PLANNING FOR THE FUTURE

Planning for an integrated land transport system is vital to creating a better future for New Zealand.

An integrated approach to land-use and the transport system is fundamental to unlocking social and economic opportunities for communities and customers. An integrated transport system is one where system partners collaborate to ensure that land-use, roads, rail, footpaths, cycle ways, the public transport system, services, data and technology complement one another and link seamlessly.

There are a range of policy levers that can be used to deliver the transport system. They represent a 'toolkit' that can be used to influence both demand for, and the supply of, transport. The challenge is using the right tool(s), at the right time, in the right way.

Regulation

The objective of the land transport regulatory environment is to maximise economic and social benefits for New Zealand while minimising harms.

Regulation will always have an important role in land transport and our regulatory system will keep developing to:

- take an all-of-system and long term view;
- apply best practice and use innovative tools and approaches;
- minimise prescription and be principle and performance based;
- make compliance easy, with enforcement activity based on risk and intelligence;
- produce predictable and consistent outcomes that are proportionate, fair and equitable;
- be flexible to changing transport needs.

Increasing customer and citizen service expectations and rapid technological change have started, and will continue, to challenge regulatory systems. Looking into the future the land transport regulatory regime must move beyond highly prescriptive and increasingly out-of-date frameworks and assumptions.

Increasingly, the Government's regulatory role will mean proactively collaborating with stakeholders – particularly local government and the wider transport industry. As new technologies, and the business models they enable, emerge and are applied to the transport sector, the range of public/private sector interactions and partnerships will increase.

Changing particular elements of regulatory regimes to achieve specific policy outcomes is possible but the current regulatory approach and tools are inadequate for the future. Substantive first principles reform of end-to-end regulatory systems will be required. The challenge will be to ensure effective management of the existing regulatory regime while more fundamental reforms are made. Such significant reform will aim to create a regulatory environment that manages current and emerging risks while allowing for new opportunities.

Care also needs to be taken with the enforcement and compliance regimes supporting regulation, to ensure that they do not result in undue penalties that result in barriers to economic and social participation for some parts of society.

Policy settings

Policy settings set down by central and local government can influence the transport system. Examples within the transport sector include policy settings in relation to road safety that seek to deliver safer journeys increasingly free of deaths and serious injuries. These policy settings then inform a range of initiatives including driver education, enforcement, infrastructure design, and vehicle fleet specifications.

Transport can also support the delivery of a range of outcomes sought by central and local government. Examples include physical activity targets to support health outcomes around obesity and diabetes, and emissions targets to support a shift to a low carbon economy.

Behaviour change

Influencing customer's choices can change the scale and nature of transport demand over time.

At a network scale this means ensuring that communities understand the full costs (and benefits) of maintaining and delivering networks and services, now and in the future. This will enable them to make informed choices about how networks are managed, desired levels of services and investment priorities. These decisions will be increasingly important in areas experiencing disruptive change such as areas impacted by climate change, and in areas where static or declining populations place pressure on affordability.

Behaviour change at a more personal level may result from people understanding the benefits and costs of different transport choices. This can result in people using alternate modes or choosing to travel less, or at different times. These shifts can be supported by initiatives such as cycle training programmes that encourage the uptake of alternate modes.

Making better use of existing networks

While some major pieces of new infrastructure will be required to support New Zealand's forecast growth, the majority of the country's transport infrastructure is already in place, particularly the road network. Most of the forecast growth in travel demand will need to be absorbed by the existing system. We will need to continuously review how we plan and deliver existing networks as a system to be as effective and efficient as possible, offering the right levels of service, choices of transport modes and delivering value for money.

Optimising key routes: The New Zealand transport system has vitally important national, regional, inter-regional and local functions. There is a need to provide system level strategic planning for those corridors, particularly in major urban areas under growth pressure, and key strategic freight networks.

Efficient activity management: A significant proportion of the National Land Transport Fund together with local authority rates are spent on road maintenance, including operations and renewals. As a sector we need to ensure our transport related activities are delivering effective and efficient solutions for our customers whilst ensuring the assets that support these activities are fit for purpose on the short medium and long term.

To support efficient management of road networks the Road Efficiency Group has delivered the One Network Road Classification (ONRC); a classification system, which divides New Zealand's roads into six categories based on how busy they are, whether they connect to important destinations, or are the only route available. This in turn is supported by a developing suite of nationally consistent network performance measures for each class of road – together known as the ONRC framework. Through these initiatives together with a focus on lifting sector capability in asset management and procurement practise, REG aims to support the sector – to improve value for money, deliver customer focussed transport activities to deliver a consistent customer experience, ensure collaboration between road controlling authorities, and ensure quality asset management practices.

Harnessing new and emerging technologies

Investing in information and technology that will help us to identify and measure the health of physical assets to better target the right intervention to the right place. Data collected through the ONRC is already helping asset managers to better understand and compare their local networks with other regions and districts. This is driving significant investment and operational change.

New and emerging technologies have the potential to significantly improve the performance of the transport system in the future. Information about the needs, habits and preferences of customers is becoming increasingly available. Understanding the needs and travel behaivours of transport system users offers the opportunity to make better system management decisions and identify opportunities for real innovation in the services and solutions we provide.

There is an opportunity to provide information that helps the sector effectively manage the transport system while allowing customers to make better transport choices. Key information types include:

1. High quality, real-time and multi-modal transport information that will help New Zealanders make decisions about how, when and where they access the transport system.
2. Information on the performance and capability of the transport system that will enable more effective decisions about maintenance and improvement through the ONRC.

In the longer term connected and autonomous vehicles combined with ride-sharing have the potential to extend the capacity of the transport network, reduce accidents and enhance travel time reliability.

Targeting investment in infrastructure, services and technology to priority challenges

To ensure the best possible return from transport investment, we need to focus investment on addressing New Zealand's biggest transport challenges. We will need to invest in the right solution, on the right part of the transport system, at the right time. To do this consistently will require a sound understanding of the relative strengths of different elements of the transport system to ensure that we make the right choices about whether we invest in public transport, roads, rail, walking or cycling. It also requires that benefit cost assessments of new proposals accurately value all relevant outcomes.

New technologies will be an important tool in helping us to deliver this fully integrated transport system. Technologies will be particularly vital as a tool to optimise our urban networks.

Smarter transport pricing: There is a cost to using of the transport system. The current system charges for motor vehicle use through petrol taxes, road user charges and vehicle registration fees. Public transport users pay fares. Councils raise funds mostly through property rates to fund transport networks and services.

Transport revenues are mainly from fuel excise duties (53 percent); road user charges (39 percent) and vehicle registration fees (6 percent).[1] These revenues go into the National Land Transport Fund (NLTF) which is dedicated to investment on transport infrastructure and services. There is a mid to long term risk that current NLTF revenue sources will not be sufficient to achieve all of the outcomes sought by communities and local and central government. With a number of Council's forecast to experience flat population growth and ageing populations resulting in more households on fixed incomes, there are also increasing constraints on local government's ability to raise revenue through property rates.

Increasing demand for transport is expected to continue however improved vehicle fuel efficiency, changing behaviours, an ageing population, greater use of non-fossil fuel vehicles and increasing travel by public transport, walking and cycling are likely to erode the current revenue streams. The revenue impacts of 2 percent of the vehicle fleet comprising electric vehicles by 2021 are estimated to be a reduction of $47.6 million per annum (1.1 percent of the NLTF).[2]

Diversifying revenue is needed to help to achieve a more sustainable revenue future and achieve desired transport outcomes. Alternative revenue approaches could improve the connection between payments that customers make and the value they receive.

Alternative revenue sources include a range of user charges (e.g. tolls, road pricing, parking levies, land value uplift mechanisms, private sector contributions, etc.). Some of these are existing mechanisms while others require legislative change.

Charging for motor vehicle use (through road user charges, vehicle registration fees and taxes on petrol) is based on the cost of providing and maintaining roads. This does not reflect differences in the true cost of travel for the user by time, location and mode. This effectively under prices some trips creating congestion, while over pricing others.

The Agency is committed to exploring opportunities to access alternative revenue sources recognising that a moving to a pricing system that reflects the actual costs of each trip will increase the cost of travel for some and reduce it for others, and this will influence demand. This could encourage a marked improvement in accessibility, congestion and public transport mode share.

Maximising opportunities to influence travel demand

A stronger focus on improving the balance between transport demand and the capacity of the transport system will be vital to achieve a step change in the performance of the transport system.

Integrated Planning: Land use is central to travel demand. The location of New Zealand's homes, businesses, services and supporting infrastructure determine the origin and destination of every trip our customers make. We can improve the efficiency of the transport system through sound land use decisions that encourage growth in areas with close proximity to jobs, education, services and facilities (thereby reducing the need to travel), in areas already well served by transport links or areas where new infrastructure and services can be introduced in the most efficient and effective way.

Ongoing sector collaboration is required to continue to develop a clear, shared integrated view of New Zealand's future growth patterns, and the land transport system and key interventions needed to achieve it. We have already made great strides in Auckland, with the development of the Auckland Transport Alignment Project. There is significant scope to identify better land use/transport links in other high growth urban areas; regions and along key inter regional journeys.

Encourage increases in vehicle occupancy: Increasing the number of occupants in private vehicles or public transport is important to making the transport system more reliable and sustainable. For car vehicles this could be through ride-sharing, carpooling and other emerging shared mobility opportunities such as shared taxis, to improve the transport system's performance. Smart phone applications could encourage this by, for example, providing new opportunities to connect users with similar travel demands. Alongside the introduction of autonomous vehicles, shared mobility has the potential to fundamentally reshape the way transport is provided.

Encourage mode shift (including road pricing): In our main urban centres, network capacity constraints are increasing the need to move customers from single occupancy private vehicles onto alternate, more efficient modes. In addition the positive health and environmental outcomes of active mode use will also support mode shift.

Increasing the convenience and comfort of public transport and active modes is an important component in supporting mode shift. In some situations road pricing may also be required as a means of influencing demand and shaping mode choice.

REFERENCE LIST

1. New Zealand Transport Agency. (undated). *National Land Transport Plan revenue and expenditure model.* Internal model.
2. Ministry of Transport. (2016). *Regulatory Impact Statement – Road user charges exemptions for electric vehicles.* Retrieved from www.transport.govt.nz