



NEW ZEALAND TRANSPORT STRATEGY





## Foreword

It is my pleasure to present to you the government's *New Zealand Transport Strategy*.

Transport plays a key role in our lives and in New Zealand's economic and social development. It provides us with significant benefits and opportunities. But left unmanaged, it can also impose social and environmental costs on us all.

That is why the *New Zealand Transport Strategy* is about creating a sustainable transport system that is also affordable, integrated, safe and responsive to our needs.

This is the government's vision for the future of transport in New Zealand. It is how transport can contribute to our objective to return New Zealand's per capita income to the top half of the OECD, while also improving our communities and our environment.

This *Strategy* is the result of much collaboration and input across sectors over the past three years. It will guide decision-making by government, and act as a reference point for all who wish to contribute to government transport policy and planning.

I would like to extend my thanks to the previous Minister of Transport, Hon Mark Gosche, for his work to develop the first stage of the *Strategy*. The Labour Progressive government acknowledges the contribution of the Green Party, which has been invaluable in developing the final document, and appreciates the support of United Future.

A number of reference groups – including business, transport providers, the social sector, Māori, local government, transport users and environmental interests – reviewed the draft *New Zealand Transport Strategy*. The feedback provided was very valuable and I would like to thank the groups for their assistance.

Accordingly, this document recognises the importance of efficiency to achieving our vision, the need for people to have access to affordable and effective transport choices and local services, and considers more fully the needs of children and the aged. It also acknowledges the importance of working with local government, the private sector, Māori, and communities to achieve our objectives.

Action to realise the government's vision for transport is already underway. The strategy will, therefore, be a living document, enabling us to respond quickly to changes in transport demand, as well as social, economic and environmental expectations.

Our vision for transport is exciting and dynamic. Working together, we can achieve an affordable, integrated, safe, responsive and sustainable transport system by 2010.

Hon Paul Swain  
Minister of Transport

December 2002

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## VISION Te matakite

By 2010 New Zealand will have an affordable, integrated, safe, responsive, and sustainable transport system.

Tae rawa atu ki te tau 2010, kua whiwhi a Aotearoa i te pūnaha kawetanga ka taea te utu, e kōmitimiti ana, e haumaruru ana, e rata ana, ā, e ukauka ana.

## PRINCIPLES Ngā mātāpono

### Sustainability Ukaukatanga

To ensure that transport is underpinned by the principles of sustainability and integration, transport policy will need to focus on improving the transport system in ways that enhance economic, social and environmental well-being, and that promote resilience and flexibility. It will also need to take account of the needs of future generations, and be guided by medium- and long-term costs and benefits.

### Integration Kōmitimititanga

Transport policy will help create an efficient and integrated mix of transport modes. To facilitate integration, co-operation and collaboration between stakeholders will need to be encouraged. Transport policy will also need to ensure the efficient use of existing and new public investment.

### Safety Haumaruru

To ensure that transport is underpinned by the principles of safety and responsiveness, policy will need to ensure high standards of health, safety and personal security for all people, including users, workers, and operators. It will also need to ensure there is a robust health and safety framework, complemented by an emphasis on individual and business responsibility.

### Responsiveness Rataatanga

The diverse needs of urban and rural communities need to be recognised. Those who use transport, and those who are affected by it, will need to be encouraged to participate in transport policy development. Transport policy will need to foster the government's goals for partnership between the Crown and Māori; between central government and local government; and between government and citizens and communities, including business.

## Introduction

Transport has a key role to play in helping New Zealand to develop economically and socially in ways that protect the environment.

This *New Zealand Transport Strategy* is the first that recognises all modes and users of transport, those who provide transport, and those affected by transport. It is also the first transport strategy to respond directly to the broader social, economic and environmental needs of the country. It will guide decision making by central government and its various agencies. It will provide a point of reference for local government, business and communities.



## Our goal for New Zealand

*Growing an Innovative New Zealand* sets out the government's economic, social and environmental goals for New Zealand:

It states, in part, that:

**Our economic objective is to return New Zealand's per capita income to the top half of the OECD and to maintain that standing.**

But this government does not believe we can put on hold social and environmental progress and concentrate solely on economic growth. Implicit in the quality of the growth we are seeking will be integration of the economic, social and environmental pillars of sustainable development. Sustaining a high quality environment, managing the risks to it and implementing efficient resource use policies underpin our competitive advantage as a nation. Managing the environmental pressures from economic growth, while continuing to satisfy human needs, will require an integrated effort.

Not only will social and environmental policy continue to be given high priority in their own right, but the choice of economic policy instruments will be influenced by their interaction with social and environmental factors. Sustainability will be paramount.

## Our vision for transport

Economic development, social cohesion and environmental improvements must be progressed in parallel. Transport decisions will need to reflect the wider government commitment to sustainability.

Transport must support both traditional and new forms of production and processes, adapt quickly to the changing international environment, and respond to the different issues facing urban and rural communities. This will require a transport system that is efficient, affordable, flexible, innovative and resilient. Safety and security for those who work with, use and are affected by transport need to be improved. Co-operation within the transport sector, between stakeholders and across transport and other sectors will be necessary to create a transport system that can support New Zealanders' aspirations for the future.

Several major policy documents identify transport as a key element in achieving the economic, social and environmental outcomes that are desired for New Zealand in the 21<sup>st</sup> century. They include *Growing an Innovative New Zealand*, the *New Zealand Tourism Strategy*, the *New Zealand Health and Disability Strategies*, and the *National Energy Efficiency and Conservation Strategy*. The *New Zealand Transport Strategy* identifies the contribution transport will make to these outcomes.

The government's overall vision for transport is:

**By 2010 New Zealand will have an affordable, integrated, safe, responsive, and sustainable transport system.**

The vision is underpinned by four principles:

**Sustainability**  
**Integration**  
**Safety**  
**Responsiveness.**

Our vision for transport is exciting. It is challenging for the whole community. The government alone cannot achieve it. By working together, we can realise the vision.

## Background

Historically, investment in transport in New Zealand has been heavily dependent on government funding. Public investment helped establish an extensive network of roads, railways, ports and airports. These evolved and developed under a mode-based regulatory structure and, in time, separate government entities (central and local) owned road, rail, ports, shipping lines, airports and airlines. The country's geography, small population size and low population density, and the development









of a strong commodity-based economy, have significantly influenced the development of the transport system.

Beginning in 1983, the transport sector was systematically deregulated. Central and local government interests in the aviation, rail and maritime sectors were corporatised. Many were sold or partly privatised. However the changes of the

1980s and 1990s have not delivered all the results expected of them. While economic efficiency was increased, these changes by and large ignored the broader linkages between transport and other issues such as regional development, urban form and social cohesion.

## Future challenges

New Zealand's isolated position in the South Pacific and the nature of the products and services we import and export, place a heavy reliance on sea transport for overseas trade. Our valuable and growing production of low-volume/high-value products, perishable goods requiring just-in-time dispatch, and the growing tourism industry, will continue to place pressure, particularly on land and air transport. Transport must support sustainable development.

To assist New Zealand to be internationally competitive, the transport sector has developed integrated supply and distribution networks and introduced new technologies. We must continue to respond to changes that enhance New Zealand's competitiveness, and to use or develop our own innovative solutions that meet New Zealand's needs.

Growth in international trade and travel place New Zealand's border management and biosecurity systems under pressure. We must continue to strengthen border and biosecurity management to ensure our links with the rest of the world do not weaken security or affect our current disease and pest free status.

Most recent public investment in transport has been in the road network. However, investment through the National Land Transport Fund (NLTF) and territorial authorities has been insufficient to address changes in transport demand and the strategic needs of New Zealand. NLTF revenue, especially from fuel taxes, will come under growing pressure as motor vehicles become more energy efficient, as the use of alternative fuels increases, and as people and goods shift to alternatives to motor vehicle travel. Ongoing public investment in transport must be sustainable, strategic and add value to the decisions of individuals and businesses.

In a rapidly changing society, transport will continue to play a major role in improving access to social and economic opportunities. However, much of our transport



development, especially the growth of the motor vehicle, has also brought a wide range of health and environmental problems. The negative impacts of transport include noise, transport-related wastes, greenhouse gases, local air emissions, and contaminated water runoff.

The negative social and environmental impacts of transport must be reduced. In land transport, the government is determined to see that the transport system supports access and environmental outcomes through improving public transport, reducing congestion, improving safety for all, supporting alternatives to travel (such as teleworking and local provision of services), and providing infrastructure for walking and cycling. Barriers to mobility will need to reduce. Improving the energy efficiency of our transport system, and implementing emissions-related initiatives, are an important part of the government's commitment to reducing greenhouse gases.

Rail generally provides improved environmental benefits and gives an opportunity to reduce the impact of heavy vehicle transport on some regional arterial roads. Coastal shipping offers similar benefits. Future increases in the use of rail to carry people and products will be determined largely by the cost and level of service relative to other modes. Wherever feasible, the government will encourage transport of products by rail. Investigations into possible regulatory and price differences between road and rail will provide the government with an improved understanding of how and when this could be best achieved with least adverse impact.

## Change is needed

Advances are continually being made in the transport sector, many of which directly contribute to the vision set out in this *Strategy*. However, there is still some way to go before we achieve our vision.

Our investment in transport needs to focus on the long-term needs of New Zealand. There will need to be sufficient public funding to enable strategic land transport investment. Amongst other things, this requires sustainable sources of revenue for the National Land Transport Fund. Addressing long-term transport investment will also require co-operation between the public and private sectors, which may be in the form of partnerships, complementary investment or planning.

We must ensure that transport supports social interaction and wellbeing, especially for those who are most vulnerable in society or for those who are mobility impaired. To achieve this, the types and level of service need to improve. We also need to continue improving our safety record and work more closely with communities and those affected by transport to find effective and affordable solutions.

As we continue to develop economically and socially, we must ensure that transport does not place ever-growing pressure on the environment. This will require the use of more energy efficient and less environmentally harmful approaches to providing



transport. Technology and alternatives to transport will need to play a role in achieving this, as does demand management. We can adopt technologies and solutions from overseas and we can take the opportunity to find our own solutions and develop our own technologies. There is also a significant body of evidence, and growing international action, that supports identification and allocation of costs as an effective means of tackling environmental issues in transport.

## The way forward



The government's vision of a transport system that is affordable, integrated, safe, responsive and sustainable is ambitious. It requires ongoing development and adaptation. In moving forward, the government is committed to following an approach that is:

**Forward-looking  
Collaborative  
Accountable, and  
Evidence-based.**

The following five chapters set out the government's objectives for transport. These objectives are:

**Assisting economic development  
Assisting safety and personal security  
Improving access and mobility  
Protecting and promoting public health  
Ensuring environmental sustainability.**

They also set out a range of activities currently underway and a range of activities the government is in the process of initiating. As the following sections show, much has already been done and more is in progress. This work will help inform the development of future action over the life of the *New Zealand Transport Strategy*.

## SOME KEY FACTS ABOUT TRANSPORT

Central government invests more than \$1.6 billion in land transport each year, mostly through the National Land Transport Fund. Regional and territorial authorities invest a further \$400 million, mainly funded from rates.

Expenditure on transport is 16 percent of the total household expenditure.

10,700 kilometres of the land transport network are state highways, which carry 46 percent of all New Zealand traffic.

There are 82,000 kilometres of local roads.

Motorways account for 0.4 percent of the total network length and carry nine percent of New Zealand's traffic.

The railway network extends over 3,898 kilometres.

There are 13 commercial ports.

There are 27 airports. Seven of these are international.

Each year billions of dollars are spent on transport and tens of thousands of people are employed in the provision of transport services.



## OBJECTIVE te whāinga:

ASSISTING ECONOMIC DEVELOPMENT  
āwhina ki te whakapakari i te pūtea

New Zealand will have a coherent and efficient transport system that contributes to our quality of life and supports economic development goals, both nationally and within regions. Achieving the government's vision for transport will lead to improved flows of people, goods and services within and between urban and rural areas, and between New Zealand and overseas. Regulation and investment will recognise the need for economic development and the costs that inefficiency and unnecessary duplication in transport can impose on economic well-being.

In the long run economic development and transport growth need not be directly related. The government will promote the use of state-of-the art technology and new knowledge about transport systems, integrated land use planning, and energy efficiency to facilitate sustainable transport systems.

This approach will minimise the extent of transport growth necessary to achieve economic development goals, and in particular minimise transport-related energy consumption.

The government will ensure social, economic and environmental costs and benefits of transport are incorporated into transport decision-making. The costs of different transport modes will be fair and transparent to users.

## Introduction

The transport system is a complex infrastructure and operating system that plays a crucial role in the economic development of New Zealand. New Zealand's economic development relies on a coherent, affordable, efficient and effective transport system to improve the flow of people, goods and services both within New Zealand and to and from other parts of the world.



Aspects of the transport network have been neglected in part because investment has lacked a strategic focus. Land transport investment needs to focus on safety, reducing severe congestion, supporting passenger transport, walking and cycling, and supporting regional economic development. In a new initiative, public-private partnerships for constructing infrastructure will be allowed under appropriate conditions. To support regional development, especially in regions of acute need such as Tairāwhiti (East Cape) and Northland, the government has already made resources available and progress is being made.

Transport policy will also recognise the economic significance of shorter journeys and the role of communications technology. The integration of walking and cycling and public transport services has an important role to play in creating the quality urban environment that together with telecommunications and investment will allow clusters of businesses to develop and prosper.

The government will continue to take a more proactive role in assisting the sustainable economic development of regions. This will include facilitation to identify key transport issues and options and, in partnership with local government and business, strategic investment in land transport including roads and alternatives to roading such as rail and barging. We will need to focus on the impact that public investment and other interventions have on the long term cost of transport and on promoting ongoing innovation and improvements in the transport sector.

All modes of transport will need to be taken into account. The outcomes need to contribute to the government's social, economic and environmental goals. To help make decisions that are economically, socially and environmentally sustainable we will need to improve our understanding of the relationship, in the New Zealand context, between economic development and transport.

Looking beyond these more urgent measures, this *Strategy* recognises the increasing international experience showing that the transport sector cannot endlessly build its way out of all its problems, or rely solely on developments such as energy efficient vehicles. More effective management of the *existing* transport system and investment is becoming as important as *new* investment. Effective management means taking a broader view with all social, economic and environmental costs and benefits considered and taken into account when making transport decisions.



In our current transport system, decisions by commercial operators and private individuals usually appear to offer substantial benefits. However, these decisions nearly always impose some additional costs on people or systems outside the direct financial responsibility of the person or organisation making the decision. For example, the range of environmental costs imposed by the transport sector is increasingly recognised as a component of current public and private health costs. Similarly, neighbouring communities generally carry the cost of social disruption imposed by new roads, railways, airports and ports.

Transport managers and users have already shown that they can take advantage of new technologies and innovative solutions to reduce the negative impact of transport, especially once they are required to take responsibility for all the costs. For example, a combination of vehicle and operating rules, Accident Compensation Corporation (ACC) motor vehicle account levies and premiums, and various direct user charges mean road users will collectively and transparently meet the full costs of hospital treatment for road accidents, of safer vehicles, of road safety education, and the operating cost of those police officers involved in road safety. Over the past decade, this system – which is widely recognised as a world leader – has helped to nearly halve the number of dead and injured from road crashes and it is now being focused for even greater improvements.



A key strategic question for New Zealand is the extent to which the transport system should eventually take responsibility for all the costs it imposes on society as a whole. It is essential that, before making any decisions in this area, we have better knowledge of the level and distribution of transport costs and benefits than we have at present. To better understand some of the dynamics for future transport policy, the government has already begun work on a major study of surface transport costs and how they are borne. This study is due for completion in 2003.



Existing systems are already being made more flexible to enable a wider range of investment and management decisions than are currently possible. As a result, the land transport funding system is taking a longer-term perspective of revenue and expenditure. There is targeted funding available for a wider range of transport activities than just roads, and the project evaluation framework is being made more flexible. The government has also approved in principle investigating paying Road User Charges (RUC) for diesel vehicles on an electronic basis.

In the maritime and aviation sectors, key studies have examined the need for possible regulatory changes in ports and shipping and work is under-way on a study of airport regulation.



In transport, a skilled, professional and adaptable workforce is essential. Skill shortages and the need for skills development are already a growing issue in areas such as road traffic and environmental engineering, motor vehicle and aircraft maintenance, and heavy vehicle operations. Skills development in the public sector is also an ongoing issue. The range and types of skills that are developed will have to support the development of an economically, socially and environmentally sustainable transport system.

While the government is already taking some broader action in the area of skills development, more needs to happen. For example, the government strategy *Growing an Innovative New Zealand* recognises the need to grow talent, attract talented people to live in New Zealand, and embrace the talent of New Zealanders living overseas. Within government there are opportunities for agencies to work directly with the private sector to support skills development in the transport sector. This will be encouraged.

## What has already been done to assist economic development

To assist economic development, the government has:

### ■ Identified and funded priorities for land transport infrastructure and services including:

*Congestion:* reducing severe traffic congestion, that is congestion that occurs regularly during the week, causes long time delays, and has significant economic, social and environmental impacts.

*Public transport:* to improve funding and delivery of public transport.

*Walking and cycling:* to promote walking and cycling, including cycle touring.





*Regional development and alternatives to roads:* to help local authorities meet their specific needs where regional development and alternatives to roads are constrained by inadequate investment.

*Safety:* to improve road safety to no more than 300 fatalities and 4,500 hospitalisations a year by 2010.

- Announced changes to ensure government funding and administration arrangements for land transport address strategic priorities and focus more broadly on land transport as a whole rather than just on roads and motor vehicles. Transport planning, management and funding need to be undertaken in an economically, environmentally and socially responsible manner. This will be reflected in legislation to be introduced in late 2002.
- Approved a requirement that revenue into, and demand on, the National Land Transport Fund be planned on a 10 year basis.
- Approved development of new approaches to project evaluation for land transport infrastructure. These changes will incorporate social, economic and environmental costs and benefits in the decision-making process.
- Developed legislation to allow for public-private partnerships (PPPs) to build and manage transport infrastructure, and for the use of tolls on new roads under certain conditions. PPPs enable public road controlling authorities to access private sector finance. Both PPPs and tolling have the potential to bring forward projects and free up public funds for other projects.
- Approved in principle the development of an option of paying Road User Charges (RUC) for diesel vehicles on an electronic basis. This will reduce the administrative cost of paying RUC and provide an opportunity for heavy vehicle owners to be involved in a more equitable charging system.
- Negotiated additional air services arrangements. Successful negotiations ensure that international freight and passenger services can continue to expand. Some negotiations have the potential to contribute tens of millions of dollars to the New Zealand economy.
- Invested in Air New Zealand. This has ensured that effective domestic and international air services continue.
- Begun reviewing the way in which airport prices are set and regulated.
- Taken an active part in international agencies such as Asia-Pacific Economic Co-operation (APEC), Organization for Economic Co-operation and Development (OECD), World Trade Organization (WTO), and International Civil Aviation Organization (ICAO). This has helped promote and strengthen New Zealand's trade and transport links. Participation has also enabled New Zealand to access up-to-date information

on international developments in transport and participate in the development of standards and guidelines that are relevant and usable for New Zealand.

- Reviewed competition issues in the ports industry that might impact on ports' contribution to economic development.



## Further initiatives to assist economic development

Work in progress includes:

- A detailed investigation into the potential use of congestion pricing for roads in major urban areas. Congestion pricing may help reduce the impact congestion has on economic activity in areas such as Auckland, where congestion is estimated to cost around \$1 billion per annum.
- A detailed investigation of surface transport costs and charges to help inform future policy decisions on transport costs and infrastructure provision. This study is due for completion in 2003. Part of this study will focus on the way in which the various components of surface transport costs are integrated and identify any significant distortions that can magnify undesirable side effects such as pollution or social costs.
- Development of policies for the long-term management and growth of the New Zealand rail network.
- Simplification of the management of the road network, including allowing clustering of road management agencies and new legislation covering road management powers. Clustering will enable the sharing of skills and resources and the adoption of innovative approaches to managing road networks. Simplifying road management powers will help to reduce the cost of managing the road network.
- Negotiation of more extensive arrangements to remove air services arrangements restrictions.



## SOME KEY FACTS ABOUT TRANSPORT AND ECONOMIC DEVELOPMENT

Transport and storage accounts for five percent of gross domestic product.

•

The road transport industry employs three percent of New Zealand's workforce and accounts for 3.3 percent of New Zealand's gross national product.

•

Vehicle-kilometres travelled by goods vehicles increased by 34 percent for light goods vehicles and 19 percent by heavy goods vehicles over the 1996-2001 period.

•

10,000 people are employed in the maritime sector and around 4 million passengers are carried every year.

•

Between 1993 and 2001, exports have increased by 25 percent in volume and imports by 32 percent.

•

Approximately 99 percent by volume of imports and exports are moved by sea.

•

Imports of non-food manufactured goods increased by approximately 90 percent between 1990 and 2000.

•

In the year ended June 2001, more than 90,000 tonnes of international airfreight were loaded and 88,000 tonnes unloaded.

•

In the year to June 2001, Tranz Rail carried 14.5 million tonnes of freight, a 25 percent increase over the tonnage carried in 1997. Total revenue earned over this period increased by eight percent.

•

International visitor arrivals in New Zealand have increased from 533,000 in 1985 to over 2 million in the year to March 2002.



## ***Regional Development Transport Funding***

Overcoming transport barriers to regional development will help achieve the government's transport goal of assisting economic development. This will, in turn, contribute to achieving the government's vision of returning New Zealand's per capita income to the top half of the OECD and to maintain that standing.

The government is committed to providing funding for transport initiatives that support economic development.

Forestry has been identified as an industry that can support regional development. By 2015, the wood supply from New Zealand's planted forests is forecast to double to 30-35 million cubic metres. In 2025, 55-60 million cubic metres of wood could be harvested. If we are to get the best value from this 'wall of wood', a number of regional transport issues must be addressed. To help achieve this, the government has made \$30 million available in transport funding for roads and alternatives to roads that assist regional development. As regions of acute need, which also have significant areas of planted forests, Northland and Tairāwhiti are currently the funding priority.

The regional development planning process set up by this government has demonstrated that a co-operative approach can achieve good outcomes for all. Discussions in Northland and Tairāwhiti, for example, identified a number of possible transport solutions and all parties reached agreement on a single transport plan to assist regional development.

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## ***International Air Services Arrangements***

International air links form a key role in connecting New Zealanders to the rest of the world. The government actively negotiates international air services rights and has sought to remove many of the restrictions traditionally contained in air services arrangements.

High priority is given to securing additional access to New Zealand's most important tourism markets and trading partners, for example, with the United Kingdom and Japan. The government has successfully secured 'open skies' air services agreements, notably with Australia, and countries in South East Asia and the South Pacific. Where the other country concerned would not agree to such a liberal approach, more restricted arrangements have been secured, notably in Europe and North East Asia.

A major achievement in the last couple of years has been the negotiation and signing of the *Multilateral Agreement on the Liberalisation of International Air Services* with fellow APEC members Brunei, Chile, Singapore and the United States (since joined by Peru).

As well as providing New Zealanders with better access to the rest of the world, these air services arrangements provide the basis for strong growth in tourism and air cargo traffic – key drivers for the economy and employment. There are now 29 international airlines serving New Zealand (22 operate aircraft and seven code share) with an extensive range of opportunities to provide air services to and through this country.



## OBJECTIVE te whāinga:

### ASSISTING SAFETY AND PERSONAL SECURITY āwhina i te hauora me te maru whaiaro

Targets, standards and rules for the safety of those who use or are affected by the transport system will be implemented through the *Road Safety 2010* strategy and other measures. The government will continue work on improving safety outcomes across all modes and will recognise the contribution that reduced dependence on private vehicles can make to improve safety. New Zealand's safety standards will be more positively related to international standards.

Safety and personal security concerns associated with transport will be addressed in order to improve quality of life and to promote modes such as walking, cycling and public transport. Current commitments to road safety education and enforcement of road code for all road users will be strengthened.

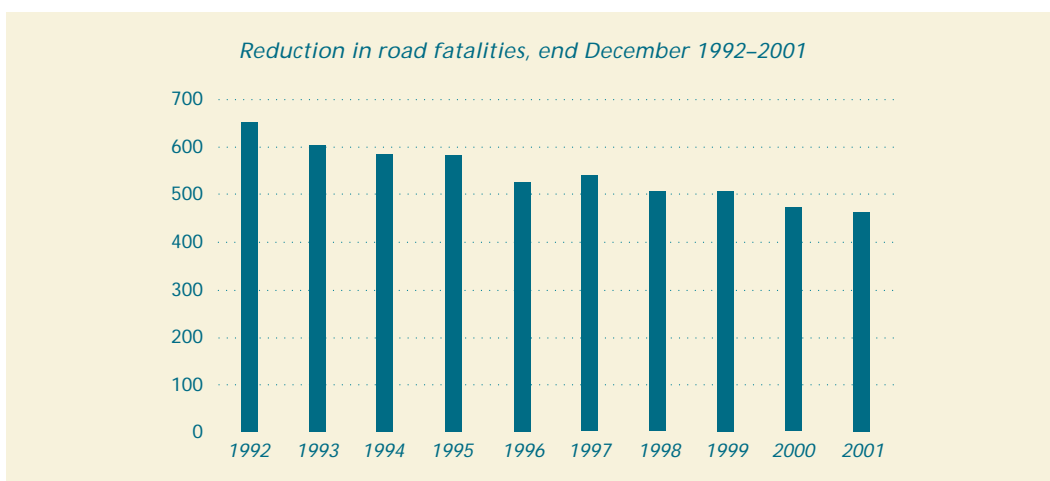
The government will promote participation by users of, and those affected by, transport in the design of new safety regulations and in monitoring.

## Introduction

All forms of transport expose people to safety and security risks. Safety in the transport system is generally the result of four interlocking factors: education, engineering, enforcement, and management systems. They all work together to improve the overall safety result, whether on the roads, in the air, at sea, or on the railways. Substantial efforts to improve long-term safety performance in a number of transport areas are underway.

While the rate of accidents on the road network has been declining for a number of years, our overall safety performance can improve even further. For road transport, the government has set a new road safety goal for 2010. Achieving this road safety goal will represent a 35 percent reduction in the 2001 road toll and provide New Zealand with a road safety outcome that is among the best in the world.

As part of its overall approach to road safety, the government has already devoted substantial extra resources to road safety education – nationally and for a wide variety of community groups. Additional funding has also been made available to the Police. The new highly visible Highway Patrol has already played a major part in reducing overall speeds on the open road, with major benefits to road safety. New standards are also being developed for road design and management.



As will be reflected in *Road Safety to 2010*, pedestrians and cyclists must also be safe. The government has a role in ensuring safety for all transport users, especially in the road corridor. The success of *Road Safety to 2010*, and the *New Zealand Transport Strategy*, requires that the safety needs of vulnerable users be taken into account in making a wide range of transport decisions, including in policy, planning and investment decisions. In particular, the needs of the aged and children need to be considered.

Many short journeys made today by car could be replaced by walking or cycling where the necessary safety improvements have been made. Public transport could also offer improved safety and security. Concerns people have over safety and personal



security affect their usage of these modes of transport. For parents to allow their children to walk and cycle, and for people to use public transport, they must feel their transport choices are safe. In order to achieve the goals of the *New Zealand Transport Strategy*, the personal security concerns that people have in relation to walking, cycling, cycle touring and public transport will need to be addressed. Addressing personal security issues will require work within transport as well as within and across other sectors. The government has already released a package of measures that deliver on its crime reduction strategy. An overall policing strategy has also been developed. Both strategies will help address safety and personal security concerns in relation to transport.

The Wilson Report on rail safety made it clear that New Zealand needs to improve rail safety performance up to international best practice. The report's findings are being incorporated in a new rail safety regime that is under development. In the maritime and aviation sectors, programmes to improve regulation and education will continue. Existing safety management systems will be strengthened and extra focus will be placed on those areas where safety performance needs most work.

Threats to various parts of the transport system around the world have brought home the fragility of the entire transport system. Security at our international and domestic airports has been substantially increased. Following a review of aviation security, other measures are likely to be introduced to further improve security and meet appropriate international standards. International attention is also focused on improving maritime security. In maritime transport, special attention is being given to the future management of shipping containers. With an extensive international trade in containers, New Zealand is particularly interested in this work and the government is actively participating in what will have to be a co-ordinated international solution.



Workers in transport have one of the highest rates of workplace death or injury largely resulting from the operating environment within which they work. Commercial fishing in particular is known to be a high-risk work activity. The government is keen to ensure that workers in transport, or those who use transport for work purposes, are safe from avoidable harm. It is making

changes to the *Health and Safety in Employment Act* that will provide a common foundation across all modes for improvements in workplace health and safety.

Many of the significant safety impacts of transport are managed through regulation and the development of standards or guidelines. In all modes, the government will link its regulatory systems as closely as practicable to the growing body of international regulation, standards and guidelines. This will help to reduce development costs and to ensure safety compliance costs for international trade are held at a minimum.



## What has already been done to assist safety and personal security

To assist safety and personal security the government has:

- Increased domestic and international aviation security measures in response to increased global risk. These measures included introducing screening on the main domestic routes.
- Taken an active role in moves by the international community to improve port and shipping security.
- Set up the Wilson Inquiry into rail safety. The government has accepted the results of that inquiry as the basis for a substantially improved rail safety regime.



- Set up a review of accident investigation procedures and responsibilities. The aim of this work is to maximise the effectiveness of accident investigations.
- Doubled funding to community based road safety programmes including Māori and Pacific Island initiatives. Some of the programmes funded have included pedestrian safety campaigns and improving tourists' knowledge of road use.
- Increased funding by \$3 million to promote walking and cycling and to improve footpaths and cycleways.
- Begun work on a walking and cycling strategy. This strategy will enhance safety of these modes and enable them to contribute to improved safety outcomes. The strategy is due for release in 2003.
- Set a new road safety goal to 2010. Funding of \$34 million has been allocated to a package of initiatives for 2002 and 2003, which will directly contribute to achieving the goal.
- Begun developing standards and guidelines to improve pedestrian and cyclist safety.



- Has begun developing a heavy vehicle safety strategy.
- Increased funding for road safety. This has included the establishment of a properly equipped Highway Patrol.
- Introduced new safety standards for road vehicles. These standards have included the frontal impact rule.
- Begun to develop a national civil defence and emergency management strategy. This strategy will help co-ordinate action and provide greater security for the transport sector in case of emergency. It will also require the transport sector to respond effectively to natural and other disasters.

### Further initiatives to assist safety and personal security

- Development of a new road safety management framework, in co-operation with road controlling authorities. An effective safety management framework will help reduce the risk to road users by identifying and managing risks in the road environment.
- Development of a new rail safety regime, planned to be introduced in 2003.
- Development of long-term safety strategies for the rail, aviation and maritime sectors.
- Completion of the basic Transport Safety Rules programme by 2005. This rules programme has included driver licensing and new vehicle safety standards rules. Future rules will include one on road use behaviour.



## SOME KEY FACTS ABOUT TRANSPORT, SAFETY AND PERSONAL SECURITY

\$230 million is spent each year on road safety.

The road toll in 2001 was 455 people killed and 6,382 people hospitalised.

The rate of road deaths per 100,000 people in 2001 was 54 percent of the rate in 1988.

The cost of road crashes for the 12 months to September 2001 was \$3.3 billion.

The greatest risk of death on our roads is in the 15-24 year age group.

80 percent of deaths occur on open roads.

The worldwide commercial fishing fatality rate is 80 per 100,000 workers. In New Zealand, the fatality rate for commercial fishing over a 15-year period to 2000 was 167 per 100,000.

Reported maritime accidents for the year to June 2001 totalled 385 – a decrease from the previous year's total of 477 accidents.

In the year to June 2000, recreational boating had 18 fatalities, while commercial fishing had four.

The New Zealand air accident rate for the light commercial air and helicopter group is higher than in Australia or the United States.

Of the total rail casualties in 2001, 16 were fatalities and 12 were serious injuries.



## Road Safety to 2010



Too many people are dying on New Zealand roads. Improving safety is one of the government's transport priorities. It has recently set a new road safety goal of no more than 300 fatalities a year by 2010. This represents a 35 percent reduction in the 2001 road toll.

Progress towards this goal will build on New Zealand's current road safety programme.

Examples of current successful initiatives include:

- Dedicated Highway Patrols
- Ongoing campaigns targeting excessive speed, drink driving and wearing of seat belts
- Treatment of identified crash 'blackspots' on our roads.

As part of the *Moving Forward* land transport funding package, government is investing an additional \$34 million to June 2003 for a range of new road safety enforcement, education and strategic support activities such as:

- More resources directed to rural drink driving and heavy vehicle weights enforcement efforts
- Piloting of a novice driver training programme
- Promotion of Safety Management Systems for use by road controlling authorities
- Increased focus on safety for vulnerable road users (pedestrians and cyclists).



The government is also substantially increasing its investment in New Zealand's roading infrastructure, a move expected to provide substantial safety benefits. Together these initiatives should ensure New Zealand is on the right track for achieving its 2010 goal.



## *Occupational Health and Safety Transport Issues*

Workers in the transport sector face a number of risks traditionally managed by safety regulations that focus on design, construction and operational factors in each mode. For land transport they do not address the ‘human element’ factors, such as fatigue, stress and alcohol and drug use, which are behind some accidents.

Workplace safety and health issues for transport workers have traditionally been treated differently to other occupational groups. For example, aircrew are excluded from the *Health and Safety in Employment Act 1992* (HSEA) and are not covered by civil aviation legislation. Workplace safety and health coverage of seafarers is provided for under the *Maritime Transport Act 1994*, rather than the HSEA. Applying the HSEA to mobile workplaces on land has been difficult and affected by legal problems.

The government will amend the HSEA and relevant transport legislation to ensure workplace safety and health for all transport modes is consolidated under the umbrella of the HSEA. In the case of maritime and aviation, these amendments will need to be consistent with relevant international obligations.



**OBJECTIVE te whāinga:  
IMPROVING ACCESS AND MOBILITY**

**whakapai ake i te putanga me te oreoretanga**

Access and mobility for all New Zealanders will be enhanced through education, investment and infrastructure to improve local networks and communication and travel within and between regions. Affordable and reliable transport services will make a key contribution to better access and mobility. The government will promote optimal use of different modes of transport in different settings through a range of measures including its pricing and funding priorities.

The government will improve access to appropriate transport for all, including for vulnerable users, for the transport-impaired and their caregivers, in order to enhance participation and independence and reduce social exclusion. Policy and regulation will recognise that motor vehicles are not the only users of roading space and will ensure the needs of others, such as pedestrians and cyclists, are catered for.

Local solutions to local needs will be encouraged with national consistency where necessary.

## Introduction

Transport helps New Zealanders access a wide range of work, education, social and recreational activities. Lack of access can reduce individual or community ability to participate in activities. Transport choice is important in allowing New Zealanders to take advantage of social and economic opportunities.



Providing choice need not be about long journeys or moving around our cities. Ending isolation for the elderly, supporting the independent movement of children within their communities, providing access to medical services, education and employment all depend in part on people being able to access services and opportunities locally, and to interact and move within communities. Transport systems must meet these needs and allow people to exercise a full range of transport choices.

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Access is both a rural and an urban issue. Improving urban transport services is important, but so are government initiatives to develop rural internet access; to improve rural primary health care; to ensure basic road maintenance and where appropriate to support the provision of public transport services that meet the specific demands of widely dispersed regional communities.

Transport choices can include private or public transport including walking, cycling, private cars, taxis, buses, rail, air and ferries. In some situations, access to employment, education and recreation can also be improved through alternatives to travel such as teleworking and the internet.

While choice is important, it needs to be affordable for users and communities and must be effective in meeting social and economic needs. The government has a role in promoting healthy and sustainable choices. The most effective solutions can vary between communities and groups within society, and by location.

The level of mobility people associate with walking, cycling and public transport, for example, depends on what destinations are within reach, as well as the quality of the journey. Transport in all its forms is such an integral part of every community that it is sometimes easy to forget that a system that exists to link people together can also be a barrier to movement and community interaction. Communities where people walk and interact in streets tend to be healthier.



New Zealanders who are disabled or are unable, for age or other reasons, to use a car or access other transport services are some of the people for whom our transport system, and the layout and attitudes of our communities, can all too easily become a major impediment to mobility. High traffic volumes and transport noise and emissions can disrupt social cohesion and indirectly undermine mobility by breaking down social networks.



Improving access and mobility through the transport system requires a number of initiatives across the whole transport sector.

Improving the public transport system is a high priority. Changes to the public transport funding system in 2001 removed the previous cap on expenditure and introduced a new way of funding. This approach pays regional councils for results achieved in terms of the number of passengers carried. Already the Auckland region has seen an increase of 7.5 percent in passenger-kilometres in one year. Other regions are also showing signs of good growth. In addition, 'kickstart' funding from Transfund New Zealand has seen a range of completely new passenger transport services introduced around New Zealand. Management of these services will remain a co-operative effort between road, rail and ferry operators and regional councils, within a national funding framework that supports local initiative.

The government has also supported the *Auckland Regional Growth Strategy*. This strategy seeks to refocus much of metropolitan Auckland around a rail-based rapid transit system, with the longer-term goal of reducing the need for car travel. In May 2002, the government completed the purchase of the regional rail network, including all stations and related infrastructure. It is now working closely with Auckland local authorities on the next stage of the redevelopment of a high quality urban public transport system.

Providing improved pedestrian facilities is an important factor in increasing access to services, especially to local services such as shops or medical centres. The government has already increased its investment in walking and cycling.

As transport infrastructure generally has a long life, achieving the right standards of access at the design stage is crucial. Designers, operators and managers will need to review issues such as vehicle design, availability of information and physical access to stations, stops and facilities if the barriers to accessibility are to be removed.



The *Total Mobility* service provided in some cities and rural areas has long been a key element of the transport system. It is essential to many aged and disabled people who have no other means of transport. The *Total Mobility* service is funded through Regional Councils. It is often linked with various volunteer groups and provides taxi-van or shuttle-based door-to-door transport for those with physical impairments that limit their mobility. While *Total Mobility* is an important part of the life of many New Zealanders, the level of service varies from area to area and demand often exceeds supply.

The government is planning to review and reform the *Total Mobility* scheme as part of its commitment to the *New Zealand Disability Strategy*. Management of the service will remain at the regional level, but the review will aim to increase the consistency and quality of the scheme across New Zealand. It will also need to consider the ability of the scheme to cater for the demands a changing population structure is likely to place on it in the future.

The government has made a number of changes to driver licence procedures that will help older New Zealanders maintain or improve their level of access. Work being undertaken through the International Civil Aviation Organisation (ICAO) will help to improve international standards for access and design of aeroplanes for the mobility impaired.



## What has already been done to improve access and mobility

To improve access and mobility the government has:

- Introduced a new patronage funding system for public passenger transport. This has led to substantial increases in passenger transport use throughout New Zealand. A further \$30 million has been provided through to June 2003 to support additional increases in patronage.
- Purchased the rail corridor and stations in Auckland. This will provide the basis for a high quality rapid transit system to support the *Auckland Regional Growth Strategy*.
- Increased funding by \$3 million through to June 2003 for walking and cycling. This funding will be invested in promoting walking and cycling and in a number of infrastructure projects. Begun work on a walking and cycling strategy. The strategy is due for release in 2003. It will increase the importance of these modes and identify ways in which infrastructure and planning can improve their use. Once completed, this strategy will help to inform the allocation of walking and cycling funding through the National Land Transport Fund (NLTF).

- Approved a review of the *Total Mobility* scheme. This review is due for completion in 2003. It will aim to increase the consistency and quality of the scheme across New Zealand, and will consider the ability of the scheme to cater for the demands a changing population structure is likely to place on it in the future.
- Participated actively in work by ICAO to develop access guidelines for international air services. Over time this will help to improve access to aircraft for the mobility impaired. Where relevant to New Zealand it will also provide information on mobility issues for other air service infrastructure.

### Further initiatives to improve access and mobility

- Development of a new road management regime. This regime will recognise the importance of the road corridor to all users, including pedestrians. Legislation is due to be introduced in 2003.
- Development of a framework to measure improvements in access and mobility.
- A review of driver licensing consistent with the *New Zealand Positive Ageing Strategy*.
- A review of access to public transport services in terms of the *New Zealand Positive Ageing Strategy* and the *New Zealand Disability Strategy*. This review will help to understand the impact of these strategies on passenger transport services and the need for further initiatives related to passenger transport vehicle and system design and operation.



## SOME KEY FACTS ABOUT TRANSPORT, ACCESS AND MOBILITY

New Zealand has one of the highest rates of car ownership in the world. The number of registered private motor vehicles increased by 26 percent from 1990 to 1.9 million vehicles in 1999.

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30 percent of people do not have access to a private motor vehicle because of disability, age, income or inclination.

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Only 2.2 percent of trips are made by bus and around 0.25 percent by rail.

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Urban rail services in Auckland and Wellington provide approximately 12 million passenger trips annually in total, of which 82 percent are in Wellington.

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3.6 million passenger trips per year are made on commuter ferry services in Auckland.



## *Patronage Funding: Christchurch as a Case Study*



Improving the public transport system is a high priority for the government and in 2001 it changed the way public transport is funded to encourage public transport use. It also increased the amount of funding available for passenger transport assistance by \$36 million a year.

Funding is now paid to regional councils for results achieved in terms of the number of passengers carried and this approach has been very successful in raising passenger transport use. One region that has been particularly successful is Canterbury where Christchurch has enjoyed a 22.6 percent increase in passenger transport use between July 2001 and June 2002.

Transfund New Zealand currently pays Environment Canterbury:

- 40 percent of their costs in meeting their baseline passenger numbers
- \$1.10 per passenger during peak hours (70c during off peak) as patronage payment for any increase in passenger numbers above the baseline numbers
- 40 percent of 'kickstart' project costs.

Environment Canterbury 'kick start' funded projects include:

- Eastern Orbiter (\$1.44 million)
- Eastern Orbiter – Stage 2 (\$1.08 million)
- Smart Card Ticketing (\$990,000)
- Rangiora Express (total cost \$59,000).

Increasing passenger transport use in key urban areas will help to contribute to the access and mobility, public health and environmental sustainability objectives in the *New Zealand Transport Strategy*.

## *Drivers' Licences*

The loss of a driver licence can have a significant impact on an older person's ability to participate in their community and many older people have expressed concerns with the driver licensing system. The government has already made a number of changes to address these:

- Since 31 December 2001, the new licence fee for all drivers aged 75 and over has been set at a new flat rate of \$18.30. The fee for sitting the older driver test remains at \$41 although it is worth noting that the actual cost of the test is about \$49.



- Older drivers will be allowed a free re-test if they fail an initial older driving test.
- Improved support for those being tested before and after the practical driving test so it is not an intimidating experience
- Enhanced auditing of driver testing officers.

There are other proposed changes which the government will shortly consider. They may include:

- Making it easier for older drivers to apply for conditional licences by offering the choice of tests. They may sit a full older driver test for a licence without restriction or they can sit a more conditional licence test for a licence with restriction, such as a requirement to drive only in areas of 80km/hr or less.
- Booking of practical tests by telephone.

### *Telecommuting and Virtual Offices*

Advances in information and communications technologies over recent decades, particularly through email and the internet, allow people to work from offices at or near their homes, instead of commuting to a central city office. Virtual offices are expected to become more common as fast internet, or broadband, technology is extended beyond city centres. The development of new communications technologies such as 3<sup>rd</sup> generation mobile devices and advances in video-conferencing will also contribute to this trend.

Virtual offices have potential implications for transport through reduced peak traffic flows and increased use of rural or regional roads. For example, a recent Wairarapa community survey found that improved internet access would enable 34 percent of the commuters surveyed to telecommute for all or part of the working week.

Broadband rollout is gathering momentum in New Zealand. A key factor behind this momentum is the government's Project Probe, which aims to provide broadband to every school, and therefore to most communities, by the end of 2004. Rollout of broadband in some regions (notably Southland and Taranaki) is already quite far advanced.



OBJECTIVE te whāinga:

**PROTECTING AND PROMOTING PUBLIC HEALTH**  
**tiaki me te hāpai i te hauora tūmatanui**

Transport will contribute to healthy communities and human interaction. Health outcomes will be improved through regulation, education, encouragement and investment. Walking and cycling for short trips will be promoted and reduced dependence on private vehicles for mobility is encouraged. The government will put in place policies that encourage modal shifts that enhance air and water quality and reduce exposure to transport noise or other aspects of transport systems that can impinge on community and personal health.



## Introduction

Regular physical activity can significantly reduce the risk of major health problems. The *New Zealand Health Strategy* sets out a number of goals that are related to transport. Goal 4 focuses on healthy physical environments including improving access to public transport and reducing the adverse health effects of environmental hazards. Goal 6 focuses on healthy lifestyles including increasing the level of physical activity. Active transport modes such as walking and cycling can contribute to this goal.

The negative health impacts of transport can come from a wide range of areas including emissions, contaminants, noise and accidents. These impacts can affect both physical and mental wellbeing. High volumes of traffic can restrict people's sense of mobility and their ability to interact in public spaces. This in turn increases stress and isolation.

In April 2002 the government released a report on the health impacts of road vehicle emissions. Research showed that the 'invisible' death toll from road vehicle emissions was on a similar scale to the 'visible' toll from road accidents. It also showed that road vehicle emissions affected almost all New Zealanders to some degree, wherever they live. While the government is undertaking further research on this issue, it recognises that the problem needs urgent action. Reducing harmful emissions from road vehicles is therefore a high priority.



The health impacts of road transport are not confined to exhaust emissions. Cars and trucks leave particles of worn tyre material and unburnt fuel from exhaust pipes on the road surface. The road surface also gradually wears down. Rain washes all this material into storm water systems and then into local water systems where it can remain a risk to human health and the environment. The emissions from aircraft and the water runoff from airports also impact on public health. Internationally there is evidence that emissions from ships and boats may impact on community health in some areas. Some individuals find that transport negatively affects their ability to participate in society and their community and thus presents them with a broader set of physical and mental health challenges.

Noise from motor vehicles in urban areas can have an impact on community health and wellbeing. Those living near locations such as ports, airports and rail shunting

yards where other noisy transport activities occur, can also be affected. While aircraft and other transport noises are less severe in New Zealand than in many other countries, it is still an issue that needs attention.



A range of initiatives are under way to address these issues, focusing first on emissions generated by cars and trucks. An early measure has been to ensure the quality of fuel sold in New Zealand will be dramatically improved. Having set new fuel specifications, the government has started work on introducing emissions standards for imported vehicles. It is also evaluating the possibility of new operating standards and testing procedures for vehicles already in the country. Detailed research on understanding the health impacts of water runoff and noise from roads is already well underway. This work will enable the government to identify and undertake further initiatives in these areas.

Solving the impact of transport on health will require more than regulation, improved infrastructure design and new technologies. We must also consider whether or not the use of alternative modes of transport could offer better health outcomes. Substantial health benefits would be achieved if even a small proportion of the under two kilometre trips currently made by car were made by active health modes such as walking or cycling. These benefits would come from increased physical activity, reduced emissions, less noise and less water pollution.

Initiatives such as the *Travel Smart* programme in Perth, Western Australia, have generated significant changes in travel patterns of this sort. This, and other similarly successful programmes, will be assessed for their effectiveness in New Zealand cities. However, safe and well-designed facilities for walking and cycling need to be available to support such changes. The government has set aside additional funding in the National Land Transport Fund for walking and cycling initiatives and infrastructure. Work is also well underway on a strategy for walking and cycling. This strategy will help to provide guidance for policy makers, road managers and communities.

Public transport systems also offer the potential to improve public health outcomes through reduced vehicle emissions. Changes to the passenger transport funding system have seen substantial growth in passenger numbers since that time. Longer-term developments, such as the planned improvements to the rail system in Auckland, promise further positive trends in this area.



The government wants to understand what changes would be necessary for longer trips and for freight transport to ensure the public health impacts of the transport system are minimised. Work has begun on a detailed study to evaluate the total costs (including health and environmental costs) of road and rail transport. Other related modal studies will probably need to follow. When the first report is completed in 2003, the government will have a solid basis on which to assess further initiatives to reduce the current health impacts of transport.

## What has already been done to protect and promote public health

To protect and promote public health the government has:

- Promoted the benefits of walking and cycling through the Push-Play initiative developed by the Hillary Commission.
- Increased funding for walking and cycling by \$3 million. This funding will be used to promote the use of these active health modes and to improve infrastructure.
- Begun work on a walking and cycling strategy. Due for completion in 2003, this strategy will promote the active health and environmental benefits of walking and cycling. It will also inform the allocation of the funding for walking and cycling through the National Land Transport Fund.
- Approved the inclusion of the health benefits and costs from walking and cycling in the project evaluation methodology used by Transfund New Zealand. This will place a greater emphasis on these modes.
- Introduced a new funding system for public passenger transport. This has already led to substantial increases in passenger transport use throughout New Zealand. A further investment of \$36 million was also made to strengthen this patronage-based initiative.
- Commissioned and released the *Health Impacts of Vehicle Emissions Report*. This report identified the 'invisible' road toll from road vehicle emissions as being on a similar scale as the toll from road vehicle crashes.
- Approved world best practice fuel specifications for introduction in 2006. These specifications will significantly reduce the level of pollutants in fuel and enable the government to implement a number of other initiatives such as emissions testing.



- Approved the inclusion of greater emphasis on social and environmental responsibility in transport planning and funding. This will be incorporated in relevant legislation.
- Approved the development of rules, for introduction in 2003, setting minimum emission standards for all road vehicles imported into New Zealand.
- Introduced the 'ten second rule' to reduce the number of smoky vehicles.

## Further initiatives to protect and promote public health

- Evaluation of options for further reducing road vehicle emissions, including:

requirements for all vehicles to be tuned

emission standards for vehicles already in New Zealand

testing of vehicle emissions as part of the Warrant and Certificate of Fitness process

roadside testing of vehicle emissions.

- Research into the impacts of noise from transport. This will contribute to the development of appropriate noise standards.
- Further work on health impacts and the social cost of emissions. This will include development and testing of a national noise impacts assessment model, in co-operation with Waitakere and Christchurch cities.
- A three-year research programme by the Health Research Council into the full health impacts of all emissions, including transport emissions. This will give the government information to help it target and develop further new initiatives, including those that target at risk groups.
- Research into the impacts of water runoff from transport systems, leading to the development of proposals for managing both the quantity and quality of water runoff.
- A detailed investigation of surface transport costs and charges to inform future policy on charging and health costs. This study will be completed in 2003. Other related modal studies will probably need to follow.



## SOME KEY FACTS ABOUT TRANSPORT AND PUBLIC HEALTH

A recent report estimates that 399 people aged 30 and over die prematurely each year in New Zealand from vehicle-related pollution.

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Three out of every four trips are by motor vehicle.

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One third of vehicle trips were less than two kilometres and two-thirds were less than six kilometres.

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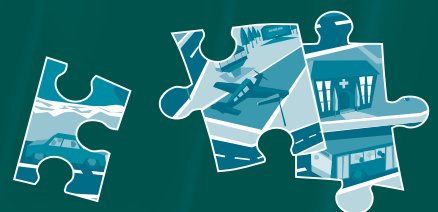
Walking accounts for 20 percent of all household travel trips.

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25 percent of walking trips are made by children, young people and seniors.

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Cycling accounts for around two percent of travel trips, mostly made by children and young adults.



## *Fuel Specifications*

Fuel quality affects air and water quality. The government has announced that by 2006 New Zealand will have high quality petrol and diesel that is cleaner and more environmentally friendly. Cleaner fuel, along with other measures, will limit the amount of polluting vehicle emissions. It will also enable New Zealanders to use the newer, cleaner vehicles that are available overseas.

In 2006 the allowable sulphur levels in diesel will be reduced from 3000 parts per million (ppm) to 50 ppm which will reduce the amount of air pollution from vehicle exhausts. Benzene levels in petrol will be reduced from 4.2 percent to 1 percent. This change will limit emissions of benzene, a known carcinogen. Petrol aromatics will be reduced and the additive MTBE to boost petrol octane will be disallowed. The addition of manganese will be restricted until research on its health effects is completed. Ethanol is a renewable energy source and up to 10 percent ethanol will be allowed to be blended into petrol.

These changes will be phased in by 2006 to allow sufficient lead-time for the Marsden Point Oil Refinery to build the plant required to meet the new specifications. When the changes are fully phased in, our fuel specifications will align with those of Australia and Europe.







OBJECTIVE te whāinga:

**ENSURING ENVIRONMENTAL SUSTAINABILITY  
whakarite i te ukaukatanga o te taiao**

Transport will be more energy efficient and environmentally sustainable. Negative local and global environmental effects of transport will be reduced through education, regulation, technology and investment.

Enhanced mobility for people, goods and services within New Zealand and between New Zealand and overseas will be achieved through creative responses that meet people's needs with minimal adverse effects on the environment. Improving the efficiency of existing road and rail networks, promoting alternatives to roads, and reducing traffic growth will be key elements in minimising the adverse effects of land transport.

Transport policy will reflect New Zealand's commitment to energy efficiency, and to the Kyoto Protocol and the Framework Convention on Climate Change, and will recognise the role transport plays in meeting this commitment.



## Introduction

Ensuring the long-term environmental sustainability of the transport sector will ultimately be a function of two broad approaches:

- The transport system will have to reduce its negative impacts on land, air, water, communities and ecosystems.
- The transport system will have to make more efficient use of its resources, reduce its use of non-renewable resources, and shift over time from non-renewable to renewable resources.

Achieving environmental sustainability will require the reorientation of transport policy and individual and business transport decisions over time. While progress has been made, more is required.

Chapter 5 addresses the need to reduce the impact of transport on the environment where it affects public health. Making more efficient use of resources to reduce costs is addressed in Chapter 2 on Economic Development.

The government is working with Waitakere City Council on a planning model that can measure flows of pollutants through the urban and natural system in that area, the consequential impacts on natural and built resources, and the potential for managing these flows to promote environmental sustainability.

Examples of the measures that contribute to multiple goals, including environmental sustainability, are: ensuring the integration of transport modes; using rail and coastal shipping for long haul freight; improving public transport; and creating opportunities for many journeys to be made by walking or cycling.

The government has already approved the *National Energy Efficiency and Conservation Strategy*, which has set a range of energy efficiency targets for the national economy. It has also set out specific goals for transport energy reduction and efficiency improvements. These include:

- reducing the need for travel
- improving the energy performance of the transport fleet
- improving traffic flow
- reducing fuel consumption
- increasing the use of low energy transport options
- developing more efficient urban forms and systems.

Reducing transport-related energy consumption is important not only because it will save costs, but also because it will contribute to reduced emissions and reduced greenhouse gas emissions.



As part of its broader climate change policy, the government has also made a clear commitment to reduce the impact of transport on climate change.

The growing level of contact through air and sea links with other parts of the world has increased the risk of the transport system importing organisms and other life forms. These could materially damage key sectors of our economy and increase the level of risk to our biodiversity. Ongoing biosecurity and border management measures will be central to managing these risks. The government is providing a clear framework through the development of biosecurity and border strategies. In addition to integrated border control measures, the government's *Biodiversity Strategy* requires that transport avoid, remedy or mitigate the adverse impacts of transport activities, especially sea transport, on marine biodiversity. This *Strategy* also requires that the development of urban and rural areas be sympathetic to indigenous biodiversity.

Transport has been a key driver in the development of our urban areas. Not only have transport systems generally influenced the shape of our cities, they are also a very large user of urban land – possibly somewhere up to 25 percent to 35 percent of urban land is associated with transport use of some sort. As with other developed countries, there are serious questions whether our existing urban systems – including but not limited to the transport system – are environmentally, socially or economically sustainable. The government has therefore begun work on a review of the way that transport is linked to the form and shape of our towns and cities. This review will further examine how existing transport systems and planning can be positively reformulated and managed so as to encourage a more sustainable approach to settlement development. This work is intended to be a major input into a long-term urban strategy.

In a sector of such complexity, forward planning of the transport system will need to be closely integrated with the need to ensure environmental sustainability goals are addressed. The government has already approved a review of the way in which transport planning – through the Regional Land Transport Strategy process – can be linked to wider issues of resource management and infrastructure planning. In addition, the government has increased funding to the Environment Court to ensure decisions are made in a timely and effective manner. The government has also actively supported the involvement of interested groups in the resource management process.



## What has already been done to ensure environmental sustainability

To ensure environmental sustainability the government has:

- Announced changes to ensure government funding and administration arrangements for land transport are flexible, address government priorities, focus on land transport as a whole rather than just on roads, and reflect the need for transport planning, management and funding to be undertaken in an economically, environmentally and socially responsible manner.
- Approved development of new approaches to project evaluation for land transport infrastructure that incorporate social, economic and environmental costs in the decision-making process.
- Increased funding for pedestrians and cycling by \$3 million. This will help increase the effectiveness of these environmentally sustainable forms of transport.
- Begun work on a walking and cycling strategy, for release in 2003. This strategy will help to promote the importance of these modes.
- Introduced a new funding system for public passenger transport. This has already led to substantial increases in passenger transport use throughout New Zealand, and contributed to greater environmental sustainability.
- Approved and implemented the *Vehicle Fleet Emission Control Strategy (VF ECS)*. This strategy focuses on some actions such as the 'ten second rule' for smoky vehicles, environmental capacity analysis, and ambient air quality guidelines review.
- Commissioned the *Health Impacts of Vehicle Emissions Report* that identified the 'invisible' road toll from road vehicle emissions as being on a similar scale as the toll from road vehicle crashes.



- Approved New Zealand's response to climate change for the land transport sector.
- Developed and released the *New Zealand Waste Strategy* which focuses on waste prevention rather than waste disposal.

### Further initiatives to ensure environmental sustainability

- A detailed investigation of surface transport costs and charges to inform future policy on sustainable transport systems. This study is to be completed in 2003. Other related modal studies will probably need to follow.
- An investigation into more sustainable settlement forms and identification of the barriers to achieving these in New Zealand, as the first stage in developing a long term urban strategy.
- A review of the costs, benefits and implications of development alongside arterial roads.
- Development of fuel consumption labelling and reporting for selected road vehicles.
- A review of the relationship between Regional Land Transport Strategies (RLTS), the *Resource Management Act* and other strategic and planning documents. The first part of this work, to be completed in 2003, will involve a review of the processes used to develop RLTSs.
- Development of an Environmental Capacity Analysis approach jointly with Waitakere City Council. By 2003, this will have been developed and tested. It will be promoted for use by other local authorities.
- Development of the *New Zealand Biosecurity Strategy*, due for release in 2003.
- Investigation into further motor vehicle emission controls.
- Investigation into managing the climate change impacts of the aviation and maritime transport sectors. This will involve a high degree of international co-operation.
- Implement fuel efficiency labelling and monitoring for cars entering New Zealand.
- Continue to investigate and assess possible future policies to address greenhouse gas emissions from transport using the vehicle fleet model.



## SOME KEY FACTS ABOUT TRANSPORT AND ENVIRONMENTAL SUSTAINABILITY

Domestic transport contributes 42 percent of New Zealand's total carbon dioxide emissions.

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Domestic transport accounts for 40 percent of New Zealand's total energy use.

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Transport energy demand has been growing at an average of 3.6 percent each year over the period 1991-2000.

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The New Zealand vehicle fleet (excluding motorcycles) is predicted to increase from 2.5 million vehicles in 2000 to 3.1 million vehicles in 2015.

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The approximate 30 million litres of used oil from transport forms New Zealand's largest non-aqueous liquid waste stream.

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Transport infrastructure currently covers around 25-30 percent of land within most cities.



## *Environmental Capacity Analysis: Waitakere City Council Project as a Case Study*

The Ministry of Transport has developed the environmental capacity analysis (ECA) framework to help identify places where emissions are created, and where and how they move. This framework uses the geographic information system (GIS) together with a standard traffic model.

The ECA framework can be used to calculate how changes in any local urban environment will affect specific amounts of vehicle emissions. For example, any change in traffic flows by volume, type, speed, level of congestion, nature of vehicle technology, road surface or any number of other factors will generate different results. This means that policy changes as diverse as building new roads, changing the character of the fleet (more buses, less cars), or changing vehicle speed, can be modelled.



The Waitakere City Council project has focused on improving understanding of the issues and problems associated with stormwater from roads. It enables people managing transport to discuss the environmental impacts of transport within a rigorous framework and enhances local government's ability to manage their environment.



## *National Energy Efficiency and Conservation Strategy*

Our current production and energy use is not sustainable because most of our energy comes from non-renewable sources and a significant amount is wasted. Predictions show that New Zealand will use 20 percent more energy in 2012 than we do now. Between 1990 and 1999 transport energy use grew 3.5 percent on average. Tackling the growth of energy use in the transport sector is vital if New Zealand is to have a sustainable energy future.



The *National Energy Efficiency and Conservation Strategy* (NEECS) will help create a sustainable energy future that will provide all New Zealanders with economic, social and environmental benefits. It will help us meet our international climate change commitments. The *strategy* contains numerous initiatives targeting government, energy supply, industry, buildings and appliances and transport sectors.

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The transport objectives include:

- Reducing energy use by reducing the need for travel
- Improving performance of the transport fleet
- Increasing the use of low energy transport options.

The *strategy* recognises that many of the changes required for sustainability are part of improving the overall functioning and efficiency of the land transport system, which is the aim of government transport policy.



## TAKING ACTION Te mahi i te mahi

## The role of the government Te wāhi ki te kāwanatanga

The government wants the governance, management and administration of New Zealand's transport system, as well as the framework within which public funds for land transport are allocated, to be: forward-looking, accountable, collaborative and evidence-based.

The government recognises the importance of the Crown's obligations as a Treaty of Waitangi partner in the transport context, and the need to take account of the special relationship that Māori have with their ancestral lands and other taonga.

The government believes its own approach needs to reflect these aims to help achieve its vision for transport, and give effect to the principles and objectives that underlie it. Accordingly, the government will be:

## Forward-looking Te tiro whakamua

The government will adopt a flexible and forward-looking approach to ensure that policy and provision anticipate and respond to challenges and opportunities. The government will ensure that policy and funding reflect the government's strategic priorities and policy in areas such as economic and regional development, tourism, health, and climate change. The government will recognise that policy and funding decisions regarding transport infrastructure and other initiatives need to foster sustainable development.

## Collaborative Te mahinga tahi

The government will support the collaborative management of transport infrastructure so as to foster an integrated nationwide system.

## Accountable He ū ki ngā āhuatanga kua whakaritea

The government will promote public accountability and transparency. The government will create opportunities for those who use transport and are affected by it to be involved in transport decision-making processes. Compliance costs to business, the community and government will be minimised.

## Evidence-based Ko te taunakitanga te pūtake

The government will foster capacity building to develop better transport solutions, both in terms of professional and technical skills and through education and involvement of citizens and communities. The government will ensure that feedback from evaluation of the efficiency and effectiveness of transport policy and funding will be incorporated into decision-making about, and management of, transport.



## The role of the government

There are a number of aspects to the government's role in transport. These include the Treaty of Waitangi, co-operation, partnership and facilitation, investing proactively and wisely, establishing national frameworks, and research.

## Treaty of Waitangi

The Treaty of Waitangi is a founding document of New Zealand. The government is committed to upholding the principles of the Treaty. Central to the Treaty relationship and the Treaty principles is that Māori have a special relationship with their ancestral lands, water, sites, waahi tapu and other taonga. Transport planning and decision making needs to take account of that relationship, as well as the more general needs of Māori communities. Therefore the government is committed to ensuring that Māori are involved in transport decision-making that affects their cultural, economic, environmental and social wellbeing.



## Co-operation, partnership and facilitation

Transport decisions need to become more transparent and participatory. Given the significant involvement of the private sector, Māori, communities and local government in transport, the government, wherever possible, will act in partnership to solve transport issues. Current initiatives include:

- Land transport legislation to be introduced in late 2002 and further legislation in 2003, will improve opportunities for co-operation within transport, and for transport users, local authorities and affected communities to participate in a range of transport planning processes. The social and environmental responsibilities of Transit New Zealand and Transfund New Zealand, and in the future, other central government transport agencies, will be clearly spelt out.

- In the Tairāwhiti region the government is playing a lead role in facilitating co-operation between local government, industry and government. This approach has the potential to provide significant returns to all parties.
- The government has already worked closely with local government on a number of issues. As part of the forthcoming land transport legislation, it is proposing to remove barriers to the clustering of road controlling authorities. These changes will support the establishment of voluntary arrangements to encourage pooling and expansion of expertise and resources. Transit New Zealand will be encouraged to enter into arrangements with local road authorities where there are both local and national benefits to be gained. Co-operation between local road authorities will also be encouraged.
- The government is to undertake a review of the Regional Land Transport Strategy process. This review is being undertaken with a view to improving the level of transparency and inclusiveness of decision making at the regional level, and ensuring sustainability, in line with the recommendations of the select committee inquiry into climate change and the government's policy on climate change.
- The government has played the lead role in improving access opportunities to international markets and services. Our co-operative approach to identifying and prioritising the negotiation of air services arrangements will continue through annual consultation with interested parties representing the tourism industry, exporters, airports and airlines.
- The government believes targeted involvement in international fora will see New Zealand's national interests reflected in international agreements that move towards sustainable transport. New Zealand can benefit through the sharing of information that arises from these fora.



## Investing wisely and proactively

Before *Moving Forward*, the land transport funding and policy package announced in February 2002, New Zealand's land transport funding framework was focused on roading. This narrow focus impeded support for important alternatives to roads such as public passenger transport, walking and cycling. It did not actively support a longer-term focus on investment, hindering a number of nationally significant projects being undertaken.

Along with the changes being pursued in 2002 and 2003 to address these issues, the government is taking a more proactive role in helping to focus land transport investment and ensure New Zealand maintains effective local and international transport links. While taking a more proactive role, the government's investment will still need to be economically sustainable. Its work on surface costs and charges, and on electronic road user charges will provide a framework for insights into future funding and investment needs in land transport.

## Establishing national frameworks

The government plays a key role in providing national frameworks for a wide range of issues that impact on transport. It is committed to ensuring these frameworks protect public interests where these are at risk. Safety and environment are two areas in particular where further work is progressing to develop and strengthen national frameworks.

## Research

Working co-operatively with users and providers of research will enable a more strategic focus to be given to the pool of public funds currently spent on transport-related research. High quality research, based on New Zealand's circumstances, helps us make timely and effective decisions. Similarly, effective sharing of research results helps to build an important pool of knowledge and reduce unnecessary duplication of effort.

The Ministry of Transport has begun work on a long term *Transport Research Strategy* to support the *New Zealand Transport Strategy*. This will ensure that research investment informs and adds value to policy development and all the activities undertaken by government and the private sector.

## Taking action

Implementation of the *New Zealand Transport Strategy* will occur through:

- Ministerial leadership**
- Funding and budget prioritisation**
- Development of specific sector strategies where necessary such as walking and cycling and *Road Safety to 2010***
- Consultation and co-operation**
- Monitoring and review.**



## Ministerial leadership



Implementation of the *New Zealand Transport Strategy* will require the government to show leadership across all sectors. It will require the Minister of Transport and his colleagues to use all means available, such as giving formal directions and developing policy statements. As the Minister's agent, the Ministry of Transport will provide leadership to Transfund New Zealand, Transit New Zealand, and the four safety agencies, and provide advice within the government on a range of transport matters.

The multiplicity of interests will require the Minister of Transport to work closely with his colleagues to ensure transport complements other key activities in government.

## Funding and prioritisation

The government has already made significant progress in improving the funding framework for land transport. Among other things, these changes will see a more strategic long-term approach to public transport and more careful consideration to alternatives to roading and the strategic needs of regions and New Zealand. As part of the *Moving Forward* package announced in early 2002, the government established the following five priority areas for the National Land Transport Fund (NLTF):

- severe congestion**
- public transport**
- walking and cycling**
- regional development and alternatives to roads**
- safety.**

The government will continue to review its priorities for the NLTF. This will ensure the government continues to respond proactively to the long-term needs of New Zealand and that, over time, the effectiveness of this investment can be assessed.

Within the context of the *New Zealand Transport Strategy*, the government will continue working with other sectors and interests to identify key issues. It will use this information to inform the development of priorities and action. The Minister's Performance Agreement with the Ministry of Transport will be used to set out the broad work programme. Purchase Agreements with Crown entities will be used to guide their work programmes. These agreements will need to further the objectives of the *New Zealand Transport Strategy*. In setting the work programme both short-term and longer-term needs and actions will be taken into account and a balanced mix will be sought.

## Sector strategies

Over time sector strategies may need to be developed to give further detail to the direction set out in this *New Zealand Transport Strategy*. Already the government has identified biosecurity, road safety and walking and cycling as areas where further detail is needed. Other areas will be identified as required.

## Consultation and co-operation

Implementation of the *New Zealand Transport Strategy* will require effort on the part of a wide range of interests, both within and outside the transport sector as well as within and outside government. As the government develops its initiatives and policy, consultation will be necessary with relevant parties including transport users and providers, local government and transport interest groups. Early consultation in transport planning will also be necessary to ensure the identification and assessment of a range of solutions.

There will also be a need to build relationships and alliances. While the government is likely to be key to a number of these, the success of the *New Zealand Transport Strategy* will also require others to work together towards a shared goal.

## Monitoring and review

To ensure that progress is being made on the *New Zealand Transport Strategy*, monitoring and review will need to form part of the government's work now and in the future. This will require the co-ordination and management of a wide range of initiatives.

To provide a reference point to ensure ongoing links are made between the *New Zealand Transport Strategy* and key initiatives, linked to the government's web site will be:

- A copy of the *New Zealand Transport Strategy*
- Associated sector strategies as these are developed
- A rolling strategic action plan, showing the status of key initiatives, setting out the lead agency and other agencies involved; and relevant timeframes. This will be reviewed as required.

This web site will be set up in 2003.





Copies of this document are available in PDF and Word formats on the government's web site: [www.beehive.govt.nz](http://www.beehive.govt.nz). The Word format can be used to produce large text versions.

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