Mobilising the regions: the role of transport infrastructure in achieving economic success across all of New Zealand

A paper prepared for LGNZ by Castalia Strategic Advisors

August 2015

We are.
LGNZ.

Contents

Foreword

Regional New Zealand is a major contributor to the nation's prosperity adding $88 billion to national GDP in 2014, 38 per cent of total GDP. The future in the regions has immense potential.

New Zealand wants to increase its total exports of goods and services from 30 per cent of GDP today to 40 per cent by 2025. To meet this target, the value of our exports will need to double in real terms and grow between 5.5 per cent and 7.5 per cent each year on average from 2016 to 2025. A significant proportion of the goods that we export such as dairy products, timber, wool, meat, horticulture and aquaculture are produced in our regions. Improved productivity and growth in regional economies will be instrumental in achieving our goals.

Regional growth is critical for national economic and social prosperity. Growth in the regions helps to ensure that a broad range of opportunities exist for all New Zealand communities, and takes pressure off the land and infrastructure in our cities. It is therefore no surprise that regional economic growth is now an agreed strategic priority for both local and central government building on the existing work of local communities and the Government's regional growth studies.

The role of transport infrastructure

A fit-for-purpose transport network is an essential enabler of regional economic growth - and social cohesion. Having regular, reliable transport infrastructure and services to connect the regions allows people and goods to move freely, be it professional people such as doctors servicing parts of the country or raw materials moving to manufacturing hubs. This requires good road linkages, a suitable rail network, an airline that services regional hubs, and ports that connect local communities and producers to marine zones and markets. The reality is that a transport network must be driven by a vision of efficiency as well as regional social and economic development. It must meet the specific needs of the communities it serves, with strong links between transport modes to enable social connection between areas of New Zealand.

This paper was developed in response to changes in transport networks in regional New Zealand. The withdrawal of Air New Zealand from some regional routes prompted questions on the resilience of the transport links that connect our regional populations and economies. Specifically, this report sets out to answer the following questions:

1. What is the status of regional social and economic development in New Zealand?
2. Why should we care about strong regional growth across all of New Zealand?
3. Are transport investment decisions made in ways that support the objectives of regional economies?

These three inquires prompt the over-arching question of whether regional social and economic development can be better factored into transport decision-making processes.

The solutions proposed in this paper are intended to be straightforward, supported by fact, and able to be implemented as part of a wider policy framework on transport decision-making. Communities deserve to get the best possible value from the rates and fares they pay across transport modes, which requires services that best connect our communities and support our regional economies.

Lawrence Yule
President
Local Government New Zealand

Executive summary

Executive summary

Several New Zealand regions are underperforming on measures of economic, population and employment growth. Recently, high profile transport decisions have reduced the level of connectedness to regional locations, presenting the risk that transport decision-making contributes to the creation of a "two-tier" New Zealand economy, where some regions are left behind while others move ahead.

Strong economic performance across all regions of New Zealand is a strategic priority of Local Government New Zealand (LGNZ). Stronger regions benefit the whole country and lead to a stronger New Zealand. With this objective in mind, LGNZ has investigated the role of transport infrastructure in achieving consistently strong economic and social outcomes across New Zealand, and to identify ways that transport decisions can better contribute to this goal.

This paper focuses on how transport sector decisions are made

This paper analyses the decision-making processes applied across transport modes, using case studies to highlight how current processes may not be resulting in the best outcomes for regional economies. It does not provide an economic impact assessment of particular transport links or decisions, but does draw on other studies to illustrate the consequences of failing to support regional economies through transport decisions.

Transport links provide connectivity between geographically dispersed parts of New Zealand. This is important not only from an economic perspective to achieve growth, but also from a social perspective to maintain and enhance social connectivity.

Previous research on the link between regional economies and transport has explored whether a lack of investment in transport infrastructure might be holding back regional growth opportunities. While this research finds a clear link between transport investment and regional development, infrastructure investment needs to be properly targeted to generate regional social and economic development. Given the relatively well-developed nature of much of New Zealand's transport infrastructure, we therefore need to consider how infrastructure can be best used for a range of economic and social benefits.

This paper approaches the link between regions and transport through a different lens, by focusing on how transport investment decisions are made, and how decision-making processes provide opportunities to account for regional impacts. This approach allows us to identify inconsistencies in how decisions are made across different transport modes, and to determine what those inconsistencies mean for the allocation of transport funding.

< Different processes and criteria are used to make investment decisions across the various transport modes >

Transport decisions are made across a range of modes (road, rail, airports, seaports) to deliver a set of desired outcomes. One outcome is connectivity, ensuring that different geographic areas and transport modes are well-connected to allow for the efficient movement of people and goods. The way that transport decisions are made therefore needs to build an understanding of how decisions will affect the connectivity of regions.

Given that transport decisions all aim to achieve connectivity, it would be beneficial to see transport decisions made in broadly consistent ways across different modes. Consistency would help to ensure that funding is used in ways that best promotes the desired outcomes. For example, if particular regions rely heavily on air transport, then decision-making processes should enable resources to flow to that mode, rather than spending transport funding on less valuable uses in other transport modes.

Transport decision-making processes in New Zealand actually have stark differences across the various modes - largely for a range of historical and institutional reasons. Road investments are based primarily on an economic analysis. In contrast, rail decisions are largely made using more limited commercial considerations. Aviation investments outside larger urban centres are heavily influenced by the activities of a dominant commercial provider (Air New Zealand), whereas regional and local councils have greater opportunities to influence maritime and port investments.

The current lack of consistency and transparency in transport decision-making processes reduces confidence that resources are being allocated to deliver the best outcomes for the whole of New Zealand. This objective would be better promoted by ensuring that regional social and economic impacts and priorities are considered in the decisions being made across different transport modes.

< The importance of regional impacts varies across transport modes >

While it would be unrealistic to expect perfect harmonisation of productive approaches across transport modes, all modes can and should find ways to enable regional economic impacts and priorities to be communicated to decision-makers.

Road investment decisions provide some opportunities to explicitly account for regional impacts. Local government has some control over how some of the funds collected from fuel taxes, road user charges and rates are used through Regional Land Transport Plans. In addition, state highway investment decisions (made by the NZ Transport Agency) are based on a relatively broad set of considerations, including regional economic impacts. As a result, we are less concerned about the impacts that decisions in the roading sector have on regional economic and social outcomes.

The presence of more commercial decision-making models in the rail, airport and seaport sub-sectors creates difficulty in considering how regional economies will be affected by decisions. Commercial operators will understandably focus more narrowly on their shareholders' interests rather than the regional economic or social impacts of their decisions. Recent decisions by Air New Zealand and KiwiRail to reduce the geographic scope of their services highlight how more narrow commercial decision-making processes can risk creating outcomes that are not in the interests of a particular regional economy and New Zealand society as a whole.

Figure 1 summarises the key factors that affect a transport sub-sector's ability to incorporate regional social and economic development into decisions, namely:

- Road investment decisions use economic analysis so automatically incorporate regional social and economic development into decisions;
- Rail decisions are largely based on commercial analysis, so do not take regional social and economic development into account;
- Airports have a regional owner who would like to consider regional social and economic development in decisions; however the presence of a dominant service provider in the industry makes this difficult; and
- Seaports also have a regional owner and a range of service providers.

Therefore there is more scope for the port owner to incorporate regional development into decisions than in airports, however the extent of the influence that the owner has varies across ports due to factors such as the bargaining power of customers and the level of competition.

Figure 1: Summary of transport sub-sectors

	Road	Rail	Airport	Seaport
Criteria for investment decision making:	Economic	Commercial	Commercial	Commercial
Key players:	NZTA/Councils	Commercial Owner	Regional owner, dominant service provider	Regional owner, range of service providers
Current Ability to consider regional economic development:	✓	✗	✗	✓✗

< All transport decisions should incorporate ways for communities to express demand >

The only way to protect regions against the adverse effects of commercial transport decisions is to give communities clear channels for expressing their preferences and priorities to decision-makers. While a commercial operator should not be forced to operate unviable services and routes, communities should be given the opportunity to express their demand to retain or expand transport services, and to signal their willingness to pay for services before decisions are made.

We cannot expect commercial companies to invest on the basis of economic analysis. However, we can provide an opportunity for central government or communities (through their councils) to find the funds needed to make outcomes commercially viable if the broader economics, such as the benefits from connectivity, stack up.

Achieving two key outcomes

We propose two required outcomes in transport decision-making that would support stronger regional growth across all of New Zealand.

Outcome 1: Transport decision-makers apply consistent criteria across all modes

Outcome 2: Local communities and regional leaders work with transport decision-makers to highlight regional priorities and impacts

To achieve these outcomes we recommend that central and local government and industry work together on three key actions to maximise the value of a "multi-modal" approach to transport in ways that support regional economies. This needs to be the start of a discussion that ensures a stronger, joined-up approach to planning and investing in New Zealand's transport infrastructure.

Action point 1:

Develop processes to ensure that the full impacts of all maintenance, operations, investment and de-investment decisions are understood. It is critical to understand the impacts of transport decisions across all modes. As a starting point, existing decision making processes should be benchmarked against the level of information, analysis and criteria used to make major road transport decisions to understand where improvements are needed and over time ensure consistency and a more complete understanding across the transport modes.

Action point 2:

Partner to leverage existing government, business and community networks to ensure collective understanding of transport decisions and their regional impacts. Consistent analysis and criteria are only part of the story - relationships and stakeholder engagement in decisions also matter. Local and central government can leverage established relationships with commercial transport operators to improve understanding of the role that all transport modes play in achieving regional priorities, for example through an advisory board or other entity given this task, and the likely impact on communities. Improved networks, resulting in better communication, will enable all stakeholders to identify "triggers" for action and ensure communication with those impacted by transport decisions.

Action point 3:

Ensure improved clarity, communication, inter-operability and evidence of value across decisions made in all modes. The level of consultation, community input, and opportunity to improve decisions currently varies by mode and in some cases there is significant room for improvement. There is value to be gained for our regions and New Zealand in clarifying the expectations on transport operators when it comes to engaging with communities that will be socially and economically affected by their decisions. Such closer collaboration with commercial parties will also build a better understanding of the incentives at play in different decisions and how incentives can be aligned to generate the best outcomes for New Zealand.

1

What is the status of regional social and economic development in New Zealand?

What is the status of regional social and economic development in New Zealand?

There is regional disparity in economic indicators

There is evidence of a "two-tier" economy emerging in New Zealand. While Auckland and Christchurch and some regions are growing, others are being left behind.

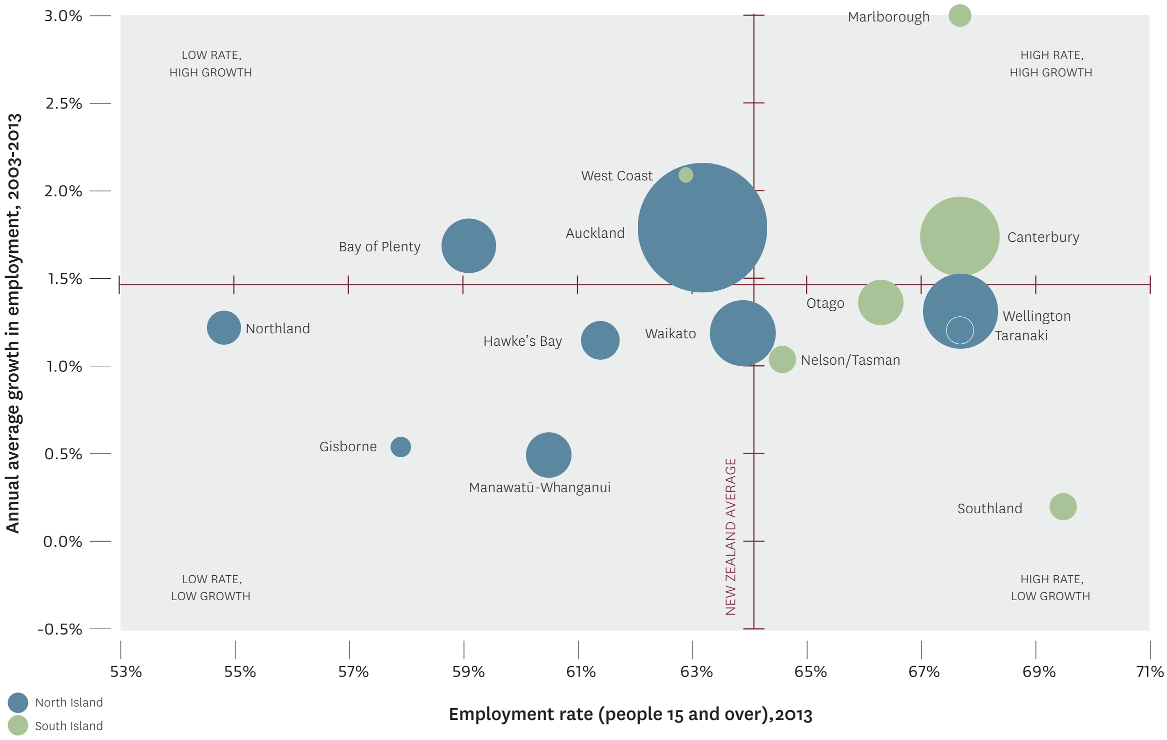
Some regions in New Zealand are experiencing low economic growth, low growth in population, and few new employment opportunities:

> **Population growth:** Between 2006 and 2013, 20 out of 67 territorial authority areas in New Zealand experienced population decline.[1]

> **GDP:** Northland, Gisborne, Hawke's Bay and Manawatu-Whanganui regions have the lowest GDP per capita (between $35,000 and $39,000), well below the national average of $47,000.[2]

> **Employment Opportunities:** Figure 1.1 from the Ministry of Business, Innovation and Employment (MBIE) summarises some of the disparity in employment opportunities between the regions. It shows that Northland, Hawke's Bay, Gisborne, and Manawatu-Whanganui have both lower than average employment growth and lower than average levels of employment.

Figure 1.1: Employment opportunity across regions



Note: Circle area indicates region's share of national employment.
Source: Statistics New Zealand, Ministry of Business, Innovation and Employment

1 Statistics New Zealand http://www.stats.govt.nz/browse_for_stats/population/census_counts/2013CensusUsuallyResidentPopulationCounts_HOTP2013Census.aspx
2 MBIE, Regional Economic Activity Report, 2014

Transport decisions may exacerbate the problem

Some recent transport decisions threaten to contribute to the risk of a two-tier economy. For example, Air New Zealand recently ceased flights into some regions, while KiwiRail has closed the Napier-Gisborne rail line and may consider further network reductions.

This paper analyses how decision-making processes are made across different transport modes, and how these processes might affect vulnerable linkages between transport and regional social and economic development.

This report

We begin by summarising why regional economic performance is important (Section 2.1), exploring the relationship between transport decisions and regional development. (Section 2.2), and outlining how the need for investment drives decisions (Section 2.3).

We then investigate how transport decisions are made across different transport modes and how each mode currently takes regional development considerations into account (Section 3). We highlight the differences and similarities between the decision-making processes in land transport modes (road and rail) (Section 3.1), and between airports and seaports (Section 3.2). Case studies of recent transport decisions affecting Northland and Gisborne are used to examine how decision-making processes may have affected economic and social outcomes in those regions.

Finally, Section 4 of this paper provides recommendations for how regional economic impacts could be better factored into transport decision-making processes to encourage and enable strong economic growth across all regions.

2

Why should we care about strong regional growth across all of New Zealand?

Regional social and economic development is important for New Zealand's future prosperity. There is a direct link between regional development and national prosperity. This underscores the importance of an integrated relationship between local and central government decision-makers to achieve these shared objectives.

Transport infrastructure can contribute to regional development; however the effects become more incremental (rather than transformative) as the transport network develops. In New Zealand's relatively developed transport network, the investment decisions that affect regions focus on renewal of existing infrastructure assets, and whether services should continue to be provided at previous levels.

2.1 Why does regional economic growth matter?

Regional economic growth is a strategic priority of both local and central government.

Regional economic growth can benefit national economic and social development

To achieve strong growth across the whole of New Zealand, regions need to grow. Regional economic growth has social impacts such as reasonable living standards and providing economic opportunity for all New Zealanders. Strong, balanced growth therefore creates greater social cohesion. However, it is also important to avoid problems that arise from having larger cities, such as traffic congestion and housing affordability. While economic growth in New Zealand's cities is important, this needs to be balanced by ensuring that there are opportunities for prosperity in other parts of the country.

Regional New Zealand is a major contributor to the nation's GDP, contributing $88 billion to national GDP in 2014, or 38 per cent of total GDP[3]. The regions also have significant growth potential. New Zealand is looking to increase its total exports of goods and services from 30 per cent of GDP today to 40 per cent by 2025.[4] To meet this target, the value of our exports will need to double in real terms. This requires average annual real export growth of between 5.5 per cent and 7.5 per cent from 2016 to 2025. A significant proportion of the goods that New Zealand exports are produced in regional economies, such as dairy products, timber, wool, meat, horticulture and aquaculture. Improved productivity and growth in regional economies will be instrumental in achieving this national scale-up of exports.

The literature presents a range of development models that link regional economic development and national growth. There are regional development models that argue that a country's development depends on the development of its regions. These models propose that policies should aim to strengthen regional economies in order to strengthen the national economy.[5] A common element in the literature on best practices for local economic development is supporting local leadership to mobilise local resources. This leads to a focus on fostering systems for regional innovation and regional skills.

Regional economic growth is one of LGNZ's strategic priorities and is a central government focus

Regional economic growth is the core focus of LGNZ's strategic priority which seeks to achieve: 'A shared national approach to addressing regional development and growth across all of New Zealand'.[6]

Central government also realises the need for strong regional economies, reflected in the Government's Business Growth Agenda (BGA). The BGA recognises that "for New Zealand to become competitive, we need the businesses in each region to be successful, delivering high quality products and services that contribute to the national economy and that generate jobs and good living standards for local people".[7]

The BGA includes a number of future regional economic initiatives such as the Regional Economic Growth Programme, which produces in-depth reports on future business opportunities in the region. There are a number of initiatives already underway that contribute to regional economic growth, such as the Roads of National Significance (RONS) and the ultrafast broadband rollout and the rural broadband initiative.

3 Statistics New Zealand, Regional Gross Domestic Product: Year ended March 2014

4 MBIE, Business Growth Agenda Building Export Markets, August 2012.

5 Paul Dalziel and Caroline Saunders, Economic development: A review of key themes in the international literature, November 2014

6 LGNZ, Manifesto 2014 Our Seven Strategic Policy Priorities, http://www.lgnz.co.nz/assets/Uploads/Our-work/LGNZ-2014-Election-Manifesto.pdf

7 MBIE, Business Growth Agenda Future Direction 2014

2.2 Why does transport matter for regional economic growth?

Existing research finds a link between transport and economic growth, but emphasises that transport investment should not be viewed as a silver bullet that creates growth. Transport investment can make significant contributions to economic growth in transforming developing economies, and a number of New Zealand examples highlight this link.[8] However, transport decisions in developed economies also have important incremental impacts when considering whether to expand or shrink existing services.

There is a link between transport and economic growth, but transport investment on its own is not sufficient to generate significant economic growth[9]

One theory of growth (known as the endogenous growth theory) makes the case that transport directly contributes to economic growth through investment in transport infrastructure both by increasing physical capital and by inducing greater efficiency and productivity.

Transport infrastructure has historically been a primary driver of economic activity as countries develop. The transition from a fragmented transport system to an integrated transport network has large benefits. Transformative transport projects that unlock the resources of regions also provide growth opportunities in developing economies.

As economies mature and transport networks develop, the benefits from further transport investment become more incremental and the links between transport and the economy become more complex. Where there is already a well-developed transportation network, further investment will not lead to economic growth in and of itself.

In this context, transport investment can be seen as a necessary requirement for economic growth, but is not sufficient by itself to generate significant economic growth at either a national or regional level.

Transport links provide important social and economic connectivity

Transport links provide connectivity between geographically dispersed parts of New Zealand. This is important not only from an economic perspective for achieving economic growth, but also from a social perspective to maintain and enhance social connectivity.

In remote parts of New Zealand, transport links (such as a regional air service) provide important connectivity that helps to create more efficient access to staff, customers and markets. This promotes efficiency and growth in regions by expanding the attractiveness of commercial opportunities and encouraging entrepreneurship. OECD research highlights that these issues are particularly important in regions that suffer from economic or social problems, where transport infrastructure can either lead to further exclusion or can help to address underlying problems by improving accessibility and mobility.[10]

Transport networks also provide important social connectivity and amenity value that leads to economic development. For example, to attract businesses and professionals (such as doctors and teachers) to remote regions requires an adequate transport network. The ability to attract commercial activity and skilled labour in turn creates jobs and further economic growth. This suggests a positive reinforcing cycle of infrastructure investment and growth - with the opposite risk of a downward spiral as transport links are withdrawn.

Transport links also provide access to important social services that may not be accessible within the region, such as specialised education and healthcare services. In this way, efficient transport links play an important role in achieving social connectivity.

Historically, transport infrastructure projects have contributed to regional economic development in New Zealand

In New Zealand, early transport investments opened up economic activities that would not have otherwise been possible. For example development of the railways in 1870s provided access to much of New Zealand that was previously not accessible.[11] Investment in the railways allowed New Zealand to realise its agricultural potential, and also allowed for greater social connectivity.

8 Paul Dalziel and Caroline Saunders, Contribution of Transport to Economic development: International literature review with New Zealand perspectives, November 2014

9 Ibid

10 OECD (2002). Impact of Transport Infrastructure Investment on Regional Development

11 Ibid

A more recent example is the Auckland Harbour Bridge, which catalysed the development of the North Shore economy. The North Shore economy would not have developed in the way that it has without this link to the Auckland central business district.

2.3 How does the need for investment drive decisions?

As a developed economy, New Zealand's infrastructure is in a relatively steady state. Therefore, most transport investment decisions that affect regional economies focus on the renewal of existing infrastructure assets. These decisions require infrastructure owners to assess the viability of investments to decide whether to renew or retire the asset.

The capital that is tied up in infrastructure assets is often a sunk cost. This means that even if the owner is not recovering the full cost of their capital, as long as they can recover operating and maintenance expenses then they will continue to operate in the short to medium-term.

However, sometime in the future, major capital investment will be required. At this point, infrastructure owners need to consider whether they will recover the cost of this investment. From a commercial perspective, if the project cannot prove a positive Net Present Value (NPV) then the investment should not proceed.

Two recent examples highlight that New Zealand is grappling with the issue of transport infrastructure maintenance and renewal:

> Air New Zealand's decision to pull out of regional routes. Although Air New Zealand has stated that is has been operating these routes at a loss for some time, a decision needed to be made when it was time to upgrade its Beech 1900 fleet. Air New Zealand had to consider whether it was commercially viable to replace the fleet with a similar sized aircraft. Ultimately Air New Zealand decided that operating aircraft that size would not meet its commercial objectives and decided to retire the fleet and replace with larger (50 seat planes). This led to the removal of some routes.

> KiwiRail's decision to mothball the Napier-Gisborne line was made following damage to the line. KiwiRail needed to determine if the necessary investment to repair the track would be justified by the future revenues earned (that is if the repair investment would be commercially viable).

We also foresee similar decisions needing to be made across New Zealand ports. Ports recover investment in infrastructure through charges to shipping lines. When determining the viability of renewing a wharf, the port therefore needs to consider how much revenue they would need to recover the investment, and whether the resulting prices would reduce their volumes. The outcome may be that shipping lines prefer to use other ports, rather than pay higher charges – meaning that the investment is not justified.

It is important that the decision-making processes for investment ensure that investments are targeted in the right geographical locations and the right transport mode to maximise value for money and the social and economic benefits flowing from the investment.

3
How are transport investment decisions made?

Decision-making processes across transport modes may exacerbate the risks of a two-tier economy emerging in New Zealand. Different decision-making processes are used in each transport mode, with regional economic impacts reflected to a greater or lesser extent across each mode.

We analyse four transport sub-sectors; road, rail, sea and air. In this analysis we group road and rail, and ports and seaports together to examine similarities and contrasts. We also use two case studies to highlight how rail and airport's decision-making process incorporate regional economic impacts.

3.1 Road and rail

Road and rail transport modes compete for freight, and to a lesser extent for passenger volumes. Although they are competing, these land transport modes have different ownership structures and funding sources, and different investment appraisal approaches. This leads to a different emphasis on the impacts that investments may have on regional economies.

3.1.1 Decision-making processes in road and rail

The following table (overleaf) summarises the decision-making process used in the road and rail sub-sectors.

Comparisons and contrasts between rail and road

While road and rail compete, investments are justified based on a different set of considerations. Options analysis for road investment decisions are based on a thorough economic assessment of all impacts, whereas the Government expects KiwiRail to compete on a commercial basis with other freight transport modes.

Economic analysis of road investments means that feedback from consultation can have an effect on the decisions that are made. For example, if consultation highlights that things like amenity value, environment impacts or particular regional priorities would be affected, then decision-makers can take these factors into account. In contrast, feedback from consultation on rail investment decisions appears to have little sway on the decision, unless it affects the profitability of KiwiRail.

3.1.2 Case study: The East Coast economy and the Napier-Gisborne rail link

On the East Coast, GDP per capita and median household income are both well below the national average and the unemployment rate is well above the national average. We use the example of the Napier-Gisborne rail link to highlight how a transport investment decision may have affected economic prospects in the region.

What modes of transport are important for economic and social development in the region?

The East Coast Regional Economic Potential Study published by MED (now MBIE) showed that the region has a concentration of primary and related processing and service industries, such as horticulture, forestry and log processing. Looking at various options for future economic growth, the report concluded that the major constraint on future economic growth was the resilience of the road network.[12]

On rail, the report concludes that the Napier-Gisborne line is unlikely to achieve an acceptable commercial return based on the current patterns of freight in the area. When operational, rail only accounted for about two to three per cent of freight traffic on that route.[13]

The report highlights that a possible role for rail might exist over the longer term if it was used to support major new projects.[14]

An example of the investment decision-making process

The economic potential report considered that the effect of closing the Napier-Gisborne rail line was likely to be small, and the potential for the line to be commercially viable in the future under the current freight line forecasts is unlikely.

However, an independent consultant's report concluded that the line could be economically viable and that further analysis of the line, such as a full cost benefit analysis was needed to make an informed decision on any required investment. The consultants found that the analysis of the Napier-Gisborne line needed broader evidence than the commercial and financial analysis undertaken, and identified a range of possible economic and social benefits to continuing the line.[15]

The closure of the Napier-Gisborne rail link provides a useful example of how the limitations of the investment decision-making process for rail may have affected regional impacts.

12 East Coast Regional Economic Potential, Stage 2 economic forecasting and transport and skills implications

13 East Coast Regional Economic Potential, Study Stage 1: Research Review

14 Ibid

15 Berl Economics, Review of Economics of Napier-Gisborne Rail Line

Table 3.1: Decision-making process for road and rail

The analysis in this table focuses on roading and rail assets that link the regions together.

	Road	Rail
Ownership	• State highways are a Crown asset (except Public Private Partnerships such as Transmission Gully). • Local roads (defined as roads that form a regionally strategic purpose in moving people and goods within regions) are owned and managed by local governments	• Originally Government owned, in the 1990s railway assets were sold and listed on the NZX and the NASDAQ • In 2003, the Crown purchased back the track. Toll was the exclusive operator • In 2008, the Crown purchased back the business, which was re-named KiwiRail, and operates as an SOE
Funding	• The National Land Transport Fund[16] (NLTF) and local government[17]	• Commercial revenue, borrowings, subsidies and regular large equity injections from the Government. Equity injections from the Government show that they are prepared to subsidise KiwiRail • Investment in rail freight services and infrastructure is not covered under the Government Policy Statement on Land Transport. Investment in rail is managed by KiwiRail under the State-Owned Enterprises Act 1986[18]
Needs analysis	• Internal NZTA analysis • Uses a business case approach for investment from the NLTF. Builds an investment case by identifying the core problem, the consequences of not addressing it, and the benefits to be gained by investing in a solution	• Internal KiwiRail exercise • KiwiRail examines the economics of each route and develops options, with a focus on "the sectors and customers that will enable growth objectives, improve operating cost position, restore market and shareholder confidence, and improve safety performance"[19]
Options analysis and selection	• Economic analysis in accordance with the NZTA Economic Evaluation Manual[20]; can consider regional economic growth as a wider economic benefit • Assessed against strategic fit, effectiveness and economic efficiency • NZTA Board approves major investment decisions	• Commercial analysis; investments need to prove commercial viability • KiwiRail Board approves major investment decisions
Consultation processes	• NZTA has an extensive consultation process • Economic analysis provides scope to consider things that arise in consultation such as amenity value and the environment	• Although KiwiRail undertakes consultation, the scope for feedback from consultation to affect the decision-making process is limited due to the commercial focus of investment decisions
Incentives	• National and regional development objectives can factor into both economic analysis and strategic elements of decisions	• Commercial • Regional economic development is not explicitly considered

16 Made up of revenue from fuel excise duty, road user charges, motor vehicle registration fees and leasing of state highway property

17 NZTA, National Land Transport Programme 2012-2015, At a Glance, http://www.nzta.govt.nz/resources/national-land-transport-programme/2012-2015/docs/at-a-glance.pdf

18 Government Policy Statement on Land Transport, 2015/16-2024/25

19 KiwiRail, 2015-2017 Statement of Corporate Intent, http://www.kiwirail.co.nz/uploads/Publications/SCI.per cent202015-2017per cent20Final.pdf

20 http://nzta.govt.nz/resources/economic-evaluation-manual/economic-evaluation-manual/eem.html

The investment decision for rail should be on an equal playing field to road

This case study highlights the investment decision-making process for rail, which in this case led to the mothballing of the rail service.

Better communication channels between KiwiRail and the affected community could have led to a greater awareness of the value of the rail service to the Hawke's Bay community, and perhaps a different outcome. At the very least, a different approach to decison-making would have allowed for the local community to be involved in the decision-making process.

Recent recommendations highlight ongoing risks to the rail network

Documents have recently been released from the 2015 budget on the future of KiwiRail. In these papers, The Treasury recommends "options for the business are either relatively small scale rationalisation of the existing network... or very significant downsizing of the rail freight network, including exit"[21].

The Treasury recommended closure or downsizing of the rail network based on fiscal priorities and commercial viability. This recommendation further highlights the point made in this report, that implications of transport linkages are not fully understood if they are based on commercial considerations alone. Without a full economic analysis, the public good benefits of rail will not be taken into account.

The Government elected not to follow The Treasury's recommendation, perhaps due in part to the broader public good benefits of a functioning rail network. However, the Government has noted that ongoing subsidies to KiwiRail are unsustainable, and has only committed to two years of funding[22]. This suggests that the Government expects KiwiRail to operate on a commercial basis, which poses risks to the future of rail networks that provide economic benefits to regional communities.

Box 3.1: The decision-making process for the Napier-Gisborne rail link

Ownership: The line is owned by KiwiRail

Funding: Commercial revenue, borrowings, subsidies, and equity from the Government.

Needs analysis: The need for investment was bought on from damage to the track in 2012. A decision needed to be made whether to repair the track at a cost of $4 million. Part of the damage to the line is shown in the picture.[23]

Options analysis and selection process: The line needed to prove its commercial viability, including the cost of reinstatement. KiwiRail considered the cost of maintaining the line, and of maintaining and operating the freight service between Napier and Gisborne. KiwiRail's objective was to find the best financial solution.

Consultation:

- KiwiRail forecast future freight growth and concluded that there was insufficient demand to warrant reinstating the line. KiwiRail acknowledged there was support from local businesses and the community to reinstate the line but commented that "we need to ensure we invest in areas of the network where we are able to grow business to a level where it is commercially sustainable".[24] Several businesses have publicly stated they have been detrimentally affected by the closure of the line.[25]
- The Hawke's Bay Regional Council (HBRC) had expressed interest in enabling investment or continued operation of the line. The HBRC requested an extension on its decision to invest which KiwiRail declined. The Hawke's Bay Regional Transport Committee reported it was a "serious blow to regional economic development opportunities for northern Hawke's Bay and Gisborne".[26] The Committee remained committed to having a choice of different transport modes between Gisborne, Wairoa and Napier.

Incentives of decision maker: Improved communication and an extended timeframe to develop alternative options for the link could have led to improved outcomes for the region. KiwiRail is commercially driven and therefore only considered commercially viability in its decision. However the HBRC has regional economic development as one of its key incentives.

21 Budget 2015 Information Release

22 http://www.radionz.co.nz/news/political/278359/close-down-rail,-advised-the-treasury

23 http://www.kiwirail.co.nz/uploads/media/Napier%20Gisborne%20Line%20-%202012-05-18%20(Redacted).pdf

24 http://www.kiwirail.co.nz/news/184/78/KiwiRail-to-mothball-Napier-Gisborne-line.html

25 East Coast Regional Economic Potential, Study Stage 1: Research Review

26 http://www.3news.co.nz/nznews/kiwirail-not-opening-napier-to-gisborne-line-2015031507#axzz3cWIF8Vfk

25 http://www.3news.co.nz/nznews/kiwirail-not-opening-napier-to-gisborne-line-2015031507#axzz3cWIF8Vfk

3.2 Airports and seaports

Airports and seaports are not competing modes of transport; most airports focus on domestic movements of people and seaports on international movement of goods. However the two modes commonly have regional or local councils as whole or part owners which leads to a desire to consider regional economies in investment decisions. This is more difficult to achieve in the airports sector due to the presence of a dominant service provider.

3.2.1 Decision-making process

The table below presents the decision-making process in the airport and seaport sub-sectors.

Table 3.1: Decision-making process for airports and seaports

	Airports	Seaports
Ownership	• A range of ownership structures[27] • Some wholly local government owned[27] and others partially local government owned[29] • Wellington (34 per cent council owned, 66 per cent Infratil) and Auckland (council owns 22 per cent) airports are NZX listed • The Crown has shareholdings in four airports[30] and is a joint venture partner in six regional airports[31] • Some privately owned airports[32]	• All commercial ports are majority controlled by one or more local authorities[33] • The Port of Tauranga has the largest percentage of private ownership (45 per cent privately owned) • Most of the minor ports have remained 100 per cent local government-controlled since they were established
Funding	• Commercial revenue but some subsidisation/risk sharing arrangements at some regional airports • Some regional airports do not charge Air New Zealand the full cost • In Taupo, the District Council has entered into an agreement with SoundsAir where the council bears some demand risk by guaranteeing the first three seats per flight[34] • Under the NLTP, airports are considered when planning for land transport services that link to these facilities, but operate on a commercial basis without investment from the NLTF.[35]	• Commercial revenue • Under the NLTP, ports are considered when planning for land transport services that link to these facilities, but operate on a commercial basis without investment from the NLTF[36]

27 http://www.oag.govt.nz/2010/2008-09/part10.htm
28 Hokitika, Marlborough, Nelson, Palmerston North, Queenstown, Rotorua, Waikato
29 Christchurch, Dunedin, Invercargill, Omarama Airfield
30 NZIER, Port Performance and Ownership
31 Christchurch, Invercargill, Dunedin and Hawkes Bay
32 Hawke's Bay, New Plymouth, Taupo, Wanganui, Westport, Whakatane, Whangarei
33 National Infrastructure Unit, National Infrastructure Plan 2010 http://www.infrastructure.govt.nz/plan/mar2010/39.htm
34 http://www.taupodc.govt.nz/our-council/news/Pages/Bookings-open-for-new-air-service-provider.aspx
35 Government Policy Statement on Land Transport, 2015/16-2024/25
36 Government Policy Statement on Land Transport, 2015/16-2024/25

Table 3.1: Decision-making process for airports and seaports continued

	Airports	Seaports
Needs analysis	• In main centres, service frequency is left to market forces • JetStar has recently announced it will enter the domestic market, shortlisting several regional routes. Jetstar has launched a social media campaign asking customers which regions they most want serviced. Consumer and business demand for the services will be important determinants • For regionally owned airports where Air New Zealand does not operate, the needs analysis for service frequency and quality is determined as part of the consultation process with the public • In some cases, Air New Zealand has provided investment in airport infrastructure where it requires upgrading for their services to operate, for example at Kerikeri airport[37] • Kiwi Regional Airlines is looking to enter the regional market, servicing regions that are not currently serviced by Air New Zealand. They are specifically not going to offer routes that are already offered by Air New Zealand	• For capex investment at existing ports, demand forecast studies conducted by the ports, regional studies such as the Upper North Island Ports Study, and national level studies such as the National Freight Demand Study all inform capex planning • The process for establishing a new port is bespoke, for example the Ministry of Transport (MOT) recently led an investigation into establishing a ferry terminal at Clifford Bay. There does not appear any rationale why the MOT would be leading this investigation for a privately funded port
Options analysis and selection	• Regarding investment in airport infrastructure, larger airports (with revenues over $10 million) must consult with users (airlines) before making major infrastructure investment • For service provision, if Air New Zealand and smaller airlines provide the service they decide the best way to meet demand • If Air New Zealand doesn't provide the service, the airport owner can run a tender for the services	• Regional councils play a large role in analysis of options • There are incentives for 'beggar-thy-neighbour' behaviour in decision-making in port investment • An NZIER report on port ownership concluded that "local authority control has militated against the merger and rationalisation of ports"[38]

37 Far North District Council, http://www.fndc.govt.nz/communication/media-releases/releases/airport-passenger-growth-ready-for-take-off

38 NZIER, Port Performance and Ownership

Table 3.1: Decision-making process for airports and seaports continued

	Airports	Seaports
Consultation processes	• Air New Zealand does not appear to consult with the public in the decision-making process. There was no public consultation prior to Air New Zealand's removal of regional routes. Affected airports reported little consultation occurred before the decision • When councils have an ownership stake they have generally consulted with the public on the level of service they want	• There does not appear to be a set process for consultation • Auckland Council recently approved two large wharf extensions into Waitemata Harbour for port use. However, this was overturned by the high court who found that the proposal should have been publicly notified. • In contrast, Port Lyttleton consulted extensively regarding its recent reclamation
Incentives	• Overriding incentives on service operators are commercial • Legislation requires airports to consult with major airline customers when resetting charges, usually every five years. This includes detailed information disclosure on the part of the airport	• Incentive for the regional council is regional economic development, but as a port owner it must have an objective to operate as a successful business[39] • Councils can be reluctant to close ports and have economic activities and jobs move to another region, even if this improves overall economic efficiency • Ports can undercharge to encourage ships to visit. NZIER analysis found some evidence of charging below economic return at Ports of Auckland, and possibly Lyttelton Port Company[40] • Shipping companies have commercial incentives

Comparisons and contrasts can be drawn between airports and seaports

Both airports and seaports have commercially driven users with a large proportion of regional and local government ownership. Commercial port users will aim to maximise their profits. Port owners are required by Port Companies Act 1988 to have an objective to operate as a successful business. However, regional council port owners will also have regional economic development as a key objective. This creates a potential for tension between the two parties.

Air services in New Zealand focus on the domestic movement of people. This means that the operation of the airport has both social and economic impacts, and that demand for the service is relatively fixed. The domestic airline industry in New Zealand is also highly concentrated, with Air New Zealand the dominant player and major purchaser of regional airport services.

In contrast, ports are focused on the international movement of goods. The demand for the service varies based on pricing and facilities, as well as market forces in the demand and supply of imported and exported goods. Ports have a number of competing shipping lines that service them. These factors mean that ports lend themselves more easily to beggar-thy-neighbour behaviour – acting in a way that leads to one party being better off only by making another party worse off. Because ports are regionally owned, they have incentives to retain customers even if it would be more efficient for another port to provide the service. Ports can price their services or act in ways that attract customers from other ports. Although one port is better off, it is at the expense of the other port, and perhaps at the expense of overall efficiency.

39 Section 5 Port Companies Act 1988,

40 NZIER, Port Performance and Ownership

3.2.2 Case Study: The Northland economy and Kaitaia air link

This case study considers what transport infrastructure is important for the region using the example of Air New Zealand's decision in late 2014 to stop flying to Kaitaia. This case study demonstrates how the decision-making processes for investment in air transport have accounted for impacts in Northland.

What modes of transport are important for economic and social development in the region?

The Northland economy has been underperforming relative to other regions and relative to its resource base. GDP per capita is below the national average and the unemployment rate is above the national average.[41]

The Te Tai Tokerau Northland Growth Study Opportunities Report identified a number of opportunities for the development of the Northland economy. One priority for action was the visitor industry or tourism.

The report identified that a limited number and scale of flights into the Northland region was constraining the ability to realise growth in the visitor industry. Not only is air travel important to realise growth in visitors, it is an important social connection for the region, providing access to services such as health and education that are not available (at a specialised level) in the Northland region.

An example of the investment decision-making process in air services

A constraint on Northland's comparative advantage in the visitor industry is the limited number and scale of flights into the region. This constraint was exacerbated, when Air New Zealand announced that it was pulling out of the Kaitaia-Auckland route due to a lack of commercial viability.

Box 3.2: The decision-making process for the Kaitaia air link

Ownership: The Kaitaia airport is owned by Far North District Council (FNDC). Air New Zealand was the main commercial operator.

Funding: The airport's revenues come from landing charges.

Needs analysis:

- Air New Zealand believed there was not enough demand in the region for the route to be viable.
- FNDC considered the regional economic development effect of the route, and the community's demand to have a service. It was determined that there was sufficient demand to provide an alternative service.

Options analysis and selection:

The council ran a selection process and awarded the contract to Great Barrier Airlines, who offer an improved timetable to the one that Air New Zealand offered.[42] The FNDC was able to negotiate directly with airlines to ensure any services offered met the needs of the Kaitaia community.[43] Pictured is the Cessna Caravan 208B that Great Barrier Airlines will fly from Kaitaia to Auckland.

Consultation: Prior to Air New Zealand's decision there was little consultation with the airport or the community. The FNDC consulted with the community to determine that there was demand for the route and then on what service level the community demanded.

Incentives of decision makers:

- Air New Zealand's decision was commercially based. It claimed that the route was unviable, and that they are instead able to provide more cost effective services to Kerikeri. Air New Zealand may expect to retain much of the business from Kaitaia, by making it attractive (price wise) for passengers to drive to Kerikeri.
- The FNDC's decision to continue the route has a regional economic development focus, however the community has been warned not to take the new service for granted.[44] Therefore it appears that although the Council sees an airlink as "vital for economic growth and regional development"[45] the Council won't be subsidising the route if it becomes unsustainable for Great Barrier Air to operate.

41 Tai Tokerau Northland Growth Study: Opportunities Reportv
42 http://www.nzherald.co.nz/northland-age/news/article.cfm?c_id=1503402&objectid=11401338
43 http://www.scoop.co.nz/stories/AK1503/S00222/regular-flight-services-for-regional-communities.htm
44 http://www.nzherald.co.nz/northern-advocate/news/article.cfm?c_id=1503450&objectid=11440239
45 http://www.scoop.co.nz/stories/BU1504/S00756/provinces-urged-to-make-full-use-of-new-air-services.htm

As the case study illustrates, there was a positive outcome for the community, but the process could have been managed better.

Although the Kaitaia example describes an outcome where an alternative provider was able to deliver services previously provided by Air New Zealand, the value of those services to the Kaitaia community has reduced because of the lack of connectivity to Air New Zealand's wider network. If that lack of connectivity ultimately places the long-term commercial viability of the alternative provider in jeopardy, then all that will have been achieved is a slower loss of complete service. Under current laws there is no way to compel Air New Zealand to grant connectivity to its network.

Unfortunately, the local community and airport were not given the chance to negotiate with Air New Zealand on the basis of their willingness to pay to retain the service. There was little communication between Air New Zealand and the airport operator on its decision. Airports make capital expenditure based on their expectation of future services. This makes it important for airports to communicate with Air New Zealand, and to find out well ahead of time if Air New Zealand is considering removing services.

Better communication between Air New Zealand and the Northland community, and a process to understand the impacts of decision making on the region, would have provided greater awareness of the value of the air service. Further, communication would have given the community the chance to express their willingness to consider retention of the service.

A similar situation occurred in Whakatane and Westport, where both centres were also impacted by Air New Zealand's decision to withdraw services.

Other regional airports and ports can learn from this decision-making process. Regional airports and Air New Zealand should focus on improving communication with each other. If Air New Zealand plans to remove routes, regional airports should know this well ahead of time in order to have the opportunity to consult with the community about demand and the potential for subsidisation. If there is not the demand or willingness to pay to retain the service, then the airport can adjust its capital expenditure, for example not expand its facilities.

Although the risk at ports is lower (because their facilities are used by a range of shipping lines), that is not to say that a similar situation could not unfold in the ports sector. If a large shipping company decides to move its operations to a different port, then operations at the unfavoured port could become unviable. This situation will be worse if the port has recently committed to capital expenditure decisions based on the forecast demand from the operator that withdraws service from the region.

4

How can regional economic development be better factored into decision-making processes?

How can regional economic development be better factored into decision-making processes?

From our analysis, we conclude that the current decision-making processes across the transport sector are not facilitating the best outcomes for New Zealand and its regional economies. Sustained regional economic growth creates a stronger national economy, and, for all of New Zealand to prosper optimal investment across the transport modes is important.

However, at the current time, with decisions across competing and complementary modes being assessed on different criteria, it is difficult to see how optimal investment across the modes could occur.

Presently, some investment decisions are based on commercial analysis and others are based on economic factors. Decision-making processes are naturally influenced by the ownership of the asset - public ownership leans towards economic analysis and private ownership leans towards commercial and financial analysis.

4.1 Achieving two key outcomes

We propose two outcomes in transport decision-making that would support stronger regional growth across all of New Zealand. Achieving these outcomes requires partnership and coordination between local and central government, and where possible private sector operators, across all modes. This could be modelled on the strong partnership that local government and the NZ Transport Agency have formed on regional roading decisions.

Outcome 1: **Transport decision-makers apply consistent criteria across all modes**

Central government also recognises the need for a "multi-modal approach" to delivering transport solutions. Current central government initiatives for transport system development include developing a new investment approach across all of the transport portfolios, to ensure high value investment choices.

While we cannot expect commercial companies to invest on the basis of economic analysis, we can provide an opportunity for central government and/or communities (through their councils) to consider finding the funds needed to make a particular decision commercially viable if the broader economics stack up.

A potential solution could be incorporating a 'decision template' into existing planning and reporting processes (such as regional land transport plans) and also encouraging its use by commercial operators. A decision template could be utilised to encourage decision-makers to consult and communicate with affected parties. This template could lead to a more proactive approach in considering regional interests in decision-making and help to measure the impact of a change against the outcomes planned for a community.

Outcome 2: **Local communities and regional leaders work with transport decision-makers to highlight regional priorities and impacts**

The presence of commercial operators in the rail, airport, and seaport sectors can create tension between regional economic development and investment decisions. The case studies in this report highlight these tensions, where the local community values the service, but it is not viable for the commercial operator. As outlined above, commercial operators cannot be expected to place a sole emphasis on regional economic development; the goal of a commercial organisation is to maximise profitability.

However, coordinated communication between commercial operators and local government leaders and communities could create greater awareness of the value of the service to that community. Better communication will highlight potential triggers in the decision making process and will allow for a more proactive approach to considering communities in the decision-making process. These outcomes deliver benefits to both regional economies and commercial operators.

It is in commercial operators' interests to follow good decision-making processes that maintain their Social License to Operate (SLO). A SLO is defined as "the ability of an organisation to carry on its business because of the confidence society has that it will behave in a legitimate, accountable and socially and environmentally acceptable way".[46] The relationship required between commercial parties and communities relies on "trust and consistency between parties, quality information being provided, accountability, flexibility and transparency from all parties". [47] A number of high profile New Zealand businesses already have SLO strategies.

46 Sustainable Business Council, Social License to Operate Paper, http://www.sbc.org.nz/__data/assets/pdf_file/0008/85841/Social-Licence-to-Operate-Paper.pdf

47 Ibid

4.2 Three key actions to achieve these outcomes

A number of levers could be used to achieve these outcomes, ranging from 'soft' approaches such as leaving matters to "markets", to 'hard' options involving regulatory pressure and oversight. The actions taken to address these concerns needs to create incentives to implement the desired decision-making processes and encourage collaboration among affected parties.

The Ministry of Transport has national-level oversight into how transport investment decisions are made and resourced. We see an important role for the Ministry to work with local government to develop better institutional arrangements for transport decisions in our regions. This is consistent with the Ministry of Transport's objective of "ensuring our transport system helps New Zealand thrive". The importance of such issues to local government also strongly suggests that continued engagement between central and local government will be critical.

Following are three key actions, identified as a starting point to maximise the value of a "multi-modal" approach to transport in ways that support regional economies.

Action point 1:

Develop processes to ensure that the full impacts of all maintenance, operations, investment and de-investment decisions are understood.

It is critical to understand the impacts of transport decisions across all modes.

As a starting point, existing decision making processes should be benchmarked against the level of information, analysis and criteria used to make major transport decisions - to understand where improvements are needed - and over time ensure consistency and a more complete understanding across all transport modes.

Policy solutions may include:

- Creation of local economic indicators;
- Publishing economic and social impacts of major decisions being considered across various transport modes; and

Moving beyond simple reporting, this initiative requires greater transparency and communication of potential future changes to services to allow for action between Government, councils, their communities and modal service providers.

Action point 2:

Partner to leverage existing government, business and community networks to ensure collective understanding of transport decisions and their regional impacts.

Consistent analysis and criteria are only part of the story - relationships and stakeholder engagement in decisions also matter. Local and central government can leverage established relationships with commercial transport operators to improve understanding of the role that all transport modes play in achieving regional priorities, for example through an advisory board or other entity given this task, and the likely impact on communities. The board could be administered through an existing central or local government organisation, and work to neutrally serve as an interface between public and private organisations struggling with infrastructure demand or devolution. Improved networks, resulting in better communication will enable all stakeholders to identify "triggers" for action and ensure communication with those impacted by transport decisions.

However, this partnership requires more than communication. We cannot just leave it to market forces. Stronger participation will also require action and investment.

Policy responses may include:

- Government outlining policy direction for coordinated planning of investment decisions across all transport modes and with major providers;
- The provision of subsidies or other incentives whether by central or local government so the right transport services are in place to ensure economic growth occurs in our regions; and
- Central direction to connect airline services across the country to enable better passenger and baggage flow. Presently, only large airlines have the financial means to fund inter-connection agreements between themselves.

Action point 3:

Ensure improved clarity, communication, inter-operability and evidence of value across decisions made in all modes.

The level of consultation, community input, and opportunity to improve decisions currently varies by mode and in some cases there is significant room for improvement. There is value to be gained for our regions, and New Zealand, in clarifying the expectations on transport operators when it comes to engaging with communities that will be socially and economically affected by their decisions. Such closer collaboration with commercial parties will also build a better understanding of the incentives at play in different decisions and how incentives can be aligned to generate the best outcomes for New Zealand.

Similar to a policy solutions noted in action points 1 and 2 above, policy solutions may include:

- A standardised approach that allows central and local government and its communities to understand and plan for future transport decisions across regions and within and between modes; and
- Enacting national, regional and modal transport plans.

4.3 The next step

These actions, and others identified in this report, are intended to be just the start of a discussion to ensure a stronger, joined up approach to planning and investing in New Zealand's transport infrastructure. This is a conversation that local and central government must have urgently if we are to leverage the important role that transport infrastructure plays in regional economic growth.

List of references

Title	Author	Date	Website
Air New Zealand Route Changes, Economic Impact Assessment. Prepared for Whakatane District Council	Market Economics Limited	December 2014	
Budget 2015 Information Release	The Treasury	July 2015	www.treasury.govt.nz/publications/informationreleases/budget/2015
Building Bridges: Treating a New Transport Link as a Real Option, Motu Working paper 11-12	Arthur Grimes	December 2011	
Business Growth Agenda: Future Direction 2014	New Zealand Government	June 2014	www.mbie.govt.nz/pdf-library/what-we-do/business-growth-agenda/bga-reports/future-direction-2014.pdf
Cessation of Wellington-Taupo Air Service: Overview of Losses to District	Berl Economics	March 2015	http://www.taupodc.govt.nz/our-council/consultation/Documents/Taupoper cent20Wellingtonper cent20airper cent20service/ Econper cent20impactper cent20overview.pdf
Contribution of Transport to Economic Development: International Literature Review with New Zealand Perspectives	Professor Caroline Saunders and Professor Paul Dalziel	November 2014	http://www.transport.govt.nz/assets/Uploads/Our-Work/Documents/edt-contribution-of-transport-lit-review.pdf
East Coast Regional Economic Potential, Stage 2: Economic Forecasting and Transport and Skills Implications	Richard Paling Consulting, Martin Jenkins, Ascari, and Crowe Horwath	April 2014	http://www.med.govt.nz/sectors-industries/regions-cities/research/pdf-document-library/east-coast-study-stage-2.pdf
East Coast Regional Economic Potential, Study Stage 1: Research Review	Richard Paling Consulting, Martin Jenkins, Ascari, and Crowe Horwath	April 2014	http://www.med.govt.nz/sectors-industries/regions-cities/research/pdf-document-library/east-coast-study-stage-1.pdf
Economic Development: A Review of Key Themes in the International Literature	Professor Caroline Saunders and Professor Paul Dalziel	November 2014	http://www.transport.govt.nz/assets/Uploads/Our-Work/Documents/edt-review-of-key-themes.pdf
Future Freight Scenarios Study	Ministry of Transport	November 2014	
Future Options for the New Zealand Economy: Model, Data and Futures	Professor Caroline Saunders and Professor Paul Dalziel	November 2014	http://www.transport.govt.nz/assets/Uploads/Our-Work/Documents/edt-future-options-model-data.pdf
Impact of Transport Infrastructure Investment on Regional Development	OECD	2002	http://www.internationaltransportforum.org/pub/pdf/02RTRinvestE.pdf
Infrastructure's Long Infrastructure's Long Lived Impact on Urban Development: Theory and Empirics, Motu working paper 14-11	Arthur Grimes, Eyal Apatov, Larissa Lutchman and Anna Robinson	October 2014	

Title	Author	Date	Website
KiwiRail 2015-2017 Statement of Corporate Intent	KiwiRail	2015	http://www.kiwirail.co.nz/uploads/Publications/SCI.per cent202015-2017per cent20Final.pdf
Napier Gisborne Line, Assessment of the Commercial Viability of the Line	KiwiRail	May 2012	http://www.kiwirail.co.nz/uploads/media/Napierper cent20Gisborneper cent20Lineper cent20-per cent202012-05-18per cent20(Redacted).pdf
Overview of the Auditor General's Work in the Transport Sector	OAG	2012	http://www.oag.govt.nz/2012/transport-briefing
Port Performance and Ownership	NZIER	August 2010	https://www.businessnz.org.nz/__data/assets/pdf_file/0004/72085/Port-Performance-and-Ownership.pdf
Regional Economic Activity Report 2014	Ministry of Business, Innovation & Employ-ment	November 2014	www.mbie.govt.nz/what-we-do/business-growth-agenda/regions/documents-and-image-library/rear-2014.pdf
Regional Economies	NZIER	July 2014	http://nzier.org.nz/static/media/filer_public/e4/1f/e41f5c81-2d63-4548-8859-2dad5c8e213f/nzier_public_discussion_document_2014-03-regional_economies.pdf
Review of Economics of Napier-Gisborne Rail Line	Berl Economics	December 2012	http://berl.co.nz/assets/Economic-Insights/Infrastructure/Transport-and-Energy/BERL-economics-Napier-Gisborne-Rail11Dec.pdf
Shamubeel Eaqub at the 2014 LGNZ conference	Shamubeel Eaqub	2014	https://www.youtube.com/watch?v=JniUGfuCURI#t=365
Strategic Transport Choices, Motu Note #5	Arthur Grimes	2010	
Tai Tokerau Northland Growth Study: Opportunities Report	Martin Jenkins	February 2015	www.med.govt.nz/sectors-industries/regions-cities/research/regional-growth-studies/Taiper cent20Tokerauper cent20Regionalper cent20Growthper cent20Study.pdf
The Role of Rail in New Zealand's Freight Transport Strategy	Productivity Commission		http://www.productivity.govt.nz/sites/default/files/Subper cent20002per cent20-per cent20Targetper cent20Railwayper cent20Progressper cent20-per cent20Theper cent20Roleper cent20ofper cent20Railper cent20inper cent20NZper cent20Transportper cent20Strategyper cent20v7.pdf
Transport Implications of Future Options of the New Zealand Economy: An Opening Discussion	Professor Caroline Saunders and Professor Paul Dalziel	November 2014	http://www.transport.govt.nz/assets/Uploads/Our-Work/Documents/edt-transport-implications.pdf
Upper North Island Ports Study	PWC	November 2012	http://www.nrc.govt.nz/Download/?file=/upload/11234/Upper North Island Ports Study - November 2012 (pages 1-50).pdf

Acronyms and abbreviations

BGA	Business Growth Agenda
GDP	Gross Domestic Product
HBRC	Hawke's Bay Regional Council
LGNZ	Local Government New Zealand
MOT	Ministry of Transport
SLO	Social License to Operate
SOE	State-owned Enterprise

We are. LGNZ.

PO Box 1214
Wellington 6140
New Zealand

P. 64 4 924 1200
www.lgnz.co.nz

We are.

Ashburton.
Auckland.
Bay of Plenty.
Buller.
Canterbury.
Carterton.
Central Hawke's Bay.
Central Otago.
Chatham Islands.
Christchurch.
Clutha.
Dunedin.
Far North.
Gisborne.
Gore.
Greater Wellington.
Grey.
Hamilton.
Hastings.
Hauraki.
Hawke's Bay Region.
Horizons.
Horowhenua.
Hurunui.
Hutt City.
Invercargill.
Kaikoura.
Kaipara.
Kapiti Coast.
Kawerau.
Mackenzie.
Manawatu.
Marlborough.
Masterton.
Matamata-Piako.
Napier.
Nelson.
New Plymouth.
Northland.
Opotiki.
Otago.
Otorohanga.
Palmerston North.
Porirua.
Queenstown-Lakes.
Rangitikei.
Rotorua Lakes.
Ruapehu.
Selwyn.
South Taranaki.
South Waikato.
South Wairarapa.
Southland District.
Southland Region.
Stratford.
Taranaki.
Tararua.
Tasman.
Taupo.
Tauranga.
Thames-Coromandel.
Timaru.
Upper Hutt.
Waikato District.
Waikato Region.
Waimakariri.
Waimate.
Waipa.
Wairoa.
Waitaki.
Waitomo.
Wanganui.
Wellington.
West Coast.
Western Bay of Plenty.
Westland.
Whakatane.
Whangarei.

LGNZ.