Taituarā

What's the future for infrastructure?

Submission from Taituarā in respect of *He Tūāpapa ki te Ora – Infrastructure for a Better Future* July 2021

RECOMMENDATIONS

Taituarā recommends that the Productivity Commission:

1. adopt an explicit three horizons approach in considering the staging of the recommendations presented in the draft, and the path for achieving the Commission's vision for infrastructure in 2050

2. identify a list of priority actions from amongst its suite of final recommendations. The list from Taituarā is an appropriate place to start

3. set out a process for identifying community assets beyond those run by central government and bringing them into future editions of the strategy

4. include a specific recommendation that owners/providers of community infrastructure upgrade their asset condition and performance information for these assets

5. incorporate a consideration of telecommunications sector issues such as resilience, security, and equality of access issues in the final strategy

6. incorporate discussion of cybersecurity infrastructure into future iterations of the strategy

7. recommend that local authorities prioritise improvements in asset condition and performance for stormwater assets

8. identify providing for economic growth and transformation as a major challenge for the infrastructure strategy

9. include a recommendation or recommendations along the lines of s2.1 that covers the funding of forestry-related needs

10. add a recommendation or recommendations in support of an analysis of the drivers of infrastructure costs to the strategy

11. note the *Review into the Future for Local Government* will look at the balance of roles between central and local government

12. supplement the equitable funding section with a further recommendation in support of the enhanced assessment of national good and funding for these national goods

13.` recommend that infrastructure providers consider how behavioural insights might support better infrastructural management outcomes

14. recommend that the CCC develop or cause development of a set of long-term carbon abatement values based on forecast carbon prices

15. develop a framework for assessing climate change impacts as part of business case analysis

16. work with Skills and local government sector agencies to disseminate the information developed in response to recommendations 13 and 14

17. recommend an expedited enactment for the proposed *Climate Change Adaptation Act* that supports a range of flexible and anticipatory responses

18. add a recommendation supporting a Climate Change Adaptation Fund in the equitable funding section of the strategy

19. add a recommendation or recommendations calling for the gathering and release of examples of private sector financing of climate change-related investments

20. add a recommendation supporting the better consideration of the option for, and costs of disposal of assets at end-of-life

21. add a recommendation or recommendations supporting greater use of distributed power generation as a means of supporting energy resilience

22. amend recommendation F4.1 to require assessments of all significant risks in district plans against high, most likely, and low growth scenarios

23. add a further recommendation directing local authority providers to consider how they give better effect to the Office of the Auditor-General and Taituarā guidance on forecasting assumptions and risks

24. add further recommendations that private providers and central government also undertake these risk assessments

25. include central government within the scope of the first two limbs of recommendation C2.5 setting out the basis for spatial plans

26. refine recommendation C2.5 to create a rebuttable presumption that spatial plans be prepared on a regional basis and set of criteria for making such an assessment

27. amend recommendation C2.5 to include endorsement of the Department of Prime Minister and Cabinet as the lead government agency for spatial planning

28 recommend that central government and local government jointly work to better align the planning and funding cycles

29. consider whether there is a case for its recommendations around water infrastructure to be broadened to include all expenditures and not just growth drivers

30. add a recommendation that any disclosure-based economic regulation for water be based on standardised measures of cost, asset performance and asset condition. This would also include a set of standard customer levels of service

31. emphasise that the recommendation in support of metadata standards for infrastructure is a priority matter

32. incorporate a discussion of the needs of logal communities into the discussion of three waters

33. recommend that the *Land Transport Management Act* be amended as soon as practicable to empower road-tolling on any road

34. recommend that any transition plan to road pricing include a specific 'go-live' date and plans for the provision of alternatives to private road use

35. recommend the transition plan include explicit consideration of equity of access for the transport-disadvantaged

36. endorse the Productivity Commission's recommendation that central and local government work together to create means for identifying short-term accommodation providers

37. include a recommendation in the strategy which endorses taxation for tourist-related purposes subject to the appropriate basis and accountability

38. include a recommendation supporting the removal of the Crown exemption from paying development contributions.

INTRODUCTORY COMMENTS

What is Taituarā?

Taituarā thanks Te Waihanga, the New Zealand Infrastructure Commission (the Commission) for the opportunity to submit in respect of *He Tuāpapa ki te Ora: Infrastructure for a Better Future* (the draft).

Taituarā (formerly the NZ Society of Local Government Managers) is an incorporated society of approximately 860 members drawn from local government chief executives, senior managers, and council staff with significant policy or operational responsibilities.[1] We are an apolitical organisation. Our contribution lies in our wealth of knowledge of the local government sector and of the technical, practical, and managerial implications of legislation.

Our vision is:

> *Professional local government management, leading staff and enabling communities to shape their future.*

Our primary role is to help local authorities perform their roles and responsibilities as effectively and efficiently as possible. We have an interest in all aspects of the management of local authorities from the provision of advice to elected members, to the planning and delivery of services, to the less glamorous but equally important supporting activities such as election management and the collection of rates.

Local government is a key provider of infrastructure. We are the owners of almost all the nation's three waters assets, some 90 percent (by length) of the road infrastructure, and community facilities such as parks, libraries, museums etc. According to the Department of Internal Affairs the sector owns about $119 billion in fixed assets, most of which is either network infrastructure or community infrastructure.

Taituarā considers the draft as a work in progress

This has not been an easy document to assess. For this reason, Taituarā regards the draft as an interim or work in progress and considers further development is needed between draft and final.

Taituarā generally concurs with the recommendations that the Commission has made as standalone matters or as suites dealing with identified issues. But these are presented in an inconsistent way. In some cases the recommendations are sector-specific (for example, the three specific recommendations to the energy sector), others deal with a specific challenge (for example, the five recommendations on technological change).

As a result, there are areas of duplication (for example, we counted at least 4-5 recommendations around pricing), while there are gaps elsewhere. We are also left with a sense that the draft is a collection of ideas, mostly good, that lack an overall coherence.

The vision *"infrastructure lays the foundation for the people, places and businesses of Aotearoa New Zealand to thrive for generations"* is appropriate to the nature of the strategy the Commission is writing. It recognises that infrastructure is the servant of the community; we build and maintain infrastructure for its enabling of well-being rather than for infrastructure's sake.

1 As at 1 May 2021.

However we don't get a clear sense of where the nation stands on the progress against this vision and what the transition pathway might be. For example, the vision is a 30-year vision (i.e. to 2050) yet all of the recommendations appear to be set down for completion in the next 10 years. We doubt that means the vision will have been accomplished by 2032.

Moreover we struggle to see which of the recommendation/options might be the most critical. Of the 60 recommendations/options, the Commission has placed a timeframe of the next five years on 50 of them, with eight set down for 2027-2032.[2]

While Taituarā accepts that the different recommendations/options vary markedly in the degree of work to implement, we are reminded of the tautology that if everything is top priority.

Taituarā recommends that Commission adopt an explicit 3 Horizons approach.[3]

Such an approach:

- helps to provide clarity about the bigger picture of what we are changing from, and what we are changing towards by bringing shifts in assumptions and systems to the surface
- clarifies the overall direction and destination, but at the same time, it does not assume there is only one path, or even that the best path is already known. It helps us all to head in the same direction, but it leaves space for new ways of getting to the destination to emerge
- allows us to have explicit conversations about whether our strategies and actions are based on assumptions founded in the way we have been organising ourselves up to now, or whether they are based on the assumptions we need for the future
- provides us with a frame for discussing how much effort and resource we should be putting into:
    - maintaining the status quo (the legacy of the previous state)
    - building infrastructure, services, and processes to bring the preferred future into being
    - supporting the process of making the transitions. (In New Zealand, we have a long history of under-resourcing the practical, cognitive, and social aspects of making big shifts.)
- enables discussions to focus on how we make the transition from previous to future ways of doing things.

A 3 horizons approach also helps to manage the risk (intensified by the need to move faster) of getting locked into solutions that are better than today's (Horizon 1) practices but are not sufficiently transformative to take us to where we need to be in the future states (Horizon 3).

In a 3 Horizons model, it is easier to be explicit about which actions and solutions are intermediate transitional steps, that will lead us on a direct path, or create the groundwork for Horizon 3 (often labelled H2+), and those that are actions that are the best short-term fix (H2-), so that we see them specifically as transitional and have exit strategies from them as an up-front part of the transition path.

It mitigates the risk that H2- actions and solutions get locked in and prevent or slow progress towards H3 and increases the focus on H2+ solutions that will act as stepping-stones to H3.

2 And of the remaining two, one (S4 – the cost/benefit manual for water infrastructure) appears to have no identified timeframe; and the other (S1 – review the role and functions of local government and other infrastructure providers) between 2027–42 (a probable typographical error).

3 We refer to the Sharpe/Curry approach to Three Horizons, which is a powerful way of framing change. (It is not to be confused with the McKinsey's adaptation of the 'Three Horizons' approach, which is much more limited.)

The Commission has taken an implicit transition approach in some areas already. In transport, there is some recognition that 24/7 road pricing requires some lead time to implement. First steps might be tolling of arterials or cordon-tolling of a defined area or areas which are dependent on legislative changes. But as the draft correctly notes this requires a transitional funding plan and a strategy to deliver an increased range of alternative modes.

We did not find it easy to identify which recommendations were seen as most critical and which were less important. Similarly, while there were some obvious recommendations that are pre-requisites for others (such as in the preceding paragraph), overall the Commission could have done more to demonstrate the critical paths of its logic.

We recommend that the Commission might emulate the Climate Change Commission and identify a few of the particularly critical matters to address. For our part we offer the following as a starter at identifying those matters we consider as the more time critical action items:

1. with central and local government, assess the current and future skill needs in civil construction, telecommunications construction, asset management and related skills (such as contract management and procurement)
2. use the assessment described above to develop a skills strategy for the infrastructure workforce
3. assess the factors underpinning the increase in construction costs
4. enact spatial planning (but with the form and coverage we recommend)
5. further review and if needed recommend specific actions to enhance the resilience and capacity of the telecommunications network
6. develop nationally consistent metadata for all asset classes
7. actually starting the transition to road and enhanced three waters pricing (as per the Commission's recommendations)
8. developing the transition plan for road pricing and the alternatives to roading (more or less as per the Commission's recommendations)
9. develop/refine business case methodologies (including for climate change risk and resilience) and
10. extend corridor protection legislation.

Recommendations

That the Commission:

1. adopt an explicit three horizons approach in considering the staging of the recommendations presented in the draft, and the path for achieving the Commission's vision for infrastructure in 2050
2. identify a list of priority actions from amongst its suite of final recommendations. The list from Taituarā may provide an appropriate place to start.

PART ONE:

Issues that warrant inclusion or further expansion

Omitting community infrastructure has created a major gap in the coverage of the strategy

The Commission has correctly identified the set of network infrastructure in the draft and its earlier work. It has repeated earlier omissions of significant elements of the community infrastructure needed for community well-being. Once again the Commission has focused on the infrastructure provided largely by central government – the education and health sector infrastructure, and left parks, libraries, museums and the like from the draft.

The Commission's main function is to *"co-ordinate, develop, and promote an approach to infrastructure that encourages infrastructure, and services that results* (sic) *from the infrastructure, that improve the well-being of New Zealanders."*[4]

Local government is in the well-being business, too. The four dimensions of well-being are ingrained in the very purpose of local government (*section 10 in the LGA*). One of the central elements of well-being is the place we live in.

We live in a world where barriers to the mobility of skilled labour and investment capital are generally lower than they were at any time in the last 500 years. With digitisation and global markets more jobs can be undertaken from literally anywhere, with the home nation increasingly becoming a concept for tax purposes only.

In this world, the quality of place will count more and more in getting the best and the brightest. While New Zealand is quite literally the 'last stop on the planet' it can compete on its environment, on its lifestyle factors and on the business-friendly nature of its regulatory environment. Ironically though, as we get more successful at bringing this global talent pool to New Zealand, the harder we'll have to work to foster a sense of place once they are here.

This place-shaping role and its contribution to economic transformation goes wider than network infrastructure. Communities need to be vibrant, attractive places to live to attract pools of skilled labour. In turn this means that a local authority cannot ignore its stock of community infrastructure (libraries, parks, recreational facilities, and the like) and what is sometimes referred to as the "look and feel" of the community.

In short, all investment that supports the ability of a community to compete must be viewed as 'core business' – there is no such thing (if indeed there ever was) as a 'soft service'. Were community infrastructure wholly unimportant central government would never have taken an interest in the so-called national convention centre in central Auckland.

Yet, less is known about the stock of community infrastructure at local levels and, especially, at the national level. We accept, reluctantly, that the gaps in knowledge are such that the Commission couldn't be more definitive in this strategy beyond some commentary around matters such as the suitability of business cases, needs to improve asset information and the like.

Taituarā has strongly recommended that local authorities upgrade their own data on these assets and suggests the Commission might do the same.

4 *Section 9, New Zealand Infrastructure Commission – Te Waihanga Act 2020.*

Recommendations

That the Commission amend the strategy by:

3. setting out a process for identifying community assets beyond those run by central government and bringing them into future editions of the strategy
4. including a specific recommendation that owners/providers of community infrastructure upgrade their asset condition and performance information for these assets.

The discussion of a digital future needs further amplification. . . .

There are three themes or drivers and a digital future that need to be teased out:

- the need for better 'digital infrastructure' as digital technologies will underpin more and more of what everyone does all the time
- the way in which digital/technology will enable work and services to be delivered differently (and therefore lead to some ability to lower emissions, reduce energy use and change the nature of the infrastructure we may need in the future).
- the ability to uses sensors and data to understand how infrastructure is being used and is performing.

At the same time the draft has not thoroughly discussed how digitally enabled infrastructure design, build, creation and repair and maintenance could be significantly different in the future (e.g. assembly/disassembly bots, and what impact might this have on the affordability of infrastructure).

We agree that the national digital strategy needs updating. However when set against the above challenges, updating the national digital strategy seems something of a drop in the ocean.

The digital strategy update will need to consider the continued increase in data over the next 10-30 years (e.g. amount of data to be transferred when we are monitoring individual plant water take-up with nanoscale sensors). An update to the strategy will need to consider how the shape of international connectivity may change over the next 30 years with:

- more emphasis on producing goods closer to consumption
- more challenges in the movement goods – especially internationally (climate disruption and carbon 'cost').

The draft is largely silent on telecommunications. . . .

It's clear that the Commission has undertaken some thinking on telecommunications. Issues with the telecommunications network are identified at a high level on page 34, and a high level of set of bullet points regarding 'what's on the horizon' are listed on page 35. And after that we have been able to find very little by way of discussion on these challenges or any set of recommendations around telecommunications.

Telecommunications has joined transport as one of the major arteries of commerce and increasingly access to government services. But all of this is dependent on a telecommunications network that is reliable and sufficient (both in terms of capacity and speed of service). It is for this reason that one of Taituarā's five critical transitions to life in 2050 is the transition to connected communities.

No business of any size beyond 'Mum and Dad' businesses operates without a website and the ability to store, access, and manipulate data (in some cases on a massive scale). Almost all major customer services from tax to documents of national identity are delivered online (and increasingly analogue services are being quietly withdrawn). Technologies such as 3-D printing/scanning carry with them the potential to disrupt commercial transport and distribution industries; and through them to significant alter land use in places such as Penrose, Wiri, or Pukete/Hamilton North.

As we write this, the nation is just learning of the full extent of the cyberattack on Waikato DHB. Essentially every major service beyond limited emergency service capacity in five centres has been disabled, and it appears patient information has been compromised. Of course, this is a security failure of hardware across one specific entity as opposed to a telecommunications failure per se. But this serves as an example, in miniature, of the disruptive impacts of a failure of the 4G network (for example).

Many of the suite of recommendations under the heading *Adapt to technological and digital change* are critically dependent on a reliable, resilient telecommunications network. For example, a lack of internet access would render open data (recommendation F3.1), AI use cases (recommendation F3.5) and digital information (recommendation F3.5) pretty much digital slag. Any use of internet based technology for purposes such as road pricing would be completely 'off the table'.

We would therefore have expected the strategy to have recommendations around resilience and security of the telecommunications network. This network is not immune to the effects of climate change or natural disaster events. There are policy/level of service debates to be had around equality of access for low income communities and in rural areas. These areas simply must be incorporated into a credible 30 year strategy.

The Waikato DHB example also highlights that the importance of cybersecurity to the resilience of the infrastructure network. Although technology provides opportunities for enhancing infrastructure management, the digital and interconnected nature of these systems adds to greatly to system risk. For example, the internet of things creates opportunities for any function involving monitoring, motion capture and the like. But they offer a wider number of points of attack.

The nation's cybersecurity assets should be treated as critical infrastructure in the strategy – it may be too late for this draft, but it is essential for future drafts. One thing that is completely missing from this whole discussion is digital preservation infrastructure. All players, local and central government, private enterprise and NGOs will be dealing with exponentially more digital material and the hardware and software in use will continue to evolve over time. Maintaining access to data over time will be a crucial input to well functioning operations at all levels. The expertise is rare, so the cost of in-house digital preservation is prohibitive. The lack of access to digital preservation services is a huge digital infrastructure risk.

Recommendations

That the Commission:

5. incorporate a consideration of telecommunications sector issues such as resilience, security, and equality of access issues in the final strategy
6. incorporate discussion of cybersecurity infrastructure into future iterations of the strategy.

Stormwater and flood protection may be the sleeping giants in this analysis. . . .

We noted few, if any recommendations directly addressed to the stormwater and flood protection sectors (these may be subsumed into recommendations around climate change adaptation and potentially water reform).

What we do know about stormwater is that it's the network asset class that most know the least about. Much of it is partially reliant on geography for partial channelling. In urban areas the road network is a major conduit for stormwater. Service failures here almost always result in an economic loss, be it an individual property or a whole central business district; or a public health issue (where for example, stormwater and wastewater co-mingle).

Yet stormwater and flood control are something of the poor relative of asset classes. Office of the Auditor-General reports for some years have shown that the level of stormwater renewals in any given year, is less than half the depreciation accounted for. Prima facie this suggests some level of underinvestment in stormwater assets. It's also an asset that historically has had little or no state funding so there has been no state lever to drive process improvements.

Recommendation

That the Commission:

7. recommend that local authorities prioritise improvements in asset condition and performance for stormwater and flood protection assets.

Economic transformation is largely missing from the draft. . . .

"Understand the local economy to plan for the future"[5]

"In developed countries where there is already a well-connected transport infrastructure network of a high quality, further investment in that infrastructure will not on its own result in economic growth. However, where the potential for economic growth is present and there are capacity constraints, a lack of transport investment can inhibit potential growth."[6]

The paper correctly identifies the challenges posed by climate change, technological change and population growth and change. We agree these are major challenges that should be major elements of any strategy.

It is not a given assumption that the growth of the Auckland, Hamilton, Tauranga triangle will come at the expense of the growth and densification of smaller regional centres (backflow effect to main centre affordability). These are dependent on policy decisions and investment in infrastructure (e.g. Dunedin Innovation Research Ltd).

But the draft is relatively silent on the role of economic growth and transformation in demand for infrastructure. It has long been known that economic growth and transport use move together – though the evidence on any causality in the relationship is inconclusive at best. Similarly, correlation, but not necessarily causation has been shown between economic growth, incomes and demand for water.

5 Office of the Auditor-General (2014), *Water and Roads: Funding and Management Challenges*, page 6.
6 Ministry of Transport (2016), *Contribution of Transport to Economic Development – Summary Report*, page 1.

Some examples:

- forestry has been signalled as a priority by the current government with the so-called 'billion trees' programme. Unlike a farm where produce might be leaving the farm gate daily, the forest owner will make intensive use of the forest for two periods: planting and then 30-50 years later at harvest. The 'billion trees' programme will create infrastructure issues in the areas where large-scale planting occurs starting 30-50 years from now. This is a different example of an investment decision having an infrastructural echo[7]
- many tourist centres require 'big city' amenity from a much smaller rating base - visitor needs are one of the key drivers of amenity and standards in the tourist destinations, but also in communities along some of the key tourism corridors. To be fair the draft has identified some of the priorities, and there are two useful recommendations (s2.1 and s2.2 – we'll come back to these later)
- New Zealand is still heavily reliant on agriculture and horticulture for its export earnings. These are heavily infrastructure reliant industries – as the quote above demonstrates these goods need to be moved from the land to the processor, and from the processor to the port. Processing capacity tends to be water-intensive. Sudden changes in land-use patterns can come with big costs. For example, dairy conversions in rural Southland have seen regional incomes move at a faster rate than the national average – but the greater frequency of heavy traffic creates accelerated depreciation on the roading network, demand for road widening for safety reasons and the like.

Recommendations

That the Commission:

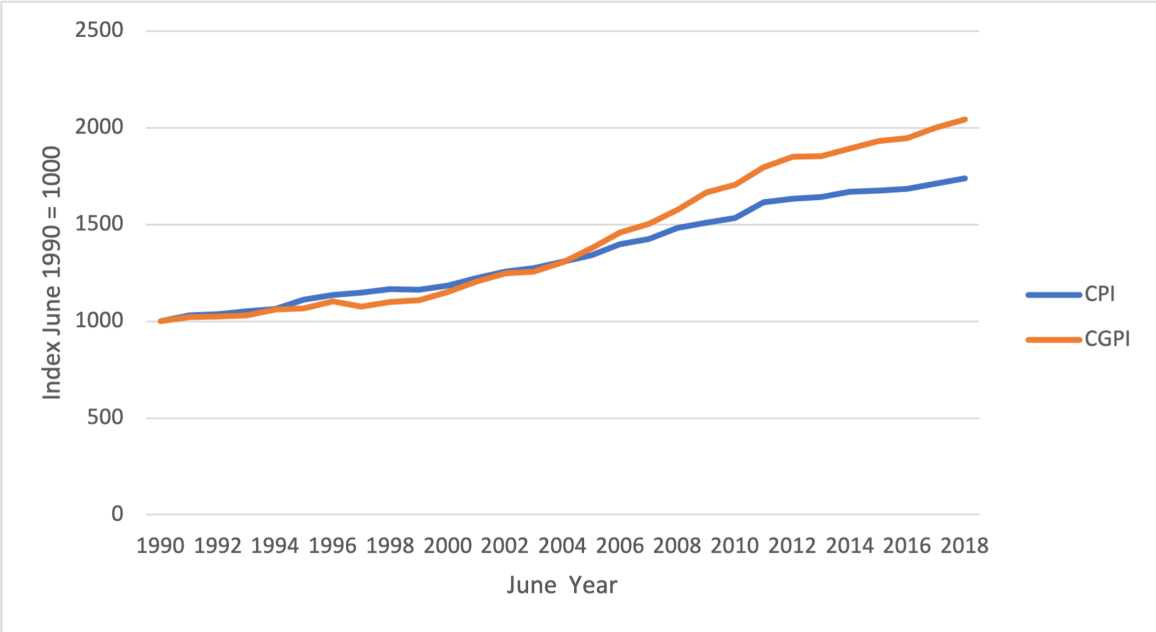
8. identify providing for economic growth and transformation as a major challenge for the infrastructure strategy
9. include a recommendation or recommendations along the lines of s2.1 that covers the funding of forestry-related needs.

The costs of delivering infrastructure are rising. The strategy should include some examination of the drivers of cost in the sector.

Another factor that is absent from the draft in any significant way is the movements in the costs of delivering infrastructure that are to some extent exogenous to the system. Figure One shows movements in the Consumer's Price Index (CPI) and the Capital Goods Price Index – Civil Construction (CGPI). Note that these are statistics produced independently of Taituarā and the local government sector. Except for a 'blip' around 2012 the CGPI Civil Construction has been increasing at a faster rate than the CPI since around 2003. In some years, the rate of increase in the CGPI is more than double the rate of increase in the CPI.

7 Our submission to the Productivity Commission Inquiry into Local Government Funding and Financing contains a case study of the impacts of forestry on one moderately sized local authority (Whanganui District Council).

Figure One: Consumers Price Index vs Capital Goods Price Index – Civil Construction 1990 - 2018



The factors underpinning movements in construction costs are many and varied. This phenomenon warrants further investigation by the Commission (or by someone on the Commission's behalf).

The above data demonstrates the result of several differing factors. We are aware of at least two studies that have considered what the drivers of increasing transport costs might be: the *2006 Ministerial Advisory Group Report on Road Construction Costs* (MAG) and a *2013 Construction Industry Study* by NZIER. We are unaware of any such studies having been undertaken for three waters infrastructure.

Some of the commodities that civil construction relies upon are traded on international factor markets (steel and bitumen are good examples). As MAG noted:
"International competition for key resources, such as fuel, steel and skilled staff, has been an uncontrollable factor that is likely to continue as a significant influence on input costs in the foreseeable future."[8]

Local authorities and other infrastructure providers in this country have very little ability to influence prices set internationally.[9] Almost all capital expenditure and most maintenance work is market-tested in some way – be it through the pricing procedures required by NZTA or through a local authority's own procurement processes. The options open to local authorities and other providers are to reduce their consumption of these materials or to investigate alternative design and procurement options.

The NZIER Study is now eight years old. It remains a thorough analysis of the road construction industry and the underpinning cost factors.[10]

8 MAG (2007), *Report on Road Construction Costs*, page 6.
9 Of course, movements in international markets can work both for and against infrastructure providers – one of the reasons for the comparatively lower rate of increase in the CGPI in recent years is the fall in the price of oil and products derived from oil (such as bitumen).
10 NZIER (2013), Construction Industry Study: Implications for Cost Escalation in Road Building, Maintenance and Operation, final report to the Ministry of Transport last retrieved from https://www.transport.govt.nz/assets/Uploads/Research/Documents/NZIER-report-2013-construction-industry-performance.pdf on 16 October 2018.

Many of the observations it makes about the structure of the industry have been known since the mid-1990s. While NZIER was unable to (in its words) “unpack the contributions of the differing factors to increasing road costs” it comments that *“the causes of the apparent cost increases emerge from a range of complex and at times mutually reinforcing factors:*

Factors transport policy makers have little or no influence upon

1. *changes in overall demand for civil construction services (broadband, electricity transmission and distribution, irrigation etc.)*
2. *import cost increases — bitumen price increases*

Factors transport policy makers may influence

3. *locally sourced input cost — quarry aggregate and labour cost increases*
4. *structure and conduct of markets*
5. *the wider regulatory environment*
6. *weak industry productivity growth*

Factors within control of the transport policy makers

7. *how expenditure on service level improvements is accounted for, leading to apparent cost increases which are actually service additions*
8. *risk management and productivity incentives*
9. *standards and guidelines that may improve transport service levels, but increase costs and may at times constrain innovation and productivity.”*[11]

A robust understanding of the factors underpinning movements in construction prices is critical to a national level infrastructure strategy. This is an immediate and urgent priority. For example, this might identify whether the way we procure infrastructure impacts on costs, and from that whether recommendations around procurement should sit in the priorities.

Recommendation

That the Commission:

10. add a recommendation or recommendations in support of an analysis of the drivers of infrastructure costs.

Capacity and capability needs require far greater emphasis in the strategy

One of the more significant handbrakes on the delivery of infrastructure is the availability of a sufficiently skilled workforce in the short and longer-term, as experienced during the heavy duty rebuild phase in the recovery from the Canterbury Earthquakes when a degree of ‘demand-pull’ effect saw rapid increases in tender prices in the period 2012-15 (remember Figure One).

We often hear about the challenges councils face in recruiting and retaining skilled staff, particularly regulatory and engineering staff. We are preparing a sector workforce strategy to address the current capability gaps, and better position the sector for the workforce needs of the future.

11 NZIER (2013), *Construction Industry Study: Implications for Cost Escalation in Road Building, Maintenance and Operation*, page i.

What we are not clear of is what central government's needs are. For example, what level of expertise would the Commission's recommended asset management agency require, and from where. There is an assumption that the creation of a small number of water entities will create greater strategic capacity, but ignores that some capacity will still be required in local communities to ensure that community needs have a sufficiently skilled advocate. Factor in the demands of Taumata Arowai as a regulator and its not cleat to us that demand for public health engineers will be any lower.

Capability development for elected members, at both local and central government, would appear to be a priority. . . .

Elected members need an understanding of the core concepts of asset management (including levels of service and the asset lifecycle and its implications for costs), some knowledge of the relationship with accounting concepts such as depreciation, accrual vs cash accounting and the like.

There is a wealth of resources and training opportunities available for local authorities. Through its training arm Equip, LGNZ offers courses in financial governance, decision-making and other disciplines relevant to financial management, as well as a number of other topics of relevance to governing bodies.

But these are not well taken up. The issue is that, understandably, there is a reluctance on the part of many elected members to travel. In part there is the personal inconvenience of leaving the community, but still more there is the scrutiny that comes with disclosure of travel expenses. There may also be some understatement of the differences in governing a local authority and running a small business or farm.

The one piece of training that is well taken up is the elected member induction run after each triennial election. We participated in the delivery of these courses in the past and found there is little on asset management or financial governance.

Elected members who want to sit on RMA hearing panels need to complete the so-called Making Good Decisions programme developed by the Ministry for the Environment. A greater understanding of the core concepts of asset management and financial governance would appear to be useful to all elected members, when exercising literally any governance duty, and to that extent may be a high priority for investment.

The capability and capacity of Māori communities to contribute to, and benefit from the strategy forms another aspect of overall capability needs. . . .

We concur that the proposed *Natural and Built Environments Act* joint committees are a start in terms of more of a role for Māori in infrastructure planning. Governance of the strategic plans under the *Strategic Planning Act* will provide further impetus as all proposals we are aware of see these as tripartite partnerships between the Crown, local authorities and Māori.

We concur with the Randerson report that the role envisaged is quite different from what may have gone before in some communities. That report commented that this would be a more strategic role as opposed to a role practically limited to submitting on particular consents and/or plan changes (although these rights appear unimpeded under current proposals).

This change in role will create a greater need for Māori communities to be supported in terms of capacity and capability to contribute. Randerson made a number of recommendations intended to build capability and capacity in the planning context.[12] Many, but not all, of these would apply equally to infrastructure planning, development and delivery.

Taituarā notes that, important though the above is, its important that Māori contribute not just to where infrastructure goes, but how it meets the needs of Māori communities and reflects a Te Ao Māori worldview. In other words, we go beyond the context of planning to include design and delivery (i.e. social procurement opportunities and opportunities to reflect the histories and stories of mana whenua through infrastructure design). We also note that there is a dedicated diversity and cultural workstream in the Construction Accord's Workplan.

But work to build local government's capacity and capability to work with Māori communities in this new way will also be required. Simply putting in place new governance structures will not be sufficient. Time, support, capability building initiatives and resourcing will be needed to ensure that these governance structures work effectively and are culturally appropriate (particularly given the complexities associated with working with multiple iwi and hapū). A good start would be to draw on case studies of approaches that have worked/are working. For example, the partnership between Rotorua-Lakes Council and Te Arawa covers all planning and development in the community, well beyond the ambit of resource management. Further work should then be done to develop a plan for how local government can be supported to build its capability and capacity to partner with Māori on the planning, design and delivery of infrastructure projects. Similar capacity and capability planning could be undertaken with Māori communities too.

Equitable funding includes an element of funding for national good

The Commission correctly notes that the upcoming Future for Local Government Inquiry is an opportunity for a 'reset' of what local government does and how it does it. A rational review would proceed from a clear coherent vision for local government and its role within New Zealand's governance arrangements. This would provide an answer or range of answers to longstanding questions around the appropriate balance between central and local level decision-making and provide for some consistency in approach.

Principles such as subsidiarity, community of interest, the presence of spill over effects, and location of capability and information should all play a role in determining who should take responsibility for what.

The inquiry provides an opportunity for a robust debate as to what constitutes national good, including criteria and methodologies for determining what is 'national good' and a strategy for investment in national good infrastructure and services.
Some of these criteria might include:

- *the estimated or expected contribution to well-being* – no branch of government funds services for their own sake
- *the presence of externalities/spill over benefits* – the sorts of national good are essentially examples of what economists refer to as "spill over" benefits i.e. a piece of supposedly local infrastructure that generates benefits beyond the district (often referred to as externalities). A simple test of this argument is: who would be worse off if a particular piece of infrastructure were absent? If the only losers were local users, there are no externalities; if other significant losers can be identified beyond the locality, then externalities exist

12 Resource Management Review Panel (2020) *New Directions for Resource Management in New Zealand*, page 96.

- *promotion of equity in outcomes* – a related issue is when the level of service is not completely determined locally, in particular when there are minimum national standards. In this case, local taxpayers may receive more benefits than they would choose (and be prepared to pay for) without the external minima. Typically, there may be some externalities generating such external minima, e.g. costs which would be imposed on taxpayers outside the locality. Such externalities do not necessarily have to result from actual external costs. They may also result from people's preferences, in particular that people in high-benefit areas would prefer to see other areas enjoying a similar level of benefits, to the extent that they might be prepared to make some contribution to them. Good examples of funding that illustrate this criterion in action include funding (on a matching basis) for sewage disposal schemes in small communities and to enable small communities to meet the New Zealand Drinking Water Standards
- *the size of the local funding base* – this criterion is typically linked with equity in outcomes in that some infrastructure may be necessary for other reasons, but the cost may be beyond the financial capability of the local district to afford. For this reason, funding from central government for infrastructural development is generally either targeted only at lower income communities (as is the case with sewage and drinking water subsidies) or has some recognition of "ability to pay" (as is the case with most land transport funding).

Applying those criteria and considering the likely areas that a well-being strategy would cover probably leads us to the following:

- funding for climate change adaptation
- further support for housing related infrastructure – the $3.8 billion appropriated in this year's budget is welcome, but the housing shortfall is likely to be a generations-long phenomenon
- some funding for passenger transport infrastructure and other alternatives to roading in Auckland and in other centres that serve as growth and/or transport hubs (for example Tauranga and Hamilton)
- (potentially) funding to support whichever agencies deliver three waters services to meet national good standards.

Recommendations

That the Commission:

11. note the Review of the Future for Local Government will look at the balance of roles between central and local government in the strategy
12. agree that the equitable funding section be supplemented with a further recommendation in support of the enhanced assessment of national good and funding for these national goods.

While we strongly support better pricing, there are other tools that also support behavioural shifts. . . .

More than one in 10 of the Commission's recommendations focus on the need for better (or more efficient) pricing in road use, water services and solid waste disposal. While we support all of these recommendations, we observe that some recommendations might be some time from implementation. In any case, there are other tools available for encouraging behavioural shifts. Regulation is one such mechanism – and one used heavily in the past (who remembers carless days from the late 1970s)? Public education is another means.

Learnings from the field of behavioural insights/behavioural insights are being increasing used in infrastructure management and service design. The core ideas essentially revolve around provide users with so-called 'nudges' or hints and incentives towards the desired behaviour.

To take some examples from field of so-called 'green transport' the Commission might look at:

- 'gamifying' public transport. Singapore has 'gamified' public transport and off-peak travel through its so-called Travel Smart programme. Passengers earn points each time they travel on the train, and can earn extra points if they travel off-peak. It seems analogous to the loyalty schemes retail, accommodation, and travel providers might use
- extending the EECA scheme where people were given the opportunity to test drive an EV both in terms of the number of 'places' and potentially the opportunity to test an e-bike
- making parking harder in identified locations (such as central business districts) by, for example, introducing an app and requiring people to register and get permits by app (regardless of whether parking is free or not)
- supporting active transport (walking, jogging, cycling) by requiring all new office accommodation etc to provide shower facilities (that can accommodate all genders) and providing more facilities such as bike parks
- supporting collective consumption options (for example, some campuses in the Untied States have experimented with so-called 'van pool' options)
- making wider use of high occupancy vehicle lanes (and better enforcing those that exist).

Recommendation

That the Commission:

13. recommend that infrastructure providers consider how behavioural insights might support better infrastructural management outcomes.

PART TWO:

Specific recommendations

Business cases and climate change

Taituarā supports recommendation F1.1 calling for the amendment of business-case guidelines to ensure full consideration of mitigation and adaptation options. This substantially dovetails with the Climate Change Commission's (the CCC) Time Critical Action 6: Align Investments to Climate Outcomes from He Pou a Rangi (its draft advice to central government).

Incorporating climate change considerations into business case guidelines is a data and methodology intensive task. The CCC itself notes that such calls for the publication of long-term abatement cost values based its analysis of likely real carbon prices. It may be implicit in the recommendation but Taituarā considers that the abatement values will need regular review if they are to send the right signals for investment. Local authorities are currently planning on a triennial cycle which suggests a minimum review frequency of once every three years (though once every year would be preferable).

The Commission could usefully publish a framework, approach etc setting out how it plans to incorporate climate change into its approach. That would be a useful exemplar for other investment agencies to follow. The Infrastructure Commission might also usefully consider how it could work with others to disseminate its approach – perhaps in partnership with agencies like Skills and the local government sector agencies. Alternatively the Commission might commission or recommend that some other body develop such a framework based on practice examples in central and local government.

Recommendations

That:

14. the strategy be supplemented with a recommendation that the CCC develop or cause development of a set of long-term carbon abatement values based on forecast carbon prices
15. that the Commission develop a framework for assessing climate change impacts as part of business case analysis
16. the Commission work with Skills and local government sector agencies to disseminate the information developed in response to recommendations 12 and 13.

Circular economy

Taituarā supports the recommendations F1.7 (drive a culture of waste minimisation) and F1.8 (efficient pricing of waste). Taituarā has identified the transition to a low waste economy as one of the five critical transitions to life in 2050[13], not least because New Zealand is one of the highest producers of waste on a per capita basis.

13 Pride (2020), *Navigating Critical 21st Century Transitions*, page 16, report downloaded fromhttps://taituara.org.nz/Attachment?Action=Download&Attachment_id=2200 on 14 June 2021.

Each of these recommendations makes sense in isolation. The critical transitions report observes that New Zealand does not currently factor in the full cost of waste. These include the costs and consequences of resource depletion, the environmental impacts of resource extraction, and the pollution caused by waste. We join with the Climate Change Commission in calling for further research on the full economic costs of waste disposal, and in the interim a significant increase in the waste levy.

We also agree that better procurement guidance and waste minimisations plans are also appropriate responses. In fact, central government procurement guidance doesn't directly refer to low-waste as a high level principle of procurement in the latest edition of the procurement rules. There are oblique references to the total life cycle cost of decisions (which to us , includes end-of-life costs) and many references to low emissions, but nothing we could find in regards low-waste options.

There is no indication of how they fit into a broader strategy, who would implement or why these ideas have been given priority when other levers are there for the pulling and capable of having significantly more impact. Some of the important aspects of the transition that are barely touched on in the strategy are:

- the role of personal responsibility (e.g moving to an 'I am responsible for my waste' mindset. While pricing has a role here, education and the application of behavioural insights can equally be used
- product design and product stewardship
- innovation – for example the development of manufacturing materials and processes that are easier to dispose of, technology that makes monitoring of waste disposal behaviours more convenient and more reliable
- import licensing – regulation to ensure everything that enters the country has an identifiable pathway for disposal.

The Commission says that:
"The infrastructure system has a large role in embedding the circular economy into general practice through better design and procurement to reduce waste, and greater use of recycled materials as part of construction. This is something that Te Waihanga is actively considering as we continue to build on this Resource Recovery and Waste Infrastructure State of Play and consider how the infrastructure system as a whole can better embody sustainable production and consumption and the circular economy."

We can only agree.

Climate decision-making under uncertainty

This is an area that is worthy of significant expansion – although we accept the Commission might legitimately have considered that with the advice from the CCC, Productivity Commission etc, the area represented well-trod ground.

The draft should contain one or more recommendations around the Climate Change Adaptation Act

We also agree with the intent of recommendation F1.2, in that decisions about climate change adaptation and mitigation should keep a wide range of options open. The Productivity Commission suggested decisions and approaches should be flexible and anticipatory and the policy framework should support these qualities. This is very much in keeping with the dynamic adaptative pathways planning approach regarded as best practice (or common sense) in local authorities.

We qualify this by saying that the Commission should be clearer that so-called defensive options should be pursued only where these options are significantly superior to other options. This would strengthen the resolve of local authorities heading into a community engagement that is, or can be, a particularly challenging one and avoid misdirecting investment into shorter-term solutions.

The draft has a significant amount to say about the resource management reforms including specific recommendations around spatial planning and content for the proposed Natural and Built Environments Act. The Commission has correctly identified that climate change response is one of the key infrastructural challenges facing New Zealand in the coming years (and the scale of the challenge is likely to accelerate in future). The omission of a specific recommendation around ensuring the proposed Climate Change Adaptation Act supports a range of flexible and anticipatory responses is a 'must have' in a credible strategy.

A climate change adaptation fund is a vital step to supporting a 'future-proof' local government funding and financing system

It appears that the funding of climate change adaptation is every bit the public policy challenge that is posed by say, the funding of national superannuation and the other costs of an aging population. There is the same need to incentivise good decision-making (for example, ensuring there is no new development in areas that are at risk of sea level rise, coastal erosion etc) while taking account of the decisions that have gone before. Further climate change adaptation mechanisms must be designed in such a way as to minimise the long-run costs of adaptation and would include incentives to avoid activity that would add to these costs.

Taituarā considers that there is a strong economic case to support some degree of pre-funding the costs of adaptation. First, the notion of exacerbator pays suggests that those responsible for harm or damage (in this case the emission of gases that have created climate change) should contribute towards the cost of adaptation.

Second, with the right design, the mechanism for contribution could be used to send at least some signal about the cost of activities that gave rise to climate change or avoid locating in areas at risk etc. Further tax on automotive energy and/or other fossil fuel use would be one example. "Pricing" in this way should avoid sending disincentives for actions that support adaptation or internalise some cost, for example funding by a levy on insurance would be as good an example what **not** to do.

Funds raised in this way might then be invested for future use once the heavy-duty adaptation expense begins – in much the same way as the present day New Zealand Superannuation Fund operates.

Individual local authorities might build up their own funds, but this ignores that many, but not all, of the areas that will be at the forefront of adaptation issues are in areas that have particularly limited capacity to raise revenue. South Dunedin is one of New Zealand's poorest metropolitan communities, and many parts of the Eastern Bay of Plenty, Northland and the West Coast of the South Island fall into this category.

Funding should be consistent with *"widely accepted principles of social equity (or distributive justice)"*.[14] This includes the so-called fair opportunity requirement – that people should not be unduly disadvantaged for those things that they have little control over. In addition, like should be treated alike, that includes consideration of need, ability to pay, and responsibility.

14 Boston and Lawrence (2018), "Funding Climate Change Adaptation – The Case for a New Policy Framework", *Policy Quarterly*, May 2018, page 44.

Mobilising some degree of private finance is a possibility

There have been discussions about mobilising private sector finance to support the scale of investment required. While some public private partnerships might be an option for some water schemes or identifiable road projects, the likelihood is that these would be through options such as Green bonds (the Commission refers to one such example). Little has been done to source overseas examples to date. The Commission might add a recommendation along these lines in either the climate change or equitable funding sections. The Commission might also consider whether the New Zealand Superannuation Fund could potentially play a role where such investment is made in expectation of a return.

Recommendations

That the Commission amend the strategy by:

17. adding a recommendation that supports the expedited enactment of the proposed Climate Change Adaptation Act that supports a range of flexible and anticipatory responses
18. adding a recommendation supporting a Climate Change Adaptation Fund in the equitable funding section of the strategy
19. adding a recommendation or recommendations calling for the gathering and release of examples of private sector financing of climate change related investments.

Waste minimisation

Taituarā supports the two recommendations around waste minimisation (F1.7 and F1.8). We submit that managing the waste out of the disposal of assets should be a factor considered when making an investment decision. A specific recommendation around incorporating some consideration of options for disposal of assets at end-of-life would better support the Commission's intent.

Recommendation

That the Commission:

20. add a recommendation supporting the better consideration of the option for, and costs of disposal of assets at end-of-life.

Energy

Taituarā supports the cluster of recommendations around transitioning energy infrastructure to a zero-carbon future (though, the same can be said for water infrastructure and is said semi-directly for transport infrastructure). As part of that, and taking a transition lens, Taituarā considers that the draft be bolder and recommend that the country support means to encourage take-up and development of distributed power generation as a part of an energy resilience strategy.

And while this is especially important for remote settlements, this is fundamental for the whole country. In 2018 alone, one storm which took down power lines in Auckland affected 180,000 homes and businesses. A single failure in early 1998 left Queen Street and Karangahape Road without network-supplied power for five weeks.

Recommendation

That the Commission:

21. add a recommendation or recommendations supporting greater use of distributed power generation as a means of supporting energy resilience.

Growth and risk analysis

There is more to infrastructure risk than population

Recommendation F4.1 would require local authorities to test their district and long-term plans against high and low growth scenarios as well as the most likely scenario.

We agree with the intent, though in keeping with our earlier comments, the discussion that supports this recommendation appears to focus on population growth, when economic growth and transformation are also drivers of demand for infrastructure.

Taituarā observes that there are requirements around disclosures of forecasting assumptions in several places in the *Local Government Act 2002*. The statutory content of a long-term plan requires disclosures of *“all the significant forecasting assumptions and risks underlying the financial estimates”*. The Office of the Auditor-General emphasises population and demand are core assumptions that they expect to see in a plan, and our own guidance emphasises this also. [15]

But the disclosure goes beyond this. Local authorities must also disclose:
“in any case where significant forecasting assumptions involve a high level of uncertainty,—

(i)` *the fact of that uncertainty; and*

(ii) *an estimate of the potential effects of that uncertainty on the financial estimates provided.”*

There are similar requirements in *section 101A* governing the contents of an infrastructure strategy. Both are based on the requirements set out in the *Fiscal Responsibility Act.* Matters such as useful lives of assets and funding sources for infrastructure are also common to both. Taituarā also produces advice on assumptions that all local authorities are likely to need.

Doing this properly involves some degree of ‘what-if’ analysis that those councils with higher growth do as a matter of course. The practice in other councils is a great deal more variable, and could be greatly improved, especially now most local authorities have moved to using more sophisticated financial modelling software as the basis for their financial forecasting. That should include modelling differential rates of population growth as a matter of course.

Although we understand why the Commission appears to have focussed on growth in the draft, this tends to be one of the better handled areas of risk. We agree that assessments of upside and downside risks ‘across the board’ could be better and recommend the Commission might broaden recommendation F4.1 to include all significant forecasting risks.

Taituarā considers that the Local Government Act requirements, when properly implemented, are not in need of further strengthening (in fact some consider the requirements are duplicatory). We defer to the Commission’s views on the district plan however.

15 These assumptions are so fundamental that a local authority with missing or defective growth and demand information would probably attract an adverse audfit opinion, while calling the basis of other policies such as the development contributions policy.

The other point we'd observe is that none of these requirements apply to private sector or central government providers (though they should be regarded as base line good practice). The Commission should consider whether and how it directs such a recommendation to energy, telecommunications, health sector, the New Zealand Transport Agency etc.

Recommendations

That the Commission:

22. amend recommendation F4.1 to require assessments of all significant risks in district plans against high, most likely, and low growth scenarios
23. add a further recommendation directing local authority providers to consider how they give better effect to the Office of the Auditor-General and Taituarā guidance on forecasting assumptions and risks
24. add further recommendations that private providers and central government also undertake these risk assessments.

Population decline is also a challenge

The draft focusses on the challenges of population growth. On the other hand, between 1996 and 2018 about 15 rural councils and five provincial councils were located in districts with static or declining populations. Most of these can be found in the central North Island, on the east coast of the North Island and in the west of the South Island.

The link between depopulation and funding pressures should not be underestimated. Simply put, there are significant elements of fixed cost in many local services (i.e. all local authorities have to conduct inspections of premises that sell food, water needs to removed from the ground and treated to certain standards whether the scheme serves 500 people or 50,000, the content of long-term plans is the same for all councils etc) and as population falls the economic base from which to draw revenue falls.

Districts with static or declining populations also often have high levels of unemployment and deprivation, which means lower disposable incomes after housing costs are met. That's the reason the populations are declining!

This is something that's likely to increase in coming years as the economy continues its transformation. Once started, population decline is near impossible to reverse. Yet, there is no guidance and few clear success stories of local communities that have downsized their assets (it's not uncommon for elected officials to take the view that if a local authority assumes or starts planning for decline they'll make it happen).

Spatial planning

The draft contains two recommendations relating to spatial planning. Recommendation C2.5 supports the development of a *Strategic Planning Act* that directs local authorities and infrastructure providers to develop spatial plans. Aspects of this recommendation and recommendation S1.1. both refer to the funding of spatial plans – C2.5 talks about resourcing to support the development, and S1.1 to regional funding plans.

Taituarā supports spatial planning, but not in the form currently under development. . . .

Taituarā is participating in development of the policy proposals underpinning development of the *Strategic Planning Act*. We are limited in what we can say at the time of writing so confine ourselves to matters of general principle.

The first is that the scope of strategic plans should focus on building communities and therefore needs to bring in the widest range of providers. Minister Parker has observed that spatial plans are for matters that 'can be drawn on a map'. We agree.

But this means a wider ambit than the network infrastructure that bodies like the Productivity Commission (in *Using Land for Housing*) and even the Commission itself with its focus on "local authorities and infrastructure providers" see as falling within scope. That's a plan that's really about building housing, and experiences such as Britain in the 1950s tells us this is not successful in the long run.

Central government needs to bring social infrastructure into the planning process. That is to say, for example, that spatial planning needs to bring in the planning and location of future state-funded educational institutions (particularly the school network) and healthcare (hospitals and other specialist care where applicable). This means communities can be designed with an eye on all of the needs that make for a successful community, and that investment can be rationalised.

That is, such a plan provides the vehicle for local and central government, the private sector, the voluntary sector, and the wider community to engage in real community planning. By which we mean determining an overall direction for the community and what each party can do to bring it about. This is an exciting opportunity to empower communities with a greater say in service design and delivery at local level.

This will be challenging for central government. It will involve some cession of ministerial powers of decision and of patronage (sharing might be a better word). This is a test of Government's commitment to partnership with the sector. We note that the Auckland Plan (the only mandatory plan in existence) requires that the plan

(a) *set a strategic direction for Auckland and its communities that integrates social, economic, environmental, and cultural objectives and*

(b) *outline a high-level development strategy that will achieve that direction and those objectives and*

(c) *enable coherent and co-ordinated decision making by the Auckland Council (as the spatial planning agency) and other parties to determine the future location and timing of critical infrastructure, services, and investment within Auckland in accordance with the strategy; and*

(d) *provide a basis for aligning the implementation plans, regulatory plans, and funding programmes of the Auckland Council.*[16]

Scale is the second issue that needs resolution. The Commission and other commentators such as the Randerson report and *Using Land for Housing* suggest strategic planning be undertaken at a regional level. With due respect, we have real doubts that 13/14 boundaries based largely on catchments represents the best basis on which to proceed. The interests of South Canterbury are distinct from those of the Greater Christchurch conurbation, just as the interests of the Taupo community do not sit in five different areas!

16 *Section 79(1), Local Government (Auckland Council) Amendment Act*

There are examples of spatial planning at lower than regional level. In New Zealand one such example is the so-called Hamilton-Auckland corridor plan that straddles identified parts of one unitary and two territorial plans. It appears quite probable that any new legislation is likely to set a rebuttable presumption that plans will be prepared on regional basis, and criteria for departing from a regional basis. More than one distinct community of interest should exist with significant or compelling differences in local economies or infrastructural needs.

And then the third matter is the lead agency for central government. Previous attempts to mandate spatial planning have floundered in a morass of competing portfolio and departmental interests. It should not be the Ministry for the Environment – that risks the plan being seen as 'another RMA plan'. The Department of Internal Affairs might not have sufficient credibility as a system leader in either central government or the sector. We suggest responsibility be given to Department of Prime Minister and Cabinet, or perhaps Treasury.

Recommendations

That the Commission:

25. include central government within the scope of the first two limbs of recommendation C2.5 setting out the basis for spatial plans
26. refine recommendation C2.5 to create a rebuttable presumption that spatial plans be prepared on a regional basis and set of criteria for making such an assessment
27. amend recommendation C2.5 to include endorsement of the Department of Prime Minister and Cabinet as the lead government agency for spatial planning.

We agree the funding of strategic plans needs clarification – more thinking is needed on the implementation of these plans

Recommendation S1.1 raises one of the issues of sector concern with the proposed *Strategic Planning Act*. There is a degree of sector expectation that funding should follow strategies. That is to say that the partners involved in identifying the objectives and designing the strategic plans should be prepared to support the achievement of the plans beyond their adoption.

There is a degree of scepticism in the sector about this aspect of strategic planning. This is based on the experiences of previous collaborative planning. This includes various types of spatial plans (including the one mandatory plan) and the so-called community outcomes process that all local authorities have to undertake under the *Local Government Act 2002*.

There are several reasons for this. The statutory linkages between current spatial plans (even the one mandatory plan) and other strategic documents are either non-existent or unclear. Project assessment and procurement processes might then rule out or impact on the delivery of projects or the manner and timing in which they are delivered. The siloed nature of policy-making and budgetary processes can see investments traded off at Cabinet level.

Hamilton City Council observes that
"Aligned planning and funding cycles between local and central government, and all organisations involved in infrastructure planning, funding and delivery are required to enable certainty and coordination. In addition to the significant reform underway, looking to align cycles across different levels of government would also be beneficial. For example, councils develop an LTP and Infrastructure Strategy every 3 years with a 10 year and 30 year horizon respectively, however

central government departments are not required to do the same. The Ministry of Education plan for 3 years and Waka Kotahi generally commit funding for 3-year blocks. To effectively deliver on the outcomes of spatial plans, all partners need to be able to provide the same level of certainty for investment."

Waka Kotahi's current funding process is as close as we can come to an example of how not to approach this. At the time of writing all local authorities are in the last stages of finalising their 2021-31 LTPs in advance. All local authorities were invited to submit applications for the so-called continuous programmes (road maintenance and public transport services). At the end of March local authorities were advised Waka Kotahi were experiencing funding constraints and it was unlikely anyone would get the level of funding they applied for. But the final amounts were not announced until June 1, leaving councils with a hurried reworking of their LTPs – and potentially exposing some to having to re-engage.

Recommendation

That the Commission:

28. recommend that central government and local government jointly work to better align planning and funding cycle.

Water services reform

Recommendation C2.1 is a suite of recommendations around the provision of water infrastructure for growth needs. When combined with recommendation S1.2 (the number of infrastructure providers) this raises the water sector reforms (we use this term as for the most part it appears stormwater will not be in scope of any transfer of assets).

Recommendation C2.1 is also a good example of the siloed nature of aspects of this Draft. All of what it says about growth needs is 'fair comment'. But what is overlooked in near totality is that road infrastructure and stormwater disposal are equally necessary to empower development. As the former CE of Auckland Council once noted – *"this council needs to build three roads a week to keep pace with the demands of growth".*

Growth is just one of the challenges facing the water sector

We begin this discussion by observing that growth needs are far from the challenge facing the water sector, in dollar terms and number of affected local authorities, or even the primary driver.

The Inquiry into the Havelock North Contamination incident found that there was inadequate system oversight at policy and regulatory levels with multiple agencies having roles and responsibilities with no overall leadership. One of the responses has been to establish an independent Crown agency, Taumata Arowai, as the regulator of drinking water.

Legislation has removed the so-called 'all practicable steps' clause of the *Health Act* thus removing the defence to non-compliance with the *New Zealand Drinking Water Act*. While standards have not been increased, the powers to enforce the standards have been increased and resources to enforce have likewise been increased. The sector generally acknowledges the importance of stronger regulatory oversight but is concerned about the cost of complying with these requirements and their affordability.

That is to say that increased regulatory standards both at central government and regional council level will be significant drivers of cost moving ahead. The latest publicly available estimates prepared by the Water Industry Commission suggests that there would be a minimum of some $27-46 billion in investment required in the next 30 years to meet the cost of increasing regulatory standards.[17]

The sector is concerned about the future costs of meeting regulatory standards, especially as there is now the power to regulate all supplies above a domestic self-supplier. The costs identified above will be felt most in small-medium sized schemes where there are much smaller numbers of residents or users to meet these costs.

One of the claims made about aggregation is that larger entities are better able to generate economies of scale. Modelling work undertaken by the Water Commission of Scotland (WCS) for the reform process provides evidence to support this, and some evidence of scale economies. These findings are currently being further tested as part of the reform process.

The ability to harmonise charges will be critical to the success of any reform process, but the transition to harmonised charging could be a game-breaker

One of the other arguments supporting reform is the greater ability to harmonise charges for water services across consumers through network pricing. Water is charged on the basis that it is a common good with those in larger or more mature schemes meeting all or part of the cost of other schemes. Indeed, without some element of network pricing, meeting increasing drinking water and environmental standards will be unaffordable in many smaller communities. Some local authorities have moved this way in long-term plans since around 2009.

However, any move to harmonise water charges is going to advantage some water users and disadvantage others. The present set of mechanisms for funding water are the results of consideration of decisions of 67 elected bodies and can be complicated to understand. For example, in Wellington, water is paid for by the general rate and includes a substantial differential for residential ratepayers. Harmonising charges would most probably see that disappear.

It may be that complete harmonisation will require some transitional period and mechanisms to ensure the change is made in a staged fashion. There are precedents for such an arrangement – for example the transitional rating policies that Parliament enacted to spread the impact of change in moving all of Auckland Council to a common rating policy as part of the amalgamation.

We concur with the Commission that the role of the economic regulator is central to ensuring a 'just transition', while ensuring the public health and environmental objectives are met. That role is well beyond just assuring the development industry gets a fair deal (as one reading of Recommendation C.2.1 suggests).

We suspect the regulatory regime will borrow heavily from those that apply to energy providers, in that there will be an extensive public disclosure regime, with some review of pricing decisions. That seems sensible, in that these businesses are natural monopolies with limited interconnection between them, and little or no power for the consumer to 'switch' providers and a significant practical limit on self-provision.

17 Department of Internal Affairs (2021), *Three Waters Reform Programme – March 2021 Local Government and Iwi/Hapu Engagement* – slide pack to support workshops. We are unclear to what extent any compliance costs for bring small suppliers into this framework is incorporated in these assets.

That serves to underscore the importance of developing a disclosure regime for any water entities based on:

- common cost accounting practice and management policies (such as overhead allocation, borrowing management etc)
- some carefully chosen and customer focussed measures that demonstrate the achievement of levels of service (or not) in a meaningful way
- appropriate technical measures of asset condition and performance that provide an effective base for conversations about prioritisation and consequence.

And, of course, any measure is only as good as the data that underpins the calculation. We submit that the development of metadata standards (recommendation F3.2) is one of the most urgent of the recommendations from the draft. There were efforts being made to develop metadata standards some 2-3 years ago – we’ve not been able to discover what if anything, became of these. Discussion in the body of the report should emphasise the need for urgency.

Any reform package must ensure that the wider contribution three waters to community well-beings is not lost

Access to three waters services is a vital consideration in meeting several objectives alongside public health. Along with road and transport infrastructure, access to three waters services is a vital element in providing for a sustainable urban form. They support development of local economies.[18] Three waters are also vital for environmental sustainability.

The assets these entities would manage are the result of many years of accumulated community investment, much, but not all with little or no central government support.

Infrastructure is the servant of the community. Ensuring that local communities, through their local authorities, can influence the direction of these entities is therefore a fundamental design question.

The three most significant means that local authorities have for influencing the direction of related entities are: the ability to influence the statement of intent; the ability to vote at an annual meeting of the entity; and the ability to appoint and remove directors. Local authority provided services also have the additional accountability of having service planning going through public engagement and a mandatory infrastructure strategy.

The present policy direction for the reforms is predicated on the assumption that the entities will have a high degree of balance sheet separation from local authorities, while remaining in local ownership. Our understanding is that at least one of the above three mechanisms will definitely not apply to create this separation – that being the right to appoint directors to the governing body. We are also uncertain whether local authorities holding voting rights at an annual meeting would be consistent with balance sheet separation. That leaves the corporate accountability document as the sole means – which to us to suggests mandatory requirements to engage that may not sit well with a corporate form of organisation (which again we understand to be the Government’s intent).

18 To take a practical example, one of the fundamental concerns several of the South Island local authorities have expresses is that investments in their productive water infrastructure are critical to the development of food processing and other manuafacturing, yet such investment might struggle for bandwidth against investrment in the 2-3 major population centres.

Recommendations

That the Commission:

29. consider whether there is a case for its recommendations around water infrastructure to be broadened to include growth
30. add a recommendation that any disclosure based economic regulation be based on standardised measures of cost, asset performance and asset condition. This would also include a set of standard customer levels of service
31. emphasise that recommendations in support of metadata standards for infrastructure is a priority matter and
32. incorporate a discussion of the needs of local communities into the discussion of three waters.

Charging for wastewater

Recommendation C2.2 calls for the extension of volumetric charging to wastewater services. We agree and note that developments in technology now mean that it is possible for a provider to:

- charge using a proxy - the commonly used benchmark in overseas jurisdictions is to charge for sewage based on 80 percent of winter water use
- charge by metering the volume of wastewater disposed directly.

Such a charge would act as a further incentive to customers to install water saving technology such dual-flush toilets or consider onsite treatment and disposal solutions. It's also consistent with the notion of managing drinking water and wastewater as an integrated whole.

Charging for road use

The draft contains a suite of recommendations around congestion pricing, namely

- implement congestion pricing and/or road tolling to improve urban accessibility (recommendation c3.3). This includes a recommendation that legislative barriers to congestion pricing and/or highway tolling be removed
- use congestion pricing to plan for new transport infrastructure (recommendation c3.2)
- plan for congestion pricing schemes in other NZ cities (recommendation c3.3).
- ensuring that non-built transport solutions are considered first (recommendation F1.4) amidst a broader recommendation around non-built solutions being considered first (recommendation s3.2) and
- developing a pathway and transition plan for shifting all vehicles onto time, distance and level of service transport pricing (recommendation s2.3). The text of this recommendation links specifically to recommendation 3.3.

Taituarā agrees with this suite of recommendations and broadly with the apparent pathway that has been identifed and what appears to be an end-destination of 24/7 road pricing. We agree, congestion pricing is only a start.

Policy work on these matters has gone around in circles. Road pricing and tolling sat on policy agendas since the original four-volume study undertaken a generation ago. There have been any numbers of studies on road pricing in the past 15 years, not counting the original and not counting various consultations (such as *The Congestion Question*). All that is required is the political will to proceed instead of this 'kicking of the can down the road'.

Road pricing as the end goal

Much of the local government sector has long supported the introduction of road pricing both as a means of generating funding for the land transport network and, just as importantly, as a demand management tool.[19] As long ago as 1993 the then Local Government Association and representatives from the Automobile Association and the Road Transport Forum supported the introduction of 24/7 road pricing.

Even at that time there was a recognition that this would rely on having the technology in place as the necessary pricing signals would see charging dependent on time of day, location, and the nature of the vehicle.

The technology is available, and has been tested and proven reliable for road pricing purposes in overseas jurisdictions and also as the basis for tolling on at least two of the three toll roads in this country. The D'Artagnan Consulting report concluded that *"Automatic Number Plate Recognition (ANPR) technology has lowered in cost and become much more reliable"*.[20] Further it notes that Global Navigation Satellite System (GNSS) technology has matured to the point where it is being trialled for use to administer time, location and distance based pricing in Singapore from 2020 and potentially in London soon after that.

We agree that the introduction of road pricing will raise very challenging policy questions. For example, at the present time it appears road pricing is only under serious consideration as a tool for managing demand in Auckland, but is there a case for introducing the tool elsewhere either on a limited basis or more generally?

We accept that true 24/7 road pricing will have, and is intended to have a major impact on the microeconomy of road transport, and through that impacts on modal choice and land use (both urban and rural). It seems that the introduction of road pricing has been subject to a case of paralysis by analysis. It is time to remove this policy 'blockage' and bring this work to a conclusion.

Road tolling

New Zealand has only recently begun to explore the potential of road tolling. At the time of writing there are three toll roads in operation in New Zealand: the Northern Gateway Toll Road north of Auckland, the Tauranga Eastern Link Toll Road and the Takitimu Drive Toll Road, both in Tauranga. Historic use of tolling has been confined almost exclusively to bridges and has been characterised by excessive levels of political interference.[21]

Section 46 of the *Land Transport Management Act 2003* provides for road-tolling schemes on issuance of an order-in-council by the Governor-General (on the recommendation of the Minister of Transport). This means that road-controlling authorities can toll a road only if central government agrees to the proposal to toll.

19 See for example. Local Government New Zealand et al (1993) *Land Transport Funding A Submission to Government*.
20 D'Artganan Consulting (2018), page 99.
21 For example, the toll on Tauranga Harbour Bridge was removed as part of negotiations following the 2005 general election as one of the conditions of a confidence and supply agreement.

The Minister is expressly authorised to decline proposals, amend proposals, or place any condition on a proposal – as the Minister sees fit. Tolling is only permitted on new roads – and is expressly prohibited in most other circumstances.[22] For example, a local authority could not toll to fund an increased level of service, such as a capacity extension, on an existing road. And last, but by no means least the Minister must be satisfied there is a feasible alternate route to the tolled road.

This is a stringent set of criteria to meet, coming on top of public consultation. It is no surprise that no local authority has ever managed to complete the process. Given that these schemes can easily become politicised even after operating for some years they can be a fiscal risk.

Tolling of new and existing roads could be a useful intermediate step to full road pricing as both a revenue raising tool and a demand management tool. The main barrier to tolling an existing road is public acceptance – concerns that the road user has "already paid for the road" do not recognise either the full-life cycle of the roading asset or the full economic costs of road use. A 2018 Review of International Road Pricing Schemes, Previous Reports and Technologies undertaken for the Ministry of Transport concluded that clarity on use of revenues is critical to public acceptance.[23] A publicly accepted plan will overcome many of the public objections to tolling.

Even with road pricing some variants of tolling might be worth retaining. For example, cordon-tolling of the form used in cities such as London might be a better option in cities with only a limited number of access routes (such as Wellington).

The legislative amendments are not complicated (it appears to be an amendment to a small number of legislative provisions). As with road pricing, all that is required is the decision to proceed.

Modal shift

The soundest of economic theories can be undone in practice, and road pricing is no different. For road pricing to produce the modal shifts necessary to meet demand management objectives, the tool must be developed alongside the development of alternatives to the private car. This includes initiatives such as passenger transport (which need not only be passenger rail!), car-sharing schemes, cycle and walking facilities, and more laterally such as teleworking (in the very long run distributed manufacturing such as 3-d printing/scanning of some items or in some media).

We see this reflected in the so-called transition plan and in references to business cases bound into processes such as the Keep Wellington Moving programme. But even here, there's a tendency to let 'great' be the enemy of getting things done. The Commission should specify an ideal 'go live' date for the first of the road pricing schemes.

Other matters

The introduction of road pricing etc, raises potential issues regarding equality of access for those with low incomes and the potential to exacerbate transport disadvantage. Some transport choices come with some means for recognising particular income or access issues through concessionary fares. It also underscores the need to have alternative modes of transport in place to coincide with these measures. These should be explicitly considered in the transitional plan.

22 *Section 46* of the *Land Transport Management Act* allows tolling of an existing road only where the Minister is satisfied that the existing road or part is located near, and is physically or operationally integral to, the new road in respect of which the tolling revenue will be applied

23 D'Artganan Consulting (2018), *Review of International Road Pricing Schemes, Previous Reports and Technologies* – review undertaken for the Ministry of Transport, page 131.

Recommendations

Taituarā recommends that:

33. the *Land Transport Management Act* be amended as soon as practicable to empower road-tolling on any road
34. the transition plan in recommendation s2.3 include a specific 'go-live' date and plans for the provision of alternatives to private road use
35. the transition plan include explicit consideration of equity of access for the transport-disadvantaged.

Taxation of tourism

We generally agree with recommendation s2.1. While international tourism has basically ceased since the outbreak of Covid-19, the temporary respite provides some opportunity to 'catch-up' on past underinvestment and put at least some of the necessary infrastructure in place advance of the resumption.

The last part of the recommendation suggests an application for funding would be granted if and only if they can demonstrate they have explored all other means to finance infrastructure pressures caused by tourism. The present set of tools are somewhat limited.

Local authorities have investigated means of sheeting home an appropriate share of costs to those businesses that are deemed to benefit from tourism, or to finance schemes promoting tourism – primarily commercial accommodation. We have seen local authorities target commercial accommodation through applications of a differential on a general rate, or more recently the introduction of targeted rates on commercial accommodation.

These rates have typically been controversial in the lead up to and at introduction – as we write this submission we've seen media reports that Auckland Council has spent some $1.5 million on litigation to defend a decision to introduce a targeted rate on accommodation. Typical objections include that taxation based on the value and other characteristics of land is not suited to rating an occupancy-based business (though what other business is rated based on the level of capacity it has but does not make use of).

More cogently it argued that not all providers pay the tax (this has become especially prevalent with activity such as Airbnb). The Productivity Commission recommended that central and local government work together to develop a register or other means for identifying all properties used for commercial accommodation. That has not been advanced, indeed MBIE seems implacably opposed.

From time to time the notion of a 'bed tax' is brought forward. These are often, though not always levied as an additional flat amount on or a percentage of, the nightly tariff (or less frequently the total bill). Local Government New Zealand has this to say about tourist tax:

"The concept of a local tax to fund disproportionate costs borne by a specific community has been tested and proven in the Stewart Island. The conditions which need to be satisfied for efficient local selective tax can be isolated and described so that other communities which meet those requirements might have the option to introduce their own tax.

These conditions might involve a reasonably close relationship between the expenditure being taxed and the activity being funded (eg visitors and tourist related infrastructure), a tax design which involves little distortion to regional economic activity by minimising the incentives to shift production across regions simply because of the local tax, and comparatively low compliance and enforcement costs (eg Stewart Island can collect the levy at points of entry)."[24]

We consider that powers to set coercive taxes should not be issued holus-bolus. The process could be streamlined by passing a single enabling Act that would allow access to these forms of taxes with approval of:

- the Minister of Local Government (and/or the Minister of Finance) or
- the Governor-General in Executive Council.

Some basics features or safeguards that might be part of an enabling Act include the following:

- a set of conditions or criteria for a local tax including any limitations (e.g. central government would probably wish to reserve income tax and consumption taxes for itself)
- an identifiable or measurable unit of liability, including a means for verifying or appealing measurement of a unit of liability
- appropriate linkages to the accountability framework of the Local Government Act (especially the long-term/annual plan and the funding impact statement provisions).

Recommendations

That the Commission:

36. include an endorsement of the Productivity Commission's recommendation that central and local government work together to create means for identifying short-term accommodation providers in the strategy
37. include a recommendation in the strategy which endorses taxation for tourist related purposes subject to the appropriate basis and accountability.

Rating of Crown land

"The rating exemptions on core Crown land do not appear to have a principled justification".[25]

Taituarā agrees that the Crown should be paying fairly determined rates on all properties. Rates exemptions provide, and are intended to provide, a ratepayer funded subsidy on the provision of the exempt service. Any standard economics textbook will set out how subsidising an activity distorts the decision-making processes (by providing incentives to overproduce the subsidised service). The Productivity Commission has noted that:

"Rating crown land would encourage agencies to use land more efficiently, and release land that is not required. The Crown, in principle should face the incentives as the private sector to hold land. . . "[26]

24 Local Government New Zealand (2015), *Local Government Funding Review – 10 Point Plan: Incentivising Economic Growth and Strong Local Communities*, page 15.
25 Productivity Commission (2015), *Using Land for Housing*, page 90
26 Productivity Commission, *Using Land for Housing*, page 90.

Some claim non–rateable properties are held for public good purposes (i.e. are meeting some purpose that is deemed to be a national good). This is superficially attractive, but fails on closer analysis. The national good argument is an argument for national funding of the rates on these properties.

Local Government New Zealand has estimated that removing rates exemptions would cost the Crown about $180 million. The sector would be willing to discuss arrangements for transition towards the removal of exemptions, and would be willing to help contribute to resolving some of the issues this might raise (such as valuation methods for land where there is no active market).

The Crown has also given itself an exemption from any obligation to pay a development contribution on properties in development. These are charges levied on development to fund the capital costs arising from growth.

Crown developments such as new schools, tertiary education, prisons, social housing developments and the like require council provided infrastructure to function. In some cases this requires the provision of a peak capacity – for example school sewage disposal needs to be built for a thrice daily peak demand.

Some developments, such as tertiary establishments, high schools and some of the planned housing developments are/will be the size of small communities. As with rates exemptions, an exemption on development contributions sends extremely poor signals around the use of land.

Development contributions are not a tax – they are more of a targeted charge for a service. The (specious) rationale that the Crown does not pay tax is not available in this case – making this one of the more blatant examples of expectation that the ratepayer subsidise the Crown. This should be removed forthwith.

Recommendation

That:

38. the strategy include a recommendation supporting the removal of the Crown exemption from paying development contributions.

Taituarā

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