be understood that the Corridor Management Plan approach would not necessitate additional expenditure over current levels. The areas of expenditure indicated in the Corridor Management Plan are already provided by local government, so the proposed approach would simply make such expenditure more transparent.

Requiring orders

The Roading Advisory Group believes that the Corridor Management Plan approach would provide a comprehensive basis for a positive relationship between communities and road companies. Corridor Management Plans would be negotiated with local councils as part of the Annual Plan process, and be set for at least a year at a time.

The Group recognises that occasionally there might be circumstances when an annual or longer-term process might be unable to deal with a genuinely unforeseen event. The Group therefore recommends that territorial local authorities have an additional power to issue an order requiring a road company to undertake specific work at the local authority's expense. These requiring orders would be subject to a test of reasonableness in the case of any conflict with the road company's wider legal and operating responsibilities.

Parking services

Parking could be managed directly by road companies, who would be given the power to clamp or tow away vehicles. Parking enforcement could also be contracted to local authorities, who would provide appropriate enforcement services.

National Land Transport Strategy

The Roading Advisory Group notes that the National Land Transport Strategy is due for completion in May 1998 and will provide a framework for community based decisions. All local authorities will have to act in a way that is consistent with this Strategy.

The Group notes that the road reform proposals set out in this report go a long way to achieving the goals of the draft National Land Transport Strategy.

Nothing in the National Land Transport Strategy will directly control the operation of road companies, just as Tranz Rail or bus companies are not directly controlled by the Strategy. However, the Strategy will apply to the Land Transport Safety Authority and to local authorities, so that there is broad consistency in the way those agencies deal with transport businesses.

Regional Land Transport Strategies

Following the introduction of the National Land Transport Strategy and the implementation of Corridor Management Plans, the Group believes that Regional Land Transport Strategies will have a limited role and their usefulness should be assessed.

The overview of project funding currently covered by the Regional Land Transport Strategies would become the direct responsibility of road companies, acting in concert with local authorities as required through Corridor Management Plans. It seems probable that the remaining strategic regional development function could be handled more efficiently through existing Resource Management procedures.

Public passenger transport

While the details of future passenger transport policies are outside the Roading Advisory Group's terms of reference, the Group believes that it will be important in the transition period for support to continue and that any passenger transport funding system is efficient and leaves open the option of a commercially sustainable future. The Group notes that a separate Working Group on Demand Restraint and Funding of Community Passenger Services is addressing this issue and will report separately.

The Roading Advisory Group believes that if direct charging for road use is introduced it will have a substantial impact on the need for subsidies for passenger transport services. Much of the present need for subsidy, it can be argued, is a function of average charging for the use of cars, which means that road users do not face their true costs - or the costs of alternatives.

While there is a good case to suggest that passenger transport services will not need general subsidies in a full direct charging environment, this does not preclude the continued support of individual passengers for reasons of access to health, education or other social opportunities that society considers important. Such assistance should be given to specified individuals and not as general service subsidies.

Safety

Key recommendations

- Road companies should be responsible for the safe design and management of their roads and traffic flow over those roads.
- Road companies should be subject to financial penalties and, in extreme cases, road closures if their roads are unsafe.
- A safety audit regime should be put in place for all road companies, similar to that now in use for other transport modes.
- The Land Transport Safety Authority should audit and regulate the safety regime.
- To ensure safe traffic management, road companies should purchase traffic safety services from the Police.
- The Land Transport Safety Authority should remain responsible for driver behaviour and vehicle safety, and should purchase related safety services from the Police.
- Where any road safety services can be provided by agencies other than the Police, these services should be contestable.
- These recommendations should apply to all road service providers whose roads are open to the public on a regular basis.

Safety management

While rail, air and sea transport operators are required by law to have safety systems as an integral part of their management structures, there is no similar safety regime for road service providers.

New Zealand has laws to govern the behaviour of drivers and the standard of their vehicles, but there are no overall requirements for the safe management of the roads themselves. Transit New Zealand is required by law to run a safe road system, but there is no matching requirement for local authorities or other road service providers. This does not mean to imply that roads are necessarily unsafe, but simply that there is no enforceable uniform safety code.

The Roading Advisory Group recommends that all road service providers, including road companies, be legally accountable for the safe design and management of their roads, and for the safe flow of traffic over those roads. A safety system should be a basic business requirement.

After studying the responses to the Ministry of Transport's discussion document *Road Management: Future Options*, the Roading Advisory Group believes the best way to ensure safe road management is to require that all road companies have a safety management regime. Such a regime would be similar to those already in place for aviation, shipping and railways, and would be based on the principles of total quality management.

A safety audit regime would impose clear accountability and substantial financial penalties for unsafe practices. Safe operation would be a primary management goal for road companies, replacing the current regime where safe infrastructure is an option rather than a requirement. Road companies would have to be more concerned about safety than the current public roading agencies.

The Land Transport Safety Authority (LTSA) would arrange periodic audits of every road company's infrastructure and operations, and would require corrective action to maintain safety, where appropriate.

There should be an appropriate penalty regime for major failures in safety management. In cases of extreme public risk, the LTSA should be able to close all or part of a road, subject to the due process of law. Unsafe roads can and should be closed.

Safety standards

In addition to overseeing safety systems, the LTSA would continue to be responsible for setting appropriate nationwide safety standards (such as road sign specifications), to ensure consistent road safety standards throughout New Zealand.

Private roads

It would be important that such a system did not place unreasonable costs on private roads that were not open to the public often. These would include many forestry roads or tracks which were open only to trampers or hunters or were used occasionally for motor rallies. These roads would not be subject to a safety audit system, unless the public was charged for access to them on a regular basis. Roads not open to the public at any stage would not be required to have a safety system.

Safety services and the Police

To fulfil their proposed safety obligations, road companies should be able to purchase traffic management services (including attendance at accidents and incidents and traffic flow control) directly from the New Zealand Police. These services would be funded from road company income as a part of normal operating expenses.

The LTSA is currently responsible for all matters relating to driver and vehicle licensing, vehicle standards and individual driver behaviour. The Group believes that this arrangement should continue, to provide nationwide standards for driver behaviour. This would be consistent with the safety regimes for which the Maritime Safety Authority and the Civil Aviation Authority are responsible.

The Roading Advisory Group believes that the LTSA should purchase safety services directly from the Police to cover driver behaviour education and enforcement (speed management, drink drive enforcement and general patrol activities). The Group recommends that these services be funded explicitly by vehicle owners through Annual Vehicle Relicensing charges. This funding change would produce clearer accountabilities than the present Safety (Administration) Programme procedures.

The LTSA would retain its strategic safety planning role.

Contestability

The Police role in road safety would remain unaltered. Police constabulary powers to operate over all roads open to the public should be set out clearly in statute.

However, the Group notes that the rapid pace of technological change in road safety management is likely to mean that activities such as speed monitoring could be automated in the near future. Contractual and funding arrangements established for Police road safety activities should be flexible enough to allow for contestability in the provision of these services, where this is feasible, as well as the opportunity for road companies to take a more active role in areas such as speed management.

Environmental management

Key recommendations

- The Ministry of Transport's work programme to identify and manage the environmental impacts of roading activity should be completed as soon as possible. Once Government decisions have been made these should be implemented by the appropriate agencies without delay.
- Road companies should be subject to the full provisions of the Resource Management Act.
- Road companies should be network requiring authorities.

Roads and the environment

The environmental impacts of transport, and of roads in particular, is an issue of increasing concern to New Zealanders.

Roads adversely affect communities and individuals in various ways. Vehicles emit gases such as carbon monoxide, carbon dioxide, oxides of nitrogen, and sulphur dioxide. Particulates from engines are distributed through the air. Water runoff from roads carries material worn from vehicle tyres as well as oil and unburnt fuel into drainage systems. Noise from high traffic corridors affects the surrounding communities. New roads impact on the environment simply by being there!

Submissions on the *Land Transport Pricing Study: Options for the Future* document showed that there is significant public demand for a coherent approach to tackling the environmental impacts of road use and construction.

Environmental impacts: research and policy development

An earlier document, *Land Transport Pricing Study: Environmental Externalities*, made it clear that New Zealand lacked fundamental data on the environmental impacts of transport in general and land transport in particular. The specific characteristics of the New Zealand climate, road system and vehicle fleet mean that much of the international research carried out in heavily industrialised countries does not apply to New Zealand.

Following submissions on that document, the Government approved a long-term programme to collect reliable, scientific data on the environmental impacts of transport and to develop appropriate policy options and instruments to manage measured impacts.

The document, *Vehicle Fleet Emissions Control Strategy Stage 1*, published in September 1997, is the first outcome of that programme. It deals with the generic emissions from petrol driven vehicles, with a particular focus on carbon monoxide emissions, and looks at ways in which effects can be addressed. Stage 2 will focus on diesel driven vehicles and will be published in 1998.

Other related projects are:

- A review of all work on mobile source emissions in New Zealand.
- The measurement and analysis of New Zealand drive cycle emissions for petrol vehicles.
- A study into the traffic corridor effects of emissions from motor vehicles.
- A study of vehicle fleet fuel efficiency
- A study of the effects of water pollution from road transport.
- A study of noise from road transport.

In addition to these transport specific projects, the Government is developing an economy wide approach to measures addressing carbon dioxide production, in line with New Zealand's international obligations under the terms of the United Nations Commission on the Environment and Development UNCED (the Rio Convention) and the Framework Convention on Climate Change (FCCC). Future carbon dioxide policy is to be considered by the Government in 1998.

Managing the impacts of road use

The research programme now in progress is focused on developing practical policy outcomes for the New Zealand environment. As each stage is ready for consideration, the Government will be able to examine soundly based scientific evidence on specific problems, and consider the introduction of cost effective remedial measures.

This programme deals with actual effects and does not presuppose any particular management structure for the road system.

Nothing that the Roading Advisory Group proposes in this report conflicts with the current thrust of Government environmental policy. Indeed, our proposal to move towards more accurate pricing of road use is consistent with the concept of accurately targeting measures to reflect the costs that individual road users place on the environment.

The Roading Advisory Group recommends that the current research and policy development programme being undertaken by the Ministry of Transport be completed as soon as possible, and implemented by the appropriate agencies, once Government decisions have been made. This is likely to take place over the next three years.

Immediate environmental issues

The Roading Advisory Group has identified two environmental measures that should be put in place when road companies take over management of the road network. These are :

i) Incorporating all road service providers fully within the provisions of the Resource Management Act.

ii) Designating road service providers as network requiring authorities.

Incorporation into the Resource Management Act

Road companies should be required to operate within the framework of the Resource Management Act, in the same way as railways, airports and ports. Like every other business, they should be required to obtain consents from local authorities for the way in which their operations impact on air, water and land.

In this way, compliance with environmental requirements would become an explicit cost of business. It could be argued that road companies might introduce pricing policies that maximised road use, leading to worsening environmental outcomes. Extension of the Resource Management Act to apply to all aspects of road management should prevent this from happening. Road companies would have to take into account community developed land, air and water impact requirements when setting their pricing and development strategies.

Application of the Resource Management Act to all road companies would require no more than a clarification of current Government policy in the transport sector. Transit New Zealand is already subject to independently applied resource management procedures in road development.

The transfer of road management from local authorities to separate entities would also remove an important conflict of interest between the role of local authorities as road operators and their role as resource management regulators. While major decisions involving conflict of this sort are now sometimes dealt with by independent commissioners, creation of road companies would put all modes of transport on exactly the same legal basis with the regulatory agencies.

Network requiring authorities

Road companies should be designated as network requiring authorities under the Resource Management Act, so that they operate within the same resource management framework as other utility operators.

This means that they could use the designation process already set out within the Resource Management Act. A designation sets aside a parcel of land within a district plan for the provision of specific services, such as roads. This provides certainty over the future use of that land, and protection from potential adverse development. Appropriate resource consents have to be obtained separately.

Territorial local authorities are currently granted requiring authority status automatically, and the Group recommends that this status be carried over to road companies, consistent with the approach used for railways, telecommunications and airports.

Pricing and charging

Key recommendations

- Every user should pay the actual costs of their use of the road system, where practicable.
- As soon as possible, road companies should take over full responsibility for price setting and direct charging for road use.
- All price changes proposed by road companies should be subject to a statutory process of consultation and information disclosure.
- Pricing should encourage the most efficient maintenance, use of and investment in roads.
- Direct charging should allow for variable charging by vehicle type, weight, distance covered, location and time of day, subject to the cost effectiveness of available technology.
- The present system of Road User Charges should be retained and administered by Transfund New Zealand until it is replaced by direct charging systems.
- Rates should be replaced as a means of paying for road use as soon as possible, but should continue to be used as a means of payment for amenities in the road corridor.
- Road companies should be able to replace the dedicated nationwide petrol tax with a regional petrol levy, subject to a statutory consultation process.
- Road companies should be able to introduce a fixed charge for road use, in special circumstances and subject to a statutory consultation process.
- Road companies would have to consider network issues in setting prices, and could rebalance prices between geographic areas.
- The Annual Vehicle Relicensing fee should be set at a level to fund its collection and only those safety activities which are the responsibility of the Land Transport Safety Authority. Responsibility for the motor vehicle registration system should be transferred to the LTSA.

Opportunities for new technology

The road reform proposals set out in this report are not predicated on the availability of new technology to charge road users more accurately for their use of roads. Substantial benefits can be achieved by improving the management of the existing pricing and charging systems within a commercial structure. However, the advent of new charging technology opens up great possibilities for direct charging to enable further substantial gains in fairness and efficiency.

In the last decade a wide variety of new road charging systems have been developed throughout the world that allow road users to pay directly for their actual road use. "Off the shelf" information technology systems now make it possible to charge for the use of specific roads at specific times of day in specific vehicles, and such direct road pricing (also known as "value pricing") systems are now in use in many countries. This "price for service" approach is familiar to everyone who has a telephone and pays for different types of calls at different times of the day.

Some New Zealand trucking firms are already using this technology to manage their vehicle fleets and are keen to see the system develop relatively quickly to enable them to pay for their exact level of road use. Such systems are financially viable now for commercial vehicles, and will become increasingly practicable for cars as technology costs fall.

An example of how such a system could work is set out in **Figure 8**. It must be stressed that this is simply one example of the new approach and is not necessarily the system that might be used in every case.

Tackling congestion

A gradual move to a "price for service" approach on our roads also opens up the potential for major improvements to traffic flow in our major cities.

If charges for road use could be related to actual demand for roads, there is potential to charge motorists for using urban roads at peak times in a way that reflects the actual costs of such use. A reduction in demand in peak hours, by offering financial incentives to motorists to change their time of road use, would result in substantial economic benefits.

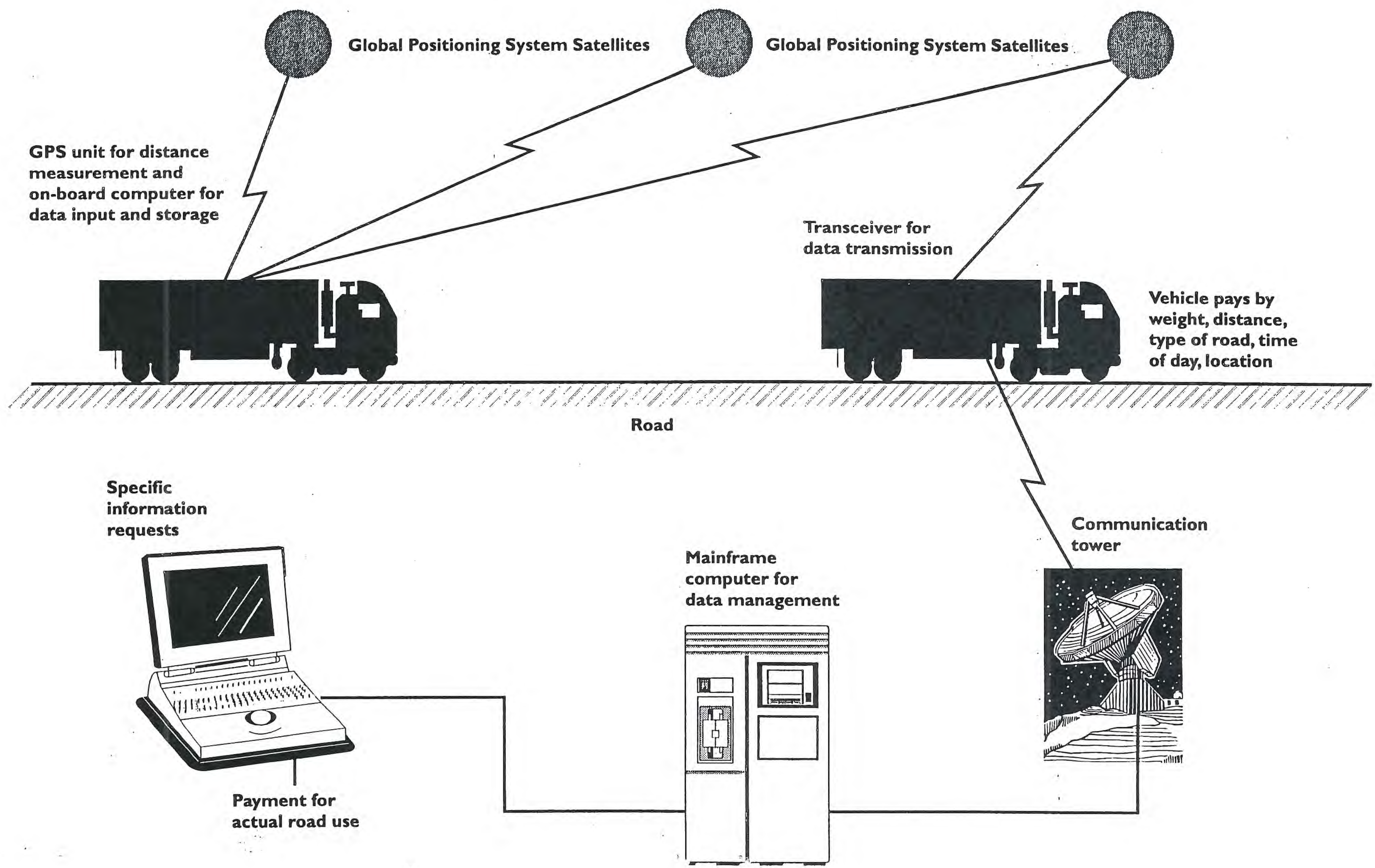
Research by the Auckland Regional Council suggests that the benefits of congestion pricing - in terms of expensive new roads being delayed or not needing to be built - would be significant. It would also deliver improved access, at costs well below those that the Auckland Region would face up to 2021, if the present system of road pricing and provision continued. If average pricing continued, it is estimated by Auckland Regional Council that $2 billion of new roads would be needed by 2021. With marginal congestion pricing, this figure is estimated to be reduced by 90%. Even if this figure is substantially overstated, the potential for savings is significant.

The pace of change

The transition from the existing pricing system to any proposed new one based on direct charging would be driven by the availability and cost effectiveness of the appropriate technology.

While cost effective road pricing technology to replace Road User Charges for heavy commercial vehicles is available now, the introduction of any such system for widespread use in cars is some years away. For much of the next decade, New Zealand's system for charging for roads is likely to be a mixture of old and new, with direct charging systems existing alongside charges based on fuel consumption.

Figure 8: Road pricing technology



The transition from the current pricing system to the new one should be managed carefully so that change was gradual, rather than a "leap into the unknown". Important policy issues relating to the introduction of new technology, including privacy issues, would need to be resolved. Officials have already begun work with the Privacy Commissioner on these topics. However, at this stage (and based on overseas experience) it appears that all legitimate privacy concerns can be addressed and satisfactorily resolved. The Privacy Act already provides an existing base from which all relevant privacy issues should be resolved.

New Zealanders have shown themselves to be world leaders in the adoption and use of new technology such as the Internet, cellphones and EFTPOS. Given the right incentives, there is no reason why direct road charging should not become a common and accepted feature of our society.

The aim would not be to introduce a particular piece of technology on a given date, but rather to improve the existing charging system within a commercial environment while developing the framework for the introduction of better systems when they became available at reasonable cost.

Principles of road pricing and charging reform

To develop specific proposals for pricing and charging systems consistent with its overall reform proposals, the Roading Advisory Group developed a set of strategic principles to guide ongoing reform of road pricing and charging in a commercial road system.

These principles are:

- Road companies should take over responsibility from the Government and local authorities for setting road prices and collecting revenue as soon as it was cost effective to do so.
- Existing pricing and charging systems should be modified to improve their fairness and to provide a basis for a gradual move to direct charging.
- The transition to any new road pricing system should be structured carefully to maximise the potential for variable charges. Proven systems should be phased out only when better systems to maximise dynamic efficiency became available.
- Once road companies were responsible for setting prices and collecting revenue, they would be required by law to follow a statutory process of consultation with road users and other interested parties before making any changes to pricing and/or charging systems (see section *Commercial Regulation*).
- In setting prices, road companies would be subject to an information disclosure regime and follow guidelines about pricing in legislation aimed at ensuring efficiency remains a key objective in price setting.
- Road companies would be required to collect all charges for which they were accountable.
- All local authority services supplied under a Corridor Management Plan could be funded by that local authority in terms of their Annual Plan.

Direct charging: the framework for the future

Road companies should be able to set prices and directly charge road users for the costs of their road use, subject to a process of consultation set out in legislation. Charges could be based on vehicle type and weight, distance travelled, specific roads used, time of day or other factors. All charges of this sort would be collected by road companies directly from road users. This would give road companies the opportunity to establish direct links with their customers and be innovative.

Companies would also be able to balance prices between parts of their network to reflect the statutory requirement to maintain the overall road system for which they had responsibility.

In setting new prices, or in introducing new road charging technology, road companies would be required to consult with road users and other intended parties. Such consultation would be required to explicitly focus on the following legislative requirements:

- The need for all road users to pay the actual costs of their road use.
- The need to ensure that all costs were allocated fairly among classes of road users.
- The need for pricing to encourage the most efficient use of roads.
- The transaction costs involved in the collection system.
- The retention of the road network.
- The standards of service to be provided.
- The principles of normal commercial management.
- The expectations of shareholders (local authorities and the Government).

Each road company would be required to maintain a specific level of information to be able to show that in setting prices or introducing technology it has considered and met all these requirements.

The introduction of new pricing technology would have to comply with the Privacy Act, and road companies would also be subject to the monopoly provisions of the Commerce Act as well as all other relevant legislation, such as the Fair Trading Act.

All information disclosure and consultation processes would be subject to judicial review.

Gradual approach

The Roading Advisory Group's proposed approach is a framework on which to build gradually.

Establishing the principles of direct charging from the start would be an important basis for future development. An empowering framework would allow a steady move away from the existing Road User Charges system to meet the wish of the road transport industry for a simpler road charging system. It would allow Auckland and Wellington to start work on serious investigation of congestion pricing - something they have long sought. It would allow development of new tourist routes. It would be a basis for road companies to begin establishing a direct relationship with their customers. Above all, it would give road companies the incentive to introduce charging mechanisms which facilitated optimal use of roads and efficient investment in them.

Road User Charges

The existing Road User Charges (RUC) system would be replaced gradually by direct charging by road companies.

Some road transport operators are keen to move to more direct pricing and payment for actual road use. The direct charging framework would allow electronic pricing systems to replace the current weight/distance RUC system based on (hub)odometers to identify the actual costs imposed on the roads by various operators.

Given that it seems likely that electronic systems would be cheaper to operate and offer greater benefits than the present RUC system, it is reasonable to expect that a general move to direct charging for heavy vehicle use of the network could happen fairly quickly.

The current RUC system is the responsibility of the Ministry of Transport, which has delegated its operation to the Land Transport Safety Authority, which in turn uses a variety of sub-contractors to run the system. The Ministry should hand over its responsibility for RUC to Transfund New Zealand, which would then administer the system for as long as there was a demand for it from road users. The Group believes that the RUC system should be closed down two years after 80% of the revenue from non petrol vehicles is being collected through direct charging systems.

Transfund New Zealand should introduce a modified transitional funding system to redistribute RUC income to the road companies on whose roads it was generated. This would be done on the basis of kilometres travelled by class of vehicle, rather than on the existing project funding basis. In this way, road companies would receive RUC income based on the level of traffic on their network rather than costs. There would need to be specific information requirements put in place for the transition period to ensure a smooth transfer from Road User Charges to direct charging.

Road companies would make their own arrangements for collecting the direct charges that would replace RUC, including any enforcement of non-payment through civil law.

Rates

Property rates currently provide an estimated $288 million of road funding each year. The Roading Advisory Group believes that using rates to pay for roads is both unfair and inefficient because they bear no relation to road use. The Group recommends that rates funding for roading be replaced by increased levels of user charges and petrol levies to link road funding more closely to road use, pending the introduction of full direct charging.

This should come into force as soon as possible after the road companies are established. From that time, local authorities would use some rates revenue to pay for amenities in the road corridor (see section *Community Interests*).

It would be important to ensure that there was a corresponding and visible reduction in rates if they were replaced by user charges as a means of road funding. The Group recommends that the accountability provisions of the Local Government Act, together with a voluntary Code of Practice by local authorities, overseen by the Auditor-General, be used to achieve this goal.

Dedicated petrol tax / levies

Direct charging technology for cars is too expensive for New Zealand to introduce at present. In the meantime, some variation of the dedicated petrol tax, with equivalent taxes on CNG and LPG, is likely to be a major means of paying for road use.

The Roading Advisory Group recommends that the current dedicated petrol tax be redefined as a "levy" on petrol and gas, and explicitly separated from the general petrol tax. This would emphasise that the petrol and gas levy was dedicated to pay for road use.

The petrol levy would continue to be a wholesale charge until it was replaced by direct charging systems. Any future changes in the petrol levy would be subject to the mandatory consultation process outlined earlier in this section.

Regional petrol levy

The Roading Advisory Group recommends that even before direct charging is introduced, the new road companies should be able to take over the collection of the petrol levy from Transfund New Zealand. Road companies would then be able to vary the amount of the levy to respond to demands for more or less roading by their users, subject to the due regulatory and consultative procedures being followed. In this way, levies could more accurately reflect the roading needs of specific areas, and would provide a closer (though not direct) relationship between price and supply.

General petrol tax

Users of petrol driven vehicles currently pay an excise tax of 20.8c / litre which is part of general Crown revenue and is not used for roading. This tax has been long-established as a matter of general fiscal policy and has no relationship to the provision of road services. The general petrol tax is a significant cost on drivers of petrol driven private and commercial vehicles, and distorts pricing signals for road use.

A justification for this tax is that it is a surrogate charge for the indirect costs of road use, such as safety, social or environmental costs. However, the Roading Advisory Group notes that :

- The full costs of road safety are already met by road users through the National Roads Fund, and contributions to ACC and private insurance schemes.
- Social costs, such as transport for education, health or social welfare purposes, should not be seen as a charge on road users. They are part of the costs of running the education or health systems and happen to involve road use. They are not charges that drivers of petrol powered vehicles should carry disproportionately.
- The cost of environmental damage caused by the road system is still being quantified, but is unlikely to be of a scale to account for the level of general petrol tax. There is no explicit expenditure by Government that seeks to mitigate the environmental effects of road use.

The Group also notes that no case has been made for the general petrol tax to be seen as a surrogate for a "return" on the Crown's investment in roading. Even if this were the case, such a "return" is anomalous, since the tax is being paid only on petrol driven vehicles. Furthermore, only the Crown receives this "return"; it is not shared by the territorial local authorities, who also own the substantial part of the road system.

The Roading Advisory Group acknowledges that the Government can impose such taxes as it sees fit in the light of political and economic considerations, and that the excise tax is a very efficient and cost effective method of collecting general Government revenue.

It is outside the Group's brief to decide whether the recommended changes in the dedicated petrol tax should be offset against the general petrol tax, as has been almost universally recommended in submissions. That is a political matter for the Government to decide. However, if the general petrol tax is retained, it should be made clear that this tax has nothing to do with transport.

The Group believes that the Government should consider whether the raising of general revenue in this way would not be achieved more effectively through a general tax instrument, such as GST or income tax, rather than by an excise tax on a specific product.

Treasury view

Treasury has advised the Roading Advisory Group that a proposal to replace petrol excise revenue, by increases in general taxes, or by reduced spending, would have fiscal, economic and equity implications. Petrol excise is an important component of the Government's revenue strategy, raising substantial general revenue with comparatively low compliance and administration costs. It may also have low economic deadweight costs if petrol demand is relatively unresponsive to price changes. It is unclear whether these costs overall are higher or lower than for general taxes such as GST and income tax. If the Government were looking at making tax cuts, petrol excise might well not be the first choice.

Fixed charges

The Roading Advisory Group believes road companies should derive their principal income from variable charges, which are linked to the level of road use and would make companies more responsive to road users than fixed charges.

However, the Group accepts that there may be special circumstances where a fixed charge for road use might be a fair and efficient way of paying for some part of the road system. For this reason, the Group recommends that there be provision for road companies to levy a fixed charge for use of their network. The introduction of such a charge would be subject to the appropriate regulatory and consultative procedures.

Motor Vehicle Registration (MVR) and Annual Vehicle Relicensing (AVR)

Income from MVR and AVR fees currently pays the cost of maintaining the Motor Vehicle Register, partly funds the ACC costs of road accidents, and contributes general revenue to the National Roads Fund. Fees are collected by the Land Transport Safety Authority and its agents on behalf of the Ministry of Transport.

The Group recommends that MVR fees should cover only the actual costs of registering a vehicle.

AVR fees should then be used exclusively to pay for LTSA and Police safety services relating to driver behaviour and education (see section *Safety*). Driver safety services across the whole of New Zealand would then be funded transparently. Once the companies take over responsibility for pricing the LTSA should take over responsibility for the collection of both MVR and AVR fees and face the direct consequences of any variations in income due to changes in the number of vehicles on the roads.

All other safety enforcement activities would be funded by road companies, initially through revenue from Road User Charges and the dedicated petrol tax, and later through direct charging.

ACC levies

The Roading Advisory Group notes that the ACC is currently undertaking consultation on the future means of collecting its levies. A number of options have been proposed to improve the link between risk and contributions. Any changed collection methods introduced as the result of this review would be in addition to and separate from the proposals set out in this report.

Other road company income

Road companies would have a number of other sources of income, in addition to those already outlined in this section. The key examples are covered elsewhere in this report. In brief, they include:

- Direct charges on local authorities for the provision of amenities in the road corridor, as agreed in the Corridor Management Plan (see section *Community interests*).
- Direct charges on utility providers for any costs they impose on the operation of the roads (see section *Management structures and behaviour*).
- Parking charges which would be collected by the responsible agency (see section *Community interests*).
- Charges to property owners for new driveway connections installed by the road company.

Interim pricing and charging

Key recommendations

- Pending the introduction of the proposals in this report, the Government should alter charges to allow Transfund New Zealand to continue to fund projects down to a target benefit/cost ratio of 4.0 on current assumptions.
- To achieve this goal, the current cost allocation model indicates that:
  - The dedicated petrol tax would have to rise from 9.4c/litre to between 13-16c/litre, with a matching increase for gas fuels.
  - Road User Charges for light diesel vehicles would have to increase by approximately 10-12%.
- If rates were eliminated as a means of funding and the motor vehicle annual licensing fee was dedicated to safety outputs, then the current cost allocation model estimates that, if these changes occurred in 1999/2000:
  - The dedicated petrol tax would have to rise further to between 20-21c/litre, with a matching increase for gas fuels.
  - Road User Charges for light diesel vehicles would have to increase by a total of 45% to 50% over their level in 1997.
  - Road User Charges for heavy vehicles would have to increase by approximately 4-5%.
  - Rates would be reduced by an average of 20% nationwide.

    (Note that the Roading Advisory Group does not recommend that these changes take place until 2001, but these figures provide some guidance as to the scale of charges required.)

Transition to the new system: the seeding process.

The full move to a new commercial road system, where road companies would be fully accountable for price setting and collection of charges within a statutory consultation and information disclosure regime, would take some time. In the meantime, the Roading Advisory Group recommends that the Government use existing pricing and charging mechanisms to meet interim funding needs and to provide a "seeding" process as a basis on which to establish the new companies.

The current cost allocation and pricing process

When the current pricing system was established in the period up to 1984, a cost allocation model was developed to guide future price setting. The principle underlying this model was that the various classes of road users should pay the actual costs that they imposed in any one year. Costs would vary from year to year to reflect the way in which changing traffic patterns generated different levels of cost for users.

In practice this has not happened. While there have been a number of changes in road charges since 1984, these were driven by wider fiscal policy, rather than by the actual costs generated by road users. The result is that current user charges do not accurately reflect user costs. In particular, charges for cars and small diesel powered vehicles are now substantially below the costs that the rapid growth in the number and use of such vehicles has imposed on the road network.

If the Government makes any short-term changes in pricing, the Roading Advisory Group recommends that, as far as possible, the cost allocation model be used to rebalance the charging system. Once road companies took over responsibility for pricing, any future use of the cost allocation model would be a matter for their commercial judgement within the statutory disclosure and consultation framework.

Short-term funding levels: maintaining current policy

The Roading Advisory Group notes that under present Government policy, funding from the National Roads Fund is provided for projects with a Benefit/Cost (B/C) ratio of 4 or greater. With the surplus from the former Land Transport Fund now used up, the B/C=4 policy is about to become unsustainable with present levels of Road User Charges and petrol tax.

The Group believes that current investment levels should be maintained until responsibility for investment decisions is transferred to road companies. It therefore recommends that there be an immediate increase in selected current charges to enable projects which are currently underway or planned to continue under current investment policy.

Officials advised the Roading Advisory Group that given the current status of the National Roads Fund, and based on the cost allocation model, taking into account the current misallocation of prices noted above, the following indicative levels of charges would be needed to achieve this goal:

- The dedicated road petrol excise tax would need to be increased from 9.4c/litre to between 13-16c/litre, with a matching increase for gas fuels.
- Road User Charges for vehicles under 3.5 tonnes would need to be increased by an average of 10-12%.
- There would be no change in Road User Charges for large vehicles given the likely future changes identified at this stage.
- All other charges, including rates would remain unaltered.

Within the existing system, these price changes would enable Transfund New Zealand to fund all projects with a B/C of 4 or greater, based on current information, in the period until the new road companies take over responsibility for price setting within the proposed information and consultation regime.

Short-term funding levels: moving away from rates

If rates ceased to pay for any costs involved with road carriageways, there would need to be a further increase in charges to replace the $288 million in roading revenue currently received from rates. In addition, there might need to be an adjustment in the levels of petrol tax and Road User Charges to balance out the reallocation of expenditure between those safety activities for which road companies would take over responsibility, and those which the LTSA would be funding.

Increases in RUC and petrol tax at this time would be offset fully by reductions in local rates and the MVR/AVR charges. They might not be neutral in terms of individual households or businesses.

The following changes to road charges would complete the rebalancing of costs using the cost allocation model.

To replace rates and to refocus road safety charging, on the same basis as noted earlier, officials advised the Group that the following indicative levels of charges would be needed:

- The dedicated national petrol levy/tax would increase to 20-21c/litre with a matching increase for gas fuels.
- Road User Charges on vehicles under 3.5 tonnes would increase further to a total of 45-50% over mid 1997 levels (ie, this total *includes* the 10-12% increase proposed above).
- Road User Charges on heavy vehicles would be increased by approximately 4-5%.
- Rates would be eliminated as a means of funding roads and would be reduced by an average of 20% nationwide.
- Rates would be used to continue to fund amenities in the road corridor.

The Roading Advisory Group is recommending that price changes to phase out rates and dedicate the motor vehicle registration fee to safety take place on 1 July 2001. The above figures are based on current data, but give an indication of the possible impact of those changes.

Caution

It is important to realise that the indicative charges noted above are based on a number of assumptions and should not therefore be taken as absolute.

They are based on current assumptions about expected revenue for the National Roads Fund; the use of the existing cost allocation model; and current projections for funding demands from the National Roads Fund.

Each of these assumptions would have to be reviewed and confirmed at the time that the Government made any funding decisions.

It is also important to note that the prices generated by the need to replace rates as a source of road funding assume the continuation of national average prices.

Transition: making the change

Introduction

The Roading Advisory Group believes that further reform of the road system should be a carefully staged process spread out over a number of years.

In developing the stages of this process, the Group was particularly concerned to ensure that:

- The process of establishing the road companies is carried out in a manner that minimises disruption.
- There is no delay in road works already planned or in progress due to restructuring.
- Road users are not faced with rapid price increases or decreases.
- Any new prices are, as far as possible, subject to the new information and consultation regime before they are introduced.

The timetable set out below uses specific dates that the Group believes are achievable and meet its goals. However, it should be noted that these are only proposals and would be subject to possible change.

The timetable is summarised in Figure 9.

Outline implementation timetable

Late 1997 to Mid 1998
- Government decisions.
- Bill introduced to Parliament.
- Prices reset to fund interim BC=4 regime until 30 June 2001.
- Consult with Maori over mechanisms to protect rights.

This would continue the current policy of funding projects at BC=4 until the new structures were fully operational.

Mid 1998 to 30 June 1999
- Legislation enacted.
- Establishment Commission in operation.
- Once companies identified, Establishment Board(s) set up.
- Assets being identified.
- Funding continues on basis of national charges as set in 1998.
- Development of safety funding contracts with Police.
- Development of "template" documents and procedures.

This stage would cover the development of the new road companies, overseen by the Establishment Commission.

1 July 1999 - 30 June 2000
- Companies set up on 1 July 1999.
- Assets transferred to companies where possible, with remainder of assets on licence to follow when ready.
- Funding system continues on basis of national charges as set in 1998.
- Local authorities collect rates and transfer to road companies, to be spent in area of collection.
- Transfund continues existing audit functions.
- Investment policies developed by companies.
- Information disclosure and pricing consultation regime introduced by end 1999.
- Development of data collection systems for road use (ongoing).
- Development of safety audit systems.

Following the establishment of the companies, current funding systems and sources of income would continue for two years while new procedures are developed in parallel. In particular, the companies would develop the information disclosure and consultation systems leading to new price setting.

1 July 2000 - 30 June 2001
- 01 July 2000 - Companies issue draft pricing proposals for discussion.
- 30 September 2000 - Draft pricing proposals for consultation.
- Consultation follows.
- 31 January 2001 - Pricing proposals issued.
- Funding system continues on basis of national charges as set in 1998.
- Local authorities collect rates and transfer to road companies, to be spent in area of collection.
- Transfund continues existing audit functions.
- Investment policies developed by companies.
- Development of data collection systems for road use (ongoing).
- Development of safety audit systems.

This completes the two year transition period started on 1 July 1999, so that the new pricing regime can be introduced on 1 July 2001.

1 July 2001
- Rates eliminated and replaced by new charges
- Road companies have full pricing responsibility, but all changes have to be actioned within consultation and information disclosure system.
- Revised safety funding system.
- Regional petrol levies (set by companies) replace national petrol tax.
- RUC distributed by Transfund on shadow toll basis.
- BC system replaced by road company investment decisions.
- Companies can borrow.
- Other road companies may enter market.
- Transfund ends present audit role.
- Safety audit system introduced.

On this date, ratepayers would cease to pay for roads, with an average nationwide rate reduction of 20%. In major urban areas this would be 10 - 15%, with 50 - 60% reduction in much of provincial New Zealand. Road users would then pay only when they used the roads. Companies would have responsibility for charging and investment, working to new safety requirements.

After 1 July 2001
- Companies can introduce electronic pricing, congestion pricing, fixed charges, tolls after information disclosure and consultation regime.
- Two years after 80% of non petrol powered vehicles are collected by methods other than RUC, RUC system closed down.
- Transfund disestablished.

From this period on, the road companies are largely responsible for setting prices and can introduce new systems as required and as efficient. Road User Charges continue only as long as required.

Figure 9: Transition process

Action	Stage 1 Charges reset to maintain current policy	Stage 2 Legislation enacted	Stage 3 Companies set up, first two years and onwards	End of transition
Direct charging *Disaggregated* *Electronic system*		Legislation enacted	Road companies permitted to charge directly	Main method of charging
Peak/congestion charge *Localised collection*			Road companies permitted to charge and collect	Develops in parallel or integrated with above
Road User Charges	Increase to maintain current funding policy B/C=4	Establishment units set up	Distributed on shadow toll basis by Transfund	Replaced by direct charging
Rates		Progressing valuations	Carriageway funding component removed	Eliminated
Nationwide petrol levy/tax	Increase to maintain current funding policy B/C=4		Replaced by direct charging and/or regional levies	Eliminated
Regional petrol levy		TLAs separating carriageway and off-carriageway expenditure	Available to road companies to replace nationwide petrol charge	Replaced by direct charging
Fixed charge			Road companies allowed to charge and collect	Optional
Motor Vehicle Registration Annual Vehicle Relicensing			MVR/AVR collected by LTSA for strategic road safety and to cover system costs	Continues
Utility charge			Road companies allowed to charge for disruption etc.	Continues

The actual impact of price changes on household expenditure is difficult to estimate. Given current estimates of the funding requirement, the short term increase in revenue that is necessary to fund roading projects with a Benefit/Cost ratio of 4 could increase costs to the average households by less than $2 a week:

Short-Term Increases in Expenditure by Households on Roads, by Location

	Current	Proposed	Increase
City	$280	$363	$83
Minor urban	$370	$438	$68
Rural	$483	$573	$90
Average	$321	$403	$82

Annual Current Expenditure by Households on Roads, by Disposable Income

	Current	Proposed	Total
< $10k	$307	$381	$74
$10-20k	$248	$310	$62
$20-30k	$322	$398	$76
$30-40k	$347	$436	$89
$40-50k	$402	$509	$107
$50-60k	$423	$551	$128
>$60k	$410	$514	$104
Average	$321	$403	$82

In the longer term, the Roading Advisory Group recommends that road companies be permitted to introduce regional petrol levies, fixed charges and congestion pricing. The quantitative impact on household expenditure of these changes cannot be determined in advance. However, four trends should be evident:

- A move to road companies will, as noted above, eliminate inter-company cross-subsidies, and will likely reduce level of intra-company cross-subsidies. This will tend to be most advantageous in terms of expenditure to households in major cities. Households in distant-low populated areas are likely to be adversely affected.
- Road companies are likely to reduce spending on road maintenance where existing levels are higher than can be justified by traffic demand. This would probably act to reduce road costs in rural areas.
- The introduction of congestion pricing will impact significantly on the expenditure of those households in the areas in which they are introduced - Auckland, and possibly Wellington. However, it is these households that will also be the major beneficiaries from the reduced congestion the new charges will occasion. Households in the outer, and generally less affluent, suburbs are likely to be the biggest winners from reduced congestion.
- Rates, which in the roading context are equivalent to a fixed charge tied to property values, will be replaced by variable user charges. This will have different impacts on different households, with the largest impacts on those paying significantly higher (or lower) than average rates.

(iv) Administrative structures

The reforms proposed in this document have administrative consequences for both central and local government.

Central government

The Roading Advisory Group's proposals envisage significant change in the current administrative structures of road management.

All of Transit New Zealand's functions would be taken over by the road companies, and it would cease to exist on the day that the new companies were vested. All staff currently employed by Transit New Zealand would be transferred to the new road companies at that time with protection of their pay and conditions at time of transfer.

Any question of payment for technical redundancy in the transfer process should be removed by appropriate legislation. Any assets or commitments held by Transit New Zealand (apart from roads and staff) would also be transferred to the road companies, as appropriate. In this way the costs of change would be carried by the road companies, who would have the greatest incentive to minimise such costs.

Ownership of the Crown's shares in the new companies would be through the Crown Company Monitoring and Advisory Unit (CCMAU).

Transfund New Zealand would continue as a Crown entity after vesting of the road companies. It would take over the responsibility for collection of Road User Charges, and the nationwide petrol levies and would oversee the National Roads Fund for as long as it existed. As the current public funding system was gradually replaced by direct charging for road use by the road companies, Transfund's role would gradually decrease in importance, until it could also be disestablished.

Given the factors detailed elsewhere in this document, the process of "winding down" Transfund New Zealand could take a number of years. This would enable a managed process of change, using short-term staff contracts and contracting out of services, so that transition costs were minimised. Given that money used for the administration of Transfund New Zealand would come from the National Roads Fund - and would therefore not be available to the road companies - the latter could be expected to maintain significant pressure on the Crown entity for cost minimisation .

Local government

It is important to recognise that the 74 territorial local authorities no longer have large numbers of staff directly involved in road management. The 1996 requirement for local authorities to competitively tender all road construction and maintenance works has already reduced most territorial local authority road staffing to a small group of professional contract management staff. The actual work is now carried on by the private sector or, less often, by local authority trading enterprises. The latter would not be affected by the changes proposed in this report.

Local authority road staff should transfer to the new road companies on the same basis as that proposed for staff transferring from Transit New Zealand. Given the continuing role for councils to oversee road corridors, local authorities may wish to retain some staff for this purpose, and these people would not transfer to the road companies. The numbers of staff transferring to road companies would vary between local authorities, but would only be a small percentage of total local authority staff numbers.

While immediate staff changes would be small, the replacement of rates as a means of paying for local roads would raise a more fundamental issue.

In many areas, road income from rates (and Transfund New Zealand) makes up the largest single item of local authority expenditure. Removing this income from local authorities will inevitably raise questions about the internal distribution of overhead costs, and then the cost structures of individual local authorities. In turn, this is likely to lead to questions about the viability of some local authorities. The significance of this issue has already been recognised by Local Government New Zealand and by many individual local authorities.

While these issues are matters for local communities, it is important to recognise that many communities had expressed concern about local authority costs well before the possible impacts of road reform were realised. The Local Government Commission is already considering the merger of two local authorities with their neighbours to reduce costs. In several areas there are already ratepayer movements to significantly reduce the number of local authorities.

The impacts of the proposals outlined in this document will not *start* the process of further local government reform - that process is already well under way. Road reform may, however, gradually put that reform into a different perspective. The real issue is one of timing, rather than of process.

Conclusion

The reforms proposed in this document are comprehensive. However, they are not based on untried theory, and do not signal the start of some cataclysmic upheaval.

Reform of our road system has been going on since the mid 1970's. The introduction of Road User Charges, the opening up of commercial road and rail competition, and the introduction of competition for road works have been part of an ongoing process that has delivered better value for the very substantial amount of money we spend on roads and road vehicles.

If these moves had not been made when they were, our current problems of supply and demand would be much worse than they are. The problems we face are serious, and need to be addressed without delay. The Land Transport Pricing Study consultation process made it very clear that New Zealanders feel we can do better.

There is a public expectation of reform, and an equally wide determination to move the management of roads into structures that can deliver a safe, sustainable road transport system. We should take the opportunity to move forward now.

Changing any system creates uncertainty and concern. Yet, we very rarely consider the costs of doing nothing. Doing nothing will not tackle the problems of Auckland's traffic congestion. Doing nothing will not provide the roads to support the forestry or farming industries. Doing nothing will continue the unfairness and inefficiency of using rates to pay for roads. Doing nothing will not ensure that we get proper value for money in roading investments.

This document sets out a steady path forward, building on what has been achieved, and offering positive short-term and long-term benefits. The Roading Advisory Group believes that the proposals in this report will deliver substantial benefits to individual New Zealanders and to the New Zealand economy.

Appendix 1 - Members of the Roading Advisory Group

Jim McLay, Auckland, (Chair): Hon Jim McLay is currently Principal of J K McLay Ltd and Chair of Macquarie New Zealand Ltd, part of the Macquarie Bank group. He is a director of several other companies. He brings considerable strategic level commercial, political and public sector knowledge to the Roading Advisory Group.

Simon Arnold, Wellington: Mr Arnold is Chief Executive of the Manufacturers Federation. He has a very wide knowledge of the Government sector and of the manufacturing industry, which is a major user of the transport system.

Robin Dunlop, Wellington: Dr Dunlop is General Manager of Transit New Zealand. He has a wide and in-depth knowledge of the New Zealand roading system, and of the roading technologies available here and overseas.

Michael Gross, Northland: Mr Gross is the Chair of Transfund New Zealand. He has extensive experience of local gc
and knowledge of transport issı

Jim Hagan, Wellington: Dr Hag
at the Treasury.

Tom Lambie, South Canterbury:
Farmers. He holds a number of

Brent Layton, Christchurch: Dr
holds a number of other board a

Stuart Macaskill, Wellington: Mr
Regional Council and is the imm
New Zealand. He has extensive

Stewart Milne, Wellington: Mr M

Appendix 2 - Glossary of terms

Amenities	Facilities and structures within the road corridor which are not related to road carriageway management, eg, trees and beautifications, bus shelters, recreational areas and public toilets.
AVR (Annual Vehicle Relicensing)	Proposed fee to replace the Motor Vehicle Licensing Fee. AVR revenue would fund driver safety services provided by the Land Transport Safety Authority and Police.
B/C	Benefit to cost ratio which is essentially the number of dollars of public benefit gained per dollar of roading authority expenditure, both capital and maintenance.
Corridor Management Plan	An annual plan developed by road companies in consultation with relevant territorial local authorities which outlines its policies for funding, managing and developing the road corridor, specifically relating to: land use, road use, environmental impacts, improvements, amenities, utility services and access.
Dedicated petrol tax	Fuel excise duty of 9.4c on every litre of petrol sold which goes to the National Roads Fund.
Fixed charge	A possible fixed charge by a road company for use of a part of the road network.
General petrol tax	Fuel excise duty of 20.8c on every litre of petrol sold which goes to general Government revenue.
Improvements	Facilities and structures within the road corridor which are related directly to road carriageway management, eg, tarmac, bus stops, signage, traffic management systems and some footpaths and lighting.
Motor Vehicle Registration and Licensing Fees	Fees paid to register a vehicle and license it for operation on the road network.
National Roads Fund	A notional account comprising roading revenues sourced from Road User Charges, Motor Vehicle Licence Fees and the dedicated petrol tax. The National Roads Fund pays for maintenance and construction of the road network, traffic enforcement, road safety and education and makes a contribution to public transport.
Nationwide petrol levy	A proposed charge to replace the dedicated petrol tax.
Paper roads	Roads which are defined on a map, but not built.
Peppercorn rental	A rental for a nominal amount of money, eg, Tranz Rail pays $1 per annum rental for all of the land under its tracks.

Private roads	Roads open to the public which are owned and operated by organisations other than Transit New Zealand and territorial local authorities, including those operated by the Department of Conservation, energy companies, airport companies, port companies, forestry companies and skifields.
Rates	Property taxes levied on property owners by territorial local authorities based on the value of the property.
Regional petrol levy	A proposed charge to be set by the road companies to take over from the nationwide petrol tax.
Road charge	A proposed charge for the use of the road network.
Road companies	Proposed new commercially structured entities, owned by the Crown and territorial local authorities, which would fund, manage and develop the road network.
Road corridor	The area from the boundary on one side of a road to the boundary on the other side of a road.
Road network	The system of publicly owned roads in New Zealand, including the State Highways managed by Transit New Zealand and the local roads managed by territorial local authorities.
Road services provider	Any organisation that funds, manages or develops public or private roads now or in the future.
Road User Charges	Charges paid by diesel driven vehicles, based on weight and distance, for use of the road network.
Utility charge	A proposed charge paid by utility operators to a road company for unreasonable disruption to the road network.
Utility operators	Organisations that own/manage utilities that use the road corridor to deliver products or services to consumers now or in the future, for example, water, gas, electricity and telecommunications companies.