



Economic Insight.

A 'just transition' for Taranaki.

24 October 2019





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Executive summary.

The Taranaki economy has for many years been a strong performer, with much of its prosperity being driven by activity in the oil and gas industry. However, with crude oil production having halved over the past decade and industry revenues having dropped by about a third, the region has lost some of its lustre, with GDP turning negative in recent years.

Given this apparent decline and a recently legislated ban on new offshore exploration in the region, the question arises as to how Taranaki might transition itself towards more sustainable drivers of activity without causing massive disruption to the communities that live there.

The consensus would seem to suggest that a highly collaborative 'just transition' approach, involving a wide range of stakeholders, is the way to go. This is certainly the approach that the New Zealand Government is looking to adopt when implementing structural change in Taranaki.

Political 'buy-in' and collaboration are critical for a successful 'just transition'. Having a vision and conducive culture is just as important. So too, having an inclusive process where all affected stakeholders have an equal say in defining and agreeing desired outcomes and how to get there. This report details a couple of case studies, one of which shows how a properly implemented 'just transition' can lead to positive outcomes for all.

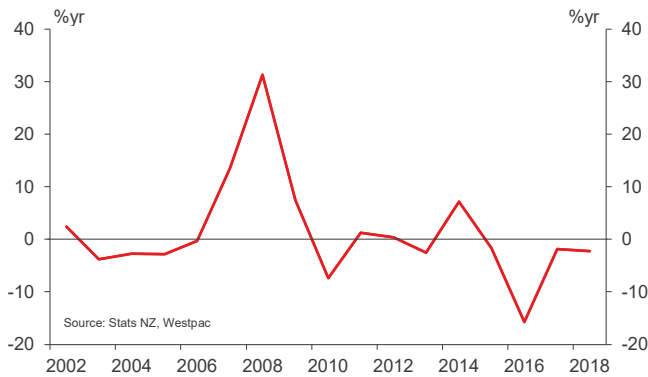
This report also provides some contextual information about Taranaki, with demographic and economic detail provided at the back. At the front, we have summarised the current economic developments in the region.

Recent history of the Taranaki economy.

Economic Growth.

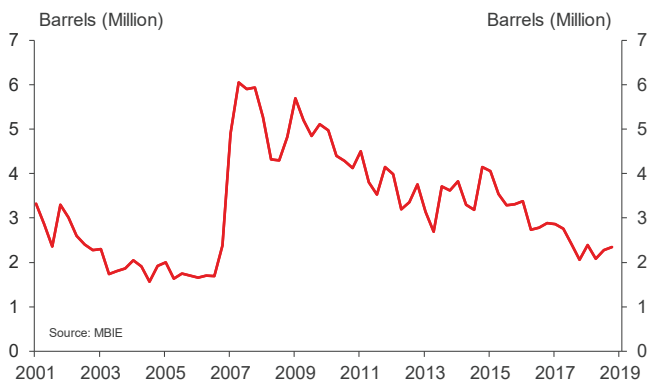
While Taranaki has long been a prosperous and successful region, the economy has fallen on harder times over the past five years. Adjusted for inflation, we estimate that regional Gross Domestic Product (GDP) contracted by about 15% over this period. Even in nominal terms, Taranaki's GDP shrank by 6.9%, making it the only region in New Zealand to have contracted in recent years. As at the end of March 2018, the economy was more than \$600m smaller than it was in 2013 and a whopping \$1.2bn smaller than it was at its peak in 2014.

Figure 1: Regional economic growth



Most of this fall was because of the poor performance of the oil and gas industry. The production of crude oil and natural gas condensate has fallen by a whopping 38%. Crude oil production is now just half of what it was back in 2010. In part this reflects the impact of lower crude oil prices, which have fallen sharply since 2010, and despite a partial recovery since 2016, remain well off their highs.

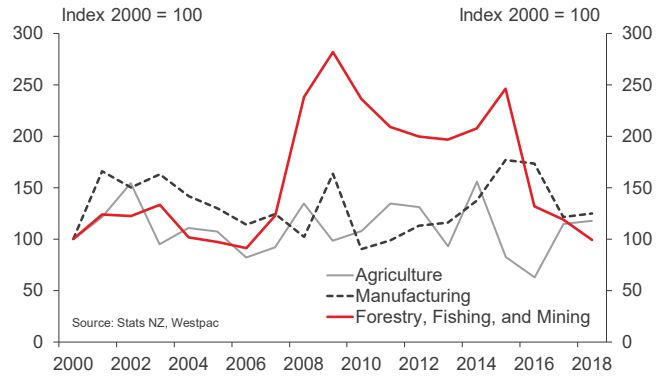
Figure 2: Oil and gas production



The volatile performance of the region's agricultural sector is unlikely to have helped matters. While the sector has benefitted from relatively elevated commodity prices in recent years, variable weather conditions have played havoc with production levels, rising in some years, but falling in others. The same cannot be said, however, for the region's

forestry sector, which has benefitted from strong demand for logs from China.

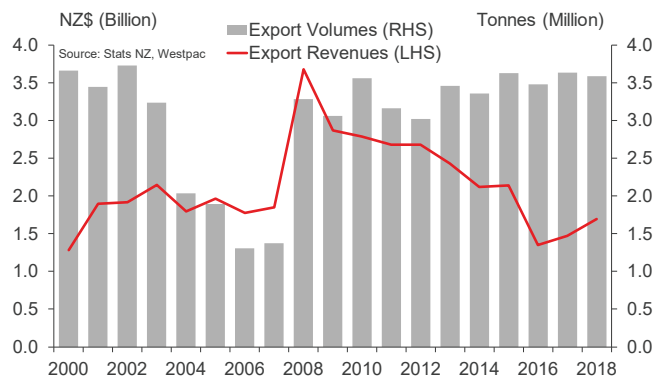
Figure 3: Selected industry performance



The manufacturing sector has also made a contribution, although output levels plunged by about 25% in 2017 as oil price volatility led to a large number of projects in the oil and gas sector being cancelled, significantly impacting primary manufacturing in the region. Preliminary estimates for 2018 suggest something of a clawback, with manufacturing volumes likely to have risen by about 3%.

Not surprisingly, the region's export performance has been somewhat mixed. Volumes through the port of Taranaki have risen over time, but only just, with growth averaging 0.8% over the past five years and 1.5% over the past decade. For the year ending June 2018, export volumes actually fell 1.2%. Cuts in methanol production, reduced exports of oil and gas, and a cessation of container traffic through the port of Taranaki are likely to have been key reasons. Dairy and meat production destined for the export market has also fluctuated. Indeed, it could had been a lot worse had it not been for log exports.

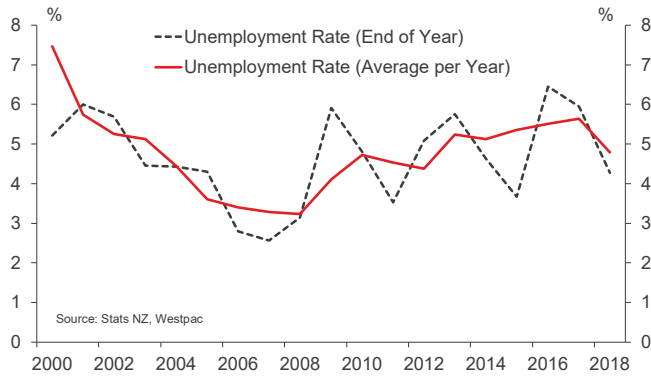
Figure 4: Exports through the port of Taranaki



The region's poor economic performance is reflected in unemployment data, with the jobless rate in the region having trended upwards since 2008. That said, unemployment

improved towards the end of 2018, falling to 4.1%, which was slightly below the national aggregate. This is likely to reflect a pickup in agricultural and manufacturing production towards the latter part of the year. Unemployment averaged about 4.8% for the year as a whole.

Figure 5: Unemployment rate



The region's construction sector has remained relatively buoyant over the past ten years as population gains have helped to underpin a rise in residential building consents, mostly in New Plymouth. More recently, however, residential consents in the region have fallen away, despite more people having moved to the region. Meanwhile non-residential building consents have tracked lower since 2008.

Figure 6: Residential building consents

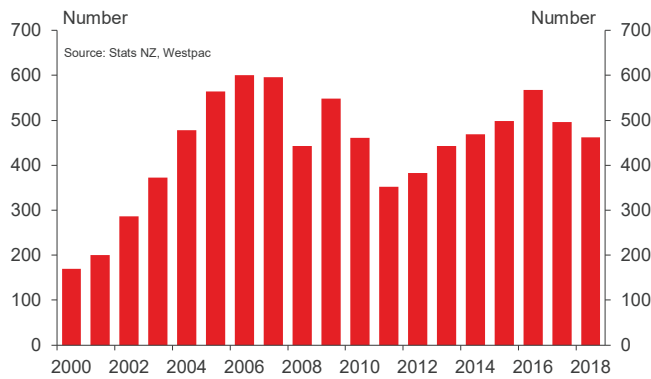
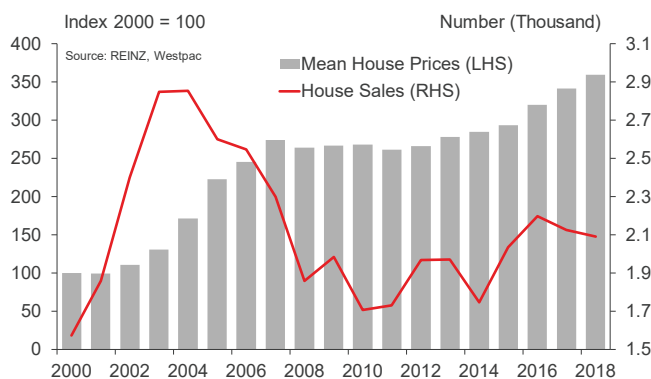


Figure 7: House prices and sales volumes

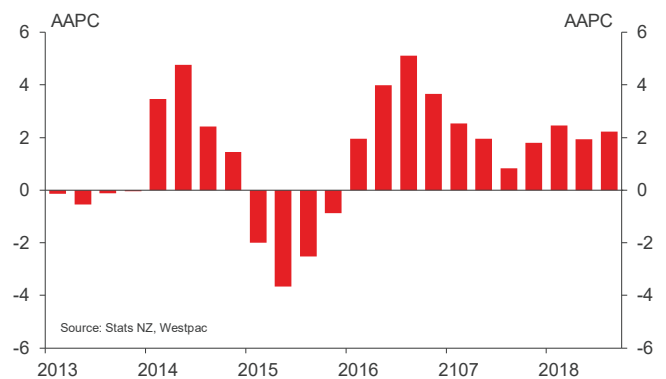


House prices in Taranaki have risen consistently in recent years, mainly as a consequence of lower interest rates. Gains, though, have been pretty modest, especially when compared to neighbouring Manawatu, with growth rates averaging somewhere in the mid-single digits.

Rising house prices, a larger population, and improving labour market conditions are likely to have contributed to stronger household spending in the region during 2018.

Even when adjusted for inflation, retail sales in the region have picked up pace, growing by an average 2.3% in 2018, compared to just 0.8% for 2017. However, this comes after a big increase in spending in 2016.

Figure 8: Retail sales



Tourism really boomed over 2016 and 2017, but growth in visitor arrivals has slowed and has actually turned negative recently, in line with the nationwide trend.

Figure 9: Visitor arrivals



The ‘just transition’ approach.

A key issue facing Taranaki is how to transition itself away from its dependency on the oil and gas industry. This follows on from the Government’s ban on new offshore oil and gas exploration permits, which was passed into law through changes to the Crown Amendment Act in November 2018. Changes to the legislation still preserve existing exploration permits covering an area of about 100,000 square km and new oil and gas exploration permits will be offered in Taranaki for two more years.

This comes against the backdrop of falling oil and gas production. Production volumes in the region have fallen consistently since 2008, and industry revenues have dropped by about a third over the period. Contributions made by the oil and gas sector to the region’s GDP have fallen from about 25% to just under 20%, excluding the wider economic impacts that the industry has on downstream manufacturing.

Despite its apparent decline, the oil and gas industry is still important. A report by the NZIER commissioned by oil and gas industry representatives suggested that, all things being equal, a ban on offshore oil and gas exploration could cost the Taranaki economy \$30bn over the next 30 years. The report paints a picture of a contracting local economy, declining levels of employment, falling household incomes and adverse consequences for the national economy as a whole.

Given its importance and the policy direction adopted by the current government, the question then is how to transform the Taranaki economy in a way that minimises disruption to affected communities.

Best international practice refers to a ‘just transition’ that encompasses a range of social interventions to ensure that worker’s jobs and livelihoods are protected when local, regional and even national economies embark on a transformation process. There have been instances in the past where economic restructuring has happened in a chaotic fashion, leaving workers, their families and whole communities to bear the brunt of the economic transformation. Interventions that form part of a ‘just transition’ attempt to mitigate these impacts by a) reducing the impact of job losses and industry phase-out when transformation occurs, and b) creating new jobs and industries, as well as healthier communities.

The New Zealand Government has wholeheartedly adopted the ‘just transition’ approach. The Just Transition Unit within the Ministry of Business, Innovation & Employment together with Venture Taranaki, the Regional Development Agency for Taranaki, are already in the early planning stages to implement it.

As part of this, the Government has also announced that it will invest an initial \$20m out of the Provincial Growth Fund to help transition the local economy away from fossil fuels to one that places more emphasis on other industries. This is just a drop in the ocean and much more will be needed. So far,

most of the funds have been allocated to tourism, a growing, but still small industry in the bigger scheme of things. Money has also been set aside for assessing the feasibility of producing energy from more sustainable sources, most notably hydrogen, and towards greater diversification in food manufacturing. Innovation is also a key focus.

A ‘just transition’ relies heavily on a set of consultative and inclusive processes. All key players, ranging from central and local government, to iwi, labour unions, the broader community and businesses sit at the same table when making decisions about the future of the Taranaki region.

However, broad stakeholder involvement often means that the time taken for a region to transform can be lengthy. Case studies from abroad suggest that dimensioning an agreed end state and reaching agreement on how to get there often involves very difficult and tortuous negotiations. And that’s even before implementation starts. It might also take a considerable amount of time for any results to be achieved.

Implementation can also mean significant ongoing investment. Funds must be provided to support the redevelopment of affected communities. International experience has shown that advocating for the transfer of funding from industry subsidies to transition funds is an important starting point for most communities.

The general procedural principles of a ‘just transition’ require that:

- Policymakers must take stock of the communities that will be affected by transitions.
- Policymakers must work to build inclusive conversations early to ensure that groups are not left out at key stages and that affected communities are able raise important issues.
- Affected communities must have a seat at the table, working together to determine the structure of conversations. Inclusive dialogue is necessary to ensure that the concerns and needs of affected communities are fully understood and addressed.
- Social protections, such as skills training and early retirement, must be in place to mitigate impacts on affected communities.
- Funds must be provided to support the redevelopment of affected communities.

Case studies.

Table 1: Examples of structural economic change

Country/Region	Industries	Scale	Outcome
Singapore	All sectors, especially manufacturing	National (city state)	Successful
Germany: The Ruhr	Coal & Steel	Regional & local	Successful
Netherlands: Limburg	Coal	Regional & local	Successful
Australia: Newcastle, New South Wales	Steel	City & local	Marginally successful
Wales, The Valleys	Coal	Regional	Unsuccessful
US (Appalachia)	Coal	Regional and local	Unsuccessful
Australia: Port August (SA), Latrobe Valley (Victoria)	Coal-fired power stations (& mines)	Regional (multiple) & local	Unsuccessful

Source: Industrial Relations Research Centre; University of New South Wales Business School

There are a number of international case studies of countries/regions/cities that have gone through a structural transformation process. Some have adopted a ‘just transition’ approach. Others have forged a different path, often with different results.

A list of prominent case studies are shown in Table 1 above. For the purposes of brevity, we have expanded on two of these, namely the transformation of Germany’s coal mining and industrial Ruhr Valley, and the decommissioning of two power plants in Australia, one in South Australia and the other in Victoria.

The Ruhr Region, Germany.

The Ruhr Valley is located in the state of North-Rhine Westphalia, and is made up of 53 cities which came to depend on coal mining in the 1800s. At their height in the 1950s, the mines employed about 600,000 workers, entwining the region’s identity with coal.

By the early 1970s, cheaper coal imports were starting to undercut locally produced coal, which was only able to compete because of government subsidies. At the same time, the appetite for green energy had increased, driven forward by a wave of anti-nuclear sentiment in Germany. This gathered force after the Chernobyl nuclear disaster in 1986.

The Ruhr Valley was slow to adjust to the decline of coal. In part this was because of a widespread reluctance to accept that the industry was facing structural decline. As a result, the German Government not only invested heavily in economic diversification, but continued to prop up the Ruhr’s failing coal industry.

All of that changed in the late 1980s. While the German Government continued to provide guidance and retain a major role for the long-term planning of specific projects in the Ruhr Valley, the design and implementation of projects in the region was devolved to the local level. The result was the emergence of a large services sector, which over time replaced much of the old coal and steel industries.

Critical to the success of this transformation were:

- Huge public investment to modernise infrastructure, develop new tertiary education institutions, and create new leisure industries, including eco-tourism.
- Large scale investment in services, leveraging off existing regional strengths. For example, already well developed capabilities in transporting commodities were used to develop a modern transport control and logistics hub.
- A refocusing of re-industrialisation support policies towards the development of environmental technologies, including renewable energy and waste disposal systems.

A second, much shorter transition phase started when the German Government decided in 2007 to phase out all subsidies for coal mining by 2018. The decision was made after consultation with the coal mining industry, labour unions and government (both local and central). A careful staggering of closures together with polices to support affected workers was put in place.

Crucial to the success of this more recent transition were:

- Political “buy-in” and an industrial relations vision and culture that was conducive to a ‘just transition’.
- The prioritisation and adoption of strategies that leveraged off existing strengths, activities, skills and institutions within the region.
- The proactive anticipation of future challenges and possible crisis by central government, which helped to enable more effective top-down planning.
- An agreement between central and local government, employees and labour unions on strategic outcomes and objectives, which included job creation and the protection of mineworker’s jobs during the transition process.
- Collaboration and co-ordination between these stakeholders, when planning and implementing interventions aimed at achieving desired outcomes.

- The fostering of “social partnerships” with prominent roles being given to labour unions and collective agreements in socio-economic policy making and implementation.
- Heavy public sector investment in supportive infrastructure, higher education and training, and support for private sector innovation and entrepreneurship.

Port Augusta, South Australia and Latrobe Valley, Victoria.

When Alinta Energy announced that it would be closing its Northern power station situated near the remote town of Port Augusta, South Australia by the end of May 2016, little or no consideration was given to the 400 workers that would lose their jobs (including those at the coal supplying Leigh Creek Coal Mine, 280km away to the north) or the wider impacts this would have on the 14,000 strong community.

Closure of this power station was also accompanied by inadequate environmental mitigation, leaving significant pollution problems for the Port Augusta City Council and the community to deal with.

To make matters worse, the community in Port Augusta received no financial support from either federal or state government for at least six months after the plant closed.

Local initiatives aimed at softening the impact of the closure of the power station struggled to get off the ground. In part this was because of a lack of top down support. It was also because of lack of funding. Renewable energy projects for the region, such as the Aurora Solar Energy Project, which had been hailed as a new start for the town, failed to come to fruition after the company behind it was unable to secure funding for the project.

It was a similar story when French multinational utility company, Engie, announced in November 2016 that it would close its Hazelwood power station in the Latrobe Valley in Victoria on 31 March 2017 with the loss of 500 staff and 300 contactors. About 250 staff were to remain to manage the site rehabilitation, while the remaining workers would receive a redundancy package.

The announcement of the closure came as something of a shock to the region’s workers and communities. Perhaps even more surprising, considering what happened in Port Augusta, was that both the federal and state government came forward with extensive transitional assistance packages for affected workers and the Latrobe Valley community. Like Alinta Energy, Engie is a private sector operator that makes decisions on a commercial basis.

The Victorian Government’s assistance package was even more generous than had been offered by the previous Victorian and Federal Governments in support of their climate change policies in the region. In fact, it was the largest regional development package ever announced by a Victorian Government.

However, best practice for a ‘just transition’ for the closure of coal fired energy plants requires long-term planning and long term closure notice periods. It also requires close collaboration between businesses that are closing, labour unions, government and community stakeholders on the socio-economic dimensions of the transition process, so that the costs of closure can be reduced and equitably shared. None of these aspects were heeded in the period preceding either Hazelwood’s or the Northern plant’s closure at Port Augusta, despite widespread calls for proactive government stewardship of the phase-out of coal-fired power generation.

Indeed, the Australian experience in recent years with power station closures is that the Government has avoided engaging with notions of structural adjustment policy beyond the most ad-hoc and reactive responses. A possible defence might be that on average, firms that close down their coal fired powered stations typically give less than four months notice to affected workers and communities.

Irrespective, a lack of public forward planning and notice reflects a deeply embedded perspective in public policy and industry that sees planned closures as a private, commercial decision belonging wholly to plant owners. The result is no sense of accountability and social responsibility to workers, communities, or even the natural environment.

Taranaki demographic and economic profile.

Population.

Taranaki is home to almost 120,000 people. The region is split into three districts: New Plymouth to the north with a population of just under 82,000; Stratford in central Taranaki servicing about 9,500 people; and South Taranaki including the main centre of Hawera, with a population of 28,300.

Table 2: Demographics of Taranaki

Dimension	2018	Year on year growth (%)	5-yr average growth (%)	10-year average growth (%)
Population	119,600	1.4	1.0	1.0
New Plymouth	81,900	1.5	1.2	1.2
Stratford	9,510	1.0	0.7	0.5
South Taranaki	28,300	1.1	0.6	0.5
Age Profile				
0 – 14 years	25,000	1.6	0.8	0.9
15 – 24 years	14,000	-0.2	0.0	-0.2
25 – 64 years	60,000	0.9	0.7	0.8
65 yrs +	21,000	3.4	3.0	2.7
Households	40,100	2.4	2.5	2.5

Source: Stats NZ, Westpac

Growth in the number of people living in Taranaki has consistently underperformed when compared to the national aggregate. Over the past 10 years, the number of people living in the province has grown by an average 1.0% compared to 1.5% nationally. Growth over the past five years has also averaged 1.0%, which is almost half of the 1.9% for New Zealand as a whole.

Growth in the number of people younger than 65 living in the region has consistently come in lower than the national average, with a net outflow of young people between the years of 15 and 24. By contrast, growth in number of senior citizens living in the region has easily outpaced the national aggregate for their cohort, meaning that the region is rapidly ageing.

Economic Structure.

According to Stats NZ, Taranaki's GDP measured \$8.1bn for the year ending March 2018, contributing 2.9% to the national total. The region sits mid-table when compared to other regions, contributing slightly more than Hawke's Bay to the national aggregate, but a bit less than the Manawatu-Whanganui.

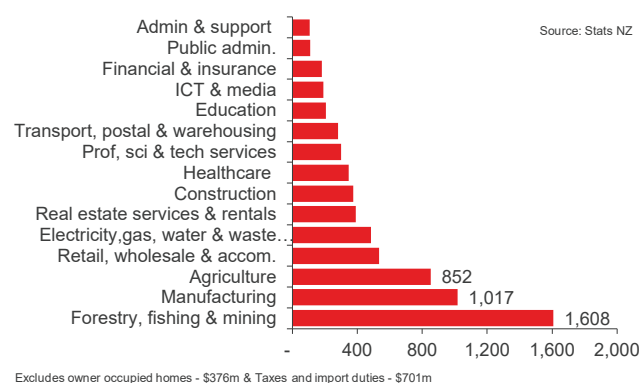
On a per capita GDP basis, the region scores highly, posting the second highest figure in the country. For the year ending March 2018, GDP per person was just over \$68,000, which is slightly less than the \$71,000 recorded for the government-

heavy Wellington region, but more than the \$65,000 posted for wine producing Marlborough and the \$64,000 recorded for Auckland.

Taranaki is the only region in New Zealand that produces crude oil and natural gas. In 2018, extraction activities contributed just over \$1.4bn to regional GDP, easily making it the region's largest industry. This excludes the contribution made by other activities, such as exploration, heavy construction and civil engineering, transport services and professional, scientific and technical services. When these activities are added to the mix, the industry is said to contribute about \$2.5bn to New Zealand's GDP.

Most of the crude oil produced in the region is destined for the export market, mainly to Australia, where it is refined into other products, notably petroleum and diesel. New Zealand's high quality oil is more suited to Australian refineries than to New Zealand's only major refinery at Marsden Point in Northland, which is configured to process low quality oil. Crude oil exports amounted to just under \$500m in 2018, but this varies markedly from year to year, reflecting the variability in crude oil prices, fluctuations in the New Zealand dollar and changing production levels.

Figure 10: Sectoral breakdown of Taranaki's economy



Natural gas from Taranaki contributes just over 20% to New Zealand's primary energy supply. It is piped through 3,400km of high pressure gas pipelines in the North Island, delivering gas to large users such as big industrial/manufacturing plants, and electricity generators. They also deliver gas to distribution businesses who are themselves connected to more than 11,600km of distribution pipelines which transport gas to a large number of smaller users, including residential households.

The importance of the oil and gas industry extends into the region's manufacturing sector, which adds just over \$1bn to regional GDP. Methanex New Zealand, for example, consumes about 40% of all natural gas produced in the region each year to manufacture 2.4m tonnes of methanol at its three production facilities. Methanol exports from the region, almost all of which went to China, amounted to about

\$400m in 2017. Gas is also used to produce urea fertiliser in South Taranaki.

Also supporting the region's oil and gas industry is the primary and engineered/fabricated metal products manufacturing industry, which collectively added a \$140m to the region's economy. The production of machinery and other equipment is likely to have added another \$130m.

Building on its natural oil and gas advantages, Taranaki also has an extensive track record in heavy engineering, specialised technical and consultancy services, transportation, distribution and construction.

A big chunk of manufacturing is dependent on the region's large agricultural, forestry and fishing sector, which adds about \$850m to regional GDP. Key is dairy farming which contributes about \$700m, followed by sheep and beef farming, which adds another \$110m. In addition, Taranaki also has a reasonably large forestry sector, with plantations covering just over 27,000 hectares. Forestry and logging activity contributed about \$200m to the region in 2017, almost all of which was generated from exports to China.

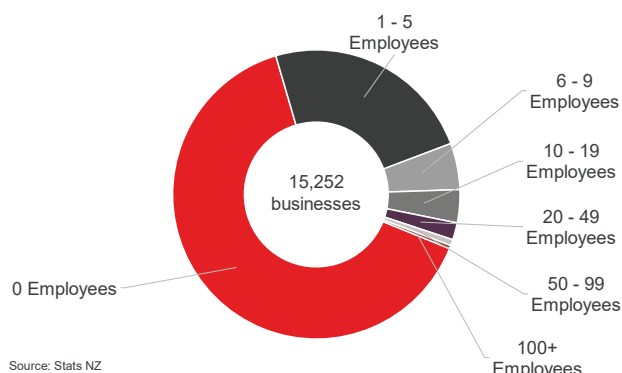
Power generation is also significant, pumping about \$500m into the local economy. Power stations in Taranaki are typically gas powered, but a small amount of electricity is generated by hydropower.

Tourism is a small, but growing industry, based on natural attractions, such as Egmont National Park, and cultural attractions, such as the Len Lye Centre in New Plymouth. Tourism to the region has gained prominence after being named by Lonely Planet as one of the world's best regions to visit in 2017.

Number of Businesses.

Most businesses operating in Taranaki are small. About 97% of 15,300 businesses employ less than 20 people, which is slightly higher than the national average. Just over 60% of businesses in the region are sole proprietorships.

Figure 11: Businesses in operation



About 26% of businesses operating in the region are either farmers producing dairy or meat or are forestry owners. A

further 19% are engaged in renting or leasing of property. Roughly 9% are involved in construction activity, mostly residential, with most providing plumbing, electrical and other services.

There are also a significant number of businesses operating in financial and insurance services (8%) and retail trade (5%). About 4% of businesses operate in the manufacturing sector, with the largest proportion being involved in the manufacture of fabricated metals as well as machinery and equipment. By contrast, there are a relatively few food manufacturers in the region and most of these are large.

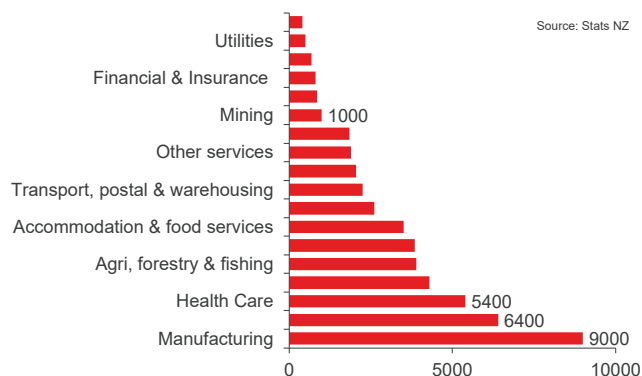
According to Stats NZ, there are only 33 firms directly involved in oil and gas extraction, although there are quite a few more that provide exploration support services.

Number of Employees.

Just over 51,000 people are employed in the region, making up 70% of the working age population.

The manufacturing sector is by far the biggest single employer in the region, with about 9,000 employees. As a percentage of the total workforce, the manufacturing sector in Taranaki employs more people than any other region in New Zealand.


Figure 12: Employees by sector



Slightly more than half of the workers in the manufacturing sector work in the food and beverage industry. Another 25% work in the chemical, mineral and metal products manufacturing industries. Firms involved in the manufacture of fabricated metal products and machinery equipment employ about 1,000 people each. Other notable employers include the wood processing sector.

The retail and wholesale sectors are the region's second largest employers with about 6,400 staff, followed by healthcare, construction, education, including international education, and accommodation, which includes restaurants and other foods services.

Despite being the region's biggest industry, oil and gas is not a particularly big employer. Oil and gas extraction, which is a capital intensive process, employs about 750 people with exploration services accounting for a further 250. However,



this excludes workers that might be brought in from overseas for addressing specific tasks who only stay for a short period of time.

Dairy farming makes up more than 60% of the total employment in agriculture, forestry and fishing. However, employment in dairy farming has declined by 1.9% over the past decade. This is likely to be because of the established nature of dairying in the region and continuing improvements in on-farm productivity.

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