

Submission on the AusLink Green Paper

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The Institute for Sustainable Futures (ISF) was established by the University of Technology, Sydney in 1996 to work with industry, government and the community to develop sustainable futures through research, consultancy and training. Sustainable futures result from economic and social development that protects and enhances the environment, human well-being and social equity.

The AusLink Green Paper provides this government with a unique opportunity to make progress toward more sustainable transport and ISF is pleased to contribute to the process both through this submission and by providing research support if requested.

In summary, AusLink is a necessary step for this government to take but falls short of our expectations. Without successfully embracing integration (Recommendation 1) neither efficiency nor environmental gains are likely to be realised. These can only be achieved by assessing all modal options equally, based on efficiency (Recommendation 2). This assessment must consider the total cost to the community, which can be facilitated using a Least Cost Planning framework (Recommendation 3).

As it stands, AusLink seeks solutions to a doubling of the total freight task by 2020. On the contrary, this type of forward planning is the perfect opportunity to overtly commit to reducing greenhouse gas emissions from freight transport (Recommendation 4) and deliberately seek to prevent the total freight transport task from doubling (Recommendation 5) by using integrated transport and land use planning and by employing transport demand management.

The Green Paper identifies that road transport still handles 72% of freight (in tonnes) and 37% of the freight task (in tonne-kilometres), carrying in particular significant amounts of priority delivery items and yet the document does not express targets for changing this modal share (Recommendation 6). Visions for the future of freight, and indeed transport in Australia, need to be developed with the engagement of the community (Recommendation 7). Submissions to a Green Paper are not sufficient in this regard and ISF looks forward to the next round of consultation and the revised documentation.

1. Intent

The Institute for Sustainable Futures supports the Department of Transport and Regional Services' (DOTARS) search for a clear and coherent national planning framework for transport. Unfortunately, the subject green paper does not achieve this. Integration for the purpose of sustainable transport may be interpreted in three ways¹:

- Integration of transport and land use planning;
- Integration within and between modes; and
- Integration between different levels and departments of government.

The paper succeeds partially with respect to integrating freight rail within the national transport strategy but fails to integrate other modes and levels of government except for the purposes of road funding. Essentially, the proposals contained in the green paper reinforce the current road-funding paradigm with an added emphasis on freight rail.

ISF recognises the existing demarcation between Commonwealth, State and Local Government management responsibilities. However, true transport integration cannot afford to make these artificial distinctions, as they are ultimately not in the national interest. ISF is concerned that while the paper espouses the principle of integration, the substance of the discussion relates to avoiding the "risk of cost shifting, where in some cases Commonwealth funding has been directed to solving local rather than national transport problems."

Under the terms of the current green paper, it appears that a Local Government Authority can still seek funding for roads but not for a strategic network of light rail, cycleways or footpaths. Regrettably, the green paper considers that initial funding priorities are the National Highway System (ROADS), Roads of National Importance (ROADS), Freight Rail (RAIL) and black spots (ROADS). This road priority suggests that DOTARS remains uncommitted to transport integration. The green paper cannot truly support an integrated approach until it supports funding of solutions which use the most appropriate mode to address transport priorities.

2. Funding models and legislation

Accordingly, ISF recommends that the scope of the green paper be broadened beyond freight rail and road funding to strategically address all modes of transport at all government levels. ISF maintains that a national transport plan should identify transport needs and create a system whereby solutions are assessed transparently and consistently on criteria of efficiency rather than favouring a particular mode. Furthermore, ISF recommends that AusLink funding should not necessarily be allocated for research and development but be used to better inform the decisions of the National Transport Advisory Council. AusLink would ideally assess transport submissions and favour integrated solutions that most efficiently deliver the goods from Point A to Point B. The supporting assessment methodology would employ Least Cost Planning and have an appreciation of existing subsidies to ensure equity in the selection process.

Two international examples are particularly useful to consider in this case and particularly with reference to the question on page 84 of the Green Paper regarding how to best ensure equal treatment of alternative projects.

¹ This is a summary of "integration" as described in the UK White Paper, *"A New Deal for Transport, Better for Everyone"* (UK Department of Transport, Local Government and the Regions, 2002)

The US Transport Equity Act² (US TEA-21) and the UK's New Approach to Transport Appraisal (NATA) documentation serve as background and provide case studies of better transport investment decision making. The US legislation is scheduled for review and will be debated by Congress this year. This legislation included significant changes like providing comparable funding for different transportation modes (most projects are now an 80 percent federal match regardless of mode), expanded responsibilities and funding for metropolitan planning, the creation of new targeted funding categories for environmental protection and community enhancements, and the direction of more federal transportation funds to the local and regional level in recognition of the positive impacts this involvement can create (STTP, 2003).

The UK approach to transport project appraisal (NATA)³ requires a summary table with supportive analysis, such as benefit cost analysis, financial analysis and social and environmental impact assessments. Perth has a strategic transport evaluation model based on the NATA approach developed to support policy type questions (Chambers, 2002). It includes factors such as: Economic Transport Systems Costs – financial impact measure; Economic efficiency – transport system efficiencies; Environment/Greenhouse – CO2 emissions; Regional Air Quality; Safety – total crash costs; Social Health – physical activity and air pollution impacts; Affordability – average travel costs by geographic area; and Social inclusion – transport self-sufficiency by geographic area.

These examples highlight the need to look to international experience and local best practice to seek out those processes that would most benefit Australia's national interest in the longer term. The Green Paper does not indicate that this has yet been done.

3. Privatisation

On page 50 of the Green Paper, "Generating the best ideas" is considered. The document describes project proponents being encouraged to contribute to the overall project. Increasingly private investments are being sought for road infrastructure. No such possibility seems to be emerging for rail in the international arena. Privatisation of rail systems is widely discussed in Western Europe, but there is not yet much experience (except in the United Kingdom and Sweden). The IEA describes ensuring a relevant share for rail freight under these conditions as "extremely difficult" (IEA, undated, online, Chpt. 6). They describe the need to provide quality improvements in services for suitable market segments and highlight the requirement for substantial investments in infrastructure including terminals and rolling stock for combined transport. Pricing and taxation of road transport are identified as an option for financing these investments but private investment is unlikely to be a viable option.

The result is that seeking private investment may in fact limit the range of options put forward for freight transport and this will have the opposite effect to that which can be achieved by better long-term planning. In Sweden transport needs are identified first through the collection of submissions from all sectors, including the community. These submissions are used to set the priorities for Federal funding. Proposals are then invited in a second stage to provide the best project to satisfy the identified transport need⁴. Planning tools are used to encourage growth in the direction of the nearest major centre and prevent sprawl of small towns and cities, thus reducing transport demand.

² See <http://www.fhwa.dot.gov/tea21/suminves.htm> [Accessed 31.01.03]

³ See <http://www.dft.gov.uk/itwp/appraisal/guidance/> [Accessed 31.01.03]

⁴ pers comm., Per Sillen, Director of Infrastructure Management, Investment and Planning Section, Swedish National Railways, 27.05.02

4. Greenhouse gas emissions

It is essential that the government consider the challenge of reducing greenhouse gas emissions, along with other impacts of road-based transport, such as congestion and urban sprawl, as a priority. This is in line with the National Greenhouse Strategy⁵ in which all governments undertook that:

“Australia will actively contribute to the global effort to stabilise greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous interference with the climate system and within a time frame sufficient to:

- *allow ecosystems to adapt naturally to climate change;*
- *ensure that food production is not threatened; and*
- *enable economic development to proceed in a sustainable way.”*

(Commonwealth of Australia, 1998)

AusLink should note *The National Greenhouse Strategy* includes several land use and transport policies that are relevant. The NSW State Government has already recognised the increasing use of private motor vehicles as “the most significant and growing air quality issue” (NSW State Government, 1998, p.3). Since transport contributed almost 15% of the net national greenhouse gas (GHG) emissions in 2000 and since emissions from trucks and light commercial vehicles increased by more than 32% over the last decade (AGO, 2000), the transport sector is an important area to approach when attempting to reduce GHG emissions.

Linear or even exponential growth in road transport is contrary to the government’s undertaking to actively contribute to the global effort toward reducing GHG emissions. The European Union, for example, has identified moves toward “de-linking economic activity from freight transport demand” as a key indicator in measuring progress toward more sustainable transport (EEA, 2000, p 128). Changes are required now in land use and transport planning in Australia to deliberately reduce the size of the predicted freight task to prevent a doubling of that task by 2020. Demand management, for example mixed land uses and manufacturing clusters, is a useful approach the government could apply in a systematic way to reduce the need for any new road based infrastructure. Given the body of evidence about induced growth in road transport⁶ (for example Goodwin, 1994), ‘predict and provide’ is no longer an appropriate method of transport infrastructure provision, even when less energy intensive modes are considered. The federal government needs to take leadership on this issue and promote economic growth, which does not adversely affect the environment.

One of the major objectives of freight planning must be to overtly achieve a real shift in modal share away from road based freight transport⁷ and towards rail. The resulting benefits include improved energy efficiency, air quality, and increased safety on roads among others.

The shift will require complementary strategies, which either restrain road freight and/or increase the attractiveness of rail freight. Investment in rail infrastructure and particularly at road/rail interchanges will be required. The International Energy Agency highlights the importance of “quick and efficient loading conditions by the rail operator and the speed and punctuality of delivery” (IEA, undated, on-line). Interchange and/or loading and unloading are issues of particular importance in the movement of goods.

⁵ This strategy is the enabling document for Australia’s ratification of the UNFCCC. See also <http://unfccc.int/>

⁶ Both the UK and the US have in place ways to factor this induced growth into cost-benefit analysis. See for example on line at http://www.worldbank.org/html/fpd/transport/roads/rpl_docs/apbinduc.pdf

⁷ The other objective should be to reduce the demand for freight by better land use planning (see notes on de-linking economic growth and freight demand growth)

Options such as using the trailer of semi-trailers (i.e. without the prime mover) and connecting these to railway bogies can present a rail freight option, which reduces the load-unload efficiency losses (termed Roadrailer or Trailerrail) should be further explored. A number of methods can be used to determine the steps, which are required in the present to secure a more desirable future. Back-casting (Dreborg, 2001) and Least Cost Planning⁸ can be used to determine or compare options to meet targets once these have been set.

5. Oil security

The data and projections cited in the AusLink Green Paper show growth in transport modes from 1971 to 2020 (Fig 8). This growth has been sustained by the availability of cheap oil. The assumption underlying projections of unimpeded growth to 2020 is that of 'business as usual'. This ignores the global debate over the future availability of oil and the sensitivity of oil availability to political developments. According to Bentley (2002), "best estimates put the physical peak of global conventional oil production between 5 and 10 years from now". Debate continues as to when production will peak, and then decline⁹ but there remains little doubt that prices will rise significantly. This will impact on Australia since we currently import 37% of our domestic oil supplies and this is projected to rise to 51% by 2020 (Dickson et al, 2001).

Given that oil as a resource cannot be assumed to be readily available indefinitely at the current low price, AusLink needs to form part of the risk management strategy for Australia to ensure a sustainable transport future. This means investing now in energy efficient transport modes and more efficient land use patterns, for example testing to ensure that federal funds are directed toward infrastructure strengthening centres at transport nodes rather than easing a commute from the outskirts of a sprawling city. It also highlights a need to aggressively develop alternatives to oil, for example by investing in a fuel cell program involving research and development as well as prototype testing.

Riedy (2003) describes the subsidies currently serving to 'prop up' road-based transport. Only by removing such subsidies as a first step, and then including externalities in the price of road based transport as a second step, will a more 'level playing field' for transport modes be achieved. This will in turn make the required modal shift more likely. As AusLink proposes to consider project options and evaluate them it is essential that the most suitable mode be chosen to satisfy the transport need in light of the total cost to society. A range of options will need to be identified and the range of impacts, both costs and benefits will need to be considered to ensure that the significant funds are spent wisely.

6. Appropriate decision-making

Transport represents a significant investment by the community, which directly impacts upon the quality of life of citizens. It is a fundamental principle of sustainability that the community be directly involved in decision-making to determine the allocation of such significant resources. Participatory decision-making is most effective when it involves both representative and deliberative elements. This can be facilitated through innovative engagement methods including consensus conferences or citizen's juries (Carson & Gelber, 2001).

⁸ Also referred to as Integrated Resource Planning - see Swisher (1997)

⁹ See for example International Energy Agency (2001), *Oil Information 2001*, OECD, Paris

Research by the Warren Centre has shown that decision-makers tend to underestimate the commitment of the community to redirecting road funding towards more sustainable modes. The research showed that the personal views of decision-makers and those of the public were reasonably closely aligned however the decision-makers perception of public views were not close to public views, in some cases differing by as much as 20% (Glazebrook, 2001). Such misconceptions can result in significant expenditure that does not satisfy community needs. In WA this danger is being avoided through the use of participatory process. A consensus conference has been convened in October 2001 to help direct the planning for the WA Freight Network. Multi-criteria analysis has been used in a series of workshops to support this decision-making¹⁰.

The AusLink Green Paper provides the Government with a significant opportunity to engage the community in the decision-making process. A citizen's jury could now be convened with presentations from the significant stakeholders who provide submissions. The randomly selected jury of citizens could then provide the Government with guidance on setting objectives for freight transport in Australia and together building the White Paper.

7. Summary of recommendations

1. That the green paper utilise a broader definition of transport integration that includes:
 - Integration of transport and land use planning;
 - Integration within and between modes; and
 - Integration between different levels and departments of government.
2. That the national transport plan identify transport problems and create a system whereby solutions are invited and assessed equally based on efficiency and sustainability criteria rather than choosing the favoured mode.
3. That AusLink assess transport submissions and favour integrated solutions that most efficiently deliver the goods from Point A to Point B. The supporting assessment methodology would employ Least Cost Planning and have an appreciation of existing subsidies to ensure equity in the selection process.
4. That AusLink's objectives should openly identify a need to reduce the total greenhouse gas emissions from freight transport, inline with existing governmental undertakings.
5. That the total freight transport task be prevented from doubling by 2020 with steps being taken now to reduce the total freight task. Integrated land use and transport planning is one aspect and transport demand management is another.
6. That the modal share of freight transport must change so that a greater proportion of freight is moved by rail. Infrastructure investment must be provided to support this change and could be supplied by taxation and pricing of road transport.
7. That AusLink, and submissions made about the Green Paper, should form the background for a deliberative participatory process in which the public is invited to help determine the objectives for freight transport in Australia

¹⁰ See further details at <http://www.dpi.wa.gov.au/metro/freight/>, [Accessed 31.01.03]

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