

An aerial photograph of a river delta, with a road and a rail line crossing it. The river is a vibrant blue, and the surrounding land is a mix of brown and yellow. The road and rail line are a straight line, cutting through the delta. The text 'RETHINKING REGIONAL CONNECTIVITY' is overlaid on the image in large, white, sans-serif capital letters.

RETHINKING REGIONAL CONNECTIVITY

UNLOCKING OPPORTUNITIES ACROSS
ROAD, RAIL, AIR, AND SEA

A DISCUSSION PAPER BY **KALI MERCIER**

October 2026

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The Right Honourable Helen Clark
Photo credit The Elders/Jeff Moore.

Our Philosophy

New problems confront our society and our environment, both in Aotearoa New Zealand and internationally. Unacceptable levels of inequality persist. Women's interests remain underrepresented. Through new technology we are more connected than ever, yet loneliness is increasing, and civic engagement is declining. Environmental neglect continues despite greater awareness. We aim to address these issues in a manner consistent with the values of former New Zealand Prime Minister Helen Clark ONZ, who serves as our patron.

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Our goal is to gather, interpret, and communicate evidence in order to both diagnose the

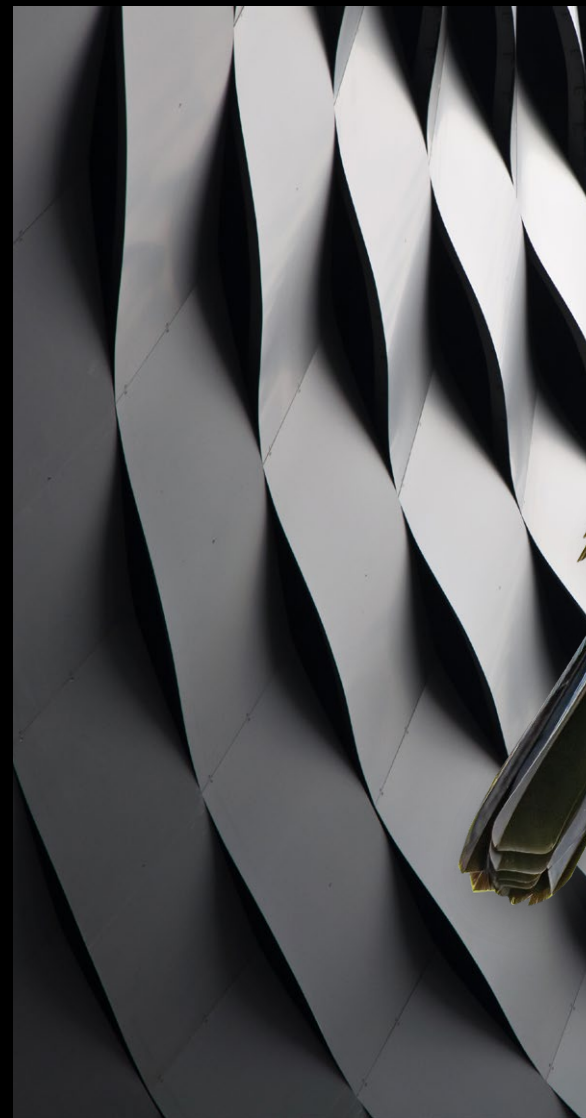
problems we face and propose new solutions to tackle them. We welcome your support.

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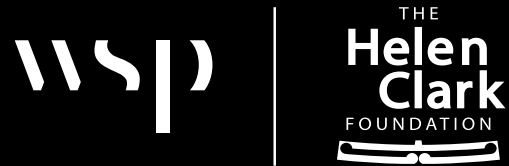


About WSP

WSP is one of the world's leading professional services firms, uniting its engineering, advisory and science-based expertise to shape communities to advance humanity.

With roots in New Zealand's earliest infrastructure projects more than 150 years ago, WSP today has offices and labs in 24 towns and cities across Aotearoa New Zealand – from Whangārei to Invercargill – and employs over 2000 professionals, known as Visioneers.

Together they pioneer solutions and deliver innovative projects across the transport, building, environment, water, energy and advisory sectors.



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Kali Mercier

WSP Fellow, and Deputy Director of the Helen Clark Foundation

October 2026

EXECUTIVE SUMMARY

New Zealand's regions are fundamental to the national economy: their success supports the success of the country. Primary industries such as forestry, dairy, and horticulture underpin national economic activity and depend on reliable transport networks to reach domestic and international markets. These same networks connect people to healthcare, education, employment, and family.

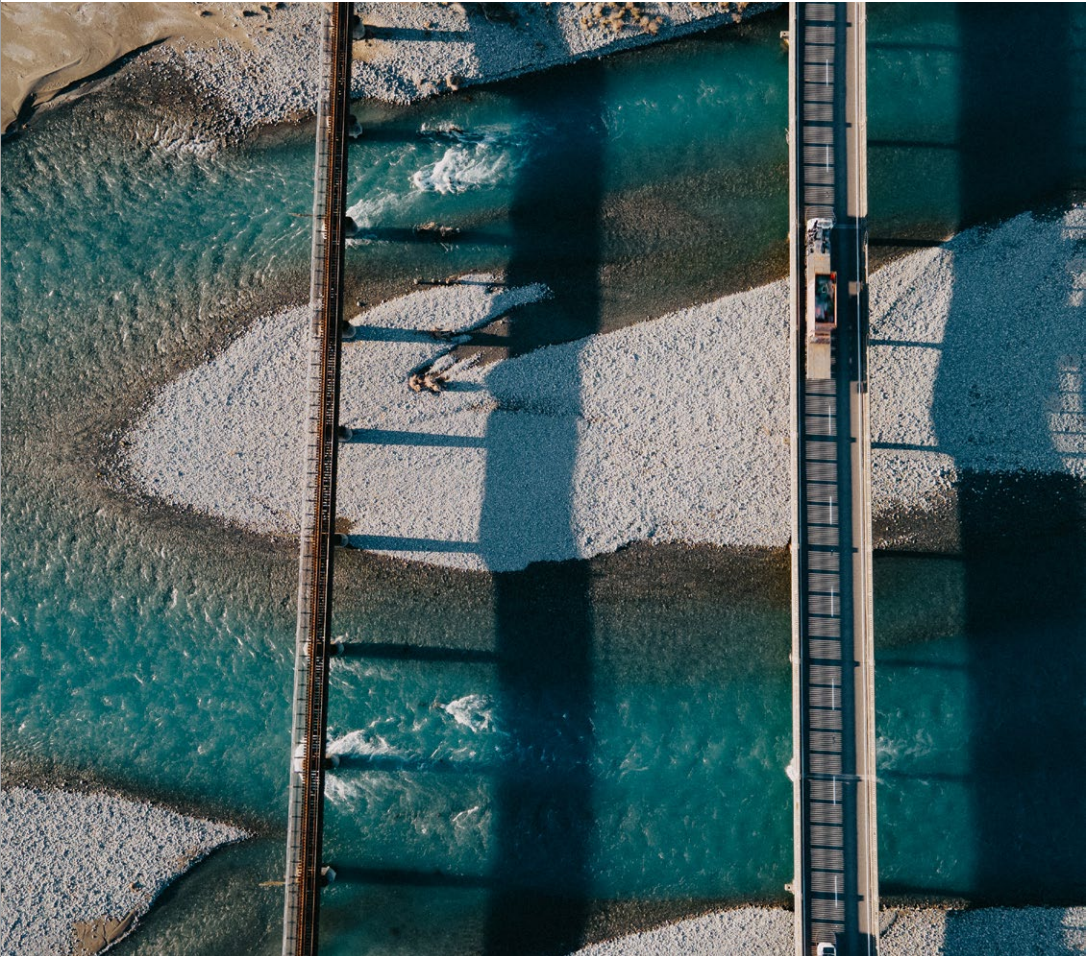
Yet, in many regions, critical transport connections are regularly disrupted. Approximately 6,000 geological and hydrological events affect the state highway network each year – a particular issue for those communities with no, or few other, viable alternative routes (New Zealand Transport Agency (NZTA), 2026). New Zealand has a substantial economic engine in its regions, but weaknesses in the transport network leave that engine, and the country as a whole, exposed. There is, however, no simple solution.

The country has for many decades been dependent on roads and private vehicles as our main form of transport, with aviation often the mode of choice for passengers travelling longer distances. This mode focus has been shaped by central government policy choices made over many decades, and has come with various environmental and health costs (discussed further in Chapter 8) (Miller et al., 2025). In New Zealand's more remote regions, not being able to drive – or being unable to afford to – can also have a significant impact on wellbeing (Curl & Kiddle, 2026).

Three contextual challenges stand out in particular for the country. First, there are growing fiscal constraints on transport investment at the central government level, in large part due to competing demands for investment in other types of infrastructure such as healthcare (Infrastructure Commission, 2026).

Second, at the local level, New Zealand's population is changing and ageing. While the population of the country is growing, this growth is mostly occurring in the larger centres. Some regions are grappling with how to maintain their assets to a high standard and fund new infrastructure with a smaller rates base and proportionally more older residents on fixed incomes (Infrastructure Commission, 2026; Mercier, 2025).

Third, climate change is increasing the frequency and severity of disruption to transport networks, and the cost to repair them, and this impact is expected to become worse over time (NZTA, 2026). To this is added the near inevitability that the country will face one or more major earthquake events at some point in the next decades. Ongoing geological and weather-related events increase fiscal strain, cause significant disruption to markets, and impact the connectivity (and thereby the wellbeing) of people living in the regions.



An unusual degree of institutional change is currently under way, making this the ideal time to start a strategic conversation on regional transport connectivity. Local government faces structural reorganisation, with regional councils to be removed and many local authorities expected to amalgamate with their neighbours. The Ministry responsible for transport has this year joined with other Ministries to form the Ministry for Cities, Environment, Regions and Transport (MCERT, 2026a).

Meanwhile, legislation governing how decisions are made about land use and resource consents has been undergoing significant change during this parliamentary term with the overhaul of the Resource Management Act 1991 and its replacement with two

new pieces of legislation. Work is also ongoing to set out in legislation how the country must respond to climate change. The Climate Change Response Act (CCRA) is expected to be amended to require local councils to produce 30-year plans for how they plan to adapt (Watts, 2026).

These changes and reforms will inevitably impact the way that transport decisions are made. They provide an opportunity to focus on long-term strategies that bear in mind the wider goals of the system as a whole: to improve economies, improve resilience, and ensure good access to employment, health services, and education, and high levels of wellbeing for all New Zealanders, regardless of where they live.



These three themes – productivity, resilience, and accessibility – inform the content of this discussion paper. The four main regional transport modes – road, aviation, shipping, and rail – are examined in turn through these three lenses. The paper then looks at several regional case studies to test how the transport modes are being used in practice, and the overall impact this has on the regions.

From this analysis, some key issues have emerged as areas for further consideration and discussion. First, investment in transport in the regions should be more outcomes-focused around the three themes mentioned above – productivity, resilience, and accessibility.

When forming strategies and making investment decisions about each type of mode, the importance of productivity and growth, or resilience to earthquakes (for example) will often be considered. But these decisions tend to be made in isolation, shaped by the governance and policy settings for each mode – for land transport, the Government Policy Statement set by successive governments, for example. Thus a decision about whether to build a major new road will not typically consider whether a new rail line would bring similar or better productivity or resilience benefits to the region, and at what cost each might be delivered.

Similarly, a decision about whether the central government might invest in port infrastructure may not consider the extent to which flights are likely to continue to the region in the longer term and the implications for resilience and freight connectivity. Decisions about whether to improve a local airport may consider the importance for the residents of access to healthcare, but this may not transfer into a discussion about whether subsidising inter-regional public transport (coach services, for example) may do a similar job, for less money.

This is not to imply there is a lack of strategic thought around transport in this country. Considerable strategic thought is applied to road transport in particular. Gaps lie where road transport, ports, aviation, and rail intersect. When multi-modal thinking is undertaken (within regions for example), no agency at central government level has a clear remit to then turn this into strategy – each transport mode is governed separately and according to its own logic. For example:

- The New Zealand Transport Agency (NZTA) is responsible for state highways and provides oversight of budgets for road and rail – but only has a mandate to develop strategy for land transport. At the more local level, 69 road-controlling authorities manage their respective parts of the road network (Infrastructure Commission, 2026).

- While KiwiRail manages the railway network and carries freight, as a State Owned Enterprise it is expected to operate as a successful business, meaning it has different incentives to road investment – despite the public benefits it offers. Meanwhile, no single agency is responsible for investigating the costs and benefits of long-distance inter-regional passenger rail, meaning its potential has never been assessed systematically (Transport and Infrastructure Committee, 2023).
- Regional airports are funded by user fees from airlines, often with top ups from local ratepayers, and without the consistent support of a national funding framework. Faced with a weak dollar and rising fuel costs, airlines are under increasing pressure to reduce the number of regional routes they serve to remain viable (Jayathilakan, 2026).
- Council-owned ports compete with one another while negotiating with international shipping lines, creating incentives for investment decisions that may be rational for individual ports but may be less efficient from a national perspective (Maritime Union of New Zealand, 2025).

Addressing these issues requires a consideration of how the country could take a more mode agnostic and coordinated approach to regional connectivity. The paper also addresses the question of how options could be better compared and coordinated across modes. While this paper sets out some promising ideas to answer those questions, there is considerable thinking still to do.



When it comes to maintaining and improving resilience in our transport system, there is a further difficult question to consider: What does good look like? This paper concludes that we cannot expect all parts of the country to be accessible at all times. For isolated regions such as Northland, Tairāwhiti, and the West Coast, it will likely never be realistic to guarantee 100 per cent reliable transport connections. Instead, building resilience means:

1. reducing the odds of every land route failing at once
2. shortening how long closures last, and
3. building enough redundancy across modes that a single event does not cut off a region completely.

Building in redundancy is important, and options for some regions will include deepening ports, improving port infrastructure, and/or expanding rail capacity. These options will however not be feasible everywhere. Many regions are restricted by their geography and geology in terms of what kind of redundancy network is economically viable, or even physically possible.

Finally, nearly all stakeholders who provided input to this discussion paper focused on a clear ordering of priorities. As transport networks mature, renewal and maintenance requirements increasingly dominate investment needs and are expected to account for the largest share of required investment over the coming decade (Infrastructure Commission, 2026). For many exposed regions, the biggest resilience gain is likely to come from protecting and improving the assets they already depend on. Targeted redundancy should however be added where it is realistic and affordable. If the country can move to more joined up thinking across modes, there is great scope to make any new investment pay significant dividends for the regions.

CHAPTER 1

WHAT IS REGIONAL TRANSPORT CONNECTIVITY AND WHY IS IT IMPORTANT?

Transport connectivity contributes directly to productivity in the regions through the movement of freight, the availability of labour, and the timely movement of perishable goods. But connectivity also determines access to healthcare, education, aged care, and the social and community connections that make places viable and attractive places to live.

Transport systems are fundamental to the functioning of modern economies and communities. These systems comprise not just physical infrastructure and assets – such as vehicles, roads, rail networks, ports, and airports – but also the public and private organisations, policies, and processes that enable those assets to operate (Blake et al., 2019).

This discussion paper focuses on the principal transport modes that provide connectivity between New Zealand's regions and support both passenger and freight movements: **roads, aviation, shipping, and rail**. Urban transport and local public transport services are outside the scope of the paper except where they form part of an inter-regional journey or otherwise materially affect regional connectivity.

A nationally connected transport system

Responsibility for New Zealand's transport system is distributed across a range of central government agencies, Crown entities, and local authorities, with investment and operational decisions made at different levels. The Ministry of Transport, now part of the Ministry for Cities, Environment, Regions and Transport (MCERT), has historically been the Government's principal transport policy adviser and has played a central role in overseeing the performance of the overall transport system.

The state highway network provides the principal nationally significant road connections between New Zealand's urban centres and is administered by the New Zealand Transport Agency (NZTA), while local roads are predominantly managed by city and district councils.

The national rail network is owned by the Crown and operated by KiwiRail, comprising three main trunk lines and seven secondary main lines. The Cook Strait creates a geographic break between the North and South Islands, with ferry services providing an important connection for passengers, vehicles, rail freight, and other goods.



Domestic aviation provides a further critical link between major centres and more remote communities. Regional airports are funded by user fees from airlines, often with top ups from local ratepayers – and occasionally from central government. Most airlines are privately run and owned, though the main carrier, Air New Zealand, is part owned by central government. Most ports are owned by councils, though some are partly owned by central government. Shipping companies are privately owned.

Together, these modes form an interconnected (if disjointed from a governance point of view) national transport system through which people, goods, and economic activity move between regions (Blake et al., 2019).

The value of the strategic network

Inter-city and inter-regional connectivity enables the movement of people and goods, supports economic activity and development, and provides access to employment and essential services (NZTA, 2026; WSP, 2020). Better connections can support more strategic decisions about housing and infrastructure investment by enabling development in locations with good access to employment and services; they can also contribute lower transport emissions and improved safety (WSP, 2020).

Transport appraisal now goes well beyond travel-time savings and vehicle operating costs – NZTA's Benefits Framework also covers reliability, safety, resilience and access. Even so, the full value of connectivity to a region can be hard to capture. The strategic network is more than a collection of individual transport assets. Its value lies in the connections it provides between people, communities, and markets, and in the role those connections play in sustaining economic and social activity.

Physical connectivity shapes three outcomes in particular that matter to regional wellbeing: productivity, resilience, and access to services for the communities that live there.

These three outcomes reinforce, and sometimes conflict with, one another. The importance of each of these three themes is investigated below.

How physical connectivity links to productivity

In terms of economic productivity, regional connectivity means: how easy is it for businesses to connect to markets? The ability to sell goods, hire workers, and buy supplies from further afield is critical to productivity and growth. Studies examining how well regions perform economically have found that places with better transport links do better, even after controlling for other factors such as industry mix (Chacon-Hurtado et al., 2020; Mazhikeyev et al., 2025).

Access shapes how productive a regional economy can be by reducing trade costs, boosting economic growth, and promoting regional integration (OECD, 2018). Strengthening a transport network attracts investment by making regions more accessible and attractive to businesses, which in turn stimulates competition, fosters agglomeration economies, and promotes regional development (National Institute of Economic and Social Research, 2025).

Numerous empirical studies have examined the role of transport in the emergence of cities, and in regional economic development. Most of Europe's high-density, prosperous urban regions today have links to Roman roads for example (Bosker & Buringh, 2017; Pokharel et al., 2023). Importantly, regions with better transport connections are not just more productive – they also cope better with economic downturns, recovering faster and losing less (Chacon-Hurtado et al., 2020).

“The expectation is that land transport funding will be directed into projects and activities that will support improved productivity and economic growth.”

(NZTA, 2024)

Regional productivity is critical for the country

In New Zealand, around two thirds of GDP is generated in Auckland, Greater Wellington, Canterbury, and Waikato, with each of the smaller regions contributing a much smaller slice (see Table 1). In general, the more removed a region is from the main centres, and the more isolated in terms of transport networks, the smaller its share of the whole. Taken together, however, the smaller regions still contribute around a third of the country's GDP and their success is critical to the wider economy.

That share also understates their real economic contribution. GDP captures a range of measures – increases in house values among them – that are not productive in any ordinary sense of the word. The regions, meanwhile, produce much of the food and primary output the country depends on. Many contribute unique and vital products, and are important components of a healthy economy, regardless of how modest the percentage of GDP they represent. The question this chapter pursues is therefore how to support the regions to grow their share of the productive pie – improving livelihoods while also prioritising keeping people connected to specialist health services, higher education, and the goods and services their businesses need.

For regions, economic performance is likely to depend less on the availability of every transport mode than on the reliability of links into national supply chains. That is not to say freight is mode-agnostic. A forestry region may gain more from better rail–port integration than from widening

highways. A region such as Hawke's Bay, producing perishable horticultural goods, will depend on air freight or trucking to reach markets in time – shipping would in many cases be too slow.

The right question is therefore not which mode a region lacks, but what the freight and passenger task actually requires, and which mode can meet it reliably. Several criteria recur across the literature as focus areas for decision-making investment to increase productivity through improved regional connectivity:

- travel reliability and reduced journey times
- freight efficiency
- labour market access and business productivity
- a system offering a range of options, providing redundancy when links fail
- safe, low-cost ways of getting around, both to and from external markets and within the region itself (NZTA, 2023; Infrastructure Commission, 2026b).

Table 1:
Key industries and GDP production by region (Sourced from Arataki regional chapters (NZTA, 2023; Stats NZ, 2026); and NZTA (2026) regional and activity tables).

REGION	KEY INDUSTRIES	POPULATION (2026)	GDP % (YEAR ENDING MARCH 2021)
Northland	Manufacturing, agriculture, forestry, fishing, construction	201,100	2.6%
Auckland	Manufacturing, service sectors, professional sectors	1,816,000	37.3
Waikato	Manufacturing, dairy, meat, forestry	532,100	8.9%
Bay of Plenty	Primary production (horticulture, forestry), tourism, distribution services	351,500	5.9%
Tairāwhiti / Gisborne	Forestry, fishing, sheep, and beef	52,700	0.7%
Hawke's Bay	Horticulture, wine, sheep, and beef	179,700	2.8%
Taranaki	Dairy farming and processing, oil, and gas	130,300	2.9%
Manawatū / Whanganui	Tertiary education, research, logistics, dairying	260,700	3.9%
Greater Wellington	Public admin and services, knowledge-based businesses, specialist manufacturing, and distribution	543,400	12.6%
Top of the South	Horticulture, forestry, seafood exports, tourism	165,000	3%
West Coast	Dairy, coal, tourism	34,700	0.6%
Canterbury	Construction, specialist manufacturing, primary production, and food processing	698,200	12.6%
Otago	Accommodation, food service, education	253,900	4.3%
Southland	Primary sector, retail, healthcare	104,800	2.1%



How physical connectivity shapes resilience

The link between productivity and connectivity assumes that if a transport connection exists, it is available for use when needed. Earthquakes and major weather events, exacerbated by climate change, put this to the test for regions with very few transport connections. Poorly connected regions miss economic opportunities during normal times, but they are also more exposed when something bad happens. That extra exposure often compounds their existing disadvantage.

For example, if a region loses its main freight route during a storm, businesses may permanently shift their supply chains elsewhere, and the region may never fully recover that lost market.

Small events such as slips and local flooding happen often around the country and usually cause short delays, with roads reopening in hours or days. However, several important corridors face overlapping natural hazards and ageing assets, and many of those have no easily accessible alternative route. Some regions such

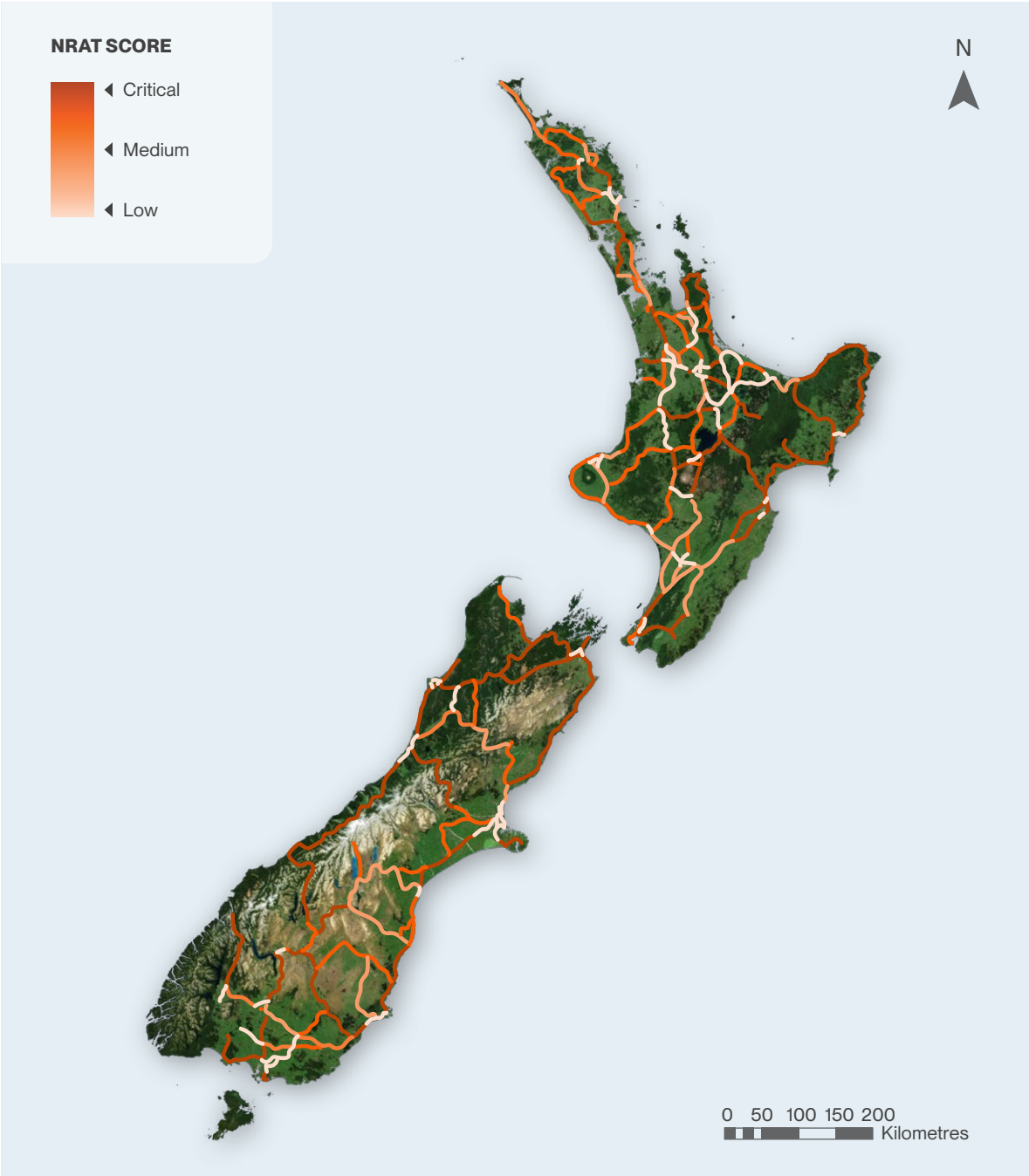
as Northland, Gisborne, the Coromandel, the West Coast, and the top of the South Island are particularly exposed to disruptions, while also relying on transport corridors with limited or no alternatives – a double whammy in terms of resilience (NZTA, 2026).

Figure 1 shows resilience risks across the state highway network using 12 years of closure and delay data to identify where disruptions have had the greatest impact.

Vulnerable landscapes and heavy dependence on roads can increase the severity of closures for communities, freight, and access to essential services (NZTA, 2026). Recovering from large-scale disasters such as the Kaikōura earthquake, Cyclone Gabrielle, or the Manawatū Gorge slip can take years, with significant impacts on affected communities.

Many sections of the land transport network provide critical lifelines for communities, so repeated disruptions affect access to essential services. Māori communities often face greater risks because of where they live, the industries they work in, and other socioeconomic factors (NZTA, 2026).

Figure 1:
The most vulnerable critical routes, according to the National Resilience Assessment Tool. Redrawn from Arataki National Direction Report (NZTA, 2026).



Researchers studying how infrastructure copes with disruption also note the importance of assessing the distributional impacts of disruption to a region's connectivity (i.e. an analysis of which groups of people are most affected by the disruption). A major review of infrastructure and disaster research found that many studies still don't account for the fact that a disruption – a flood, a storm, a road closure – does not hit everyone

the same way. Some groups are hit harder and recover more slowly than others (Coleman et al., 2024). Three questions can help to assess the level of preparedness a community has to cope with disruption after a major event:

1. Can the region absorb a shock without losing normal service – or does a single road failure cut the region off completely?



2. Are there back-up options (also known as 'redundancies') – a rail line, a coastal shipping route – that can pick up the slack during a disruption?
3. Once something does go wrong, how long does it typically take – and how much does it typically cost – to get the main route working again?

Researchers studying transport systems add a fourth idea on top of these three: whether the benefits of coping well are actually shared fairly across the whole community, not just some of it (Weilant et al., 2019).

How physical connectivity shapes accessibility and wellbeing outcomes for communities

Regional transport connections influence how easily communities that live there can access services and opportunities. Their value depends not only on the existence of the connections, but also on whether people can use them reliably and affordably to reach jobs, education, healthcare, and other essential services. When access relies on a single transport mode or route – a road without public transport, requiring each family to own their own vehicle and to pay for fuel, for example – increasing travel costs can limit access for some households and businesses. This can result in unequal outcomes even where physical connections are available (Litman, 2026).

The Government Policy Statement on land transport (NZTA, 2024) prioritises investment in land transport to support economic growth and productivity. Good access for residents to services does not feature as a key priority, however. Arguably, this misses an opportunity to recognise the importance of connectivity for population wellbeing more widely.

Transport poverty in New Zealand has been highlighted as an urgent public health issue, recently intensified by rising fuel prices and cost of living pressures (Curl & Kiddle, 2026). This is not just an issue for urban families, but also for those who live rurally or in regions without good public transport.

Transport costs already place a significant burden on household budgets. The average household in New Zealand spends \$252 per week (15.7 per cent of all expenditure) on transport, and 75 per cent of participants in a recent study in low-income communities struggled to afford transport costs (Curl & Kiddle, 2026; Stats NZ, 2023). This pressure will have risen in 2026 with rising fuel costs linked to the conflict in the Middle East. Recent research suggests those in peri-urban and rural areas are most exposed to fuel price increases, due to high car reliance, and limited capacity to adapt (Curl & Kiddle, 2026; Curl et al., 2026).

Key ways that transport poverty can contribute to poor health and health inequities include:

- reducing opportunities for education, work, social, and family contacts, leisure activities and nature, and buying affordable and nutritious food. This includes missed trips to the supermarket, and money spent on transport rather than food. Transport poverty is also associated with unemployment and employment instability



- reducing access to health care services, which can delay diagnosis and treatment. Transport costs are a common reason for missing appointments or being unable to access healthcare, including maternity care (Curl & Kiddle, 2026; Public Health Scotland, 2024).

Curl and Kiddle (2026) note the importance of finding long-term solutions to transport poverty that reduce dependence on petrol and diesel – both to reduce our exposure to global geo-political shocks in terms of fuel prices, and to the health risks associated with high reliance on private car use (Curl & Kiddle, 2026).

Many of the solutions proposed are most relevant for people in bigger cities, where regular public transport, urban design, and promoting active transport are good options.

For lower population regions and rural and peri-rural areas, solutions proposed include:

- reducing the need to travel in the first place, for example by providing more services locally
- providing mobile services, such as libraries and healthcare
- supporting mobility initiatives such as community transport, demand-responsive transport options, or community car-pooling.

Inter-regional public transport (whether coach services or passenger rail) that does not require access to a private vehicle is an important factor to consider in enhancing connectivity and accessibility for those who live in remote regions.

“Missed trips reduce opportunities to access healthcare, education, food, employment and social connections – key determinants of health. Absorbing increased fuel costs can force trade-offs such as cutting back on food or home heating, with well documented physical and mental health consequences.”

(Curl and Kiddle, 2026)

The ability to access health services in a timely way is crucial to wellbeing

Unfortunately, a 2019 study found that an estimated 16 per cent of the New Zealand population does not have timely emergency medical service access to advanced-level hospital care via road or air (Lilley et al., 2019). The 700,000 New Zealanders without timely access live mostly in areas of low–moderate population density and include disproportionately more Indigenous Māori and older adults.

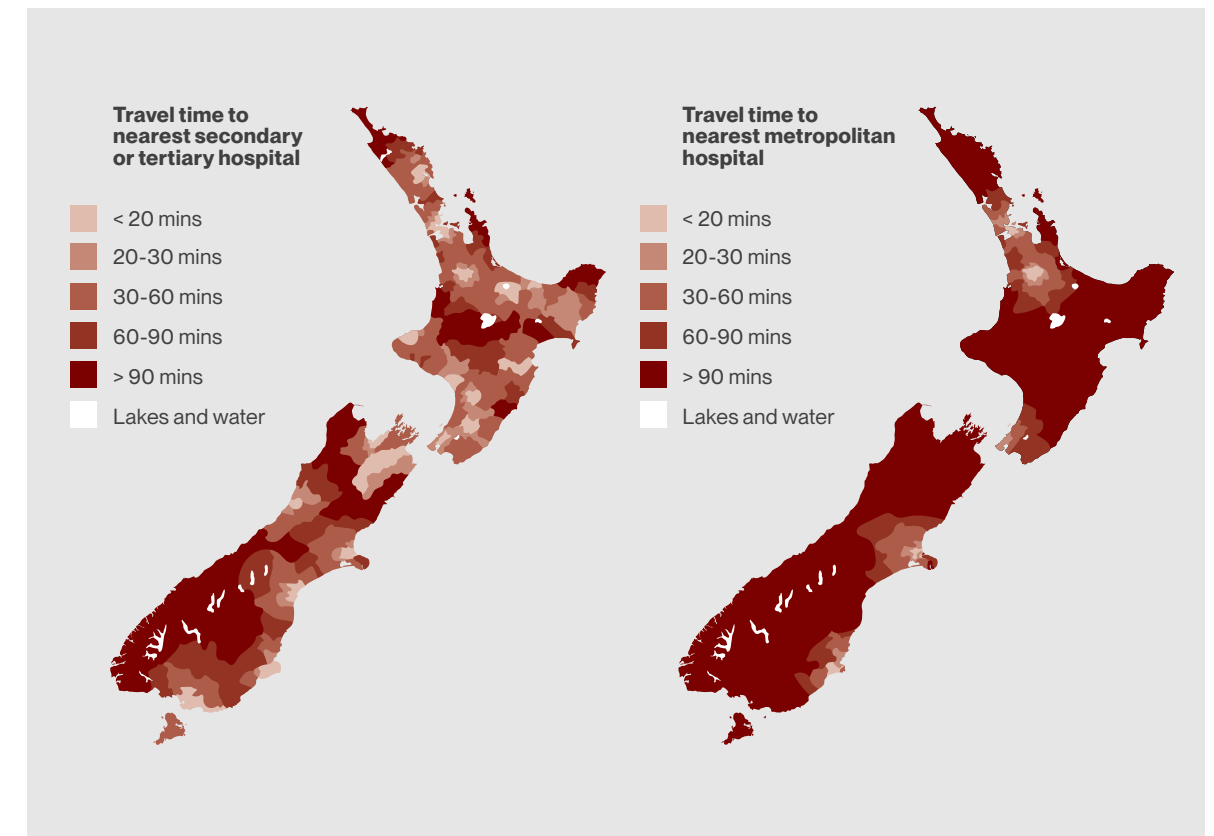
Figure 2 shows the distance people must travel to the nearest metropolitan hospital (located in major cities, with a wide range of services) or regional hospital (with less capacity and fewer services) (White, 2022).

Access to healthcare is not just a function of reliable regional transport networks (though these are essential), but also depends on sufficient healthcare facilities being provided around the country. The researchers concluded that regionally based level 2 hospital services (i.e. regional and rural hospitals that are capable of initial resuscitation and management) are vital for rural communities.

“Our study highlights the need for planning of Emergency Management Services coverage in New Zealand, especially for areas of moderate to low population density, in order to address inequities with regard to timely access to advanced-level hospital care.”

(Lilley et al., 2019)

Figure 2: Travel time to the nearest metropolitan or regional hospital, by region (White, 2022; with maps by Jesse Whitehead).



Conclusion

Productivity, resilience, and population wellbeing are all linked to regional transport connectivity, but in different ways.

A focus on productivity will tend to measure the average dollar value of a connection, spread evenly across the region, or the country as a whole. ‘Resilience’ on the other hand is about the impact for the region and its businesses when connections break down, whether due to flooding, slips, snow, or earthquakes. This impact can be measured in terms of economics, but also in terms of social and cultural impacts (an inability to access education or healthcare for example).

A focus on accessibility and wellbeing meanwhile looks to whether the people who live in a region are in a financial or social position to use existing connections to access services and to improve their wellbeing. Such a focus also considers

the specific impacts of resilience failures on certain groups of people (i.e. distributive impacts).

Sometimes these different needs of a network can be in tension with one another. For example, to minimise the total cost of disruption across the whole country and cause the least disruption to productivity as a whole, it makes sense to spend money protecting the busiest transport routes. But if the focus is to protect those who would be most negatively affected by a transport disruption, there would be more incentive to invest in low-traffic roads, or other modes of transport, to provide much-needed support for low-income communities.



Pathmanathan Brabhaharan

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Insight from WSP

WHAT CLIMATE RESILIENCE MEANS IN PRACTICE

Climate resilience is often talked about as a future challenge, but for many communities it's already a reality. Extreme weather events are becoming more frequent and severe, placing increasing pressure on the transport networks that connect people, goods, and services (WSP, 2026).

Often, climate change forecasts present increases in average temperature, rainfall, etc., but it's the frequency and severity of extreme weather events that affect the resilience of our infrastructure and networks.

Recent years have shown how vulnerable these connections can be. Flooding, slips, coastal erosion, and storm damage have closed roads, isolated communities, and disrupted supply chains. These events are more than infrastructure failures. They affect people's ability to get to work, access healthcare, attend school, and stay connected to their communities.

For infrastructure owners, councils, and transport agencies, climate resilience is about understanding these risks and planning for them before they happen. It means recognising that past conditions are no longer a reliable guide to the future and that infrastructure must be designed, maintained, and managed with a changing climate in mind.

Importantly, resilience isn't simply about building bigger or stronger assets. It's about making sure infrastructure can withstand disruption, adapt to changing conditions, and recover quickly when extreme events occur. It's also about understanding how failures in one part of a network can affect wider communities and regions (WSP, 2022).

Transport networks are a good example. A bridge, road, or rail line may perform well under normal conditions, but if it becomes vulnerable during a major storm, the consequences can extend far beyond the asset itself. Communities may lose access to essential services, businesses may face significant economic impacts, and emergency response can become more difficult.

This is why climate resilience requires a shift from thinking about individual assets to thinking about entire systems. A resilient transport network is one that understands where vulnerabilities exist, how different parts of the network interact, and what options are available when disruption occurs.

In some cases, this may involve strengthening existing infrastructure. In others, it may mean creating alternative routes, improving network redundancy, or reconsidering where and how future development occurs. In some cases, this might just be having carefully developed pre-plans for some components of the system to restore access quickly.

Great examples are the work WSP has done with Auckland Transport to identify and proactively target climate-related risks across roads, structures, and public transport assets (Āpōpō, 2026), and with the NZTA and local authorities in Wellington to develop a first-of-its-kind programme business case for land transport resilience (Brabhaharan, 2021).

Resilience also requires proactive investment. Historically, infrastructure funding has often focused on repairing and replacing assets after damage has occurred. Climate resilience encourages a different approach, which often means investing earlier to reduce risks before they become more costly and disruptive.

While this can require difficult decisions and upfront costs, studies have shown that every dollar invested in resilience and risk reduction can deliver multiple dollars in avoided damage, recovery costs and wider economic disruption (National Institute of Building Sciences, 2025).

For communities, climate resilience is ultimately about confidence. Confidence that essential services will remain available during extreme weather events. Confidence that transport links can recover quickly after disruption. And confidence that the infrastructure being built today will continue to serve future generations.

Building resilience is therefore not a single project or a one-off investment. It's an ongoing process of understanding risk, adapting to changing conditions, and making informed decisions about where resources can deliver the greatest benefit.

As climate pressures keep growing, resilience will increasingly become a core consideration in infrastructure planning and investment. The challenge is not whether we need to adapt, but how quickly and effectively we can do so.

The communities that thrive in the decades ahead will be those that move beyond responding to disasters and instead build resilience into the decisions they make today.

CHAPTER 2

AN OVERVIEW OF THE TRANSPORT NETWORK

Aotearoa New Zealand is one of the most highly car-dependent countries in the world. The New Zealand Household Travel Survey found that by far the most common way to get around is as the driver of a car, followed closely by travelling by car as a passenger (Ministry of Transport, 2024). Measured by distance covered, driving a car or van accounts for nearly 60 per cent of all travel, and car passengers for nearly an additional 30 per cent.

The remaining 10 per cent of travel is made up of "other household travel" – aircraft, taxis, boats, and modes ranging from mobility scooters to horse riding (6.5 per cent), local public transport (3 per cent), and walking (1.3 per cent). Non-local public transport, covering buses, trains and ferries, accounts for just 0.04 per cent of distance travelled across all modes (Ministry of Transport, 2024).

Freight tells a similar story of concentration. Roads carry the vast majority of freight – measured in tonnes per kilometre, around 75 per cent of freight was carried by road in 2017/18 (Ministry of Transport, 2018). The remaining 13.4 per cent was carried by ship, and 11.5 per cent by rail. Rail links most major cities across both islands, connected by inter-island rail and road ferries. The freight network is heavily concentrated in the upper North Island, where Auckland and Tauranga dominate both port and intermodal freight.

Governance of the network is fragmented

Responsibility for the transport network is distributed across a surprisingly large number of hands. At ministerial level, the Minister of Transport holds the portfolios for roads, Maritime New Zealand, and aviation (with an Associate Minister carrying the aviation portfolio), while rail sits with a separate Minister.

Below that, airports and ports are largely owned and run by councils; shipping companies and airlines operate commercially, with the Crown a part-owner in the case of Air New Zealand; rail freight is operated by KiwiRail, with metropolitan rail services in Auckland and Wellington contracted to operators; state highways are managed by NZTA, but a substantial share of the road network is managed from the council side – each authority with its own interests and incentives.

Transport projects reach the investment pipeline from several directions at once. Some bubble up through Arataki (NZTA's long-term strategic direction), some come directly from Ministers, and others come through regional land transport plans prepared by the regions themselves, or from industry lobby groups. No single process weighs a proposed road against a proposed rail improvement, a port upgrade, or a subsidised air route as alternative answers to the same underlying problem.

How modes are funded reinforces the lack of strategic coherence. Roads are funded largely as a public good (though road tolls are expected to be utilised more in the future), the national rail network is partly treated as a public good but also has commercial incentives, and ports and airports are largely funded on a commercial basis, though sometimes with financial support by local and central government. Shipping companies and airlines are privately owned and run to commercial incentives (with the Crown a part owner in Air New Zealand).



The transport modes therefore operate to different logics, with different tests of success and different tolerances for public subsidy.

It should be said that this is not a story of lack of strategy. A considerable amount of strategic thought is being applied to land transport, and to other forms of transport. The gaps lie where decisions about road transport, ports, aviation, and rail intersect. Crucially, no central government agency has the remit to prioritise investment in one mode over another with the best regional outcomes in mind.

The following chapters take each mode in turn – road, rail, aviation, and shipping – setting out how it is governed, how it is funded, what pressures it currently faces, and how pressures on that mode shape the three outcomes discussed in the previous chapter: productivity, resilience and access to services / public health outcomes.



Nathan Capper

Kaitohutohu Māori – Tumuaiki
(Principal Consultant, Māori)



Insight from WSP

WHAT IWI KNOWLEDGE CAN TEACH US ABOUT REGIONAL CONNECTIVITY

When we talk about regional transport connectivity, the conversation usually focuses on infrastructure – things like roads, rail, ports, and public transport.

These investments are important, but connectivity is more than moving people and goods from one place to another. It's about how communities connect to opportunity, how regions thrive, and how we create places where future generations can prosper.

For iwi and hapū, these questions aren't new.

Historical settlement patterns, resource-use practices, and trade networks demonstrate how iwi and hapū drew on generations of knowledge about local environments and connections between people and place (Love & Love, 2012).

In many respects, iwi and hapū were Aotearoa's first spatial planners.

Their planning was grounded in whakapapa, deep knowledge of local environments, seasonal patterns, access to resources, and relationships between communities. Decisions were made with a long-term view that recognised the connection between people, place, and future generations (McAllister et al., 2023).

The location of pā near rivers, harbours, and coastal routes is a powerful example. The Waikato and Whanganui rivers, along with many of the country's harbours, functioned as important transport and trade routes long before modern roads were built. Settlement patterns reflected the importance of waterways for movement, trade, and access to resources (Love & Love, 2012).

The same kinds of principles are relevant today.

Across Aotearoa, communities are grappling with population growth, climate change, infrastructure pressures, and regional development challenges. At the same time, increasing disruption from natural hazards and extreme weather events is testing the resilience of our transport networks and communities (Byett et al., 2019).

Meeting these challenges needs more than individual infrastructure projects. It needs a clear understanding of how places should grow, and how transport, housing, environmental management, and economic development can work together to support that growth.

This is where spatial planning plays an important role. At its core, spatial planning asks a simple question: what should happen, where, and why? It helps create a shared vision for the future, so decisions about infrastructure and investment support the outcomes communities want to achieve.

Iwi bring an important perspective to that process (WSP, 2026a). Their relationship with whenua extends well beyond political cycles or infrastructure funding horizons, offering generations of knowledge about landscape, environmental systems, and community connections.

Importantly, this isn't simply about consultation. It's about recognising that communities with enduring responsibilities to place can help inform better decisions about its future. That perspective is especially valuable when considering transport equity and access to opportunity.

For many communities, especially in regional and rural Aotearoa, connectivity is about much more than travel times. It's about whether people can access employment, education, healthcare, and essential services. For many Māori communities, it's also about maintaining connections to marae, ancestral lands, and places of cultural significance.

Understanding these wider connections helps ensure investment decisions reflect the many ways people experience place and movement.

As Aotearoa plans for the future, some of the most valuable lessons about connectivity will come from those who have been planning across generations all along.

By combining modern spatial planning with the knowledge and perspectives of iwi and hapū, we have an opportunity to create regions that are more connected, resilient, and prosperous for generations to come.

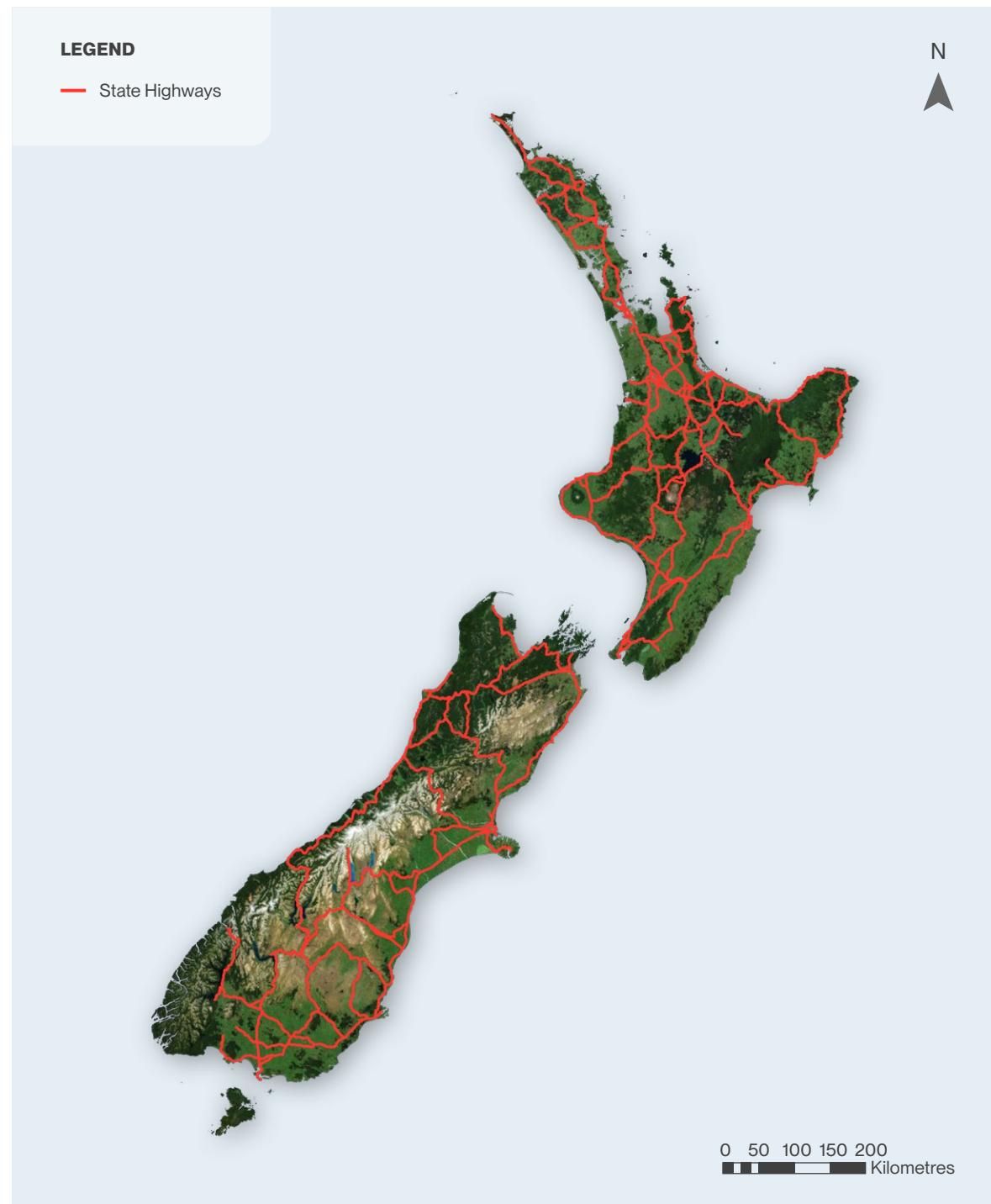
CHAPTER 3

ROADS – THE DOMINANT MODE

Network Infrastructure highlights

- The state highway network comprises around 11,000 kilometres of road, and links to around 83,000 km of local roads (80 per cent rural and 20 per cent urban). The length of road per person in New Zealand is one of the highest in the world (NZTA, 2026c). Around 75 per cent of all freight in New Zealand goes by road (Ministry of Transport, 2018).
- The state highway network is NZTA's largest asset, with a valuation of \$85.3 billion (NZTA, 2026). It is also a critical economic driver, carrying more than half of all vehicle journeys and almost three-quarters of all freight journeys (NZTA, 2026).
- The country's freight and passenger traffic is heavily concentrated in the upper North Island's 'Golden Triangle' (Auckland, Hamilton, and Tauranga), putting significant pressure on these road corridors (NZTA, 2026).
- Across the network, demand varies greatly from 25,000 to 200,000 vehicles per day on state highways and tens of thousands of people a day on rapid transit corridors in urban areas. This compares with more rural parts of the strategic network that might only carry a few hundred vehicles per day or have a small number of freight trains.
- Operating, maintaining, and improving the land transport system costs more than \$10 billion per year (NZTA, 2026).

Figure 3:
State Highway network (NZTA, 2026; WSP, 2025).



Why roads matter to the network

Roads form the backbone of New Zealand's transport network, providing the connective tissue that links people to the places, services, and opportunities they need to participate in economic and social life. For many New Zealanders, particularly those in regional and rural communities,

the road network is not one option among several, but the primary means of reaching employment, education, and healthcare.

International evidence reinforces this point: even modest improvements in rural road access are associated with lower travel costs, expanded employment opportunities, and long-term reductions in poverty (Hine et al, 2019).

In this way the road network contributes to productivity gains and accessibility for those living remotely.

Much of the road network's value comes from its flexibility. Unlike scheduled public transport, a car offers door-to-door travel on a timetable set entirely by the user (Victoria Transport Policy Institute, 2019). This individual flexibility helps explain why private vehicles account for the large majority of trips in New Zealand (Ministry of Transport, 2024).

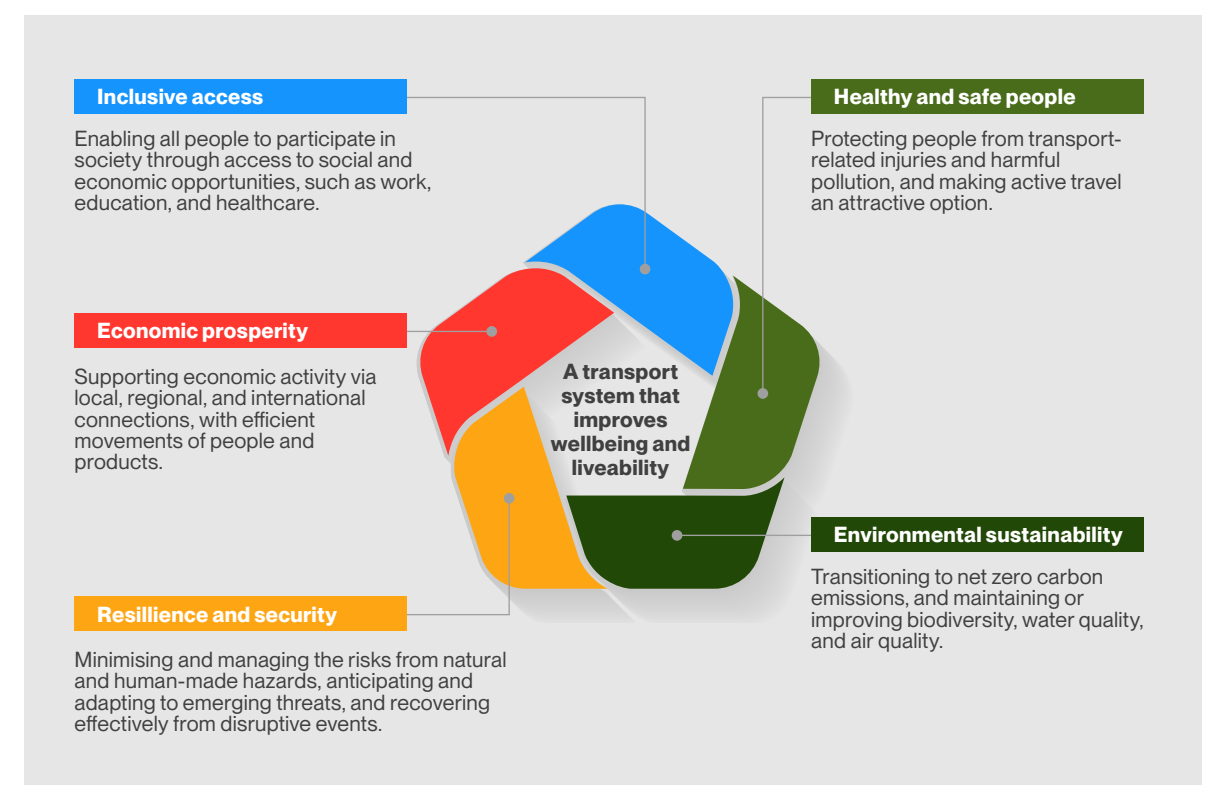
This same ease of movement, however, has shaped how New Zealand's towns and cities have grown. Because private vehicles make it feasible to live further from work and services, road-based transport encourages more dispersed, lower-density patterns of development (Victoria Transport Policy Institute, 2019). Servicing this spread-out form of growth carries costs in both service provision to the regions and infrastructure investment. The same dispersal also makes it harder to introduce lower-emission alternatives

such as public transport, walking, and cycling, since these modes depend on denser populations to be economic. The impacts of the country's dependence on roads are discussed in more detail in Chapter 8.

The goals of the land transport framework

MCERT's (2026c) Transport Outcomes Framework outlines the five core outcomes the land transport system is expected to achieve in the public interest (Figure 4). The framework is used to help align interventions with the public interest, and to help with systems thinking and planning, although only for land transport (road and rail primarily). The outcomes framework includes a focus on the three themes chosen for this discussion paper (prosperity/productivity, resilience, and inclusive access), plus environmental sustainability, and health and safety.

Figure 4:
Transport Outcomes Framework (Ministry of Transport, 2018).



Governance structure and funding

Responsibility for the land transport network is divided between a single national agency and a large number of local ones, making it somewhat complex. State highways are managed by NZTA, a Crown entity, which is also responsible for regulating the land transport system, setting standards for the network, and managing funding (Infrastructure Commission, 2026a).

Local roads, on the other hand – which make up the great majority of the network by length – are managed by 69 separate road controlling authorities (RCAs). These comprise NZTA itself, the Department of Conservation (which manages roads on conservation estates), and the 67 Territorial Local Authorities (i.e. the country’s city, district, and regional councils).

The National Land Transport Programme

In terms of strategic governance of this complex system, NZTA’s Board allocates the National Land Transport Fund (NLTF) in alignment with the Government Policy Statement on Land Transport, which is set by the central government. The policy statement sets out what the government expects to be achieved in land transport, and how much funding will be provided (NZTA, 2026).

Supplementing the Government Policy Statement, the National Land Transport Programme (NLTP) is developed once every three years and sets out how the National Land Transport Fund will be spent. The NLTF is the main source of funding for transport projects. It is made up of revenue from fuel excise duty, road user charges, various driver and vehicle fees, and road tolls, and regularly topped up with Crown funding. Local councils also contribute to transport projects (NZTA, 2026).

In each region of the country, a Regional Transport Committee must complete a Regional Land Transport Plan. This is a 10-year transport investment plan that sets out that region’s transport goals, policies, and priorities. Plans also include funding bids for transport activities. Given there are 17 regions in New Zealand, this makes for a large number of transport plans.

Funding in the NLTF is organised into ‘activity classes’. The biggest funding allocations by far relate to state highway network investment, followed by public transport and local roads. The rail network receives much smaller amounts of funding from the NLTF (NZTA, 2024a).



While projects in the NLTP are prioritised on a national basis, there are always significantly more bids for funding than there is funding available. Rapidly rising delivery costs, largely static user charges, and the mounting cost of disaster recovery have combined to produce a persistent deficit.

While the NLTF was historically expected to be self-funding, this is no longer the case. Across the 2024–27 National Land Transport Programme period Crown funding accounted for nearly 40 per cent of planned transport spending – some \$12.8 billion (NZTA, 2026; Infrastructure Commission, 2026).

Physical and environmental pressures can culminate in community isolation

The land transport network faces a set of compounding pressures:

- **Maintenance demand is rising faster than the network is being renewed.** Heavy vehicle traffic grew 33 per cent between 2010/11 and 2023/24, accelerating wear on infrastructure, much of which is already ageing (NZTA, 2026).
- **Disruption is now routine rather than exceptional.** Many lifeline routes have no viable detour at all; where alternatives do exist, they frequently add more than four hours of travel time and over 300 kilometres of distance (NZTA, 2026).
- **Seismic exposure threatens structural assets across both islands.** The Alpine Fault, which carries a 75% probability of rupture within the next 50 years (Howarth, 2021), threatens extensive damage to transport corridors throughout the South Island, while the Hikurangi Subduction Zone presents a major risk of severe seismic disruption and tsunami inundation affecting the lower North Island and Wellington (Pizer et al., 2021).
- **Topography constrains both resilience and expansion.** Many key routes are carved into steep slopes, producing narrow, winding corridors – the Coromandel Peninsula is a good example – that are highly susceptible to slips during extreme weather (NZTA, 2026).
- **Coastal exposure is a growing and largely irreversible risk.** New Zealand’s long, narrow geography places many of its most critical highways directly along the coastline, where they are exposed to erosion and storm surge (NZTA, 2026).

These pressures converge most sharply on the regions least equipped to absorb them. New Zealand's elongated geography means that many remote areas – including Northland, Gisborne and the East Coast, and the West Coast – depend on just one or two critical corridors that function as the community's sole lifelines (NZTA, 2026).

When such a corridor closes, the alternatives are frequently inadequate or absent. Where detours exist, they are typically inefficient and depend almost entirely on the local road network – and because local roads are generally built to a lower standard than state highways, they are commonly damaged or closed by the same storm or seismic event that severed the primary route.

Such events can have a significant impact for the affected regions in terms of productivity: freight logistics will be impacted, with a limit to how many hours each truck driver may drive as part of their shift; perishable goods may not make it to market on time; tourists may go elsewhere. Similarly, it can impact wellbeing, making it much harder to access healthcare and other social services, as well as impacting employment and education. The result is often not just degraded access but complete isolation.



Future direction – reforms on the horizon

Looking ahead, the land transport system faces a growing affordability challenge. This is driven by slow user revenue growth, a heavy dependency on uncertain government funding sources (i.e. Crown appropriations), and rapidly rising costs (NZTA, 2026).

Strategic networks in the upper North Island will likely see the greatest scale of changes over the next decades as they could well be accommodating as many as a million more people, along with the increased economic growth and greater throughput of freight that a growing population will bring (NZTA, 2026).

The Arataki National Direction (2026) sets out NZTA's long-term view of the land transport system's needs over the next 30 years, and the broad choices available to respond to the pressures it faces. Arataki is focused on developing a land transport system that is productive, resilient, and able to support growth by connecting people to jobs and services, enabling the efficient movement of freight and linking communities.

The current funding and governance funding picture for land transport is now overlaid by prospective structural change to local government itself. In May 2026 the Government announced a reorganisation programme administered by the Ministry for Cities, Environment, Regions and Transport, comprising a voluntary 'Head Start' pathway for councils willing to reorganise ahead of time, with all remaining councils to be reorganised by 2028. Decisions on the 18 Head Start proposals have since been deferred to early 2027.

One of the inefficiencies the reform is intended to address is the current variation in transport planning and roading infrastructure between districts (Anderson & Lowe, 2026). The hope is that, with fewer councils and fewer funding requests to consider, allocations will be clearer and benefits easier to track.



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Insight from WSP

THE NETWORK BEHIND THE NETWORK

When people think about transport infrastructure, they usually think about individual assets: a road, a bridge, a rail line, or a cycleway. But people don't experience transport that way. They experience it as a journey.

Freight moving between regions may travel by road, rail, and ferry before reaching its destination. A daily commute might involve walking to a bus stop, catching a train, and then walking to an office. What matters isn't just the condition of individual assets, but whether people and goods can complete the journeys they need to make.

Understanding those connections is becoming increasingly important as Aotearoa New Zealand faces growing demands on its transport system. Population growth, changing travel patterns, climate risks, and increasing expectations around resilience and reliable access to jobs, services, education, and communities all need better information to support decision-making.

Until recently, that was easier said than done. More than 70 transport controlling authorities were working from inconsistent, licensed, and disconnected datasets that couldn't talk to each other. Councils, NZTA, KiwiRail, and other transport providers each held valuable information, but

there was no shared language and no integrated view of the national transport system.

The Asset Management Data Standard Multimodal Network Model (AMDS) was developed to help address that challenge (WSP, 2026b). Created through a partnership between NZTA, WSP, and transport organisations, the model brings together information on roads, rail, ferries, footpaths, and cycleways into a single digital representation of the transport network (NZTA, 2025).

At its heart, the model is designed to understand journeys rather than individual pieces of infrastructure. In practical terms, it provides a much clearer understanding of how people and goods move around the country. The model includes almost 150,000 kilometres of roads, over 37,000 kilometres of tracks and footpaths, and 5,000 kilometres of rail infrastructure.

What makes AMDS especially valuable is the shift it enables from thinking about individual assets to thinking about transport as a connected system. It provides a national-scale connected view of the transport network, helping decision-makers better understand how roads, rail, ferries, footpaths, and cycleways work together to support people, communities, and the economy.

That system-wide perspective supports a much deeper

understanding of how journeys are made and where vulnerabilities exist. For example, the impact of a bridge closure can be understood not just at the crossing itself, but in terms of disrupted freight movements, longer travel times, and the communities affected.

The value of that connected view was highlighted during Cyclone Gabrielle in 2023. Road closure information existed across multiple organisations, but it took days for a national picture of the network to emerge, with a newspaper ultimately producing one of the first comprehensive national road closure maps. The challenge wasn't a lack of data, but a lack of a shared, connected view of the transport system. AMDS helps address that gap.

The model provides a stronger foundation for investment decision-making. By bringing together information from across the transport system, organisations can better understand inter-regional dependencies, undertake national corridor analysis, and identify which routes are most important for moving people and freight.

Recent prototyping in the model has shown how it can support climate adaptation and investment planning by identifying vulnerable routes, assessing alternative connections, and highlighting communities at risk of isolation during flooding, landslides,

and coastal inundation events. This helps direct investment towards projects that improve resilience.

From an asset management perspective, this kind of network-wide visibility lets organisations make more informed decisions about risk, resilience, and future investment while supporting greater collaboration across agencies. With a shared understanding of how the network functions, decision-makers can move beyond managing individual assets and focus on the outcomes the transport system is intended to deliver.

Importantly, the AMDS Network Model is openly available through the NZTA Open Data Portal under licence, making it free to access, use, and reuse.

Ultimately, AMDS is more than a digital map. It's an example of how better data can support better decisions. By providing a connected view of the country's land transport network, it helps shift the conversation from managing individual assets to understanding the journeys, connections, and communities those assets support.

CHAPTER 4

AVIATION –
REGIONAL
CONNECTIVITY
UNDER STRAIN



Figure 5:
Main airports in Aotearoa New Zealand (LINZ, 2026).

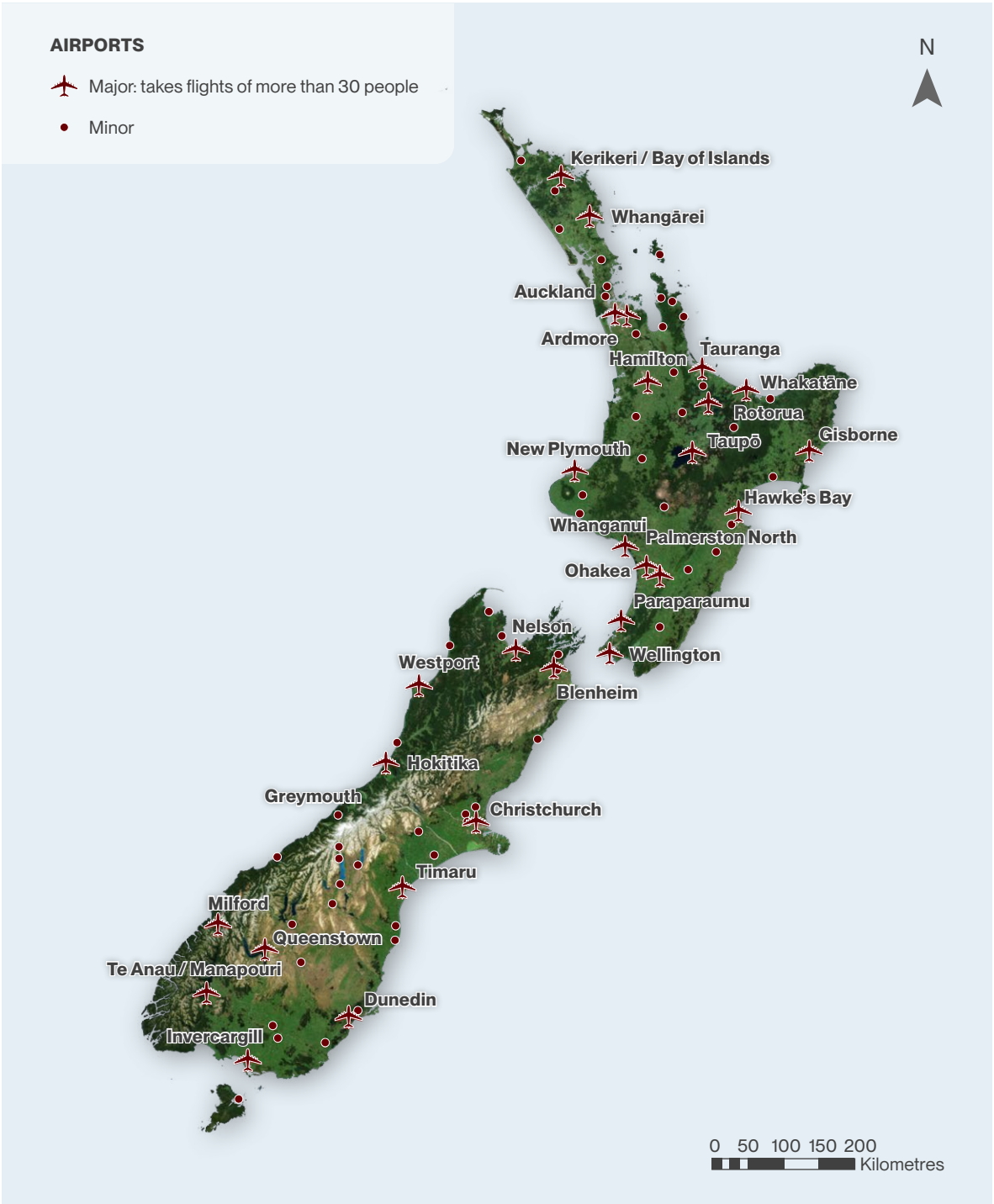


Table 2:
Ownership and passenger numbers at key airports. Sources: airport annual reports and statements, as listed

AIRPORT	PASSENGER NUMBERS (000s)	YEAR	OWNERSHIP	SOURCE
Auckland	18,734.2	FY25	NZX Listed company	AIA FY25 Annual Results (NZX)
Christchurch	6,390.0	FY25	Council + Crown	CIAL Annual Report 2025
Wellington	5,316.8	FY25	Council + private	WIAL Annual Report FY25
Queenstown	2,601.6	FY25	Council + private	QAC Annual Report 2025
Nelson	858.3	FY25	Council (100%)	Nelson Airport Annual Report FY25
Dunedin	853.8	FY25	Council + Crown	Dunedin International Airport Ltd Annual Report 2025
Hawke's Bay (Napier)	612.4	FY25	Council + Crown	HBAL Disclosure Financial Statements 2025
Tauranga	553.0	FY24	Council (100%)	Tauranga City Council, LGOIMA response, 2024 fyi.org.nz/request/30921
Palmerston North	531.1	FY25	Council (100%)	PNAL Annual Report 2025
New Plymouth	385.6	FY25	Council (100%)	PRIP Audited Financial Statements YE 30 Jun 2025
Hamilton	356.0	FY25	Council (100%)	WRAL Annual Report 2025
Invercargill	338.3	FY25	Council + iwi	Invercargill Airport Ltd Annual Report 2025
Marlborough (Woodbourne)	294.4	FY25	Council (100%)	MDC Holdings Ltd Annual Report 2024-25
Gisborne	210.0	FY23	Council owns / private operator	Estimate from public statement of Eastland Group, 2023
Rotorua	206.0	FY25	Council (100%)	Financial Statements for the Year Ended 30 June 2025
Kerikeri / Bay of Islands	130.0	2024	Council (100%)	FNDC, 30 Jul 2024 – approximate from council statement
Hokitika	43.0	2026	Council (100%)	Approximation from public releases - no audited count, 2026

AIRPORT	PASSENGER NUMBERS (000s)	YEAR	OWNERSHIP	SOURCE
Te Anau / Manapouri	NOT PUBLISHED		Council (100%)	
Taupō	NOT PUBLISHED		Council + Crown JV (50/50)	
Whangārei	NOT PUBLISHED		Council + Crown JV (50/50)	
Whanganui	NOT PUBLISHED		Council + Crown JV (50/50)	
Timaru (Richard Pearse)	NOT PUBLISHED		Council (100%)	
Westport	NOT PUBLISHED		Council + Crown JV (50/50)	
Chatham Islands (Tuuta)	NOT PUBLISHED		Trust	
Milford Sound Piopiotahi	NOT PUBLISHED		Crown (100%)	
Paraparaumu / Kapiti Coast	NOT PUBLISHED		Private	
Ardmore	NOT PUBLISHED		Private	

Why aviation matters to the network

Over longer distances, aviation remains the fastest means of traversing New Zealand's difficult terrain, if not the cheapest. Air transport carries people and supplies to the most distant corners of the country and underpins access to healthcare for isolated regional communities that do not have local access to specialist care – along with education, recreation, and business opportunities.

Airports and aerodromes are also integral to disaster response, moving civil defence crews into isolated areas and providing a conduit for essential supplies after a natural hazard event – as was the case in January 2026, when flooding closed State Highway 35 and left coastal communities in the Gisborne region cut off for several weeks (RNZ, 2026).

Aviation is a high-emissions mode, which makes it important to consider lower emissions alternatives where available. But aviation's social and economic value to isolated communities – for which, given low populations, uneven terrain and shifting geology, there are realistically few alternatives – is not in doubt (Reid, 2026). It is therefore concerning that New Zealand now faces what may in hindsight be described as a regional connectivity crisis in aviation. While the larger international airports remain viable and profitable, smaller airports are struggling to survive, and airlines are cutting both the number of routes and their frequency.

Smaller airports are under strain

Since the 1990s, New Zealand airports have been expected to operate as commercial undertakings. The model works well enough at the top of the network, where high daily flight volumes are supplemented by diversified property income – land leased to hotels and other commercial tenants. Christchurch Airport, for example, reported a net profit after tax of \$29.5 million on revenue of \$132.9 million in the first half of FY26 (Christchurch Airport, 2026).

Smaller airports face fundamentally different economics. They must maintain expensive infrastructure to the same high safety and regulatory standards, but with low traffic volumes and limited alternative income – with compliance costs proportionately greater than at major airports, often by

a factor of three (New Zealand Airports Association, 2017). Airports set their own landing fees, but cash-strapped airlines can only absorb so much before a route becomes uneconomic and is cancelled.

The consequence is that local governments frequently subsidise airports to keep local routes open (New Zealand Airports Association, 2017). This raises two questions. The first is whether smaller councils, facing ever-expanding mandates and constrained revenue, can reasonably continue to do this. The second is how far ratepayers in one district can be asked to subsidise routes that arguably benefit the whole country, without sustained national contribution (New Zealand Airports Association, 2017).

Central government does contribute to aviation, but unevenly. It assists with upkeep at those airports it part-owns for historical reasons, and has made discretionary grants through mechanisms such as MBIE's Kānoa regional development programme; as in the case of Masterton's airport (Kānoa, 2026). Beyond that, airports are largely left to manage alone or to lobby for central government investment that may or may not materialise.



Airlines: cost pressures are closing regional routes

The current unprofitability of regional aviation has brought several smaller operators close to a tipping point in 2026 (Kayes, 2026). Even Air New Zealand, which accounts for most of the domestic seat capacity, reported a loss before taxation of \$336 million for the 2026 financial year, compared with earnings of \$164 million the previous year. The loss can largely be attributed to rising jet fuel costs, but other costs throughout the system, including maintenance costs, have also been rising steeply, while the New Zealand dollar has fallen (Air New Zealand, 2026).

Regulatory costs have compounded the pressure for smaller airlines. The Civil Aviation Authority's 2025 review raised the domestic passenger safety levy from \$1.60 to \$3.92 per passenger – an increase of 145 per cent – alongside increases to domestic and international security levies, with the stated aim of establishing a sustainable funding model and removing the Authority's dependence on Crown funding (Civil Aviation Authority, 2025).

For smaller operators without a national network to absorb these shocks, the result has been route withdrawal and fleet reduction. For example, in the past two years Sounds Air has cut important routes (Blenheim–Christchurch, Wellington–Taupō, Wellington–Westport, Christchurch–Wānaka), sold aircraft as costs surged, and has publicly signalled that further routes will go unless financial support is found (RNZ, 2025; Stanford, 2026).

When an air route closes, it makes it harder for communities to access essential services such as healthcare. It also removes key redundancies in an emergency and impacts productivity by making it harder to access markets. Simon Wallace, Chief Executive of AIANZ, put it this way: "Loss of these routes rips out lifelines for our communities – literally in the case of Blenheim to Christchurch, a critical

healthcare link for Marlborough people needing specialist treatment in Christchurch" (Aviation Industry Association, 2025).

Sector participants interviewed for this paper point to a deeper structural problem. Air New Zealand has for some time not been significantly investing in the smaller turboprop fleet that services regions. Relative to 2019, Air New Zealand's regional fleet capacity has reduced more than 25 per cent (RNZ, 2025; Bradley, 2024). As that fleet ages, regions that depend on them may become more vulnerable to route closures (New Zealand Airports Association, 2017).

With airlines under pressure, smaller airports cannot recover their costs through landing fees; with airports unable to fund maintenance, infrastructure deteriorates; and regions face the prospect of being cut off entirely.

Airports and routes are connectivity infrastructure

Part of the difficulty may be conceptual. As BERL's Amanda Reid argues, "we often think about airports as places where aircraft land and take off. Economically, however, airports are connectivity infrastructure. They connect regions to customers, suppliers, skilled workers, investors, conferences, events, and visitors. They reduce the economic cost of distance and make it easier for regions to participate in national and international networks" (Reid, 2026). The value of an airport therefore extends beyond passenger numbers: its value lies in the opportunities it enables.

Anecdotally, a particularly important function of the smaller regional routes is to provide regular healthcare access, for example to those requiring regular treatment in major hospitals (chemotherapy, for example). Smaller airlines report that a large portion of those flying regularly are doing so for treatment, or as healthcare professionals travelling to work (Brunton, 2025).

This is not an argument for indefinite subsidy – airlines are commercial entities.

But what is commercially rational for an airline may not be what is economically optimal for a region, or for the country. The task is to identify which connections generate the greatest value for regional productivity, tourism, business development, resilience, and population wellbeing. Road infrastructure is routinely discussed through this lens, whereas aviation is treated fundamentally differently, despite the value it brings to regional New Zealand (Reid, 2026).

The New Zealand Airports Association 2017 position paper recommended a grant scheme to help isolated communities keep airports to minimum standards, paired with an underwriting scheme for key air routes, and argued that smaller airports should not be required to operate as commercial enterprises (New Zealand Airports Association, 2017). A grant scheme allowing local councils to underwrite essential air services through a contestable tender process has also attracted support.

The Airports Association has proposed that funding could be drawn from the Crown's own airport shareholdings rather than from new taxation: dividends from these holdings could be recycled into regional route support, allowing the system to substantially fund itself.

Many countries strategically subsidise aviation

New Zealand is an outlier among developed nations in leaving regional air connectivity substantially to the market. Governments in Australia, Canada, the United States, and Europe help fund airport infrastructure and underwrite essential air links, using different mechanisms:

- The United States' Essential Air Service programme provides direct subsidies to air services deemed essential to the survival of small communities (US Department of Transportation, 2026).

- Australia invests at both federal and state level in regional aviation explicitly to sustain social cohesion and connectivity, and Canada and Norway operate comparable schemes supporting rural airports and the smaller airlines serving them.
- In the European Economic Area, the Public Service Obligation scheme permits national governments to offer routes as either monopolies or subsidised monopolies, with airlines bidding for route rights (European Commission, 2026).

Unless New Zealand develops an equivalent support system for its small and isolated airports, there is a real risk of continued degradation and eventual closures. The proposed sums involved are not large. The Airports Association estimated in 2017 that regional aviation – airports and air services together – could be sustained by a fund of approximately \$6–8 million per year. This is modest compared with the sums routinely committed to roading for example (New Zealand Airports Association, 2017).

Given aviation's importance in keeping regional New Zealand connected, it is notable that successive governments have held back from a durable solution. If the regional network fails, which without intervention is possible, the consequences will fall on regional New Zealand and on the country as a whole. As Reid (2026) concludes, "if New Zealand wants thriving regional economies, connectivity must be planned as an economic asset, not managed only as a commercial service."

CHAPTER 5

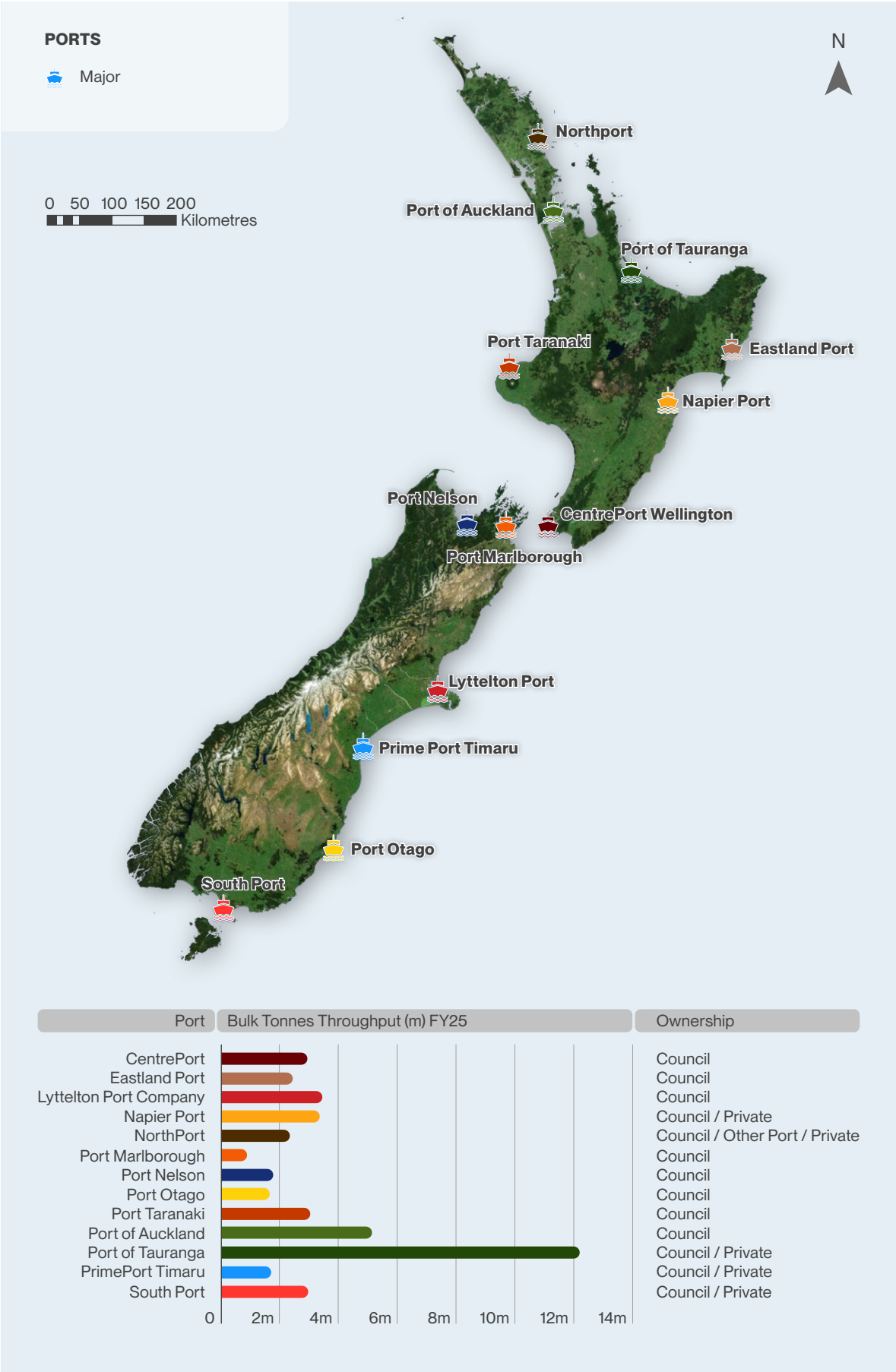
PORTS AND SHIPPING – IN NEED OF A NATIONAL VISION



Network structure

- New Zealand has 13 major commercial ports regulated by Maritime New Zealand (2026).
- There are also numerous smaller commercial wharves that primarily serve specific industries such as fishing, coastal shipping, and local cargo or passenger needs. These wharves are typically managed by local councils, port companies, or private operators (Infrastructure Commission, 2026a).
- Inland ports, or intermodal freight hubs, are an expanding component in the logistics network. They are a response to size constraints faced by major ports, such as Auckland and Tauranga. These strategically located facilities act as inland extensions of seaports, handling transfer of cargo between road and rail, and providing customs and biosecurity services (Infrastructure Commission, 2026a).
- There are a range of port ownership structures within the New Zealand port sector. Some ports are majority-owned by local/regional councils, while others have part private ownership and a listing on the New Zealand Stock Exchange, such as Port of Tauranga (Infrastructure Commission, 2026a).
- The Minister of Transport is responsible for overall transport policy, including the maritime and port sectors, appoints the board of Maritime NZ, and can issue high-level policy direction.
- Capital investment by maritime ports is primarily funded by the port companies themselves through retained earnings and debt. Central government occasionally provides targeted funding for specific projects, often aimed at enhancing regional development, resilience, or connectivity.
- The busiest ports in the country are in Tauranga, Auckland, Lyttelton, and Napier. Of these, Port of Tauranga is New Zealand's largest port and international freight gateway, with road and rail connections to Hamilton, Auckland, and the central North Island (see Figure 6).

Figure 6:
Commercial port ownership and annual freight throughput (Deloitte, 2026).



Why shipping matters to the network

Although shipping receives less public discussion than roads or rail, the Infrastructure Commission (2026a) identifies it as an underused component of New Zealand's freight network, particularly for bulk freight, long-distance domestic freight, and resilience during network disruptions.

Shipping is extremely important to the country. New Zealand's ports provide the essential link between exporters, importers, and global markets. In 2025, New Zealand's total exports were worth over \$80 billion and imports a similar amount.

Nearly all that export trade – 99.7 per cent by volume and 82.0 per cent by value – moved by sea (Deloitte, 2026).

Shipping contributes \$4.47 billion directly to GDP and a further \$4.27 billion indirectly (New Zealand Shipping Federation (NZSF), 2025). A significant challenge though is that New Zealand sits further from major shipping lanes than most countries and has no land border to provide an alternative freight route. This means that any disruption to global shipping affects the country disproportionately (NZSF, 2025).

A major challenge for the future expressed by many within the sector is that continued service by international lines cannot be assumed. Operators report that New Zealand is costly to visit, that port and other charges exceed those in many comparable markets, that port access is unreliable, and that biofouling rules in the country are onerous. Services to New Zealand are consequently under constant review (NZSF, 2025).

Two trends sharpen the concern that some freight companies may suspend routes to the country in the future. First, new container ships are substantially larger than their predecessors and too large – or too deep-drafted – for many of New Zealand's regional ports. Second, the majority of international vessels calling here do so after first stopping in Australia, which means any decision to terminate a rotation in Sydney or Melbourne would potentially

remove New Zealand entirely from the network rather than merely reducing its frequency.

Ports face a productivity problem

Port productivity has declined persistently since 2020, having peaked around 2015/16. Crane moves per hour are reportedly around half the global standard, and 82 per cent of New Zealand's container volumes are handled by ports ranked in the bottom quartile for efficiency internationally (Deloitte, 2026). Submissions to the 2025 parliamentary inquiry into the ports and maritime sector were blunt that this inefficiency, combined with escalating port charges, directly erodes exporter competitiveness, productivity, and profitability, and raises a risk of carriers bypassing New Zealand (Deloitte, 2026).

Much of the sector traces this back to the 1987 reforms that established ports as commercially competing entities. Anecdotal, the intended discipline of competition has in practice given the major shipping companies an outsized measure of control to play ports off against one another. The price of attracting a shipping line is investing in expensive infrastructure, which not all ports can afford to do (Maritime Union of New Zealand, 2025).

Critics of the current model argue that competition between ports has resulted in duplicated investment and dispersed capability.

The Maritime Union characterises the result as disorganised competition producing systematic misallocation of capital, smaller ports over-investing in infrastructure for large international vessels they rarely attract, while spreading customs and biosecurity resources thinly across too many international entry points. This leaves smaller regional ports dependent on a handful of lines whose services are neither frequent nor reliable (Maritime Union of New Zealand, 2025).

Infrastructure New Zealand (INZ) adds that ports are effectively unregulated monopolies, without the pricing controls applied to comparable infrastructure and generally without requirements for asset replacement or renewal planning (INZ, 2025).

Five major container ports – Auckland, Tauranga, Napier, Lyttelton, and Otago – hold resource consents to deepen their channels for the larger vessels expected over coming years, with major projects planned or under way at Northport, Auckland, Tauranga, and Lyttelton (Deloitte, 2026). Whether all that capital should be deployed in parallel, in a market of New Zealand's size, appears to be a question without a clear answer.

The counterargument is that competition between ports improves efficiency and investment discipline. Requiring ports to compete with one another may not be the wrong approach; however, competition without a network strategy appears to have led to duplicated investment, thinly spread capability and resilience planning that does not always include a view of regional or national interest.

Capacity constraints make the question urgent in the upper North Island. Ports of Auckland would struggle to expand its footprint on the waterfront, and Tauranga likely has only one major expansion remaining – implying that Northport in Northland must grow if national capacity is to keep pace (sector interview, 2026; see also MCERT, n.d.).

Some of the sector supports partial or full divestment of council-owned ports to enable more commercial governance and long-term investment in automation and infrastructure. Some shipping lines propose granting concessions to experienced international terminal operators while councils retain land ownership (Deloitte, 2026). The Maritime Union argues the opposite – that a successful ports strategy must rule out privatisation, as incompatible with optimising the network as a whole (Maritime Union of New Zealand, 2025).

Domestic coastal shipping has fallen away

Over time, international vessels have carried more of the country's coastal freight, with domestic coastal shipping now moving only around 3.5 per cent of Aotearoa New Zealand's total freight (NZTA, 2021). Not including the Cook Strait ferries and NIWA's research vessels, the domestic coastal freight and passenger fleet now numbers just 11 to 14 vessels (NZSF, 2025). In July 2026, the country's last remaining domestic container shipping service, Pacifica, announced it would cease operations (Transport Talk, 2026).

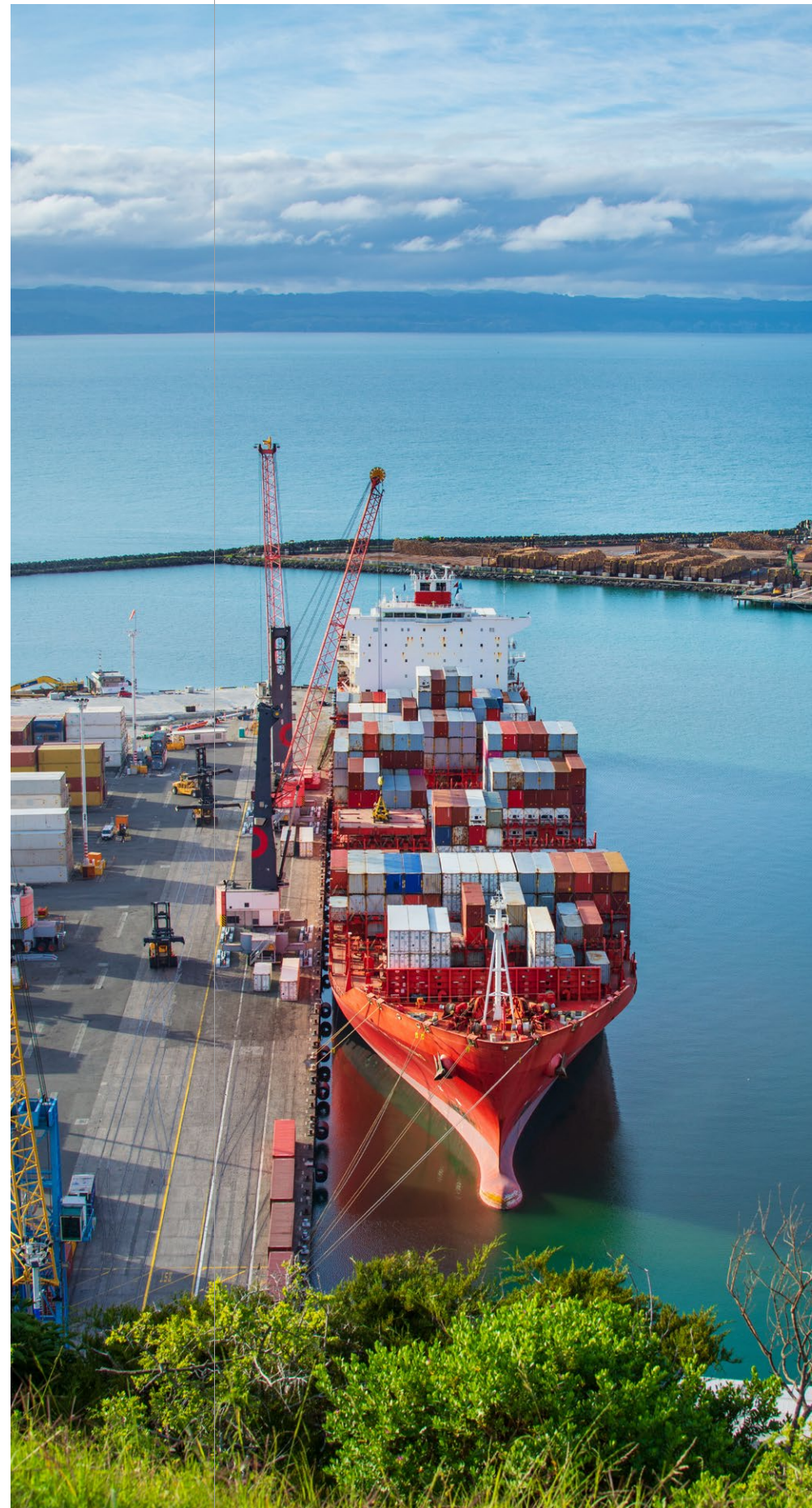
The erosion is a policy outcome rather than an accident. On the Shipping Federation's assessment, the country has the most open cabotage regime anywhere, offering no material protection for domestic operators. Foreign vessels operating in New Zealand waters are typically based in low-tax jurisdictions, pay no GST on supplies purchased here, bear no Emissions Trading Scheme cost, and pay crew around 60 per cent or less of New Zealand rates.

The lack of domestic shipping is an issue for several reasons. Freight which travels by road leads to higher maintenance costs and congestion. It also produces emissions five times higher than those produced by coastal shipping (while rail produces emissions two times higher than shipping) (NZSF, 2025).

Greater use of coastal shipping was called for in the country's first Emissions Reduction Plan to reduce freight emissions, alongside research into better uptake of alternative low- and zero-carbon shipping fuels (New Zealand Government, 2022) – yet little work appears to have followed on how to make use of the 'blue highway' (NZSF, 2025). New Zealand is an outlier in this. Almost every comparable country maintains legislative or regulatory settings securing a minimum domestic shipping capability, and several are actively strengthening them.

In the United States for example, only US-flagged vessels with American crew may carry coastal cargo, supported by federal payments toward capital and operating costs, and various concessions. The United Kingdom has invested substantially in vessel construction and shipbuilding infrastructure. Australia – which has itself seen international lines reduce service on the grounds that it is a small, remote market – is deliberately building a 'strategic fleet', using tax incentives and preferential port access, with vessels able to be co-opted by government during security crises, natural disasters, or supply chain disruption (NZSF, 2025).

Domestic operators face compounding constraints: workforce shortages and an ageing workforce, a regulatory regime that does not recognise training or experience from related industries, immigration settings that make it slow to bring in seafarers at short notice, and no dry dock capable of servicing larger vessels – which must instead travel to overseas ports, with a corresponding cost in time, money, and emissions (NZSF, 2025).



Well-functioning ports are important for resilience and productivity

The value of ports in emergencies has been repeatedly demonstrated: Napier maintained access following Cyclone Gabrielle through its port, and Nelson and other ports acted as alternative gateways as cargo was redirected after the Canterbury and Kaikōura earthquakes, for example.

However, maintaining resilience after a disruption to the transport network relies not just on functioning ports – it also depends on the road, rail, and coastal connections that move freight onwards from there, and on the ability to re-route rapidly when required. Maintaining at least two deep-water container ports in each island is generally regarded as the minimum for preserving international connectivity through a major disruption (Deloitte, 2026).

New Zealand is faced with two opposing problems. It must become more attractive to international shipping lines to keep them coming to our shores. It must also act to make it possible for domestic operators to compete against those same lines, to build resilience in case international shipping companies do stop coming here. Any national strategy must hold both objectives at once rather than trading one against the other.

Some within the sector promote a 'hub-and-spoke' model as a vision for future shipping. Larger vessels would call at a small number of capable hub ports, with regional ports serving as feeders connected by reliable coastal shipping (Deloitte, 2026; Maritime Union of New Zealand, 2025). Such a model would require the country to invest in an expanded coastal fleet (NZSF, 2025).

Landside connection is the binding constraint on whether any of this works. Port capacity projects will not deliver their full value unless matched by efficient freight corridors and inland

logistics capability (INZ, 2025). If freight cannot be cleared from a port efficiently, ships back up and shipping lines reconsider their routes.

The argument advanced in sector interviews is that decisions around which ports should be prioritised for investment, and how these should be supported with landside transport connectivity, are not currently made strategically. As with other transport modes, the first question should be to ask what the local freight task is, and how it should be supported – rather than jumping to preconceived ideas about whether road, rail, aviation, or shipping should provide the answer.



CHAPTER 6

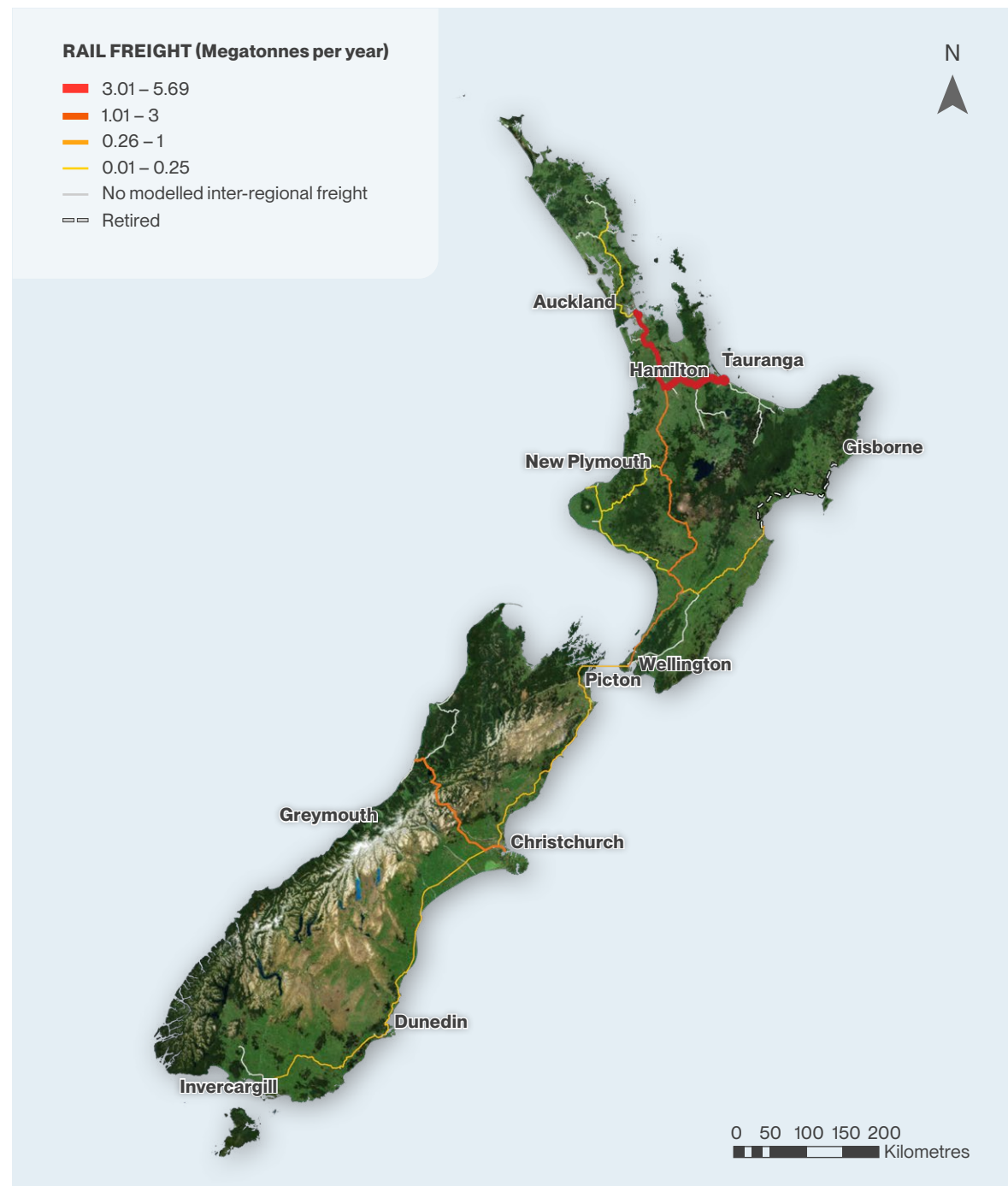
RAIL – UNTAPPED POTENTIAL?

History of rail governance in New Zealand

- **1876–1982** Rail under central government control.
- **1982–1993** Corporatised ownership. The Railways Department was corporatised. From 1987 it was required to make a profit as a State Owned Enterprise. Many services were cut.
- **1993–2004** Under the private ownership of a consortium and became Tranz Rail in 1995. Tranz Rail cut staff and rail routes, and deferred a significant amount of maintenance, resulting in freight being diverted onto the roads. Its share value dropped precipitously in 2003.
- **2004–2008** Private and government ownership. Toll Holdings took over Tranz Rail with the government buying back the infrastructure and investing significant sums in deferred maintenance.
- **2008–current** Renationalisation and creation of KiwiRail (KiwiRail, 2026; Wikipedia, 2026a).



Figure 7:
National rail network (MCERT, 2026d; NZTA & WSP, 2025).



Why rail matters to the network

New Zealand's rail network is a crucial part of the national transport system. It comprises around 3,700 km of mainline track, more than 1,300 bridges, and approximately 100 tunnels (Ministry of Transport, 2021). The network connects major cities, ports,

and freight hubs, and the North and South Islands (via the Interislander ferries). The network also includes metro rail networks in Auckland and Wellington, which support 22 million commuter trips annually, three inter-regional routes from Wellington and Auckland (Capital Connect, Te Huia, and Wairarapa Services) and several tourist routes (NZTA, 2026).

The main function of the wider rail network currently is to transport freight. Rail carried 17 million tonnes of goods in the year ended June 2026 (MCERT, 2026d), and KiwiRail hauls 25 per cent of all exports, playing a significant role in the movement of dairy products, meat, pulp and paper exports, coal, and logs (Ministry of Transport, 2021). Rail is a competitive way to transport freight, and reliable rail services are essential for heavy industry: rail had a total estimated GDP impact of \$972.9m in 2023 (KiwiRail, 2026).

Rail is far lower in terms of climate emissions than road transport. On average, every tonne of freight moved by rail produces at least 70 percent less carbon emissions than heavy road freight, making rail a crucially important part of the freight network (Ministry of Transport, 2021).

The rail system in this country was initially designed in the 1800s, and most of the network was built with infrequent services in mind, to transport people and freight over long distances. The Infrastructure Commission (2026) describes the country's rail network as characterised by comparatively low levels of investment and usage, even when compared to countries with similar population density and geographical features.

Nevertheless, rail is worth a significant sum to the economy. Its social, environmental, and economic benefits have been quantified at \$3.3 billion per year, in terms of reduced congestion, reduced emissions and pollution, improved road safety, lower road maintenance costs, fuel savings, and direct contributions to GDP (Australasian Railway Association, 2024).

While rail may not be a universal answer for regional connectivity, it has particular value where it can move bulk freight, connect ports, reduce pressure on roads, lower emissions, or provide redundancy.

Governance and ownership

Other than a few tourist-only scenic routes, inter-regional passenger rail is underdeveloped in New Zealand compared to many other countries. There are just three short services currently operating: Te Huia (which runs from Auckland to the suburb of Frankton in Hamilton), the Capital Connection (which runs from Wellington to Palmerston North), and Wairarapa services, from Wellington to Masterton. The relevant regional councils and NZTA both contribute to funding and the services are run by KiwiRail (2026a).

KiwiRail owns the national rail network and manages its upkeep. KiwiRail also operates freight and tourism passenger services, as well as the inter-island ferries. It is managed by a board and accountable to the Minister. NZTA provides a safety regulatory function, and also manages rail investment that comes via the National Land Transport Fund. MCERT – the new Ministry that has incorporated the Ministry of Transport – provides policy oversight.

The rail network is funded and appraised on a different basis from the state highway network. As a State Owned Enterprise, KiwiRail is expected to operate as a successful business and to be as profitable and efficient as comparable businesses that are not owned by the Crown.

Rail is also supported by Crown funding, however, as well as by track user charges paid by rail freight operators and farebox revenue – including contributions from local councils and public transport users in Auckland and Wellington (Infrastructure Commission, 2026). In Auckland and Wellington, metropolitan rail services are planned and funded by Auckland Transport and the Greater Wellington Regional Council but delivered by private operators.

Crown funding for the national network (as opposed to the metro networks) is usually secured for one year only.

Since the 2020 rail reforms, rail has had a multi-year planning and funding framework through the New Zealand Rail Plan and the Rail Network Investment Programme, although its access to the National Land Transport Fund has since changed. Budget 2026 confirmed three years of maintenance funding. This certainty of funding will make it easier for KiwiRail to plan ahead (Bishop & Peters, 2026).

KiwiRail supports treating rail as an integrated part of the national transport system with better integrated infrastructure planning and investment, and a longer-term investment approach (KiwiRail, 2021). Given that rail can generate wide public benefits by providing freight efficiency, network resilience, emissions reduction, and reduced highway maintenance (Ministry of Transport, 2021), it makes sense that rail investment should be evaluated alongside roads rather than requiring a different investment standard.

Why doesn't the country have more inter-regional passenger rail?

Historically, New Zealand had numerous inter-regional passenger trains in the North and South Islands. As roads improved, car ownership increased, and air-travel became more accessible, demand for passenger rail services fell (Kiwi Coaches, 2026). Rail has suffered over many decades from a lack of consistent political support. For some time now rail has been subject to commercial discipline as a State Owned Enterprise. This means investment in rail must be justified in a different way from roads, even though it produces public benefits such as lower emissions, reduced road maintenance, safety gains, and freight resilience.

The benefits of passenger rail can be significant. Unlike air travel, which is point-to-point only, one big advantage of rail is its ability to serve intermediate destinations, providing spill-over benefits to those areas (Engineering New Zealand, 2022). Other reported positive impacts of rail compared with business as usual include economic agglomeration benefits, improved productivity, improved safety, lower emissions and pollution, higher

participation in the labour market and education (through increased choice in public transportation), more efficient use of land, a reduction in congestion on the roads, reduced pollution, and reduced fuel consumption (Australasian Railway Association, 2024; Engineering New Zealand, 2022; KiwiRail, 2026a; Transport and Infrastructure Committee, 2023).

Improving rail services may also increase tourism across regions by attracting New Zealanders to travel domestically and drawing international tourists to visit regions that they may not otherwise visit (Transport and Infrastructure Committee, 2023).

The New Zealand Parliament's Transport and Infrastructure Committee (2023) launched an inquiry in August 2022 to examine the viability, integration, and emissions-reduction potential of inter-regional passenger rail. The select committee recommended among other things that the government clearly identify a transport-sector agency to provide system leadership and guidance specifically for inter-regional public transport. This agency would engage with regional councils and NZTA to help consider the costs and benefits for proposed inter-regional public transport services and would coordinate the development of business cases.

The final report, presented in mid-2023, recommended progressing formal scoping studies for key routes including Auckland–Wellington, Auckland–Tauranga, Napier–Wellington, and extending the Capital Connection to Feilding. Carrying out cost benefit studies for these and other key routes would help settle questions relating to the viability of rail, especially as compared to roads.

It is worth noting that in many parts of the country, roads will no doubt remain the more efficient and cost-effective mode to service local communities – especially in those areas that have low population and difficult terrain. However, addressing the viability of passenger rail armed with objective analysis about its benefits and costs points to a sensible way forward and could help separate future decision-making around investment in rail from political point-scoring.

“The main finding of our inquiry is that the regional-centred approach to land transport in New Zealand has resulted in the potential for inter-regional public transport, such as passenger rail, often being overlooked. There is a knowledge gap regarding what opportunities inter-regional services could unlock. We think that one clearly identified agency needs to be responsible for providing leadership and guidance regarding inter-regional public transport, identifying and evaluating the public value of potential services, and supporting the work of other land transport agencies in this area.”

(Transport and Infrastructure Committee, 2023)

How does rail link to productivity, resilience and wellbeing?

The case studies in the next chapter suggest that enhancing access to rail could improve productivity for some regions by providing alternatives for freight routes. Northland's proposed Marsden Link to Northport is an excellent example, yet the link has remained at the planning stage for many years.

Similarly, expanded public transport services via passenger rail could provide alternative ways to access services, including healthcare. The centre of the North Island provides a good example of an area of the country that is poorly served by hospitals, for example, but which may also feasibly be able to support

increased passenger rail services. Better public transport, such as that provided by passenger rail can also help to reduce disadvantage for isolated communities – especially those without access to a vehicle – by providing access to increased economic and social opportunities.

Rail can also improve resilience in the regions by providing redundancy for vulnerable roads. However, it is important to factor in that rail will often be vulnerable to the same types of geohazards that impact roads. The Kaikōura earthquakes in 2016 damaged both key roads and rail networks, for example – though the railway was able to be reopened before State Highway 1 (KiwiRail, 2023).

Cook Strait: New Zealand’s most exposed rail and road connection?

Cook Strait is arguably the most consequential connectivity point in the country, joining the two islands with rail-enabled ferries that also carry passengers, cars, and freight trucks. The strait in effect continues State Highway 1 and New Zealand’s main rail corridor across open water, moving more than 500 trucks a day and 5.5 million tonnes of freight a year. It is, however, dependent on just four roll-on, roll-off ferries operated by Interislander and Bluebridge’s StraitNZ (Brutsch et al., 2026).

Unlike most other connectivity gaps discussed in this paper, there is no possible detour: no alternative road, no alternative rail line, and no realistic prospect of a bridge or tunnel. If the strait crossing fails, the country would be cut in two, with significant impacts on productivity and access to essential products and services.

Newly published research gives a concrete sense of how serious that exposure is (Brutsch et al., 2026). Modelling a magnitude 8.5 earthquake and tsunami on the Hikurangi Subduction Zone – an event with a roughly one-in-four probability of occurring in the next 50 years (Pizer et al., 2021) – the study modelled what might happen should the Wellington and Picton ferry terminals be out of action for three months, alongside damage to other ports, fuel facilities, and parts of the road and rail network.

With the terminals unavailable, the ferries would need to be re-routed to alternative ports. However, the significant weakness in this plan is that only Wellington and Picton have appropriate linkspans that connect the ferries to the wharves enabling rail wagons and trucks to easily move from ship to shore (Brutsch et al., 2026). A potential solution to this problem would be to have portable backup linkspans ready around the country.



As the researchers point out, though, such a solution would need government intervention and funding. No such policy or funding mechanism currently exists, leaving this possible contingency measure unaddressed (Brutsch et al., 2026).

Meanwhile, air travel as a redundancy is expensive and has limited capacity to move heavy freight. Coastal shipping lacks the spare vessels, containers, and trained personnel to scale up quickly – a problem worsened by the closure in July 2026 of the country’s last remaining domestic container shipping service, Pacifica (Transport Talk, 2026).

The research traced the freight system’s vulnerabilities back to critical root causes across six areas of government policy. Among them were: the importance of government funding to support critical redundancy infrastructure (such as portable linkspans); infrastructure governance incentives leading to publicly owned infrastructure prioritising short-term needs and not investing sufficiently in resilience; onerous consenting processes (Tauranga’s seven years’ planning and consent process to expand its berths is one example of how this can impact the sector (Bevin, 2026)); and long-standing workforce shortages across trucking, ports, shipping, and aviation (Brutsch et al., 2026).

The research on the Cook Strait clearly illustrates and reflects some of the themes of this paper – that New Zealand’s transport system is often shaped by responsive decision-making and by under-investment that only becomes visible once something breaks.

The Cook Strait ferry fleet is another example of the difficulty the country has in agreeing investment in long-standing issues. A previous rail-enabled ferry replacement programme was cancelled in December 2023 after the seismic wharf upgrades were decided to be too expensive. The final cost of the cancelled project was \$671 million (1News, 2025). A new pair of rail-enabled ferries, Kupe and Cook, was recently confirmed for delivery only in 2029. Between now and then, the country’s interisland freight and passenger link continues to run on an ageing fleet – one already prone to breakdowns and groundings well short of an earthquake scenario.

None of this points to an easy fix, and the research is candid about that: natural disasters are costly and unavoidable, and some disruption to Cook Strait crossings is likely a fact New Zealand has to plan around rather than eliminate. What the findings do suggest is that the severity of any future disruption is not fixed – it depends on choices such as investing over the long term in critical infrastructure and coastal shipping capacity, building genuine redundancy into the freight network, developing the transport workforce, and ensuring resource consent processes do not make the situation harder (Brutsch et al., 2026).

CHAPTER 7

CASE STUDIES

This chapter sets out some real-life examples of how the country's thin connectivity, difficult terrain and vulnerability to environmental pressures can impact the country's regions in terms of their productivity, resilience, and accessibility.

This is not intended to be a comprehensive study. We have selected several parts of the country to demonstrate particular challenges and opportunities the regions face:

- **Tairāwhiti / Gisborne** is a remote region with particularly thin transport network connections, but with an economy that is important to the country. The region has young, unstable geology and no rail option, leaving a primary-production economy heavily dependent on slip-prone roads. Recent weather events, including Cyclone Gabrielle, demonstrate how easily the region can become cut off from the rest of the country.
- **Queenstown Lakes District** has unique connectivity problems: rather than a struggling region with too little transport demand, it has a small resident population supporting an outsized share of national tourism spend and GDP. The region is entirely dependent on a single road corridor (SH6) and one airport, with no rail or coastal shipping backstop given its inland, alpine location. Access to specialist healthcare is a particular problem for those who live in, or visit, Queenstown.
- **Northland** is a remote region that arguably has undeveloped economic potential due to the thinness of its connections and challenging accessibility issues for its residents. It benefits from proximity to Auckland, strong primary industries, and a young population but struggles to convert those advantages into better outcomes.
- **The West Coast** region's connectivity is reliant on a single highway (SH6) with a small number of high-risk alpine spurs. This makes it particularly vulnerable to weather and geological events. A failure anywhere on SH6 can cut off the whole region, with significant productivity impacts.

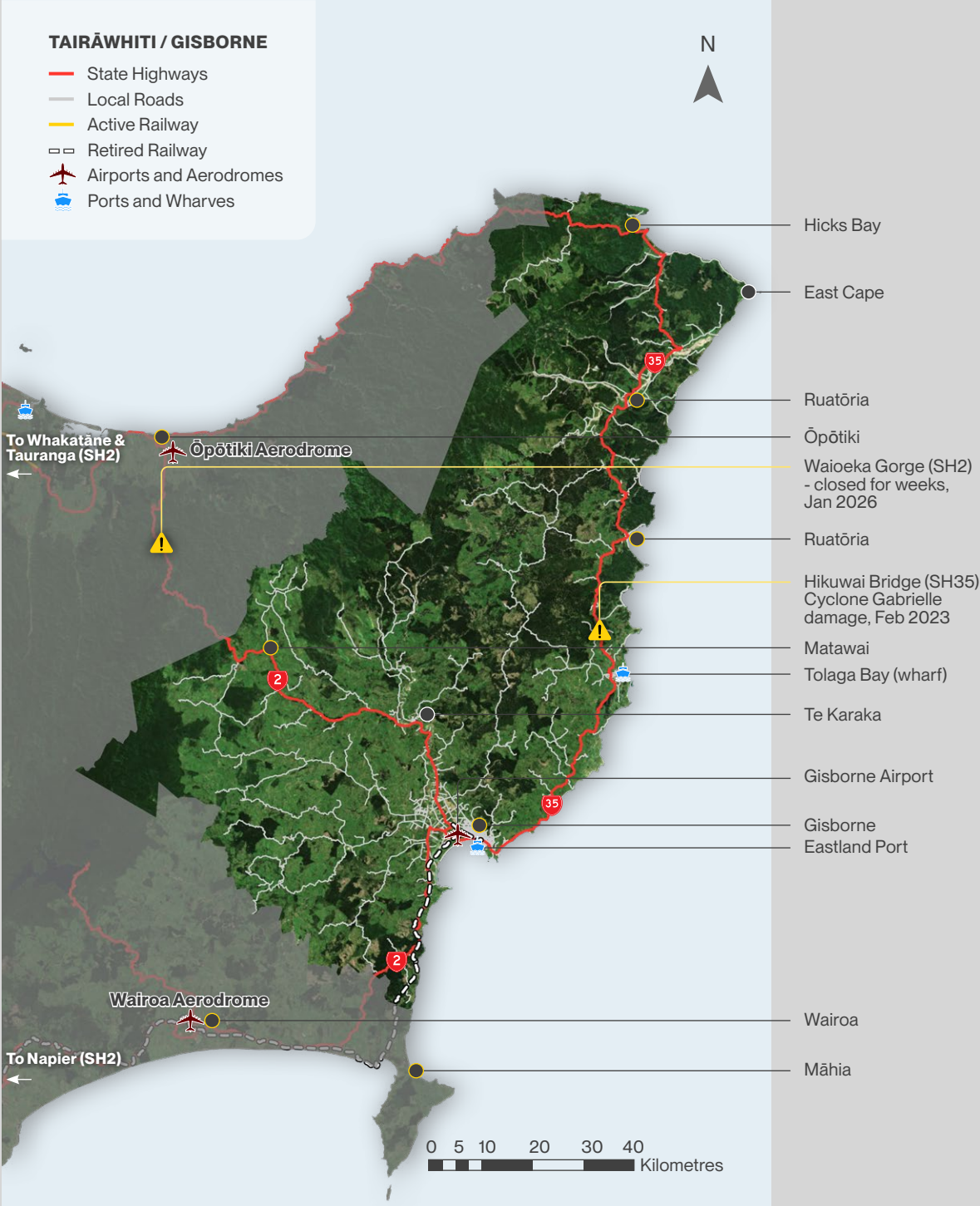
New Zealand relies heavily on its regions, but many of them are more vulnerable than we may think. This has impacts not just for the communities that live there – in terms of productivity, resilience, and accessibility – but for the country as a whole.



Case Study

TAIRĀWHITI / GISBORNE REGION –
A remote region with vulnerable road networks

Figure 8:
Key transport connectivity links in Tairāwhiti. Map: WSP, using the NZTA AMDS network (NZTA & WSP, 2025) and LINZ (2026).



A remote region with
slow growth but much
potential

Tairāwhiti is one of the most remote regions in Aotearoa New Zealand, and though it is sparsely populated it covers a large area. The region is home to around 52,700 people, or around 1 per cent of the national population, 53 per cent of whom are Māori (Stats NZ, 2026b). The population skews slightly younger than the average for Aotearoa New Zealand; however, the percentage of the population aged 65 and over is increasing rapidly (Stats NZ, 2026b).

While the region is projected to grow modestly over the next 30 years, most of that growth will be concentrated in Gisborne city (Gisborne District Council, 2024). The combination of remoteness and a lower than average median income leaves the region with a constrained funding base from which to maintain a sprawling road network (Stats NZ, 2026b).

Economically, the region has performed relatively poorly for much of the past decade, with relatively high unemployment, slow population growth, and limited opportunities for young people (Berl, 2022).

The Provincial Growth Fund invested around \$299 million in the region between 2018 and 2021, mostly on road building and maintenance. Modelling at the time anticipated significant returns – an estimated potential 1,500 full-time-equivalent jobs and a \$176 million lift in annual regional GDP (Berl, 2022). However, Cyclone Gabrielle, in February 2023, put much of this anticipated benefit on hold.

The region's economy is largely based on primary production – forestry, fishing, sheep, and beef farming, alongside viticulture and horticulture. The latter are sectors that are especially exposed to transport disruption, since soft fruit and market garden producers in particular face rapidly rising costs or spoiled produce whenever roads close.



Tourism contributes to the economy (visitors spent an estimated \$103.8 million in the year to June 2026), but the tourism market remains relatively small because of Tairāwhiti's remoteness (GisborneNZ, 2026).

The region is heavily dependent on vulnerable roads with limited redundancy

The primary mode of transport in Tairāwhiti is by road: the region produces 2 per cent of the country's freight, nearly all of which travels by truck (NZTA, 2023). Logs and some other products such as squash and kiwifruit are also shipped from Eastland Port in the heart of Gisborne city, with some high-value freight (such as crayfish) transported by air.

Along with its remoteness, resilience is a significant challenge for Tairāwhiti's transport network. The region is geologically 'young', located on an actively rising fold of the earth's crust (Gisborne District Council, 2020). One consultant spoken to for this report described the region as 'like building roads on sand castles'. Roads are prone to slips, and this part of the country is more vulnerable to the impacts of large weather events than others. Forestry slash is a particular issue, which regularly takes out bridges during flood events (NZTA, 2023).

Around 27 per cent of the region's roads are unsealed (NZTA, 2023), and the region's infrastructure is both ageing and still in recovery mode after Cyclone Gabrielle (Gibson, 2025). The cyclone caused widespread failure across the network, closing roads for convoys for at least a week and cutting fibre communications for 10 days, leaving the region without phones or eftpos and with dwindling supplies (Furniss-Sabin et al., 2026).

Road closures affecting the economy and inconveniencing residents are not unusual in the region. In January 2026, SH2 at Waioweka Gorge (between Opōtiki and Gisborne) was closed for several weeks to repair up to 40 slips after extremely heavy rainfall. Forty people had to be evacuated by Royal NZ Airforce helicopter, and farmers were forced to use a much longer route via Hawke's Bay to get summer crops to market (Robertson, 2026).

Threats to resilience leave the region particularly vulnerable due to a lack of redundancy in the network. Unlike the West Coast or Northland, the East Coast has no rail option. The line to Gisborne has not been used for regular passengers since 1988 and the line was mothballed completely in 2012 after a series of slips destroyed part of the corridor.



Since construction first began on the railroad in 1872 it has been fraught with regular setbacks and disasters caused by weather events, slips, earthquakes, and governments unwilling to invest (Wikipedia, 2026).

Other than road transport, the airport is the only reliable way for the public to travel in and out of Gisborne for work, travel, education, and to access specialist healthcare services. The airport also has an important redundancy function – it served as an essential hub for supplies and personnel after Cyclone Gabrielle while major roads were inaccessible.

While Gisborne is served by regular flights, these have reduced in number, are expensive (with only Air New Zealand running flights), and flights go only to Wellington and Auckland. Air services to and from Gisborne may be vulnerable in future given that the airport is not big enough for Air New Zealand jets to land. As noted in Chapter 3, Air New Zealand has for some time not been significantly investing in the smaller turboprop fleet that serves places such as Tairāwhiti. As those smaller planes age, the airport may become more vulnerable to route closures (Bradley, 2024; New Zealand Airports Association, 2017).

The local commercial port, Eastland Port, has capacity to move more freight. This would take more load off the roads. As road closures become more frequent with climate change, and if road user charges increase for

trucks (which seems likely under new government policy), this may make shipping more attractive for products that do not have time pressure to get to market. For products that are perishable, shipping is likely to remain too slow.

Smaller local ports such as Tokomaru Bay and Tolaga Bay proved essential for getting supplies to residents after Cyclone Gabrielle. Piers such as these can provide alternatives for regional transport, freight, tourism, and, most importantly, redundancy in an emergency. However, the wharves have become old and rundown, and as a result are no longer maintained.

That leaves roads as the only mode for most people and the majority of goods, with regular closures on the main routes to both Napier and the Bay of Plenty, sometimes simultaneously, effectively isolating the region entirely (NZTA, 2026c). Rebuilding after events has consumed most of the available capital and attention, especially since Cyclone Gabrielle, leaving little room for the sort of proactive resilience investment and redundancy planning that might reduce the frequency of future closures.

On the positive side, a recent government announcement to invest \$75 million in resilience work in Waioweka Gorge (the most vulnerable part of the network) was warmly welcomed by the Gisborne District Council (Gisborne District Council, 2026).

“This has a huge impact on our local businesses, residents travelling to health appointments at Waikato Hospital and visitors or students having to travel north or come home. [There are] economic as well as environmental impacts.”

Rehette Stoltz, Mayor of Gisborne, after the floods in January 2026 (Robertson, 2026)



“There was no road, basically. [I was] climbing through trees, over slips, through water. I got tipped up and dragged across the road for about 20ft before I could get my feet back up.”

John Milne, Truck driver, trapped on SH2 south of Gisborne after Cyclone Gabrielle, February 2023 (NZ Herald, 2023)

There is much work to do to improve resilience, but limited funding

Tairāwhiti reflects other remote regions in New Zealand in that there is no simple menu of obvious fixes to remedy challenges in resilience and redundancy. The roads are in the most logical locations, the gorge cannot be moved, and building alternative routes elsewhere would be expensive with no guarantee of more stable geology.

Reinstating rail appears to be challenging economically and in terms of safety and resilience due to the difficult terrain, though it would be worth investigating this thoroughly via a business case, which could compare the potential costs of reinstating rail to the cost of repeatedly rebuilding roads to a standard that can accommodate heavy trucks.

Shipping has scope to play an increased role, and alongside aviation will surely remain essential to the region. A focus on ensuring the airport remains viable and resilient would be a sensible long-term strategy for the region to ensure ongoing productivity, accessibility, and as an important redundancy after major events.

It is worth noting that while in general rebuilding roads after a disaster costs significantly more than prudent prevention work, in an area such as Gisborne, with unpredictable geology and frequent weather events but with a

large road network, it will sometimes be hard to predict where the next disaster might strike. Building all the roads proactively to a high standard where they will be highly resilient to all potential events is unlikely to be cost effective or even possible (Sector interviews, 2026). Instead, focusing on key risks and obvious prevention work, while ensuring there are systems in place to rebuild quickly and efficiently when needed, may be the more cost-effective approach.

Ideas that have emerged from this research point toward smaller, more creative, and coordinated interventions across modes and across levels of government, alongside some bigger projects:

- Consistent and predictable spending on proactive maintenance, renewals, and slip prevention on state highways. In particular, removing overburden to reduce the frequency and impact of slips, and addressing the issue of forestry slash.
- Meanwhile, continuing essential post-disaster rebuilding (NZTA, 2023). Rebuilding bridges and roads to a higher standard to make the impact of closures less likely, or less frequent (Gibson, 2025).



- Putting systems in place to rebuild quickly and efficiently when needed.
- Redundancy planning and maintenance for smaller inland routes that provide essential connections for rural populations, but serve only a very small number of people and are mostly unsealed (such as that undertaken for Gisborne District Council (Gisborne District Council, 2025)).
- Prioritising the viability of Gisborne’s airport for the long term, whether through targeted assistance with routes, airport subsidies, or other assistance.
- Expanding the use of coastal shipping through Eastland Port as both a backstop and a way of taking heavy freight volume off the roads (NZTA, 2023; Trust Tairāwhiti, 2019).
- Investigating costs and benefits of the central government co-funding investment in smaller regional ports around the East Cape, to boost productivity and support redundancy.
- Ensuring rail has been properly investigated as an option for freight and passengers, and compared with the costs of other options (such as rebuilding roads each time there is a serious event).

“Some low-use sealed roads may revert to gravel. Others may take longer to reopen after a storm or could be closed during bad weather....”

Gisborne District Council’s Director of Lifelines, Tim Barry, discussing a new 30-year Programme Business Case by WSP to improve resilience of the region’s local roads (Gisborne District Council, 2025)



Hikuwai bridge on SH35, which runs along the East Cape north of Tolaga Bay, after Cyclone Gabrielle in February 2023

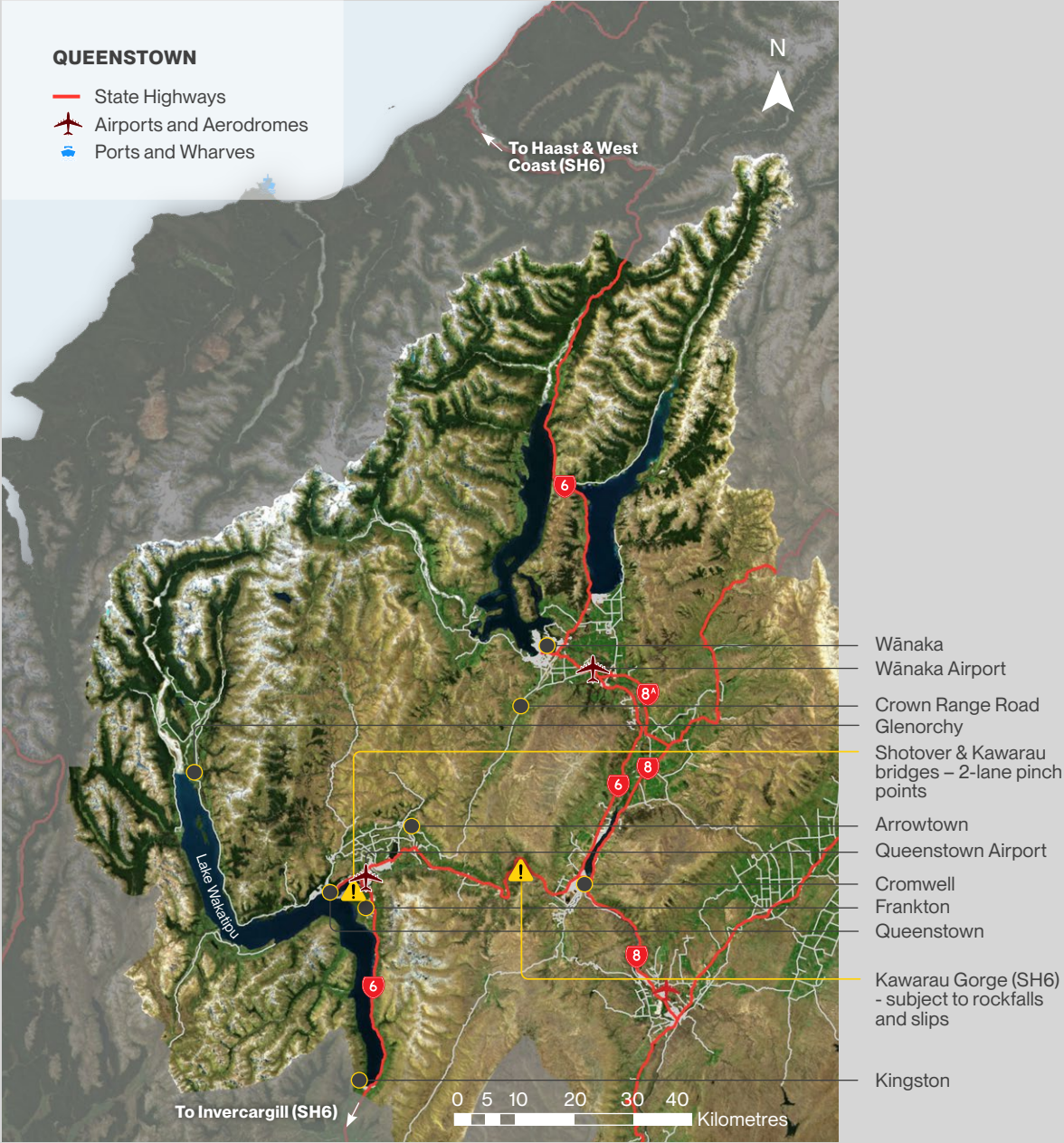


Waikare gorge on SH2 between Gisborne and Napier after Cyclone Gabrielle in February 2026

Case Study

QUEENSTOWN –
A small resident population supporting an outsized
share of national tourism

Figure 9:
Key transport connectivity links in Queenstown Lakes District (Otago Region). Map: WSP, using the NZTA AMDS network (NZTA & WSP, 2025) and LINZ (2026).



**Queenstown is
strategically important
for the country**

Queenstown is unique in New Zealand as a small town with a significant tourist population. Provisional figures suggest the Queenstown Lakes District GDP was \$4.8 billion in 2026 (Infometrics, 2026a). International visitors spend more in Queenstown than in any other city except Auckland: approximately \$1.3 billion in the year ended June 2026 (MBIE, 2026).

Despite this outsized economic role, the district has a relatively small resident population of around 53,800, around 29,000 of whom live in Queenstown itself (Stats NZ, 2026c). By contrast, visitors stayed a total of 4,882,200 nights in Queenstown Lakes District during the year to June 2026 (Infometrics, 2026a).

The district is relatively young and highly educated compared with the country as a whole, with an average income more than \$10,000 above the national average (Stats NZ, 2026c). The region is also one of New Zealand's fastest-growing areas, driven by an increasing number of permanent residents as well as tourism and associated industries. The 'usually resident' population is projected to grow to 84,400 by 2053.

Because of the town's popularity with visitors, the total number of people present in Queenstown at any given time is significantly higher than the resident population growth alone would suggest (NZTA, 2026). Queenstown Lakes District Council (2026) estimates around 80,000 people are in the District each day – this includes around 27,000 visitors.

The network is dependent on roads and aviation and lacks public transport options

Queenstown Lakes District sits within Otago, where roads carry 95 per cent of all freight, and rail just 5 per cent (NZTA, 2023). However, the railway line itself is several hours’ drive from Queenstown, on the East Coast of the South Island. Queenstown is also far from the coast on both sides, meaning all transport for both freight and passengers relies on road or aviation. There is, in other words, no multi-modal backstop of the kind available to coastal regions.

Up to 45 per cent of all visitors to Queenstown are believed to arrive by air – though reliable, current evidence on this figure is limited, which makes planning more difficult (Otago Regional Council, 2018). In the June 2026 year, 493,500 overseas visitors arrived at Queenstown airport (Stats NZ, 2026d) – the remainder arrived by private vehicle or coach. Having an international airport minutes away is a significant asset in terms of connectivity, especially for such a small resident population. Local residents can fly direct to Auckland, Wellington, Christchurch, Sydney, Melbourne, and Brisbane – making Queenstown one of the more connected regions in terms of aviation.

The airport is jointly owned by Queenstown Lakes District Council and Auckland International Airport Ltd, and is New Zealand’s fourth-busiest (Queenstown Airport, 2026). It is currently expanding its terminal facilities, anticipating a 33 per cent increase in passenger numbers over the next decade.

The wider road network is ageing and vulnerable to shocks

Beyond the city itself, Queenstown’s connections to the rest of the South Island rest on a thin network of roads. Key inter-regional routes link Queenstown to Milford Sound and other tourist destinations, but there is only one main route past the town:

SH6, which runs from Cromwell past Queenstown at Frankton before continuing south to Invercargill. To travel north toward Wanaka and the West Coast, travellers must either return to Cromwell or use the less well-serviced Crown Range Road over the hill through Cardrona.

Many workers in Queenstown live in Cromwell and Alexandra, and must drive to work due to the lack of public transport. This increases traffic on the busy and winding SH6, and congestion within Queenstown itself.

SH6 itself is vulnerable to rockfall, landslips, flooding, and closures due to ice and snow, with steep, unstable terrain compounding the impact of any weather event or geohazard.



Roadworks also cause delays. When SH6 is blocked through the Kawarau Gorge – the most vulnerable stretch – it is still technically possible to reach Queenstown via Invercargill, but this adds many hours to the journey.

Bridge capacity is a further constraint: the two-lane bridges over the Shotover and Kawarau rivers are key pinch points, and more capacity (whether road or otherwise) will be needed in the long term to accommodate the growth already occurring in Frankton, Ladies Mile, and the Southern Corridor (NZTA, 2026).

Healthcare is an issue given lack of local services and remoteness

When roads are cut for more than a day or two, fuel and food supplies in Queenstown run low quickly. Healthcare access is a particular concern: despite its growing population and high numbers of resident tourists on any given day, Queenstown lacks a large public hospital with specialist healthcare. Lakes District Hospital is a smaller community hospital that lacks the equipment and capacity for complex medical issues. For specialist care, planned surgeries, and advanced diagnostic testing, patients must travel several hours over alpine roads to base hospitals in Dunedin or Invercargill (Todd, 2025). Anecdotally, this issue has led some residents to relocate to be closer to health services.

A major event could cause major headaches due to a lack of redundancy and high numbers of daily visitors

As elsewhere in the South Island, the major long-term hazard is a potential rupture of the Alpine Fault, which could take out the Kawarau Gorge and other roads for an extended period. In that scenario, food and supplies could, at a pinch, be brought up Lake Wakatipu by boat from Kingston – but otherwise, the district would be heavily dependent on air transport to survive (presuming the airport was operational).

Transporting tens of thousands of tourists out of the city would be an early priority – and not an easy task should the airport be damaged.

Congestion within and around Queenstown also impacts productivity

Queenstown’s geography has placed a natural limit on the size of its centre and the roads leading into it, even as the population has continued to grow rapidly. As in much of regional New Zealand, limited transport options have created a heavy dependence on private vehicles – a real difficulty for younger people, older people, people with disabilities, and those on limited incomes who need to reach education, healthcare, and recreation (NZTA, 2023).

The town suffers from serious traffic congestion: at rush hour it can take more than an hour to travel the 8 km from the airport into downtown Queenstown. This is less an inter-regional connectivity issue and more a productivity issue: this kind of congestion costs businesses, inconveniences workers, disrupts school children, eats into time people could otherwise spend on recreation or with family, and gives visitors a poor experience (Patterson, 2026). In terms of regional connectivity, regular congestion also affects freight trucks and tourist coaches – drivers run out of permitted driving hours sitting in traffic, which has prompted some freight operators to set up depots in Cromwell instead.

The speed of growth in Queenstown has led to political tensions. For example, Mayor John Glover has questioned the value of the region developing a spatial plan when the Fast Track process may lead to new housing development in areas that the region had not planned to develop. He has flagged that new housing proposals cannot currently be supported by existing infrastructure such as schools, energy, and transport.

The dynamic is complicated by a funding mismatch: central government benefits from Queenstown's growth through higher tax and GST revenue, but the council is left to fund the necessary infrastructure from its existing rates base, without sharing in that growth dividend (Roxburgh, 2026). In response, Glover has set up a Mayoral Taskforce, warning that it is time to "act now, implement faster and think differently" when it comes to transport investment in the District (Queenstown Lakes District Council, 2026a).

Ideas that have surfaced

A wide range of solutions have been proposed to address Queenstown's connectivity and congestion challenges, spanning technology, infrastructure, funding, and governance (in Queenstown's Public Transport Business case, for example (Otago Regional Council, 2024)):

- Improving specialist and emergency healthcare within the region – for example by building a new hospital.

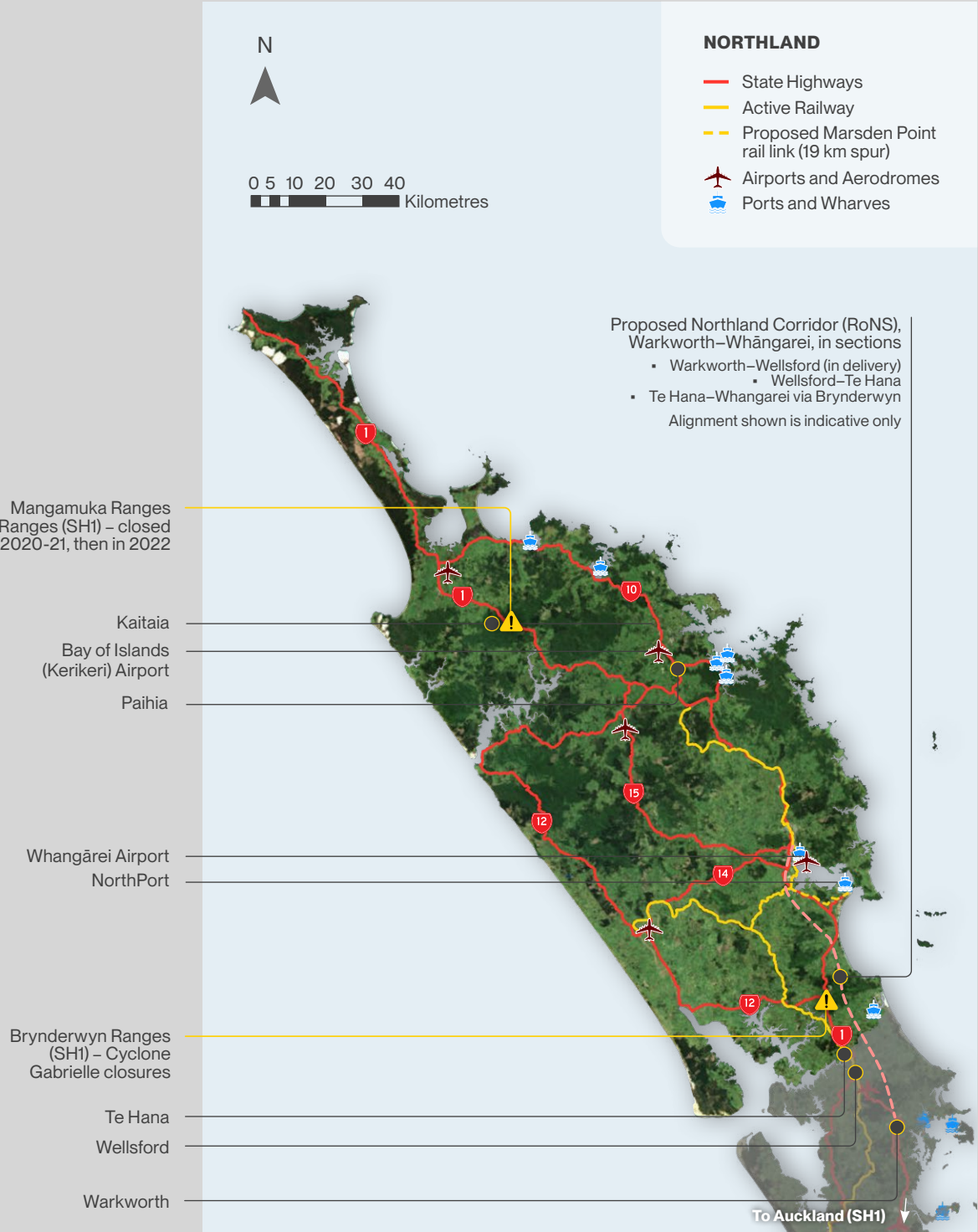
- Exploring mobile or digital delivery of essential services (NZTA, 2023).
- Funding long-awaited essential infrastructure, such as a second bridge at Arthur's Point.
- Keeping on top of maintenance and renewals on essential routes such as SH6, and funding this work consistently.
- Better integration of local and regional urban design, spatial planning, and central government decision-making and funding (NZTA, 2023).
- An accommodation supplement or visitor fund of some kind to help fund infrastructure.
- Improving congestion within the city, for example via road pricing, increasing the cost of parking, building a horizontal gondola (Chandler, 2026; Speedy, 2026) and/or a Whoosh system (Chandler, 2026) (on-demand, app-summoned electric pods running on static cableways and rails), and by improving traffic management.



Case Study

NORTHLAND –
High poverty levels, but with potential for growth

Figure 10:
Key transport connectivity links in Northland. Map: WSP, using the NZTA AMDS network (NZTA & WSP, 2025) and LINZ (2026).





Northland has a growing population of around 200,000, and a younger demographic than the rest of the country. The region benefits economically from its proximity to Auckland, the GDP powerhouse of the country, but its productivity is limited by long travel times and a heavy reliance on unstable roads that are very vulnerable to weather events. The vast majority of freight (81 per cent in 2017) travels by road in Northland, making the region particularly vulnerable to shocks and supply-chain disruption (NZTA, 2023).

Northland produced around 2.6 per cent of the country's GDP in 2020–

2021 (NZTA, 2023), with a focus on manufacturing, agriculture, forestry, fishing, and construction. These industries give the region a strong foundation and potential for long-term growth and community wellbeing. However, Northland's advantages have not yet translated into sustained improvements in productivity, incomes, or resilience, in part due to ongoing infrastructure constraints (Beca, 2026). Some parts of Northland suffer persistent poverty, and the region underperforms compared to the rest of the country in terms of income and health outcomes (Infometrics, 2026b). Connectivity is often cited as a key reason for this (Stubbs, 2023).

The Northland Corridor, a proposed new expressway between Warkworth and Whangārei, has been designated a Road of National Significance. The stated purpose of the route is to unlock economic potential, reduce travel time, and address poor safety and resilience. The section of the road from Warkworth to Wellsford (in design phase) and Te Hana is actually within the Auckland region, and the remainder of the road, through to Whangārei across the Brynderwyn ranges, is part of Northland. Realistically, it is likely to be many years before work begins on the road within the Northland region itself as funding has not yet been approved for that section of highway (NZTA, 2026).

Resilience is a serious challenge

Resilience challenges have had a significant impact on productivity and connectivity in Northland over recent years:

- Cyclone Gabrielle caused \$250 million worth of damage to Northland's local district roads, and more than \$170 million to state highways (Botting, 2024).
- SH1 through the Mangamuka range, south of Kaitaia, was closed for a full year from 2020–2021 (Fisher, 2023). Shortly after reopening it once again faced more than 850 days of closure from July 2022 to December 2024, triggered by several storms (including Cyclone Gabrielle) and 36 massive slips. The total repair bill was just over \$200 million (De Graaf, 2024) and the closures had a significant impact on the 25,000 people living north of the Mangamuka Ranges.
- The region's economy also suffered significantly with closures to State Highway 1 over the Brynderwyn ranges after land slippage compounded by Cyclone Gabrielle. Northland's economy lost as much as \$1 million a day for every day SH1 over the Brynderwyns was shut (Botting, 2024).

With a distinct lack of public transport, both transport disadvantage (a lack of choices) and transport poverty (where costs of transport are unaffordable for many, perpetuating poverty) are widespread in the region (Northland Regional Council, 2020).

Northland has three airports offering domestic flights, in Whangārei, Kaitaia, and Kerikeri – a useful backstop in a long, thin region, and an important redundancy (Northland Regional Council, 2026). However the cost of maintaining three airports with such a small population is a challenge for the region (De Graaf, 2017).

Rail already transports a reasonable amount of freight in Northland, but there are opportunities to increase this. For example, a 19 km long rail spur connecting Northport (the region's largest port) to the North Auckland Line was formally designated back in 2012 but is still at the design stage (Greater Auckland, 2025). Northport is still one of the only major ports in New Zealand that is not connected to the rail network at all, meaning freight has to move by road to reach it (KiwiRail, 2026b).

A Marsden Point rail link would mean logs loaded at Ōtiria could be transported directly to Northport by train, instead of being taken to ports at Auckland or Tauranga, or rail-freighting goods from Ōtiria to Whangārei, then transferring them to trucks for the last 30 km to Northport (De Graaf, 2024). A Marsden Point rail connection would also take pressure off SH15 and SH1 (NZTA, 2026).

A challenge locally is to find the funding to keep the smaller roads open. Some of those carry few people, but with high levels of poverty in some areas of Northland, maintaining access to healthcare and employment opportunities can often be disproportionately important for those people. That is made more complicated by a sprawling road network requiring frequent repairs, funded from a very small rates base.

More joined-up thinking around modes would help

Decisions about whether to prioritise rail, roads, aviation, shipping, or a combination of both, and how to improve public transport, could benefit from more joined-up thinking to avoid stretching limited resources too thinly and to allow the region to move ahead (Beca, 2026; Milne, 2025). With improved rail and port access taking pressure off the roads, would a four-lane highway north from Auckland all the way to Whangārei still be essential, for example? Would passenger rail be viable for any parts of the region, or would an improved coach service make more sense?

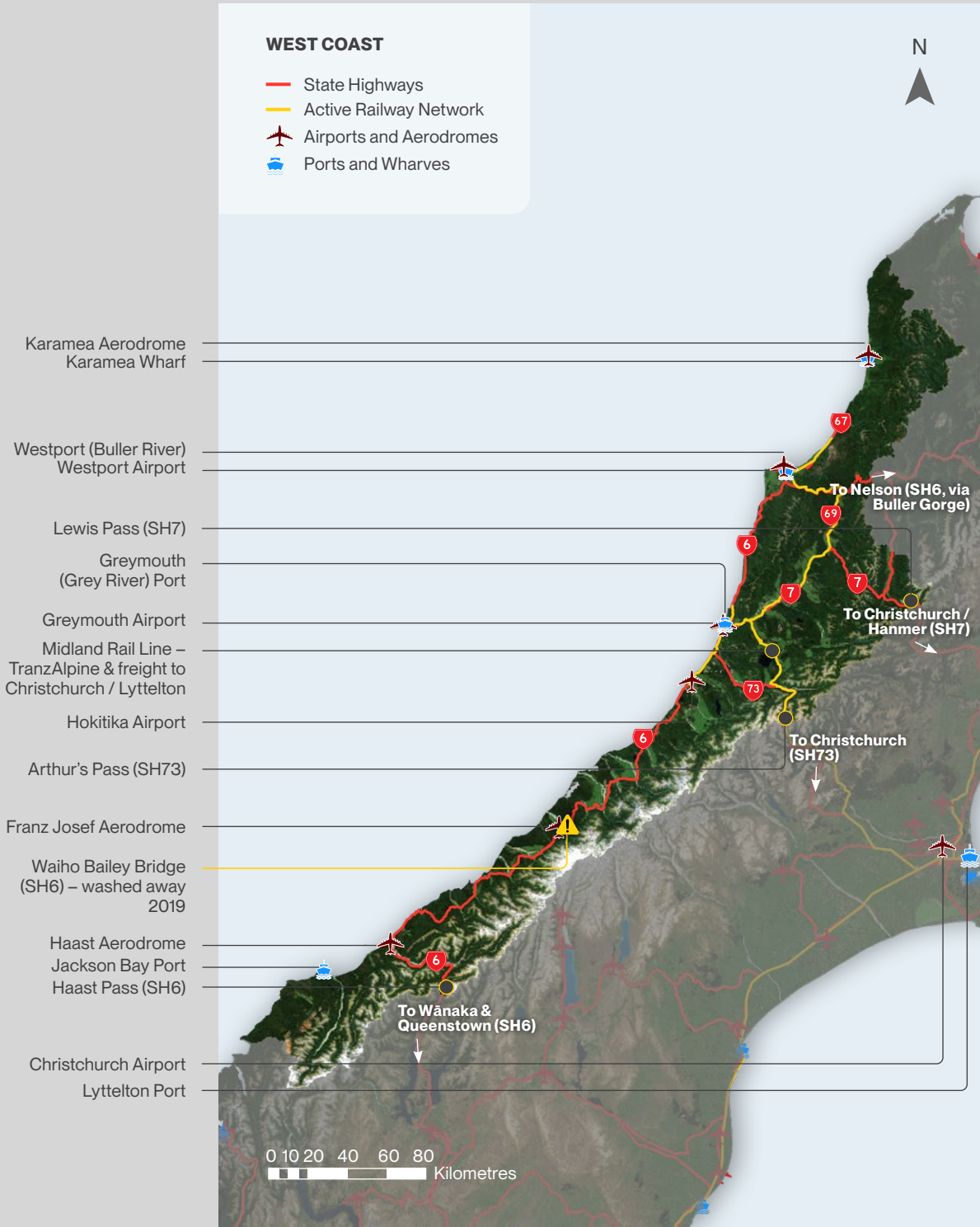
As in other regions of the country, there are limited options long-term in Northland to provide reliable alternatives to vulnerable roads. The land is unstable and will inevitably face repeated issues, especially as climate impacts worsen. Minimising the impact of outages by keeping on top of maintenance, clearing overburden, and being prepared to spring into action quickly to make repairs when needed is important to maintain connectivity.



Case Study

THE WEST COAST –
A long thin region reliant on a single road

Figure 11:
Key transport connectivity links in the West Coast. Map: WSP, using the NZTA AMDS network (NZTA & WSP, 2025) and LINZ (2026).





The West Coast is the most sparsely populated of New Zealand's regions, with conservation land making up nearly 85 per cent of its land area (NZTA, 2023). Its population of 34,700 is projected to age and decline over time (Stats NZ, 2026). The region produces around 0.6 per cent of national GDP and moves roughly 1 per cent of the country's freight, with dairy farming, coal mining, and tourism as its principal industries; around 55 per cent of that freight travels by road and the remainder by rail (NZTA, 2023).

As in the other regions investigated for this report, the contribution made by the West Coast to the country's GDP as a percentage understates the region's importance. The West Coast is a significant national tourism asset, and its export industries – coal, timber, dairy products – feed directly into national supply chains.

Connections that arrived late and were never completed

The West Coast's links to the rest of the South Island came late and were hard-won. The most ambitious was the New Zealand Midland Railway, intended to connect Canterbury with the West Coast and Nelson, begun by a private London company in 1886 and repeatedly stalled before the government took it over. The region finally gained a connection with the rest of the country in 1923, but the planned link north to Nelson was later abandoned, leaving the West Coast's rail network as a dead-end branch rather than a through-connection (Atkinson, 2010). There are currently no plans for further reinvestment in these rail routes.



One line, many failure points

What makes the West Coast region most instructive as a case study is its structure: the key road network is effectively a single line running down the coast (SH6), with a small number of routes teeing off eastward across the alps on high-risk, geologically unstable roads. A failure anywhere on the main line blocks the rest of the network and the detours are extremely long. Storms, snow, flooding, and slips close the road for a day or more at a time with some regularity.

Two major events illustrate the cost of being so reliant on one road. The Waiho Bailey Bridge on SH6, just south of Franz Josef, crosses what is considered one of the hardest river crossings in New Zealand to manage – the riverbed has aggraded more than 9 metres over the past 90 years.

The bridge was swept away in a major flood in 2019 and the route was closed for two weeks, at an estimated cost to the region of between \$2 and \$3 million per day (WSP, n.d.). The Whanganui River bridge was also washed out in 2013 and took five days to repair, cutting off the whole of South Westland for that period (McMahon, 2023).

Rail provides some redundancy on the West Coast, but of a limited kind. The line functions mainly as an export corridor, carrying products such as coal, dairy products, and timber over Arthur's Pass to Christchurch and Lyttelton Port. If the rail line were to fail, the West Coast would struggle to get these products to market. KiwiRail also runs a tourist train – the TranzAlpine – daily between Christchurch and Greymouth.

An Alpine Fault rupture would bring significant impacts

A major hazard for the West Coast, as with other regions in the South Island, is the potential for the Alpine Fault to cause widespread damage. There is an estimated 75 per cent chance that the fault will rupture within the next 50 years (Howarth, 2021). In such an event much of the South Island's transport network would likely be destroyed or very badly damaged – SH6 along the coast and the alpine passes almost certainly included. The West Coast would then be reliant on sea and air alone, likely for some time.

The region's fiscal capacity to prepare for such an event is unusually constrained. Because most of the land is conservation land, owned by the central government, councils receive no rates from it. Maintaining the existing network is therefore already a challenge (NZTA, 2023).





The alternatives: sea and air

The West Coast has three airports – Hokitika, Greymouth, and Westport. Greymouth has no commercial services, Hokitika flies only to Christchurch, and Westport had flights only to Wellington until these ceased in August 2026 – Originair says a new government grant is likely to let it restore three return flights a week. Hokitika, the more commercially successful of the three, secured a \$9.8 million government loan from the Regional Infrastructure Fund in March 2025 for a critical infrastructure upgrade intended to improve operational capability, resilience, and regional connectivity (Westland District Council, 2025).

The West Coast also has three ports – Greymouth, Westport, and Jackson Bay – but all are run down and lack modern facilities. The region does not ship products internationally. Greymouth is the largest of the three ports, but its ability to berth larger coastal vessels is limited by the poor condition of the main freight wharf (Meager, 2026).

In early 2026 the Government announced \$5.3 million to boost coastal shipping and stimulate economic growth on the Coast, including \$4.3 million for upgrades to the Port of Greymouth, expected to significantly increase regional resilience on completion in early 2028.

Separately, in late 2025 the Government committed \$2.31 million from the Regional Infrastructure Fund to upgrade Jackson Bay Wharf – the only natural deep-water wharf on the Coast and, unlike the larger ports, accessible in all weather conditions, making it “a vital lifeline during natural disasters” (Kānoa, 2025). The project is expected to create up to 17 full-time equivalent jobs during construction and completes the RIF-funded West Coast Ports Infrastructure Upgrade Programme, bringing total RIF investment in that programme to \$7.81 million (Kānoa, 2025).



What the West Coast shows

As with the other case studies in this paper, planning for redundancy on the West Coast is not straightforward. A single functioning port or airport after a major event would not guarantee access to the rest of the region, because many of the bridges along SH6 may well also be out of service. A larger number of smaller ports and airfields would be far more useful in that scenario. However, maintaining several airports and ports to a high standard is unlikely to be financially realistic for a region of 34,700 people with a huge network of unrateable land.

This is the central difficulty this discussion paper returns to. Investment is being funnelled into the West Coast currently, and some of it is explicitly framed against national disaster resilience objectives. However, this investment is arriving mode by mode– a port programme here, an airport loan there, highway resilience projects elsewhere – and largely in response to events that have already happened or infrastructure that has become seriously run down already. What the region does not have is a single integrated assessment of:

- what connectivity it needs to grow productivity, improve resilience and access to services, and to survive various scenarios (including an Alpine Fault rupture)
- which combination of road, rail, sea, and air would best ensure this connectivity
- which agency or council has the remit or influence to plan or implement such a strategy.

These themes are explored in more detail in Chapter 8.

CHAPTER 8

DISCUSSION – ARE AOTEAROA NEW ZEALAND'S REGIONS WELL CONNECTED?

A country reliant on tenuous connectivity?

New Zealand's regions are, on paper, connected by an extensive road network supplemented by regional aviation and, much less comprehensively, by rail and coastal shipping (the latter two, predominantly for freight). In addition, passenger ferries are an essential link joining the two islands.

This connectivity is, however, more tenuous than may at first be thought. Most regions depend on a single dominant mode – roads – with little other accessible or affordable options for inter-regional transport. This leaves both people and freight exposed whenever that route is disrupted by poor weather, slips, floods, or earthquakes, for example.

The strength of the current system lies in the reach and flexibility of the road network and the relative efficiency of aviation for covering long distances quickly. Its weaknesses lie in:

- how heavily the country has come to depend on those two modes
- a governance structure that treats modes separately with limited shared strategy
- a lack of public inter-regional transport options that leaves isolated regions – especially non-driving or low-income populations – disadvantaged and/or unable to easily access services such as healthcare and economic opportunities (Curl & Kiddle, 2026).

In a country as long, thin, and sparsely populated as New Zealand, a rapid move away from roads is unlikely – and would also not be prudent in many cases. Roads will likely remain the most convenient and efficient way for most people to get around in much of the country, and the backbone of freight movement. Electrification of the vehicle fleet will also significantly reduce some of the negative externalities that driving carries. However, there is a serious case to be made for the country to make a more deliberate effort to shift toward other modes where this is economically viable, or where it can provide environmental, efficiency, or other benefits.

What can we reasonably expect in terms of maintaining connectivity?

The case studies presented in this paper illustrate the complexity of taking a genuinely multimodal approach to resilience. For isolated, thinly connected regions such as Northland, Tairāwhiti, and the West Coast, it will likely never be realistic to guarantee reliable transport connections at all times. Instead, building resilience means:

- reducing the odds of every land route failing at once
- shortening how long closures last
- building enough redundancy across modes that a single event does not cut off a region completely.

Building in redundancy is important, and options for some regions will include deepening ports, improving

port infrastructure, and/or expanding rail capacity. These options will, however, not be feasible everywhere. Solutions to the regions' connectivity vulnerabilities must be realistic about scale.

By way of contrast, countries in the EU benefit from shipping volumes large enough to make shipping by far the cheapest and most commonly used option for most types of freight, with aviation making up only a very small component (0.2 per cent) (Eurostat, 2026). This is an intermodal approach that works because the underlying volume supports it. New Zealand's ports are, by comparison, remote and expensive to access. The country's small, dispersed population and distinctive topography mean that overseas transport models cannot be imported wholesale.

While there is much to be done to improve resilience, regions will likely continue to live with a degree of uncertainty. The country should continue to build emergency preparedness and set money aside to be in a position to support regions when the inevitable happens.

Coming to a better understanding of the costs and benefits of rail

In other countries, passenger rail has proven a viable alternative to aviation for covering long distances with lower climate emissions. However, after a difficult history in this country, in which the network was allowed to decline, passenger rail has not been sufficiently explored as a low-emissions option for the future (Transport and Infrastructure Committee, 2023).

In terms of non-tourist inter-regional rail passenger services, New Zealand is currently limited to commuter networks

Te Huia, the Capital Connection, and Wairarapa Services. These are subsidised at a local level, which leaves their future precarious; a national-level view of these subsidies would strengthen certainty for these important regional connections.

Some argue that rail's prospects for wider passenger services are currently constrained by governance settings such as the requirement for KiwiRail to operate as a commercial business. The argument is that this commercial focus favours investment in roads, which have investment incentives more aligned to promoting a wide range of public benefits. A proposed passenger service would have to establish both a capital case and an operating subsidy, whereas investing in road improvements is currently more straightforward. This arguably makes it harder to appraise rail on the same basis as the alternatives, even where it would make sense to do so.

Producing robust, objective business cases for several potential rail routes – as recommended by the recent select committee inquiry (Transport and Infrastructure Committee, 2023) – would help settle questions relating to the viability of rail, independent of political point-scoring.

Given the country's limited population, fiscal constraints, and difficult geology, passenger rail services may well not be a feasible option everywhere. Such services would also require ongoing subsidy even in the places where they do make sense.

This underscores the importance of proper cost-benefit analysis to identify where investment is, and is not, justified. New Zealand has excellent analytical tools available to assess passenger rail against other options.

As noted above, the 2023 Select Committee report recommended progressing formal scoping studies for key routes such as Auckland–Wellington, Auckland–Tauranga, and Napier–Wellington. This would be an excellent place to start.



A careful assessment of essential air routes would support the regions

Air services in New Zealand operate largely as a free market, but with very little competition between airlines. On the other hand, because of the country's small population, many routes could probably not support much in the way of competition and still remain economically viable.

Rising fuel costs, a weaker dollar, and an ageing fleet raise the question of whether many regional routes will continue to be financially viable for very much longer. Several key routes have already been discontinued over the past few years. If the country places value on maintaining key regional connectivity, it will almost certainly be necessary to support or subsidise some routes or airports directly, particularly through the upcoming (likely two–three decades) transition to airlines supporting newer, more fuel-efficient fleets.

Aviation is problematic from an emissions perspective. New Zealand currently ranks fourth in the world for per-capita domestic aviation emissions (Ipex Consulting, 2026). Subsidising a high-emissions fleet for the longer term may be difficult to justify on those grounds. However, with the right support, the sector is more likely to transition toward a lower-emissions future over time, with electrified aircraft potentially available within the next decade or two. A study by Baumeister et al. (2024) showed that electrifying aircraft could reduce annual emissions for each plane by up to 93 per cent.

Air New Zealand is also investing in the potential for domestic production of Sustainable Aviation Fuel (SAF), which is made from non-fossil fuel sources. Thus far, SAF remains significantly more expensive than fossil jet fuel and global supply remains less than one per cent of total jet fuel use (Air New Zealand, 2026).

In the meantime, aviation remains essential to many regions, particularly for access to healthcare and as a backstop when other modes are

affected by geohazards or climate impacts.

Three questions require a national answer:

1. Which airports and/or air routes are essential, taking into account not just economic impacts from their potential closure (from reduced tourism, for example), but also the wider wellbeing impacts for populations who live in those regions?
2. Do viable (and lower emissions) alternatives exist for those routes – by improving passenger rail and/or bus services, for example?
3. Where they do not, is the country prepared to subsidise airports or airlines to keep those key routes operating, and can the country commit to doing so consistently and transparently?

An increased focus on coastal shipping could reduce damage to roads and provide valuable redundancy

As an island nation, New Zealand's economic prosperity is intrinsically linked to an efficient and competitive port industry (Deloitte, 2026). New Zealand's port and shipping network moves the vast majority of the country's international trade by volume, and is therefore essential to maintaining and growing productivity. Ports are also crucial to resilience – often transporting essential equipment and supplies after a major event knocks out roads and rail.

Since reforms in 1988, ports have competed commercially with each other, rather than functioning as a coordinated system (Brash, 1996) – an arrangement some have argued leads to somewhat inefficient competition and investment choices (Maritime Union of New Zealand, 2025).

Port productivity in New Zealand falls below international benchmarks (Deloitte, 2026), and domestic coastal shipping has been allowed to shrink to a handful of vessels under an unusually open cabotage regime.

Meanwhile, New Zealand's distance from global shipping lanes and complete reliance on international carriers leaves it exposed (NZSF, 2025).

Many solutions to enhancing productivity and transport resilience through more efficient investment in ports have been advanced by the sector (see Chapter 5 for an outline of these). One of the most compelling (which also reflects findings from other modes), is that decisions should be made strategically around which ports should be prioritised for investment, and how these should be supported with landside transport connectivity.

As with other transport modes, the first question should be to ask what the local freight task is and how it should be supported – rather than jumping to prioritising road, rail, aviation, or shipping as the answer.

The country will likely continue to depend on roads – but they carry some negative impacts

The country has, in large part, been built around roads, and this high level of car dependence has been shaped by central government policy choices made over many decades (Miller et al., 2025). New Zealand's road network underpins the wider transport system, forming the physical link between people and the jobs, services, and opportunities that everyday life depends on.

In regional and rural areas especially, the road is both convenient, and the only realistic route to work, schooling, and medical care. NZTA does excellent work managing the national roading network, and initiatives such as the AMDS (discussed on page 35) will further improve roading asset management standards over time.

The dominance of roads has come with environmental and health costs, however: car-dependent transport systems distribute public health harms unequally across the population, with reduced levels of physical activity and high levels of deaths and injuries compared with other transport modes (Miller et al., 2025; Miner et al., 2024; Shaw & Macmillan, 2023).

In New Zealand's more remote regions, not being able to drive – or not being able to afford to – can also have a significant impact on wellbeing (Curl & Kiddle, 2026). Around 4.6 per cent of rural households have no access to a motor vehicle, for example (Infometrics, 2026), yet public transport is rarely available in these areas, and many smaller towns do not even run a taxi service.

The result is that some communities, and some sections of the rural population – particularly those who cannot drive, including younger people, older people, and people with disabilities – experience significant and ongoing transport-related disadvantage. Some residents struggle to access services such as healthcare, education, and economic opportunities as a result (Fitzgerald, 2012).

Tourists face a related, if less severe, version of the same problem. The lack of regular public transport and the heavy dependence on roads means that many visitors choose to self-drive (and this is actively promoted by Tourism NZ) (Cheung, 2021). New Zealand's vehicle rental sector has grown steadily alongside rising visitor numbers (NZ Rent a Car, 2026), with overseas visitor arrivals reaching 3.67 million in the June 2026 year, an increase of 299,000 on the previous year (Stats NZ, 2026a).

While this has been a successful tourism strategy so far, the case study of Queenstown suggests it may not remain a sustainable one as local roads run up against the physical limits of how far they can expand to meet demand. The case studies of Queenstown and the West Coast both illustrate a wider bind facing tourism-dependent regions: they rely on visitor spending for their income, yet often lack the funding base to maintain infrastructure to the standard that same visitor demand requires (Partridge, 2021).

Finally, the current reliance on two very high-emitting forms of transport (driving and aviation) is also of concern given the significant and growing impacts of climate change globally.

According to NZTA (2026), transport-related greenhouse gas emissions in this country have grown by 68 per cent over the past 30 years, and now account for 18 per cent of New Zealand's total emissions. Vehicle-related air pollution contributed to 2,247 premature deaths in New Zealand in 2016 (NZTA, 2026).

Noting that these comparisons may not transfer exactly to New Zealand, a UK study concluded that domestic flights are usually the highest emitting form of travel per kilometre traveled, followed closely by private vehicle travel with one occupant (Howarth, 2026). In New Zealand, transport emissions are similarly mainly made up of road vehicle emissions (91.2 per cent) and domestic aviation (5.4 per cent) (Stats NZ, 2022).

Travelling in an electric vehicle significantly reduces these emissions per person, as does increasing the number of people in the vehicle. However, a train journey emits less carbon even than an electric vehicle carrying one person, when assessed per km travelled. The electrification of rail travel will reduce those emissions still further.

Passenger rail has real potential to reduce New Zealand's high level of transport emissions: analysis by Ipex Consulting (2026) concluded that rail produces over 85 per cent less carbon per kilometre than domestic aviation, and almost 80 per cent less than diesel cars.

Seen through the lens of climate change, the country could be doing more to transition to lower emissions forms of road transport and/or to increase the dominance of other, less emitting modes.



Addressing a governance system that struggles to be mode agnostic

Governance is disjointed, incentives are mixed

Underlying much of the previous discussion is a lack of overall strategy for transport in New Zealand. This does not imply that there is a lack of strategy within each transport mode – that thinking is certainly being done. However, the country does struggle to build a coherent vision for regional connectivity across all modes. Governance of the four modes considered in this report is separate and distinct, with different ministerial responsibilities, different agencies, different levels of regional input, disconnected strategy documents, and largely separate pools of funding.

Local and regional governments each play a role in setting strategy and leading transport infrastructure projects for their communities, while central government does so through several different agencies and organisations, chiefly NZTA, MCERT, MBIE, and KiwiRail. Ports and airports are governed by various legislation, managed largely by local councils, and sometimes part-owned by central government. Airlines are privately owned, as are shipping companies. Funding is similarly split across sources – some from rates, some from central government, some from private investment, and user fees. Some of this funding is predictable, and some far less so.

Some modes, such as aviation, ports, and most of the rail network (with the exception of metro commuter rail services), are expected to function largely as competitive markets, while roads, and some forms of public transport, are treated as a public good; there is no obvious underlying logic to why this particular division emerged, and it appears to reflect how the system has developed over time rather than a deliberate design choice. New Zealand's size, population, and geography make real commercial

competition difficult to sustain in several of these markets regardless.

With several government reforms already under way, this is arguably a good moment to look at the transport system as a whole and ask whether its current shape is fit for purpose and delivering what we need as a country.

Each mode is funded separately, and funding is hard to secure

Several stakeholders interviewed for this paper pointed to the difficulty regions often have securing central government funding for projects they regard as priorities, and the sense that they are frequently placed in competition with one another for funding. With more bids than funding available, and councils needing to find their local share, money for priority projects can take a long time to secure.

Where a region does receive funding for one project, this can come at the expense of funding for something else it needs just as much, or at the expense of the ongoing maintenance funding required to keep existing assets viable.

Road transport has a settled funding pathway through the National Land Transport Fund. Interviewees described funding for other modes as less predictable, with no consistent way to compare costs and benefits across modes. The local government reforms currently being proposed by the Government, discussed further below, may help simplify this situation, though won't in and of themselves fix it.

How can decision-making move towards being more ‘mode agnostic’?

Recent research by the Helen Clark Foundation and WSP recommended greater use of cost benefit analysis across the whole of government to help make infrastructure investment more strategic overall (Mercier, 2026). Cost benefit analysis is an excellent tool to help weigh up the pros and cons of different investment options relatively objectively. Utilising it to weigh up alternatives across transport modes would be an excellent strategy to ensure that decisions are led by cost effectiveness, alongside economic, resilience, and public wellbeing considerations.

Becoming more mode-agnostic when making regional transport investment decisions may also mean being willing to acknowledge some of the downsides of road transport mentioned above – as well as being clear about the advantages (in terms of flexibility, for example) that roads can offer. Realistically, roads are likely to remain a key focus for transport investment for many years to come – for much of the country they will likely remain the most workable option to maintain good connectivity.

However, it would be useful to examine whether existing governance and appraisal settings allow different modes to be assessed on a sufficiently consistent basis – recognising that NZTA already funds public transport, walking, cycling and rail. A conscious decision to invest in cost-benefit analysis for other modes, on the same basis roading investment already receives, would be a reasonable place to start.

NZTA is arguably in a strong position to take an increased role as a mode-agnostic transport strategist across the system. The agency currently works across land modes including state highways, local roads, public transport and active modes. It is also responsible



for the safety, regulatory and funding pathways for rail, and sets long-term direction through its strategy, Arataki, while working with every region via Regional Land Transport Plans.

Extending that role to coastal shipping and regional aviation would be a significant step, requiring an explicit mandate and a separate Crown funding pathway, with National Land Transport Fund contributions limited to demonstrable land-transport benefits. The new Ministry, MCERT, could also take on an increased strategist role, though that would also require an expanded mandate and/or stronger political direction.

The country cannot afford to do everything – tough decisions will be needed

Looking across all the modes of transport, it is clear that the country cannot afford to upgrade every port, maintain every airport and road to a high standard, subsidise every air route, and develop comprehensive passenger rail. Realistically, trade-offs must be made, and priorities chosen based on predetermined and logical criteria.

What is needed is a strategic view of which links are essential – be they by land, air, or water – and which are not, assessed against the alternatives already available. A structured assessment might consider asking, of each link or connection, something along these lines:

- How many people use that link or connection, and what do they use it for? How important is the connection for accessing medical treatment and for regional economic development? Does it support lower income populations to access important services?
- Can the local council afford to subsidise the route? Does it provide national benefits which should reflect how it is funded?
- Could another mode (including improved inter-regional bus services) serve the same function more efficiently? Or could levels of service be reduced? What impact would that have?
- Which modes currently provide important backup during climate or seismic events? Or which might provide that back up if available?
- Is there already another hub (an airport or port for example) within one to two hours' drive fulfilling the same or similar connectivity function?

Providing some examples at random using that framework, this type of question might then emerge:

- On the West Coast, would it make most sense to support one airport (Hokitika, for example), and to support a high-quality bus service to other locations, rather than sustaining several airports? Similarly, Whakatāne lies an hour's drive from Tauranga; Kerikeri and Kaitia are 80 minutes apart. Do all these centres require a commercial airport? Could they be just as well, or better, served by accessible public transport, for example?
- Would a regular coach service between Timaru and Christchurch, a two-hour journey, suffice in place of the significant costs of maintaining an airport at Timaru? Or would a passenger rail service make more sense?
- Is the ports model in which ports compete against one another for custom still fit for purpose, or should we plan to move towards a 'hub-and-spoke' model, in which a small number of capable hub ports are fed by regional ports via reliable coastal shipping? Which ports are essential to support international shipping?
- Do so many rural roads need to be paved, or could some feasibly revert to loose metal – as many roads used to be in past decades? How would this impact productivity, resilience, and accessibility for local areas?
- Do any rail routes show a positive benefit cost ratio for passenger rail investment – and how can we facilitate a system in which investing in rail (where it makes sense to do so) would be more straightforward, and less political?



Could the country operate more strategically around connectivity 'corridors'?

'Corridor' thinking has been raised as one model that could help address the need for more system-level coordination. Work undertaken in the Manawātū, for example, considered the Manawātū and Taranaki as a single corridor spanning all modes and hazards, emphasising the interconnection between modes for productivity, as well as the interconnection between transport and other infrastructure such as pipes, bridges and electricity (Ivory et al., n.d.).

'Corridor' approaches to transport investment and management, common in Europe, bring together key stakeholders across geographical, organisational, and disciplinary boundaries through 'corridor forums'. The forums include stakeholders from across modes and organisations to enhance decision-making, take a long-term and system-wide view, reduce information silos, and build relationships ahead of the next major shock or stress (Ivory et al., n.d.).

The case for this kind of structure is illustrated by the Manawātū Gorge, where repeated landslides on the inter-regional highway caused extensive disruption to freight and health services, before a final slide led to the road being permanently closed in 2017 (Imran et al., 2014; Ivory et al., n.d.; MacRae et al., 2015). A replacement road took years to complete.

As the researchers examining this case put it, "to build greater resilience to disasters in transport infrastructure, we need to develop the system-wide capacity to not just respond to, but to anticipate and plan for severe shocks, both with regard to ongoing disaster recovery and mitigation efforts and governance of the wider mobility network at multiple system levels" (Ivory et al., n.d.). The research led to a recommendation that New Zealand trial a corridor forum of its own.

Building resilience in the face of the change and uncertainty that New Zealand currently faces – in an age of climate change, and with an ageing and changing population – will require the capacity to overcome short term, fragmented thinking, in favour of longer-term decision-making that can anticipate and respond to stresses and shocks (Lawrence et al., 2016). Because transport is a complex, multi-regional, and multimodal system, this points to the need for greater interaction across levels of government and across modes (Ivory & Trotter, 2017). The 'corridor' approach provides a useful model which may be worth expanding.

Can and should the country become more outcomes-oriented?

One feature of regional government deserves particular emphasis. In New Zealand, regions are not directly incentivised to promote growth, because they receive no share of income tax or GST on goods and services sold within the region – unlike arrangements in many other countries. Yet decisions about transport connectivity in the regions lie in large part with the regions themselves (INZ, n.d.).

In other words, the bodies best placed to identify where connectivity would unlock productive capacity are not fully incentivised financially to pursue that growth – they also have limited revenue to do so. Any framework for improving regional connectivity must reckon with that mismatch.

This also connects to a broader question about whether New Zealand is being proactive or merely responsive when it comes to promoting regional

growth, resilience, and an improvement in wellbeing for its communities. For example, there is currently no central mechanism for designating an area for growth and then aligning funding to enable it. Part of the answer may lie in upcoming changes to rules around regional spatial planning, discussed later in this paper.

Much of this comes down to a lack of clarity about the underlying ‘purpose’ or ‘focus’ of each region. The open question is how a clearer direction could be set for (and by) the regions, and how thinking about growth could be pulled into a more strategic approach to transport networks, and other essential infrastructure and services.

Infrastructure New Zealand has framed this as the need for a more “outcomes-oriented” system, and points to the funding system as a key barrier: “New Zealand has one of the OECD’s most centralised tax systems, but land use, urban development and resource planning is almost completely delegated to local government” (INZ, n.d.).

Could a national spatial plan add value?

Spatial plans are strategy documents that set out the vision, goals, and risk mitigation priorities that shape an area’s development over the long term. Historically, spatial planning in New Zealand has been optional for territorial authorities and has varied considerably in quality and content between regions. Existing spatial plans have also generally lacked legal force, which has slowed their ability to be put into action (Ministry for the Environment, 2025).

This is changing. New legislation, the Planning Bill and the Natural Environment Bill, which were introduced to Parliament in December 2025, will direct each region to produce a spatial plan identifying future urban development areas, development areas prioritised for public investment, and existing and planned infrastructure corridors and strategic sites. These are intended to guide each region’s growth and infrastructure development over a 30-year horizon (Bishop & Court, 2025).

While the requirement for regional spatial plans has generally been well received in the sector, several commentators have suggested that the reforms have missed an opportunity by not also requiring a national spatial plan to sit above and alongside regional plans (INZ, 2025a). The New Zealand Planning Institute (2024) and others have been advocating for a national spatial plan for some years.

New Zealand already has national transport plans and national flood maps, but no systematic way of bringing that thinking together into one shared picture for the future. A shared national vision could help manage countrywide challenges such as infrastructure maintenance, climate change, access to healthcare, and an ageing population – that do not respect regional boundaries and risk being addressed inconsistently, or not at all, if left to regional plans alone (Boffa Miskell, 2023).

In Singapore, spatial planning happens at a national level under the Urban Redevelopment Authority, through two linked plans: a Master Plan looking 10–15 years ahead, and a Long-Term Plan spanning 40–50 years, which together form what has been described as a unified development strategy for the country (Anam & Al Faizi, 2026). Singapore’s Master Plan guides land, property, and infrastructure development, resource allocation, and sustainability efforts within a single framework, allowing housing, infrastructure, and other sectors to be aligned and resourced strategically over the long term (Urban Redevelopment Authority, n.d.).

Singapore’s context – a small, land-constrained city-state – differs from New Zealand’s in obvious ways, but the example is nonetheless a useful reference point for how a national spatial planning process can be a useful coordination tool.



Ongoing central and local government reform as an opportunity to rethink transport governance and funding

This discussion paper is being developed at a time of significant structural change for local and central government, which may open up new ways of governing, funding, and strategising around transport. Most parts of New Zealand currently have two separate layers of local government: a regional council, responsible for environmental protection, flood protection, public transport, regional road networks, and civil defence, and a city or district council (or 'territorial authority'), responsible for local roads, water, rubbish, libraries, and land-use planning. Six unitary authorities around the country combine both roles (MCERT, 2026a).

To reduce duplication, streamline consenting, and simplify governance overall, the Government has recently proposed substantial reform to this model. The proposal is that regional councillors will no longer be directly elected; instead, Combined Territory Boards made up of the mayors of a region's city and district councils would replace regional councils and lead regional reorganisation plans.

These plans will assess how councils within a region could share services, establish council-owned companies, merge into new unitary councils, or set up new arrangements such as regional roading authorities (Bishop & Watts, 2025). Councils had the option of proposing their own new structures by August 2026, with a compulsory 'backstop' applying after the 2028 local elections to those who did not (MCERT, 2026a).

Alongside this, central government has been restructured in a way that may equally reshape how transport decisions are made. The Ministry of Cities, Environment, Regions and

Transport (MCERT) was established in July 2026, bringing together the former Ministry for the Environment, the Ministry of Housing and Urban Development, the Ministry of Transport, and local government functions previously sitting within the Department of Internal Affairs into a single agency (Bishop et al., 2025).

Taken together, these two reforms – fewer, larger local governance bodies, and a single central ministry spanning several of the levers that most affect regional development – could plausibly simplify existing governance and funding complexities in the transport space and make multi-modal strategic planning more achievable.

It is worth being tentative about what this might achieve in practice, since MCERT is a very new agency and the council reform process is still unfolding. That said, the opportunity is a good one. Fewer, better-resourced regional bodies working with a single central ministry could, in principle, make transport decisions more strategic and more clearly tied to a region's needs as a whole, rather than being pursued mode by mode, or council by council.

Whether a restructured system of this kind could overcome the sort of barriers that, for example, make it hard to promote the development of business cases for new passenger rail routes remains an open question. However, reform could, in theory, reduce the degree to which regions and modes are currently pitted against one another in competing for funding and attention, allowing decisions to be made with the interests of the country and its regions in mind rather than as a contest between them.

If this opportunity is to be realised, it may make sense for each region to develop a multi-modal transport plan (including both infrastructure and transport services) – ideally using the transport outcomes framework – agreed both within the region and with central government. Regions already produce Regional Land Transport Plans, so consideration would have to be given as to how to avoid duplication.



Most importantly, given the somewhat ad hoc funding patterns described elsewhere in this paper, any such plans would have to be backed by durable funding agreements between central and regional government, including ongoing regular investment sufficient to keep transport assets maintained to a high standard.

Several open questions would need to be worked through along the way: how a system built around fewer, larger bodies avoids simply becoming a federation of agencies rather than a well-integrated and strategic one; whether the new arrangements end up weighted toward a regional focus or a cities focus; and how the productivity dimension of regional development – which sits in large part with MBIE, MPI, and other agencies outside MCERT's remit – could best be incorporated.

None of this points to a single fix, but the current period of change provides a good moment to ask whether transport governance, and strategy in New Zealand could be organised differently, with improving regional productivity, resilience, and wellbeing treated as shared goals for the whole country.

CONCLUSION AND NEXT STEPS

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This discussion paper set out to examine regional transport connectivity in Aotearoa New Zealand in relation to productivity, resilience, wellbeing, and equitable access to employment, health services, and education. The case studies examined here – from Northland to the West Coast – illustrate that connectivity gaps are rarely just inconvenient; they can constrain local economies, increase vulnerability to disruption, and leave some communities more exposed than others when a single route fails.

The task ahead is not to identify a single fix, but to build a genuinely multi-modal network in which roads, rail, shipping, aviation, each play a complementary role – ideally including the support of improved access to inter-regional public transport.

The ideas below, drawn from sector interviews and the literature review conducted for this paper, are an initial attempt to sketch out the most promising approaches to help improve regional connectivity across the country. Some are large and would be costly. Others are more incremental in nature. There is still considerable thinking to be done, however: this paper is intended to offer an initial look at the issues, and to spark wider discussion across the sector and within the regions themselves.

Approaches for government to consider include:

1. **Consider options to make strategic planning relating to regional transport more coherent.** For example, NZTA might be given the mandate to include other modes within its existing transport planning. With tightening fiscal constraints, increased use of cost benefit analysis across relevant agencies might help to better prioritise projects according to need (Mercier, 2026).
2. **Develop a national spatial plan.**
3. **Investigate passenger rail as an option** – by undertaking detailed business cases on potential high-use routes for example, as suggested by the Transport and Infrastructure Committee (2023).
4. **Work to increase the use of rail for freight** – even where this may not be economically a clear win when rail alone is considered – to reduce emissions and to reduce the cost of building and maintaining roads.
5. **Implement policies that strategically increase port productivity** and encourage the uptake of domestic shipping (as briefly outlined in Chapter 5).

6. **Support key air routes as an essential component of regional transport connectivity**

Support technological developments in aviation which help reduce emissions.

7. **Develop policies that encourage the uptake of electric and hybrid vehicles**

(including freight trucks), to reduce emissions – while noting that if this increases the number of vehicles on the road, that would also increase road maintenance costs.

8. **Improve intra- and inter-regional public transport options**

such as bus services and on-demand public transport. The Transport Select Committee's (2023) recommendations included among other things that the government clearly identify a transport-sector agency to provide system leadership and guidance specifically for inter-regional public

transport.

9. **Support new technological developments** that may provide alternative transport options. One example is glider planes, which are zero emission and could be ideal for transport around the East Cape, for example (Ocean Flyer, n.d.). Another is horizontal gondolas or the 'Whoosh' system, which have been suggested as an innovative form of urban public transport (Chandler, 2026, Speedy, 2026).

10. **Expand access to remote or digital delivery of services** such as healthcare, to reduce residents' reliance on vulnerable transport networks (NZTA, 2023; Trust Tairāwhiti, 2019).

11. **Where communities are growing, align housing, services, and transport investment**

so that new development is well connected from the outset: with the goal of reducing travel time, making services more accessible, and making it easier for people to link to inter-regional transport connections.

12. **Improve driver licensing support**

so young people remain connected to work and study within and between regions.

No single one of these measures would, on its own, resolve the connectivity challenges identified in this paper. Taken together, however, they point towards a more balanced and resilient regional transport system – one that reduces New Zealand's reliance on any single mode or route, lowers emissions, and keeps remote and regional communities connected

to the services and opportunities available in larger centres. Progressing them will require sustained political attention and cross-agency coordination.

A final point to note is that as a geologically unstable country facing increased pressures from climate change, it would not be a realistic goal to guarantee reliable transport connections at all times, and in every region. In many more remote locations, building resilience means reducing the odds of every land route failing at once; shortening how long closures might last; and building in enough redundancy across modes than a single event does not completely cut off that region. Looked at through this lens, multi-modal thinking must become be a key approach to navigate an ever more uncertain future.



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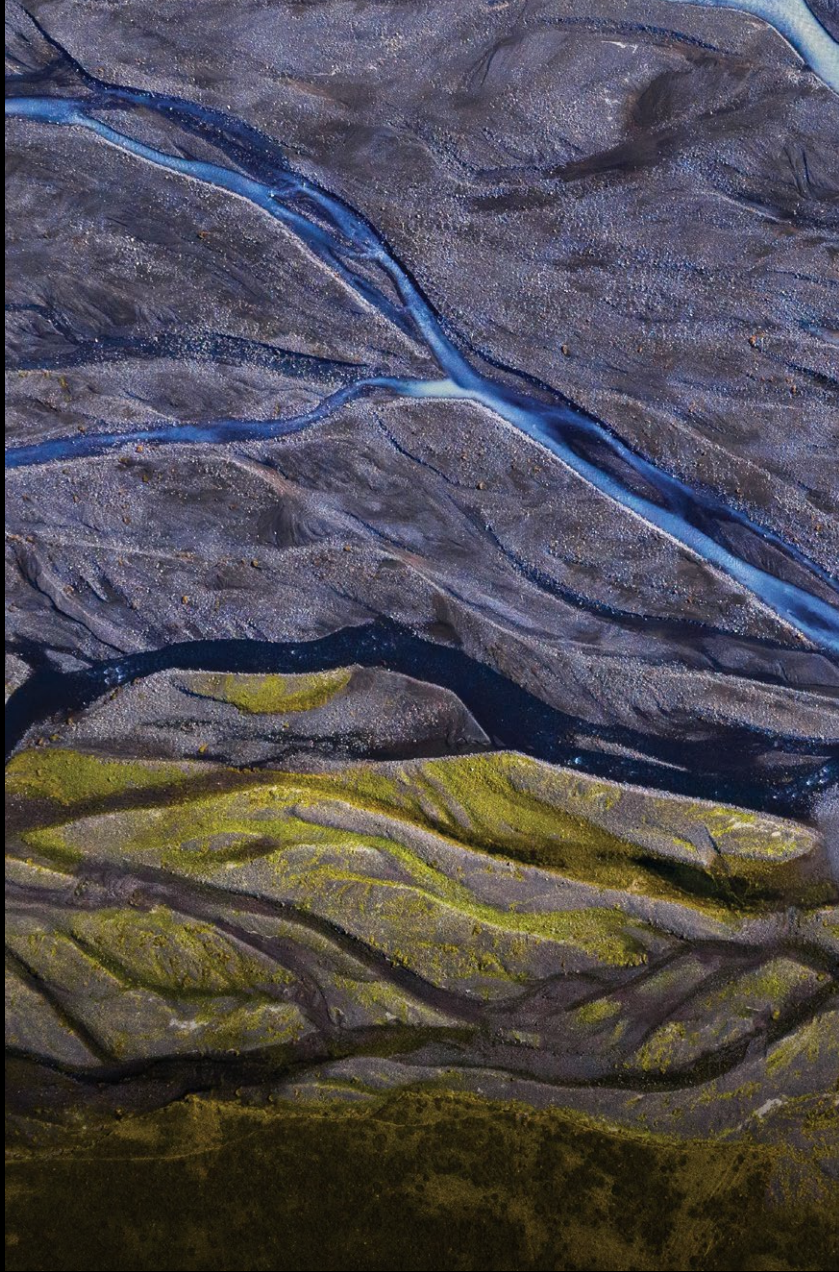
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