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Transport and sustainable development: considerations for Australia and approaches in the USA and the UK

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Abstract:

Transport in the context of sustainable development is not solely focused on economic or environmental outcomes, but aims to simultaneously promote the goals of economic development, environmental protection, safety, and access and equity. A brief review is made of the Commonwealth Ecologically Sustainable Development (ESD) Working Group on Transport and its recommendations.

The paper then presents the main themes of national approaches to transport and sustainable development in the United Kingdom and the USA, with a view to considering their applicability in the Australian context. These themes have emerged from data analysis as well as through consultations conducted in early 1998 by the Commonwealth Department of Transport and Regional Development with a range of Government and non-government bodies in the UK and United States.

Suggestions on approaches and on priority actions suitable for the Australian context are made. The need for national leadership with bipartisan support and a collaborative federal approach; the need for public participation and strong stakeholder involvement; the formulation of an appropriate public education program; and funding mechanisms to ensure change. Specific actions include: different methods to measure "progress", integration of transport with planning and environmental regulation; more reliable data and models; inclusion of freight and passengers as well as non-motorised transport; and a package of policy instruments that form the basis of long-term solutions for transport.

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Introduction

The concept of "sustainable development" describes a new framework for development aimed at achieving economic and social progress whilst maintaining the long-term integrity of ecological systems. Different countries have developed their own definitions and goals for sustainable development. In Australia, the government response has been to develop a *National Strategy for Ecologically Sustainable Development* (Commonwealth of Australia 1992). Whilst definitions are clearly open to quite wide interpretations it is fair to say that sustainability provides the new framework for decision-making (Harding 1998 p. 17).

Six fundamental principles of ecologically sustainable development were examined by the Ecologically Sustainable Development (ESD) Working Groups including the Transport Working Group: the improvement of material and non-material well-being; advancement of inter-generational equity; advancement of intra-generational equity; maintenance of the ecological system and the conservation of bio-diversity; accounting for global ramifications, including international spillovers, international trade and international co-operation; and caution in dealing with risk, uncertainty and irreversibility (Commonwealth of Australia, 1991, pp xxiii-xxiv). ESD issues and transport were examined in this report and in a report by the Commonwealth Department of the Arts, Sport, the Environment, Tourism and Territories (1991, pp 2 83, 137-138). Many of the principles underpin the approaches towards strateg transport; planning in Australian cities (for example, NSW Department of Transpo 1993), institutional reform of state road agencies (Cooper 1992) and guidelines f preparation of environmental impact statements for roads and related facilities (f example, NSW Department of Urban Affairs and Planning 1996).

Where are the likely solutions – the plans, polices and programs – to emerge fr decision-making frameworks incorporating "sustainable" principles? One way identifying these is to examine the historical influences, especially the role institutions, on the way that practice has changed. This was attempted by Black (19 with particular reference to higher density housing and transport in Australian citi Another way is to examine trends and developments in other countries. This is approach taken in this paper which draws heavily on the recent work by Harris (19 We agree that global influences are important when dealing with transport development and that it is important to consider approaches being adopted elsewh In order to "get transport right" it is necessary to keep abreast of overseas initiatives.

The structure of the paper is as follows. Approaches towards sustainable trans being adopted in the USA and in the UK are examined in turn. From this descrip common elements are distilled which could be incorporated and developed within Australian policy cycle.

Whilst there are a host of activities that have been taken to address sustainable tran at a local or regional level, it has become apparent that national approaches are required to ensure geographic and sectoral integration and efficiency of econ environmental and social resources. In both the USA and the United Kingdom nat

approaches have been adopted which provide an overarching framework of principles and support to sustainable transport activities.

Transport and sustainable development policies and experience in the United Kingdom and the USA summarised in this paper are based on primary data collection. Through data collection and analysis, as well as consultations held in early 1998 with government officials, transport industry bodies, environment / community representatives and academics in the two countries, an extensive body of literature and perspectives have been accumulated.

This paper considers the national approaches that have been taken to transport and sustainable development in both the UK and USA, with a view to drawing together common themes and examining the potential application of the approaches to the Australian situation.

US approach to transport and sustainable development

In the United States, this national approach to sustainable transport was spurred on by public dissatisfaction with the unintended results of conventional approaches to transport infrastructure planning and delivery. Between the 1950s and 1990s, American transport policy makers and planners had aimed to build a world class highway system. Federal transport funds were therefore directed toward interstate highways and, increasingly, massive highway projects within urban areas.

While this approach allowed unprecedented levels of personal mobility in cities and regions, it was accompanied by increasingly disruptive side effects (Surface Transportation Policy Project 1997 a, b, pp4-5) such as:

- the destruction of local housing stocks;
- exacerbation of urban air pollution and associated health and amenity impacts (with transport as the dominant source of CO and NOx emissions);
- dependence on imported oil supplies for transport energy (with transport as one of the largest energy users);
- global climate change (with transport contributing a third of US CO2 emissions);
- safety problems associated with increasing numbers and severity of traffic accidents;
- metropolitan sprawl, loss of open space and social dislocation caused by patterns of highway based development; and
- other impacts such as water pollution from pavement runoff and oil spills.

Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA)

These side effects triggered an anti-freeway movement in many areas of the USA, and reassessment of transport approaches and objectives in general. By 1991, transport decision-makers realised that there was a need to shift the objective of transport from

building a world class *highway* system, to bringing about a world class *transportation* system With this realisation came the development and enactment of the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) which attempted to provide a national framework for implementing sustainable transport principles in transport planning, programming and operating practices (Spaethling, 1997).

The principles of ISTEA were (Surface Transportation Policy Project, 1997a, pp4-5):

- flexibility to allow federal funds to be spent locally in a manner which emphasised efficiency in a mode-neutral way (therefore countering past imbalances, increasing transport choice and promoting intermodality);
- cooperation, public participation and a strong local role with greater authority given to state and local officials;
- integration of environmental and community concerns with specific programs for addressing transport related air pollution, equity issues etc;
- long term focus through long range planning at State and metropolitan levels; and
- better accountability with project approvals being dependent on identification of funding sources.

ISTEA planning framework

Implementation of these principles occurred through conditional transport funding, dependent on implementation of Statewide and metropolitan integrated planning processes. The planning processes required under ISTEA are displayed in Figure 1. They included:

- Major Investment Studies (MIS) for metropolitan areas, which
  - were developed cooperatively with all stakeholders;
  - provided information on which to base Transportation Plans (TP); and
  - analysed problems and solutions with respect to transport, economic, environmental and social criteria

- Statewide Transportation Plans (STPs) and (metropolitan) Transportation Plans (TPs), which:
  - reflected the unique needs of the jurisdiction;
  - provided a long-term (20 year) vision of transport and access;
  - were developed cooperatively with public and stakeholder participation;
  - linked economic, environmental and quality of life objectives;
  - considered all modes of transport; and
  - provided short- and long-term actions and management systems for addressing transport performance and assets

- Statewide Transportation Improvement Programs (STIPs) and (metropolitan) Transportation Improvement Programs (TIPs), which:
  - were consistent with the respective STP or Transportation Plan;
  - were developed with opportunity for public and stakeholder participation;

- provided a list and description of all Federal Highway Administration / Federal Transit Administration funded projects by year for the next 3-years; and
- identified funding sources for all priority projects.

MISs, STPs and STIPs were to be developed cooperatively between State Departments of Transport, Metropolitan Planning Organisations (MPOs), transit operators, local governments, quasi-public agencies (eg airport owners), the private sector and the community. For metropolitan areas, transport plans and programs were to be developed collaboratively by MPOs and were to be consistent with the respective Statewide plan and program. Finally, metropolitan areas which failed to comply with National Ambient Air Quality Standards (NAAQS) were required to have transport plans and programs which conformed to State Implementation Plans. The latter plans were developed by State Environmental Protection Agencies to reduce or eliminate the severity and number of ambient air quality violations under the Clean Air Act Amendments (CAAA) of 1990 (Federal Highway Administration / Federal Transit Administration, n.d.a,b).

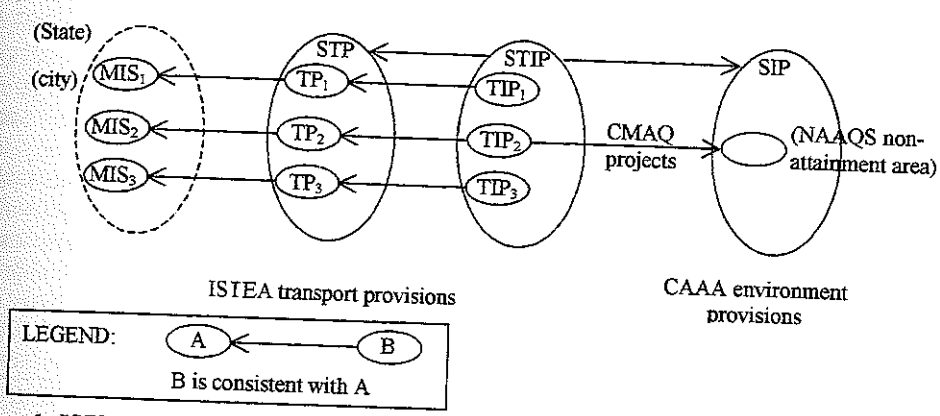

Figure 1: ISTEA planning framework in the USA

ISTEA funding framework

ISTEA provided a new policy direction away from the pre-existing road modal approach towards transport, by authorising funds to a number of categories (see Table 1) with Local and State flexibility to provide the most appropriate transport solution for the situation at hand. For example, a block of funds allocated for improving transport (formerly restricted to highway projects) could also be "flexed" to provide mass transit services and bicycle facilities at a railway station. The particular projects were outlined in the relevant Transportation Improvement Programs.

Table 1: State obligations of ISTEA federal funds by category, 1994

Funding category	**Total funds allocated in FY 1994 ($ bill)**	**Percent of availab funds* obligated FY1994**
Surface Transportation Program	5.07	64
Urban (200 000+)	0 93	61
Enhancements	0 42	26
National Highway System	3 27	86
Bridge Rehabilitation and Repair	2 23	52
Interstate (Road) Maintenance	2 59	76
Interstate (Road) Construction	1.85	54
Congestion Mitigation and Air Quality	0 96	45
Other Programs	5.05	59
Total	**22.39**	**64**

* Available funds include funds allocated in FY 1994 plus prior unobligated funds
(Surface Transportation Policy Program, 1994, p19)

ISTEA therefore encouraged the assessment of wider alternatives, consideration of the complementarity of modes, and identification of linkages with other issues such as land-use planning As seen in Table 2, ISTEA funding was used to support a large number of projects not being pursued prior to 1991 These included intermodal passenger interchanges, intermodal freight facilities, transport enhancements such as bicycle paths and revitalisation projects, environmental improvements such as replacement of diesel with alternative fuel buses, and advanced technology and information systems aimed at improving transport efficiency (DiStefano & Raimi1996) ISTEA was also used as a mechanism to build 'livable communities', that is, an integrated, holistic approach to development which uses sustainable development criteria as guiding principles

Table 2: Federal highway funds spent on other modes, by mode, 1994

Mode	**Federal highway funds spent on oth modes, 94 ($ bill)**
Transit facilities	0 61
Bicycle and pedestrian facilities	0.21

(DiStefano and Raimi, 1996, pp4-5)

ISTEA outcomes

At this stage, the ISTEA process appears to have been a success in that it has provided national policy framework, improved public participation, improved transport strategi planning, increased accountability, and diverted highway funds toward more balance and locally-suitable transport improvements ISTEA has therefore removed some of th biases and barriers against non-highway transport

From analysis of ISTEA expenditure, States gradually adapted to the new direction o transport planning, with funds for new, flexible areas such as air quality improvemer

and surface transport being obligated more slowly (especially initially), than for traditional areas such as National Highways and road maintenance (as supported by Table 1 Surface Transportation Policy Program 1994; DiStefano and Raimi, 1996) In comparison to levels of community interest and other international examples, however, funding levels for alternative forms of transport remained relatively low For example, funding of non-motorised transport facilities rose to 2% of road funds under ISTEA, which is still well short of the 10% level adopted in Holland (Parker 1998)

Also, while ISTEA allowed for new investment in previously neglected areas of transport, it continued to reinforce the existing modal bias of transport funding by actually increasing highway based funding by 33% per annum, or three quarters of the total increase in transport funding allowed under ISTEA (Surface Transportation Policy Project 1997a)

Finally, ISTEA was criticised for increased levels of paperwork and slower project development associated with higher levels of public involvement and scrutiny However, it can be argued that this delay is countered by better quality transport outcomes and greater system efficiency in the long term Suggestions were also made for ISTEA funding to improve coverage of freight, intermodal and intercity rail projects (Surface Transportation Policy Program 1994 1997a), as well as to close loopholes which allowed maintenance program funding being used to expand the system rather than to fix the existing system, and allowed toll roads to escape planning reviews

Despite its faults, ISTEA was a significant step forward in terms of changing culture and attitude (particularly of bureaucrats). It also set the stage for a shift in entrenched practices and long-held beliefs that roads are the only answer To achieve such a turn around will be a long and slow process However, ISTEA signalled the beginning of an era where transport is seen in the context of sustainable development This is not to say there should be a process that disadvantages roads but rather ISTEA provided an opportunity to open up the assessment process to consider options and innovative solutions

Transportation Equity Act of 1998 (TEA-21)

In order to address some of the criticisms of ISTEA as well as to replace ISTEA following the expiration of its funding authorisations on 30 September 1997, a number of alternative six-year reauthorisation bills were developed to replace ISTEA The successful legislation was the Transportation Equity Act of 1998 (TEA-21) which was signed on 9 June 1998

At this stage, many details of TEA-21 still require clarification and many of its funding details remain murky until a technical corrections package is also approved What is apparent however, is that TEA-21 has acknowledged the substantial progress made by ISTEA by retaining its basic structure and spirit In addition to this structure, TEA-21 adds a number of reforms such as a funding category for jobs access (to help connect

people with jobs), inclusion of safety provisions, and coverage of advanced technologies such as Intelligent Transport Systems (ITS).

UK approach to transport and sustainable development

In the United Kingdom, nationally-based work on sustainable transport has been motivated by a number of factors. These include the air quality impacts of motorisation, other detrimental environmental effects of transport, and European Community policies.

In 1952, extreme air pollution in London resulted in the death of 4000 people in 5 days, which led to a heightened public concern for air quality and the development of the UK Clean Air Act of 1956. Air pollution control was primarily directed towards industrial sources, and it was not until the 1980s and 90s that the contribution of the patterns of transport and land-use development were linked more directly to issues of air quality, environmental protection and social amenity.

By the 1990s, the European Community had gained an understanding of the linkages between economic, environmental and social progress, and the need to adopt sustainable development as a guiding principle for all economic sectors. A grassroots movement also emerged in Britain during this time both in reaction to particular motorway proposals threatening areas of natural and cultural value, and in support of a more integrated and sustainable approach to communities and planning. Finally, the scientific community also joined the debate on approaches to economic and transport development by questioning the approaches to assessing the impacts, costs and benefits associated with conventional transport development (Barde and Pearce, 1991).

Royal Commission on Environmental Pollution 1994

One of the more influential reassessments of the role and impact of transport was the 1994 Royal Commission of Environmental Pollution. The Commission's report on Transport and the Environment acknowledged a number of problems caused by road-based traffic, including global warming, air quality reduction, noise, community severence, impacts on amenity, and natural resource use in road construction. It also acknowledged that the continuing upward trend in road traffic would not be environmentally or socially acceptable and outlined eight objectives of a sustainable transport strategy, namely:

A. To ensure that an effective transport policy is integrated with land use policy, at all levels of government. Priority should be given to the reduction of the need for transport and to increasing the proportion of trips made by less environmentally damaging modes.

B. To achieve air quality standards which prevent damage to human health and the environment.

C. To improve the quality of life, particularly in towns and cities, by reducing the dominance of cars and lorries and providing alternative means of access.

D. To increase the percentage of personal travel and freight transport by less environmentally damaging modes, and to make the best use of existing infrastructure.

E. To halt any loss of land to transport infrastructure in areas of conservation, cultural, scenic or amenity value, unless it has been shown to be the best practicable, environmental option

F. To reduce carbon dioxide emissions from transport

G. To substantially reduce the demands which both the transport infrastructure and the vehicle industry place on non-renewable materials

H. To reduce noise pollution from transport (Royal Commission on Environmental Pollution 1994)

Since the Commission, a number of reports have continued to highlight the need to address transport issues in an integrated manner, and the importance of transport to sustainable development. The Standing Advisory Committee on Trunk Road Assessment (1994) recognised the concept of traffic generation and induced traffic thereby bringing into question the basis of conventional transport policy and planning that road developments did not attract more road traffic demand

The UK Round Table on Sustainable Development (1996) also drew attention to the role of transport in sustainable development and concluded that there was a need for a more strategic national approach to transport across all modes. Specifically, the Round Table recommended that an integrated transport approach should address: access provision, traffic growth and management, transport pricing (and user pays systems), environmental capacity, modal choice for both passengers and freight, health and safety issues, and the protection of critical natural and physical capital

UK Government response

All three of these reports have been influential in deepening public understanding of sustainable transport, and providing the information and impetus needed to undertake action in relation to sustainable transport. While an overarching policy on Integrated Transport is in progress, a number of separate decisions and actions have already been taken in the direction of transport and sustainable development

Institutional reform was the first of these decisions with the merging of the former Departments of Transport, the Environment and the Regions, signifying a more *integrated approach* to the objectives and impacts of transport. This integration is also supported by Government commitments to reducing transport greenhouse gas emissions and improving air quality. That is, commitments which integrate transport with environmental and other objectives. The UK Government also appears to be supporting a more cooperative and integrated direction through its sponsorship of the Foresight Panel's Clear Zones program. This program brings together a wide range of stakeholders to research, develop and demonstrate a tool kit of technologies for improving the liveability and sustainability of urban centres (Department of Environment, Transport and the Regions 1998)

Another issue acknowledged by the UK Government is that of *demand management* In 1997, the Road Traffic Reduction Act was introduced which requires local authorities to consider targets for reducing the levels or growth of local road traffic The Act suggests a number of tools that might assist traffic reduction including traffic management, demand restraint and encouraging alternatives to private car use (UK Government 1997).

Before issuing the Integrated Transport White Paper, which was released in July 1998, the UK Government moved to address issues of modal choice and historical bias by taking early decisions on some road schemes It has also stated that it wishes to encourage the use of alternative transport means and has developed and released a National Walking and Cycling Strategy to address *non-motorised transport* modes

The UK Government has indicated the importance of *freight transport* to future transport approaches through its formation of a new directorate for Freight Distribution and Logistics within the transport portfolio

Finally, the UK Government has indicated its support for the principle of moving the burden of *taxation* away from 'goods' and towards the taxation of environmental 'bads' such as pollution In the transport sector, the duty on road fuel was increased by 6% in real terms in the 1997 Budget, and a lower Vehicle Excise Duty was introduced for less polluting heavy trucks The Government has proposed this lower duty to include clean buses as well, and it has suggested that it will consider and address the issue of company car taxation in due course (Department of Environment, Transport and the Regions 1998)

Integrated Transport Strategy

In addition to each of these policy tools, the UK Government is committed to developing an Integrated Transport Policy which will be the prime vehicle for linking and implementing actions which relate to transport and sustainable development At this stage (July 1998) only the White Paper has been released However, an extensive process of data collection and analysis, and stakeholder consultation has been completed

The first step of the Integrated Transport Policy development process was research and collation of data on transport levels, trends, distribution by mode and trip type, environmental impacts such as emissions, and dominant factors in passenger and freight transport trends (Department of Environment, Transport and the Regions 1997b). As mentioned before, the Integrated Transport Policy development process placed strong emphasis on public participation Wide consultation was conducted in 1997. This was based on the consultation document 'Developing an Integrated Transport Policy' which set out the basic objectives of developing an integrated transport policy in the context of a strong economy, a sustainable environment and an inclusive society

The Integrated Transport White Paper (released in July 1998) it is expected to provide a strategic framework with short and long-term actions focusing on integration, intermodality and sustainability in the transport sector. It is also anticipated that the White Paper will consider a range of measures including regulation / planning / institutional arrangements, public expenditure / fiscal measures, and voluntary measures (Department of Environment, Transport and the Regions 1998)

Common themes and lessons for Australia

A consistent international message is emerging of a paradigm shift in transport planning The World Bank (1996, pp 4-5) has highlighted the need to take a new approach to transport policy away from narrow economic criteria with the aim to deliver a better quality of life in a diversity of countries. This suggests that a new approach should be based on the principles of sustainable development in delivering economic and financial sustainability, delivering environmental and ecological sustainability, and delivering social sustainability such that benefits reach all sections of community

As noted by Serageldin (1993, p6) the key objective of a global strategy for sustainable transport is to support sustainable development by restricting land consumption and emissions from fossil fuels, increasing energy efficiency and improving the social and amenity value of cities From these studies and from both the UK and US national approaches to sustainable transport, a number of lessons can be gained that embrace issues, the approach, and priority areas for action (Harris, 1998)

Issues

- Issues relating to sustainable transport, such as economic efficiency, climate change, environmental degradation and safety, are emerging as national and international priorities requiring national and ultimately international approaches
- Transport is also a means of achieving social and regional development goals; therefore access and equity factors are just as relevant as economic and environmental
- Public health is emerging as an even bigger issue for transport in relation to both transport-related environmental damage and conditions associated with lifestyle or levels of physical activity

Approach

- National leadership with bipartisan support and a collaborative federal approach are important to effectively address sustainable transport issues

- Public participation and a strong local involvement in development of strategies are essential to ensure that appropriate solutions are identified and effectively implemented within a national framework

- Public education and communication strategies through a wide range of media is needed to obtain public acceptance of sustainable transport changes, and to ensure that the public are not taken by surprise and that they come to understand the potential benefits of adopted actions (Apogee Research Inc 1992)

- The approach to sustainable transport must be connected to existing funding mechanisms to ensure that it represents real and permanent change.

Actions

- When assessing the progress of nations there is merit in considering Gross Economic Welfare as well as Gross Domestic Product in order to gain an insight into the nation's advancement in other than pure production value terms.

- Transport activities need to be integrated with developments in other sectors such as planning and environmental regulation

- More reliable and accurate data and models are required to underpin work on sustainable transport (see, also, Black 1996 Table 2, p62)

- Actions which appear to form part of a long-term solution for sustainable transport include:
  - travel demand management;
  - awareness raising and behaviour change;
  - more accurate and comprehensive benefit/cost identification;
  - institutional change;
  - integration of transport and land use planning;
  - integrated transport systems and modal choice;
  - provision of local level solutions within a broader framework and principles;
  - fuel and technological improvements; and
  - industry better practice.

- Sustainable transport actions need to deal with both:
  - freight transport eg road and rail transport of goods; and
  - passenger transport eg cars, mass transit, non-motorised transport, high occupancy vehicles and car sharing.

- Non-motorised transport, ie walking and cycling appear to have an increasing role as a means of transport as well as making a small contribution to reducing pollution.

Considerations for the Australian context

In considering the applicability of overseas lessons on sustainable transport to the Australian context, it is necessary to take account of Australia's unique circumstances such as most settlement (approx 90% of the population) is in urban areas; most settlement is on the East coast of Australia; access to inland areas is required for transport of exports products to ports; Australia has a large land area, most of which relatively sparsely settled; and cars and trucks are the only viable alternatives in most *geographic* areas, (however, this is not necessarily the case in the large urban areas and long haul routes)

In terms of the applicability of US or UK regulatory approaches, it is noted that there appear to be similarities between Australian and US governance relationships between the federal and state/local government spheres

Other similarities lie in the nature of transport-related economic, environmental and social problems being faced alike by European countries and the USA. While Australia is not yet experiencing these problems to the same degree of severity as the US or Europe, the problems are emerging (particularly in urban areas), and will continue to grow if changes are not made now to our transport and land-use patterns in Australia. Australia should therefore be planning now for the likely scenario in 20 years time (Harris, 1998). There appears to be the professional willingness and commitment to do this. Political support, appropriate institutional arrangements and funding mechanisms are essential

Conclusions

Transport within a framework of sustainable development is a major focus worldwide, and national leadership, policies and programs are seen as essential. This is particularly so given the national and international significance of related issues such as greenhouse gas, other environmental concerns, efficiency of resource use, efficiency of infrastructure use, equity and safety considerations.

Collection of data – government reports and stakeholder interviewers - has been undertaken in the USA and the UK early in 1998 to establish national approaches to transport and sustainable development. Analyses of these data lead us to suggest: there is a need for national leadership with a bipartisan support and a collaborative federal approach involving partnerships; there is a need for community participation and stakeholder involvement; a supportive public education program is essential; and appropriate funding mechanism be established. Within these broad strategies recommendations are embedded specific actions which can be summarised as process instruments. They are: the integration of transport with planning and environmental regulation; the formulation of new measures of progress to meet sustainable objectives and targets; the consideration of all modes of transport (especially non-motorised transport) as well as freight and passenger movements; and research and development

into reliable data, analytical procedures and mathematical models of land-use, transport and the environment.

Effective implementation is impossible if simply viewed as a federal government responsibility. Other spheres of government non-government organisation and the private sector need to be involved in what must be viewed as a major paradigm shift for transport planning. All institutions must have varying degrees of involvement and ownership. There is evidence that State Governments are making progress towards incorporating ecologically sustainable development (ESD) principles in the goals of transport planning, the evaluation of strategic plans, and the requirements for environmental assessments of major transport infrastructure. Local Governments are also incorporating sustainable principles in the process of development applications and approval. Some private-sector companies are moving toward more sustainable transport outcomes (for example, as signatures to the National Greenhouse Gas Challenge) and major industries, employers or event organisers can implement travel demand management schemes. Finally, transport users as a major "institution" have collective responsibilities for making transport choices that support any national leadership and policies towards more sustainable transport and development.

Sustainable development is increasingly recognised as an issue of fundamental importance to transport in Australia and worldwide. As seen from the lessons of the UK and USA, the achievement of transport in the context of sustainable development requires input and ownership by all levels of government, industry and the community. It is only through this broad support and the adoption of a wide spectrum of actions that Australia can hope to 'get it right' in the challenging area of transport and sustainable development.

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