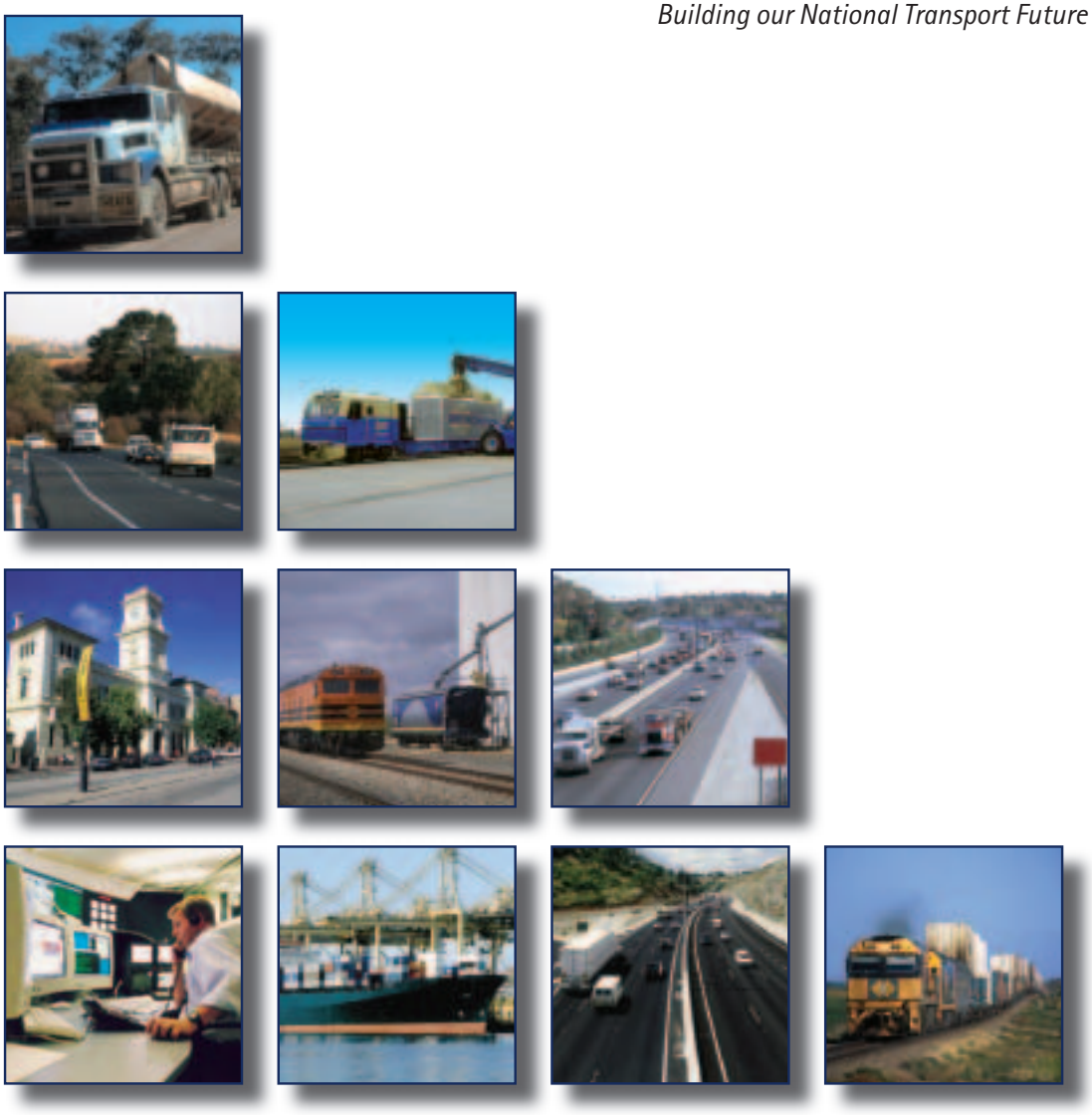
Australian Government

Department of Transport and Regional Services

# AusLink White Paper

AUSLINK

*Building our National Transport Future*



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*Building our National Transport Future*

# MINISTERIAL FOREWORD

*The Hon John Anderson MP*
*Deputy Prime Minister and*
*Minister for Transport and Regional Services*

*Senator the Hon Ian Campbell*
*Minister for Local Government,*
*Territories and Roads*

AusLink will revolutionise the planning and funding of Australia's national roads and railways by taking a long-term, strategic approach for our long-term future. It represents the most significant change since Federation in the way we tackle the national transport task.

This Government's sound economic management since 1996 has provided the opportunity to develop AusLink. The repayment of $70 billion in public debt has freed up significant funds for spending on infrastructure and other government priorities.

The Government is making a major commitment of $11.8 billion to transport infrastructure, including $9.2 billion to AusLink, over five years. This historic commitment gives Australia an integrated and long-term investment plan to take the nation into the future. The resulting more efficient National Network will create a faster, cleaner and safer Australia.

Under this new framework, the Australian Government will spend almost $1 billion over the next five years on rail. This is in addition to the previously announced $872 million which will be invested in the east coast rail link by the Australian Rail Track Corporation.

Our decision to move from the existing piecemeal, short-term and mode-specific approach was announced in the Green Paper, *AusLink: Towards the National Land Transport Plan*, released in November 2002. This outlined the need for a new approach to Australia's national land transport infrastructure. Australia needs to maintain its competitiveness in the global market. The current method cannot achieve this in the face of increasing demand.

The Green Paper was widely distributed and discussed. It generated 550 written submissions—an unprecedented response to a transport-related policy paper. The clear message from the public and industry was that governments need to better coordinate and resource their roles in infrastructure development while delivering national solutions to national priorities.

This White Paper, *AusLink: Building Our National Transport Future*, is the Government's formal policy statement on land transport. This framework will move Australia from a parochial and ad hoc system to a clear national land transport plan that all levels of government can support and deliver together.

The National Plan in this White Paper outlines the Government's long-term approach to tackling the transport challenges facing Australia. Under AusLink, the National Highway System and Roads of National Importance are replaced with a broader and more strategic network of transport corridors—including Australia's key rail links. This new AusLink National Network will form the basis of the Australian Government's investment in land transport.

The Australian Government will fund projects which have the greatest effect on Australia's long-term future, whatever the mode. The new projects will improve the safety of Australia's major transport links and make it quicker and cheaper to transport freight around the country. The Government will invest a total of $7.7 billion in the National Network over the next five years.

The White Paper also outlines the Government's Roads to Recovery programme, representing an investment of $1.5 billion over the next five years. Under AusLink, this programme will focus on local and regional transport priorities located off the National Network which are vital for regional economic development and social opportunities.

AusLink will be complemented by the National Black Spot programme, worth $90 million, and the ongoing untied local roads grants provided to local government totalling $2.6 billion over the next five years.

The Australian Government is making a sizeable investment in AusLink and expects States and Territories to do likewise.

AusLink will be phased in with formal agreements negotiated with State and Territory Governments and new legislation will be enacted to support the policy.

We look forward to working together with other levels of government, the private sector and the community to achieve a better transport system for Australia.

To find out more about AusLink visit www.auslink.gov.au.

JOHN ANDERSON

IAN CAMPBELL

June 2004

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# EXECUTIVE SUMMARY

The Australian Government is embarking on a far-reaching transformation of the way Australia plans, funds and delivers land transport infrastructure. Under AusLink, the Australian Government takes a strategic approach to Australia's future by ensuring that the nation's land transport network meets future challenges. AusLink will translate better planning into better solutions by targeting transport funding to priority needs and allowing certainty for future investment.

Modern infrastructure is costly and involves long lead times. Australia cannot afford poor and uncoordinated infrastructure decisions that impose high costs on the community, the economy and the environment. We must make high-quality decisions that contribute towards a better future. The Government has developed AusLink to provide a better framework for decision-making and investment.

## The need for change

The Australian Government is introducing the AusLink approach to land transport infrastructure for the following reasons.

- Road and rail infrastructure is essential for Australia's economic and social future. It must be efficient, reliable, safe and secure.
- The demands on Australia's land transport infrastructure are forecast to increase substantially in the next 20 years. The transport task will become more complex as traffic volumes rise.
- Australia's population is changing. This increases the pressure on urban and regional links, while the social and environmental costs of land transport are rising.
- The existing planning and decision-making framework is short-term, ad hoc and fragmented across transport modes and jurisdictional boundaries. The development and implementation of a national vision for critical land transport links is vital.

AusLink provides Australia with a framework to address these challenges.

## AusLink—a new approach to planning and decision-making

AusLink is designed to achieve better national land transport planning, funding and investment decision-making. It means increased investment in land transport, improved long-term planning, encouragement of the best ideas and solutions, and targeting investments to achieve the best outcomes.

### AusLink national objectives

The following national objectives for AusLink will ensure a strong and transparent focus for national land transport investment into the future.

AusLink will promote sustainable national and regional economic growth, development and connectivity by contributing to the development of an integrated National Network which:

- improves national and interregional connectivity for people, communities, regions and industry
- improves national, interregional and international logistics
- enhances national, interregional and international trade
- enhances health, safety and security
- is consistent with the obligation to current and future generations to sustain the environment
- is consistent with viable, long-term economic and social outcomes
- is linked effectively to the broader transport network.

## Core components

AusLink has the following core components:

- a defined National Network of important road and rail infrastructure links and their intermodal connections
- the National Land Transport Plan which outlines the Government's approach to improving and integrating the National Network, and the investments it will make
- a single funding regime, under a new AusLink programme, for the National Network
- separately earmarked funding for local and regional transport improvements
- new legislative, intergovernmental and institutional mechanisms.

## Essential features

AusLink differs from earlier approaches to infrastructure planning and decision-making in several ways.

- It provides an integrated corridor approach to planning. This new approach focuses on meeting future passenger and freight needs in the best way, irrespective of the transport mode rather than focusing on separate rail and road transport modes. This is the cornerstone of the AusLink approach to planning and funding land transport infrastructure.
- Many investments provide substantial benefits to States as well as national benefits. On this basis, AusLink involves shared responsibility and funding for the National Network with States and Territories.
- AusLink has a national focus on sustainable development and connectivity, while considering community health, safety and security.
- It encourages integrated land use and transport planning to protect vital national transport corridors and improve transport, urban development and environmental outcomes.
- It promotes a consistent approach to translating better planning into better solutions.
- AusLink increases private sector involvement in land transport infrastructure planning, financing, operation and ownership. This will generate new ideas and additional investment, fast-tracking the development of Australia's National Network.

## The AusLink National Network

The AusLink National Network and its connections to the broader transport network are the focus of the Australian Government's planning and funding responsibility. The network provides the passenger and freight backbone of Australia's national land transport system. However, this does not mean that a proposed project will be funded by the Australian Government because it is located on the National Network. Only projects of high national priority that meet Australian Government funding requirements will be considered.

As the National Network delivers clear benefits to States and Territories, there is an expectation that they will share some of the cost of upgrading and maintaining the National Network.

The National Network moves beyond separately planned and funded rail and road networks and ad hoc rail/road intermodal developments. It is a single integrated network of land transport linkages of strategic national importance. The National Network is based on those:

- national and interregional transport corridors—including connections through urban areas
- links to ports and airports and
- other rail/road intermodal connections

that together are of critical importance to national and regional economic growth, development and connectivity.

The AusLink National Network will replace the existing separate National Highway System, Roads of National Importance and the interstate rail network. The non-urban corridors and links of the National Network are illustrated in Figure 7 and the urban links in Figures 8–12. All the corridors and links are listed by name in Table 4, Chapter Three.

## The National Land Transport Plan

The National Land Transport Plan is the blueprint for improving the National Network into the future. It will operate on a rolling five-year basis. The plan:

- contains strategic directions developed by the Australian Government to guide its investment priorities
- sets out the projects that the Australian Government will fund in the period 2004-05 to 2008–09, in cooperation with States, Territories and potentially the private sector
- identifies the funding the Australian Government will apply to each project.

While the National Land Transport Plan is currently an Australian Government plan for the National Network, many of the Government's investment priorities also closely reflect State and Territory priorities and interests. Future versions of the plan will be developed in the context of a broad 20-year planning horizon facilitated by the development of corridor strategies.

## Funding overview

The Government is backing its AusLink initiative with a substantial increase in land transport investment. It is allocating a total of $11.8 billion for road and rail transport over the five years to 2008–09.

Components of this funding include:

- $7.7 billion for the AusLink National Network
- $1.5 billion for Roads to Recovery
- $2.6 billion for Financial Assistance Grants identified for roads
- $90 million for the National Black Spot programme.

The AusLink funding represents an overall increase of $3.6 billion on existing programme funding for the next five years.

Under the principle of shared responsibility, the Australian Government expects that States and Territories will also contribute substantial funds to projects on the National Network. Australian Government funding is conditional on the relevant State or Territory meeting its funding and other responsibilities for projects.

The $3.6 billion increase in funding includes a grant of $450 million to the Australian Rail Track Corporation for investment on the north-south rail corridor in the five-year period, with high priority on the New South Wales north coast line. In addition, another $872 million will be invested in the eastern seaboard north-south rail links over the next five years.[1] This funding is available as an outcome of the agreement between the Australian and New South Wales Governments for the Australian Rail Track Corporation to lease the New South Wales interstate rail track. These links form part of the National Network.

## Strategic directions

The Australian Government will use eight strategic directions to guide its land transport investment priorities over the coming five years.

### *Planning on an integrated long-term basis*

The Australian Government will negotiate long-term strategies with the States and Territories to develop the National Network on a corridor basis.

### *Improving the eastern seaboard north-south corridors*

The Australian Government will improve the capacity and performance of the vitally important eastern seaboard north-south interstate corridors by upgrading critical road and rail links, increasing rail's market competitiveness and improving intermodal integration.

[1] The majority of this investment will come from the Australian Rail Track Corporation—an Australian Government-owned entity—and the Australian Government. Some $62 million will be provided by the NSW Government and an investment of $50 million by Pacific National is also anticipated.

### *Improving the capacity and reliability of other interstate and interregional corridors*

The Australian Government will enhance the capacity and reliability of other critical interstate and interregional corridors, including in remote areas, to ensure national connectivity.

### *Addressing congestion on key urban links*

The Australian Government will work with States to address congestion on urban and outer metropolitan sections of the National Network—including on links to ports, airports and other centres of intermodal activity—to facilitate passenger and freight flows.

### *Utilising technology*

The Australian Government will improve infrastructure performance by facilitating the development and application of appropriate and cost-effective new technologies.

### *Improving safety and security*

The Australian Government will improve safety on the National Network in line with the National Road Safety Strategy and, through the Australian Rail Track Corporation, on the national rail system. It will improve security on the National Network in line with the National Transport Security Strategy.

### *Protecting past investment*

The Australian Government will, with States and Territories, protect the community's substantial past investment in national road and rail network improvements.

### *Supporting regional and local economic growth*

The Australian Government will improve the capacity of local government to address local transport infrastructure backlogs and to fund projects of strategic regional importance.

## Priority needs 2004–05 to 2008–09

AusLink, together with funding under the New South Wales rail lease agreement, will result in an $8.6 billion investment by the Australian Government and the Australian Rail Track Corporation in the National Network over the coming five years. Of this, approximately:

- 78 per cent will be invested in road projects—$6.7 billion
- 21 per cent will be invested in rail projects—$1.8 billion
- one per cent will be invested in research and technology.

The Australian Government will provide approximately $1.9 billion in new road investment on the National Network in outer metropolitan, rural and remote areas over the coming five years. This includes $810 million redirected as a result of the decision to abolish the Fuel Sales Grants Scheme from 2006–07.

In addition to specific technology-based projects identified in the National Plan, technology-based applications, such as Intelligent Transport Systems, will be embodied in road and rail projects where they contribute to effective solutions.

The Australian Government's funding contribution to major projects on the National Network includes:

- $765 million for the Pacific Highway in New South Wales and the Tugan Bypass in Queensland
- $714 million for the Hume Highway in New South Wales and Victoria
- $627 million for Brisbane urban road links
- $573 million for the North Coast Rail Line between Sydney and Brisbane
- $434 million for the Sydney—Melbourne interstate railway, including the new Sydney southern freight access link
- $429 million for the Bruce Highway in Queensland
- $186 million for a bypass of Geelong and $114 million for the Calder Highway in Victoria
- $126 million for the Great Northern Highway and $150 million for the Peel Deviation in Western Australia
- $97 million for the Port River Expressway in South Australia.

A summary of transport infrastructure investments to be funded under the first five-year plan is attached. The Government will update the AusLink investment priorities annually with new projects warranting national attention.

## Supporting local and regional transport infrastructure

Regional Australia is a major contributor to the national economy and generates about half of Australia's export revenue. While the AusLink National Network is of fundamental economic and social importance to these regions, their long-term viability depends on local and regional land transport links that connect to the broader State, Territory and national networks.

The Roads to Recovery programme has proven to be very successful in helping local government improve and maintain their ageing local networks. The Australian Government is also committed to encouraging the development of strategic regional infrastructure to strengthen regional economic and social opportunities.

Under AusLink, starting in 2005–06, the Government will introduce two funding streams directed to local and regional priorities. Following the successful Roads to Recovery approach, $800 million over four years will be allocated on a formula basis directly to all local councils. This will help all councils to sustain levels of service across their local road systems.

A further $400 million over four years will be available for land transport projects of regional economic and social significance. This funding will be available to local councils and will be competitively allocated. It will contribute to priority regional transport projects which local councils would otherwise find difficult to fund.

Including the $253.1 million committed under the existing Roads to Recovery programme in 2004–05, the Government will provide a total of $1.453 billion under AusLink for local and regional transport infrastructure.

# Implementing AusLink

The fundamental reforms the Australian Government will make through AusLink involve vital new legislative, intergovernmental, institutional and programme arrangements.

## A phased approach

AusLink will commence on 1 July 2004 and will involve a phased approach to provide for a smooth transition to the new multimodal investment arrangements.

The new AusLink Act will progressively replace the *Australian Land Transport Development Act 1988* which is currently the primary act governing the Australian Government's land transport funding arrangements.

## Implementing the initial National Land Transport Plan

The National Land Transport Plan sets out the Australian Government's investment priorities to which it will direct its funding between 2004–05 and 2008–09 and the amount of funding to be provided for each project.

The Government will formalise its funding contributions for this period through a bilateral infrastructure and funding agreement with each State and Territory.

These agreements will identify the package of projects to be undertaken during the first five-year plan, the funding contribution the Australian Government will make to each project, and the State or Territory contribution to each project. They will also include arrangements for the development and submission of detailed project proposals, the phased scheduling of works over the five-year period and the timing of Australian Government payments. The Australian Government will finalise these agreements as a matter of priority.

It is Australian Government policy to extend the application of the National Code of Practice for the Construction Industry and the Australian Government Implementation Guidelines for the Code to all directly funded construction projects. The Code's application will also be extended to those indirectly funded projects where the Australian Government provides a substantial contribution towards the cost of the project.

## Maintenance

The Australian Government will invest $1500 million over five years towards the cost of maintaining road links on the National Network.

The maintenance allocations to States and Territories will be based on a formula similar to the one used in the United States for its Interstate Maintenance programme. The formula uses three equal components:

- lane length
- total vehicle distance travelled
- total heavy vehicle distance travelled.

The application of the new formula will be phased in over three years from 2005–06 to minimise the effect of the change on States and Territories.

### Strategic planning framework

Continuous improvements in infrastructure planning, including the development and refinement of future versions of the National Land Transport Plan, will require action to be taken at several levels. This will include:

- periodic strategic assessments of the long-term performance requirements and investment needs across the National Network
- collaborative planning with jurisdictions to identify the best way of meeting the likely transport needs of each of the major corridors
- a rigorous and more broadly-based approach to help assess priorities and projects, drawing on *National Guidelines for the Appraisal of Transport Initiatives* currently being developed
- establishing an evaluation framework
- addressing the wide-ranging data requirements needed to support the required analyses at network, corridor and project level
- a publicly accessible interactive information technology system to better support the development and delivery of the Australian Government's transport policy and programmes.

## Complementary policy issues

AusLink's effectiveness will be reinforced by continuing effort in complementary policy areas—transport safety, security, regulatory reform, environmental outcomes, energy efficiency, technology, passenger transport, freight logistics, and maritime and aviation issues.

The Australian Government plays an integral role in many of these areas and will continue to do so to ensure Australia's national transport system is capable of meeting future challenges.

## Conclusion

The Australian Government believes the AusLink framework should be dynamic to meet the demands of change in a strong, globalised economy and to generate further benefits for transport users. The response from stakeholders will have a major effect on how the National Land Transport Plan evolves. In this way the National Plan can become an even more effective tool for integrating and developing Australia's transport infrastructure network.

## *Table 1 Australian Government investment summary 2004–05 to 2008–09*

| State / Corridor | Australian Government funding 2004–05 to 2008–09 ($m) |
|---|---|
| **NEW SOUTH WALES** | |
| Sydney–Brisbane | 1500 |
| Sydney–Melbourne | 462 |
| Melbourne–Brisbane | 106 |
| Sydney–Adelaide | 15 |
| Sydney Urban | 229 |
| Maintenance 2004–05 and Projects not on the National Network | 193 |
| Total Five Year Investment—New South Wales | 2505 |
| **VICTORIA** | |
| Sydney–Melbourne | 277 |
| Melbourne–Brisbane | 17 |
| Melbourne–Adelaide | 80 |
| Melbourne–Mildura | 134 |
| Melbourne–Sale | 95 |
| Melbourne–Geelong | 186 |
| Melbourne Urban | 150 |
| Maintenance 2004–05 and Projects not on the National Network | 489 |
| Total Five Year Investment—Victoria | 1429 |
| **QUEENSLAND** | |
| Sydney–Brisbane | 124 |
| Brisbane–Cairns | 429 |
| Brisbane–Darwin | 126 |
| Brisbane Urban | 627 |
| Maintenance 2004–05 and Projects not on the National Network | 157 |
| Total Five Year Investment—Queensland | 1463 |
| **WESTERN AUSTRALIA** | |
| Adelaide–Perth | 112 |
| Darwin–Perth | 126 |
| Perth–Bunbury | 150 |
| Perth Urban | 45 |
| Maintenance 2004–05 and Projects not on the National Network | 30 |
| Total Five Year Investment—Western Australia | 463 |
| **SOUTH AUSTRALIA** | |
| Melbourne–Adelaide | 15 |
| Adelaide–Sydney | 58 |
| Adelaide–Perth | 3 |
| Adelaide Urban | 137 |
| Maintenance 2004–05 and Projects not on the National Network | 26 |
| Total Five Year Investment—South Australia | 239 |
| **TASMANIA** | |
| Hobart–Burnie | 127 |
| Maintenance 2004–05 and Projects not on the National Network | 14 |
| Total Five Year Investment—Tasmania | 141 |
| **NORTHERN TERRITORY** | |
| Adelaide–Darwin | 47 |
| Darwin–Perth | 22 |
| Maintenance 2004–05 and Projects not on the National Network | 23 |
| Total Five Year Investment—Northern Territory | 92 |
| **AUSTRALIAN CAPITAL TERRITORY** | |
| Maintenance 2004–05 and Projects not on the National Network | 2 |
| Total Five Year Investment—Australian Capital Territory | 2.4 |
| Unallocated maintenance 2005–06 to 2008–09 | 1200 |
| Network-wide investments | 185 |
| **TOTAL AUSLINK NATIONAL NETWORK INVESTMENT** | **7719** |
| **AusLink Regional Investment** | **1453** |
| **TOTAL AUSLINK INVESTMENT** | **9172** |
| **Untied local road grants** | **2550** |
| **National Black Spot programme** | **90** |
| **TOTAL LAND TRANSPORT INVESTMENT** | **11813** |

# CHAPTER 1 THE NEED FOR CHANGE

## Introduction

More comprehensive planning, more efficient management and better targeted funding are needed to meet the current and forecast challenges facing Australia's land transport infrastructure.

This chapter establishes the need for change by examining the forecast growth in demand for transport services as well as the economic, social, environmental and financial issues that governments need to consider.

## Supporting economic growth and social cohesion

Australia's land transport infrastructure is a valuable asset that makes a significant contribution towards the nation's economic performance and its international competitiveness. Efficient and effective transport services are essential to the production and marketing of almost all goods and services.

Passenger-related transport provides access to services and employment and underpins participation in a wide range of activities. Access to transport is an important equity issue and a critical contributor to social cohesion in Australian life.

The transport sector accounts for 4.9 per cent of total economic activity in Australia. In 2001–02 it contributed approximately $33.9 billion in Gross Domestic Product.[2] The Bureau of Transport and Regional Economics has estimated that a one per cent improvement in the efficiency of delivery of national transport services will increase annual Gross Domestic Product by approximately $500 million in 2002 prices.[3]

Current forecasts suggest an annual Australian economic growth rate of around 2.7 per cent between 2004 and 2020.[4] An important driver of economic growth will be Australia's trade performance. Trade creates new opportunities for Australian businesses, as well as expanding the range and quality of goods and services available to Australian consumers and lowering their prices. In 2002–03, Australia's trade in goods and services totalled $314 billion.[5]

The accelerated flow between countries of trade and investment creates a need for efficient transport infrastructure. Efficient infrastructure facilitates specialised production, price competitiveness, time sensitivity and reliability of Australian goods and services in both intraindustry and world trade markets.

[2] Bureau of Transport and Regional Economics 2003, *Australian Transport Statistics*, June.
[3] Based on Monash University MMRF-Green Dynamic General Equilibrium Model of the Australian Economy.
[4] Department of Treasury 2002, *Intergenerational report 2002–03*, Canberra.
[5] Department of Foreign Affairs and Trade 2003, *Composition of Trade Australia 2002–03*, Canberra.

# Managing increases in transport activity

## The current freight transport task

Australia's economic growth involves both international and domestic freight movements. All international trade is carried either by sea or air transport, but these in turn often involve a domestic land transport component. Maritime transport carries over 99 per cent of total import and export trade in goods by volume. In 2002–03, these totalled over 596 million tonnes. Although the air transport component is small in volume, it constitutes approximately 26 per cent of the value of the total trade in goods. In 2002–03, this was $256 billion.[6]

The domestic freight transport task covers a wide range of different types of freight transport operations ranging from long-distance movements of bulk commodities to short-distance local deliveries of non-bulk goods.[7]

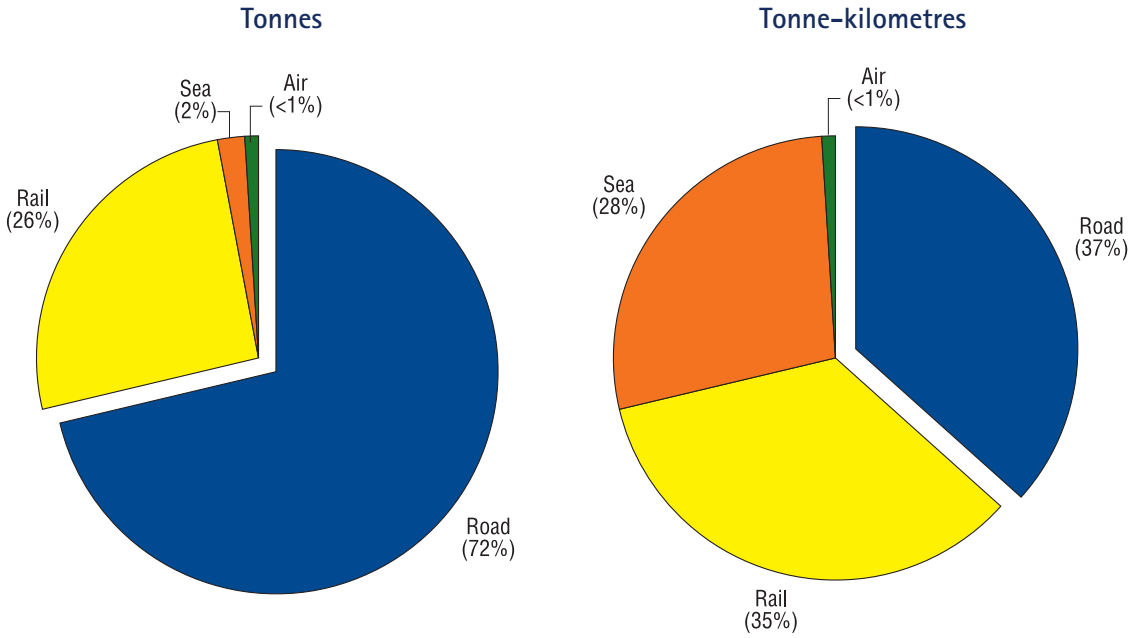
The share of the domestic freight task undertaken by each mode of transport is illustrated in Figure 1. The variations in shares largely reflect the natural advantages of each means of transport in moving different types of freight over varying distances within Australia and, to some extent, the state of the available infrastructure.

Road transport is the dominant mode for moving freight over relatively short distances and where alternatives are not readily available. Most non-bulk goods carried by other modes also use road transport for part of their journey. Approximately 80 per cent of road freight is transported over distances of less than 100 kilometres. However, road transport, together with air, has captured a major part of the market for priority delivery of long distance non-bulk freight from rail and coastal shipping.

[6] Bureau of Transport and Regional Economics 2004, *Australian Transport Statistics*, Canberra.

[7] Bulk goods include major commodities such as coal, iron ore, metallic minerals, fertilisers, grains and liquid and gas product. Non-bulk freight consists of unitised goods such as those within containers or pallets, and break-bulk products such as steel coils. Department of Transport and Regional Services 2000, *The Commonwealth's Transport Directions: Task and Outlook*, p. 8.

*Figure 1 Domestic freight estimates 1999–2000: comparison of modal shares by tonnes and tonne-kilometres* [8]




**Source:** Bureau of Transport and Regional Economics (forthcoming), *Freight Measurement and Modelling, Canberra*.

The shares of both rail and sea transport are more significant when expressed in tonne-kilometres as a result of longer average haul distances. The significant share of tonne-kilometres by sea is in the transport of dry bulk commodities—for example, mineral ores and coal—and liquid bulk commodities—for example, crude oil and petroleum products—generally over very long distances. A large proportion of rail freight involves intrastate bulk commodity movements from the extraction or production location to the seaport or processing location. Rail is also well-placed to compete in the long-distance non-bulk freight market and already does so on the east-west corridor—from Sydney to Perth—with an 80 per cent share of that land transport market on a two mode basis.[9]

Air freight is typically characterised by low volume/high value products, such as express parcels, medical supplies, live seafood and high value technology parts. There is also an air freight market for the movement of larger, specialised equipment and products.

## The current passenger transport task

Cars are the dominant transport mode for domestic passenger travel. They account for over 80 per cent of total kilometres travelled. Private vehicles are the strongly preferred mode of travel for domestic passenger trips up to 400 kilometres. Air travel becomes significant for journeys of more than 400 kilometres and is the dominant mode for those exceeding 1200 kilometres.

[8] Tonne-kilometres—Total tonne-kilometres is the number of tonnes moved multiplied by the distance travelled in kilometres—for example, 25 tonnes of freight moved a distance of 100 kilometres is 2500 tonne-kilometres.

[9] On a three mode basis, including sea freight, the rail share is estimated at 55 per cent. Australian Rail Track Corporation data, 2002 and Department of Transport and Regional Services estimates; Bureau of Transport and Regional Economics 2003, *Freight Between Australian Cities*, Information Sheet 22, Canberra.

While public transport remains important in urban areas, cars have increasingly provided the most heavily used means of travel between home and work and for travel to educational, social and recreational activities. Private road vehicles now account for 93 per cent of urban passenger transport.

## The future freight task

The total freight task is forecast to almost double in the next 20 years. Different growth rates of bulk and non-bulk freight have significant implications for transport infrastructure planning and investments for the respective land transport modes.

Domestic non-urban bulk freight is expected to grow at 2.2 per cent per annum between 2000 and 2020 to 375 billion tonne-kilometres. This part of the transport task is heavily geared towards rail and coastal shipping. Much of this is carried on private or purpose built intrastate rail lines. Despite this, road's share of the bulk market is expected to grow with road traffic doubling to approximately 84 billion tonne-kilometres by 2020.

*The total freight task is forecast to almost double in the next 20 years.*

Domestic non-bulk freight is expected to grow at 3.4 per cent per annum between 2000 and 2020 to 255 billion tonne-kilometres.[10] It can be expected to double between 2000 and 2022.

Figure 2 illustrates that non-bulk freight (in tonne-kilometres) is expected to increase at a significantly higher rate than overall traffic—vehicle kilometres travelled by both cars and trucks. The lower growth rate in overall traffic reflects the slowing of growth in the car passenger transport task as population growth slows and as the growth in vehicle ownership levels stabilises. In contrast, the higher growth in non-bulk freight is related to:

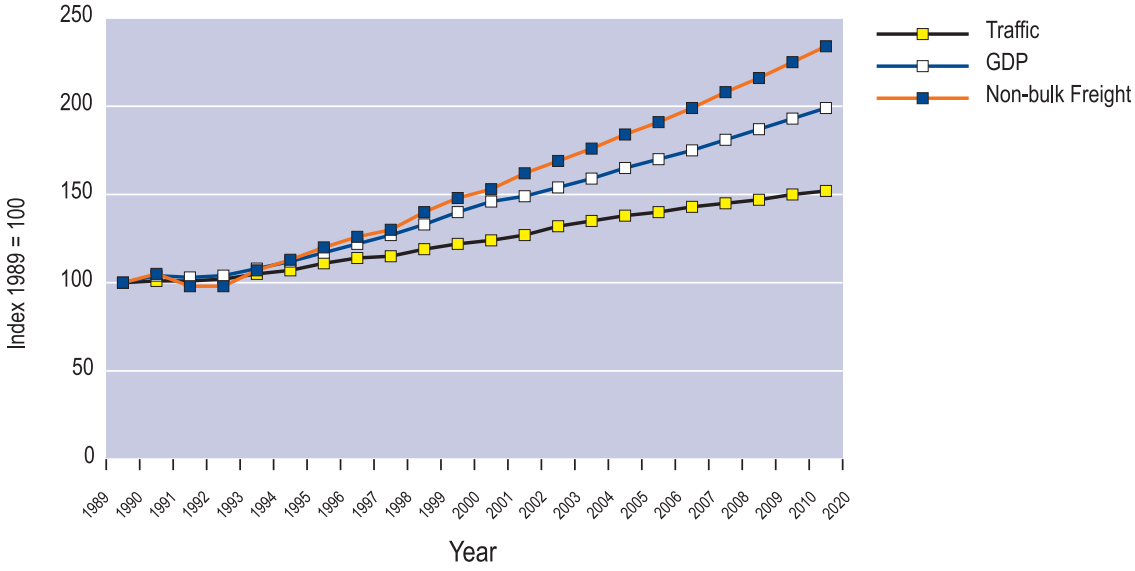
- continued economic growth
- the ongoing shift to just in time delivery as a replacement for point of sale inventory
- increased specialisation of production, making manufacturing in particular more transport-intensive
- increased differentiation of consumer tastes making retailing more transport-intensive
- the concentration of warehousing resulting in more and longer trips
- increased use of freight services as their prices continue to fall in real terms.

Non-bulk freight trends are characterised by a continuing increase in the dominance of road, both in total and interstate traffic. This reflects road transport's advantage in catering for door-to-door movements and just in time delivery arrangements. Total non-bulk road freight is predicted to grow at 3.6 per cent per annum to 2020 with intercapital non-bulk road freight growth predicted to grow even faster at 4.0 per cent per annum.[11] Figure 3 shows that at these growth rates non-bulk road freight tonne-kilometres will double between 2000 and 2020; interstate road freight tonne-kilometres will more than double over the same period.

[10] The Bureau of Transport and Regional Economics' estimates reflect the medium-term estimates of economic growth in the Treasury, *Intergenerational Report 2002–03*. At around 2.7 per cent over the 20 years to 2020, these growth projections are slightly lower than the growth parameters that underpin the task projections cited in the AusLink Green Paper.

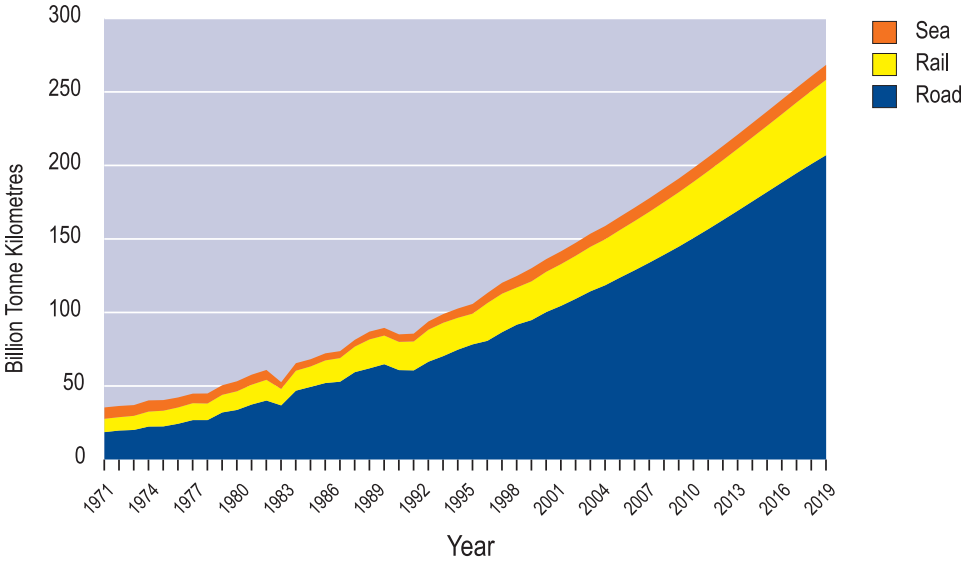
[11] Bureau of Transport and Regional Economics 2003, *Freight between Australian cities 1972 to 2001,* Information Sheet 22, Canberra.

## *Figure 2 Growth factors*




**Source:** Bureau of Transport and Regional Economics (forthcoming), *Freight measurement and modelling*, Canberra.

## *Figure 3 Total non-bulk freight by mode, 1970–2020*




**Source:** Bureau of Transport and Regional Economics, *Estimates*.

The increase in freight traffic will result in increased road wear and will present significant challenges in terms of the costs of road construction and maintenance—that is, roads will need to be built to a greater depth and width and to a higher quality. The increase in traffic will also necessitate more efficient use of existing and new transport infrastructure. It will also:

- add to congestion
- create a need for improved traffic management
- increase pressure on infrastructure capacity
- affect the environment.

*urban road freight will increase by over 70 per cent between 2000 and 2020*

Urban freight movements have more than doubled over the last 20 years. Continuing growth of 2.9 per cent per annum is expected through to 2020, reflecting general economic and city growth. The carriage of urban freight is dominated by road transport and this can be expected to continue given its inherent suitability for door-to-door pick-up and delivery. It is estimated that, based on existing trends, urban road freight tonnages in Australia will increase by over 70 per cent between 2000 and 2020. Total urban road traffic, including cars, is estimated to grow by 37 per cent in the same period.[12]

Growth in container traffic through the major capital city ports is a specific example of pressures on infrastructure capacity.[13] They are already being affected by increases in vessel sizes, limited port land and congested access. In addition, capital city container traffic is expected to grow very rapidly. The total number of containers handled through Australia's ports is expected to increase by 66 per cent by 2013—from 2.9 million containers in 2002–03 to 4.8 million in 2012–13. Most of this growth will occur in the Melbourne and Sydney regions. In 2002–03, the ports of Melbourne and Sydney each handled around one million containers a year.[14] The expected significant growth in container throughput could potentially lead to changes in the nature of the rail task in urban and regional areas to help ease the capacity constraints on capital city container ports.

Numerous submissions in response to the AusLink Green Paper stressed the importance of ensuring that rail is in a position to play a more effective part in handling the future non-bulk freight transport task.[15] Improvements in rail's capacity to meet this task will be critically dependent on appropriately targeted infrastructure investment supported by commercially attractive and sustainable operating practices.

Handling the future freight task will also require increased integration of rail and road services and a significant improvement in intermodal transfers among road, rail, and ports. The provision of an adequate framework to enable this to occur will be critical to the success of Australia's future transport system. These are central objectives of AusLink and are outlined in Chapter Two.

[12] Bureau of Transport and Regional Economics 2002, *Greenhouse gas emissions from Australian transport trends to 2020*, Report 107, Canberra.
[13] The freight logistics industry has estimated an additional 2.2 million truck movements at Australia's five major container ports over the next 10 years, increasing the tension between seaport operations and local community amenity.
[14] Bureau of Transport and Regional Economics (forthcoming), *International Shipping Forecasts*, Canberra.
[15] Department of Transport and Regional Services 2002, *AusLink Green Paper: Towards the National Land Transport Plan*, Canberra, November.

## The future passenger task

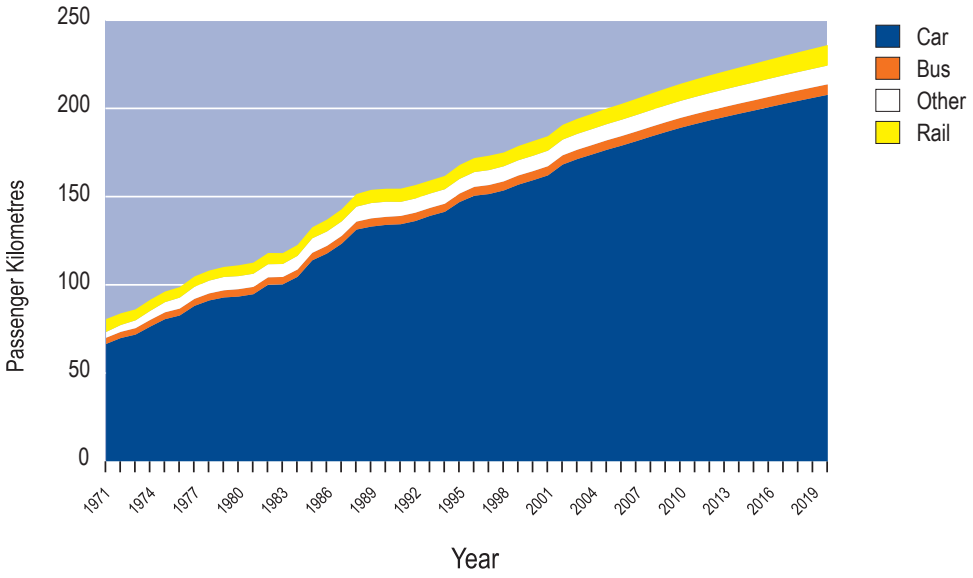
Freight is not the only priority for the Australian Government. Many submissions in response to the Green Paper argued that the interaction of the freight and passenger tasks needs to be factored more fully into the future development of the land transport network.

For passenger transport there are significant challenges in responding to emerging demographic trends and changes in population distribution. These changes are occurring in urban, rural and regional areas.

In urban areas, the car is expected to retain its dominance of the passenger transport task over the next 20 years. This is shown in Figure 4. Total passenger-kilometres in urban areas have been driven by increases in population and per capita vehicle ownership, increasing incomes, urban decentralisation and policies that have either directly or indirectly encouraged vehicle use.

Urban passenger-kilometres are forecast to increase by 1.3 per cent per annum over the next 20 years—approximately half of the growth rate of the past 20 years. However, managing even this relatively modest forecast increase will present challenges in built-up areas. The continuing growth in the major population centres, particularly in the capital cities, has significant infrastructure costs. For example, the 39 kilometre Westlink (the M7)—formerly the Western Sydney Orbital—is estimated to cost $1.6 billion over six years.

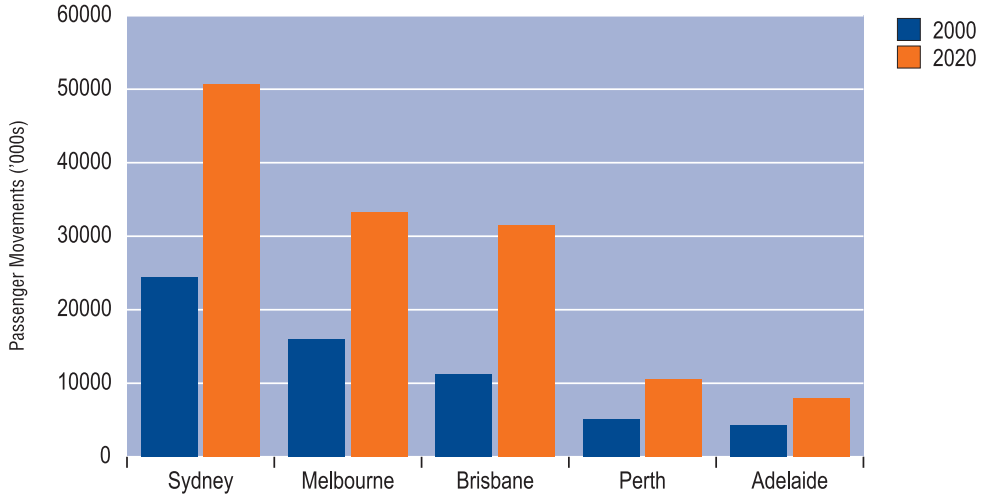
### *Figure 4 Urban passenger task by mode 1970–2020*




**Source:** Bureau of Transport and Regional Economics 2002, *Greenhouse gas emissions from Australian transport trends to 2020,* report 107, Canberra.

Handling growth in airport activity is also a critical infrastructure concern in capital cities. As Figure 5 illustrates, most capital city airports have forecast passenger numbers in 2020 that will be at least double the 2000 levels. Growth in passenger numbers can be expected to be accompanied by broadly comparable increases in non-air traveller visitors to airports. Similarly, the level of airport-based commercial activity and support services is expected to increase. The combined effect of this growth will be to place significant additional pressures on land transport access to increasingly congested airport precincts.

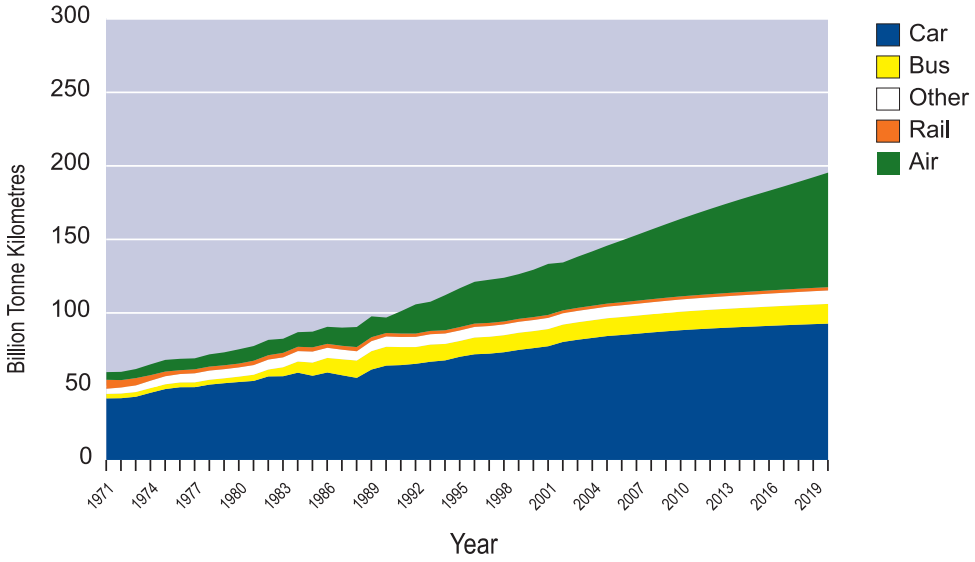
### *Figure 5 Forecast airport passenger movements*




Source: Bureau of Transport and Regional Economics projections derived from AvStats Airport Traffic Data (historical and unpublished) and Airport Master Plans (published and preliminary drafts).

At the same time there is a need to maintain and improve access to, and connectivity between, rural and regional areas, including the new growth nodes in areas such as the New South Wales coastal belt and south-east Queensland. As shown in Figure 6, the rate of growth in car travel in non-urban areas is expected to slow to around one per cent over the next two decades with air travel growing more quickly. Despite continuing growth in air travel, private motor vehicle travel will continue to be of critical importance for access to services in regional and rural areas where low population densities tend to preclude alternatives to the use of cars.

*Figure 6 Non-urban passenger task by mode 1970–2020*




**Source:** Bureau of Transport and Regional Economics 2002, *Greenhouse gas emissions from Australian transport trends to 2020,* report 107, Canberra.

## Public transport

Many respondents to the Green Paper stressed the important role that public transport has, and needs to play, in managing current and future growth in the urban passenger task. Several submissions argued that inefficiencies in the urban transport network can only be addressed by greater investment in public transport. However, a more integrated response to urban passenger transport needs is required.

As motoring costs have declined, settlement patterns have changed to reflect greater freedom in the choice of work and residential locations. As a result, public transport faces significant challenges in providing a service similar to that provided by private car transport. However, improvements in reliability, service frequency, and ease of use through more integrated services and improved ticketing can lead to some increase in patronage.

But even if service improvements on public transport could be achieved, it would still not be enough to significantly affect growing road congestion. Empirical evidence suggests that changes in private vehicle travel costs have a greater effect on the amount of passenger vehicle travel than policies that change public transport fares or service levels. The use of road pricing instruments is emerging in major cities around the world. Privately operated toll roads such as CityLink in Melbourne and the M5 in Sydney are likely to become more common. They provide a platform for introducing time-of-day tolls, presenting travellers with a more immediate appreciation of the real cost of their travel.

The Australian Government's position on public transport is clear: it is primarily a State and Territory government responsibility. The Australian Government considers that State and Territory governments are best placed to deal with the metropolitan and local complexities of public transport. The Australian Government's role has focused, and will continue to focus, on interstate connectivity and trade and commerce between the States and with other nations. That said, the Government accepts that AusLink will deliver opportunities to simultaneously deal with national objectives and

help to address the externalities—notably congestion, noise, and pollutant emissions—that occur almost exclusively in urban areas.

Alternatives that encourage active transport—walking and cycling—need to be better established in day-to-day travel behaviours. This can be achieved through integrating appropriate measures in land use planning, and provision and operation of transport infrastructure. Increased levels of active transport as incidental exercise can help deal with the issue of obesity. The National Obesity Taskforce estimates that obesity affects more than half the Australian population and costs $1.3 billion per year.[16]

## Recognising growing social and environmental costs

Consultations with, and submissions from, governments, transport users, industry, community groups and individuals in response to the Green Paper have confirmed the importance Australians place on the efficiency, effectiveness and safety of the land transport infrastructure network and its sustainability.

Unless the decision-making framework for transport infrastructure in Australia is improved, the forecast growth in the transport task will increase the social costs of transport, particularly congestion. The expected continuing dominance of road transport in handling the non-bulk freight and passenger tasks, particularly in urban areas, presents significant challenges. These include:

- the increasing costs of congestion associated with time spent in traffic and increased vehicle and fuel usage
- inadequate access to transport compounding inadequate access to services
- health costs associated with vehicle emissions
- transport's contribution to greenhouse gas emissions
- increased traffic and subsequent safety issues
- a range of built environment issues associated with transport planning that many blame for a lower sense of urban amenity.

Table 2 shows that the cost to the Australian economy of urban road traffic delays in our major capital cities was already considerable in 1995 and is projected to increase substantially. Increases in road congestion also severely affect the efficiency of freight operations and costs to their customers. This in turn affects Australia's trade competitiveness.

[16] Department of Health and Ageing 2003, *Healthy Weight 2008—Australia's Future: The National Action Agenda for Children and Young People and their Families*, Report of the National Obesity Taskforce, http://www.healthyandactive.health.gov.au/docs/healthy_weight08.pdf

## *Table 2 Costs of urban road traffic delays*

| | Sydney | Melbourne | Brisbane | Adelaide | Perth | Canberra | Total |
|---|---|---|---|---|---|---|---|
| 1995 congestion cost estimate ($ billion) | 6.0 | 2.7 | 2.6 | 0.8 | 0.6 | 0.05 | 12.8 |
| 2015 congestion cost estimate ($ billion) | 8.8 | 8.0 | 9.3 | 1.5 | 1.9 | 0.2 | 29.7 |

Source: Bureau of Transport Economics 1999, *Urban transport – looking ahead,* Information Sheet 14, Canberra.

Note Cost estimates are based on a comparison with notional free-flow traffic conditions.

Individuals in Australia rely heavily on personal motor vehicles to meet their travel requirements. Under present pricing arrangements, the cost to individuals of using personal motor vehicles during congested periods is relatively low. But there are high marginal social costs. The current low individual costs are a key contributor to congestion and health costs. Congestion also exacerbates other problems, in particular increased pollutant and greenhouse gas emissions from idling and stop-start driving.[17]

It has been estimated that there were between 750 and 1700 early deaths attributable to traffic pollution in Australia's capital cities in 2000, with the economic costs of these deaths and other health effects ranging from $2.7 billion to $3.9 billion.[18] By way of comparison, the average number of deaths from motor vehicle accidents from 1992 to 2002 nationally was 1855.[19] The cost of the morbidity and mortality associated with motor vehicle accidents has been estimated at $15 billion per year.[20]

Because of their greater numbers, passenger and light commercial vehicles in urban areas account for the major share of transport emissions of greenhouse gases, urban air pollution and noise. Submissions in response to the Green Paper emphasised that urban passenger congestion, and its social and environmental effects, could be addressed through an increasing emphasis on:

- travel demand management and road pricing —including congestion and mass-distance pricing—to ensure greater efficiency and cost recovery from existing infrastructure and transport activities
- use of sustainable fuels and consistent taxation treatment between modes and fuel types
- assessment of greenhouse, environment and safety effects.

[17] Pollutant emissions from vehicles are very dependent on the number of cold starts, the technology of the vehicle and the type and quality of the fuel. Air quality is also location dependent, being of primary concern in certain corridors within urban areas, and is sensitive to weather conditions. Similarly, the costs imposed by noise emissions from vehicles are very dependent on the location, time of day, technology, age and condition of the vehicle.

[18] Amoako, Johnson, Ockwell, Anthony and Lodh, Madhumita 2003, 'The economic consequences of the health effects of transport emissions in Australian capital cities', Paper presented to the Australasian Transport Research Forum, Wellington, October.

[19] Bureau of Transport and Regional Economics 2003, *Australian Transport Statistics,* June, p.23

[20] Bureau of Transport and Regional Economics 2000, *Road Crash Costs in Australia*, Report 102, May, p.xi

All levels of government place a priority on transport safety. The important role that well-designed and targeted land transport infrastructure investment, traffic management systems, and related technologies can have in reducing the risk of accidents cannot be overstated. Several submissions emphasised that infrastructure investment needs to be linked to the National Road Safety Strategy.

These issues clearly need to be considered in conjunction with the development of transport infrastructure policy. Chapter Six discusses this in more detail.

## The need for an integrated approach to planning and investment

Most respondents to the Green Paper argued that the current framework for planning and investing in Australia's national land transport network is inadequate to deal with future challenges facing the network and system. They suggested that a more cooperative and flexible approach to planning and investment, and involving all levels of government and the private sector, is required. The Green Paper's proposals for long-term planning, development of a comprehensive and integrated National Land Transport Plan were widely and strongly endorsed.

There was also an appreciation of the need to address and deliver infrastructure spending within a new strategic framework. Respondents to the Green Paper also acknowledged that any new framework would need to consider longer-term considerations, technological and modal alternatives and wider economic, social and environmental costs. A coordinated and more effective response to future land transport challenges was widely supported. Many submissions suggested that this could be achieved through greater government collaboration and opportunities for broader stakeholder participation in the planning and programme implementation process. Many submissions also emphasised that the national land transport planning task should proceed in concert with other transport and land use plans and whole-of-government strategies. These might include those focusing on greenhouse gas emissions, changes to travel behaviour, and safety.

The current framework for land transport infrastructure planning, decision-making and funding in Australia is fragmented, short-term, and unable to deal adequately with the emerging need for a substantial increase in infrastructure spending on the transport system. The arrangements for land transport infrastructure planning and funding in Australia have evolved over time and differ between modes. These responsibilities are set out in Table 3.

*Table 3 Current responsibilities for transport infrastructure planning and funding*

| | Roads | | | Rail | | Ports | Inter-modal terminals |
|---|---|---|---|---|---|---|---|
| | National | Arterial | Local[a] | IRN[b] | Branch | | |
| Planning | State/ Aust[c] | State/ Private[d] | Local/ State | Aust/ ARTC[e] State/ Private | State/ Private | State/ Private | State/ Local/ Private |
| Funding | Aust | State/ Aust/ Private | Local/ Aust/ State/ | Aust/ ARTC State/ Private | State/ Private | State/ Private | State/ Local/ Private |

Notes
a. In areas where there are no local governments (unincorporated areas), planning and funding are undertaken by State and Territory governments.
b. Interstate Rail Network
c. Australian Government
d. For example, toll roads
e. Australian Rail Track Corporation

The 1991 Intergovernmental Agreement on Roads allocated discrete road funding responsibilities to each level of government. However, these have become blurred over time. The agreement also lacks mechanisms for cooperative planning spanning the separately funded network—that is, national, state arterial and local roads.

*Rail infrastructure investment has been largely ad hoc*

Rail infrastructure investment has been largely ad hoc. The arrangements for the planning and funding of rail network infrastructure reflect, in large part, the origin of the rail network in separate State-based rail systems. These have been independently run and managed with funding decisions historically driven by local needs. The overall amount of funding available for rail infrastructure has also been severely limited due in part to the poor operational and financial performance of these systems. However, an interstate rail network was defined by the Australian Transport Council at the September 1997 National Rail Summit. This has led to a strategic approach to rail investment decisions. But clearly more needs to be done if rail is to play a more prominent role in Australia's future transport task.

## Private sector investment

All governments face difficulties funding land transport infrastructure from traditional budget sources. There are pressures from competing fiscal priorities. In addition, the costs of providing infrastructure are rising due to increases in land prices, increases in material and construction costs, the increased scale and complexity of projects and the associated cost of environmental mitigation measures. Consequently, there is a need to consider how to increase private sector investment. Some

elements of Australia's existing and potential land transport infrastructure are capable of operation as viable businesses. Given this, it is appropriate that these elements be identified as part of the planning process and be funded by private investment.

*The Australian Government sees the private sector having an expanded role in land transport infrastructure*

Private sector investment should be directed to projects that are commercially viable and where risk can effectively and reasonably be transferred to the private sector. Public infrastructure spending—able to be reallocated because of increased private investment—should be directed towards other projects that may be less commercially attractive but which offer high benefit to the community. The Australian Government therefore sees the private sector as having a vital and expanded role in the future provision of land transport infrastructure. The private sector's role in transport infrastructure investment is discussed in Chapter Two.

## Conclusion

The following key factors will shape the future of Australia's transport system over the next 20 years.

- There will continue to be a critical role for transport in supporting economic growth and community needs. The non-bulk freight task is predicted to almost double while the total passenger task is expected to increase by 40 per cent.
- Intensified globalisation and competition for trade and investment opportunities will require continuing efficiency gains to be made in the provision of transport and logistics services.
- Improvements in Australia's productivity performance vis-à-vis other Organisation for Economic Cooperation and Development economies will not occur without further reform initiatives such as targeted infrastructure provision.
- Demographic and social trends will exacerbate existing pressures on infrastructure in urban and regional areas.
- Requirements for increased public spending on transport infrastructure will be harder to meet in the face of budgetary pressures, lack of land, and the effect of growing environmental and social costs.

There is wide stakeholder agreement on the need for national and cooperative leadership across all levels of government to anticipate and manage these challenges. It is clear that governments need to look at doing things better.

The following chapters set out the Australian Government's proposed response to this task.

# CHAPTER 2 AUSLINK—A NEW APPROACH TO PLANNING AND DECISION-MAKING

## Introduction

This chapter defines AusLink and outlines the major components of the Australian Government's new planning, decision-making and funding framework for national land transport infrastructure. It identifies the major areas of change that differentiate AusLink from earlier approaches and indicates how these respond to the needs identified in Chapter One. Finally, it sketches the main AusLink implementation mechanisms. Key elements are discussed in greater detail in subsequent chapters.

## What is AusLink?

AusLink is a major Australian Government initiative designed to improve planning, decision-making and funding for national land transport infrastructure.

AusLink is based on better long-term planning, encouragement of the best ideas and solutions and targeting investment to achieve the best outcomes for people, the national economy, regions and communities. It is designed to ensure that Australia's national land transport system is far better placed to meet the challenges it faces.

AusLink has the following core components:

- a defined National Network of important road and rail infrastructure links and their intermodal connections
- the National Land Transport Plan which outlines the Government's approach to improving and integrating the National Network and the investments it will make
- a single funding regime, under a new AusLink programme, for the National Network
- separately earmarked funding for local and regional transport improvements
- new legislative, intergovernmental and institutional mechanisms.

# The new AusLink framework

## AusLink National Network

The Government has broadened its funding interventions to establish a new national land transport infrastructure network. Defining the new AusLink National Network is a key initiative of this White Paper.

The AusLink National Network moves beyond separately planned and funded national rail and road networks and ad hoc rail/road intermodal developments to a single integrated network of land transport linkages of strategic national importance. The National Network will link major population and economic centres and facilitate the movement of people and freight: internationally, nationally and between regions. It will be an essential foundation for an effective national transport system.

*The AusLink National Network – a single integrated network of land transport linkages of strategic national importance*

The National Network will improve land transport access to major ports and airports and encompass major rail/road intermodal transfer points on the network. It will be a crucial element in achieving integration of all transport modes.

The AusLink National Network is based on those:

- national and interregional transport corridors—including connections through urban areas
- links to ports and airports and
- other rail/road intermodal connections

that together are of critical importance to national and regional economic growth, development and connectivity.

The Australian Government defined the AusLink National Network after consulting other levels of government, the community and industry. The Green Paper proposed an initial National Network comprising the existing National Highway System and the Defined Interstate Rail Network,[21] together with links to ports, airports and other major concentrations of intermodal activity. In consultations and submissions on the Green Paper, proposals were advanced for the inclusion of many additional corridors and links.

The Australian Government considered these proposals in the context of its national objectives for the network. Specifically, the assessment of proposed additions to the network examined:

- interregional freight volumes and passenger flows
- the population and economic significance of centres proposed to be linked
- the strategic trading importance of individual links and export gateways.

[21] See Glossary for explanation of National Highway System and Defined Interstate Rail Network.

The AusLink National Network is now more extensive than the network proposed in the Green Paper. The non-urban corridors and links of the National Network are illustrated in Figure 7 and the urban links in Figures 8 to 12. All the corridors and links are listed in Table 4 at the end of Chapter Three.

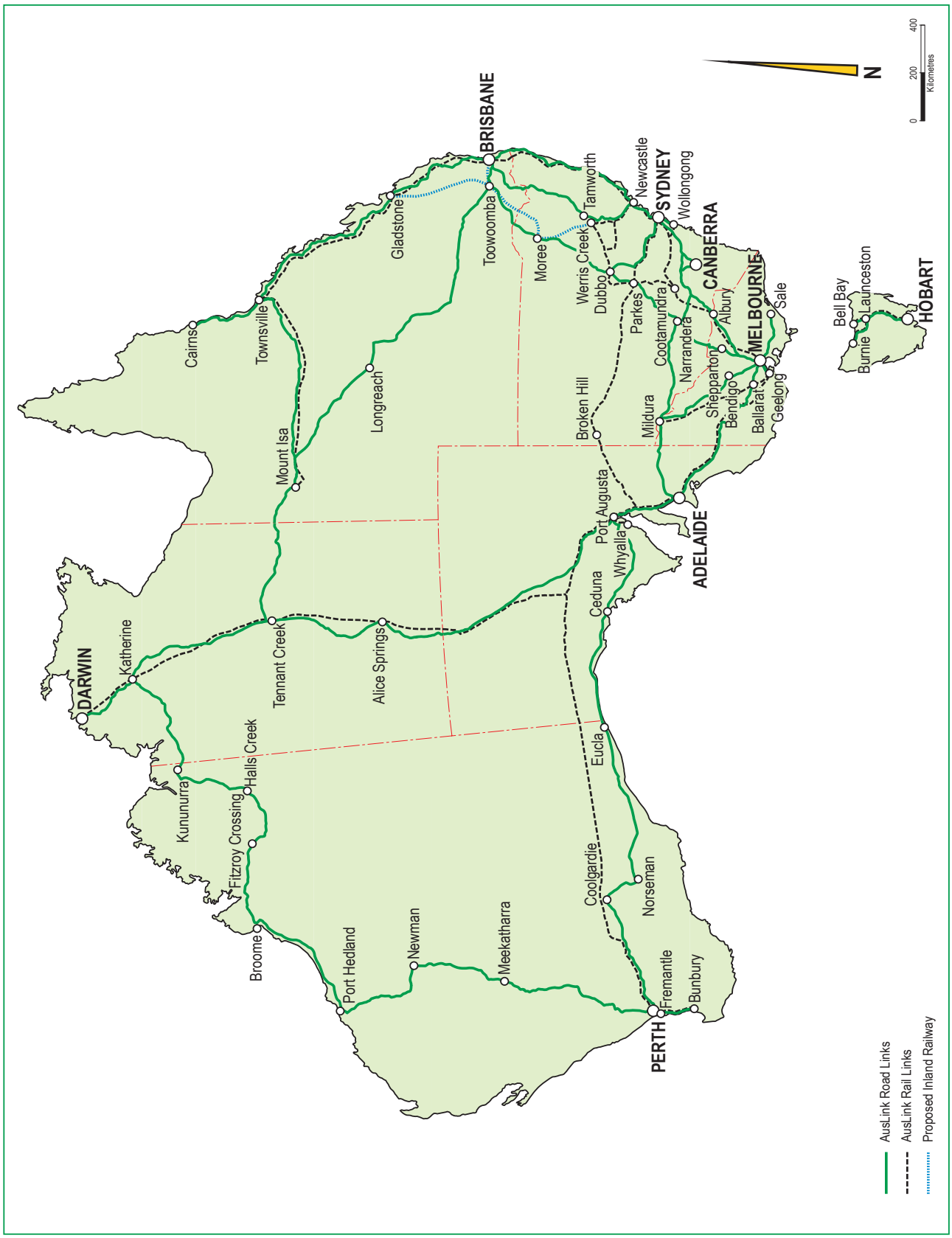
Generally, the National Network includes the important road and rail links on each national transport corridor. This will enable examination of alternative approaches to managing the future transport tasks on the corridor. The National Network will replace the existing separate National Highway System, Roads of National Importance and the interstate rail network. The transition from partial, modally-based elements of a national network to a single, integrated land transport National Network will be reflected in a transition from different funding regimes to a consistent funding regime. The new funding regime will allow Australian Government funding to be targeted to projects of greatest national benefit.

The AusLink National Network and its connections to the broader transport network are the focus of the Australian Government's planning and funding responsibility. The network provides the passenger and freight backbone of Australia's national land transport system. However, this does not mean that a proposed project will be funded by the Australian Government because it is located on the National Network. Only projects of high national priority that meet Australian Government requirements will be considered.

Responsibility for developing the National Network will be shared between the Australian Government and the States and Territories. The States and Territories own much of the National Network and have considerable responsibility for its maintenance and improvement and for land use decisions affecting traffic levels.

The National Network will be planned and developed to improve passenger flows and logistics chains throughout Australia. The Australian Government will periodically review the network's composition to assess whether particular corridors or links should be added or removed.

*Figure 7 Map of the AusLink National Network*



## National Land Transport Plan

The National Land Transport Plan is the blueprint for improving the AusLink National Network into the future. It targets Australian Government funding to national priorities that deliver high levels of national benefit.

Chapter Three outlines the Government's first five-year plan. It identifies the Government's major national priorities on the AusLink National Network. It also sets out the funding contribution that the Government will allocate to each priority.

The plan provides for a very significant range of urgently required major new projects to be initiated. It also acknowledges firm budgetary commitments carried over from previous funding programmes. Initiatives associated with improving infrastructure performance, such as corridor planning and the trialling and take-up of new technology, will also be funded.

The plan will operate on a rolling basis. Future versions of the plan will be based on priorities identified in corridor strategies, which will be developed progressively for each of the major corridors that make up the AusLink National Network. Corridor strategies will be part of a broad 20-year infrastructure planning horizon.

The reach of national planning will, from the outset, extend beyond the National Network to develop safe, efficient and reliable connections between the National Network spine and other parts of the transport network. This is also important to help ensure that transport and land use developments beyond the AusLink National Network do not weaken its performance. For example, inadequate arterial and local road infrastructure development adjacent to the National Network could lead to excessive local traffic being channelled onto a busy interstate freight route. This could affect safety and freight performance.

The National Land Transport Plan is, at this stage, fundamentally an Australian Government plan for the National Network. However, most of the investment priorities also reflect State and Territory interests. Accordingly, the Australian Government expects that the States and Territories will be well advanced with the necessary planning work to enable implementation of the projects to which funds will be allocated under the plan.

## Local and regional initiatives

The Government will build on the substantial financial support already provided for local roads from 2001–02 to 2004–05 under the Roads to Recovery programme. An additional $1.2 billion over four years will be provided for AusLink local and regional initiatives commencing on 1 July 2005, when the current Roads to Recovery programme is due to cease. Chapter Four provides more information about AusLink regional transport initiatives.

Regional Australia will also be a major beneficiary of the Government's very substantial investment in the development of the AusLink National Network. The National Network will provide a backbone of connectivity across regional Australia.

*Regional Australia will be a major beneficiary of the Government's very substantial investment in the AusLink National Network*

In addition, the Government will continue to provide Financial Assistance Grants to local government to supplement spending on local roads and improve community access to local services. The ongoing untied local roads grants provided to local government will total $2.5 billion over the next five years.

Together these contributions will help implement the directions for regional development set out by the Government in its regional statement, *Stronger Regions, A Stronger Australia.*[22]

## The new AusLink approach

This section outlines important features of the new national approach to land transport infrastructure planning and decision-making, how they respond to the challenges identified in Chapter One, and how they will be implemented.

### A national focus on sustainable development and connectivity

There has been broad support for the proposed AusLink national objectives contained in the Green Paper. Accordingly, the Government has established the following national objectives for AusLink which will provide broad guidance to investment priorities. These objectives focus on addressing the major challenges facing the national land transport system.

#### *AusLink national objectives*

AusLink will promote sustainable national and regional economic growth, development and connectivity by contributing to the development of an integrated National Network which:

- improves national and interregional connectivity for people, communities, regions and industry
- improves national, interregional and international logistics
- enhances national, interregional and international trade
- enhances health, safety and security
- is consistent with the obligation to current and future generations to sustain the environment
- is consistent with viable, long-term economic and social outcomes
- is linked effectively to the broader transport network.

[22]Commonwealth of Australia 2001, *Stronger Regions, A Stronger Australia*, The Federal Government's framework for developing Australia's regions through the next decade, Canberra.

The national objectives reflect the Government's concern to achieve a more balanced and sustainable approach to national transport infrastructure development. For example, projects will be assessed on the basis of their benefits, rather than whether they are road or rail, construction or technology-based. Overall, the National Plan encourages an evolution from a mindset based on 'predict and provide' to one more consistent with 'planning and managing' transport infrastructure needs.[23] This could be achieved, for example, by using long-term corridor strategies to identify future pressures and assess the most effective and sustainable ways of managing them. This is discussed in more detail later in this chapter.

*The Plan will begin to address the historical deficiency in the quality of rail infrastructure*

AusLink's broad national objectives are supplemented by the Government's strategic directions for the development of the National Network.

The National Land Transport Plan, in conjunction with the Government's substantial contribution to the Australian Rail Track Corporation, will begin to address the historical deficiency in the quality of rail infrastructure. This cannot be fully overcome in the short-term. But over time the AusLink framework will progressively improve the capacity of rail operators to effectively compete on their merits for a greater share of the forecast growth in freight traffic.

While the National Plan is immediately focused on new transport infrastructure construction, the AusLink framework recognises the importance of pursuing alternatives to construction. It is important that improved approaches to traffic management be encouraged. It is anticipated that technological applications will be incorporated in some of the project priorities in the National Plan where these contribute to effective solutions. The network's development will seek to improve the benefits and contain the costs of land transport—including costs due to congestion, crashes, pollution and depletion of energy stocks.

AusLink identifies the Government's land transport infrastructure focus as relating primarily to national, international and interregional issues, including urban connections on the National Network. The States, Territories and local government are primarily responsible for intrastate and local transport issues—including providing public passenger transport systems.

There is, however, considerable scope for governments to work together to their mutual advantage on many issues—such as regional development and connectivity, and urban congestion on the AusLink National Network.

## An integrated corridor approach to planning

Modern infrastructure developments involve long lead times, require significant investment of funds and have long-lasting effects. Poor and uncoordinated decisions can impose high costs on the community, industry and the environment for decades.

*Corridor strategies – an essential element of subsequent versions of the National Plan*

[23] Organisation for Economic Cooperation and Development 2002, *Road travel demand: meeting the challenge*, Organisation for Economic Cooperation and Development, France, p.16.

The Government will therefore initiate development of long-term investment strategies for each corridor in the National Network. These corridor strategies will change the current approach which is based on developing separate transport modes. The new approach will be tailored to meet the specific characteristics and needs of each transport corridor in the most effective and sustainable way, irrespective of mode. Corridor strategies will be an essential element of subsequent versions of the National Plan and the cornerstone of AusLink into the future. They will provide a sound, objective basis for identifying investment priorities, examining alternative solutions, and identifying the best potential projects. Corridor strategies will be developed by the Australian Government and the relevant State and Territory governments responsible for the transport links in each corridor.

A comparison of corridors, links and projects, and a rigorous project assessment system, will enable the Australian Government to select the highest yielding projects for funding based on the maximum national benefit.

The major benefits of corridor strategies are that they provide:

- a broader, longer-term and cross-modal context for managing the total transport needs of a corridor by the most efficient means available, rather than a modally based approach
- a strategic focus and framework where different levels of government can cooperatively plan and negotiate a corridor's priorities, projects and funding
- an effective context for planning and implementing improved linkages between the National Network and State, Territory and local government networks
- the basis for better integration of land use and transport planning
- an effective basis for involving the private sector in infrastructure planning and delivery
- better information about plans for developing a corridor and hence improved transparency and accountability of decision-making.

Corridor strategies will consider significant developments in other modes—shipping and aviation—where these are likely to affect the nature of land transport services required in a particular corridor.

The Government is committed to improving land transport planning and decision-making. Its intention is that, as corridor strategies are developed, they will have significant influence on longer-term funding decisions.

## Shared responsibility

The development of the National Network will generate benefits not only at the national level but at the State, Territory and local levels as well. Accordingly, shared funding for the National Network is appropriate as many investments will contribute substantially to the interests of key stakeholders other than the Australian Government. For example, it would not be an effective use of Australian Government funding to fully meet the cost of a project on the National Network that is designed particularly to deal with localised traffic issues and where the benefits largely accrue locally.

Shared responsibility also covers the need for effective infrastructure planning and coordination between levels of government. This is necessary to ensure that connections between the National Network and State and local networks improve the performance and safety of the National Network. Australian

Government funding for a project will require that the Australian Government remains in control of the development and operation of intersections with the National Network. In addition, funding will be conditional on arrangements which prevent high volumes of local traffic being channelled onto the National Network. To ensure that the performance of the National Network is not impeded by poorly planned intersections and unexpected traffic volumes, the Australian Government will require these conditions to be embodied in bilateral agreements with States and Territories.

The AusLink National Network includes links that were, partially or wholly, State or Territory responsibilities. It is the unambiguous position of the Government that such elements of the network should continue to attract funding from States and Territories, at least in proportion to the benefits they obtain.

The Australian Government will invest in those projects on the National Network that are of national priority and have substantial national benefits. The Government has a clear expectation that States and Territories will invest in those projects on the National Network which provide benefits at the State or Territory level. In many cases, this means that project costs will be shared with State and Territory Governments.

The Government will tailor its approach to cost sharing with States and Territories according to categories of links. For example, remote interstate links of the National Network are likely to receive a higher proportion of Australian Government funding. This would be because of their importance in providing national connectivity and the minor effect of local issues in driving their costs. The Government also wishes to protect the benefits it has achieved by its high levels of investment in the National Highway System over the years. Accordingly, it will continue to fully fund many projects on the former National Highway System during this first five-year plan. Variations in cost sharing, based on the specific characteristics of individual projects, may also be warranted.

Shared responsibility offers several important advantages.

- It involves explicit recognition that governments have differing objectives and responsibilities and that, in general, they should be willing to contribute funding on a basis consistent with their respective interests. Where developments are designed to meet the priorities of different levels of government, there should be shared responsibility for funding.
- It encourages better planning between governments—for example, by improving synchronisation of developments on the National Network and connections to adjacent State and local networks. This enables the full value of the investment to be realised for all stakeholders.
- The level of investment in the National Network can be expanded. For example, the Government will expect proposals with high commercial returns to attract high proportions of investment from the private sector and not rely on excessive investment of public funds. Similarly, if a project on the National Network is of significant benefit to a State, it is reasonable to expect commensurate State funding.
- It provides a tangible incentive for all parties to plan and spend effectively and efficiently, as they are exposed to the risks of poor decisions and have a stake in working for sound outcomes. This increases the likelihood of good long-term transport and land use decisions. It also reduces the risk of cost shifting, as the likely beneficiaries of an investment are expected to contribute to that investment.

The funding contribution that the Australian Government is prepared to make to each investment priority in the first five-year plan reflects decisions it has taken on shared funding. Investment priorities for the first plan are discussed in Chapter Three.

## Integrating land use and transport planning

The Australian Government is taking a more active interest in integrating land use and transport planning to improve the performance of the National Network under AusLink.

States, Territories and local government have primary responsibility for land use planning and development decisions and will continue to take a lead role in this area. All States and Territories, the Australian Government and the Australian Local Government Association have collaborated to develop, and more recently endorse, the *National Charter of Integrated Land Use and Transport Planning*.[24]

The endorsement of the charter establishes a national commitment to a framework for responsive planning, consistent decision-making, and good design and management. The charter's objective is to achieve greater integration between land use and transport planning across agencies, jurisdictions and levels of government to facilitate effective and sustainable urban and regional development across Australia.

All States and Territories are moving to implement the National Charter and to integrate their transport and land use planning efforts.

The Australian Government expects, as a prerequisite for funding, that States and Territories will be able to demonstrate effective integration of transport and land use planning for transport infrastructure projects on the National Network.

The Government wishes particularly to guard against unwarranted calls on its transport budget resulting from shifting transport infrastructure costs from adjoining urban and local transport networks onto the AusLink National Network. It also wishes to avoid paying a cost premium for expensive new urban links when land corridors for those links are not identified, reserved and acquired well in advance of need.

Under AusLink, the Government will expect the States and Territories—using their long-term statutory planning powers and responsibilities—to reserve and acquire land needed for new urban links on the National Network. This is intended to ensure that acquisition costs do not contribute to project costs by default. Relevant State acquisition costs will be treated as part of a State's contribution to a particular project on the National Network.

[24] The *National Charter of Integrated Land Use and Transport Planning* was endorsed by the Australian Transport Council on 23 May 2003 and the Local Government and Planning Ministers' Council on 15 July 2003. The charter can be downloaded from the Australian Transport Council website (www.atcouncil.gov.au/index.htm) or the Local Government and Planning Ministers' Council website (www.dotars.gov.au/lgpmincouncil/index.aspx).

In developing a high-performing National Network, the Government will seek to engage more closely with State and Territory planning processes on the following matters:

- major metropolitan strategic development patterns which might affect the National Network
- urban, local and commuter traffic significantly affecting the National Network
- congestion and urban encroachment around major ports, airports and other intermodal facilities
- urban travel management and other measures by States and Territories that might limit or defer the need to extend the National Network's capacity.

The Government will engage with the States and Territories within their existing institutional arrangements. It does not wish to propose another layer of statutory land use planning. Rather, it seeks to work cooperatively with each State and Territory on the long-term planning matters that affect the cost and performance of the AusLink National Network—especially within capital cities.

The Australian Government will undertake joint investigations and strategy development with State transport and planning agencies where its interests on the National Network in any particular State can be advanced.

## Consistent approach to achieving the best solutions

Better planning must be translated into better solutions to overcome the inadequacies of the current planning and investment framework. Consequently, under AusLink the Government will introduce new approaches to ensure that funding is targeted to the best transport solutions that address the needs identified through the National Land Transport Plan. It will do this in the following ways.

*Better planning must be translated into better solutions*

- The existing approach of separate funding arrangements for different programmes, such as the National Highway System, Roads of National Importance and rail, will be replaced with a single cross-modal funding approach for all land transport proposals.
- Solutions that focus on making better use of existing infrastructure—including non-built infrastructure solutions, such as the use of new technology—will be actively encouraged.
- A new project assessment methodology will be progressively introduced to ensure neutrality between transport modes, proponents and construction and non-construction solutions, in assessing the broad range of potential projects.
- There will be a stronger focus on evaluating investment outcomes to ensure that planning and investment decision-making continue to improve.

## Increased private sector involvement

*The Australian Government will invest in projects of national priority*

The Government expects State and Territory proposals seeking AusLink funding to examine potential private sector involvement in the ownership, financing and operation of the project and in the full range of opportunities arising from the project. Such opportunities may include commercial development opportunities associated with, or flowing from, the project including any revenues that may be used to offset the cost of the project. While these considerations will not always be appropriate, the Government expects their potential to be assessed. The National Plan nominates several investment priorities as being suitable for private sector investment.

Experience with major airport infrastructure, now privately leased and operated in Australia, highlights the scope for developing additional sources of commercial revenue. There are established institutional settings supporting the capacity for non-aeronautical revenue raising at airports. But there is also scope to create similar non-fare and non-toll revenue opportunities from land transport infrastructure.

AusLink will seek to maximise these opportunities. It will encourage a focus on identifying and capturing increases in value from land transport investments and acknowledge that the private sector tends to identify and develop such opportunities more readily. Under AusLink, States and Territories will be encouraged to include revenue-earning commercial development within the scope of major transport projects. Such commercial development could, for example, be based around revenue associated with passenger transfer stations, parking facilities, and retail, industrial and residential opportunities packaged with the project. The recently completed M6 toll road project in the United Kingdom includes a motorway service area.[25] This is an example of the potential commercial revenue opportunities that can be encompassed within the scope of a private road project.

Capturing increases in value arising from land transport projects reduces reliance on fares and tolls. It also greatly increases private investors' ability to raise the capital necessary to fund construction. This increases the range and viability of private investment opportunities in land transport infrastructure and releases scarce public funds for other AusLink projects.

Privately owned and operated roads that are accessible at a charge to road users are an increasing feature of urban transport in Australia. Recent experience in major Australian cities has shown that such roads can be efficiently run, integrated into State road networks, and provide a viable alternative to direct government funding of road construction. Most importantly, these private roads release government funding for other worthwhile public infrastructure. AusLink will encourage State and Territory governments to identify commercially viable road projects and progress them as private projects rather than using scarce public funds on their development.

In Melbourne, the opening of the CityLink tollway noticeably improved the integration of the urban arterial system.[26] A similar improvement is occurring in Sydney as each part of an orbital network of mostly private roads is constructed. This will culminate with the completion of the Westlink (the M7) project. Similar improvements across the urban system—with private sector involvement—may also be possible in Brisbane through far-sighted integration of links which connect the rapidly expanding Greater Ipswich region with Brisbane.

[25] The M6 Toll motorway service area is a 22 hectare site that will include petrol stations, restaurants, shops, hotel and conference facilities, picnic grounds, and parking for more than 300 cars and 100 trucks.

[26] The Allen Consulting Group, *Benefits of Public Investment in the Nation's Road Infrastructure*, page 6, May 2003.

As a first step to improving private sector involvement, the Government is engaging with senior private sector representatives to advance issues affecting private sector participation in land transport infrastructure investment.

The Government is also committed to reforms designed to improve the tax framework for asset financing arrangements between private sector taxpayers and tax preferred entities. These reforms have particular relevance for private sector financing arrangements in relation to public infrastructure.

They seek to replace section 51AD and Division 16D of the *Income Tax Assessment Act 1936* with the proposed Division 250 of the *Income Tax Assessment Act 1997*. Exposure draft legislation to implement these reforms was released on 26 June 2003. The Government received many submissions on the draft legislation and has continued to consult with stakeholders on issues raised.

On 4 December 2003 the Minister for Revenue and Assistant Treasurer, Senator Helen Coonan, announced that the Government was committed to introducing the reforms by July 2004. The reforms will commence from the date of Royal Assent to the legislation.

## AusLink's implementation mechanisms

AusLink will commence on 1 July 2004. It will not be feasible to have all of the changed arrangements in place by this time. However, AusLink can be implemented effectively under a phased approach.

The implementation framework includes:

- new legislative arrangements
- bilateral agreements governing project development and funding
- development of institutional and intergovernmental arrangements to provide a more structured approach to long-term strategic planning of the National Network.

These new arrangements are described in detail in Chapter Five.

The Government will continue consultations with States and Territories and other infrastructure managers so that there is a smooth transition from current funding programmes to the AusLink programme.

The AusLink Roads to Recovery programme will commence on 1 July 2005. Proposed implementation arrangements for AusLink's local and regional funding streams are set out in Chapter Four.

## Conclusion

The Australian Government believes the AusLink framework should be dynamic to meet the demands of change in a strong, globalised economy. The Government's intention is that AusLink will embrace ongoing improvement and evolution and adapt to changing circumstances to generate further benefits for transport users. The capacity for improvement and adaptation is critically important given the speed and complexity of developments in transport and technology and the risks from locking in arrangements that could become impediments to further progress. AusLink provides a farsighted, flexible, rolling five-year plan, periodically updated and developed within a broad 20-year horizon.

The response from stakeholders will have a major effect on how the National Land Transport Plan evolves. In this way the National Plan can become an even more effective tool for integrating and developing Australia's transport infrastructure network.

# CHAPTER 3 THE NATIONAL LAND TRANSPORT PLAN

## Introduction

This chapter presents Australia's first National Land Transport Plan. It describes the:

- strategic directions that are guiding the Australian Government's investment priorities on the AusLink National Network
- funding the Australian Government is providing to implement the National Plan over the five years from 2004–05 to 2008–09
- Australian Government's investment priorities for the five years of the National Plan, including specific projects and funding levels.

## Funding

The Government is backing its AusLink initiative with a substantial increase in land transport investment. The Government has allocated a total of $11.8 billion for road and rail transport, including $9.2 billion to AusLink over the five years of the plan. The AusLink funding includes:

- $7.7 billion for the AusLink National Network, representing a 44.6 per cent increase on existing National Highway System and Roads of National Importance funding
- $1.5 billion for AusLink's Roads to Recovery, including regional road funding for local government.

*The Government has allocated $9.2 billion to AusLink over the five years of the plan — a 64.2 per cent increase in funding*

This represents an overall increase of $3.6 billion on existing programme funding for these five years—a 64.2 per cent increase in funding.

Under the principle of shared responsibility described in Chapter Two, the Australian Government expects that States and Territories will also contribute substantial funds to projects on the National Network. Australian Government funding is conditional on the relevant State or Territory meeting its funding and other project responsibilities.

The $3.6 billion increase in Australian Government funding includes a grant of $450 million to the Australian Rail Track Corporation in 2004 for investment on the north-south rail corridor in the five-year period, with high priority on the New South Wales north coast line. In addition, another $872 million will be invested in the eastern seaboard north-south rail links[27] over the next five years. These links form part of the National Network. This funding is available as an outcome of the agreement between the Australian and New South Wales Governments for the Australian Rail Track Corporation to lease the New South Wales interstate rail track.

AusLink, together with funding under the New South Wales rail lease agreement, will result in an $8.6 billion investment by the Australian Government and the Australian Rail Track Corporation in the National Network over the coming five years. Of this, approximately:

- 78 per cent will be invested in road projects—$6.7 billion
- 21 per cent will be invested in rail projects—$1.8 billion
- one per cent will be invested in research and technology.

The Australian Government's funding contribution to major projects on the National Network includes:

- $765 million for the Pacific Highway in New South Wales and the Tugun Bypass in Queensland
- $714 million for the Hume Highway in New South Wales and Victoria
- $627 million for Brisbane urban road links
- $573 million for the North Coast rail line between Sydney and Brisbane
- $434 million for the Sydney–Melbourne interstate railway, including the new Sydney southern freight access link
- $429 million for the Bruce Highway in Queensland
- $186 million for a bypass of Geelong and $114 million for the Calder Highway in Victoria
- $126 million for the Great Northern Highway and $150 million for the Peel Deviation in Western Australia
- $97 million for the Port River Expressway in South Australia.

The Australian Government's new road investment on the National Network in outer metropolitan, rural, and remote areas over the five years is approximately $1.9 billion.[28]

Several specific technology-based projects are identified in this National Plan. In addition to these, technology-based applications, such as Intelligent Transport Systems, will be embodied in road and rail projects, where they contribute to effective solutions.

[27] The majority of this investment will come from the Australian Rail Track Corporation—an Australian Government owned entity and the Australian Government. Some $62 million will be provided by the NSW Government and an investment of $50 million by Pacific National is also anticipated.

[28] In December 2003 the Australian Government decided to abolish the Fuel Sales Grants Scheme from 2006–07 and redirect the $810 million savings to additional land transport funding in outer-metropolitan, rural and remote parts of the AusLink National Network.

The Australian Government's total additional investment for the AusLink National Network will be $7.7 billion over five years. This will generate both savings in transport user costs and increase service efficiency, which, in turn, will have a positive and sustainable effect on national growth.

Details of the Australian Government's national investment priorities for each transport corridor on the National Network are provided later in this chapter. A complete summary of the investment priorities of the first five-year plan, on a State and corridor basis, is provided at the end of this chapter.

## Strategic directions

The Australian Government has identified eight strategic directions to improve long-term infrastructure planning and to guide its investment priorities under the National Land Transport Plan for the coming five years. The strategic directions are described below.

- The Australian Government will negotiate long-term strategies with the States and Territories to develop the National Network on a corridor basis.
- The Australian Government will improve the capacity and performance of the vitally important eastern seaboard north-south interstate corridors by upgrading critical road and rail links, increasing rail's market competitiveness, and improving intermodal integration.
- The Australian Government will enhance the capacity and reliability of other critical interstate and interregional corridors, including in remote areas, to ensure national connectivity.
- The Australian Government will work with States to address congestion on urban and outer metropolitan sections of the National Network—including on links to ports, airports and other centres of intermodal activity—to facilitate passenger and freight flows.
- The Australian Government will improve infrastructure performance by facilitating the development and application of appropriate and cost-effective new technologies.
- The Australian Government will improve safety on the National Network in line with the National Road Safety Strategy and, through the Australian Rail Track Corporation, on the national rail system. It will improve security on the National Network in line with the National Transport Security Strategy.
- The Australian Government will work with States and Territories to protect the community's substantial past investment in national road and rail network improvements.
- The Australian Government will improve local government's capacity to address local transport infrastructure backlogs and to fund projects of strategic regional importance.

## Planning on an integrated long-term basis

The development of long-term and sustainable strategies to address total transport requirements, and associated land use issues on a corridor-by-corridor basis, is the cornerstone of the AusLink planning process. Corridor strategies will be a key tool for deciding investment priorities in future. They will also identify the scope for:

- private sector investment
- innovative measures to increase the performance of existing infrastructure
- improved linkages to adjacent transport networks.

The progressive development of corridor strategies will feed into future versions of the National Plan.

Development of strategies for interstate and interregional corridors will recognise that the use of road and rail for carriage of freight must be highly contestable. Each mode's performance and competitiveness must be optimised.

The development of corridor strategies for metropolitan sections of the National Network achieves two significant outcomes. It provides a vehicle to develop coordinated approaches to guide land use and investment on the network and to address the economic, environmental and social effects of congestion. The Government anticipates that it will take several years to develop the major corridor strategies. Corridor strategies will continue to evolve and develop in line with a long-term 20-year planning horizon.

Getting these corridor strategies in place is critical.

## Improving the eastern seaboard north-south corridors

The north-south corridors on the eastern seaboard—Sydney–Brisbane; Melbourne–Brisbane; Melbourne–Sydney—are the most heavily trafficked in Australia. Forecasts indicate they will have to deal with continuing strong growth in freight and passenger traffic, fuelled by economic growth and population expansion. These corridors are also critical to Australia's international competitiveness and include the three most significant national container ports—in Melbourne, Sydney and Brisbane—and the three most significant airports which are also in these three capital cities.

Planning successfully and investing wisely for transport on these corridors will therefore be crucial factors in Australia's performance and quality of life in the next half-century.

A continuation of current strong user preference for road transport would see the interstate non-bulk road freight task more than double by 2020. Given the distances involved on these corridors, rail has the potential to be more competitive than it has been in recent decades. An under-performing rail system is unacceptable and there is substantial scope to achieve a high-performing east-coast rail system.

The potential for rail to increase its share of the non-bulk freight task depends on the appropriate level of infrastructure investment together with commercially sustainable operating practices. The Australian Rail Track Corporation's management of the New South Wales mainline and Hunter Valley tracks will remove many of the institutional impediments to rail's success on the north-south corridors. There are other measures that will improve rail's performance, including increasing capacity,

the application of new signalling and communications technologies, broader logistics improvements such as better port access, and more efficient pricing.

Given the forecast passenger and freight growth rates, even a significant improvement in rail's share of the long distance bulk-freight market will not avoid the need for progressive upgrading of key road links on these corridors. Substantial upgrading will be required to enhance capacity, safety and transit times.

## Improving the capacity and reliability of other interstate and interregional corridors

It is critical that the condition of major links between capital cities and regions enables reliable access and competitive transit times to support connectivity as well as economic growth. There have been major advances in the overall quality of the intercapital road and east-west rail links over the past two decades. However, continuing traffic growth provides a strong economic case for selective investment in further upgrading of interstate and interregional links on the National Network.

Several interstate and interregional links on the National Network are subject to ongoing and severe deterioration due to age and climatic factors, such as flooding and salinity. These need to be addressed.

## Addressing congestion on key urban links

Increased congestion on urban and outer metropolitan sections of the National Network and broader urban networks is forecast. This has implications for economic growth, transport costs, social amenity and the environment. Already, many of the most serious freight and passenger bottlenecks occur in urban areas and on outer metropolitan sections of key interstate and intrastate links.

The Australian Government is particularly concerned to ensure that key urban links of the National Network are capable of effectively supporting growth in Australia's overseas trade and thus, contributing to our competitiveness. The links of most concern are to:

- the major ports in Melbourne, Sydney, Brisbane and Fremantle
- the major airports in Sydney, Melbourne and Brisbane
- other major centres of intermodal activity.

Containing congestion is a highly complex issue requiring a concerted joint effort by all levels of government and a broad range of solutions. These include infrastructure development, traffic management and travel demand management. Private sector investment, on terms that ensure that the public interest is demonstrably protected, also needs to be encouraged on selected urban routes.

## Utilising technology

The magnitude of growth in the transport task, has become increasingly complex in recent years. It now requires governments and policy makers to address concerns about the economic, environmental and social costs of transport and transport security. Greater effort to employ technologies can contribute significantly to solving transport problems.

There are significant emerging opportunities for new and existing technologies to be used to:

- enhance infrastructure productivity
- better manage freight logistics and passenger movements
- improve safety, security and environmental outcomes.

However, the effective development and adoption of technology requires several issues to be considered—in particular the risk of incompatible systems.

Under AusLink, the Australian Government will encourage applied research and development and adoption of promising new technologies, focusing on technologies where Australia has a clear need. Technology investments will be required to conform to the National Reference Architecture for Intelligent Transport Systems and applicable Australian standards—or relevant international standards. They will also need to address interoperability issues. Support will be provided for the development of relevant Australian standards or adoption of relevant international standards or protocols.

## Improving safety and security

Reducing the risks, costs and trauma of accidents is a national priority. Long-term safety strategies and targets must apply to the National Network and governments must invest in those parts of the Network that require major safety improvements. The National Road Safety Strategy, and the National Code of Practice for Rail Operations, are starting points for longer-term directions in safety policy, strategy, planning and regulation. In addition, the Government will continue the National Black Spot programme at current funding levels until the end of 2005–06.

The Australian Rail Track Corporation's lease of the New South Wales interstate and Hunter Valley rail networks is scheduled to start early in 2004–05. This will enable the Government to more effectively employ the corporation to improve safety across key parts of the national rail system. The Australian Government has supplemented the corporation's funds to enable it to undertake necessary remedial works. These will improve the safety and efficiency of the operating environment for interstate rail operations at the speed and axle loads that are required by rail customers.

Transport security is a major national issue. This has been recognised through the development of, and agreement to, the National Transport Security Strategy by Australian, State and Territory Governments. AusLink provides the opportunity to enhance security on the National Network to protect key national infrastructure links. This will help ensure that national transport connectivity is maintained, critical supply chains are protected and passenger mobility supported.

## Protecting past investment

Over recent decades significant public funds have been spent to upgrade road and rail networks. Responsible asset management is essential to ensure that this investment is not wasted, that safety and efficiency are improved, and that long-term infrastructure rebuilding costs are reduced. Asset owners, principally States and Territories, should maintain the National Network to a fit-for-purpose standard. The Australian Government will continue to contribute, with asset owners, to the AusLink National Network's maintenance.

## Supporting regional and local economic growth

The substantial contribution of Australia's regions to national economic growth, together with the need to develop sustainable regions, require an effective land transport network. The AusLink National Network provides major routes linking regions to each other and to capital cities. States, Territories and local government also provide critical links supporting local and regional development.

The Roads to Recovery programme has proven to be very effective at the local level and will continue until 2008–09 under AusLink. Under the Roads to Recovery programme, the Australian Government will continue to work with local government to help address the backlog of local road works. The Government will also work with local government to implement a forward-looking agenda. This new agenda will be based on investments in local land transport projects of strategic regional importance, and will encourage greater cooperation between councils in regional planning.

# National investment priorities 2004–05 to 2008–09

The Australian Government's national investment priorities for this five-year plan are directed at pursuing the eight key directions described above. Responsibility for developing the AusLink National Network will be shared with States and Territories which largely own the transport infrastructure and share many of the identified priorities.

The Australian Government has decided on the level of funding it will invest in each of its priorities. This funding is contingent on it reaching a bilateral infrastructure and funding agreement with each State and Territory on projects and funding commitments.

The Australian Government's investment priorities fall into six categories:

- interstate corridor investments
- interregional corridor investments
- capital city urban corridor investments
- rail system investments
- network-wide investments including
  - corridor strategies
  - maintenance
  - providing for higher mass limits
  - intermodal developments
  - technology investments
- local and regional transport investments—these are discussed in detail in Chapter Four.

## Interstate corridor investments

Interstate corridors are critical for national, State and regional economic and social development, trade, security and connectivity. These corridors comprise Australia's major national freight and passenger arteries.

## *Sydney–Brisbane corridor*

The Sydney–Brisbane corridor includes some of the fastest growing regions of Australia on the north coast of New South Wales and in south-east Queensland. The key links in the corridor are the Sydney to Newcastle Freeway—the F3—the Pacific Highway, the New England and Cunningham Highways, the Sydney to Newcastle railway and the North Coast Rail Line. Since 1996–97, the Australian Government has invested more than $815 million upgrading the Sydney to Brisbane corridor.

The Australian Government's strategic priorities on this corridor are to develop a high performing, efficient and safe coastal corridor that provides competitive freight services and safe and convenient passenger travel. It also wants to ensure the inland route is maintained as a viable and safe alternative route. The Government's investment priorities are to increase capacity and safety on critical sections, improve rail's reliability and performance, and commence the corridor planning required to manage the forecast traffic growth in a sustainable way.

The Government's objective is to duplicate the Pacific Highway by 2016, in partnership with the New South Wales Government.

### Investment Priorities for the Sydney–Brisbane Corridor

#### *The F3*

The Australian Government will invest $253 million towards a new alignment between the F3 and New England Highway at Branxton, shortening the route by 10 kilometres and separating local and through traffic around Maitland. It will invest $50 million for additional widening of the F3. Further funding for the F3 to Branxton project will be sought in future budgets subject to an agreement being reached with the New South Wales Government on funding shares as part of the state funding agreement. The potential for private sector involvement will also be examined.

The Government has already committed $86 million to widening the F3 between the Hawkesbury River and Calga and in the next five years will provide the balance of $2 million to complete that work.

#### *The Pacific Highway*

The Australian Government remains committed to its share of the current Pacific Highway upgrading agreement with New South Wales.[29] An amount of $165 million is still to be provided. The Government has also committed $120 million to construct a bypass at Tugun in Queensland.

The Government will partner with the New South Wales Government to commence new duplication and upgrading projects by investing an additional $480 million in the Pacific Highway in the five-year period. The New South Wales Government will be expected to at least match this level of funding. Further Australian Government funding towards Pacific Highway projects will be provided beyond this five-year period.

[29] The $2.2 billion, 10-year Pacific Highway upgrading programme, jointly funded by the Australian and New South Wales Governments, commenced in 1996. The objective of the programme is to upgrade 700 kilometres of the highway between Hexham and the Queensland border and address safety and congestion issues. On completion of the programme, travel time is expected to improve by 80 minutes and the road fatality rate could be reduced substantially. In New South Wales about 50 per cent of the highway will have been duplicated by 2006.

*The New England Highway*

The Australian Government has committed funding to a range of works including:

- widening at several locations
- interchange improvements at Weakleys Drive
- road safety improvements and realignment north of Armidale, near Sunnyside Road
- realignments at Devils Pinch and Halcombe Hill.

In the next five years it will provide the balance of $97 million to complete these projects.

The Government will also invest $5 million to commence a bypass of Muswellbrook.

*The North Coast Rail Link*

The Australian Rail Track Corporation proposes to invest an estimated $119 million over the next five years to increase passing opportunities and improve signalling systems on the rail track between Newcastle and Brisbane.

It will also invest the additional $450 million provided by the Australian Government in the Sydney—Brisbane railway to reduce transit times and improve average train speed, improve operational reliability and capacity, and improve rail operating and maintenance cost efficiencies. It will do this by investing in projects that:

- improve access problems faced by freight trains between Newcastle and Sydney by providing upgraded facilities, such as refuges and overpasses, for freight trains at seven locations on the CityRail network ($55 million)
- ease congestion of freight services and coal train movements by duplicating 63 kilometres of the track between Wallarobba and Stratford on the northern approach into Maitland ($109 million)
- improve transit times and train speeds by building deviations at 14 locations, totalling 121 kilometres, to ease curves on the North Coast railway between Newcastle and Brisbane ($158 million)
- improve transit times for all trains in the Newcastle to Brisbane section by more than 60 minutes by installing a modern Centralised Train Control system between the Queensland border and Acacia Ridge ($15 million)
- improve operational efficiencies and reliability by replacing worn out sleepers with concrete sleepers over 196 kilometres of the Newcastle to Brisbane track ($113 million).

## *Sydney–Melbourne corridor*

The key links on the Sydney to Melbourne corridor are the Hume Highway, including the South Western Freeway (the F5) at its northern end, and the interstate mainline rail link via Albury and Cootamundra.

The Sydney–Melbourne corridor is the busiest intercapital corridor in Australia for both freight and passengers[30]. Most freight in this corridor is moved by road which provides overnight delivery between capital cities and to and from regional centres. The Hume Highway carries a high proportion of freight traffic. However, the Australian Government and the rail industry consider that rail could increase its market share with the right mix of investment, regulatory reform and market reliability. Since 1996–97 the Australian Government has invested more than $340 million in the Sydney–Melbourne corridor.

The Australian Government's strategic priorities on this corridor are to improve performance, capacity and safety and to improve the efficiency of rail freight services. It is the Government's objective to duplicate the Hume Highway by 2012.

### Investment priorities for the Sydney–Melbourne corridor

*The Hume Highway*

In the next five years the Australian Government will provide the balance of $124.4 million for the Craigieburn bypass in Melbourne and $341 million for an upgraded route through Albury and a second Murray River crossing.

In this period the Government has also committed $43.5 million for several important Hume Highway projects. This comprises:

- $22 million for the interchange at Donnybrook Road, north of Melbourne
- $6 million for the interchange at north Gundagai
- $3 million for a truck facility at Tarcutta
- $5.5 million for the Towrang and Carrick intersection upgrades
- $7 million towards additional ramps at Campbelltown.

In addition, the Australian Government will invest an additional $205 million for further duplication of the Hume Highway and for other safety works—including on the F5. Priority projects will be determined in consultation with the New South Wales Government. Further funding towards Hume Highway projects will be provided beyond this five-year period. A condition of any Government funding of the F5 will be that the New South Wales Government commits to upgrading the adjacent arterial network.

These initiatives take the total investment in Hume Highway improvements over the five years to $714 million.

[30] BTRE 2003, *Freight between Australian Cities*, Information Sheet 22; BTRE 1998, *Forecasting Light Vehicle Traffic*, Working Paper 38.

*Sydney–Melbourne railway*

The Australian Rail Track Corporation has undertaken to invest almost $432 million on the mainline rail track between Sydney and Melbourne over the next five years. This includes constructing a dedicated freight rail line from Macarthur to Chullora in Sydney and replacing of the poor standard bridge over the Murrumbidgee River in Wagga Wagga.

The Government has also committed $20 million to a rail bypass of Wodonga. In addition, it is prepared to partner with the Victorian Government, the Australian Rail Track Corporation and Pacific National to fund standardisation of the broad gauge rail track from Melbourne to Albury–Wodonga. This will greatly enhance operational efficiency and integration. The Government will contribute $25 million to this project once other parties have also committed to it.

## *Melbourne–Adelaide corridor*

The key links on this corridor are the Western Highway, the Dukes Highway, the South Eastern Freeway near Adelaide, and the mainline standard gauge rail track from Melbourne via Geelong and Wolseley to Adelaide. Since 1996–97, the Australian Government has invested more than $236 million in these highways.

The Australian Government's strategic priorities for this corridor are to address congestion, safety and reliability on under-performing sections of the road links and improve rail's performance and share of the freight market. The Government's investment priorities aim to increase capacity on the urban and outer metropolitan sections in Melbourne and rehabilitate weak road pavement on the Dukes Highway.

### Investment priorities for the Melbourne–Adelaide corridor

*The Western Highway*

The Australian Government will invest $80 million in the latter part of the five-year period to commence construction of a bypass at Deer Park and a grade-separated interchange at Leakes Road—both in outer metropolitan Melbourne. Further funding for these projects will be sought in future budgets subject to an agreement being reached with the Victorian Government on funding shares as part of the negotiated state funding agreement. The realignment of the highway between Deer Park and Ardeer, and interchange improvements at Leakes Road in Rockbank, will improve freight flows and safety and reduce congestion and conflict with local traffic.

The Government will also fund a study into improving safety at the intersection of the Western Highway and interstate railway in Ararat in Victoria.

*The Dukes Highway*

The Australian Government has committed funding for major pavement rehabilitation and shoulder sealing. In the next five years it will provide the balance of $14.8 million for shoulder sealing and to complete pavement reconstruction east of Bordertown.

*Melbourne–Adelaide railway*

The Australian Rail Track Corporation has planned ongoing maintenance and minor works to increase rail reliability and capacity.

## *Melbourne–Brisbane inland corridor*

Road and rail follow substantially different routes on this corridor. The road link—comprising the Hume, Goulburn Valley, Newell, Gore and Warrego Highways—is direct and on flat terrain to the west of the Great Dividing Range. It crosses the range at Toowoomba. There is no direct rail link between Melbourne and Brisbane. Rail freight travels via Sydney. A private sector proposal for an inland railway route would use existing railways from Melbourne to Werris Creek and include a new route from Werris Creek to Brisbane. Since 1996–97, the Australian Government has invested over $232 million in the Melbourne–Brisbane corridor.

The Australian Government's strategic priority for this corridor is to develop it as a viable inland multimodal corridor for long-distance freight and passenger traffic.

### Investment priorities for the Melbourne–Brisbane inland corridor

*The Newell Highway*

The Australian Government will invest $106 million on a package of upgrading works in the next five years. This will include $28 million for a heavy vehicle bypass of Moree.

The Government will also provide $1 million to commence work on the Coonabarabran bypass and $1 million to commence the Trewilga realignment.

*Goulburn Valley Highway*

The Australian Government will work with other parties to consider options for the further duplication of the Goulburn Valley Highway and construction of the proposed bypass of Shepparton.

*Melbourne–Brisbane rail*

Rail freight will benefit from investment by the Australian Rail Track Corporation on the Melbourne–Sydney and Sydney–Brisbane track. In addition, the corporation proposes to invest $57 million on the track between Cootamundra and Werris Creek. The work will focus on replacing timber sleepers and bridges, and bridge strengthening to allow for heavier axle loads, increased train speeds and increased paths for longer trains.

## *Sydney–Adelaide corridor*

The key links in the corridor are the Hume and Sturt Highways to Adelaide; and the interstate railway between Sydney and Adelaide, via Cootamundra, Parkes and Broken Hill. Since 1996–97 the Australian Government has invested more than $66 million on the Sturt Highway.

The Australian Government's strategic priorities for this corridor are to improve safety and reliability on the Sturt Highway, increase the competitiveness of rail, and improve travel time and efficiency on the corridor.

### Investment priorities for the Sydney–Adelaide corridor

*The Sturt Highway*

In the next five years the Australian Government will provide the balance of $29 million to upgrade the Sturt Highway in the Riverland, realign the section around Truro Hills and widen sections in New South Wales. In addition, the Government will invest an additional $44 million for further upgrading. This will include passing lanes, widening, and realignment on priority sections between Gawler and Paringa.

*Sydney–Adelaide rail*

The Australian Rail Track Corporation proposes to invest $21 million on the track between Parkes and Broken Hill. The work will focus on raising height clearances, upgrading communications systems, and strengthening and upgrading bridges to improve efficiency and capacity.

## *Perth–Adelaide corridor*

The key links in the Perth–Adelaide corridor are the Eyre, Coolgardie–Esperance and Great Eastern Highways, the Princes Highway between Port Augusta and Adelaide, and the interstate mainline rail between Perth and Adelaide. On the Perth–Adelaide corridor, rail has an above-average modal share of land freight—80 per cent in 2001-02. Since 1996–97 the Australian Government has invested more than $205 million in the road links.

The Australian Government's strategic priority for this corridor is to ensure the links between Western Australia and the eastern States support reliable and efficient long-distance freight and passenger travel and connectivity.

### Investment priorities for the Perth–Adelaide corridor

*The Eyre and Princes Highways*

The Australian Government has committed $30 million to rehabilitation and widening on the Eyre Highway in Western Australia. The Government will also invest an additional $15 million for widening and rehabilitation on the Eyre Highway. It will also provide $3 million for shoulder sealing and passing lanes on the Port Augusta to Adelaide section of the Princes Highway.

*The Great Eastern Highway*

The Australian Government has committed almost $84 million to duplication between Sawyers Valley and the Lakes, rehabilitation between Tammin and Walgoolan, and passing lanes between Midland and Northam—each in Western Australia. In the next five years it will invest the balance of nearly $64 million in these projects.

In addition, the Australian Government will invest $3 million towards a bypass of Clackline which will reduce heavy vehicle traffic through, and reduce speed restrictions within, Clackline.

## *Adelaide–Darwin corridor*

The key links in this corridor are the Princes Highway to Port Augusta, the Stuart Highway and the Adelaide to Darwin rail line. Construction of the Alice Springs to Darwin rail line completes the interstate rail link, providing opportunities for greater choice in freight services. The corridor will continue to be important for north-south connectivity across the continent and for interstate freight and defence movements. The Stuart Highway is the only significant sealed road link between many outback towns and communities—such as Roxby Downs, Woomera, Alice Springs and Katherine. Since 1996–97, the Australian Government has invested more than $31 million in upgrading this corridor.

The Australian Government's strategic priority for this corridor is to enhance connectivity, maintain the interstate road link in a safe and reliable condition and maximise freight choice and efficiency on the corridor.

In addition, now that the Alice Springs–Darwin railway is completed, the Australian Government's priority is improved road access to Darwin's port to maximise the benefits of current and future development of the port. The Alice Springs to Darwin railway terminates at East Arm Port. In line with this, an extension of the national road link to the East Arm Port is planned. This will further enhance the growth in trade resulting from the construction of the Alice Springs to Darwin railway.

### Investment priorities for the Adelaide–Darwin corridor

***East Arm Port Links***

The road link into East Arm Port in Darwin needs to be upgraded to maximise freight efficiency and trade growth. The Australian Government will provide $13.7 million towards upgrading the road access to East Arm Port, including construction of a rail overpass. The Government expects the Northern Territory Government to at least match this level of funding.

***Stuart Highway***

The Australian Government has committed $12.8 million to several important projects on the Stuart Highway. This comprises:

- $2.5 million for the construction of overtaking lanes between Katherine and Darwin
- $4.8 million for upgrading the Noonamah to Cox Peninsula section
- the balance of $5.5 million for bridge upgrading.

In addition, the Government will invest a further $20 million for a five-year widening and rehabilitation programme on priority sections of the Stuart Highway to improve safety, capacity and flood immunity.

## *Perth–Darwin corridor*

This corridor connects important rural and remote areas and towns including Port Hedland, Broome and Katherine. It is also an important northern defence and freight link.

The key links in the Perth to Darwin corridor are the Great Northern and Victoria Highways.

Since 1996–97, the Australian Government has invested more than $104 million in upgrading this corridor.

The Australian Government's strategic priority for this corridor is to ensure the road supports safe and reliable travel—particularly through greater flood immunity—and maximises freight efficiency and connectivity.

### Investment priorities for the Perth–Darwin corridor

*The Great Northern Highway*

The Australian Government has committed funding to replace key bridges in the Kimberley on the Great Northern Highway. In the next five years the balance of $44.3 million will be provided for these bridges. The bridge upgrading programme will greatly improve flood immunity.

It has also committed funding to widening and realigning the section between Midland and Wubin, as well as constructing overtaking lanes. This will help heavy vehicle movement, including road trains, and improve safety. The remaining $30.8 million will be provided for these projects in the next five years.

The Australian Government will invest $51.1 million on additional widening between Muchea and Wubin and on improving curves and passing lanes on the Miling to Wubin section. This will allow triple road trains to travel further south to Miling, improving travel time and safety.

In total, $126.2 million will be invested in the Great Northern Highway over the five-year period.

*The Victoria Highway*

The Australian Government will invest $20 million in bridge replacement and road upgrades for improved flood immunity and safety around the Victoria River and Lost Creek area in the Northern Territory. This is the only major link between the Northern Territory and Western Australia and is particularly susceptible to flooding, resulting in lengthy road closures. This project will significantly increase the link's reliability.

## *Brisbane–Darwin corridor*

This corridor links Brisbane to Darwin via Longreach and Mt Isa. The key links are the Warrego Highway, the Landsborough Highway, the Barkly Highway and the Stuart Highway from Three Ways to Darwin. Since 1996–97, the Australian Government has invested more than $219 million in upgrading this corridor.

The Australian Government's strategic priority for this corridor is to maintain connectivity and enhance road safety and reliability. Its priority for investment is to complete the Barkly Highway upgrade between Mt Isa and Camooweal.

The long-term strategy is to maintain the link at four lanes from Brisbane to Toowoomba and two lanes from there to Darwin and to improve all-weather access throughout the year. The need for future improvement stems from the age of the pavements and the substandard geometry of the road.

### Investment priorities for the Brisbane–Darwin corridor

*The Warrego Highway*

The Australian Government has committed $11 million to upgrading the Warrego Highway intersection with Plainland Road and a further $3 million toward reserving a corridor for a future Toowoomba bypass.

*The Barkly Highway*

The Australian Government has committed funding for upgrading this highway, including bridge improvements—the Johnson River, Nowranie Creek and Inca, Buckley and Wooroona Bridges. In the next five years it will provide the balance of $32.4 million for these projects and an additional $80 million towards completion of the Barkly Highway upgrade.

Total investment in the Barkly Highway improvements will be $112.4 million over the five-year period.

## Interregional corridor investments

Major interregional corridors are critical for national, state and regional economic and social development and trade. These corridors include links connecting major population, production and distribution centres with the capital cities and the major arteries of the AusLink National Network.

Only those nationally important interregional links are included in the AusLink National Network. For example, while the Princes Highway requires urgent action it is not included in the AusLink corridors. The Australian Government has previously provided $34 million to the North Kiama bypass as well as $4.7 million for Black Spots on the Princes Highway between Sydney and Melbourne. Some critical parts of the Princes Highway are on the AusLink National Network—Sydney–Wollongong; Melbourne–Sale; Melbourne–Geelong; and Adelaide–Port Augusta—but the remainder of this highway, of significant State and regional importance, is the responsibility of state governments.

### *Brisbane–Cairns corridor*

The key links in the Brisbane–Cairns corridor are the Bruce Highway and the North Coast railway from Brisbane to Townsville. The Bruce Highway and the narrow gauge rail line closely parallel each other over the full length of the corridor. The proposed inland railway from Toowoomba to Gladstone would constitute a further link when constructed. This corridor includes connection from the Bruce Highway to the Port of Gladstone which will be considered along with the Bruce Highway upgrade.

It is Queensland Government's responsibility to continue the upgrading of the North Coast railway from Brisbane to Townsville

There are capacity problems on the Bruce Highway immediately north of Brisbane caused by strong population and economic growth in this region. The duplication of the section between Yandina and Cooroy was completed in September 2003.

Since 1996–97, the Australian Government has invested more than $485 million in upgrading this corridor. It has also made a significant commitment to upgrade the Caboolture Motorway.

The Australian Government's strategic priority for this corridor is to safely accommodate increasing freight and passenger volumes at major growth areas along the corridor. It is the Government's aim to extend the duplication of the Bruce Highway past Gympie by 2020.

### Investment priorities for the Brisbane–Cairns corridor

*The Bruce Highway*

The Australian Government will invest $196.3 million in widening the Caboolture Motorway section of the Bruce Highway in the next five years.

It will also provide the balance of $22.4 million for various upgrades, including widening works at southern Cairns, Appletree Creek interchange improvements, upgrading at Glenorchy Straight, and safety works in the Burdekin River region.

In addition, the Australian Government will invest a further $210 million in upgrading the Bruce Highway over the next five years. Priority projects will be determined in consultation with the Queensland Government and will address growing safety and capacity problems on some sections. The Australian Government is aware of the particular problems of flooding on the Bruce Highway between Townsville and Cairns and will work with the Queensland Government to alleviate this problem. Further funding towards the Bruce Highway upgrading will be provided beyond this five-year period.

In total, $428.7 million will be provided for upgrading the Bruce Highway over the five-year period.

## *Melbourne–Sale corridor*

The key links in this corridor are the Monash Freeway and the Princes Freeway/Highway to Sale. This corridor links the Latrobe Valley with Melbourne and also serves the south-east growth area of Melbourne.

The Australian Government's strategic priority for this corridor is to manage freight growth and contain congestion in the outer metropolitan area of Melbourne.

### Investment priorities for the Melbourne–Sale corridor

*The Princes Freeway*

The Australian Government has previously announced a contribution of $100 million towards a Pakenham bypass, which will relieve a major bottleneck and improve safety on this section of road. The bypass will form the critical link in providing a safe, uninterrupted freeway between Melbourne and the Latrobe Valley and Gippsland. Since this commitment the cost has increased. The Australian Government will consider providing a total of $121 million towards this bypass subject to the Victorian Government commencing work immediately. Any further cost increases must be borne by the Victorian Government.

## *Perth–Bunbury corridor*

This corridor connects Perth to Bunbury through one of Australia's growth regions. The key links are the Kwinana Freeway, Safety Bay and Mandurah Roads, the Perth–Bunbury Highway and the South West Railway from Mundijong to Bunbury.

The Australian Government's strategic priority for this corridor is to develop a more viable road alignment to support increased freight and passenger traffic.

### Investment priorities for the Perth–Bunbury corridor

***The Perth–Bunbury Highway***

The Australian Government will invest up to $150 million in the Peel Deviation, a new highway alignment east of Mandurah. Together with an extension of the Kwinana Freeway, this will form part of the Perth–Bunbury Highway and will relieve congestion on the current route through Mandurah. The project is a partnership with the Western Australian Government which will be expected to at least match this level of funding.

## *Hobart–Burnie corridor*

The key links in this corridor are the Midland Highway from Hobart to Launceston; the Bass Highway from Launceston, via Devonport, to Burnie; the rail link from Hobart to Burnie; the Tamar Highway and the Bell Bay rail line between Launceston and Bell Bay—Tasmania's major container and export port. Since 1996–97, the Australian Government has invested more than $153 million in the national road link in Tasmania.

The Australian Government's strategic priority for this corridor is to maintain connectivity and reliability, with capacity enhancements at critical sections as warranted.

### Investment priorities for the Hobart–Burnie corridor

***The Bass Highway***

Over the next five years the Australian Government will invest $26.4 million in the stage one duplication of the Bass Highway between Penguin and Ulverstone and an additional $42 million for stage two duplication of this section.

***The Midland Highway***

The Australian Government will invest $57 million over the next five years in the construction of a new bridge over the Derwent River in Hobart to replace the current heritage bridge that no longer meets capacity and safety requirements. Further funding of $43 million for the Bridgewater Bridge project will be sought in future budgets. The Tasmanian Government will be expected to provide additional funds required to complete this project.

The Government will also invest $1.4 million in a programme to upgrade various junctions.

## *Melbourne–Mildura corridor*

The key links in this corridor are the Calder Highway from Melbourne to Mildura and the broad gauge railway from Melbourne via Geelong and Dunolly to Mildura. The Australian Government has already invested approximately $94 million in upgrading the Calder Highway.

The Australian Government's strategic priority for this corridor is to ensure it has the capacity to support growth in freight and passengers and provides competitive multi-modal freight services.

### Investment priorities for the Melbourne–Mildura corridor

***The Calder Highway***

The Government will partner with the Victorian Government and contribute $89 million to duplicating the highway between Kyneton and Faraday and $25 million to commence duplication between Faraday and Ravenswood. A further $82 million will be provided towards the Faraday to Ravenswood duplication beyond this five-year period. The Victorian Government will be expected to provide the balance of funds to these projects.

***Geelong–Mildura railway***

The Australian Government will negotiate with the Victorian Government about arrangements for the standardisation of the broad gauge rail track between Geelong and Mildura. In the first five-year plan the Australian Government will provide $20 million for this purpose. This will greatly enhance operational efficiency and integration.

## *Sydney–Dubbo corridor*

The key links in this corridor are the Great Western and Mitchell Highways from Sydney to Dubbo via Bathurst and Orange and the rail link from Sydney to Parkes via Bathurst. The road link connects to the Newell Highway at Dubbo. The corridor passes through the Blue Mountains west of Sydney and links the Central West region of New South Wales to Sydney. It serves the regional centres of Parkes, Bathurst and Orange.

The Australian Government has spent almost $100 million on upgrading works on the Great Western Highway, as part of a larger New South Wales Government upgrading programme. This has enabled the upgrade programme to be accelerated and it should be completed before 2010. The upgrade should deliver a four-lane highway between Penrith and Katoomba, and three lanes for most of the route between Katoomba and Mount Victoria in the Blue Mountains.

The Government is also contributing funds to a study examining the feasibility of upgrading the Bells Line of Road to accommodate B-Double vehicles. The Bells Line of Road runs parallel to the Great Western Highway.

### *Canberra connectors*

The Federal and Barton Highways connect Canberra with the Hume Highway, to both Sydney and Melbourne, and to Adelaide via the Hume and Sturt Highways. Both highways are major tourism routes for the national capital and the Barton Highway is becoming increasingly important as a commuter route.

Since 1996–97 the Australian Government has invested more than $200 million upgrading the Federal and Barton Highways.

The Australian Government will consider duplication of the Barton Highway and construction of a bypass of Murrumbateman beyond this five-year period.

### *Sydney–Wollongong link*

This link consists of the Princes Highway and the Southern Freeway from Sydney to Wollongong—a major production and distribution centre. The national rail link connects to Port Kembla from Moss Vale. National priority projects on this link will be considered beyond this five-year period.

### *Melbourne–Geelong link*

This link is the Princes Freeway from Melbourne to Geelong. The Australian and Victorian Governments have undertaken a major upgrade of this link involving widening and pavement strengthening. This work was completed in 2002. Since 1996–97, the Australian Government has invested more than $119 million on this link.

The Australian Government will contribute a maximum of $186 million towards the construction of a western bypass of Geelong from the Princes Highway at Corio to rejoin the Princes Highway in the south-west at Waurn Ponds. The Victorian Government is expected to contribute substantially to this project.

### *Townsville–Mt Isa corridor*

The key links in the corridor are the Flinders Highway from Townsville to Cloncurry and the Great Northern Railway from Townsville to Mt Isa. It is the Queensland Government's responsibility to continue the upgrading of this corridor.

## Capital city urban corridor investments

Most of the nation's critical freight bottlenecks are in capital cities, including outer metropolitan areas, where congestion affects all transport system users. Urban congestion is forecast to grow in line with increases in the freight and passenger task. The links of the AusLink National Network within capital cities are important for community access to employment, services and facilities. They also provide access to ports, airports, other major intermodal facilities, markets and production and distribution centres for the freight logistics industry.

The urban links of the National Network are important elements of complex urban logistics and passenger systems and traffic flows. Thus, long-term planning for the urban corridors of the National Network will be major tasks. Improving the performance of the urban links on the National Network will be a two-stage process. It will involve infrastructure upgrading and examination of traffic, travel demand management, land use and intermodal performance. It will also involve appropriate policy development, planning and regulatory responses from all levels of government.

Many Australian Government priorities in urban areas will also be important State priorities because urban congestion and freight access are of concern to both levels of government. Local governments will also have a role to play where priority issues affect local planning and development.

## *Sydney urban corridors*

The road links in the Sydney urban corridors are the:

- Cumberland Highway—to be replaced by Westlink (the M7) when construction is completed—and Pennant Hills Road connecting with the
  - F3
  - Hume Highway
  - Great Western Highway (the M4)
- South Western Motorway (the M5) connecting to
  - General Holmes Drive to Sydney Airport
  - Foreshore Road to Port Botany
  - Roberts and King Georges Roads linking to Chullora intermodal terminal and to the Princes Highway/Southern Freeway.

The rail links are the:

- interstate railway from Hornsby to Campbelltown via Chullora intermodal terminal
- railway from Chullora to St Mary's
- railway from Chullora to Port Botany.

The Sydney urban corridors are critical links to Port Botany and Sydney Airport. Since 1996–97, the Australian Government has invested more than $273 million in major Sydney urban road projects.

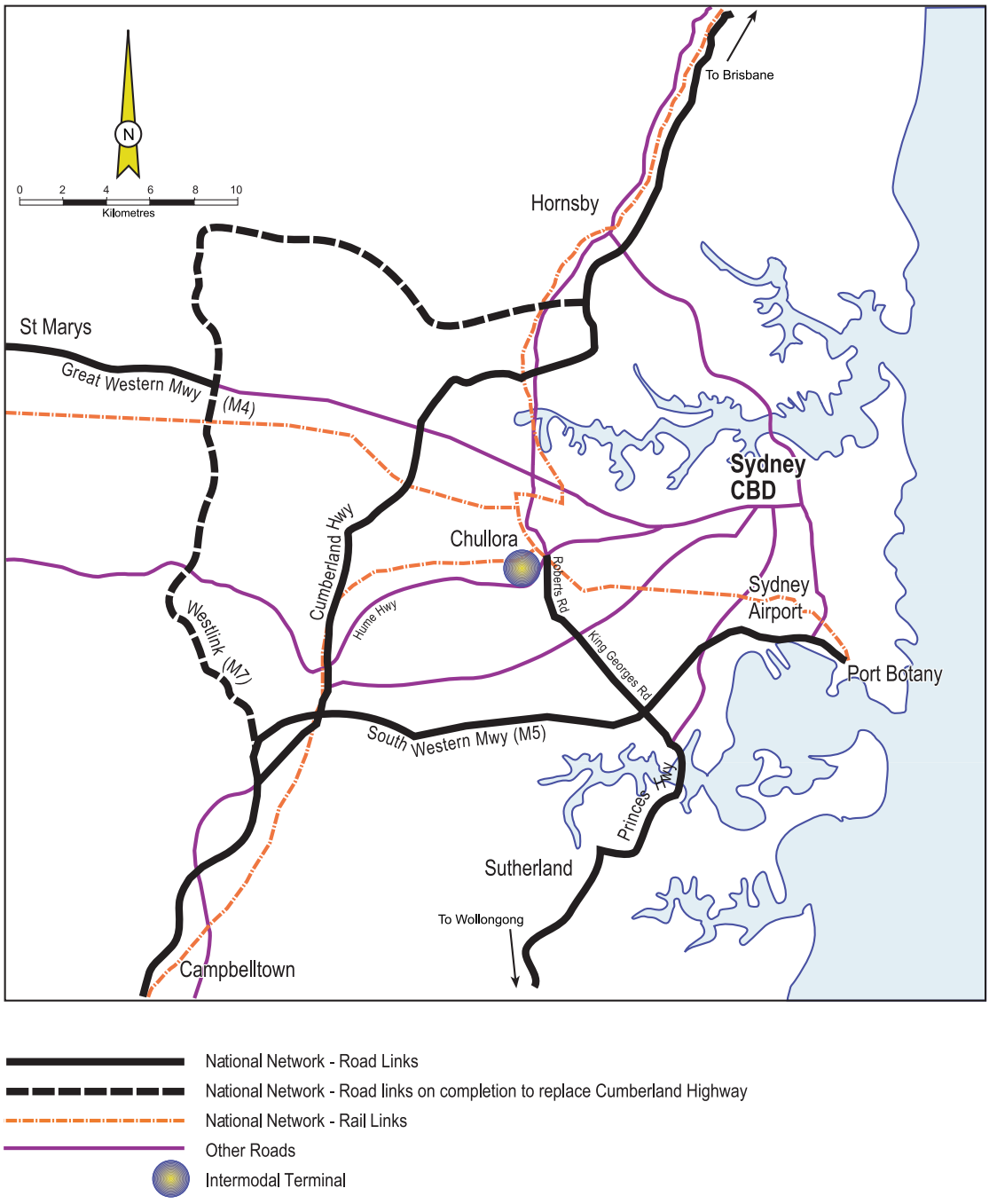
The AusLink National Network includes connections to Sydney Airport, Port Botany and other major intermodal terminals. Access to these points is already constrained and the forecast growth in freight and passenger volumes could lead to severe congestion. The Sydney Ports Corporation and the Sydney Airport Corporation have recently announced expansion plans for Port Botany and Kingsford Smith Airport respectively to cater for significant growth in container and passenger volumes. The capacity of the land transport links to accommodate forecast freight and passenger growth is a critical challenge.

The Australian Government's strategic priorities on these corridors focus on the need to improve freight flows and reduce congestion for passengers and freight. The complexities of Sydney's urban transport network will require detailed consideration to identify longer-term priorities.[31] The Australian Government's investment priorities in the first five years of AusLink are to complete the construction of Westlink (the M7)—the former Western Sydney Orbital—and to improve access to Port Botany and other intermodal facilities.

The Australian Government will encourage private sector involvement in the long-term development of the F3 from Sydney to Newcastle and its Sydney urban connections.

[31] The New South Wales Government, in its Ports Growth Plan released in October 2003, stated that it wants to examine how to increase the proportion of containers moved by rail from the port to intermodal terminals both in Sydney and regional New South Wales. It has suggested that the use of rail freight in Sydney could be increased from the current 15 per cent of total freight moved to 25 per cent of total freight moved by 2008. Sydney Ports Corporation has also stated its intention to increase the movement of containers to and from Port Botany by rail from 25 per cent to 40 per cent.

## *Figure 8 Sydney urban corridors*



### Investment priorities for the Sydney urban corridors

*Westlink (the M7)*

The Australian Government has committed $356 million towards construction of the Westlink which will be a vital cross-urban link for freight and passenger traffic. The balance of $93 million will be provided in the five-year period to complete the project.

The Government will also fund commencement of a new link from the F3 to the Westlink in the latter part of the five-year period with a contribution of $22 million. The New South Wales Government will be expected to contribute to this project and pursue private sector involvement. The Australian Government's major funding contribution towards the project will be provided beyond this five-year period.

*Port Botany links and the northern rail line*

The Australian Government will invest $110 million to improve rail access between Port Botany, the intermodal facilities at Chullora/Enfield and the interstate connections to these key freight facilities. Projects are likely to include:

- interim works on the Main North Line to improve efficiency
- addressing a bottleneck between Rhodes and Concord West to improve the flow of south-bound trains to Chullora/Enfield
- construction of new passing loops at Thornleigh on the northern line to improve reliability and reduce freight and passenger traffic conflict
- construction of a rail freight bypass of Hornsby to minimise passenger and freight traffic conflict
- planning for duplication of the track between Enfield and Port Botany.

Further funding for these projects will be sought in future budgets. The New South Wales Government is expected to contribute funding towards these projects.

Total investment in these Sydney urban corridors will be $225 million in the five-year period.

## *Melbourne urban corridors*

The road links in the Melbourne urban corridors are the:

- Hume Highway from Craigieburn to the Western Ring Road
- Western Ring Road to the Princes Freeway linking to the Calder, Western and Princes Highways
- West Gate Freeway connecting to
  - the Port of Melbourne via Todd Road
  - Dynon intermodal terminal via the Western Link Tollway and Dynon and Footscray Roads
  - the Southern Link Tollway and Monash Freeway
- Tullamarine Freeway and Airport Drive from the Western Ring Road to Melbourne Airport.

The rail links are the:

- interstate railway from Craigieburn to Laverton via Sunshine
- railway extending from Sunshine to Dynon intermodal terminal and the Port of Melbourne.

## *Figure 9 Melbourne urban corridors*


National Network - Road Links

National Network - Road links on completion to replace sections of the Hume and Western Highways

National Network - Rail Links

Other Roads

Intermodal Terminal

The Melbourne urban corridors are critical links to the Port of Melbourne and Melbourne Airport. Since 1996–97, the Australian Government has invested more than $134 million in major Melbourne urban road projects.

The Australian Government's strategic priorities are to improve freight flows, especially to the Port of Melbourne, and to reduce congestion for passengers and freight. Its investment priorities are to improve access to the Dynon intermodal precinct and to the Port of Melbourne, and to address the bottleneck at Deer Park.

The measures to improve access to the Port of Melbourne and the Dynon intermodal precinct will enable an increase in rail's share of freight to and from the port.[32]

## Investment priorities for the Melbourne urban corridors

### *Outer metropolitan links*

The Australian Government has committed $306 million to construction of the Craigieburn bypass on the Hume Highway and $100 million to the Pakenham bypass on the Princes Freeway.

The Government will also contribute $80 million to fund commencement of the Deer Park bypass and the interchange at Leakes Road on the Western Highway in the latter part of the five-year period. Further funding for these projects will be sought in future budgets subject to an agreement being reached with the Victorian Government on funding shares as part of the negotiated state funding agreement.

### *Port links*

The Australian Government will partner with the Victorian Government and contribute $110 million to improved road and rail access to the Dynon intermodal precinct and the Port of Melbourne.[33] This will include a new rail link between the Dynon intermodal precinct and the Port of Melbourne and separation of the junction of Footscray Road and the railway. These improved linkages will reduce congestion and improve integration of the port links. The new rail link will provide unimpeded movement of rail traffic to Appleton, West Swanson and East Swanson docks and reduce the multiple handling of freight. The Victorian Government will be expected to contribute to these projects.

The Australian Government will also invest $40 million in the installation of a new bi-directional rail line between Tottenham junction and the Bunbury Street tunnel at West Footscray. This project will reduce congestion for rail traffic entering and leaving the Dynon rail terminal and the Port of Melbourne and improve transit times.

Total investment in Melbourne urban and outer metropolitan corridors over the five-year period will be $449.5 million.

[32] The Victorian Government has set a target of 30 per cent of port-related freight to be carried by rail by 2010.

[33] The Victorian Government and Port of Melbourne Corporation are also considering deepening the channel at an estimated cost of more than $400 million.

## *Brisbane urban corridors*

The road links in the Brisbane urban corridors are the:

- Ipswich Motorway connecting to the Warrego and Cunningham Highways
- Granard, Riawena, Kessels and Mt Gravatt–Capalaba Roads
- the Gateway Motorway and Gateway Bridge connecting to the Pacific Highway, the Caboolture Motorway (Bruce Highway) and the Port of Brisbane Motorway.

The Brisbane urban corridor may also include in future the Logan Motorway and Gateway Motorway extension to the Logan Motorway and Northern Link.

The rail links are:

- the interstate railway connecting to the intermodal facility at Acacia Ridge from
  - Acacia Ridge to the Port of Brisbane
  - Acacia Ridge to the North Coast Rail Line to the north.

The Brisbane urban corridors are critical links to the Port of Brisbane and Brisbane Airport. Since 1996–97, the Australian Government has invested more than $75 million in major Brisbane urban road projects.

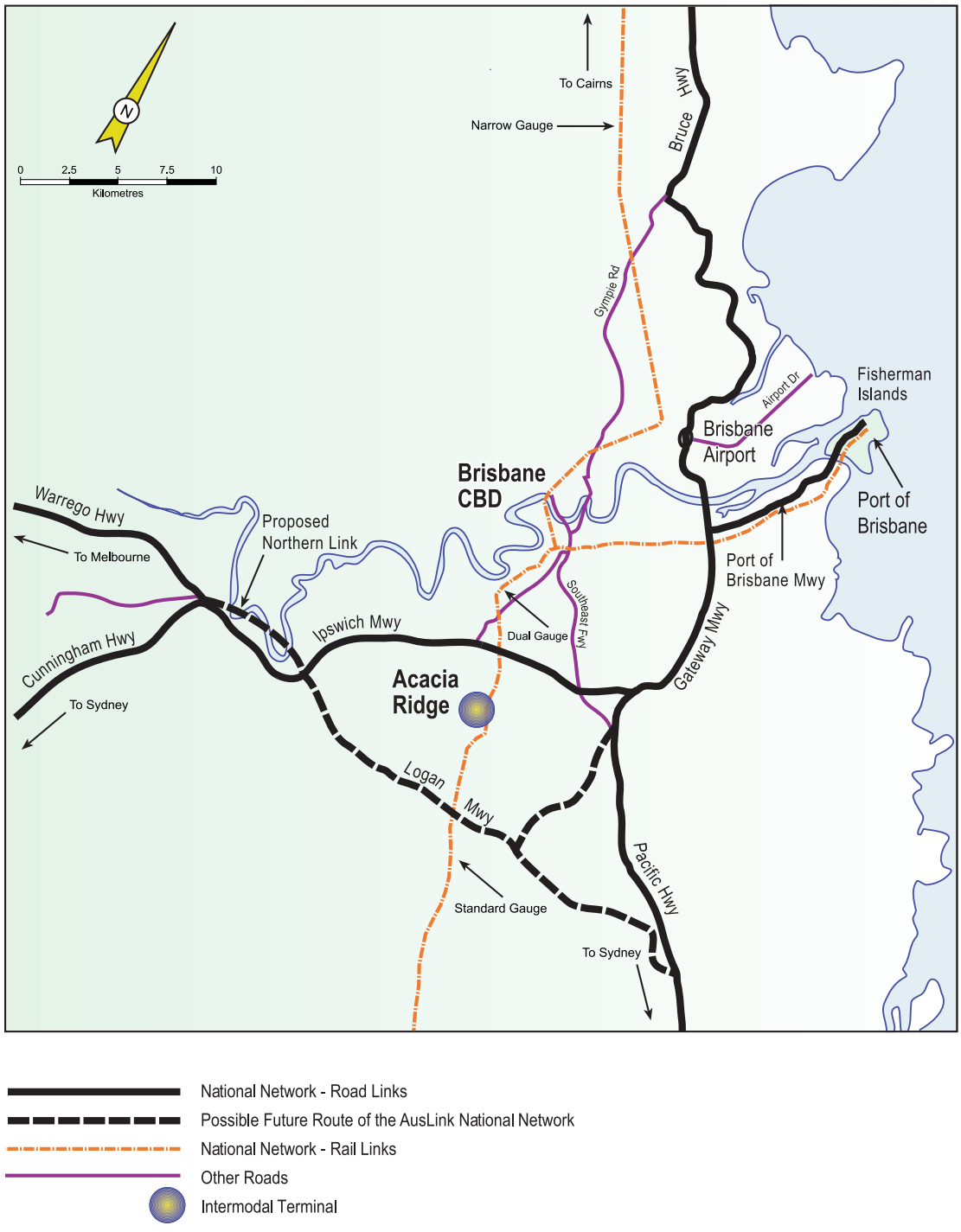
The Brisbane urban corridors are congested in several locations—notably on major roads such as the Ipswich Motorway and the Gateway Bridge—and there is a poor accident record on the Ipswich Motorway. These problems will become more acute as traffic volumes increase and population growth continues.

The Australian Government's strategic priority is to determine the best solutions for improving freight and passenger flows across the AusLink National Network in Brisbane. Its investment priority is to make a substantial contribution to building a quality land transport network in Brisbane and South-East Queensland after developing a viable, long-term strategy with the Queensland Government.

The development of a Brisbane urban corridor strategy is a priority. It will need to focus on long-term transport and land use planning to develop solutions to handle the high forecast growth in passenger and freight traffic in Brisbane and south-east Queensland.

The Australian Government will work in partnership with the Queensland Government to explore options for integrated development of the key urban links in Brisbane. These will include, where appropriate, arrangements for private sector construction, ownership and operation. In particular, opportunities to integrate what are currently discrete projects—and to improve the viability of the links by including associated commercial activities—will be examined.

*Figure 10 Brisbane urban corridors*



### Investment priorities for the Brisbane urban corridors

*Brisbane urban road links*

An integrated investment package will be implemented for the Brisbane urban corridors.

The Australian Government has already committed $52.7 million over the five years to begin upgrading and planning for future improvements to the Ipswich Motorway.

The Australian Government will invest a further $574 million towards developing an integrated urban solution embracing the Pacific Motorway, the Gateway Motorway and Bridge, the Logan Motorway and a comprehensive solution for the Ipswich Motorway. The Government wants to fast-track planning for a new northern link connecting Ipswich with the Logan Interchange as well as develop integrated strategies to reduce heavy vehicle traffic on Granard and Kessels Roads—the current Brisbane urban corridor. Project priorities and investment levels will be determined in this context and further funding towards these projects will be provided beyond this five-year period.

Australian Government investment in Brisbane urban corridors will total $626.7 million in the five-year period. The Queensland Government will be expected to contribute to these projects and examine the potential for private sector involvement.

## *Adelaide urban corridors*

The road links in the Adelaide urban corridors are:

- Portrush Road connecting to Mt Barker Road and the South Eastern Freeway
- Lower Portrush Road, Ascot Avenue and Hampstead Road
- Grand Junction Road, Salisbury Highway/South Road connector and Port Wakefield Road
- Montague Road and Main North Road
- Sturt Highway extension, once constructed—to replace Main North Road
- the new Port River Expressway and links to the Port of Adelaide and Outer Harbour
- South Road and Sir Donald Bradman Drive to Adelaide Airport.

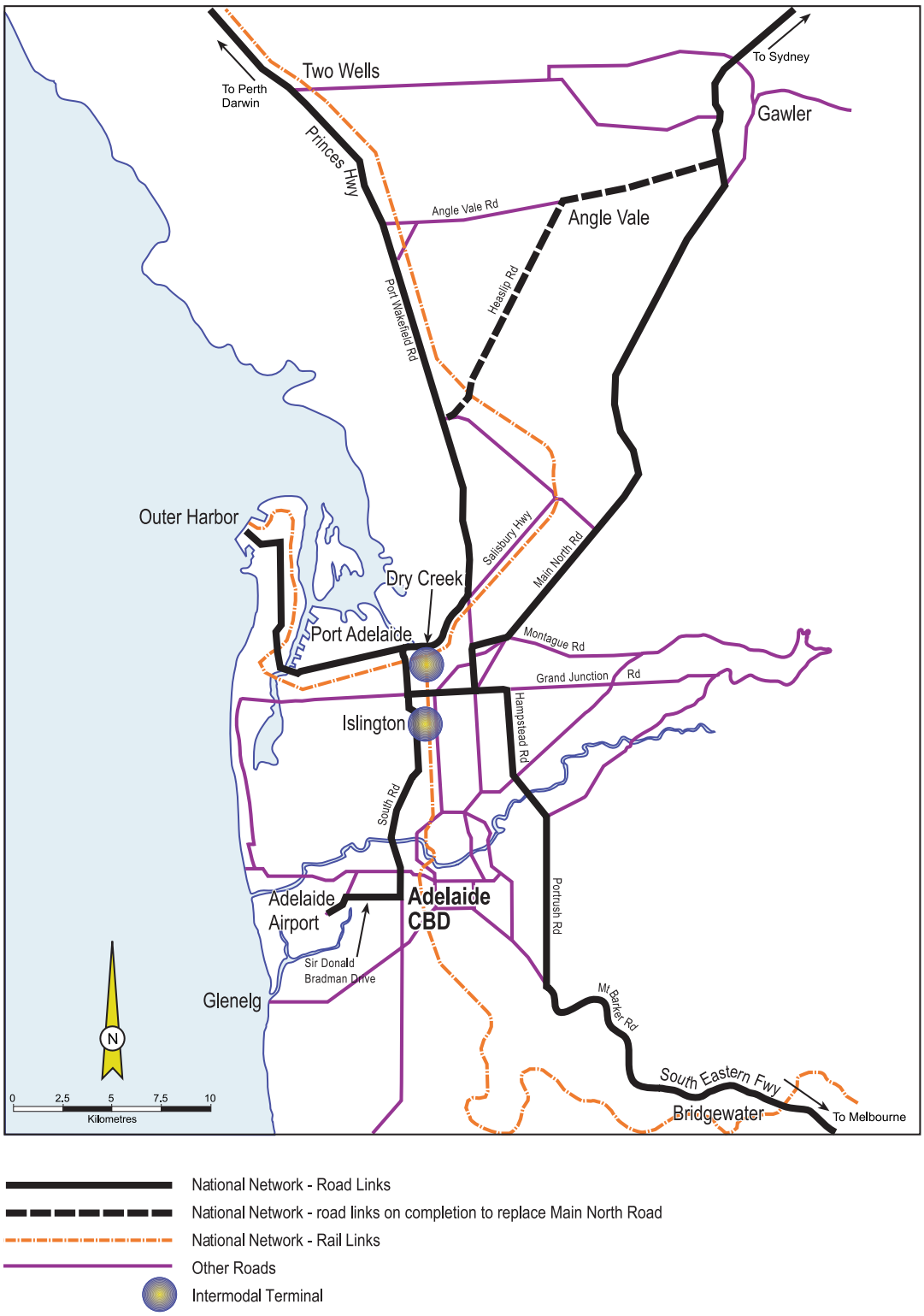
The rail links are the:

- interstate railway from Two Wells to Bridgewater via the intermodal facilities at Dry Creek and Islington
- railway from Dry Creek to Port Adelaide and Outer Harbour.

Since 1996–97, the Australian Government has invested more than $59 million in major Adelaide urban road projects.

The Australian Government's priorities are to develop a more strategic National Network in Adelaide and to reduce congestion and conflict with local traffic. This would improve freight flows into and through Adelaide and to Port Adelaide and major intermodal centres—especially from the north to the port.

*Figure 11 Adelaide urban corridors*



### Investment priorities for the Adelaide urban corridors

*Port Wakefield Road*

The Australian Government will invest $4.3 million to introduce controlled access arrangements on the section between the Salisbury Highway and Virginia.

*Sturt Highway extension*

The Australian Government will provide $36 million towards developing a new AusLink National Network alignment north of Adelaide. The Sturt Highway will be extended and will replace Main North Road as the National Network link. The new alignment will be in the vicinity of Heaslip and Angle Vale roads. It will free up Main North Road which is currently very congested with interstate and intrastate freight, commuter and local traffic. Further funding towards this project will be provided beyond this five-year period.

*Port River Expressway*

The Australian Government is investing almost $40 million towards construction of Stage 1 of the Port River Expressway. In this five-year period, $16.8 million will be provided to complete construction of Stage 1.

The Government is prepared to contribute an additional $80 million to the Port River Expressway Stages 2 and 3 and associated road and rail upgrades on the LeFevre Peninsula. This funding commitment will be in partnership with the South Australian Government, provided the overall project improves port access and efficiency.

Investment in Adelaide urban corridors will be $137.1 million in the five-year period.

## *Perth urban corridors*

The road links in the Perth urban corridors are the:

- Roe and Leach Highways connected via the Tonkin Highway and linking to the
  - Great Northern and Great Eastern Highways
  - Kwinana Freeway and possible Fremantle Eastern Bypass
- links to the Fremantle Port via the Stirling Highway, Queen Victoria Street, Beach Street and Tydeman and Port Beach Roads.

The Perth urban road links may in future include a Fremantle Eastern Bypass linking the Kwinana Freeway/Roe Highway with the Leach Highway.

The rail links are:

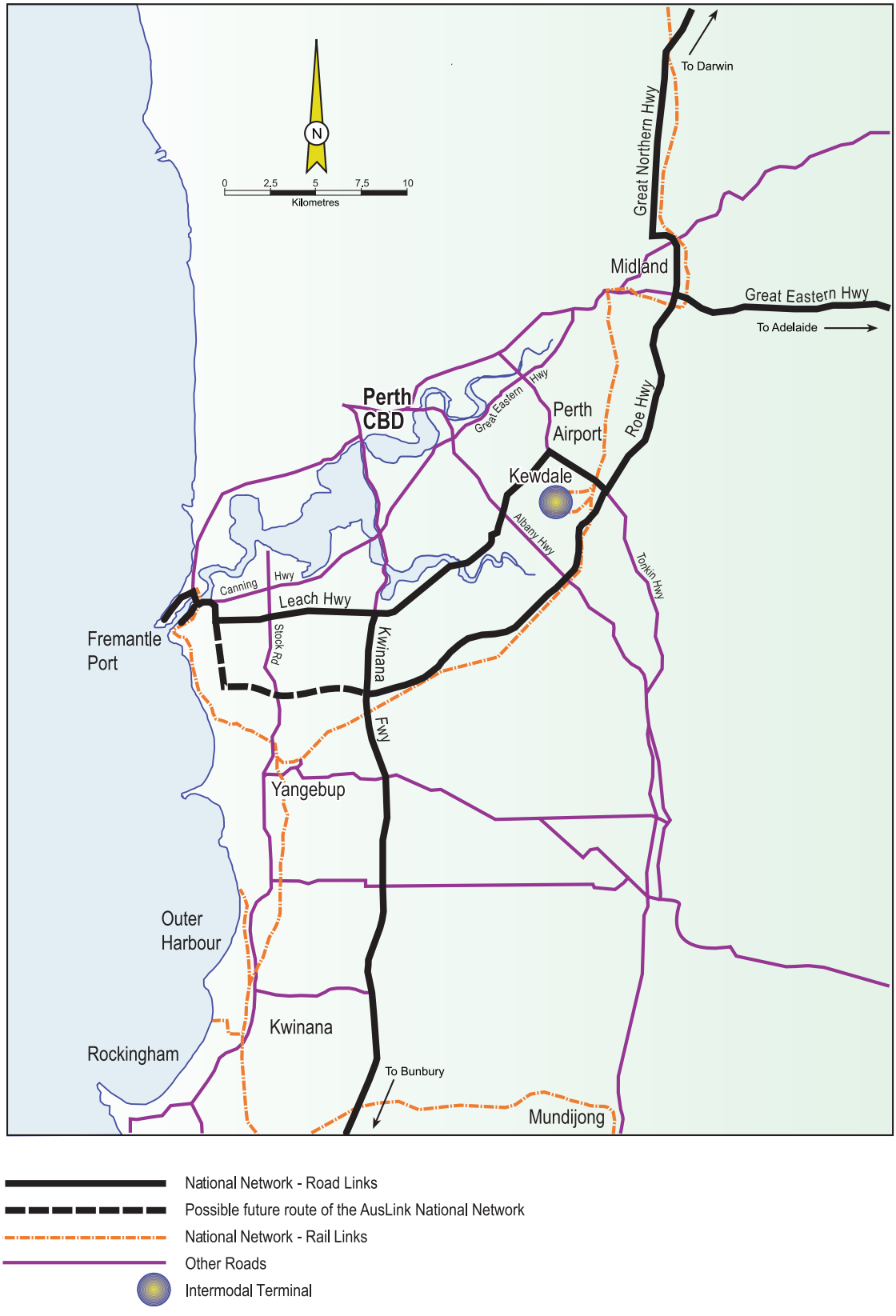
- the interstate railway from Midland to Mundijong via Yangebup:
  - rail links to Kewdale intermodal terminal and Outer Harbour
  - the railway from Yangebup to Fremantle Port.

The Perth urban corridors are critical links to Fremantle Port. Since 1996–97, the Australian Government has invested more than $64 million in Perth urban road projects.

The Australian Government's priority is to develop strategic freight and passenger routes through Perth to improve traffic flows though Perth and to the Port of Fremantle and major intermodal centres.[34]

[34] The Western Australian Government has set a target of moving at least 15 per cent of container freight into and out of the Port of Fremantle by rail within four years and 30 per cent within ten years.

*Figure 12 Perth urban corridors*



### Investment priorities for the Perth urban corridors

*Roe Highway*

The Australian Government has committed a total of $76 million to extending the Roe Highway. To date, $56 million has been used with the balance of $20 million to be invested in the next five years. It will also contribute $10.5 million towards upgrading the interchange between the Roe Highway and the Great Eastern Highway. This will address congestion and traffic delays caused by rural-residential development in the region. The Western Australian Government has agreed to share the funding of this project.

The Australian Government is committed to Stage 7 of the Roe Highway construction and supports the development of Stage 8, which is intended to link to Fremantle via a new Fremantle Eastern Bypass. The Australian Government has achieved agreement with the Western Australian Government to retain the Roe Highway Stage 8 road reserve and will seek a commitment to retain the link to Fremantle Port.

*Fremantle Port Access*

The Australian Government will contribute $14 million towards the construction of a new rail loop to Fremantle Port and a new road access to Gate Three to the port to improve links between Kewdale intermodal terminal and the port. Freight access and efficiency will be enhanced because the rail loop will cater for longer trains and improve cargo handling. It will be dual gauge and will enable more integrated rail access to the port. The Western Australian Government is expected to at least match this level of funding for the project.

A total of $44.5 million will be invested in Perth urban corridors in the five-year period.

## Rail system investments

It is well-documented that the rail system in Australia has been under-funded for a long time and its role in handling the nation's freight task has been declining relative to road. The $1.8 billion to be invested in the rail system improvements over the next five years will begin to turn this around. Rail has the potential to substantially increase its share of the freight task if significant improvements are made to rail infrastructure and operational practices are modernised.

The Australian Government established the Australian Rail Track Corporation in 1998, with the agreement of the mainland State Governments, to manage and develop Australia's interstate rail track infrastructure. This was a historic step designed to give much-needed attention to the under-financed interstate rail system and the rail freight needs of the nation.

The Australian Rail Track Corporation is a wholly Australian Government-owned corporation with a charter to operate on a commercially sustainable basis. It is financed by a mix of rail operator access revenues, commercial borrowings and Australian Government equity.

Between 1998–99 and 2002–03 the Australian Rail Track Corporation undertook a capital works and maintenance investment programme valued at approximately $360 million. This was financed

through a combination of its own funding sources and Australian Government grant funds provided under the Interstate Mainline Upgrade programme. Where the Australian Rail Track Corporation managed track access, these funds provided major track upgrading programmes on the interstate mainline in Western Australia, South Australia and Victoria.

There were three significant outcomes from the Australian Rail Track Corporation works undertaken during this period:

- an extensive crossing loop extension and construction programme across those three jurisdictions
- major rail grinding, straightening and realignment programme on track in Victoria
- major track rehabilitation in Western Australia to raise the track standard to meet Australian Transport Council speed and axle load targets.

In determining the appropriate access charges for the network, the Australian Rail Track Corporation ideally needs to balance long-term growth in rail traffic and access revenue against short-term revenue results.

The Australian Rail Track Corporation operates in an environment that requires access charges to be set so that they are competitive when compared with charges in the more efficient road sector. It is clear that the access fees the corporation is able to charge are adequate to maintain the existing rail system. However, they do not provide the necessary revenue to undertake the large capital investment that is essential for rail to play its proper role in carrying out Australia's transport task.

Additional strategic investment is required to enable rail to enhance its capacity through critical capital works. These could include track realignments and upgrading signalling and communication systems that will enable rail to be competitive and commercially sustainable.

The Australian Government, through AusLink, is committed to boosting the Australian Rail Track Corporation's investment in rail to allow several key projects to proceed. The additional Government investment in rail will make a critical difference—particularly to the effectiveness of the east-coast/north-south rail line between Melbourne, Sydney and Brisbane.

Even so, the additional Australian Government investments now being made through AusLink will not, on their own, be sufficient to ensure an optimal 21st century national rail infrastructure system. The Australian Government expects State Governments and the private sector to contribute to the nation's rail system. There are several models for such shared funding arrangements—for example, the Alice Springs to Darwin railway funding partnership.

The Australian Government is looking forward to working with all stakeholders to develop investment packages to improve rail technology, operational efficiency and infrastructure performance. The improvements resulting from these investments will better enable rail to provide competitive and integrated freight services on key interstate corridors and between intermodal centres, including ports.

Private sector consortia propose to build in an inland rail route from Melbourne to Brisbane and Toowoomba to Gladstone, bypassing the Sydney basin. A proposed route would use the existing railway from Melbourne to Werris Creek. The Australian Rail Track Corporation has the option to include in the lease with New South Wales the railway corridor from the Gap to Boggabilla. This will be a private sector venture.

### Investment priorities for the rail system

In the five-year period the Australian Rail Track Corporation will invest $872 million in the national rail network. This funding commitment is part of the agreement with the Australian and New South Wales Governments to lease the New South Wales interstate track. It will also invest the additional $450 million provided by the Australian Government in the interstate track between Sydney and Brisbane to substantially improve freight services.

In addition to specific rail corridor and port link investments outlined in the corridor sections above, the Australian Government will contribute $145 million in the five-year period towards network-wide rail improvements. Priority projects will be developed in consultation with State and Territory Governments and the rail industry.

*Rail communications system*

The Australian Government will contribute $30 million to upgrading rail communications systems on interstate rail lines. The Australasian Railway Association has adopted the code division multiple access mobile phone system as the primary communication media for the interstate rail network. This follows extensive trialling by the Australian Rail Track Corporation, with train operators and Telstra of the code division multiple access mobile phone system as the basis for the rail communications system.

*Rail track realignment and strengthening*

The main interstate rail tracks have been in place, in some cases, for more than 100 years. The alignments and grades on many sections still reflect the rail and civil engineering technology of the times. The Australian Government will contribute funding to rail track realignments and bridge strengthening to update rail to 21st century standards and allow increased capacity and faster train speeds.

*Advanced train management*

The Australian Government will support the investigation and development of advanced train management and signalling across the interstate rail network. Digital communications and satellite location technology could be examined. Implementing advanced signalling would improve safety, increase capacity and reliability and reduce capital and maintenance costs.

## Network-wide investments

The Australian Government's strategic priority is to ensure the AusLink National Network is able to manage and support the growing freight task and forecast passenger demands efficiently and effectively.

Several investment priorities apply across the whole, or significant parts of, the National Network. These relate to the critical issues of corridor planning, maintenance, providing for higher mass limits, intermodal developments and technological improvements.

## *Corridor strategies*

The Australian Government's approach to corridor planning is detailed in Chapters Two and Five.

The Australian Government aims to develop corridor strategies for the whole of the AusLink National Network. In the first five years it will give priority to developing corridor strategies for the Melbourne–Brisbane corridor—including the Sydney–Brisbane and Sydney–Melbourne corridors, and the Melbourne–Perth corridor via Adelaide.

Work to develop corridor strategies for all corridors on the National Network will start within the next five years.

**Investment in corridor strategies**

The Australian Government will work in partnership with State and Territory agencies, railway managers and other stakeholders to scope and develop corridor strategies for the AusLink National Network. It is prepared to invest, with State and Territory Governments, in the necessary research and planning required to do so. It will give highest priority to the corridors between Melbourne and Brisbane.

## *Maintenance*

The Australian Government will continue to provide funding to State and Territory Governments for the maintenance of transport infrastructure assets. Currently, the Government contributes $300 million per annum nationally towards road asset management. To provide certainty to all concerned, this level of funding will continue for the period 2004–05 to 2008–09.

However, the basis on which the Australian Government provides funding will change. Instead of having funding responsibility for all maintenance on the National Highway, it will now contribute to maintenance on the AusLink Network. This means it will share maintenance costs with States and Territories—generally the owners of the assets.

This is consistent with the approach taken in the AusLink National Network as a whole. The Australian Government will contribute to the more extensive Network, rather than fully funding the former National Highway section of it. Those sections that are additional to the former National Highway System have until now been funded by the States and Territories or by the private sector.

As before, the Australian Government will generally not contribute funding to the ongoing maintenance of infrastructure where a fee for service is charged—such as the rail network and toll roads.

Each State and Territory will be able to apply the Australian Government maintenance funding contribution to the National Network as they judge most appropriate. However, they will be expected to consider factors such as traffic volumes and maintain the Network in their jurisdiction to a level fit for purpose.

Chapter Five sets out the intended process for finalising the year-by-year allocations to States and Territories, agreeing arrangements for asset management, and the expected reporting requirements.

### Investment in maintenance

The Australian Government will invest $1500 million over five years towards the costs of maintaining the AusLink National Network road links.

## *Providing for higher mass limits*

Under higher mass limits regulations, heavy vehicles with road friendly suspensions can carry heavier loads—up to 10 per cent—on specified roads around Australia. This lowers transport costs, increases economic efficiency and provides savings to consumers. It also means fewer trucks on the road than would otherwise be required.

In 1999 the Australian Government led efforts to implement higher mass limits nationally, by designating specific routes on which eligible vehicles registered under the Federal Interstate Registration Scheme could operate. It supported the increased limits by allocating more than $70 million to upgrade bridges not strong enough to support higher mass limits. This included over $40 million for upgrading bridges on the National Highway and the allocation of $30 million to help States and Territories with bridge upgrading off the National Highway.

Routes have been made available for the carriage of higher mass limits throughout Australia. But there are still substantial gaps in the freight network where heavy vehicles are unable to carry the additional load.

Under AusLink, implementation of higher mass limits will be reinvigorated. Funds have previously been committed to upgrade all bridges on the National Highway that require it. The Australian Government will provide a further $14 million for essential bridge upgrading on the AusLink National Network.

In addition, local councils are to use their Roads to Recovery allocations for bridge upgrading. They will also be able to compete for funding to upgrade essential bridges on links of regional significance under the strategic component of Roads to Recovery. This will commence in 2005–06.

## *Intermodal developments*

Australia's container ports in Sydney, Melbourne, Fremantle, Brisbane, Adelaide and Darwin are engaged in increasing the share of freight railed to and from their facilities. Port managers are working with State, Territory and local governments to revitalise rail track and services and establish inland intermodal terminals for the receipt and dispatch of containerised goods. This is in response to growth in container traffic, limited port land and congested access to existing port facilities. These initiatives are planned and implemented by State and local governments, the relevant port authorities/corporations and related industry stakeholders—such as rail and trucking operators. The Australian Government supports their work in this critical area of freight logistics.

The location of intermodal freight facilities, in both urban and regional areas, has become a significant issue given their largely ad hoc development and the recent proliferation of new development proposals. All levels of government acknowledge that, to help meet the demand for efficient intermodal facilities, a joint effort is required between governments and industry to develop a framework for planning and promoting these facilities.[35] The concern is that the proliferation of freight centres without a strategic planning framework will result in suboptimal investment decisions that do not consider their network effects. National research into the role and location of intermodal facilities is a priority and will inform land use and transport planning and investment in intermodal facilities and related land transport infrastructure.

### Development of intermodal facilities

The Australian Government will undertake initiatives to facilitate the strategic development of nationally important intermodal freight facilities. This will include a study to determine a strategic framework and a set of criteria for the development of viable intermodal freight facilities in metropolitan and regional areas. The project could also include feasibility studies into specific intermodal terminal locations and a guide to investment in linkages to intermodal terminals that support the efficient operation of the AusLink National Network.

### Transport and Logistics Centre of Excellence

The Australian Government will invest $4 million to establish a national Transport and Logistics Centre of Excellence to promote education and training in the transport and logistics sector. The centre will design and deliver training and education programmes in logistics and supply chain management across all educational levels.

## *Technology investments*

Ongoing technological improvements to vehicles, ships, trains and aircraft as well as to road and rail infrastructure and fuels, will continue to contribute to better transport outcomes. The application of transport information and communications systems can provide innovative and cost-effective solutions. Many benefits have already been realised. For example, the last few decades have seen improvements in safety and traffic management resulting from technological improvements to vehicles and traffic control systems. Incorporating technology, such as Intelligent Transport Systems[36] and Global Navigation Satellite System applications, into infrastructure solutions can deliver significant benefits. Estimated additional benefits associated with Intelligent Transport Systems in Australia are forecast to increase to $2.1 billion per annum by 2012.

The Australian Government will consider technology-based solutions as part of, or as alternatives to, the construction of new infrastructure or as increases to the physical capacity of existing infrastructure. Funding support for applied research and development will also be considered.

[35] This is a specific recommendation of the Industry Steering Committee of the Freight Transport Logistics Industry Action Agenda 2002, *Freight logistics in Australia: an agenda for action*, Department of Transport and Regional Services, Canberra, p. 83.

[36] Intelligent Transport Systems are the application of modern computer and communication technologies to transport systems to increase efficiency, reduce pollution and other environmental effects of transport and improve safety.

The Australian Government's strategic priority is to get maximum use and efficiency out of existing infrastructure by facilitating the adoption of new technology. Its investment priorities are to partner with the States and industry to:

- trial new technology applications
- support the implementation of new technology to maximise infrastructure efficiency
- ensure national standards and interoperability are pursued.

### National traveller information service

The Australian Government will partner with State and Territory Governments and the private sector to implement a national traveller information service. This service would provide real-time information on scheduled road, rail and air public transport services. It would also provide road condition and traffic reports. This would improve the efficiency of the transport system. The service would use existing and emerging technologies to provide high quality real-time information to travellers. The system would use a front end that links to existing data collected by States, Territories and local government.

### Transport logistics track and trace systems

The Australian Government will partner with industry and State and Territory Governments to develop a transport logistics national track and trace platform. Its commitment will include trialling technologies and identifying those platforms industry could adopt as a standard to deliver transport logistics efficiencies. The trial will demonstrate the potential for track and trace technologies to improve the security, efficiency and safety of the Australian logistics sector by enabling end-to-end visibility across all transport modes.

### Variable speed limit system trial using intelligent transport system technologies

The Australian Government will work with State Governments and contribute to a trial of an integrated variable speed limit system. This will be a demonstration project aimed at capturing the benefits of telecommunications and digital technologies to achieve transport goals by changing driving behaviour to align with prevailing road conditions. The project will integrate weather detection and incident and alert systems to control variable speed message signs. These systems will use prominent gantries at appropriate intervals to regulate traffic flows and manage speed limits through automated law enforcement systems.

## Local and regional transport investment

The Australian Government's priority in the first five-year plan is to work with local government to:

- improve local and regional land transport infrastructure
- facilitate greater cooperation between local councils
- enhance regional infrastructure planning.

The Roads to Recovery programme will continue with two funding components under AusLink. One will continue to help local councils address the backlog of necessary local road works. The other will facilitate a forward-looking agenda, building on regional planning mechanisms to enable the Australian Government to contribute to regionally significant local transport projects. The AusLink regional programme is discussed in Chapter Four.

## AusLink National Network

The corridors and links of the AusLink National Network are detailed in Table 4.

## AusLink investment priorities summary

The investment priorities of the Australian Government for the first National Land Transport Plan are summarised in Table 5.

### *Table 4 AusLink National Network*

| Corridors | Links |
|---|---|
| Sydney–Brisbane | • Pacific Highway between Newcastle and Brisbane<br>• New England Highway to the Cunningham Highway and the Cunningham Highway from the New England Highway to the Ipswich Motorway<br>• F3 Sydney to Newcastle<br>• Sydney–Brisbane (Acacia Ridge) railway |
| Sydney–Melbourne | • Hume Highway and Hume Freeway<br>• Princes Highway and Southern Freeway from Sydney to Northern Distributor intersection at Wollongong<br>• Sydney–Melbourne railway, including Moss Vale to Port Kembla link |
| Melbourne–Adelaide | • Western and Dukes Highways, South Eastern Freeway and Mt Barker Road<br>• Princes Freeway from Melbourne to Broderick Road intersection at Corio<br>• Melbourne–Adelaide railway via Geelong |
| Melbourne–Brisbane inland corridor | • Hume Highway from the Western Ring Road to the Goulburn Valley Highway, the Goulburn Valley Highway from the Hume Highway to the Murray Valley Highway, the Murray Valley Highway between the Goulburn and Newell Highways, the Newell Highway, the Leichardt Highway between the Newell and the Gore highways, Gore Highway from Goondiwindi to Toowoomba and Warrego Highway from Toowoomba to Ipswich<br>• Proposed inland railway: Melbourne–Albury–Parkes–Dubbo–Hunter Valley Rail Network and proposed rail links from Werris Creek–Moree–Toowoomba–Brisbane |
| Sydney–Adelaide | • Gawler Bypass from Main Road North to Sturt Highway, Sturt Highway from Adelaide to the Hume Highway and Hume Highway to Sydney<br>• Adelaide–Sydney railway via Broken Hill, Parkes and Cootamundra |
| Perth–Adelaide | • Great Eastern Highway from Roe Highway interchange to Coolgardie, Coolgardie Esperance Highway between Coolgardie and Norseman, Eyre Highway, and the Princes Highway between Port Augusta and Adelaide<br>• Perth–Adelaide railway, including Port Augusta–Whyalla link |
| Adelaide–Darwin | • Princes Highway between Adelaide and Port Augusta, Stuart Highway to Tiger Brennan Drive, Tiger Brennan Drive from Stuart Highway to Berrimah Road and Berrimah Road from Tiger Brennan Drive to East Arm Port<br>• Adelaide–Darwin railway |
| Perth–Darwin | • Great Northern Highway from Roe Highway interchange to Victoria Highway, the Victoria Highway and the Stuart Highway from Katherine to Darwin |

| Corridors | Links |
|---|---|
| Brisbane–Darwin | • Warrego Highway to the Landsborough Highway, Landsborough, Flinders and Barkly Highways and the Stuart Highway from Three Ways to Darwin |
| Brisbane–Cairns | • Bruce Highway, including Caboolture Motorway and the connection from the Bruce Highway to the Port of Gladstone<br>• The North Coast Line System from Brisbane to Townsville and the proposed inland railway Toowoomba–Gladstone link |
| Melbourne–Sale | • Monash Freeway, Princes Freeway to Traralgon and Princes Highway from Traralgon to Sale |
| Perth–Bunbury | • South West Railway from Mundijong to Bunbury<br>• Kwinana Freeway from Leach Highway to Safety Bay Road, Safety Bay Road from the end of Kwinana Freeway to Mandurah Road, Mandurah Road from Safety Bay Road to the Perth-Bunbury Highway and Perth-Bunbury Highway from Mandurah Road—Peel Deviation will replace Safety Bay and Mandurah Roads and part of Perth–Bunbury Highway when constructed |
| Hobart–Burnie | • Midland Highway from Granton to Launceston and Bass Highway from Launceston to Burnie<br>• East Tamar Highway from Launceston to Bell Bay Road and Bell Bay Road to the Port of Launceston at Bell Bay<br>• Railway from Hobart to Burnie, via Launceston and including the link to Bell Bay |
| Melbourne–Mildura | • Calder Freeway and Highway from the Western Ring Road and the Sturt Highway to Mildura<br>• Melbourne to Mildura rail line via Geelong and Ballarat |
| Sydney–Dubbo | • Western Motorway (M4) from the intersection with Westlink (M7) to Leonay<br>• Great Western Highway from Leonay to Bathurst<br>• Mitchell Highway from Bathurst to Dubbo<br>• Sydney to Dubbo railway via Parkes and Bathurst |
| Townsville–Mt Isa | • Flinders and Barkly Highways from Townsville to Mt Isa<br>• Great Northern Railway |
| Canberra Connectors | • Federal Highway<br>• Barton Highway |
| Sydney–Wollongong | • Princes Highway and Southern Freeway from Sydney to Northern Distributor intersection at Wollongong |
| Melbourne–Geelong | • Princes Freeway from Melbourne to Geelong, including the proposed Geelong western bypass from Corio to the Princes Highway at Waurn Park.<br>• Melbourne–Geelong standard gauge railway |
| Sydney urban links | Sections as indicated on Figure 8 as follows.<br>• Cumberland Highway from the Hume Highway junction along Pennant Hills Road to the F3 at Hornsby—the Westlink (M7) will replace the Cumberland Highway when constructed<br>• The South Western Motorway (M5), General Holmes Drive between South Western Motorway and Foreshore Road and Foreshore Road to Port Botany<br>• Roberts Road and King Georges Road from the Hume Highway to Princes Highway<br>• The interstate railway from Hornsby to Campbelltown via Chullora/Enfield intermodal terminal<br>• Rail links from Chullora to Port Botany and from Chullora to St Marys |

| Corridors | Links |
|---|---|
| Melbourne urban links | Sections as indicated on Figure 9 as follows.<br>• Hume Freeway to the Western Ring Road and new Hume Freeway link from Donnybrook to Metropolitan Ring Road—Craigieburn Bypass will replace the equivalent section of the existing Hume Freeway when constructed<br>• Metropolitan and Western Ring Roads between the new Hume Freeway and Princes Freeway<br>• Links to Port of Melbourne and Dynon intermodal terminal via the Westgate Freeway, Western Link Tollway to Footscray Road, Footscray and Dynon Roads to the entrance of Dynon intermodal facility and Todd Road from Westgate Freeway to Williamstown Road<br>• Southern Link Tollway and Monash Freeway<br>• Tullamarine Freeway from Western Ring Road to Melbourne Airport and Airport Drive<br>• The interstate railway from Craigieburn to Laverton via Sunshine<br>• The standard gauge railway from Sunshine to Dynon intermodal terminal and links to West Swanson and Appleton Docks |
| Brisbane urban links | Sections as indicated on Figure 10 as follows.<br>• Ipswich Motorway<br>• Granard, Riawena, Kessels and Mt Gravatt–Capalaba Roads<br>• Gateway Motorway and Gateway Bridge<br>• Pacific Highway<br>• Interstate railway via the intermodal facility at Acacia Ridge connecting to the narrow gauge North Coast rail line and linking to the dual gauge rail to Port of Brisbane at Fisherman Islands<br>• Port of Brisbane Motorway<br>• Logan Motorway (possible future route). |
| Adelaide urban links | Sections as indicated on Figure 11 as follows.<br>• Portrush Road, Lower Portrush Road, Ascot Avenue, Taunton Road, Hampstead Road, Grand Junction Road between Hampstead and South Roads, Port Wakefield Road between Grand Junction and Montague Roads, Montague Road between Port Wakefield and Main North Roads and Main North Road from Montague Road to Sturt Highway<br>• Salisbury Highway/South Road Connector, Port Wakefield Road and future Sturt Highway extension from Port Wakefiled Road to Gawler Bypass in the vicinity of Angle Vale and Heaslip Roads—to replace Main North Road when constructed<br>• South Road to Sir Donald Bradman Drive and Sir Donald Bradman Drive to Adelaide Airport entrance<br>• Interstate railway from Two Wells to Bridgewater via Dry Creek and Islington intermodal terminals<br>• Rail link from Dry Creek to Port Adelaide and Outer Harbour<br>• Port River Expressway from Salisbury Highway/South Road Connector, including a new road and rail bridge |
| Perth urban links | Sections as indicated on Figure 12 as follows.<br>• Roe Highway, via Kwinana Freeway to possible Fremantle Eastern Bypass, Tonkin Highway between Roe and Leach Highways via Kewdale, Leach Highway, Stirling Highway between High Street and Tydeman Road, Tydeman Road, Port Beach Road from Tydeman Road to Fremantle Port (North Quay)<br>• Canning Highway between Stirling Highway and Queen Victoria Street, Queen Victoria Street between Canning Highway and the proposed link with Beach Street, including this proposed link and the section of Beach Street between this proposed link and Gate Three at Fremantle Port (Victoria Quay)<br>• Kwinana Freeway, from Leach Highway to Safety Bay Road<br>• Interstate railway from Midland to Fremantle Port Inner Harbour via Kewdale intermodal terminal and Yangebup<br>• Rail link from Yangebup to Mundijong via Kwinana (Outer Harbour) |

## *Table 5 Investment priorities 2004–05 to 2008–09*

| AusLink National Land Transport Plan—Australian Government investment priorities 2004–05 to 2008–09 | | |
|---|---|---|
| **State / Corridor** | **Projects** | **Australian Government funding 2004–05 to 2008–09 ($m)** |
| **New South Wales** | | |
| **Sydney–Brisbane** | Pacific Highway duplication and upgrade | 645 |
| | F3 to Branxton construction | 253 |
| | F3 Stage 2 widening | 50 |
| | F3 widening Hawkesbury River to Calga | 2 |
| | New England Highway–Weakleys Drive interchange planning | 24 |
| | New England Highway widening | 22 |
| | New England Highway–Devils Pinch realignment | 19 |
| | New England Highway–Halcombe Hill realignment and safety works | 15 |
| | New England Highway–realignment and safety improvements near Sunnyside Road north of Armidale | 9 |
| | New England Highway–Duval Creek bridge replacement and realignment | 4 |
| | New England Highway–bridge widening | 4 |
| | New England Highway–Muswellbrook bypass | 5 |
| | Sydney-Brisbane railway–provide freight train refuges on Sydney CityRail network between Hornsby and Strathfield | 55 |
| | Sydney-Brisbane railway–ease curves and deviate track | 158 |
| | Sydney-Brisbane railway–duplicate track between Wallarobba and Stratford on the northern approach to Maitland | 109 |
| | Sydney-Brisbane railway–concrete resleepering | 113 |
| | Sydney-Brisbane railway–install Centralised Train Control between Casino and Acacia Ridge | 15 |
| **Sydney–Melbourne** | Hume Highway–Albury upgrade | 235 |
| | Hume Highway–duplication and safety works | 205 |
| | Hume Highway–F5 ramps | 7 |
| | Hume Highway–North Gundagai grade separation | 6 |
| | Hume Highway–Towrang/Carrick intersection upgrade | 6 |
| | Hume Highway–Tarcutta truck parking facility | 3 |
| | Hume Highway–Paddy's River bridge upgrade for higher mass limits | 1 |
| **Melbourne–Brisbane** | Newell Highway–Moree heavy vehicle bypass | 28 |
| | Newell Highway–upgrading programme | 26 |
| | Newell Highway–Bogan to Coobang reconstruction | 18 |
| | Newell Highway–causeway replacement | 16 |
| | Newell Highway–bridge widening | 1 |
| | Newell Highway–Ardlethan realignment | 11 |
| | Newell Highway–widening and reconstruction | 5 |
| | Newell Highway–higher mass limits bridges | 1 |
| | Newell Highway–Coonabarabran bypass | 1 |
| | Newell Highway–Trewilga realignment | 1 |
| **Sydney–Adelaide** | Sturt Highway–road and bridge widening | 15 |
| **Sydney Urban** | Port Botany Links and Northern rail line | 110 |

| | | |
|---|---|---|
| | Westlink construction | 93 |
| | F3 to Westlink–construction | 22 |
| | Northern Sydney Study–F3 to Westlink | 4 |
| **Other** | Roads Of National Importance commitments (Summerland Way; Main Road 92; Alstonville bypass; Bucketts Way; Mudgee–Orange Road; Deringulla Bridge) | 58 |
| | Murray River bridges–bridge replacement | 18 |
| | Maintenance for 2004–05 | 117 |
| **Total five-year investment—New South Wales** | | **2505** |
| **Victoria** | | |
| **Sydney–Melbourne** | Hume Highway–Craigieburn link to Western Ring Road | 124 |
| | Hume Highway–Albury/Wodonga upgrade and second river crossing | 106 |
| | Hume Highway–Donnybrook Road grade separation | 22 |
| | Standardise second rail track–Melbourne to Albury | 25 |
| **Melbourne–Brisbane** | Goulburn Valley Highway–upgrading | 15 |
| | Goulburn Valley Highway–Murchison East deviation | 2 |
| **Melbourne–Adelaide** | Western Highway–Deer Park Bypass and Leakes Road Interchange | 80 |
| **Melbourne–Mildura** | Calder Highway–Kyneton to Faraday duplication | 89 |
| | Calder Highway–Faraday to Ravenswood duplication | 25 |
| | Geelong–Mildura rail standardisation | 20 |
| **Melbourne–Sale** | Princes Freeway–Pakenham bypass | 95 |
| **Melbourne–Geelong** | Geelong bypass | 186 |
| **Melbourne Urban** | Port Links–improve links to Dynon intermodal facility and Port of Melbourne | 110 |
| | Tottenham to West Footscray rail link | 40 |
| **Other** | Roads of National Importance commitment–Scoresby Freeway | 422 |
| | Wodonga Rail Bypass | 20 |
| | Murray River bridges–bridge replacement | 13 |
| | Maintenance for 2004–05 | 35 |
| **Total five-year investment—Victoria** | | **1429** |
| **Queensland** | | |
| **Sydney–Brisbane** | Pacific Highway–Tugun bypass | 120 |
| | Cunningham Highway–Eight Mile interchange | 4 |
| **Brisbane–Cairns** | Bruce Highway–5-year upgrading programme | 210 |
| | Bruce Highway–Caboolture Motorway widening | 196 |
| | Bruce Highway–Southern Cairns widening | 7 |
| | Bruce Highway–Appletree Creek interchange | 6 |
| | Bruce Highway–Burdekin safety works | 6 |
| | Bruce Highway–Cooroy–Gympie duplication planning | 3 |
| | Bruce Highway–Glenorchy Straight upgrading | 1 |
| | Gladstone Port access road | 1 |
| **Brisbane–Darwin** | Barkly Highway–Mt Isa to Camooweal upgrading | 80 |
| | Barkly Highway–Inca, Buckley, Johnson and Nowraine bridges replacement | 32 |
| | Warrego Highway–Plainland Road intersection | 11 |
| | Warrego Highway–Toowoomba bypass pre-construction | 3 |

| | | |
|---|---|---|
| **Brisbane Urban** | Brisbane Urban Corridor; Gateway Motorway and Bridge duplication; Ipswich Motorway | 627 |
| **Other** | Roads Of National Importance commitments (Peninsula Development Road; Bundaberg Port access road) | 4 |
| | Strategic corridor programme | 86 |
| | Maintenance for 2004–05 | 67 |
| **Total five-year investment—Queensland** | | **1463** |
| **Western Australia** | | |
| **Adelaide–Perth** | Great Eastern Highway–Tammin to Walgoolan rehabilitation | 33 |
| | Great Eastern Highway–Sawyers Valley to Lakes duplication | 28 |
| | Great Eastern Highway–Clackline bypass | 3 |
| | Great Eastern Highway–Midland to Northam passing lanes | 3 |
| | Eyre Highway–widening and rehabilitation | 45 |
| **Darwin–Perth** | Great Northern Highway–replace key Kimberley bridges | 44 |
| | Great Northern Highway–additional Muchea to Wubin widening | 36 |
| | Great Northern Highway–Lennard St to Muchea reconstruction | 17 |
| | Great Northern Highway–Muchea to Wubin overtaking lanes and widening | 14 |
| | Great Northern Highway–Miling to Wubin–overtaking lanes, widening, realignment and reconstruction | 15 |
| **Perth–Bunbury** | Peel Deviation and Kwinana Freeway extension | 150 |
| **Perth Urban** | Roe Highway extension | 20 |
| | Roe Highway–Great Eastern Highway interchange | 11 |
| | Port Links–improve rail links between Kewdale intermodal precinct and Fremantle Port | 14 |
| **Other** | Maintenance for 2004–05 | 30 |
| **Total five-year investment—Western Australia** | | 462 |
| **South Australia** | | |
| **Melbourne–Adelaide** | Dukes Highway pavement rehabilitation | 14 |
| | Dukes Highway shoulder sealing | 1 |
| **Adelaide–Sydney** | Sturt Highway–5-year upgrading programme | 44 |
| | Sturt Highway–Riverland passing lanes | 7 |
| | Sturt Highway–Truro Hills realignment | 7 |
| **Adelaide–Perth** | Adelaide–Port Augusta passing lanes | 2 |
| | Adelaide–Port Augusta shoulder sealing | 1 |
| **Adelaide Urban** | Port River Expressway Stages 2 and 3 and associated road/rail works | 80 |
| | New northern access–construction | 36 |
| | Port River Expressway Stage 1 | 17 |
| | Salisbury Highway–Virginia access controls | 4 |
| | Northern access–planning | 0.2 |
| **Other** | Maintenance for 2004–05 | 26 |
| **Total five-year investment—South Australia** | | 239 |
| **Tasmania** | | |
| **Hobart–Burnie** | Bass Highway–Penguin to Ulverstone duplication Stage 1 | 26 |
| | Bass Highway–Penguin to Ulverstone duplication Stage 2 | 42 |
| | Midland Highway–Bridgewater Bridge replacement | 57 |
| | Bass–Midland Highways junction upgrading | 1 |

| | | |
|---|---|---|
| **Other** | Roads Of National Importance commitment–Lilydale–Scotsdale Road | 8 |
| | Maintenance for 2004–05 | 7 |
| **Total five-year investment—Tasmania** | | 141 |
| **Northern Territory** | | |
| **Adelaide–Darwin** | Stuart Highway–widening and rehabilitation | 20 |
| | Stuart Highway–bridge replacement including the Palmer River | 6 |
| | Stuart Highway–Noonamah to Cox Peninsula Road duplication | 5 |
| | Stuart Highway–Katherine to Darwin overtaking lanes | 3 |
| | Tiger Brennan Drive/Berrimah Road–Darwin East Arm Port Access | 14 |
| **Darwin–Perth** | Victoria Highway–Victoria River and Lost Creek bridge replacement and road upgrade for improved flood immunity | 20 |
| | Northern Territory bridges–higher mass limits | 2 |
| **Other** | Network widening and rehabilitation | 4 |
| | Key freight route bridges upgrading | 1 |
| | Maintenance for 2004–05 | 18 |
| **Total five-year investment—Northern Territory** | | 92 |
| **Australian Capital Territory** | | |
| | Queanbeyan bypass | 2 |
| | Maintenance for 2004–05 | 0.6 |
| **Total five-year investment—Australian Capital Territory** | | **2** |
| | Unallocated maintenance 2005–06 to 2008–09 | 1200 |
| | Rail network communications—CDMA | 30 |
| | Network-wide investments | 155 |
| **Total AusLink National Network investment** | | **7719** |
| **AusLink regional investment** | | **1453** |
| **TOTAL AUSLINK INVESTMENT** | | **9172** |
| **Untied local road grants** | | **2550** |
| **National Black Spot Programme** | | **90** |
| **TOTAL LAND TRANSPORT INVESTMENT** | | **11813** |

**Note:** All dollars in this paper are rounded.

## Conclusion

The Australian Government's AusLink commitments represent a significant injection of infrastructure funds into national transport infrastructure. Together, these investments in priorities for land transport infrastructure right across Australia will move the nation towards the goal of a high performing national transport network.

# CHAPTER 4 LOCAL AND REGIONAL TRANSPORT INFRASTRUCTURE

## Introduction

The challenges of providing land transport infrastructure to facilitate sustainable economic growth and support vibrant communities are particularly significant in Australia's regions.

AusLink's national objectives, set out in Chapter Two, include promoting sustainable regional economic growth, development and connectivity. The new AusLink National Network is of fundamental importance to Australia's regions. The National Network will provide the major links that are the backbone of connectivity between regions.

*The new AusLink National Network is of fundamental importance to Australia's regions*

Local transport infrastructure, especially roads, is also a critical component of Australia's economic and social fabric. However, local councils, especially in regional Australia, have struggled to maintain their ageing local road networks, given increasing demands on their budgets.

This chapter describes the major objectives of the AusLink approach to local and regional transport infrastructure investment and outlines how the funding arrangements will work.

## Rationale for regional funding under AusLink

The Australian Government's current Roads to Recovery programme provides funding directly to local councils for road-related infrastructure projects. The $1.2 billion programme began on 1 January 2001 and is due to cease on 30 June 2005. The programme allows councils to identify their own infrastructure priorities and direct their allocated funds to projects of their choosing.

A team from the Australian Local Government Association and the Department of Transport and Regional Services recently reviewed the programme. It found the funds provided have been well spent and that safety and economic development outcomes were strongly emphasised in the projects undertaken.[37]

The review found that the programme was very successful in helping local government address serious backlogs in necessary infrastructure works. The additional funding allowed local government to improve safety for road users and pedestrians, boost local industry, and fast-track significant projects. The following examples illustrate the type of projects funded by the programme in remote, regional and urban areas.

[37] Australian Local Government Association and Department of Transport and Regional Services 2003, *Review of Roads to Recovery*, Canberra.

## Central Highlands Council, Tasmania

This council serves a rural community in central Tasmania with a population of 2800 and an area of 8010 square kilometres. Forestry is a major employer and economic generator in the area. The council used most of its Roads to Recovery funds to upgrade part of Hollow Tree Road, the 34 kilometre main road between the council's two largest towns of Hamilton and Bothwell. It carries over 150 vehicles per day. Thirteen per cent of these are trucks, mostly log trucks, but the road also carries traffic to farms.

Most of the log traffic comes from the forests in the council's western section and goes north or east to the woodchip facilities at George Town, near Launceston or Triabunna on the east coast. Using this route saves log traffic 16 kilometres. A school bus also uses the road and the road is a tourist route to the Central Highland Lakes area.

The road construction and prior alignment were not suited to modern traffic and inadequate sight distances created safety problems. The council sometimes had to close the road to loaded log trucks because of pavement damage.

The Roads to Recovery funds allowed the council to realign part of the road, improve sight distances and drainage, and reconstruct and seal the pavement. Council work crews and local contractors and materials were used and all the funds went into the local community. The result has been improved safety, economic development and transport efficiency.

## Hurstville City Council, New South Wales

Hurstville is a mid-sized urban council south west of Sydney Airport, 24.6 square kilometres in area and with a population of 72 000. It used its Roads to Recovery funds to widen a bridge on Belmore Road across a railway line.

Belmore Road is a major route between Henry Lawson Drive and Canterbury Road, with traffic between 16 000 and 22 000 vehicles per day. The railway overbridge near Riverwood Station narrowed the road to only two lanes and created a severe traffic bottleneck in both directions. The existing footbridges were too narrow for pedestrian safety. Access to the railway station and shopping centre was a problem, especially for buses. There were also access problems to the M5 motorway.

The bridge has now been widened to four lanes. Traffic congestion has been eased, travel times decreased and traffic queues eliminated. Access to the station and shopping centre has been improved and the pedestrian footway widened to improve pedestrian access and safety. There is better access to the M5. The availability of Roads to Recovery funds made it possible for the council to lever additional funds from the NSW Roads and Traffic Authority.

The result is improved safety, transport efficiency and social access and equity.

## Herberton Shire Council, Queensland

Herberton is a small council in far north Queensland with an area of 9575 square kilometres and a population of 5200. It used its Roads to Recovery funds to upgrade a crossing of the Herbert River near Innot Hot Springs which routinely flooded during the wet season—often for months at a time—isolating residents. As the causeway could be under water for much of the year, it was difficult and expensive to maintain and was deteriorating.

The only other access to the area was a 50 kilometre detour along a secondary road. It was not built for heavy vehicles and sustained damage when used by them, making it difficult to move livestock and produce. This route also contains six gate crossings.

The Roads to Recovery programme funded a new causeway 1.5 metres higher than its predecessor utilising corrugated steel arches over a 450 metre-long stretch. Residents are now only cut off for a few weeks a year rather than months at a time during the wet season. There are savings in maintenance as well as extending the useful life of the alternate route.

The work has resulted in improved access and equity and transport efficiency, and reduced maintenance.

Despite these successes, the review concluded that the programme would not completely address the backlog of significant work by its completion date in 2005 and that the backlog would increase again as soon as funding ceases.

Submissions to the Green Paper also stressed the benefits to councils of a direct allocation which allowed them to target funding to areas of high priority without the constraints and delays of a complex grants process.

In summary, the review's findings highlighted the local benefits of the programme and its well-accepted structure.

The Australian Government is committed to encouraging the development of strategic regional infrastructure to:

- support the growth of established and emerging industries
- respond to structural changes
- strengthen regional economic and social opportunities.

*The Australian Government is committed to encouraging the development of strategic regional infrastructure*

The Government recognises that many land transport infrastructure projects in regional Australia are worthwhile and strategically important. However, it also acknowledges that some projects might not be competitive against major infrastructure projects focusing on the National Network under a single AusLink funding pool approach. These might also be projects that extend beyond the boundaries, interests and financial capabilities of individual councils and would not be funded under a Roads to Recovery programme model.

Many regions may need additional funding support. This could be because their agricultural, industrial, manufacturing and/or tourism sectors are growing rapidly or because they have significant social connectivity needs combined with inadequate transport infrastructure.

Regional transport infrastructure is funded by all levels of government—Australian, State and local. Australian Government funding is currently focused on roads, rather than other elements of the transport system. Local government receives funding through identified Financial Assistance Grants, the National Black Spot programme and the Roads to Recovery programme. In some States a portion of these funds is directed to regional priorities through cooperative mechanisms cutting across local council boundaries. However, most is directed by councils to purely local needs within their local government boundary.[38]

Many roads cut across council boundaries and link with national networks. But different local priorities can lead to inefficient decisions about use of resources between local government areas.[39] The financial base of many individual local government authorities in regional areas simply cannot stretch to funding the substantial additional investments needed to support critical regional transport links, especially those which link to key transport corridors.

## Economic activity in outer metropolitan areas

In terms of economic activity, many urban fringe councils have rapidly growing agricultural, industrial, manufacturing and tourism sectors. They can include:

- significant horticulture industry—for example, fruit and nut orchards, olives, grapes, market gardens, floriculture and nurseries
- intensive livestock activities such as horse breeding, beef and dairy cattle, poultry, aquaculture and fishing
- forestry and timber harvesting and processing including saw-milling, furniture making and plywood, paper making and newsprint
- light industrial activities building on intensive agriculture—for example, food processing, juice making, seafood processing, poultry processing, abattoirs, milk and cheese factories, wool and hide processors and winemaking
- a strong tourism sector based on the local food and wine industry, restaurants, arts and crafts, antiques, markets and festivals, natural attractions like beaches and nature reserves—for example, Noosa, Caboolture, Onkaparinga, Wyong, Mornington Peninsula, Swan Valley
- a very strong warehouse, cold storage, distribution and transport presence through companies such as Brambles, Linfox, IGA, Finemores Transport and Westpoint Transport.

[38]Australian Local Government Association and Department of Transport and Regional Services 2003, *Review of Roads to Recovery*, Canberra.
[39]Australia Institute of Engineers et al. 2001, *Australian Infrastructure Report Card 2001*, Canberra, p.12.

However, many urban fringe councils have inherited a largely ad hoc rural road system. Large sections of the network are unsealed. For example, Ipswich City has 1022 kilometres of sealed road and 338 kilometres of unsealed roads; and Adelaide Hills Council has 606 kilometres of sealed roads and 429 kilometres of unsealed roads. Sealing the roads improves safety, protects fresh fruit and vegetables and caters for increased tourist traffic. Industry is also demanding a more expansive transport system to facilitate cross regional movement, an upgrade of timber bridges and the widening of roads.

There is considerable pressure on urban fringe councils to turn this ad hoc rural road network into a streamlined, more efficient network without the financial resources available to most urban councils.

*many urban fringe councils have inherited a largely ad hoc rural road system*

### Wine industry of the Riverland

The Riverland has grown to be a major wine-grape producing region, producing just over 300 000 tonnes of grapes in 2002. Farmers have been turning from traditional broadacre grain farming to exploit the comparative economic advantage of grape growing. Many farms have now been put under vine. Unfortunately, some parts of key roads to grape processors are unsealed.

Broadacre grain crops are relatively robust and are almost impervious to dust from the unsealed roads. As a result, there was very little economic loss from the road conditions. This is not the case with grapes, which suffer from dust cover during the growing stages, and from buffeting in transit to the processing centre. Spoilage from dust or bruising is considerable and could be alleviated, in part, by better local roads.

The quality and efficiency of local and regional transport links will play a large part in how successful wine-grape farmers will be in capturing the full economic benefit of their new venture.

## The new AusLink regional programme

The Government has decided that regional funding under AusLink will provide a balance between the immediate need to continue reducing the backlog of local road works and a forward-looking agenda to build sustainable regional economies and communities.

Accordingly, the AusLink regional programme will have two funding streams: one based on the current Roads to Recovery programme and another directed at strategic regional transport infrastructure priorities. A total of $1.2 billion over four years will be provided from 1 July 2005, when the current Roads to Recovery programme is due to cease. Together with the $253.1 million still to be paid under Roads to Recovery in 2004–05, this represents a total of $1.45 billion committed to local and regional transport infrastructure over the five-year AusLink National Plan.

## AusLink Roads to Recovery

Under the new AusLink Roads to Recovery programme, $800 million over four years will be allocated each year to local government on much the same basis as the current programme's formula approach. This will help all councils to sustain service levels across their local road systems and provide funding certainty.

The funds will be paid directly to every local council as they are under the current programme and under similar guidelines. This will include local decision-making and administrative and reporting simplicity. Eligible projects will continue to include other local land transport infrastructure such as bicycle paths and traffic control equipment.

The distribution of funds between jurisdictions will be based on the distribution proportions under the current programme. The distribution of funds within each jurisdiction to each council will again follow the recommendations of the Local Government Grants Commissions for allocating the local roads component of the Financial Assistance Grants. Funding allocations for 2005–06 to 2008–09 will be consistent with Grants Commissions' recommendations for 2004–05. These recommendations will be announced in July 2004.

Funding will also be provided for the unincorporated areas of New South Wales, Victoria, South Australia, the Northern Territory and for the Indian Ocean Territories. Roads in unincorporated areas make up approximately 4.25 per cent of the local road length in Australia. Many of these roads are in the most remote areas of the Northern Territory and South Australia, where they are critical for local communities' access to larger centres and services. Many are unsealed and subject to flooding.

In recognition of this, the Australian Government will allocate $20 million of the $800 million over four years for unincorporated areas. The allocations for the unincorporated areas have been determined from that $20 million and the allocations for the councils and the Indian Ocean Territories from the remaining $780 million.

The allocations are set out in Table 6. The totals shown are for the jurisdictions as a whole and include funding for the councils and the unincorporated areas where this applies.

### *Table 6 AusLink Roads to Recovery—allocations by jurisdiction*

| Jurisdiction | $m |
|---|---|
| New South Wales | 222.62 |
| Victoria | 162.44 |
| Queensland | 162.40 |
| Western Australia | 116.93 |
| South Australia | 72.40 |
| Tasmania | 25.98 |
| Australian Capital Territory | 12.99 |
| Northern Territory | 23.77 |
| Indian Ocean Territories | 0.47 |
| **TOTAL** | **800.00** |

## AusLink regional strategic investment

The AusLink regional strategic funding stream aims to enhance the ability of regional industry and communities to compete in the national and global marketplace. This is consistent with the Government's approach under AusLink to match investment to priority needs. The Government has therefore decided to earmark $400 million over four years to support local land transport projects of regional economic and social significance. The objective is to enable regional and outer metropolitan areas in particular to derive a greater benefit than under the existing Roads to Recovery programme from focussed investments in regional projects.

*AusLink regional strategic funding aims to enhance the ability of regional industry and communities to compete in the national and global marketplace*

This funding will be available to any local council and its project partners on a competitive basis. The Government will not allocate set amounts of funds to States and Territories, but the funds will be fairly distributed. It will contribute to priority projects on transport links for which local government is responsible, but which councils would otherwise find difficult to fund—for example, in regions undergoing high growth; or conversely, facing a declining rate base. The Government also recognises that due to their large size and remoteness some councils constitute a region in themselves. Such circumstances will be recognised by the Government during the consideration of submissions for these funds.

Funding will be targeted to local transport links of regional significance that might:

- carry out a connecting function within the regional land transport network or the National Network
- form an important part of the economic development strategies within a region, consistent with existing or developing regional plans
- provide access to export-related transport networks—via rail heads, higher order regional roads, freight depots, intermodal facilities, ports and major airports
- enhance access for regional communities to services and employment.

Projects will be assessed on merit and primarily against the AusLink objective of promoting sustainable national and regional economic growth and connectivity. However, the Government will give priority to proposals that demonstrate they:

- have been generated through strategic planning at the regional level
- are consistent with State, Territory and regional planning
- have broad support from relevant stakeholders
- include a funding contribution from the proponent and/or relevant stakeholders.

## *Strategic planning at the regional level*

The National Network provides the backbone of Australia's national land transport system and is fundamental to economic and social outcomes for regional Australia. The State and Territory networks will play a critical role in providing connections to the National Network and achieving AusLink's regional goals. The long-term viability of the regions depends on local and regional land transport links to State and Territory networks as well as to the National Network.

AusLink regional funding should encourage and reward collaborative and strategic planning approaches—especially those which enhance the connections between the local, state and national networks. Many critical transport links extend across council boundaries and form part of the asset base of several different communities. There are quite different population distribution patterns in different States and this influences decision-making. To develop viable solutions to transport needs, it is strategically important for those communities to influence, and contribute to, the identification of priorities for those links.

Regional strategic planning, with a clear focus on contributing to national development, will result in the delivery of more effective, efficient and coordinated transport infrastructure solutions. It may also result in a decrease in the delivery cost of overall transport infrastructure through reduced duplication and better targeting of scarce national resources.

*AusLink regional funding should encourage strategic planning approaches*

Transport planning mechanisms at a regional level already exist and operate successfully in several States. The Australian Government acknowledges this and will encourage local governments to build on current mechanisms rather than specify the planning model to be adopted. It acknowledges the varying circumstances in each State, Territory and region, and believes there should be flexibility in how regional planning is done and how priorities are identified.

## *Consistency with State and Territory regional planning*

It is important that Australian Government contributions to the development of regional transport infrastructure complement State and Territory planning strategies. Initiatives such as the South East Australian Transport Strategy and South East Queensland 2021 have involved a cross-section of stakeholders. This has enabled decision-makers to identify and prioritise important transport and economic initiatives for their regions. This is important, because local links must inevitably connect effectively to broader State and national networks to deliver economic benefits for regions.

## *Broad support from relevant stakeholders*

The Australian Government will seek to ensure that the investment it makes in transport infrastructure development in local and regional Australia is supported by a broad range of interests. Projects that are identified through a collaborative approach, and are broadly supported, are more likely to deliver economic benefits. The Government will therefore give preference to funding applications that are supported by relevant stakeholders. Such stakeholders might include local councils, local businesses and industry, regional development organisations, Area Consultative Committees, community groups and other relevant groups in the region. The Government will not specify how communities are consulted or their support obtained.

## *Funding contribution*

Project proponents will be encouraged to contribute to the funding of proposed projects, whether costed in-kind—for example through land acquisition, equipment, planning or construction—or through direct financial contributions. This reflects the Australian Government's view that a partnership approach to funding:

- encourages proponents and all levels of government to be strategic about their priorities
- ensures the project is well-supported
- contributes to local ownership in regions that benefit from the investment.

Funding contributions could come from industries and enterprises that would directly or indirectly benefit from the investment, State and Territory governments and/or local councils.

## *Strategic project proponents*

The Government expects that regional groupings of councils will perform a significant role in developing and contributing to project proposals. An example of groupings of councils can be found in the cluster arrangements that currently operate in Queensland. All councils and groups of councils are eligible to apply. Other relevant parties such as regional industries and/or community organisations are also encouraged to contribute to the development of proposals.

*regional groupings of councils will perform a significant role in developing project proposals*

State and Territory governments will not be encouraged to take the role of principal proponent, but might be cited as a partner in, and/or contributor of funds to, a proposed project. In some States and Territories there are areas not governed by local councils. In these areas, it may be appropriate for local government associations to work in partnership with the State or Territory government to submit project proposals for funding on their behalf.

## *Strategic project scope*

The Australian Government acknowledges that the focus of most project proposals will be road infrastructure. However, project proponents will be encouraged to develop proposals using the most appropriate land transport infrastructure solution. Project proposals for rail infrastructure or technology solutions will be eligible for funding provided they meet the programme's objectives and criteria.

Project proposals which involve the rehabilitation or upgrading of existing land transport infrastructure will be eligible for funding. This acknowledges that many areas are experiencing major changes in economic activity—such as new timber mills or centralised grain storage depot—which affect the volume and nature of freight demands.

## Strategic project examples

### *Outback Highway*

The proposed Outback Highway seeks to provide an all weather road link along a 2700 kilometre route from Laverton in Western Australian to Winton in Queensland via Alice Springs in the Northern Territory. It crosses three jurisdictions—Western Australia, Queensland and the Northern Territory—through several councils. It currently consists of 1000 kilometres of sealed road and 1700 kilometres of unsealed road.

The Outback Highway route affects around 5.5 million Australians from the fast growing regions of coastal Queensland and the south west of Western Australia, to Western Australia's Goldfields region and outback Queensland.

The road has the potential to provide broad regional benefits to the areas it connects and beyond. It is important from an economic, cultural and social perspective to Australia's central region.

A collaborative, joint effort will be essential for this project to succeed. Funding contributions could be generated from councils, State and Territory governments, the mining industry and other stakeholders that benefit.

### *Batemans Bay Bypass*

The proposed bypass around Batemans Bay in New South Wales would divert through traffic away from its central business district to an alternative spine road.

This project is located in one council area but has the potential to provide benefits to the broader regional community.

Through traffic comprises tourists from Sydney and the Canberra region as well as freight traffic servicing communities up and down the coast. A bypass would shorten travelling times, improve safety and provide quicker access to the airport and planned hospital. It would also open up land for an industrial subdivision and urban expansion providing opportunities for the region's economic growth.

## Strategic funding application and assessment process

Before the end of 2004, the Australian Government will invite interested councils, regional groups and local government bodies to submit projects for consideration for the strategic funding stream. Subject to the take-up of funding, there will be at least one further call for projects in the subsequent years of the programme. Projects may be designed to commence in the following financial year or any subsequent year—within the four-year programme period—and may seek up to four years' funding.

Projects will be assessed against the objectives and criteria described above and subjected to a strategic merit test. Under the strategic merit test, successful proposals will generally need to answer 'yes' to most of these questions:

- Does the project enhance the ability of regional industry and communities to compete in the national and global marketplace?
- Does the project target a local transport link that is regionally significant?
- Has the project been generated through a regional planning process?
- Is the project consistent with State/Territory regional planning?
- Does the project have broad support from relevant stakeholders?
- Does the project include funding contributions from other parties?

If the project is located in an incorporated area, funding will be approved only if the proponent is a council, organisation of councils or a local government association.

Where the size of the project warrants, a more structured analysis such as a benefit-cost analysis may also be required.

Projects which pass the strategic merit test will then be assessed on the extent to which they meet the funding objectives and on their relative merit. Detailed protocols will be developed to guide the assessment process.

Project development and assessment guidelines will be published later in 2004. The guidelines will specify the project objectives, assessment methodology, format and process for submitting applications and other relevant information.

The Australian Government proposes that local government associations play an important advisory role in the assessment of proposals. It envisages that local government associations will establish panels in their State or Territory to advise the Government on the relative merit, and strategic importance, of proposals generated by councils and council groups in their jurisdiction. The Government does not intend to prescribe how advisory panels should operate but any advisory panel should be driven and administered by local government. The advisory panel may include representation from State or Territory transport agencies and industry, as well as a representative from the Australian Government Department of Transport and Regional Services. The Department's representative will have observer status and advise the panel.

Councils in some States, in partnership with their State government, already have an established group or panel that prioritises regional projects identified through strategic regional transport planning. Local government associations could use these panels' recommendations for the consideration of projects under the AusLink regional strategic programme. However, regional transport planning tends to focus only on roads or may comprise only government officials. These processes should be expanded so that they are able to consider other land-based transport projects and industry priorities.

Where proposals cross State or Territory boundaries, or could affect regions in other States or Territories, advisory panels will need to work with the other relevant advisory panels.

Advisory panels would forward their advice to the Australian Government Minister for Transport and Regional Services. The funding decisions will be made and announced by the Minister.

## Current local roads funding

The Australian Government is currently considering the outcome of the recent inquiry conducted into local government financing arrangements by the House of Representatives Standing Committee on Economics, Finance and Public Administration—the Hawker Inquiry. The inquiry recommends some significant changes to the way the Financial Assistance Grants for local roads are paid to local government. The Government will respond to the inquiry's recommendations in due course.

In the meantime, to address South Australia's current disadvantage in local road funding under the Financial Assistance Grants arrangements, the Government is providing $26.25 million in supplementary funding over three years. South Australian councils will receive an additional $4.25 million in 2004–05, $9 million in 2005–06 and $13 million in 2006–07. This funding better aligns South Australia's share of the Financial Assistance Grants with its share of the current Roads to Recovery programme.

The Australian Government acknowledges the needs of unincorporated areas in the Northern Territory and will provide an additional $1 million to the Northern Territory Government for road works in these areas during 2004–05 under the current Roads to Recovery programme.

The National Black Spot programme will continue in its current form until the end of 2005–06.

## Responsibilities of each level of government

Regional funding under AusLink does not signal any Australian Government intention to assume responsibility for funding local transport infrastructure. Local government remains responsible for local transport infrastructure. Neither is the Australian Government intending to assume responsibility for funding arterial roads—this rests with State and Territory governments—or rail infrastructure which is State or privately owned.

Some submissions in response to the Green Paper raised concerns that AusLink regional funding would encourage State and Territory governments to reduce their current funding support. The Australian Government expects State and Territory governments to maintain their current spending on, and funding commitment to local government for, local transport infrastructure. If any State or Territory government reduces its funding to local government in response to AusLink, the Australian Government may take steps to reduce the funding available to that government for priorities on the National Network by an equivalent amount.

## Conclusion

The AusLink regional investment is comprised of a continuation of Roads to Recovery and a strategic funding stream targeted to local links of regional significance. It will result in improved regional and local land transport infrastructure. This will contribute substantially to national economic prosperity and stronger, more sustainable, regions.

# CHAPTER 5 IMPLEMENTING AUSLINK

## Introduction

The fundamental reforms the Australian Government intends to make through AusLink will be implemented with important new legislative, intergovernmental, institutional and programme arrangements. There will be new strategic planning mechanisms and a more rigorous way of assessing land transport infrastructure projects for which an Australian Government investment contribution might be considered. This chapter describes the arrangements associated with implementing AusLink and the National Land Transport Plan.

## A phased approach

AusLink will commence on 1 July 2004. However, given the scope of the changes to transport infrastructure planning, decision-making and funding under AusLink, it is unrealistic to envisage that all of them can be fully implemented immediately.

One of AusLink's key elements is the change to new multimodal infrastructure investment arrangements. Therefore it is important—for State, Territory and local governments and also for transport providers, transport users and the construction and supply industries—that the change be as seamless as possible. There will therefore be a phased approach to the introduction of the new AusLink arrangements that will acknowledge the need to:

- meet Australian Government budgetary commitments to existing projects
- ensure that there is no hiatus in transport infrastructure development activity
- strengthen the focus of the Australian Government's investment priorities towards areas of greatest national need
- secure early agreement on shared funding for projects under the first five-year plan
- develop corridor strategies jointly with States and Territories as the basis for determining future medium and long-term priorities
- progressively implement a new nationally based project assessment methodology
- develop improved national transport data collections to support infrastructure assessments at network, corridor and project levels
- develop and implement a new information technology support system for AusLink.

Implementing AusLink will therefore entail several major and concurrent thrusts of activity. Most immediately, new AusLink land transport funding legislation will be introduced. Infrastructure and funding agreements will also be settled with the States, Territories, the Australian Rail Track Corporation and other infrastructure managers for the implementation of the National Land Transport Plan. As the plan is implemented, attention will be directed to putting in place the longer-term elements of AusLink, particularly corridor strategies.

## AusLink national land transport legislation

The Government will introduce new legislation to provide for the administration of the new AusLink programme, including the regional component.

The new AusLink Act will progressively replace the *Australian Land Transport Development Act 1988* which is currently the primary act governing the Australian Government's land transport funding arrangements.

The new AusLink Act will specifically provide for:

- declaration of a single defined National Network comprising nationally important road and rail links
- the publication and periodic updating of a National Land Transport Plan directed towards guiding the development of the AusLink National Network
- development of corridor strategies as a long-term planning framework to address the transport needs of major corridors with the most appropriate solutions
- funding road, rail and cross-modal projects on the basis of a common project approval regime
- a potentially wider range of organisations eligible to receive Australian Government funding, compared with previous arrangements that were primarily State government-focused
- a broad range of transport infrastructure solutions to be funded
- facilitating broader shared funding arrangements
- agreements between the Australian Government and the States and Territories on project development and funding
- a new approach to funding local and regional transport infrastructure through a mix of merit-based project funding and a continuation of the arrangements currently provided for by the *Roads to Recovery Act 2000*.

Suitable provisions will be made to ensure that fund recipients are accountable for their expenditure of Australian Government monies.

The new act will also deal with transitional issues. There will be scope for projects on the AusLink National Network—which were previously approved under the *Australian Land Transport Development Act 1988*—to be brought under the new AusLink Act.

The *Australian Land Transport Development Act 1988* will continue to operate until projects approved under it, that are not encompassed by the new AusLink programme, have been completed and the associated obligations discharged. Firm budgetary commitments by the Australian Government to States, Territories and other parties to particular projects will be met.

The *Roads to Recovery Act 2000* ceases on 30 June 2005. The AusLink Act will then embrace the extended Roads to Recovery programme. The new AusLink legislation will be introduced into the Parliament in 2004.

# Implementing the initial National Land Transport Plan

The initial National Land Transport Plan described in Chapter Three includes:

- projects on links which will form part of the AusLink National Network and which were previously approved under the *Australian Land Transport Development Act 1988*
- new AusLink projects on the National Network
- maintenance of the AusLink National Network
- AusLink planning, research and technology projects.

## Approved commitments

Projects on the AusLink National Network that were previously approved under the *Australian Land Transport Development Act 1988* will continue without interruption. The Government intends that current projects approved under that act, on links that form part of the new National Network, will continue under the new AusLink Act when it is enacted.

## New AusLink projects

The National Land Transport Plan clearly sets out the new projects to which the Australian Government will direct its funding between 2004–05 and 2008–09 and the amount of funding to be provided for each project. For each of these investment priorities, the relevant State, Territory and other infrastructure manager—for example, the Australian Rail Track Corporation—will need to develop and submit detailed project specifications for formal consideration by the Australian Government.

## Infrastructure and funding agreements

The Australian Government will seek to conclude an infrastructure and funding agreement with each State, Territory and infrastructure manager. The agreement will cover the full package of proposed projects for which each would be responsible during the five years of the first plan. It is important that there is clarity from the outset about the responsibilities of the respective parties, particularly in relation to cost sharing.

*The Australian Government will seek to conclude an infrastructure and funding agreement with each State, Territory and infrastructure manager*

The Government proposes that the infrastructure and funding agreements will record:

- the projects that the Australian Government intends to fund during the first five-year plan
- the funding contribution that the Australian Government will make to each project and any project conditions which the Government seeks to apply to its investment
- the respective State or Territory contribution to each project, where such a contribution is a condition of Australian Government investment
- understandings on aggregate levels of Australian Government and State or Territory funding
- arrangements linking the timing of payments to defined stages of progress or outcomes
- arrangements governing the timing of payment of the respective contributions for projects for which funding responsibility is shared
- responsibilities for detailed project development, scheduling, delivery and outcomes monitoring
- any associated projects or requirements relating to adjacent State or Territory networks, that are necessary to obtain the full benefit for transport users from the Government's investment.

The Australian Government aims to finalise these agreements, firm project specifications for 2004–05 and provisional project details for the following four years, as a matter of priority.

The Australian Government will then continue to work with project proponents to review progress on works that are underway. It will also collaborate on planning and other studies associated with developing and refining detailed specifications for projects to be funded during the balance of the first five-year plan.

The Australian Department of Transport and Regional Services will ensure that in administering AusLink, the Australian Government's arrangements for Specific Purpose Payments are observed. In particular, this includes the need to ensure:

- Australian Government budgetary control of AusLink funding
- Government funds are directed to AusLink objectives and priorities
- that States and Territories and other relevant parties are fulfilling their responsibilities under the AusLink legislation including reporting to the Australian Government in a timely way on agreed financial and performance information.

It is Australian Government policy to extend the application of the National Code of Practice for the Construction Industry (the code), and the Australian Government Implementation Guidelines for the Code (the guidelines), to all directly funded construction projects and to indirectly funded projects where it provides a substantial contribution towards the cost of the project.

The code and the guidelines will apply to all indirectly funded construction projects where the Government's contribution to an individual project is $5 million or more and where that contribution represents at least 50 per cent of the total project value. They will also apply when the Government's contribution to an individual project is over $10 million, irrespective of the proportion that represents of the total project cost.

The requirement to apply the code and guidelines to all projects above the thresholds is a condition of Australian Government funding. It will be included in funding agreements with the States, Territories, infrastructure managers and local government.

## Maintenance implementation

As described in Chapter Three, the Australian Government will continue to provide funding to State and Territory Governments for the maintenance of transport infrastructure assets. However, this will be as a contribution to the maintenance of the AusLink National Network, rather than funding of all maintenance on the former National Highway.

Currently, the Australian Government contributes $300 million per annum nationally towards maintenance. This level of funding will continue from 2004–05 to 2008–09 to provide the certainty required for maintenance activities.

States and Territories were informed in 2003 of their allocations for 2004–05. At that time they were also advised that allocations would be based on a formula similar to that used in the United States of America for its Interstate Maintenance programme. The formula uses three equal components:

- lane length
- total vehicle distance travelled
- total heavy vehicle distance travelled.

By including lane length, those States and Territories with a large proportion of low traffic-volume roads will receive an equitable portion of funding.

For 2004–05, the formula was applied to the previous National Highway System because, when the allocations for this period were advised, the AusLink National Network had not been determined. However, from 2005–06 the formula will be applied using data on the new AusLink National Network.

This means that the Australian Government will need additional data from States and Territories on the new links in the National Network so that its funding allocations are based on accurate and up-to-date information. Over the next few months, the Government will work with jurisdictions to ensure it has the data it requires. When this data is obtained, it will confirm the annual allocations to each jurisdiction from 2005–06 to 2008–09.

The application of the new formula will be phased in from 2005–06 to 2007–08 to minimise the effect of the change on States and Territories.

Until 2004 the Australian Government allocated $40 million of its $300 million annual maintenance funding budget for specific works approved at its discretion. This money was generally used for small-scale urgent roadworks related to unforeseen loss of service or safety issues. The Government has decided that it will not continue with this separate allocation. From 2005–06, these funds will be rolled into the general maintenance allocation and included in each State's and Territory's maintenance funding to be allocated as needed across their part of the National Network. This change will provide jurisdictions with greater flexibility.

States and Territories will be required to report on the expenditure of their allocation and the extent to which the National Network in their jurisdiction has been maintained to a fit for purpose level.

The national funding level of $300 million per annum will be reviewed towards the end of the first five-year plan taking into account changes in maintenance needs across the National Network.

## Transport planning, research and technology projects

During AusLink's implementation it will be necessary to identify deficiencies on the National Network, formulate corridor strategies, and devise and demonstrate innovative transport solutions. This will require sophisticated analysis and research.

The National Land Transport Plan therefore includes funding for analysis and research that would potentially improve the efficiency and safety of transport operations on the AusLink National Network. These funds could be used for:

- the development of transport data sets
- research and development
- planning, investigations and feasibility studies
- the development and trialling of new technologies and practices.

Funds are earmarked to contribute to improved corridor planning, the development and trialling of innovative technological applications, and as Australian Government contributions to national research organisations. The Government will also contribute funding towards enhancing the development and analysis of nationally important data on the National Network.

## Private sector involvement

Private sector investment, that ensures that the public interest is protected, will be encouraged—particularly on selected urban corridors.

Private sector projects have the potential to deliver net benefits to all levels of government, as well as to the wider community, by releasing funds for other worthwhile projects. To help ensure these benefits are delivered, private project proposals for which Australian Government funding is sought under AusLink will be expected to deliver value for money and be both transparent and accountable.

*Private sector investment, that ensures that the public interest is protected, will be encouraged—particularly on selected urban corridors*

Value for money is normally tested by comparing the outputs and costs of the private sector proposal against a neutral benchmark called the public sector comparator. This reflects the most efficient public sector option likely to be achieved for the relevant project. Other issues that need to be addressed on a case-by-case basis include:

- the potential implications for tax revenue flowing from private sector involvement
- the extent to which risk is transferred to the private sector
- transparency and accountability.

## Strategic planning framework

The development and refinement of future versions of the National Land Transport Plan will require action to be taken at several levels.

- Periodic strategic assessments will be undertaken of the long-term investment needs and performance requirements across the National Network.
- The Australian Government will pursue a collaborative planning approach with jurisdictions to identify the best way of meeting the likely transport needs of each of the major corridors.
- A rigorous and more broadly based approach will be introduced to help assess priorities and the individual projects that are proposed to meet those priorities. A new planning and project cycle will evolve.
- An evaluation framework will be established.
- The Government will address the wide-ranging data requirements needed to support the required analyses at network, corridor and project level.
- A publicly accessible interactive information technology system will be developed to better support the way the Australian Government's transport policy and programmes are developed and delivered.

### National Transport Advisory Council

As future versions of the National Land Transport Plan are developed, assessments of the performance and future requirements of the full National Land Transport Network may be required.

The Australian Transport Council, comprising Australian Government, State and Territory Ministers with transport responsibilities, intends to establish a National Transport Advisory Council to provide strategic analysis and advice to Ministers on the long-term development of the national transport system.

The council will focus its analytical and advisory work on three important transport policy areas agreed by Ministers:

- developing advice on priorities for national infrastructure investment
- advice on reforms to support modal integration
- advice on strategies, policies and options for infrastructure pricing.

The structure and detailed operations of the Council have not yet been agreed by the Australian Transport Council. The Australian Government will discuss with the States and Territories the extent to which a National Transport Advisory Council might be appropriate for progressing some of the strategic planning issues associated with AusLink and the development of future versions of the National Land Transport Plan.

### Corridor strategies

The scope and content of corridor strategies will vary according to the characteristics of the corridor and the preferences of the governments involved in developing the individual strategies. In general, however, the Government anticipates that developing a strategy will be supported by comprehensive studies which would normally encompass the following interrelated elements.

### *Corridor role and objectives*

The major functions of the corridor, including its role within the broader network, would be examined as well as how the corridor needs to perform into the future to undertake those functions safely and effectively. For example, some quantitative performance objectives for the future might be set, relating to the time taken to travel the corridor by road and rail, as well as safety and reliability targets.

### *Current corridor condition*

The current condition of the principal infrastructure within the corridor and its adequacy to efficiently and safely meet existing traffic demands would be assessed.

### *Analysis of traffic growth and other forecasts*

Future traffic demand and the factors most likely to influence it would be assessed as well as the implications for capacity, safety and the environment.

### *Needs analysis*

Infrastructure impediments and land use constraints to the corridor meeting its objectives into the future would be examined in the context of the corridor's current condition and forecast traffic growth.

### *Priorities analysis*

The long-term transport and land use options for meeting future needs would be analysed. It is likely that assessment would include several alternatives using road, rail and possibly other modal and intermodal solutions. Assessment would also cover alternatives to construction solutions, such as new technology and pricing.

### *Potential projects*

A list of broadly defined priority projects, their optimal timing and indicative costs and benefits might be identified.

The Government will commence negotiations with the relevant State and Territory governments to progressively develop specific strategies for each major corridor on the National Network. In the development of each corridor strategy, the Australian Department of Transport and Regional Services will work with officials from the relevant State and Territory governments. Available analyses from jurisdictions or other bodies will be used to support the work and additional analytical work will be commissioned as necessary.

*progressively develop specific strategies for each major corridor on the National Network*

There will be close engagement with local government associations and rail track operators, where relevant. Consultation will also take place with the key stakeholders for each corridor, including key users and other interested parties.

The development of corridor strategies will also closely examine the scope for private sector involvement in the priority investment areas identified for each corridor.

Given the likely complexity of the processes associated with preparing corridor strategies, it will not be practical to attempt to concurrently develop strategies across all of the designated corridors that make up the National Network. Therefore the Government will progressively commence strategy development for all major corridors over the next five years. Corridor strategies will be iterative and involve periodic revisions to update forecasts and priorities.

## Project assessment methodology

A new, nationally consistent project assessment methodology will be adopted. The assessment methodology will enable projects to be compared in future plans in terms of value for money. This will enable a comparison of the relative merit of investment within, and between, land transport corridors.

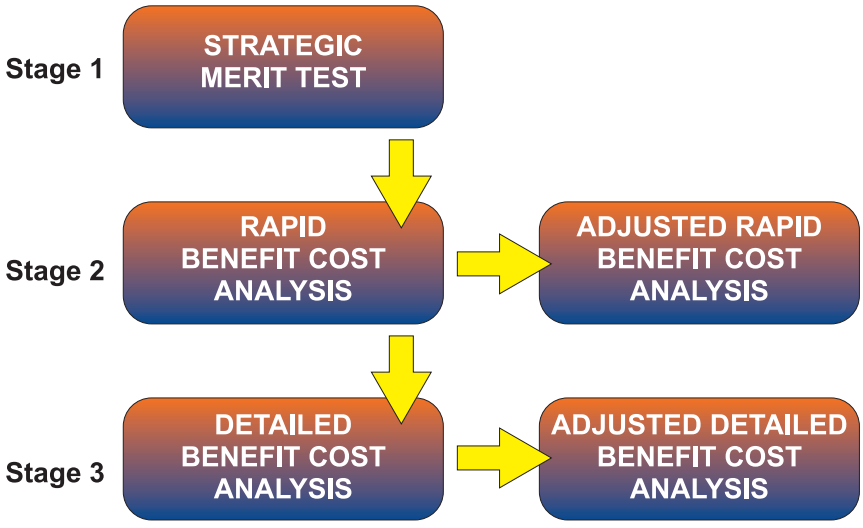
*A new, nationally consistent project assessment methodology will be adopted*

The new assessment methodology will be progressively implemented, particularly in the context of corridor planning studies and for the assessment of specific projects proposed for future funding under AusLink.

To settle the methodology, the Australian Government will draw upon the *National Guidelines for the Appraisal of Transport Initiatives in Australia*. These guidelines will be finalised shortly by a working group of representatives from the Australian, State and Territory Governments and the Australian Local Government Association.

The assessment methodology will follow a three-step process as illustrated in Figure 13.

### *Figure 13 Project assessment methodology*



Structuring the process in this way ensures that resources are not wasted conducting detailed assessments of projects that have little or no chance of acceptance.

The first stage—a strategic merit test—will determine whether the project will address relevant government objectives. A project failing this test would not undergo further assessment. The strategic merit test will consist of a series of straightforward questions. Issues to be considered as part of a strategic merit test would include:

- Is the project consistent with the AusLink national objectives and the strategic directions of the National Land Transport Plan?
- Are the project objectives consistent with objectives established for the relevant corridor?
- Are there major risks or constraints on the project which raise serious doubts about its feasibility?
- Is the project sufficiently well-defined and is sufficient information available to enable assessment?
- To what extent is the project dependent on, or likely to be affected by, other projects or investments?
- Are there alternative solutions that should be considered?
- Is the project too small to warrant detailed assessment? In such cases, a rapid benefit-cost analysis will suffice.

The second and third stages of the anticipated assessment methodology will involve the use of benefit-cost analysis, which is now a long-established technique for measuring the economic effect of projects.

The use of rapid benefit-cost analysis is a cost-effective way of gauging the broad economic worth of a project. The estimates used for a rapid benefit-cost analysis will be less precise than for a detailed benefit-cost analysis. Costs and benefits that are small or difficult to assess may be omitted altogether. A rapid benefit-cost analysis will provide an early indication of a project's economic merit compared with other projects or alternative proposals. It will also be useful in providing a preliminary indication of the relative economic merit of the different options for undertaking a particular project.

Then, or after any further project development necessary for complex projects, a detailed benefit-cost analysis would be undertaken to provide a more searching test of the project's value.

In some circumstances, an adjusted benefit-cost ratio might be calculated to take account of relevant factors normally outside the scope of conventional benefit-cost analysis or to apply nominated values to particular costs and benefits. This provides an opportunity for analysts to give greater weight to factors other than economic efficiency in a manner that is transparent and able to be applied across a range of projects. An adjusted benefit-cost analysis would be an optional element of the assessment framework.

In all cases, each project's evaluation results will be put before Ministers. This will ensure that the Government and Ministers have better and more objective advice to consider when making investment decisions.

The *National Guidelines for Appraisal of Transport Initiatives*—when they are finalised—will be an important contribution to an objective assessment of projects at different stages of the AusLink planning and decision-making process.

The application of a transparent assessment methodology will help ensure that projects are compared consistently regardless of geographic location, project type or the means of financing.

The Government is concerned to ensure that its investment is directed to high return projects. But at the same time, it will continue to acknowledge the important social purposes that the National Network—in particular the rural and remote sections— serves.

The results of benefit-cost analyses cannot, and will not, be the sole determinant of the composition of future versions of the National Plan. Projects assessed as having a lower benefit-cost ratio will not be precluded from funding where, for example, they improve flood immunity in rural or remote areas or are essential for safety reasons.

Project proposals under the AusLink regional programme will be subject to a modified project assessment methodology. This was described in Chapter Four.

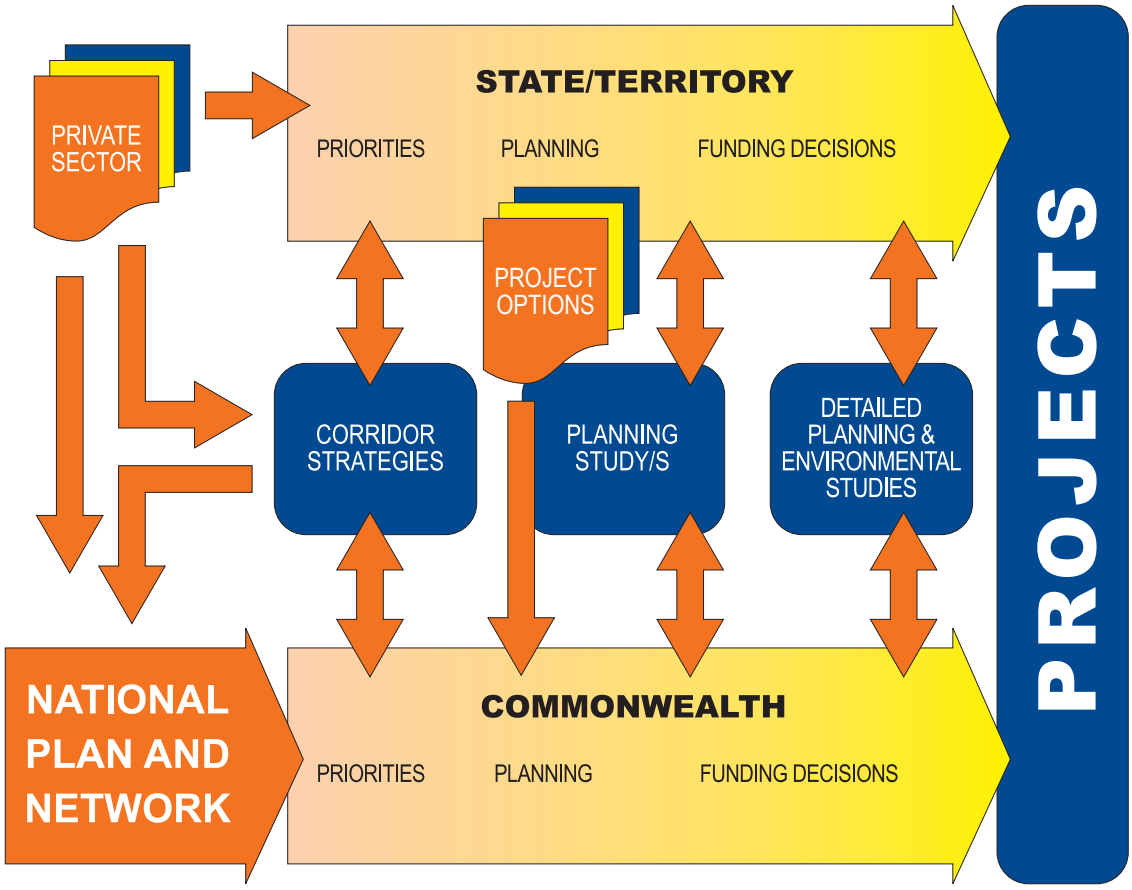
## AusLink planning and project cycle

The Australian Government's view of national priorities, and its understanding of planning work currently in hand to address immediate deficiencies, informed the development of the first five-year National Land Transport Plan.

As corridor strategies are progressively developed, and a new project assessment methodology is progressively implemented, a new cycle of planning, project development and funding decisions will evolve.

Figure 14 is a diagrammatic representation of the AusLink planning and project cycle. It illustrates a case where the Australian Government and a State or Territory are investing in a project on the National Network.

*Figure 14 AusLink planning and project cycle*




At the project level, the process for considering proposals will progressively move to a cycle similar to that illustrated in Table 6 below. This will affect the development and refinement of future versions of the National Plan. In practice, the project assessment cycle will be linked to, and informed by, the processes and analyses involved in the development of corridor strategies.

Of necessity, not all projects will follow identically the generalised linear steps shown in Table 7. Complex multi-year infrastructure projects may require additional steps to those identified and may be planned, assessed, funded and staged accordingly.

## *Table 7 AusLink project cycle*

| Step | Action | Comment |
|---|---|---|
| 1 | Annual round of bilateral discussions with States and Territories<br>Private sector input sought on projects and programme planning | Purposes would be to:<br>– review progress of approved projects—that is those which have previously been included in the plan<br>– discuss potential new projects that could be added to the plan based on agreed corridor strategies/corridor studies in progress.<br>Discussion would take place against the background of at least a broad understanding of the overall, that is nation-wide, scope for injecting new projects into each year of the forward programme. |
| 2 | Annual Ministerial call for proposals from States/Territories/other infrastructure managers to be added to the plan | A critical element would be the provision of strategic guidance on the priorities to which the Australian Government would wish to see particular attention given.<br><br>For each project, proponents would be invited to:<br>– nominate a desired start date<br>– indicate any proposed funding contribution and/or contribution of private sector partners<br>– provide a supporting case for a project including relationship to corridor strategy, if finalised, and<br>– demonstrate conformance with the assessment methodology—at least down to rapid benefit-cost analysis level. |
| 3 | Submission of project proposals with required particulars and supporting case | It would be expected that likely project proposals will have provisionally passed the strategic merit test as part of the analysis undertaken for the development of a corridor strategy. However, it would now be expected that proposals would be better defined and a corresponding refinement of the supporting analytical material would be available. |
| 4 | Discussions, as necessary, with project proponents to clarify or resolve issues of detail arising from proposals | Proponents may have consulted with the State or Territory agencies and secured support and/or a financial contribution. |
| 5 | Australian Government consideration of proposals against its strategic priorities and likely funding availability and identification of projects for further consideration and development | The AusLink national objectives and the strategic directions of the National Plan would be relevant. |
| 6 | Australian Government request for further detailed information from proponents on project proposals identified for further consideration and development | Information to be sought may illustratively include planning and environmental studies or financial analyses. Detailed benefit-cost analysis would normally be expected to be submitted before conclusive consideration of proposal. |
| 7 | Negotiations on respective funding contributions | This issue may have been settled at an earlier stage. |
| 8 | Final decisions by Australian Government on projects to be added to National Plan | Considerations would include AusLink national objectives, strategic priorities for National Plan as enunciated from time to time, outcomes of assessment against AusLink project assessment methodology, and other relevant analyses. |
| 9 | Negotiation of amendments to infrastructure and funding agreements with States and Territories | It is anticipated that changes will be necessary to reflect new project approvals. |
| 10 | National Plan is revised accordingly | Revisions of the plan will occur periodically. |

## Evaluation framework

The Australian Government will develop a framework that will enable the evaluation of its investment in improving the performance of the National Network and regional links.

At the network and corridor levels, periodic strategic assessments of long-term investment needs will include an evaluation of the changes in performance levels in response to previous investment patterns.

Evaluation of completed projects will be directed at achieving continuous improvement in project assessment, decision-making and implementation. Evaluations will reinforce the need for project proponents to be rigorous in their estimation of both benefits and costs in the economic assessments undertaken at the proposal stage.

To facilitate evaluations, and to discourage exaggeration of benefits and under-estimation of costs, the AusLink project assessment guidelines will explore arrangements for identified performance measures that could be checked at specified dates in the future.

## National transport data framework

Effective future transport planning fundamentally requires access to a range of data on which to base long-term plans and infrastructure investment decisions. Poor data can lead to inefficient investment decisions and this can impose costs on the economy and society.

Economic assessments at the network level require detailed data on:

- physical infrastructure and the traffic using it
- the running costs of cars, trucks and trains
- demand forecasts
- broad cost estimates of capital investment and maintenance projects.

Corridor studies require the same range of data and enhanced detail on demand forecasts. Origin and destination information for various types of freight and for passenger travel is necessary.

For a specific project the data requirements are less wide-ranging than for network assessments but more detail is needed. Some of the data are specific to the project and would be obtained on a one-off basis. Data on existing infrastructure could be obtained from on-site inspections or from existing databases.

Obtaining the necessary data for network, corridor or specific project assessments can be an extremely challenging task. Factors contributing to the difficulty include:

- the need to draw from several sources—government departments and agencies, rail track owners and operators, transport users, private consultants
- lack of comparability of data from different sources, including different jurisdictions
- lack of comparability of data over time, even from the same source, making time series difficult to construct
- commercial confidentiality
- missing data
- errors in data.

Approaches to dealing with data deficiencies have been examined by a National Transport Data Working Group comprised of representatives from the Australian Government, States and Territories and the Australian Local Government Association. Priority needs identified by the working group include:

- a national database of origin and destination freight data
- rail asset condition data
- performance data for the rail and intermodal sectors including cost indexes, time and reliability indicators and efficiency benchmarks.

More broadly, the National Transport Data Working Group identified the need for an agreed set of arrangements for managing a national transport data framework. The working group concluded that a distributed system for managing data—that is a small central node serving as a gateway to a widely dispersed range of data holdings—would be a practical and realistic method for managing national data.

The Australian Government will continue to work with the States, Territories and local government to address future national transport data needs.

## AusLink information technology support system

Developing and implementing a new information technology support system to better support the way the Australian Government's transport policy and programmes are developed and delivered is integral to achieving AusLink's benefits. A new information technology system will be developed within the Australian Department of Transport and Regional Services to provide the basis for a more coordinated, integrated, interactive and efficient approach to the ongoing development and delivery of AusLink.

The system will include a series of components that interface with a user-friendly interactive website. The website will host a sophisticated search mechanism and provide easy access to important current transport information and data.

A key priority of the website is to increase access to important information and increase access to the ongoing development of the National Land Transport Plan. The public will be able to use the website to search and source up-to-date information on the National Network, policy and plans.

Ultimately, the information system that is constructed will be able to provide a snapshot of data and information illustrating:

- what the National Network and the National Plan look like
- the Government's priorities for investment on the network
- new National Network projects, on a state-by-state basis
- specific data and information on the Network's condition
- future plans for each corridor on the network.

The Australian Government will, in collaboration with States and Territories, progressively develop and implement the AusLink information technology system over the coming years.

## Arrangements with State, Territory and local governments

Achieving a high performance National Network will require the active cooperation and focused efforts of all levels of government. State and Territory governments own much of the infrastructure that makes up the National Network. State, Territory and local governments have statutory roles and specific responsibilities for land transport infrastructure planning, delivery, funding and ongoing management.

*Achieving a high performance National Network will require the active cooperation and focused efforts of all levels of government*

States and Territories have already contributed to the development of AusLink. They have provided valuable advice on the development of the first National Plan by identifying key priorities and by proposing strategically significant transport links for inclusion on the National Network. Together with local government they have also participated in developing national assessment guidelines and worked on addressing data deficiencies.

In this white paper, the Australian Government has set out its policy approach, its strategic directions and priorities for the first five-year National Plan and its funding intentions. It looks forward to further close and constructive engagement with the States, Territories and local government on the arrangements for delivering detailed projects to address these priorities and, as appropriate, shared project funding. To this end, the Australian Government will seek to formalise such arrangements in a bilateral infrastructure and funding agreement with each jurisdiction.

Beyond this, there is a range of matters which the Australian Government will also seek to address in cooperation with States, Territories and, where applicable, local government. These include arrangements for:

- assessing long term needs and priorities across the National Network
- planning to improve the performance of specific parts of the National Network including through the collaborative development of corridor strategies
- planning to develop effective linkages between the National Network and wider transport networks
- ensuring effective integration of transport and land use planning in development of the National Network
- ensuring improved cooperation on regional transport infrastructure planning between the levels of government
- developing the data sets required for effective planning, investment and evaluation—including financial information and performance indicators.

The Australian Government is prepared to formalise its relationship on these matters with the States and Territories and where applicable, local government. Developing an intergovernmental agreement might be an appropriate way to do this. Such an agreement would be broader in coverage and additional to the infrastructure and funding agreements envisaged for implementing the National Land Transport Plan in each State. In seeking a more structured form of cooperative working arrangements, the Australian Government acknowledges that individual governments will wish to maintain the independence of their own planning, priority setting and investment decisions. However, there is considerable potential for all jurisdictions to benefit from closer collaboration in the planning of transport infrastructure links. The Australian Government wants to ensure that this potential is fully realised.

## Conclusion

The framework of implementation measures outlined above is necessary for the effective delivery of AusLink and to secure the Government's objective of a high performance AusLink National Network.

# CHAPTER 6 COMPLEMENTARY POLICY ISSUES

## Introduction

The preceding chapters describe how AusLink will respond to the challenges facing the national transport system.

*to be fully effective AusLink must be supported by a range of complementary policies*

AusLink's new approach to investment in transport infrastructure will be a major contributor to achieving a high performance and socially responsible transport system. However, to be fully effective AusLink must be supported by a range of complementary policies and programmes.

AusLink is a major step forward and provides more focused investment in nationally important land transport infrastructure. However, the transport system as a whole must also be:

- safe and secure
- efficiently regulated
- environmentally sustainable
- technologically advanced
- responsive to the needs for passenger movement as well as freight logistics
- able to adjust to the emerging developments within its constituent transport modes.

This chapter discusses policy areas that are complementary to the Australian Government's investment in the AusLink National Network. These are areas where the Australian Government works in collaboration with States, Territories and other stakeholders.

## Transport safety

Transport accidents exact a large human and economic toll on the Australian community—estimated at approximately $15 billion a year[40]—in the road sector alone.

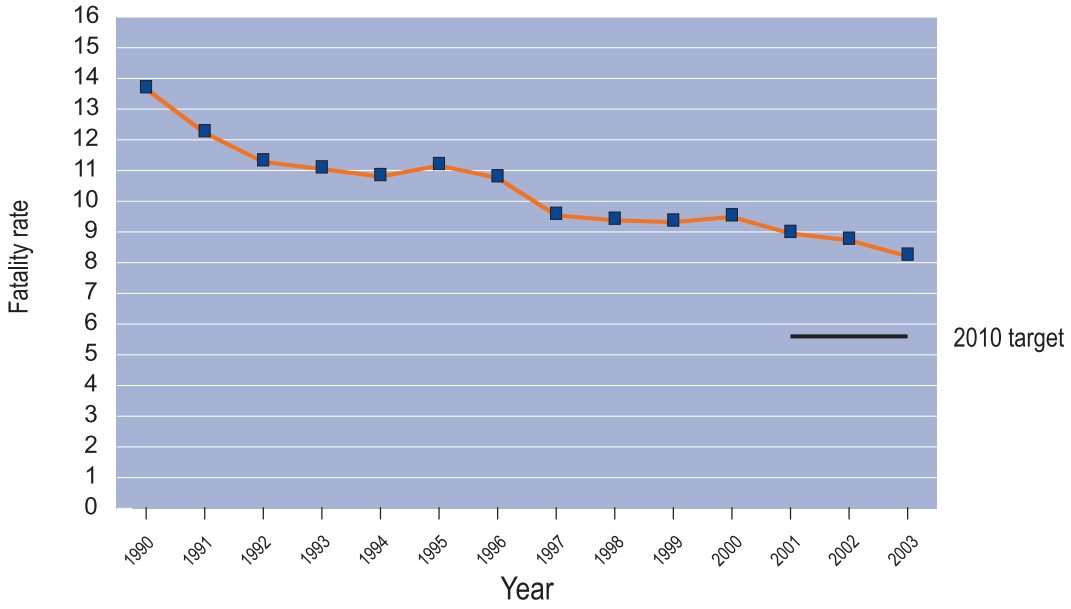
While dollar estimates cannot capture the full social effects of transport-related trauma, they underline the need to properly account for safety implications in all transport planning and funding decisions. A primary objective of future transport planning must be to reduce the level of trauma on Australia's road network. Safety is an important issue across all modes of transport. But the costs associated with road crashes far outweigh the combined costs of all other transport accidents.

[40]The latest road crash costs estimate (Bureau of Transport Economics 2000, *Road crash costs in Australia*, report 102, Canberra) uses 1996 data and is based on a 'human capital' methodology unlike some other countries which use a 'willingness to pay' approach which can lead to significantly higher estimates.

Australia's record in road safety is impressive. Between 1970 and 1999 there was a dramatic reduction in the road fatality rate—from 30.4 to 9.3 deaths per 100 000 of population. This was achieved despite a large increase in motor vehicle use. However, Figure 15 shows that in recent years the reduction has slowed and more needs to be done.

In November 2000, the Australian Transport Council endorsed the *National Road Safety Strategy 2001–2010*. The strategy aims to reduce the fatality rate by 40 per cent—to no more than 5.6 deaths per 100 000 by the year 2010. The national strategy and associated two-year action plans provide a framework for coordinating the road safety initiatives of the Australian, State, Territory and local governments, as well as other organisations capable of influencing road safety outcomes.

## *Figure 15 Road fatality rates in Australia 1990 to 2003*




Source: ATSB 2004, Fatal Road Crash Database Statistics

The Australian Government recognises that improved road and rail safety is vital to developing a high-performing transport network. This requires safety objectives to be pursued with as much vigour as efficiency and other objectives. The Government has made a commitment to several principles and initiatives to ensure this occurs.

In assessing proposals for funding under AusLink, the Australian Government will use criteria and evaluation methodologies that will ensure that:

- safety focused initiatives are given sufficient priority in investment decisions
- the safety implications—both benefits and costs—of all projects are fully accounted for in benefit-cost assessments
- low-cost projects with a high safety return are not overlooked simply because the scale of investment puts them below the normal threshold for detailed comparative assessment of investment options
- the economic estimation of all transport impacts is based on a common valuation method.

Under the National Road Safety Strategy, action to reduce the road toll has three broad thrusts:

- making roads safer
- improving the safety of vehicles
- improving road user behaviour.

Continuing to improve the safety of roads will make an important contribution to a reduction in road trauma. The scenario in the current National Road Safety Strategy, which runs to December 2010, shows that improving the safety of roads could account for almost half of the target reduction in the fatality rate.

The Australian Government will maintain its commitment to the National Road Safety Black Spot programme which has been shown to be highly cost-effective in addressing localised problem areas.

Safety benefits flowing from improvements in vehicle standards and design can be substantial, but they necessarily have a long lead time. The Australian Government acknowledges the importance of well-conducted research programmes that lead to direct improvements in vehicle design and underpin the development of improved vehicle standards. The Government will continue its efforts through targeted research that aims to improve protection for vehicle occupants while minimising the damage to other vehicles and road users in a crash.

*improving the safety of roads could account for almost half of the target reduction in the fatality rate*

The Australian Government will also continue to work with the States and Territories on a range of other important road safety initiatives, particularly through successive two-year action plans. Current priorities include:

- speed management
- alcohol
- heavy vehicles.

Because of the critical relationship between vehicle travel speeds and road trauma, even small changes in traffic speeds can have a substantial effect on crash outcomes. Speed reduction strategies in the foreseeable future will focus on integrated publicity and enforcement campaigns. These campaigns will aim to improve compliance with speed limits. In addition, governments will selectively lower limits in some areas and in adverse conditions. Longer-term solutions include measures to accelerate voluntary take-up of Intelligent Speed Adaptation Systems.

There is still considerable scope to reduce the number of accidents attributable to alcohol. Deterrence programmes can be strengthened through better targeting of particular locations and times, and a greater focus on rural areas. More attention can also be given to rehabilitation programmes and alcohol interlock options to change the behaviour of repeat offenders.

Much of the improvement of safety related to heavy vehicles—their own safety and their potential effect on other road users—can be implemented through appropriate regulation. Future regulatory initiatives relating to both road and rail are dealt with in more detail later in this chapter.

In both road and rail there is an opportunity to apply independent systemic investigation and analysis methodologies more widely to identify key causal factors behind accidents and other safety occurrences.

The institutional changes that have occurred in the rail sector in recent years, together with recent public debate, have underlined the need to address rail safety issues. The Australian Government will pursue development of an appropriate regulatory regime for rail operations across jurisdictions. This will be complemented by a single national rail safety investigator and a comprehensive national rail safety occurrence database.

The Government will also support proposals to develop a national policy on key safety issues such as fatigue, alcohol and drug testing and medical fitness for safety-critical rail workers.

The Australian Government will maintain the focus on safety in the infrastructure projects it funds and will work with the States and Territories on other initiatives to improve safety in both road and rail operations.

## Transport security

Recent world events have heightened awareness of security issues generally, and focused attention on the need to better secure Australia's transport network from the significant economic and social damage that could follow a terrorist attack. The challenge for transport security policy is to ensure a secure transport sector while not stifling the economic benefits an efficient transport sector gives to a free society.

The Australian Government has recently taken several decisive steps towards developing a comprehensive transport security regime.

In December 2003 the Australian Maritime Transport Security Act was passed by Parliament. Passage of this legislation paved the way for the International Ship and Port Security Code to be implemented in approximately 70 ports around Australia's coast that handle international shipping.

In March this year Parliament passed the Aviation Transport Security Act. Passage of this legislation underpins significant enhancement of Australia's aviation security regime. In December 2003 the Government announced a package of aviation security measures that are being implemented under the new legislation.

*undertake security risk assessments and mitigation plans*

As a consequence of these developments owners and operators of major infrastructure in these sectors are required to undertake appropriate security risk assessments and develop comprehensive mitigation plans. The result will be that infrastructure at critical modal interfaces—such as ports and airports—is now covered by comprehensive security regimes.

A recent high-level mission on transport security—comprising senior government transport and police officials—was asked to examine the practices of several countries. The objective was to

benchmark the provision of preventative security in the transport sector, particularly in relation to land transport. The mission found that Australia's transport security arrangements in the aviation and maritime sectors are well-regarded internationally. But there remains a need for concerted attention by governments at all levels to achieve a comparable position for land transport. The mission noted that land transport systems—particularly mass transit systems—need a consistent national approach to security based on risk assessment, security programs and business continuity programs.

*mass transit systems — need a consistent national approach to security*

Australian Government and State and Territory transport agencies have developed a National Transport Security Strategy. This strategy is designed to provide a blueprint for enhancing transport security in a consistent manner across all modes and sets out arrangements for governments and industry to work together to improve security. The strategy provides the framework for implementing preventative transport security measures and allocates responsibility between the Australian and State governments for addressing security threats and treating potential risks. In May 2004 the Australian Transport Council agreed that the national strategy will form the basis for an approach by the Australian Government and State and Territory governments to address transport security.

The strategy includes 10 key public transport security priorities. It provides that jurisdictions that have not already done so will work towards:

- conducting risk context workshops in their jurisdiction for key public transport operators
- establishing a whole of government transport security policy committee
- reviewing the adequacy of legislation dealing with transport security and implementing any changes where necessary
- strengthening the capacity of private transport operators to implement risk-based security planning
- undertaking security assessment and planning at the State level and for key transport system and assets
- reviewing and enhancing, if necessary, mechanisms for reporting and analysing incidents
- implementing internal communication strategies to improve processes and procedures for reporting incidents of suspicious activity
- developing and implementing a National Dangerous Goods Security programme
- establishing joint arrangements to respond to transport security intelligence
- increasing participation in counter-terrorism exercises by State Governments and private sector transport operators.

These measures will build on the existing aviation and maritime security arrangements and provide comprehensive coverage for the national transport network.

In response to the findings of the international mission, AusLink will provide an avenue to incorporate transport infrastructure security needs into the development of the National Network. It provides a chance to facilitate both public and private sector investment in the development of preventive security capability throughout the transport network. This capability could include:

- state-of-the-art systems to track and monitor the movement of trucks or trains
- the provision of facilities to screen freight and vehicles at critical points throughout the network
- the ability to monitor movement of dangerous goods and people.

It also provides an opportunity to build on intelligent transport system solutions to deliver integrated economic, social and security outcomes in the transport sector. This is discussed later in this chapter.

Under AusLink, infrastructure development will consider potential threats and incorporate appropriate preventive security measures. Infrastructure proposals will need to incorporate risk assessment and possible responses to perceived risks. These assessments and possible responses will need to be consistent treatments, compatible with the national counter-terrorism arrangements, and help enhance a strong transport security culture. Infrastructure investment will increase the capacity of transport linkages within Australia. This will help insulate Australia's transport system against shocks caused by the temporary or permanent loss of an individual piece of critical infrastructure.

The National Transport Security Strategy, developed and agreed by Australian, State and Territory Governments, will build on recent initiatives in maritime and aviation security. It will provide the basis of a comprehensive, nationally consistent approach to transport security in line with the national counter-terrorism arrangements.

## Regulation reform priorities

A system of regulation that is efficient, flexible, supports improvement and innovation, and yet provides consistency and certainty across State and Territory boundaries, is essential for Australia to meet its future freight task needs.

Most regulation of road and rail transport operations is undertaken by the States and Territories, which also ensure application and enforcement. In the past this has led to significant differences in law and practice resulting in major cost impositions on transport operations across State borders. This has limited the scope to achieve productivity, safety and environmental reform on a national basis. However, since 1991, the Australian, State and Territory governments have collaborated on improving the consistency of road-related regulation. Until recently this was done through the former National Road Transport Commission.

The Australian, State and Territory governments agreed to establish a National Transport Commission on 15 January 2004 to replace the National Road Transport Commission. The new commission's responsibilities encompass both road and rail regulation as well as intermodal operations. The commission has prepared a First National Transport Regulatory Reform Work Programme for road, rail and intermodal reform over the next three years.

## Road

The Australian Government advocates continued reform in road regulation and the initiatives currently being progressed through the National Transport Commission. These include introducing:

- performance-based standards as a basis for regulating the technical performance of vehicles rather than vehicle weight or dimensions; these have the potential to provide industry with significant opportunities for innovation and productivity gain while improving safety and environmental performance, and decreasing consumer and infrastructure costs
- compliance and enforcement reforms which include holding everyone liable who contributes to illegal behaviour, not just the driver, and penalties which better fit the offence
- a better driving hours and fatigue management regime which provides more flexibility in the way operators do business while at the same time ensuring better fatigue management
- vehicle tracking technology which in the future will be able to ensure compliance with regulations together with less intrusive inspection and enforcement regimes and more flexible operating conditions.

## Rail freight

The rail sector has changed significantly in the past decade. Previously, it was an industry dominated by publicly owned, vertically integrated State-based railway entities. Today it is comprised of entities that offer access to third party operators or are largely vertically separated. The new entities are often nationally focused and many are privately owned. This opening of rail to new operators has resulted in a keen commercial focus within the industry.

The open access regime is oversighted by the Australian Competition and Consumer Commission at the national level and the equivalent State bodies.

In the days of State-owned vertically integrated railways governments had direct control over safety supported by prescriptive legislation. The break-up of the government-owned monopolies means a different safety regulatory environment now exists that also needs to consider the emergence of national rail operators and track managers. Rail safety management has become co-regulatory; industry is primarily responsible for managing its operational risks and safety performance and regulators are responsible for the review of safety systems.

In 1996, the Australian Government, the six States and the Northern Territory signed an Intergovernmental Agreement on National Rail Safety. The agreement was directed towards achieving a nationally consistent approach to rail safety. It required the establishment of legislation that allows for the application of the Australian Rail Safety Standard as the basis for accreditation. By 1998 all States had introduced legislation or processes for consistent rail safety regulation and mutual recognition of rail accreditation.

In a co-regulatory framework, standards, guidelines, processes and procedures are needed to underpin rail operators' and track managers' safety management systems. To deliver a level of consistency on the defined interstate rail network, work began in 2000 on developing a code of practice for rail operations. The code was developed by governments and industry and was formally transferred to the rail industry in July 2003. The Australian Transport Council has asked the rail industry—through

the Code Management Company—to refine and expand on the code's content and pursue its wider adoption throughout the industry.

There is some way to go to achieve national consistency but its development is essential for rail to be competitive. The need for further rail regulatory reform stems mainly from:

- differing requirements and conditions for rail safety accreditation between jurisdictions
- governments retaining jurisdiction rather then ceding rail safety responsibility to a separate or central organisation because of concerns over public accountability, thereby contributing to differing approaches to rail safety regulation in the States and the Northern Territory
- interstate rail operators being faced with the need to comply with several differently based access regimes across the national rail network.

Progress in these areas is a priority task that may need to be accelerated if the rail system is to perform the task expected of it.

Through the Australian Transport Council, and the National Transport Commission, work has already begun to address several of these issues on a collaborative basis. The States and the Northern Territory have commenced working with industry to put in place a one-stop shop approach to rail safety accreditation. The National Transport Commission will review the existing jointly regulated framework and develop options for its improvement. These will include developing a single rail safety legislative framework for adoption by the States and the Northern Territory.

Other major reform activities which the Australian Government supports include:

- developing a national framework for communications and train control systems
- urgent incorporation of security procedures for dangerous goods into regulation and codes covering rail and road transportation.

The total package of reforms and regulatory structures outlined above is subject to agreement by governments and acceptance by track and train operators. It should be developed and implemented within the next two to three years. The package will provide a sound policy basis to ensure Australia's land transport regulation operates at world best practice into the future.

These reforms are aimed at achieving the degree of consistency in rail regulation that will allow rail to operate on an efficient and competitive basis. A key benefit will be the opportunity for rail companies and other private sector stakeholders to capitalise on the reforms to develop more responsive freight services and expand the market share for rail. The Australian Government considers an efficient rail sector vital to meeting Australia's freight challenges.

*consistency in rail regulation to allow rail to operate on an efficient and competitive basis*

The Australian Government advocates roles for road and rail that contribute fully to meeting the freight challenge facing Australia over the next 20 years. The Australian Government acknowledges that rail, in particular, needs to increase its efficiency and become more effective. Against this background the Australian Government continues to support:

- regulatory reform for road and rail operations to remove impediments to efficiency and safety on a consistent basis
- the role of the National Transport Commission to drive road and rail regulatory reform
- the role of the Australian Competition and Consumer Commission to maintain an open and effective single access regime for rail on the interstate track.

## Achieving environmental outcomes and energy efficiency

At a national level, the transport sector is a significant contributor to CO2 and other greenhouse gas emissions. However, at 14 per cent it is less significant than the stationary energy and agricultural sectors which contribute 47 per cent and 19 per cent respectively.[41] Transport is a significant consumer of energy, particularly fossil fuel, resources. It can also have significant effects on air and water quality more generally. Climate change related to greenhouse gases and depletion of fossil fuel supplies before alternative energy sources are developed are two outcomes that do not sit well with sustainability concepts. While road transport is a cause of concern in these respects, aviation and other transport modes are also important contributors.

Recent and prospective changes to vehicle and fuel standards—being introduced between 2002 and 2006—will significantly reduce noxious emissions from cars and trucks, even with the projected growth in traffic. The Australian Government will continue to closely track urban transport emissions, and assess to what extent it should build on current fuel and vehicle standards to address further problems.

Any action to reduce greenhouse emissions from transport needs to be assessed in the context of wider action across the economy. The Australian Government is currently developing its Forward Strategy on Climate Change to address this wider action. In addition, the Government committed, in August 2002, to the Australian Transport Council's National Strategy and Integrated National Action Plan for Lowering Emissions from Urban Traffic. This represents a range of priority actions which Australian, State and Territory Government Ministers agreed would be needed to reduce emissions from urban traffic. The action plan will be kept under review by the Council.

The Australian Government will continue to pursue improved vehicle and fuel standards, and better infrastructure investments to reduce the environmental effects of the transport task.

[41] Australian Greenhouse Office, *National Greenhouse Gas Inventory – 2000: Energy-Transport*, Fact Sheet 2, August 2002.

## Technology

Technology has great potential to contribute to the objectives of AusLink and the transport system as a whole.

Historically, transport infrastructure has been thought of in civil engineering terms— meaning roads, bridges, railways and ports. The solution to inefficiency or saturated capacity has been to build more of this infrastructure. Technological advances provide an opportunity to address constraints through innovative application of modern technologies to the transport system. Better use of existing infrastructure is essential as demand increases and access to land transport corridors becomes more difficult. Technologies can contribute to greater efficiency and produce economic benefits. Adopting new technologies will ensure that Australia maintains synergies with trading partners through compatible and effective logistics and so remains a competitive trading nation. It can also help achieve positive safety, security and environmental outcomes.

*Technologies can help achieve positive safety, security and environmental outcomes*

Information and communication technologies, including Intelligent Transport Systems, have the potential to enhance transport's contribution to economic growth and development by:

- reducing transport's effect on the environment
- improving transport safety and security
- increasing transport efficiency and the competitiveness of industries that depend on transport
- improving the efficiency with which transport infrastructure is used.

Recent innovations in transport technology are already delivering significant economic, social and environmental benefits and it is likely that future innovations will bring even greater benefits.

Governments need to take a lead role in helping with the application of new technologies to maximise interoperability and interconnectivity. This will require cross-jurisdictional, cross-modal and cross-industry leadership and cooperation. It requires a national approach.

The Australian Government will take a leadership role in encouraging the development and take-up of new technologies where they contribute to:

- improving safety and security
- improving economy-wide performance through improved freight logistics and reduced congestion
- improving cross-modal connectivity and efficiency
- environmentally sustainable and widely accessible transport systems
- ensuring interoperability of key related technologies
- supporting small and medium enterprises.

In particular, the Australian Government currently contributes by:

- developing policy to support the progressive adoption of transport technologies that contribute significant community benefits
- facilitating a national approach by governments and industry on key policy issues
- contributing to the development and promotion of national technical architecture and national technical and operational standards and protocols
- collaborating with international trading partners
- collaborating with governments on the development and review of regulations—including regulatory barriers—that apply to specific technologies
- funding technology solutions to improve the performance of the AusLink National Network
- using transport technologies to facilitate improved information to enable more effective travel and infrastructure planning
- encouraging research and development of appropriate technologies
- increasing awareness of technology solutions with key stakeholders.

Concerning land transport infrastructure specifically, AusLink will provide the opportunity to consider technology solutions as part of, or as an alternative to, investment in new nationally significant transport infrastructure. There will also be active consideration of technology solutions as part of all AusLink investments and as part of the assessment of projects eligible for Australian Government funding. These were discussed in Chapters Three and Five respectively.

The Australian Government will encourage the development and take-up of new technologies which can potentially enhance transport efficiency, safety, security and sustainability through a mix of funding, facilitation and promotional measures. It will take a national approach to the application of existing and emerging technologies.

## Moving people

Providing people with safe, convenient, efficient and affordable ways to travel is a central objective of the transport system. Effective passenger transport provides people with access to employment, goods and services, and opportunities for social and cultural interaction. It is a major enabler of the service economy—for example, for tourism. Passenger transport helps connect individuals, communities and the nation. Passengers and freight share most of the National Network, and contribute to total traffic volumes. Their combined effect has important implications for the network's efficiency and safety.

AusLink will deliver the biggest improvements for motorists and other land transport passengers from an Australian Government initiative for many years. Key benefits include:

- a $3.6 billion increase in land transport funding on the Government's previous programmes
- the extension of the National Network to include vital national roads, such as the Pacific and Calder Highways
- higher investment in rail so that it is able to carry more of the burden of traffic growth, hence containing congestion and improving safety
- a five-year forward plan of projects, identifying for the community and transport users where

land transport improvements will be made

- improved network and corridor planning, backed by improved data collection, to help identify the critical infrastructure priorities for the following five-year National Plan
- introducing an improved project assessment methodology to help select value for money projects.

Beyond AusLink there is a range of complementary policy areas that will help develop a sustainable national approach to moving people. The Australian Government is already involved in several important initiatives to enhance the quality of land-based passenger transport and contain its environmental and social effects. These include:

- introducing measures to reduce vehicle emissions and noise—for example, through Australian Design Rules
- supporting Travel Smart—a project aimed at changing national travel behaviour to reduce car dependency
- working with ITS Australia to develop a National Traveller Information Service— including coordination of regulatory aspects involving the Australian Broadcasting Authority and the Australian Communications Authority
- developing and promoting a 'Green Vehicle Guide' to provide internet-based consumer information on the air pollution and greenhouse performance of individual vehicle models
- ongoing research by the Bureau of Transport and Regional Economics into issues such as greenhouse emissions and regional public transport
- supporting active transport through the Australian Bicycle Council.

The Australian Government's position is that funding urban public transport systems is fundamentally a State responsibility as these systems primarily serve and deliver localised passenger movements and localised benefits. However, this should not be an impediment to urban public transport being considered when the AusLink National Network and its connections to the broader urban network are planned.

There would be benefits from improving cooperation on passenger transport policies undertaken by governments at all levels, under the auspices of the Australian Transport Council.

## Freight logistics

Freight logistics is the sourcing, purchasing, packaging, transport, storage and delivery of freight around Australia and the world. Efficient and effective freight logistics is essential to the competitiveness of the national economy and the well-being of all Australians. It is a key means of achieving AusLink's economic and efficiency objectives.

*Logistics is a vital value-added service to the Australian business community*

Logistics is a vital value-added service to the Australian business community and an essential enabler of domestic and global trade. Efficient logistics services extend market reach by giving manufacturers access to a wider range of raw materials and supplies from different sources. They also provide consumers with access to a wider range of domestic and international goods and services, while reducing waste in production, consumption and capital expenditure.

The trends over coming decades described in Chapter One—such as the doubling of the freight task and increasing urban congestion—will exacerbate competitive pressures faced by logistics service providers.

The specific challenges facing Australia's freight logistics were identified in the *Australian Logistics Industry Strategy*,[42] a vision and blueprint for action to improve Australia's logistics performance. It was endorsed by industry and governments in 2002. The strategy is being cooperatively implemented by industry and governments through the Australian Logistics Council in a phased approach over three years. The initial implementation focuses on the following six priority areas which the Australian Government is committed to helping the logistics industry address.

## Infrastructure

AusLink is the Australian Government's response to helping land transport infrastructure needs. It provides the framework to meet the anticipated freight task.

## Leadership

To complement AusLink the Government will collaborate with States and Territories to improve the collection and analysis of strategic information and data. This allows governments and the industry to better understand the relationship between the demand for freight and Australia's future infrastructure needs. They can then plan accordingly.

## People

The Government strongly supports improving the industry's skills levels and knowledge base, ensuring that firms can recruit and retain well-trained and motivated personnel by offering them rewarding careers. Under the National Industry Skills Initiative funded by the Department of Education, Science and Training, the Australian Trucking Association analysed the skills needs of the road freight transport industry. The analysis confirmed many of the issues raised in the industry strategy such as an ageing workforce and skills shortages across the sector. The Australian Trucking Association, supported by the department and the Australian National Training Authority, is now implementing the report's action plan.

The Government is also providing seed funding of $4 million over two years from 2004–05 for the establishment of a Transport and Logistics Centre. The centre will develop a national network and programs directed at encouraging young people to choose careers in the transport and logistics sector. The centre will also seek to help those already working in the industry to update their skills thereby improving their career options and retaining valuable industry knowledge and capability. The funding is matched by the New South Wales Government as part of the NSW Rail Lease Agreement. The centre will work closely with the Australian Logistics Council and other relevant stakeholders to address industry needs.

[42] *Freight logistics in Australia: an agenda for action*, Department of Transport and Regional Services, Canberra March 2002.

### Innovation and sustainability

*track and trace systems improve the efficiency of freight logistics*

Australia is leading an Asia Pacific Economic Cooperation project that will help industry choose track and trace systems that will improve the efficiency of freight logistics. The project will complement the Australian Logistics Council's activities promoting the industry's use of the global European Article Numbering–Uniform Code Council standards. These are better known as barcodes and create seamless product information flows across the whole logistics chain.

### Security

The Government is continuing to support the work of the Australian Logistics Council directed at improving Australia's supply chain security. This work is consistent with emerging international trends, and particularly the movement of high consequence dangerous goods in Australia.

## Maritime and aviation

Australian sea ports and airports are vital gateways for the movement of freight and passengers. As such they are a critical component of Australia's transport infrastructure.

Australian sea ports are mostly operated by a combination of State and Territory-owned corporations and private sector stevedores. Major airports have been leased to private sector operators who are responsible for financing their future development. However, the Government has a strong interest in the performance of major sea ports and airports given their roles as hubs for economic activity. Adequate land transport links and terminal or storage space are essential for the efficient and safe movement of freight and people—both now and into the longer term.

Increasing port area congestion needs to be addressed by developing or enhancing rail services to intermodal terminals located away from the port precincts. Major ports are generally pursuing strategies for increasing the share of container traffic carried by rail.

Forecast growth in aviation activity will similarly pose major challenges for planners and for the development of land transport linkages. There will be significant additional pressures on land transport access to increasingly congested airport precincts.

The *Airports Act 1996* requires airports to produce a master plan with a 20-year planning horizon and to revisit the master plan every five years. Master plans are focused primarily on development of the airport site itself. But they must also have regard to surrounding land or the associated needs of non-airport users.

Given AusLink's focus on the efficiency of airport and sea port links, the master plans for leased federal airports and plans for other facilities adjoining the National Network will be considered in future corridor planning under AusLink.

The Australian Government will closely monitor prospective trends and developments in air and sea transport. It aims to ensure that nationally significant infrastructure is planned and developed so that the efficiency of intermodal linkages continues to be enhanced.

## Conclusion

AusLink's effectiveness will be reinforced by addressing complementary issues critical to improved infrastructure planning, investment and performance.

# ANNEX AUSLINK GREEN PAPER SUBMISSIONS

### State and Territory Governments

Australian Capital Territory Government
New South Wales Government
Northern Territory Government
Queensland Government
South Australian Government
Tasmanian Government
Victorian Government
Government of Western Australia

### Local government associations

Australian Local Government Association
Local Government New South Wales
Local Government Association of the Northern Territory
Local Government of Queensland
Local Government Association of South Australia
Local Government Association of Tasmania
Municipal Association of Victoria
Victorian Local Government Association
Western Australia Local Government Association

### Local government authorities

#### New South Wales and Australian Capital Territory

City of Albury
Armidale Dumaresq Council
Bathurst City Council
Bega Valley Shire Council
Bellingen Shire Council
Bingara Shire Council
Blacktown City Council
Blayney Shire Council
Bombala Council
Cabonne Council
The Council of Camden
Campbelltown City Council
Central West Regional Organisation of Councils
Cessnock City Council
Coffs Harbour City Council
Cooma–Monaro Shire Council
Cootamundra Shire Council
Dubbo City Council
Dungog Shire Council
Eurobodalla Shire Council
Gloucester Shire Council
Gosford Shire Council
Grafton City Chamber of Commerce and Industry
The Council of the City of Grafton
Greater Taree City Council
Guyra Shire Council
Harden Shire Council
Hornsby Shire Council
Hume Highway Action Group of Councils
Hume Shire Council
Hunter Councils
Illawarra Region of Councils
Inverell Shire Council
Jerilderie Shire Council
Kempsey Shire Council
City of Lake Macquarie
Leichhardt Council
Lismore City Council
Maitland City Council
Merriwa Shire Council
Moree Plains Shire Council
Mosman Municipal Council

**New South Wales and Australian Capital Territory (continued)**

Mudgee Shire Council
Murray Regional Development Board
Murray Regional Organisation of Councils
Nambucca Shire Council
Narrandera Shire Council
The City of Newcastle
Northern Rivers Regional Organisation of Councils
Orange City Council
Parkes Shire Council
Parry Shire Council
Penrith City Council
Riverina Eastern Regional Organisation of Councils
Riverina Regional Organisation of Councils
Rockdale City Council
Rylestone Shire Council
Scone Shire Council
Shoalhaven City Council
Singleton Council
Tallaganda Shire Council
Tamworth City Council
Temora Shire Council
Tenterfield Shire Council
Tumbarumba Shire Council
Uralla Shire Council
Urana Shire Council
Shire of Wakool
Walcha Council
Wellington Council
Council of the Shire of Wentworth
Western Sydney Alliance
Wingecarribee Shire Council
Yallaroi Shire Council
Yarrowlumla Shire Council
Yass Shire Council

**Victoria**

Ararat Rural City Council
City of Ballarat
Bass Coast Shire Council
Baw-Baw Shire Council
Benalla Rural City
City of Boroondara
Brimbank City Council
Shire of Campaspe
Shire of Cardinia
City of Casey
Central Highlands Group
Colac Otway Shire
Corangamite Shire
City of Darebin
Frankston City Council
Glenelg Shire
Grampians Pyrenees Regional Development Board
City of Greater Bendigo
City of Greater Dandenong
City of Greater Geelong
Greater Shepparton
Hepburn Shire Council
Hindmarsh Shire Council
Horsham Rural City Council
Indigo Shire Council
Manningham City Council
Metropolitan City Council
Mildura Rural City Council
Mitchell Shire Council
Moira Shire Council
Moorabool Shire Council
Moreland City Council
The Mornington Peninsula Shire
Moyne Shire Council
Murrindindi Shire Council
Nillumbik Shire Council
North East Victorian Group of Councils
North West Municipalities Association
The Northern Grampians Shire
City of Port Phillip
Pyrenees Shire
Shire of Yarra Ranges
South West Municipalities Group
South Grampians Shire Council
City of Stonnington
Swan Hill Rural City Council
Warrnambool City Council
Wellington Shire Council
West Wimmera Shire Council
City of Whittlesea
City of Wodonga
Yarra City Council

### Queensland

Banana Shire Council
Boonah Shire Council
Brisbane City Council
Bundaberg City Council
Burdekin Shire Council
Caboolture Shire Council
Central Goldfields Shire Council
Central Western Queensland Remote Area Planning and Development Board
Chinchilla Shire Council
Town of Dalby
Diamantina Shire Council
The Eastern Downs Regional Organisation of Councils
Elliston Shire Council
Emerald Shire Council
Far North Queensland Area Consultative Committee
Flinders Shire Council
Gayndah Shire Council
Gold Coast City Council
Gratton Shire Council
Hervey Bay City Council
Isis Shire Council
Laidley Shire Council
Livingston Shire Council
Maranoa and District Regional Organisation of Councils
Maryborough City Council
Mirani Shire Council
Murgon Shire Council
Nanango Shire Council
Pine Rivers Shire Council
Roma Town Council
Sarina Shire Council
South East Queensland Regional Organisation of Councils
South Burnett Local Government Association
Southern Inland Queensland Area Consultative Committee
Sunshine Coast Regional Organisation of Councils
Sunshine Coast Area Consultative Committee
The City of Thuringowa
Toowoomba City Council
Warwick Shire Council
Wide Bay Burnett Area Consultative Committee
Western Downs Regional Organisation of Councils
Winton Shire Council
Wondai Shire Council
Woocoo Shire Council

### Western Australia

City of Albany
Shire of Augusta–Margaret River
Shire of Bridgetown–Greenbushes
Shire of Broomehill
City of Bunbury
The Town of Cambridge
Shire of Capel
Shire of Chittering
Shire of Coolgardie
Shire of Cranbrook
Shire of Derby–West Kimberley
Shire of Dumbleyung
City of Geraldton
Shire of Gnowangerup
Shire of Irwin
Shire of Jerramungup
City of Kalgoorlie–Boulder
Shire of Katanning
Shire of Kent
Shire of Koorda
Shire of Laverton
City of Mandurah
Shire of Manjimup
Shire of Moora
Murchinson Western Australia Shires
Shire of Murray
City of Perth
Shire of Plantagenent
South West Group
City of Stirling
City of Swan
Shire of Tambellup
Shire of Wiluna
Shire of Wyndham–East Kimberley

### South Australia

The Barossa Council
The Berri Barmera Council
District Council of Ceduna
District Council of Cleve
Coorong District Council
Federation of North Eastern Councils
Regional Council of Goyder
District Council of Grant
District Council of Karoonda East Murray
Kingston District Council
Limestone Coast
District Council of Lower Eyre Peninsula
District Council of Loxton Waikerie
Mid Murray Council
City of Mount Gambier
District Council of Mount Remarkable
Naracoorte Lucindale Council
Northern Areas Council
Northern Regional Economic Development Transport Infrastructure Strategy
City of Onkaparinga
Renmark Paringa Council
District Council of Robe
City of Salisbury
South East Local Government Association Inc
Southern & Hills Local Government Association
District Council of Streaky Bay
Tatiara District Council
Wakefield Regional Council
Wattle Range Council
The City of Whyalla

### Tasmania

Flinders Council
Glamorgan Spring Bay
Launceston City Council
Northern Midlands Council
Waratah–Wynyard Council
West Coast Council

### Northern Territory

Darwin City Council
Litchfield Shire Council
The Tennant Creek Town Council

### Industry and transport organisations

Adelaide Airport
Air Freight Export Council of New South Wales Inc
Albany Port
Allens Arthur Robinson
Alstom Australia
Arup
Association of Australian Ports and Marine Authorities
The Association of Consulting Engineers
Austrak
Australian Airports Association
Australian Automobile Association
Australian Council for Infrastructure Development
Australian Electric Traction Association
Australian Rail Track Corporation Ltd
Australian Railway Association Inc
Australian Road Federation
Australian Stabilisation Industry Association Limited
Australian Trucking Association
Australian Wheat Board
BHP Steel
Blue Mountains Commuter and Transport Users
Brisbane Airport
The Brown Hurley Group Limited
Business Industry Confederation Inc
Cargill Beef Australia
Central Murray Area Consultative Committee
Central Victoria Area Consultative Committee
Central West Area Consultative Committee
Central Western Regional Development Board Inc
Chamber of Commerce and Industry Western Australia
Champions of the Bush
Chartered Institute of Logistics and Transport
Civil Contractors Federation
Climate Action Network Australia

**Industry and transport organisations (continued)**

Commerce Queensland
Concord Consulting Enterprises
Cooperative Bulk Handling Limited
Cradle Coast Authority
Evans and Peck
Fletcher International Western Australia
Flinders Port South Australia
Forest Products Commission
Forestry Tasmania
Gadens Lawyers
Geraldton Port Authority
Global Foundation
Gold Coast Airport
Goldfields Esperance Development Commission
Grains Logistics Committee
Great Southern Area Consultative Committee
Green Triangle Regional Plantation Committee
Gulf Savannah Development
Healthy Cities Illawarra
Hunter Business Chamber
Hunter Region Intergrated Transport Planning
Institution of Engineers Australia
Institute of Marine Engineering, Science and Technology
Institute of Public Works Engineering Australia
International Association of Public Transport
John Hearsch Consulting Pty Ltd
Kalgoorlie Boulder Chamber of Commerce
Maunsell Australia Pty Ltd
Melbourne Port Corporation
Metro Sydney
Mitez Inc
National Farmers' Federation
National Roads and Motorists' Association
New South Wales Road Transport Association Inc
North Coast Consultations
Northern Territory Business Council
Northern Territory Cattlemen's Association
Outback Highway Development Council
Pacific National
Quantum
Queensland Rail
Railway Technical Society of Australasia
Riverland Development Corporation Inc
Rockhampton Regional Development
Royal Automobile Club of Queensland
Royal Automobile Club of Victoria
Sea Freight Council of Queensland
Shipping Australia
Smithson Planning
South Australian Freight Council
South Australian Road Transport Association
South East Australian Transport Strategy Inc
South East NSW Area Consultative Committee
South West Development Commission
South West Group
Southern Flinders Regional Tourism Authority
SP Operations
Specialised Container Transport
Sunraysia Area Consultative Committee
Sustainable Transport Coalition WA
Tasmanian Transport Council
TassieLink Regional Coach Service
Tourism Task Force
Townsville Enterprise Ltd
Transit Planners
Transport Forum WA
Wakefield Transport
WMC Fertilizers Pty Ltd

### Environment organisations

Australian Conservation Foundation
Australian Greenhouse Office
Central Coast Community Environment Network Inc
Conservation Council South East Region and Canberra
Conservation Council West Australia Inc
Eco-Transit Sydney
Environment Australia
Environment Victoria
Friends of the Earth
The Greens
The Greens New South Wales
Mr Greg Killeen
National Association of Forest Industries
Nature Conservation of New South Wales Inc
North Coast Environment Council
Queensland Conservation Council
STEP Inc
Sustainable Transport Coalition Western Australia
Teneree Technologies
Total Environment Centre Inc

### Tertiary education and research

ARRB Transport Research
Charles Sturt University
CSIRO Sustainable Ecosystems
Ms Sophia Everett
Institute for Sustainable Futures
Rail CRC
Mr Ross Robinson
Mr Russell G Thompson
Warren Centre
Windana Research Pty Ltd

### Cycling organisations

Australian Bicycles Council
Australian Cycling Federation
Bicycle Federation of Australia Inc
Bicycle Industries Australia Ltd
Bicycle New South Wales
Bicycle Queensland Inc
Bicycle South Australia
Bicycle Tasmania
Bicycle Victoria
BIKEast
Bike North Bicycle Users Group
BikeSydney
Ms Julia Blunden
CycleSport Victoria
Cycling Geelong Inc
Cycling Promotion Alliance
Cycling Queensland
Leichhardt Bicycle Users Group
Ms Laurinda Madge
Melbourne Bicycle Touring Club
Pedal Power ACT Inc
PedBikeTrans
Dr Chris Rissel
Mr Darrell Stone
VicFit

**Other**

Mr Ray Augustin
Australian Capital Region Development Council
Australian Council of Social Service
Australian Road Federation
Mr Kendall Banfield
Mr Peter Bass
Mr Neale Battersby
Mr Barry Bishop MLC
Ms Lisa Blainey
Mr Michael Boling
Mr John Bowdler
Mr Peter Brohier
Mr Colin Butcher
Combined Pensioners and Superannuants Association of New South Wales Inc
Country Women's Association of New South Wales
Mr Bill Craig
Dudley Progress Association Inc
Mr R J Fitch
Mr Peter Flanagan
Friends of the Northern Railway Inc
Mr Rex Gaunton
Ms Susie Gemmell
George Bourne & Associates
Gippsland Area Consultative Committee
Mr Anthony Hardwick
Mr Len Harper
Heart Foundation
Mr Michael Heath-Caldwell
Mr Peter Hidas
Hoskinstown Area Roads Committee
Mr Paul Johnson
Mr Nadim Joukhadar
Mr Chris Kloss
Mr VL Kopfsovitz
Mr Peter S Lewis
Ms Deborah Lilly
Mr Nino MacDonald
Mr Ian Macfarlane
Mr James D McCredie
Mr DJ McGregor
Mr Allan Miles
Mr Geoffrey W Mitchelmore
Ms Clover Moore
Mr George Nikandros
Older Womens Network
Mr Martin Olmos
Mr Craig Parsonage
Mr Bill Payne
Pedestrian Council of Australia
People with Disabilities New South Wales Inc
Progressive Rail Association
Public Transport Users Association
Rail Tram and Bus Union
Kerry Sanderson
Ms Christine Sharp
Mr Christopher J Skinner
South West Development Commission
Transport Workers Union
Tyagarah Progress Association
Victoria Grants Commission
Mr Barry Wakelin MP
Mr Allan Ward
Mr Stephen Welstead
Western Highway Action Committee
Mr David White
Mr Brendan Whyte
Mr Vaughan Williamson
Mr Tony Windsor MP
Mr David Wyers

# GLOSSARY

| | |
|---|---|
| **Arterial road** | Major road that is the responsibility of the State or Territory Government to construct and maintain. |
| **Benefit-cost analysis** | An analysis of the benefits and costs to society of some action. It aims to value benefits and costs in monetary terms and provide a summary indication of the net benefit. |
| **Benefit-cost ratio** | A measure used to express the net economic benefit of a proposed project at the completion of a benefit-cost analysis. Commonly used to aid comparative ranking of competing projects. |
| **National Black Spot programme** | An Australian Government funding programme that targets sites or sections of the road network that experience a high incidence of vehicle crashes and fatalities. |
| **Bulk Freight** | Loose freight, such as coal, sand, and grain handled in its natural state, and not packaged, or boxed in individual units or containers. |
| **Connectivity** | Making and maintaining a connection between two or more points in the transport system to benefit passengers and/or freight. The concept of connectivity includes the quality of the connection—for example its safety and efficiency. |
| **Corridor** | An area served by the transport links between two capital cities or major centres of economic activity. The transport links serving a corridor can be roads, rail lines, shipping and air links or some combination of these. |
| **Corridor strategy** | A cooperative long-term plan which identifies transport needs within a corridor and the priorities, including potential projects to meet those needs. |
| **Cross-modal (also intermodal)** | Integrating or relating to different modes of transport. |
| **Defined Interstate Rail Network** | The standard gauge interstate main rail line linking capital cities and the regional centres of Alice Springs, Darwin, Whyalla, Port Kembla and Newcastle. |
| **Dry bulk commodities** | Commodities transported in dry form, for example mineral ores, coal and grain. |
| **Financial Assistance Grants** | Untied grants paid by the Australian Government to another level of government—for example to local government under the Local Government (Financial Assistance) Act 1995. |
| **Freight logistics industry** | Industry involved in the movement, storage and handling of freight from start point to end point. |
| **Freight task** | The amount of freight transport activity, as measured in terms of a relevant unit—for example, tonnes or tonne-kilometres. |
| **Intelligent Transport Systems** | The integrated application of modern computer and communications technologies to transport systems to improve transport safety, use of infrastructure, transport operations and the environment. |
| **Intermodal** | See cross-modal |

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|---|---|
| **Intermodal terminal** | A point at which products or commodities move between transport modes—for example rail to road. |
| **Interoperability** | Ability of a technical development or system to operate compatibly with other systems employed in the same or related area of economic activity. |
| **Just in time** | A logistics management system allowing for production inputs and outputs to be ordered and transported as required, saving on both inventory and storage costs. |
| **Light commercial vehicle** | Vehicles constructed primarily for the carriage of goods and which are less than or equal to 3.5 tonnes gross vehicle mass. Included are utilities, panel vans, cab chassis and forward control load carrying vehicles. |
| **Liquid bulk commodities** | Commodities transported in liquid form, for example crude oil or petroleum products. |
| **Local road** | A road that is primarily the responsibility of local government to construct and maintain. State Governments may also assist in constructing and maintaining local roads, especially in unincorporated areas. |
| **Logistics** | The activity of facilitating the movement and handling of goods and materials through various processes, including transport, storage, packaging, procurement, inventory management and disposal. |
| **National Highway System** | An 18 500 kilometre network of major roads linking State and Territory capitals, as well as highways between Brisbane and Cairns and Hobart and Burnie. |
| **Non-bulk freight** | Containerised or packaged freight cargo, generally transported on pallets. |
| **Passenger-kilometres** | The number of passengers moved multiplied by the distance travelled in kilometres—for example 25 passengers moved a distance of 100 kilometres is 2500 passenger-kilometres. |
| **Passenger task** | The amount of passenger transport activity, as measured in terms of a relevant unit— for example, passengers or passenger-kilometres. |
| **Roads of National Importance** | The Roads of National Importance programme provides Australian Government funding for roads that generate national economic benefits. Generally these are roads that improve access to major centres of economic activity, provide a link to the National Highway System or major transport facilities and are an important route for passenger and freight traffic within major urban and provincial centres. |
| **Roads to Recovery programme** | Australian Government funding programme to assist local councils to fund repairs and upgrading of local roads. |
| **Road train** | A combination, except a B-double, consisting of a motor vehicle towing at least two trailers (counting as a single trailer a converter dolly supporting a semi trailer). |
| **Specific Purpose Payments** | Payments from the Australian Government to States and Territories conditional on their use for a pre-defined purpose. |
| **Transport task** | The amount of transport activity, as measured in terms of a relevant unit—for example, tonnes or tonne-kilometres for freight transport or passenger-kilometres for passenger transport. |

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