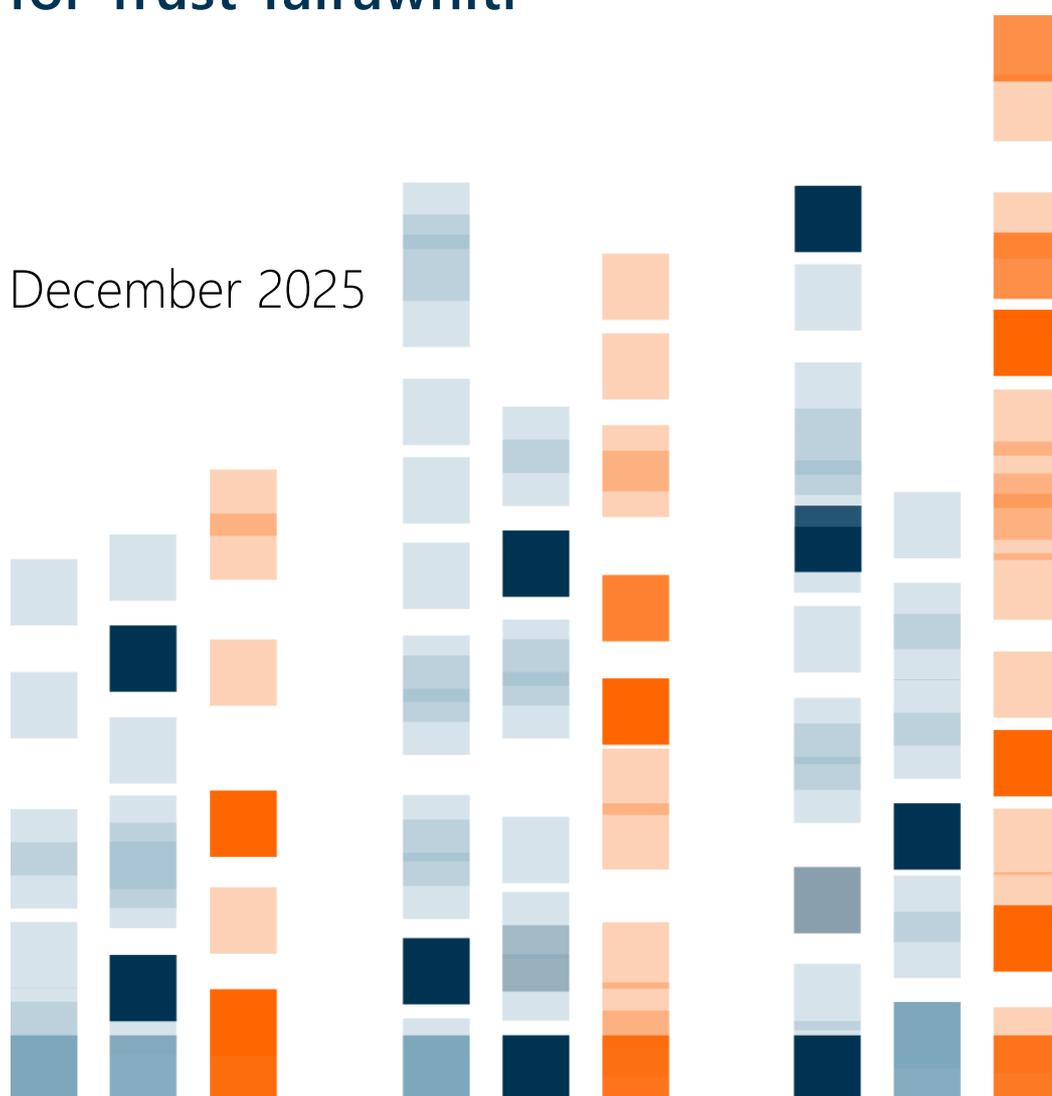


Assessment of Tairāwhiti's tradeable sector

for Trust Tairāwhiti



Authorship

This report has been prepared by Principal Economist Nick Brunsdon and peer reviewed by Chief Executive and Principal Economist Brad Olsen.

Email:

Nick.Brunsdon@infometrics.co.nz

Brad.Olsen@infometrics.co.nz

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Introduction

Trust Tairāwhiti first commissioned Infometrics to assess the size of the region's tradeable sector in 2024, to help contextualise the significance of the tradeable sector in the region and help to inform discussions amongst regional stakeholders. This report is an update to our 2024 report, incorporating data for the year to March 2024 (the previous report focused on the year to March 2023).

The term "tradeable" is defined as the portion of products produced in Tairāwhiti that are sold to parties outside the region – not only exports to overseas, but also 'exports' to other regions of New Zealand.

Defining the tradeable sector

Introduction

Trade normally refers to the export of goods and services between countries. However, the concentration of Tairāwhiti's economy in a number of industries means that Tairāwhiti is a significant producer for both overseas export and export to other regions within New Zealand.

In this report, we use a broader definition of trade, with the tradeable sector including anything traded outside the Tairāwhiti region, including exports to overseas and exports to other regions of New Zealand. In defining Tairāwhiti's tradeable sector, we attempt to estimate the share of Tairāwhiti's production which leaves the region, in other words, what is not consumed by Tairāwhiti residents, business, and the local economy.

Accounting for final demand

Our analysis is based on the concept of final demand, which means that we account for where production is finally consumed, even if it passes through other industries on the way. For example, if oranges are sold from a local farm to a local juice factory, and then the juice is exported, we would consider the oranges to be exported. This final demand approach also means that services which are delivered locally, such as farm fence building or veterinary services for sheep, are counted towards exports, to the extent that they contribute towards meat and wool exports.

Lower and upper bound applied

Through this process, we have developed a lower and upper bound estimate of the proportion of each industry's output which is traded in Tairāwhiti. The range between the upper and lower bound reflects that this process is an estimation, and helps to convey the associated uncertainty. We apply the lower and upper bound to our employment and GDP estimates for each of the 500 industries within Tairāwhiti. We then aggregate these results up to a higher-level industry classification for reporting and analysis.

Our central estimate for Tairāwhiti is based on the average of the lower and upper bound. Our central estimate for New Zealand is based on export final demand from Stats NZ's national input-output tables 2020. These are published every five years, with the next update expected in late 2026.

Three-step approach

We define the tradeable sector in Tairāwhiti through a three-step approach, considering the relative size and nature of each of 500 industries at Level 4 of the Australia and New Zealand Standard Industry Classification (ANZSIC).

Step 1: We estimate the share of output from each industry which is exported overseas at the national level, using Stats NZ's national accounts input-output tables. The national accounts input-output tables are published six-yearly, and we have used the most recent

table – from 2020. The input-output tables quantify interactions between different industries and sectors, for example, what proportion of horticulture industry outputs are ultimately consumed in New Zealand or exported overseas, regardless of whether they are exported as raw products (e.g. fruit) or processed (e.g. turned into fruit juice) in New Zealand before being exported.

Step 2: We consider the proportion of Tairāwhiti's production which is more likely to be exported outside the region than the national average, including exports to other regions of New Zealand. We use alternative data sources, such as the share of population, to apportion production between consumption in Tairāwhiti and other regions. This process is outlined in more detail in the following sections.

Step 3: Finally, we will consider which industries in Tairāwhiti are less likely to export than the national average. For example, we might expect Tairāwhiti's technology sector to be more focused on servicing local businesses, than producing software for export, compared to areas with significant critical mass in software development such as Wellington City.

Groupings

In going through the three-step process, industries fell into several groupings. We have outlined some of the groupings below to illustrate the definition process.

Export-focused primary industries and niches

For export-focused primary industries (such as horticulture) and related processing industries (such as fruit and vegetable processing), we consider the share of production exported overseas and the share consumed within New Zealand. Then, we consider how much of the share consumed within New Zealand is consumed in Tairāwhiti.

Exported overseas: Stats NZ's national accounts input-output tables indicate the share of national production in each industry which is exported overseas. In the case of horticulture, 70% of production was exported overseas in 2020.

Consumed within New Zealand: The remaining share not exported is assumed to be consumed within New Zealand, in the case of horticulture, 30%.

Average consumption within Tairāwhiti: Our starting point is that residents and businesses in Tairāwhiti consume products in proportion to their share of the population. In 2024, Tairāwhiti accounted for 1.0% of New Zealand's population, so Tairāwhiti may consume 1.0% of the 30% of horticulture production consumed in New Zealand (for a total of 0.3% of total production).

Higher consumption within Tairāwhiti: Certain products such as citrus fruit are more widely and cheaply available in Tairāwhiti and can be consumed in higher quantities than elsewhere. Tairāwhiti might consume these locally abundant products at double the national rate, therefore accounting for 2.0% of the 30% of horticulture production consumed in New Zealand (for a total of 0.6% of total production).

Forming the upper bound: We form an upper bound estimate by assuming Tairāwhiti production is exported overseas at the same as the national rate (70% for horticulture) and is consumed at the same rate as the national average, with Tairāwhiti's share proportionate to its share of New Zealand's population (1.0%). Based on Tairāwhiti's

population share (1.0%), 99.0% of consumption in New Zealand is outside of Tairāwhiti. Therefore, Tairāwhiti exports 70%, plus 99.0% of 30% (29.7%), for a total of 99.7% exported out of the region.

Forming the lower bound: We form a lower bound estimate by assuming Tairāwhiti production is exported overseas at the same as the national rate (70% for horticulture) and is consumed at a higher rate in Tairāwhiti (2.0%, assuming for the lower bound that price and access could increase local consumption). Tairāwhiti's higher rate of consumption (2.0%) means that 98.0% of consumption in New Zealand is outside of Tairāwhiti. Therefore, Tairāwhiti exports 70% internationally, plus 98.0% of 30% domestically (29.4%), for a total of 99.4% exported out of the region.

In the lower bound, Tairāwhiti consumes more of its own production, and therefore exports slightly less.

Bulky or heavy products

For bulky or heavy products (such as gravel quarrying, or wooden building component manufacturing), our lower bound estimate is that all of production is consumed locally, and the upper bound is that it is traded at the same rate as the national average. Products of a bulky or heavy nature are generally produced in each region and consumed locally, and we would doubly expect this to be the case for Tairāwhiti given its geographically-isolated location.

Largely servicing local consumers, local exporters, or tourists

For products delivered locally (such as veterinary services, or cafes and restaurants), these are likely to largely service local consumers, or to a lesser extent local exporters or tourists in the region. Services provided to exporters, such as veterinary services to a beef cattle farm, contribute to the value of exports, such as beef meat. For these industries, our lower bound estimate is that all production is consumed locally, and the upper bound is that it is traded at the same rate as the national average. Tairāwhiti's tourism sector is proportionately smaller than the national average, so we wouldn't expect its tourism-related industries to export at a higher rate than the national average.

Highly-tourism focused

For highly-tourism focused industries such as rental car hire or accommodation services, we have assumed a lower bound of the national export rate, and upper bound of 100%, reflecting that these industries are inherently focused on servicing tourists (from outside the region, and hence could be fully tradeable).

Inherently local

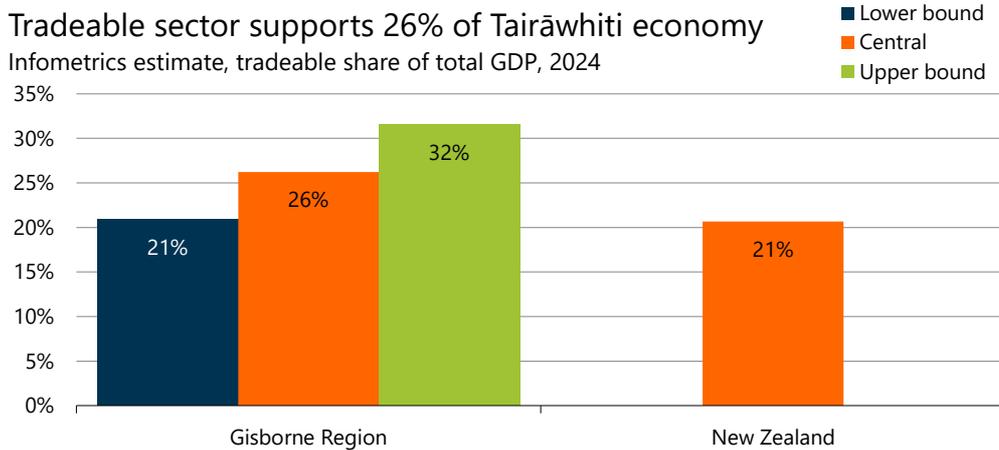
Several industries are considered to be inherently local, such as local government administration, and we have assumed that both the upper and lower bound is that no portion of these industries output is exported.

Significance of tradeable sector

Tradeable sector accounts for 21-32% of Tairāwhiti GDP

Tairāwhiti's tradeable sector is estimated to account for between 21% (lower bound) and 32% (upper bound) of the total Tairāwhiti economy, based on Infometrics gross domestic product (GDP) estimates (see Chart 1).

Chart 1



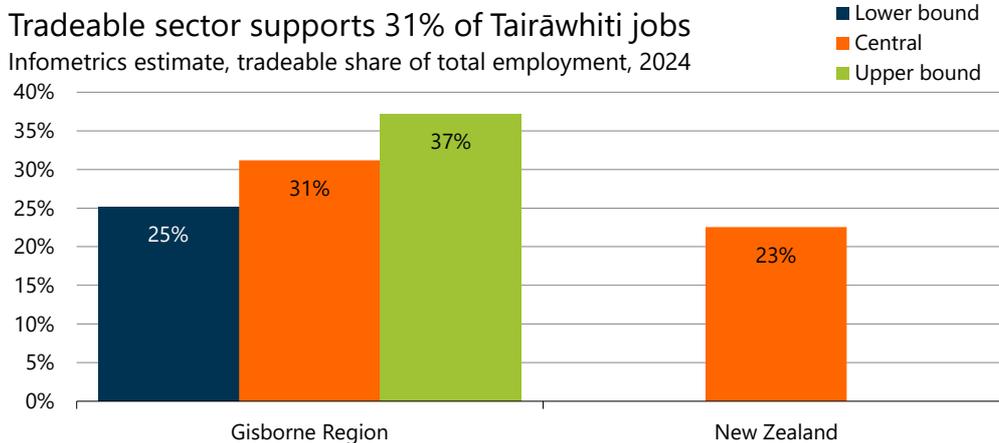
Source: Infometrics, Stats NZ

Our central estimate is that the tradeable sector accounts for 26% of the Tairāwhiti economy, and 21% of the national economy.

Tradeable sector accounts for 25-37% of Tairāwhiti jobs

Tairāwhiti's tradeable sector is estimated to account for between 26% (lower bound) and 38% (upper bound) of total employment in Tairāwhiti (Chart 2).

Chart 2



Source: Infometrics, Stats NZ

Our central estimate is that the tradeable sector accounts for 31% of Tairāwhiti employment, and 23% of national employment.

Tairāwhiti more reliant on tradeable sector than national average

Both the central employment and GDP estimates indicate that Tairāwhiti is clearly more reliant on the tradeable sector than the national average. The tradeable sector underpins the broader economy by providing economic activity and employment that sustains the local population, indirectly sustaining local non-tradeable industries such as construction, retail, education, and health.

Tairāwhiti slightly less reliant on tradeable sector in 2024

Shifts in Tairāwhiti's economic structure between 2023 and 2024 mean that the region is slightly less reliant on the tradeable sector. Based on our central estimate, the tradeable sector has shifted from 27% of Tairāwhiti's economy (GDP) in 2023 to 26% in 2024. In terms of employment, the tradeable sector has shifted from 32% of jobs in 2023 to 31% in 2024.

The shift towards less reliance on the tradeable sector reflects which industries have grown or declined between 2023 and 2024. Tairāwhiti has seen slightly faster growth in less tradeable-focused industries (such as rental and hiring services, health, construction, central government) than other industries. However, we would emphasise that these shifts are small and do not signify any long-term shift, especially as this period includes the immediate impacts of Cyclone Gabrielle on the region.

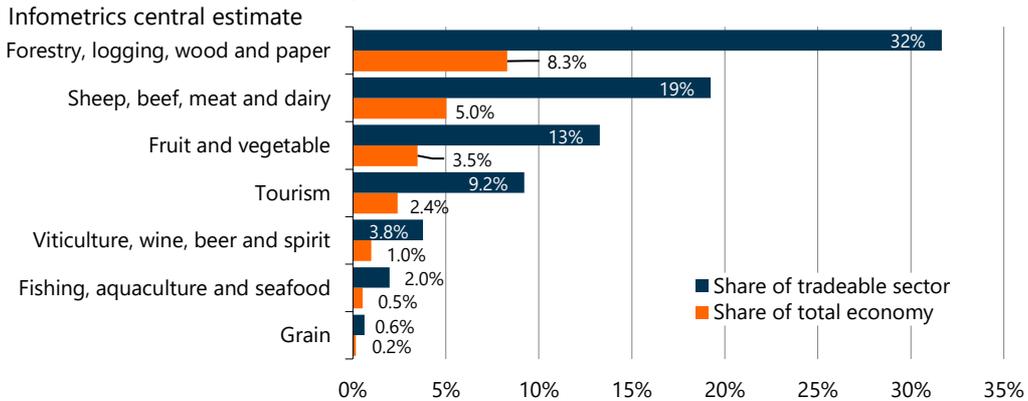
Forestry, logging and wood product manufacturing accounts for 32% of tradeable GDP

Focusing on the central estimate of Tairāwhiti's tradeable sector, we now turn to the relative significance of key tradeable industries. Expressing these industries as a percentage of tradeable sector GDP, rather than total GDP, emphasises their significance to the regional economy.

Forestry, logging, wood and paper product manufacturing captures the value chain from forests through to wood and paper production (although there is no paper or pulp production in Tairāwhiti). Forestry, logging, and wood product manufacturing account for 8.3% of Tairāwhiti's total GDP in 2024, or 32% of Tairāwhiti's tradeable sector GDP (see Chart 3).

Chart 3

Tairāwhiti export industry share of GDP, 2024



Source: Infometrics, Stats NZ

Sheep, beef, meat and dairy captures a range of pastoral farming (including deer and beekeeping) and the post-harvest activities of meat and dairy product manufacturing. Sheep, beef, meat and dairy accounts for 5.0% of Tairāwhiti's total GDP, or 19% of Tairāwhiti's tradeable sector GDP.

Fruit and vegetable captures horticulture and fruit growing as well as related post-harvest activities of packing, processing, and food and beverage manufacturing. Fruit and vegetables account for 13% of Tairāwhiti's tradeable sector GDP. Tourism accounts for 9% of Tairāwhiti's tradeable sector GDP.¹

Viticulture, wine, beer and spirit making accounts for 3.8% of Tairāwhiti's tradeable sector GDP. Fishing, aquaculture and seafood processing accounts for 2.0% of Tairāwhiti's tradeable sector GDP. Grain harvesting and milling accounts for 0.6% of Tairāwhiti's tradeable sector GDP.

¹ Tourism is a sector, incorporating a range of components of different industries (including retail, accommodation and food services, etc) rather than a standalone industry. More details on the tourism sector are available at <https://rep.infometrics.co.nz/tairawhiti/notes#tourismGDP>

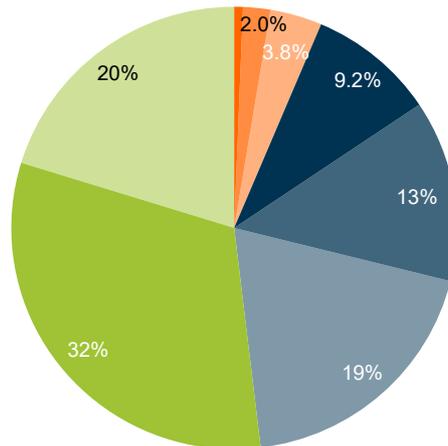
80% of tradeable GDP from six industry groupings

Chart 4 shows the six export industry groupings together, which collectively account for 80% of Tairāwhiti's tradeable sector GDP. Other industries account for 20% of tradeable sector GDP, and is spread across many industries. Most of the other industries are servicing these six export-focused industry groupings – for example, veterinarians providing services to sheep and beef cattle farming.

Chart 4

Tairāwhiti tradeable sector GDP, 2024
Share of tradeable GDP, Infometrics central estimate

- Grain
- Fishing, aquaculture and seafood
- Viticulture, wine, beer and spirit
- Tourism
- Fruit and vegetable
- Sheep, beef, meat and dairy
- Forestry, logging, wood and paper
- Other



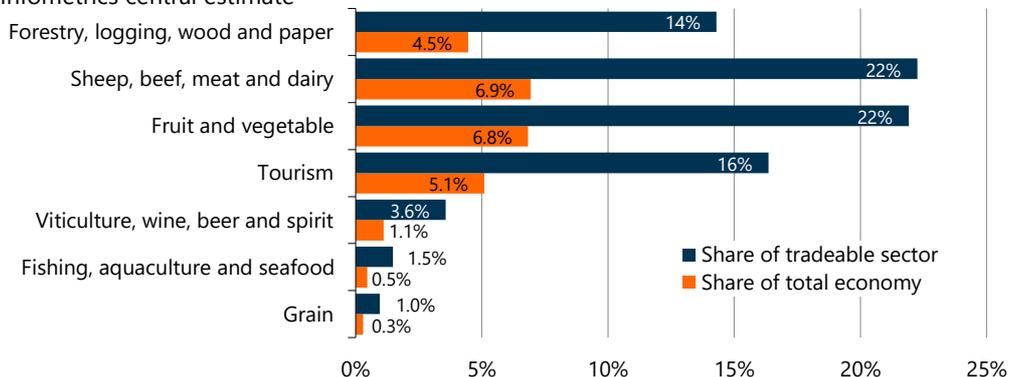
Source: Infometrics, Stats NZ

Sheep and beef, fruit and vege each account for 22% of tradeable employment

The largest tradeable groupings for employment in Tairāwhiti are sheep, beef, meat and dairy, and fruit and vegetables, each accounting for 22% of tradeable sector jobs (see Chart 5). Sheep, beef, meat and dairy accounts for 6.9% of Tairāwhiti jobs overall. Fruit and vegetables accounts for 6.8% of jobs overall.

Chart 5

Tairāwhiti export industry share of employment, 2024
Infometrics central estimate



Note: The order of the groupings is intentionally the same as Graph 3, for ready comparison.

Source: Infometrics, Stats NZ

Following closely behind, tourism accounts for 16% of jobs in Tairāwhiti's tradeable sector, followed by forestry, logging, wood and paper with 14%.

Viticulture, wine, beer and spirit accounts for 3.6% of Tairāwhiti's tradeable sector jobs, fishing, aquaculture and seafood accounts for 1.5%, and grain accounts for 1.0%.

The six export industry groupings of Chart 5 account for 81% of Tairāwhiti tradeable sector employment, with the remainder spread across a range of industries.

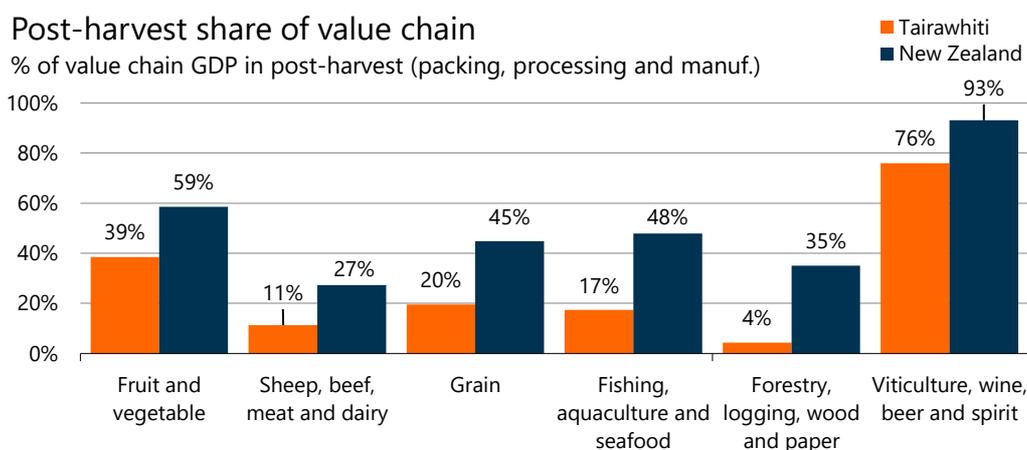
Two tables detailing tradeable sector employment and GDP are included in the Appendix, at a coarse and finer level of industry definition.

Scope to add further value to primary production

Primary production contributes to the economy directly and indirectly, through post-harvest activities. Across six main product value chains, Tairāwhiti's economy is under-represented in post-harvest aspects compared to the national average.

Chart 6 shows that post-harvest activities such as wood and paper production account for 35% of GDP in the forestry value chain nationally, but only 4% for Tairāwhiti. For fruit and vegetables, post-harvest activities such as processing and packing account for 59% of value chain GDP nationally, but only 39% in Tairāwhiti.

Chart 6



Source: Infometrics, Stats NZ

The under-representation of post-harvest activities in Tairāwhiti's value chains reflects that the region is concentrated in primary production. Tairāwhiti's primary products are more likely to be exported in raw form than their counterpart industries in other parts of New Zealand. If Tairāwhiti could grow its role in post-harvest production of its primary products, this would help to grow the size of the tradeable sector, as these products are highly tradeable.

Appendix. Tradeable sector by industry

Table 1

Tairāwhiti tradeable sector by ANZSIC Level 1 industry

Infometrics GDP and employment estimates, 2024

Industry	GDP (\$m)			Employment		
	Tradeable	Total	Tradeable %	Tradeable	Total	Tradeable %
Agriculture, Forestry and Fishing	\$468.5	\$470.3	100%	4,570	4,590	100%
Mining	\$0.8	\$2.6	30%	6	25	25%
Manufacturing	\$96.8	\$129.9	75%	1,367	1,886	73%
Electricity, Gas, Water and Waste Services	\$1.2	\$22.3	6%	3	63	4%
Construction	\$7.2	\$236.7	3%	74	2,314	3%
Wholesale Trade	\$14.2	\$83.2	17%	108	643	17%
Retail Trade	\$11.8	\$162.6	7%	142	2,001	7%
Accommodation and Food Services	\$11.0	\$53.1	21%	288	1,308	22%
Transport, Postal and Warehousing	\$24.2	\$114.7	21%	203	966	21%
Information Media and Telecommunications	\$5.2	\$35.3	15%	35	229	15%
Financial and Insurance Services	\$3.7	\$40.7	9%	23	245	9%
Rental, Hiring and Real Estate Services	\$22.8	\$220.7	10%	59	505	12%
Professional, Scientific and Technical Services	\$22.3	\$169.8	13%	189	1,436	13%
Administrative and Support Services	\$23.3	\$57.1	41%	453	1,043	43%
Public Administration and Safety	\$0.0	\$109.7	0%	0	1,045	0%
Education and Training	\$3.6	\$121.8	3%	71	2,361	3%
Health Care and Social Assistance	\$1.7	\$235.9	1%	20	2,894	1%
Arts and Recreation Services	\$1.0	\$24.1	4%	13	325	4%
Other Services	\$5.4	\$44.7	12%	113	946	12%
Not Elsewhere Included	\$0.0	\$194.2	0%			
Owner-Occupied Property Operation	\$0.0	\$207.8	0%			
Total	\$724.8	\$2,737.2	26%	7,738	24,825	31%

Table 2

Tairāwhiti tradeable sector by NZSIOC Level 3 industry

Infometrics GDP and employment estimates, 2024

Industry	GDP (\$m)			Employment		
	Tradeable	Total	Tradeable %	Tradeable	Total	Tradeable %
Horticulture and Fruit Growing	\$65.8	\$66.1	100%	1,167	1,172	100%
Sheep, Beef Cattle and Grain Farming	\$120.6	\$121.0	100%	1,410	1,415	100%
Dairy Cattle Farming	\$3.8	\$3.8	100%	33	33	100%
Poultry, Deer and Other Livestock Farming	\$3.0	\$3.0	100%	72	72	100%
Fishing and Aquaculture	\$11.9	\$11.9	100%	78	78	100%
Forestry and Logging	\$198.8	\$199.5	100%	540	542	100%
Agriculture, Forestry and Fishing Support Services and Hunting	\$64.7	\$65.0	99%	1,271	1,278	99%
Mining	\$0.8	\$2.6	30%	6	25	25%
Meat and Meat Product Manufacturing	\$14.9	\$15.0	100%	250	251	100%
Seafood Processing	\$2.5	\$2.5	100%	37	37	100%
Dairy Product Manufacturing	\$0.8	\$0.8	100%	14	14	100%
Fruit, Oil, Cereal and Other Food Product Manufacturing	\$24.7	\$28.3	87%	445	518	86%
Beverage and Tobacco Product Manufacturing	\$20.7	\$20.9	99%	106	107	99%
Textile, Leather, Clothing and Footwear Manufacturing	\$4.7	\$4.7	99%	85	85	99%
Wood Product Manufacturing	\$10.5	\$13.7	77%	199	261	76%
Pulp, Paper and Converted Paper Product Manufacturing	\$0.0	\$0.0	0%	0	0	0%
Printing	\$0.7	\$5.7	13%	12	91	13%
Petroleum and Coal Product Manufacturing	\$0.0	\$0.0	0%	0	0	0%
Basic Chemical and Chemical Product Manufacturing	\$0.4	\$1.5	23%	4	19	23%
Polymer Product and Rubber Product Manufacturing	\$1.6	\$6.5	24%	26	105	24%
Non-Metallic Mineral Product Manufacturing	\$0.6	\$4.3	15%	7	46	14%
Primary Metal and Metal Product Manufacturing	\$0.0	\$0.0	0%	0	0	0%
Fabricated Metal Product Manufacturing	\$0.7	\$5.6	13%	13	100	13%
Transport Equipment Manufacturing	\$1.0	\$2.0	51%	13	26	51%
Machinery and Other Equipment Manufacturing	\$10.8	\$15.3	71%	119	169	71%
Furniture and Other Manufacturing	\$2.1	\$3.1	67%	38	57	67%
Electricity and Gas Supply	\$0.7	\$6.7	11%	1	6	11%
Water, Sewerage, Drainage and Waste Services	\$0.5	\$15.6	3%	2	57	3%
Building Construction	\$0.7	\$45.0	2%	10	618	2%
Heavy and Civil Engineering Construction	\$1.3	\$75.0	2%	7	415	2%
Construction Services	\$5.2	\$116.7	4%	57	1,281	4%
Wholesale Trade	\$14.2	\$83.2	17%	108	643	17%
Motor Vehicle and Motor Vehicle Parts and Fuel Retailing	\$3.5	\$26.0	14%	37	272	14%
Supermarket, Grocery Stores and Specialised Food Retailing	\$2.8	\$48.0	6%	38	646	6%
Other Store-Based Retailing and Non Store Retailing	\$5.5	\$88.6	6%	67	1,083	6%
Accommodation and Food Services	\$11.0	\$53.1	21%	288	1,308	22%
Road Transport	\$11.7	\$55.4	21%	117	556	21%
Rail, Water, Air and Other Transport	\$2.6	\$10.5	25%	16	67	25%
Postal, Courier Transport Support, and Warehousing Services	\$10.0	\$48.8	20%	70	343	20%
Information Media Services	\$3.9	\$23.9	16%	32	197	16%
Telecommunications, Internet and Library Services	\$1.3	\$11.4	12%	3	32	10%
Finance	\$2.7	\$29.8	9%	13	142	9%
Insurance and Superannuation Funds	\$0.0	\$0.0	0%	0	0	0%
Auxiliary Finance and Insurance Services	\$1.1	\$10.9	10%	10	103	10%
Rental and Hiring Services (except Real Estate)	\$10.1	\$51.2	20%	34	170	20%
Property Operators and Real Estate Services	\$12.7	\$169.5	8%	25	335	7%
Professional, Scientific and Technical Services	\$22.3	\$169.8	13%	189	1,436	13%
Administrative and Support Services	\$23.3	\$57.1	41%	453	1,043	43%
Central Government Administration, Defence and Public Safety	\$0.0	\$83.0	0%	0	710	0%
Local Government Administration	\$0.0	\$26.7	0%	0	335	0%
Education and Training	\$3.6	\$121.8	3%	71	2,361	3%
Health Care and Social Assistance	\$1.7	\$235.9	1%	20	2,894	1%
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