



INTERNATIONAL ASSOCIATION OF PUBLIC TRANSPORT
(Australia/New Zealand)
(UNION INTERNATIONALE DES TRANSPORTS PUBLIQUE)
GPO BOX 2531
CANBERRA ACT 2601
Telephone: + 61262475990
Facsimile: + 61262306898
Web: <http://www.uitp.com>

Friday, October 31, 2003

Mr Bruce Billson M.P.
Chair
Standing Committee on Environment and Heritage
House of Representatives
Parliament House
CANBERRA ACT 2600
AUSTRALIA

Dear Mr Billson

Inquiry Into Sustainable Cities

On behalf of the members of the International Association of Public Transport (Union Internationale Des Transports Publique - UITP), it is my great pleasure to present a **Supplementary Submission** to the Standing Committee on Environment and Heritage, Inquiry into Sustainable Cities.

Our original Submission was provided to you earlier this week.

There are five (5) terms of reference related to the development of sustainable cities to the year 2025, and a number of our operator members in Australia and New Zealand have an area of common interest in all of them as service operators that plan for sustainable outcomes. These are:

1. The environmental and social impacts of sprawling urban development;
2. The major determinants of urban settlement patterns and desirable patterns of development for the growth of Australian cities;
3. A 'blueprint' for ecologically sustainable patterns of settlement, with particular reference to eco-efficiency and equity in the provision of services and infrastructure;

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4. Measures to reduce the environmental, social and economic costs of continuing urban expansion; and
5. Mechanisms for the Commonwealth to bring about urban development reform and promote ecologically sustainable patterns of settlement.

Does the inclusion of green zones within city planning result in further urban sprawl, which has a greater detrimental effect for the environment by encroaching on more surrounding bushland?

There is a substantial difference between active and passive green zones. When green zones are intended to preserve threatened species or remnant habitat, it should not be part of the urban area, although it could be proximate. Poor access is sometimes a benefit as it reduces the impact of visitation and stress from disease or domestic animal use. Inhospitable terrain and natural boundaries can also reinforce limited access to an area.

Urban green zones can be beneficial to urban density by creating common outdoor recreation areas and allowing housing to be denser. However, an urban green zone needs to be highly permeable by pedestrians and transit systems. Denser development leads to more sustainable transport, but the footprint of transport often needs to grow to keep up with intensification. In complex urban environments, the vertical land use opportunities should be exploited to minimise sprawl. When considering green zones, planners need to consider the two-sided corridor nature of mass transit services. Major corridors should not be put down the side of large, passive parks as the parks do not generate much transit patronage, and they are often uncomfortable places for passengers from the urban side of the road to wait late at night.

To what extent should public transport systems seek to change to renewable energy sources?

Public transport systems should seek to move to renewable energy sources as soon as they are feasible and affordable. Many bus operators around Australia have participated in several trials of renewable fuel, with buses either fully or partially-powered by non-fossil fuels. Many have high expectations for hydrogen fuelled buses as the next generation of vehicles, although the source of the fuel may be from fossil-based natural gas in the short term.

Before successful conversion, however, aspects of transit operation need to be considered. Speed is a critical factor. During the Olympics, a very elegant solar-powered ferry was demonstrated on Sydney Harbour. Many submissions were received to replace current ferries with the vessel, but its top speed was 8 knots per hour, while current services usually operate in the 12-20 knots per hour range. A trial of electric buses foundered on grade changes on bridges and at waterfronts. Passengers have to accept the final service quality. Passengers now expect heating and cooling and a great deal of route information. This has increased the fuel demands of buses. Operators before switching fuels will need to address speed, reliability, comfort, capacity, and

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range. Then the conversion needs to be assessed by netting the additional energy spent from the energy saved.

What types of industry are appropriately located within cities, and how do sustainable cities respond to production processes and waste treatments that exist to meet city consumption patterns but occur outside of city limits?

Virtually any modern industry can be accommodated within the sustainable city. It is important to maintain or attract a wide variety of employers because that is a key success factor for public transport. Cities should consider the breadth of their activities, not just those that occur within their boundaries. Taxes would be a useful equity tool, as long as they were hypothecated to the amelioration of ecological harm and not available to other projects. Some potential efficiency gains for mass transit are expected from the natural peak spreading that occurs from diversity of industry categories and job types, such as full vs part-time.

Sustainability cannot be constrained to city limits.

What initiatives can assist in the reduction of automobile dependence

Some ideas to promote the health of mass transit as an alternative to cars:

- Along major mass transit routes, take a “quality corridor” view of intensifying urban development, but see that it grows in a diversified way so there is a balance of demand. When new development occurs there should be an identified improvement program for the “quality corridor” containing items such as queue jumps, signal pre-emption, pedestrian refuges, etc, so that urban consolidation funds improvements rather than contributes to congestion.
- Promote housing affordability in all neighbourhoods as it both minimises travel distances, and helps prevent transport becoming a social service to deliver economic equity, and this conflicts with its other roles. In North America, there can be a “lifetime” mortgage approach that offers public transport users more equity and lower interest in recognition for all the money they will save over time.
- Ensure a high priority for planning pedestrian networks within new developments and as public domain improvements in established areas. Car dependence is often a failure in delivering a walkable city. Transit users are a major part of the walk mode. The lack of footpaths, no safe places to cross major roads and indirect walking routes are good measures of car dependence.
- With the dispersion of trip origins and destinations, more public transport trips are going to involve a transfer to offer destination choice. Transfers have to be facilitated by passenger focussed facilities, service information support, secure design and fare integration.
- Fear of other passengers on mass transit is quite common. The relative safety of transit users in comparison drivers and car passengers needs to be publicised, along with a knowledge of types of danger one might encounter. For example,

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tripping while leaving the bus is one of the greatest dangers facing passengers – so adapt behaviour accordingly.

- The private car is usually someone's specially selected vehicle. While transit will never approach this level of individual gratification, certain features are winners with passengers – high seat yield by design, air-conditioning, wide aisles, and lots of natural light.

Should new transport technologies, such as electric cars and buses, be promoted as alternative to conventional fuels?

The technology is not quite there yet, and electric buses still generate greenhouse gas at the power source. Funding support is needed for research and trials, but if they satisfy the business requirements of operators, they will be taken up.

What are the features needed in new settlement areas to encourage more diverse and sustainable transport networks?

- New settlement areas should contain a good mix of uses, which balance passenger flows and reduce trip lengths.
- The road network must consider all potential users and allow for fast, direct bus services, even if private modes are more constrained.
- Design subdivisions as if the pedestrian and not the motorist were going to be the main inhabitant, and ensure that new areas match the pedestrian network to the established networks nearby.
- Offer incentives to employers to encourage use of modes other than cars, such as rate rebates and good corporate citizen recognition. Encouragements might include preferential parking for multi-passenger cars, transit ticket salary packaging, health insurance for walkers and cyclists, staff change rooms and showers, or corporate-branded bus shelters.
- Provide development consent use for mixed businesses to reduce travel for convenience goods needed by residents, workers and shoppers.

What is the role of federal government in assisting metropolitan areas to restructure transport networks in line with more sustainable settlement patterns?

The Commonwealth should:

- Review its tax impacts on sustainability, for instance the preferential treatment of car use under FBT compared to transit fares.
- Use sustainability as a criterion in national highway planning and AusLink funding approvals.
- Support demonstration projects and disseminate success stories with best practice material to state government and private interests.
- Offer financial incentives especially on sustainable vehicles in terms of fuel tax credits or depreciation.

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- Fund riskier projects as trials, but in light of the risks, maintain ownership of the assets so they can be redeployed to other communities if they still offer potential value.
- Sponsor fuel and vehicle research.

What are the needs of transport systems for them to be equitable, accessible and economically viable?

Many government-funded or assisted transit operations must comply with conflicting objectives, and a clear statement of expected outcomes and funding assistance, if any, is needed to give management clear directions, with a longer horizon than a financial year. The tax implications on transit choice need to be understood. Avoid adding costs onto transport systems by regulation without some compensatory regime, or operators must squeeze accessibility to meet commitments. Government regulators should concern themselves with how to encourage successful systems to expand. Recognise that the main beneficiaries of mass transit systems are consumers, not operators. Poor equity as perceived in transport systems often comes from land use management rather than transport management.

Is a more decentralised nodal type of transport network appropriate for commuter and traveller needs?

It all depends. Unless an area is highly constrained, such as a small island, all transport systems will become multi-nodal, although there is usually a hierarchy of nodes. The University of Sydney's Warren Centre concept of a "City of Cities" is a more likely to be appropriate than undifferentiated sprawl. Not all employees in a household will have the same workplace, so choice must always be on offer. The more decentralised a network is, the more interchanges likely to be required and the lower frequencies are likely to be. Yet, transport choice options can be priced to reflect actual costs. Cars would be the most sustainable mode choice for some areas. The main thing is to concentrate populations in nodes so it is possible to serve viably, not to deny choice through lack of transit provision within nodes or through the economic exclusion of poorer consumers.

What type of incentives or standards for new developments might be appropriate to encourage more sustainable residential complexes?

Breakdown the parking imperative, where every new or renovated development has to meet its potential parking generation completely as estimated from previous behaviour. Innovation and change are not allowed. It is access not cars that you want to guarantee in new residential developments, but mobility. Residential subdivisions should not be walled enclosures, but relate well to established transport and community networks so extensions are integrated. In medium and higher density sites, plan for residents to feel safe and secure while waiting for transit, and encourage social interaction on the way to a bus stop or station. Provide new developments in diverse communities, where walking

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is always an option for common trips. Improve on transit vehicle design but keep a high seated, passenger capacity.

Are urban hubs and communities concentrated around public transit nodes an appropriate future model to suit Australian lifestyle needs?

Yes, but that is not enough transport planning because travel is too dispersed. This question pre-supposes fixed route transit. Door-to-door travel time is a critical factor in mode choice so the longer potential passengers walk at either end of their trip, the faster the segment has to be between trip ends. If you can't make it faster, then the origins and destinations must be close to where to the transport service.

How do we transform existing suburban and inner city developments into more sustainable forms of community living?

Once the consumer is convinced sustainability is a feature for them, the market will provide sustainability if complementary tax and planning regulations are in place, but the government side of the equation has to be able to respond positively to promote sustainability.

How do we ensure that further urban expansion occurs as planned community developments?

All urban expansion cannot be controlled, especially as much of the land concerned is in private ownership. Best practice regulation would assist in meeting sustainability goals, but care must be taken not to be too prescriptive. This is a field where new products and processes are required, and innovation has to be encouraged. Have an outcome focus on sustainability rather than a process driven approach. The government cannot dictate take up rates of new communities. That is a matter for individual household budgeting, so market conditions will prevail on the timing of urban expansion.

Are there dangers in developing decentralised cities with multiple urban hubs and how do we address these issues?

Promoters of decentralisation cannot ignore agglomeration which gives some businesses efficiency gains by grouping them together. Our cities must still be efficient so that Australia's future will be competitive within the world. Even with decentralisation, we will still have a hierarchy of hubs for cultural and "world" functions.

Also not all road projects are inimicable to transit provision. In proposed roadworks, look for features supportive of transit. Mass transit hubs do not necessarily require their connections to be rail, because the further out, the lower the propensity to travel to the CBD, so smaller loads. It is not just density. Build local schools where residents are not exporting children every day. Instead get them to walk or cycle to school which builds community inter-action. The hubs should not be isolated by mono-cultural zoning.

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UITP appreciates the opportunity to make a **Supplementary Submission** to the Inquiry and we look forward to cooperating with the Standing Committee on Environment and Heritage on this vital issue for Australia and the world.

Yours Truly

Peter Moore
Executive Director

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