

Submission from the AQA to the Productivity Commission on Improving Economic Resilience

April 2023

Introduction

The Aggregate and Quarry Association (AQA) is the industry body representing construction material companies which produce 50 million tonnes of aggregate and quarried materials consumed in New Zealand each year.

Funded by its members, the AQA has a mandate to increase understanding of the need for aggregates to New Zealanders, improve our industry and users' technical knowledge of aggregates and assist in developing a highly skilled workforce within a safe and sustainable work environment.

We would like to thank the Productivity Commission for the opportunity to comment on its inquiry into the resilience of the New Zealand economy to supply chain disruptions and specifically on the [discussion document, Improving Economic Resilience](#) (the discussion document).

This discussion document examines the economic resilience of industries to supply chain disruptions and how this resilience can be enhanced. Our submission focuses on aggregate as a key component of the construction sector's supply chains, which is one of the inquiry's industries of focus.

While there is a focus in the discussion document on global supply chains, we note that productivity is also susceptible to local supply chain disruptions, and these should be given more emphasis in the inquiry.

Key points

The Commission should:

- Note the role and uses of aggregates and their importance as material inputs in a range of supply chains in the construction and infrastructure sectors.
- Engage with the Infrastructure Commission and keep up to date with its work on aggregate's role in the infrastructure sector and take an interest in the sector as a key part of the construction sector.
- Note that aggregate is in short supply in many parts of New Zealand and council planning processes are crucial to ensuring access to potential aggregate resources is not shut off.
- Note that labour shortages are a particular risk for the sector as skilled labour is easily able to shift to the potentially more lucrative Australian extractive sector.

- Note that because of their bulk and weight relative to value, New Zealand sources its aggregate needs domestically, and currently does not import aggregate.

A key component of many supply chains

Aggregates – crushed rock, gravel and sand – are key material inputs in many supply chains in the construction and road building sector. They are also an essential resource for general construction – concrete, asphalt, mortar and other building products, and for climate change adaptation.

Aggregates are needed in large quantities. For example, to build one kilometre of a two-lane motorway, around 14,000 tonnes of construction aggregates are needed. The building of an average house requires about 250 tonnes of aggregate. Some of this is used directly in its raw form, some of it in concrete of which aggregate is an essential component in its manufacture, and the dominant component by volume or weight.

Aggregates' essential role in helping New Zealand adapt to the changing climate has come to the fore recently as part of the post cyclone and flood rebuild. They will also increasingly be needed to strengthen sea walls to adapt to sea level rise and provide flood protection generally. They are needed to make infrastructure more resilient to resist greater-intensity storms and extreme weather events.

Just as aggregate is used in various parts of the construction supply chains, the quarries that produce and supply aggregates are equally susceptible to supply chain disruptions.

1. What supply chain disruptions and trends are you worried about?

Aggregate in short supply

Due to unprecedented levels of construction and infrastructure development activity, there is growing demand for aggregate which is in short supply in many parts of New Zealand. Due to its bulk, and the quantities required, the cost of transporting aggregate large distances from its source to where it is needed is very expensive.

The disruptions this has caused have filtered down through the construction and road building sectors. Transmission Gully is just one example of an infrastructure project which has been delayed as a result of aggregate shortages.

This shortage and associated issues are recognised by the Government which is working closely with the industry to identify solutions.

Local government planning

Contributing to the shortage is the fact that aggregate is a locationally constrained resource. Quarrying can only occur where suitable aggregate resource exists. It is

therefore important that council planning across the country does not shut off access to potential aggregate resources.

Labour supply

A major risk of disruption faced by the sector is labour shortages – particularly as skilled labour is easily able to shift to the potentially more lucrative and reliable Australian extractive sector (mining and quarrying).

Incomes in the extractive sector are high relative to the New Zealand average (quarry workers earn on average 30% more than the New Zealand median wage). However, they are significantly lower than those available in Australia.

Government policy

Central government policy, legislation and regulation are very important to ensuring the supply chains in the aggregate sector are resilient and not disrupted. There are a number of areas where decisions to be made will impact on the sector.

For example, the current resource management reform has the potential to further constrain access to aggregates if not done right.

It is important that consent applications for aggregate extraction are able to be assessed quickly and efficiently. Central government recognises this and in its recent National Policy Statement for Freshwater Management has allowed a consenting pathway for the extraction of minerals in or near wetlands, subject, of course, to measures to offset or compensate for impacts on wetlands.

Other areas of government policy risk disrupting aggregate supply. For example, the Government is considering banning new mines and quarries on conservation land. This would mean applications to quarry, currently assessed on a case-by-case basis, would not be considered at all, foregoing the opportunity to access strategic and cost-effective aggregate resources, including for repairing flood-damaged roads and coastal erosion protection.

Imports as an alternative to locally sourced minerals

Where there are supply chain disruptions and aggregates cannot be accessed locally, for whatever reason, users may have to turn to imported aggregate as an alternative.

We point out that the costs of importing large quantities of aggregate from places like Dubai, which is not an unrealistic proposition, include increased emissions, delays, transport/logistics, and supply uncertainty – especially given their bulky nature. In summary it would not be good for the economy to import rock and sand such long distances, but this would be the likely outcome, sooner or later, if local supply chain disruptions are not addressed.

2. What is your industry/community doing or planning to do to address supply chain concerns?

The sector encourages local councils to identify where rock and sand are located and protect those areas from other development and alternative land uses so that supply chains are not disrupted.

To facilitate this, we have obtained maps of [New Zealand aggregate resources](#), combined with spatial overlays to match resource occurrences with locations where the resources are needed.

We also work with central government to promote sound regulation for aggregate extraction. For our part, in 2022 the AQA launched a sustainability [Road Map for the Aotearoa New Zealand Quarry Sector](#). We are committed to managing our material impacts on people and the environment and doing better over time.

The AQA also has an important information sharing role, a space in which we are very active, eg with central government agencies, and local government.

3. How can the government help to enhance the resilience of your industry/community to supply chain disruptions?

There is a lot the government can do to enhance the resilience of the aggregate industry to supply chain disruptions.

In particular it must provide for sound policies which allow the extractive sector to meet New Zealand's growing demand for aggregate. We fully recognise the need for such policies to not compromise our country's existing high environmental standards.

The Government needs to recognise that when it seeks to enable infrastructure provision and construction, it must also enable the relevant supply chains, including for aggregates.

4. What should the Commission study to learn more about the economic resilience of industries and communities?

We note that the construction sector is identified as a sector of focus for the Productivity Commission inquiry. As part of this sectoral work, we recommend that the Commission looks specifically at the aggregate sector and the issues we discuss in this submission, in consideration of its vital role in the economy and providing for New Zealanders' wellbeing.

The Ministry of Business, Innovation and Employment has been preparing a discussion document on how to develop a list of critical minerals, and what this list should be used for which, we understand, is due to be released shortly. We note reference to this work is absent from Table 4 (which outlines existing sectoral strategies) or anywhere else in the document.

We fully support this work and recommend the Productivity Commission get involved. Aggregates are a critical mineral by any definition, as already discussed in this submission.

We recommend that the Productivity Commission investigate how the quarrying industry is able to contribute to increasing New Zealand's productivity and investigate the barriers to increasing aggregate supply and how government policy can address these.

Wayne Scott
Chief Executive Officer
[Aggregate and Quarry Association](#)
wayne@aqa.org.nz
021 944 336