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# New Zealand Infrastructure

Trends & insights

chapman tripp **(** 

# Hard slog to progress



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# Hard slog to progress

When we got together in August to brainstorm the content for this publication – and, yes, there was a whiteboard in the room – the comment that best captured the mood was "everything seems to feel hard, messy and slow". And as the text came together, that became a consistent theme.

The optimism which infused our 2020 issue – New Zealand infrastructure – ready for lift-off? – is now harder to maintain.

We had been encouraged by the vast infrastructure spend the Government had embarked on as part of its COVID response and by the policy action it had undertaken – in particular, the passage of the Infrastructure Funding and Financing Act (IFFA), the various initiatives to promote residential development, the Three Waters programme and the planned rewrite of the Resource Management Act (RMA). Transactions are now beginning to trickle through under the IFFA, although the process can be cumbersome. The Three Waters package has an uncertain future. And, while the introduction of the Natural and Built Environments Bill (NBE Bill) and the Spatial Planning Bill have provided some clarity as to what the post-RMA era will look like, they are a mixed bag so far as infrastructure is concerned.

The "alternative infrastructure and specified housing pathway", provided for in the NBE Bill, would carry some of the efficiencies available under the COVID fast track legislation into the new structure. But there is little sense of how the transition phases would be managed and the Bill, as currently drafted, contains no provisions to facilitate the relocation or upgrade of infrastructure facilities in response to climate change. The area of greatest change since 2020 is housing, where supply is beginning to catch up with demand and prices are trending down. However, indications are that the correction will be sharp, with higher mortgage rates and/or negative equity causing significant grief to many new home owners within the next 18 months. And homelessness is still a serious issue.

Fortunately, we added a caveat to our 2020 commentary, noting that the border restrictions had exacerbated New Zealand's persistent skills shortages and that the economic damage created by the pandemic had put many businesses into retrenchment mode. With access now to the special wisdom that comes with hindsight, we can say that the recovery is going to be longer and more difficult than we had anticipated. Much of this is due to forces beyond New Zealand's control - global inflation, continuing supply chain disruption, the Russian invasion of Ukraine, and the spluttering Chinese economy.

But there are also factors that are specific to New Zealand – the deterioration in the revenue base for the National Land Transport Fund, rigidities in the IFFA model, a directionless regime for new renewable generation that penalises first movers, and a lack of coherence among the various National Planning Statements and between them and the Emissions Reduction and National Adaptation Plans.



The infrastructure sector is experiencing significant policy reform as the Government responds to climate change and seeks to redress a decades' long pattern of systemic under-investment.

> The infrastructure sector is experiencing significant policy reform as the Government responds to climate change and seeks to redress a decades' long pattern of systemic under-investment. The broad contours of the new regime are in place. The gaps are in the little brush strokes which bring the picture alive and make it intelligible.

To some extent this is unavoidable, given the volume and pace of change, as it is impossible for policy-makers to do everything at once and to anticipate exactly how a policy will land. But the effect is that, while there are a lot of projects in prospect, there are also a lot that are in trouble - logistical and/or financial - or are being held up for regulatory reasons.

# RMA system – a battle for consistency

Although the focus has been on the hills - the three new Acts to rewrite the resource management system - the Government has not been idly waiting for the New Order to be delivered.



Paula Brosnahan Partner

It has been developing content in the form of National Policy Statements (NPSs), and it has been creating new imperatives through its climate change response.

The NPSs are provided for under the Resource Management Act 1991 and will likely be carried through. substantially unchanged, into the new legislative structure. Three have been created under an Ardern government:

- the 2020 NPS Freshwater Management
- the 2020 NPS Urban Development, and
- the NPS Highly Productive Land, which came into force on 17 October 2022.

This has brought the number to six, beginning with the compulsory NZ Coastal Policy Statement of 2010. Next on the conveyor belt is the NPS Indigenous Biodiversity.

Each NPS has a different frame of reference, which makes sense, but they don't talk to each other, which can cause problems. They don't even use consistent concepts similar, maybe, but not the same.

These inconsistencies of intention and language are creating uncertainty and inhibiting progress on the ground, for example:

- the friction between the prodensity thrust of the NPS Urban Development and the recent Building Code amendments, which penalise the embodied emissions in high rise concrete buildings, and
- the lack of a parallel NPS to enable the strengthening and upgrading of infrastructure services - in particular three waters and transport - to support residential intensification under the NPS Urban Development.





There are also tensions between the NPSs and elements of the Government's climate change strategy, including the Emissions Reduction Plan and the National Adaptation Plan. Examples include:

- the exposure of renewable generation hydro dams to the allocation limits and national bottom lines in the NPS Freshwater Management as their current terms expire, despite limited ability to make changes
- lack of enabling provisions for walking and cycling infrastructure in the coastal environment, despite the Emissions Reduction Plan encouraging these transport modes, and
- the constraining effect the environmental protections in the NZ Coastal Policy Statement may have on the need to strengthen or relocate ports, roads and parts of the rail network to achieve climate resilience.

There is currently no direction as to how conflicting provisions are to be weighed one against another. This can be fatal for infrastructure projects, particularly those that don't have flexibility over sites, routes or corridors.

The NBE Bill recognises that all the moving parts must work well together and provides for a mechanism to achieve this in the form of a National Planning Framework (NPF), to be set through a Board of Inquiry process, which is likely to take at least two to three years.

A lot of big decisions will be made through the NPF – for example, the principles and methods to be applied in allocating water rights, which may affect the limited recognition that NPS Freshwater Management currently gives the big five hydro schemes<sup>1</sup> - so it is appropriate that time is allowed for adequate stakeholder input.

But investors also need certainty. So we are encouraged that the Government recognises the need for speed and has provided funding for the development of the NPF in Budget 2022.

Ideally this will mean that much of the preparation and consultation can be done in advance of the NBEA coming into force.

1 Waikato, Tongariro, Waitaki, Manapouri and Clutha

# A high level perspective

The focus of this map is on projects in the transport, energy and climate change response areas because they are a large part of the current infrastructure effort and have strong thematic links.

We have not sought to include every project, just a representative cross-section. So you will not find every wind farm or every solar farm, every roading development or every rail development.

#### Public housing spend

The public misery of homelessness and the spectacular failure of KiwiBuild - 1,000 homes promised by 1 July 2019 and only 1,430 built by October 2022 - continue to cast a deep shadow over the Government's public housing efforts. But progress is being made.

According to the Housing Dashboard, more than 10,688 public homes have been built since June 2017 and Kāinga Ora has eight Large Scale Projects in progress, to provide more than 40,000 new dwellings.

To ensure funding for these developments, the Government this month increased Kāinga Ora's borrowing capacity for the current financial year by NZ\$2.75b, to be accessed through the New Zealand Debt Management Office.

Financial assistance is also available to territorial authorities, iwi and private developers through the \$1b plus Infrastructure Acceleration Fund. As at 21 July, \$179m of this had been committed to provide 8,000 new homes.



and Jjects	<b>Key:</b> Energy	Waste (	Climate $\bigcirc$ Transport
Lake Onslow NZ Battery Project	14		Te Rere Hau Windfarm Repower
Completing electrification of main trunk line	15	<b>(</b>	Ballance- Hiringa Wind to H2 project
Transmission Gully	16	$\bigcirc$	Let's Get Wellington Moving
City Rail Link	17	$\bigcirc$	Auckland Light Rail
Puhoi to Warkworth	18	<b>(</b>	Proposed multi offshore wind farms project
Project iRex	19	<b>(</b>	BlueFloat Energy Raglan offshore
Matata/ Westport/ Riverlink	20	$\bigcirc$	Tarras Airport
Central Interceptor	21	•	Te Huka Geothermal Expansion
Auckland International Airport Terminal	22		Harmony Energy Tauhei Solar Farm
Southern Green Hydrogen	23	•	Kaiwera Downs Wind Farm
Lodestone Energy Solar Farms	24	₩J	Auckland Regional Landfill

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Todd Generation Solar Farm

Te Ahi o Maui

Geothermal

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**Non-site specific** 



SH EV charging project

Coastal shipping

## **Consent fast lane** for infrastructure

Environment Minister David Parker has been keen throughout the resource management law reform process to reassure infrastructure providers that he recognises their contribution to New Zealanders' quality of life and that this will be reflected in the new regime.



#### As late as August he was saying:

"I have a view that cumulative, adverse but widespread effects are a greater problem than the adverse effects of infrastructure, and that often infrastructure is necessary to avoid adverse effects".

Environment Minister David Parker

Now we know what he had in mind; the alternative consenting process for specified housing and infrastructure in the Natural and Built Environments Bill (NBE Bill).

Intended as a fast lane for infrastructure consenting, it will apply across a wide range of public and private infrastructure (telecommunications, airports, three waters, electricity transmission/distribution, public roads, rail, defence facilities).

#### **Process**

Applications must be made to the Environmental Protection Authority (EPA) but will be decided by the Minister. The applicant must: explain why the pathway is more appropriate than the usual consents procedure; provide an assessment of the activity's environmental effects, and if the project is to be staged, explain the nature and timing of the stages.

If the Minister gives the okay, and the EPA is satisfied that the information supplied is complete, it must refer the application to an expert consulting panel within 20 working days. The panel may elect to hold a hearing but there is no requirement on it to do so and the Bill confers no right to be heard.

If a hearing is held the panel must:

- avoid unnecessary formality
- recognise tikanga Māori, where appropriate
- receive evidence, written or spoken, in Māori, and
- disallow anyone outside the panel from questioning parties or witnesses, although the chair may give leave for "cross-examination".

A panel considering an application that includes multiple activities may issue a series of decisions to enable the activity to be undertaken in stages. This flexibility is new, and will help speed up construction. But it also creates risks for infrastructure builders and funders as to whether later stages will get approval.



#### **Decision-making timeframe**

A panel must make its final decision as soon as practicable after it has completed its consideration of the issues and must produce a written report:

- no later than 60 days after the closing date for submissions (where no hearing is held), and
- where a hearing is held, no later than 90 days after the closing date for submissions.

Extensions will be allowed subject to criteria to be set in regulations.

The written report must:

- state the panel's reasons for the decision include a statement of the
- principal matters that were in contention and the panel's main findings in respect of those matters, and
  - specify the date on which the consent or designation will elapse unless it is given effect to (this must not be later than two years).

Appeals on a question of law can be made to the High Court and on to the Court of Appeal, but no further.



#### Comment

The Minister's intent to speed up infrastructure consenting is clear, but whether the Bill will achieve the outcomes he is seeking is too soon to tell - the devil, as always, being in the detail.

The new process is far less complex but we consider that it is a mistake to carry forward the two year cap on lapse dates from the COVID-19 fast track legislation and that it doesn't make much sense in a post-COVID context. Larger and longer-term infrastructure projects typically need more than two years to be shovel-ready.

Meanwhile other aspects of the NBE Bill may create new road blocks, including the strengthened protections it would provide to environmental features and cultural landscapes. But there will be the opportunity to make changes as the Bill proceeds through the House.



Luke Hinchev Partner

## National adaptation plan – all hat, no cattle, for now

The National Adaptation Plan (NAP) setting out the Government's response to the Climate Change Commission's 2020 risk assessment analysis is, in the US vernacular, all hat, no cattle – at least at this stage.



Alana Lampitt Partner

The NAP is intended to set out the Government's vision for how the country will adapt to the 'baked in' effects of climate change. But most of the working parts that are needed to give effect to the strategy are yet to be developed, or are yet to be integrated into a mutually reinforcing framework.

This will be a source of considerable frustration to the infrastructure sector which is very much on the front line in the climate change challenge – both as asset owners and as essential service suppliers.

Modelling by the OECD of the potential effects of a major flood in Paris, for example, found that 30% to 55% of direct flood damages would be sustained by infrastructure assets and that 35% to 85% of general business losses would be caused by disruption to transportation and electricity supply, rather than by the flood itself.

But, from an infrastructure perspective, the NAP does little more than sketch out a path forward.

- The tools it promises to assist businesses to measure their climate related risk are not yet available, but many infrastructure owners are already having to undertake that work (paying for pricey private data sets) as part of the incoming climate related disclosures regime or the lifeline utility disclosure requirements under the Zero Carbon Amendment Act.
- Neither the NAP nor the Natural and Built Environments Bill (NBE Bill) contain any provisions to facilitate the forced relocation or upgrade of infrastructure facilities (although they could easily be accommodated in the alternative infrastructure and specified housing pathway in the NBE Bill, discussed earlier in this publication.

• There is no real detail in the NAP or the Spatial Planning Bill regarding how the costs of climate change adaptation will be funded or socialised.

So the cowboy's landscape now is mostly empty paddocks, with cattle just detectable in the mist.

#### Policy detail to come

Three large policy developments are due before the end of next year.

#### Resource management system rewrite

The NBE Bill and the Spatial Planning Bill have now been released. But the NBE Bill, which contains the new consenting and planning regime, runs to more than 800 pages, and the climate adaptation aspects are still a work in progress, yet to be exposed to select committee scrutiny, or fleshed out through plan implementation, which will take a number of years.

It also, as now drafted, contains some blood pressure raising provisions - in particular a power for district and regional plans to constrain existing use rights and to cancel established land use consents for limited purposes, including in pursuit of climate adaptation objectives.

Infrastructure owners will need to engage in the Board of Inquiry process for the National Planning Framework (discussed earlier in this publication) to ensure adaptation obligations are pragmatic and aligned with business expenditure planning.



#### **Climate Adaptation Bill**

Scheduled for introduction next year, the Climate Adaptation Bill will deal with what Minister Parker describes as "the complex technical, risk sharing legal and financial issues" associated with rising sea levels.

This is vitally important because, if the Government doesn't set out clear rules for cost allocation (and probably, even if it does), the matter will be litigated through the courts, at significant expense and delay.

Which New Zealand cannot afford as the stakes are very high – one in seven New Zealanders lives in flood-prone areas and the weather effects of climate change are getting more extreme by the day - 2021 was New Zealand's warmest year on record and July this year, our wettest month.

#### The Future for Local Government Review

This is due to be completed with recommendations to the Government in mid-2023. Topics include how local government funding and financing can better ensure viability and sustainability, when local authority funding responsibilities should be shared with other local authorities or other partners, and when central government co-funding might be justified.

Much of the cost of climate change adaptation will fall on an already cash-strapped local government sector which has long resented the way central government accrues to itself the revenue benefits of economic growth, no matter what made the growth possible and where the consumption occurs.

Until these issues are resolved, the pace of New Zealand's climate change response will be impeded.

### **Diagnostic and decision**making tools

Officials are also developing a range of instruments to inform better decision-making, two of which are targeted directly to the infrastructure sector.

Te Waihanga is preparing processbased guidance for infrastructure owners to evaluate risks to their physical assets and to the services they provide. This will be designed to integrate into enterprise risk management systems and will deliberately reflect the obligations of lifeline utilities under the Civil **Defence Emergency Management** Act 2002, so that climate risk and impact assessment doesn't become an additional administrative burden.

And the Government is investigating the costs and benefits of introducing a standard or code for resilient infrastructure. The OECD explored this issue in a 2018 policy paper, identifying two categories of changes that may be required:

- structural adaptation measures - e.g., changing the composition of a road surface so that it will not buckle under high temperatures, building seawalls or using permeable paving surfaces to reduce run-off during heavy rainfalls, preferring ecosystem-based solutions where possible, and
- management adaptation measures – e.g., calibrating maintenance schedules to account for changing patterns of energy demand and supply, investing in early warning systems or taking out insurance against the financial consequences of climate variability, and enhanced monitoring of existing assets to reduce the risk of failure.

We expect that infrastructure owners will be consulted on whether there is value in developing a code and, should the Government decide to proceed, on the design and content of the code.

## Counting the costs of consent

Electricity demand is breaking new records on a regular basis with Transpower data showing that five of the 10 top daily peak loads in the last 10 years occurred after 20 June this year.



Simon Peart Partner



delivery challenge - even before we feel the full effects of electrification. There is significant activity on the

So New Zealand already has a

supply side, which we are aware of directly through our practice and which is showing up at Transpower through a sharp uptick in connection inquiries – from around five per year to already more than 80 in the current financial year.

If all this inquiry interest comes to fruition, Transpower's estimate that the proportion of electricity generated by renewable sources will be around 95% by 2025 – up from around 85% now - could be on target. But that is a very big "if", because an increased reliance on wind and solar will force a change in approach, creating a more problematic investment environment for Transpower.

Historically New Zealand has avoided overbuilding generation capacity in order to contain end-user costs, and because we could afford to run skinny margins as thermal and dammed hydro production can be dispatched as needed – undisturbed by whether it's day or night, sunny or overcast, windy or still.

In future we are going to need a bigger buffer.

The Government is fingers-crossed for the Lake Onslow pumped hydro storage scheme but the industry, and Te Waihanga, are profoundly sceptical about the project's practicality. Other than Onslow, we're essentially tapped out for new hydro

opportunities - which means that demand growth, and the replacement of ageing thermal plants, will have to come from wind and solar.

That has a number of consequences. It will require: (1) overbuilding renewable generation to ensure we can meet peak load; (2) having somewhere to park the excess when wind and solar production exceeds immediate demand (the function the Government hopes Onslow can fulfil), and; (3) having the flexibility to manage peaks - which means either paying generators to have generation available that they don't expect to use very often, or paying load customers to reduce demand at peak periods.

Getting private sector investors to pay for that is a tough sell, particularly given:

- the location of our renewable resources (of the 11GW new wind and solar generation that Transpower has been advised is under active consideration within the next 30 years, 5GW is in remote regions), and
- the current regulatory regime, which is directionless, penalises first movers and does not support the coordinated strategic investment that we need.

We know through our clients that there are a number of projects underway, that the money is there, the feasibility studies are being done and the operational engineering challenges are being worked through.

But the policy framework is hopelessly behind with the Ministry of Business, Innovation and Employment (MBIE) still in the "scoping" phase of the Aotearoa New Zealand Energy Strategy, with completion not due until the end of 2024.



Transpower estimates that the proportion of electricity generated by renewable sources will be around:



The good news is that Transpower is consulting on a solution which would create a platform for investor coordination through Renewable Energy Zones (REZs) - a model that is recommended by Te Waihanga and has been used successfully in Australia and the US.

Whether New Zealand goes down this path is not Transpower's call. Transpower is simply flagging the issue and testing the market, consistent with its responsibility to ensure security of supply.

The Electricity Authority is the more natural choice for regulator. But, as demonstrated by the Transmission Price Methodology reconfiguration, which took more than a decade to land, the Authority is more comfortable working within clear policy settings in which decisions about cost and benefit allocation have already been made.

The policy will have to be written by Ministers or by MBIE. They will need to determine how a REZ is constituted, the rules for participation, how the costs can be fairly allocated, and how investors can have some surety that they will continue to have the benefit of their investment.

All this is guite do-able - especially as New Zealand can draw from the Australian and the US models.

But some urgency attaches to the task. If we wait too long, we risk defaulting to investment outcomes that won't optimise our renewable potential, and will create barriers to further tranches of renewable generation.

Policy-makers and regulators need to act now to ensure an accommodative regulatory environment which will enable the development we all agree is essential to achieving our decarbonisation goals.

# up from 85%

#### **30 year infrastructure**

The Infrastructure Commission Te Waihanga 30 year strategy advocates that New Zealand encourage larger-scale windfarms, including offshore, to harness our high wind speeds.

It acknowledges that these would need to be supported by low cost backup generation for wind-free days when demand is high and hydro storage is low. But it points out that, even if the Lake Onslow project proves viable, it will not be available until 2037 at the earliest. It also considers that emergent technologies like hydrogen and ammonia would be a longshot as they are expensive, in part because of very low conversion efficiencies.

Approaches it recommends as offering better value are inter-seasonal battery storage, biomass peakers and demand response from electricity users.

# Will the Government keep its nerve on **Three Waters**

A One News public poll in January this year found:



New Zealand is a long, skinny, sharp-boned country, much of it very lightly populated, and currently served by 67 water authorities, the majority of them struggling to sustain quality Three Waters services.

The system has been chronically under-funded for years, accumulating a collective infrastructure deficit of around \$180b, and characterised by almost daily failure, so the need for reform is almost universally accepted.

#### So far, so easy.

The legislation, the Water Services Entities Bill, will create four Water Service Entities (WSEs). each owned by the territorial authorities within its boundaries.

The WSEs will be subject to a two-tier governance structure comprising:

- a regional representative group, made up of an equal number of representatives from territorial authority owners and mana whenua, and
- an independent, competencybased professional board.

Privatisation would be almost impossible to achieve - requiring the unanimous backing of each relevant territorial authority, plus at least 75% support from the regional representative group, plus at least 75% of the votes cast in a referendum across affected communities.

The Bill was changed before introduction to reflect the recommendations of a council/ iwi working group appointed by the Government in October last year to seek to allay council concerns around ownership and the ability to maintain a local voice within the new regime. It will now be subject to a further round of similarly themed amendments arising from the select committee process.

The effect of these changes in combination will:

• expressly recognise that the local authorities will continue to be the "plan-makers" and that the WSEs will be "plan takers"

- require that each WSE must hold a public shareholders' meeting each year, establish at least one forum to test consumer needs and requirements, and prepare an annual consumer stocktake
- expose the WSEs to increased audit scrutiny and reporting requirements, following criticism from the Auditor-General that the original accountability provisions in the Bill were not strong enough as (unlike councils) WSEs could not be directly held to account by ratepayers or by the Auditor-General's Office.

The Bill has the votes to pass as it is supported by Labour, the Greens and the Māori Party. If passed, the WSEs would commence delivery of services on 1 July 2024.



But the future may not be plain sailing as the politics have become increasingly fraught and the line between National and Labour couldn't be sharper.

National says it will repeal the Act, meaning that the WSEs would be stillborn. Labour says the status quo is untenable and is still holding firm to the core policy settings for the WSE model, saying it "will enable more consistent and higher quality planning and provision across the country".

But with a general election due next year, there remains some prospect that the Government will simply tread water on the Bill (pun intended) if it judges the political costs of proceeding with it are too high.

# Was peak house unaffordability a 2021 thing?

Housing unaffordability in New Zealand may have peaked on 1 January 2022 when the average price across the country hit \$1,063,765. Since then, it has been coasting downhill, gently in some areas, quite sharply in others.





As at the end of October, the national average price was sitting at:

Change in 12 months: -3.9%



This is not to suggest that housing is now affordable.

The game changer was the Reserve Bank decision to raise interest rates and to signal that further increases are on the way, but this is a two-edged sword.

The higher mortgage servicing costs will take some people out of the market and will tip some recent buyers into negative equity and force some into mortgagee sales.

The strength of those effects will determine the severity of the price adjustments and whether and to what extent they will dent New Zealanders' long love affair with property.

A joint report by the Reserve Bank, Treasury and the Ministry of Housing and Urban Development attributes the dysfunction in the New Zealand housing market to restricted land availability which has prevented rising demand from flowing through to increased supply, instead driving up prices.









Te Waihanga estimates that 115,000 new homes are needed over the next 30 years to address New Zealand's current housing "crisis". The estimate didn't fall on empty ground - the number of residential building consents has risen each year since 2017 and broke through the 50,000 barrier for the first time in the year ended March 2022.

However, this may have been the apex. The National Construction Pipeline Report 2022 is forecasting that the rate will drop back to just over 37,000 dwellings a year over the period to 2027, and that residential building activity will drop from a high of \$30.6b in 2021 to a low of \$19.6b in 2027.

This will be a case of the economic cycle defeating policy tweaks intended to remove the barriers to, or incentivise, new residential development, in particular:

- the requirement, effective from August 2022, that councils in the greater urban areas of Auckland, Hamilton, Tauranga, Wellington, Christchurch, and Rotorua Lakes permit up to three dwellings per site, each up to three storeys, without requiring a resource consent
- changes to the Building Act last year to reduce the barriers to modular and pre-fab housing
- the market study into the building supplies sector and the likely government response to the Commerce Commission's recommendations, and
- tax incentives for developers to build long-term rental options.

## Managing supply risk – 'the new black'

## Supply chain risk five step process



Identify risks

Assess likelihood and impact of risks

The relative stability created by the World **Trade Organisation** rules-based system, the eye-watering commercial opportunities created by the industrialisation of China and – later - the emergence of a Chinese middle class, have forged unprecedented levels of economic integration, expressed through just-in-time global supply chains.

That these were always an act of faith seems obvious now that their fragility has been exposed through the pandemic, the Suez Canal blockage, the war in the Ukraine and the developing tensions between China and the US.

Even without these disruptors, however, firms would need now to be reviewing their supply chain arrangements as part of their climate change risk disclosure obligations and/or the impending modern slavery reporting requirements.

See Chapman Tripp's k commentary here.

On 8 November, the Government asked the Productivity Commission to run an inquiry into the economy's resilience to supply chain disruptions. And the Ministry of Transport is developing a Freight and Supply Chain Strategy, which we hope will ultimately lead to an improved domestic operating environment by creating a more integrated network in which it is easier to switch between freight modes.

Some progress is already being achieved on this front through the Government's recent investments in both KiwiRail and the coastal shipping sector. But for business, this is all iust context. It does not remove the immediate need to mitigate supply chain disruption.



Quantify risks

Mitigate risks

#### So what's to be done?

#### Process

Supply chain risk should be approached in a similar way to other risks. That starts with the five step process shown above.

#### **Risk assessment**

Begin your risk assessment by mapping the supply chain and take a broad approach. It is easy to forget key inputs. Taking a simple example of the local café producing your morning takeaway coffee, at least the following will be relevant (some of which might not immediately come to mind):

- fixed assets premises, espresso machinery, fridge, till/eftpos
- consumables coffee beans, cups, milk range, sweeteners
- labour barista
- external services power, banking, machine repairs.

You will need to develop an understanding of any critical vulnerabilities. Some things you can do without (trim milk can probably be substituted for full-fat), some you just can't (it's hard to make coffee without beans...). Getting visibility of your entire supply chain won't always be easy - open conversations with your main suppliers will assist.

#### **Mitigation options**

These will vary from business to business and within businesses may vary from product to product, market to market, and supplier to supplier. They might include:

- diversifying supply to reduce your dependency on a single supplier and/or product
- bringing some production in-house
- relocating some activities closer to your end market
- switching to New Zealand suppliers where possible for domestic businesses.







Monitor and review risks

stockpiling critical components

At its core, the goal should be to build a resilient supply chain. Just-in-time has had its time. Resilience is the new black.



Bevan Miles Partner

# Supply chain risk mitigation in the construction sector



The project by project nature of the construction sector, and the length, complexity and size of construction projects, make it particularly vulnerable to supply chain disruption – as evidenced in the recent issues with GIB board. The initial response when the pandemic hit was to insert specific standalone 'COVID' clauses into contracts because, at that time, COVID was clearly the cause of delays. However, now that it is becoming evident that the COVID experience has created a new normal, we are seeing some basic changes in supply chain risk allocation which we expect will be enduring.



Kylie Mutch Senior Associate

#### **Extensions of time**

Responsibility for extensions of time due to supply chain issues was typically assigned to the contractor but contractors are now, quite reasonably, refusing to accept this risk given the unpredictability of delivery. There is some difference of view between principals and contractors around whether the entitlement should be limited to delays in deliveries of materials, or whether delays caused by plant and labour availability should also be included.

#### **Cost escalation**

Fixed price lump sum contracts used to be the norm but, in the current high inflation economy, are increasingly difficult to get over the line as contractors are no longer willing to carry the risk of cost escalation.

An alternative is the progressive lump sum contract in which a portion of the contract price is fixed – usually including onsite, offsite and profit percentages – at the time the contract is awarded with the balance of the works tendered progressively on a trade-by-trade basis in accordance with a preagreed procurement programme. The contractor is generally required to seek at least three tenders for each trade. Once the subcontractor has been selected, the relevant trade price is fixed and added to the fixed portion of the contract. This occurs progressively until the entirety of the contract price has been fixed – giving the principal a level of cost certainty over time, but without requiring the contractor to fix the price upfront.

Cost escalation risk can be managed in a variety of ways, some specific to the construction industry but others that are capable of broader use, such as advance procurement and payment.

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## We are seeing some basic changes in supply chain risk allocation which we expect will be enduring

#### Advance procurement

Letters of Intent (LOI): these can be used to get a contractor underway on defined works while the final contract is still being completed. The principal should protect its position by capping the amount of work that can be accomplished under the LOI and inserting a limitation of liability clause so the principal is not exposed if the main contract is not ultimately awarded.

**Free issue materials:** these are materials procured directly by the principal and issued to the contractor for installation. This can be useful where the principal:

- has long lead times, and knows what is needed, but isn't ready to engage a contractor
- has specialist knowledge of a product of a piece of equipment
- has an existing relationship with a materials supplier, or
- is comfortable taking risk on quality of such materials (i.e. with recourse to its supplier rather than to the contractor) in exchange for programme benefits and avoiding margin on margin.

#### **Advance payments**

Advance payments can cash flow the contractor's early procurement of materials to help avoid delays. Principals should ensure they are appropriately protected by marking, insuring and securing the materials as the principal's property and having the contractor incur a liability to pay.

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In addition to the team members noted here, we draw on our wide range of national experts to meet the demands of any infrastructure project.



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Every effort has been made to ensure accuracy in this publication. However, the items are necessarily generalised and readers are urged to seek specific advice on particular matters and not rely solely on this text.

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