Central Highlands Regional Economic Development Strategy

SUPPORTING ANALYSIS



Acknowledgement of Country

The Department of Jobs, Precincts and Regions acknowledge the Traditional Owners of the lands and waters on which we live and work, and pay our respects to their Elders past, present and emerging.

We acknowledge that the Central Highlands Regional Partnership region is on traditional lands, including those lands of the Eastern Maar, Wadawarrung, Dja Dja Wurrung and Wurundjeri People as well as the Wotjobaluk, Jaadwa, Jadawadjali, Wergaia and Jupgalk Nations, as well as other Traditional Owner groups in Victoria who are not formally recognised.

We acknowledge the diversity of Aboriginal Victorians, their communities and cultures, the intrinsic connection to Country, the contribution and interest of Aboriginal people and organisations in developing a prosperous region. This Strategy is committed to advancing the principles of Aboriginal self-determination and supporting communities to realise self-determined economic development objectives.

Contents

01 E	Econ	omic Insights 2
	1.1	Business and Industry Analysis 2
	1.2	Demographic Profile
	1.3	Socio-Economic Profile
	1.4	Labour Market
	1.5	Skills 36
02	Con	nparative Advantage
	2.1	Transport Infrastructure
	2.2	Digital Infrastructure12
	2.3	Natural Endowments
03	Bibl	liography
04	Stro	ategic context

01 Economic Insights

1.1 Business and Industry Analysis

Over the past five years, the Central Highlands region has realised strong growth in employment and economic output. Driven by Ballarat as the region's major population centre, the economy is benefiting from a growing population and emerging service sectors.

- Traditional reliance on Manufacturing and Agriculture as the pillars of regional economic activity have ceded ground to growing Construction, Health Care and Social Assistance, and Education and Training sectors. The increasing importance of these industries reflects the changing nature of the local economies.
- Despite a declining share of economic activity, Agriculture, Forestry and Fishing is the most specialised (or concentrated) sector by output and employment in the region.
- Across the region, 17 (of 19) sectors have grown. This suggests there are a significant number of local factors contributing towards Central Highlands' impressive economic growth. These strong results were led by Rental, Hiring and Real Estate Services (up 60.7% over five years), Health Care and Social Assistance (up 44.2%) and Electricity, Gas, Water and Waste Services (up 41.7%).

The region's international export value has consistently increased over the past decade and now totals \$1.3 billion. Tourism has also realised strong growth, with most visits coming from domestic tourists.

- Despite its inland location, Central Highlands is well connected with Melbourne's air- and seaports via the dual carriage Western Highway. Strong freight connections have enabled the region to achieve strong export growth, particularly in agricultural goods in recent years.
- Home to historic gold towns, Australia's largest concentration of natural mineral springs and a series of walking and bike paths, tourism is a significant contributor to the region's economy, particularly for Hepburn Shire LGA.

As regions seek to become more competitive in the global marketplace, economies are becoming increasingly specialised to focus production on regional strengths. For governments and local leaders, it has therefore become important to understand regional assets and attributes to better tailor plans and policies and support future economic growth and development.

A simple form of analysis to understand an economy's underlying structure is Location Quotient (LQ) analysis. This form of analysis compares industries' size and growth as a proportion of total economic activity relative to Victorian averages. The higher the LQ, the more significant and therefore specialised an industry is to the local economy relative to Victoria. This is also referred to as industry concentration. Scores above 1.25 are typically considered to indicate specialisation.

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LQ Analysis, Employment

Figure 1.1.1 (on the following page) identifies the Central Highlands Regional Partnership region's (the Region) employment specialisations. Industries are divided into four colour groups according to their quadrant position:

Blue sectors are regional concentrations which are experiencing faster growth than state averages

Green sectors are regional concentrations which are experiencing slower growth (or faster declines) than state averages



Orange sectors are emerging industries which are not regional concentrations but are experiencing faster growth (or slower declines) than state averages



Grey sectors are not regional concentrations and are experiencing slower growth (or faster declines) than state averages

The position on the vertical axis indicates the industry's degree of employment specialisation (location quotient)¹ relative to the Victorian economy. For example, a value of 4.0 means that, as a share of total employment in the local economy, the industry employs four times as many people than the Victorian average². The position on the horizontal axis indicates the difference in each industries' employment growth (2015 to 2020³) between the region and the Victorian average. For example, a 5 per cent value indicates that regional employment in the industry has grown 5 percentage points faster (between 2015 and 2020) relative to the industry's average growth rate in Victoria. The size of each bubble indicates the share of the Region's workforce employed in the industry.

^{1.} The Location Quotient tells us how regions compare to that of the broader economy in terms of size. Where there is variation in size relative to the broader economy, LQ can be an indicator of strength and 'importance' to the future of the economy. However, it is only one indicator and further analysis is needed to determine if the industry warrants future investment and attention by government. Furthermore, LQ does not tell us if a high LQ industry is a driver or a consequence of growth. This is important because an industry may only exist as a consequence of government funding (as is the case for correctional facilities/prisons) and not because of the private market's demand for its goods and services. While there may be policy or other reasons to support these industries, these reasons may not be overtly economic in nature.

^{2.} The comparator region used is the Victorian economy excluding the regional partnership to greater reflect the comparison to the region's economy.

^{3.} Estimates of industry employment in 2020 include early impacts of COVID-19. While this may subdue the net growth between 2015-2020, it does not affect the comparative growth metrics used in this analysis.

Figure 1.1.1: Location Quotient (Employment)

Agriculture scores explained:

- LQ score of 2.2 indicates that the industry has 2.2 times as many agricultural workers, as a share of total employment, compared to the state average.
- Employment growth compared to Victoria of -55.6% shows that the industry has grown 55.6% pts slower than the industry's state average.



Employment growth compared to VIC industry (% pts)



(NIEIR, 2020) Note: For visibility of all sectors some bubbles have been represented as rings, the circumference of the circle is taken as size of the bubble

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As represented in Figure 1.1.1, the region is specialised in Agriculture, Forestry and Fishing, Mining, and Health Care and Social Assistance. These industries represent over 23 per cent of Central Highlands' employment, with Health Care and Social Assistance contributing the largest stake at 17.2 per cent of the region's total employment. Subindustries such as Agriculture, Food Product Manufacturing, Transport Equipment Manufacturing, Food Retailing, Accommodation, Preschool and School Education, Hospitals, Residential Care Services, Heritage Activities were identified as specialised subindustries with significant employment in the region.

Eight industries have an LQ score between 1.00 and 1.25. While these industries have more significant employment shares than the state average, the difference is not sufficiently great to be defined as a regional specialisation. Of these eight industries, seven recorded faster employment growth than the state average, led by Rental, Hiring and Real Estate Services (+ 48.0% pts) and Arts and Recreation Services (+ 36.8% pts). If this trend were to continue, the region could see further specialisation in the coming years.

When metropolitan Melbourne is excluded, and Central Highlands compared with the rest of regional Victoria, the region demonstrates employment specialisations in Information Media and Telecommunications, and Arts and Recreation Services, and Rental, Hiring and Real Estate Services industries. Equally, compared with regional Victoria, Central Highlands does not exhibit a specialisation in Agriculture or Mining. As governments and local leaders plan for the region's future economic direction, it is important to consider Central Highlands' position both within regional Victoria and the State.

LQ analysis, GVA

Figure 1.1.2 (on the following page) identifies the Central Highlands economic output specialisations in terms of Gross Value Added (GVA). Using the same approach as above, this analysis compares industries' size and growth as a proportion of total economic GVA relative to Victorian averages. While the employment LQ captures the industry concentration of the regional workforce, it does not capture the economic contribution of employment in terms of GVA. The GVA LQ analysis provides this insight. The position on the vertical axis indicates the industry's degree of GVA specialisation relative to the Victorian economy. For example, a value of 2.0 means that, as a share of the total GVA in the local economy, the industry is two times larger than the Victorian average. The position on the vertice in each industries' GVA growth (2015 to 2020) between the region and the Victorian average. The size of each bubble indicates the share of the region's GVA produced by the industry.

Figure 1.1.2: Location Quotient (GVA)



GVA Growth compared to VIC industry (% pts)



(NIEIR, 2020) Note: For visibility of all sectors some bubbles have been represented as rings, the circumference of the circle is taken as size of the bubble.

As represented in Figure 1.1.2, the region is specialised in Agriculture, Forestry and Fishing, Mining, Construction, Retail Trade, Accommodation and Food Services, Education and Training, and Health Care and Social Assistance. Of these seven sectors, only Mining saw a decline in GVA over the past 5 years compared to the state. Conversely, Rental, Hiring and Real Estate Services and Electricity, Gas, Water and Waste Services have recorded significantly faster growth in GVA over the same period than seen across the state.

At a subindustry level, Central Highlands is specialised in Agriculture, Coal Mining, Food Product Manufacturing, Water Supply, Sewerage and Drainage Services, Building Construction, Heavy and Civil Engineering Construction, Construction Services, Food Retailing, Public Administration, Preschool and School Education, Hospitals, Residential Care Services, and Social Assistance Services.

Shift-Share Analysis

Shift-Share Analysis is used to better understand the drivers of regional economic growth. The analysis breaks industry growth into two drivers of change: (1) a Victorian state industry effect and (2) a local effect. By decomposing the drivers, the analysis identifies whether an industry's growth reflects its performance across the region or whether its growth is more a result of broader trends.

Depicted in Figure 1.1.3 below, industries are divided into three colour groups:

Blue industries which are outperforming the average industry growth rate in Victoria

Pink industries which are underperforming the average industry growth rate in Victoria but are producing greater output over time

Grey industries which are underperforming the average industry growth rate in Victoria and are declining in output production over time

Figure 1.1.3: Shift-Share Analysis



GVA Growth (%), 2015-20

Size of bubble represents relative GVA levels in 2020 (NIEIR, 2020) The position on the vertical axis indicates the difference in each industry's average GVA growth (2015-20) between the region and the Victorian average. The position on the horizontal axis indicates the amount each industry in the region has grown or declined between 2015 and 2020. The size of each bubble indicates the amount of output produced in the industry.

Relative to the Victorian average, thirteen (of 19) industries outperformed average growth across the State, led by Rental, Hiring and Real Estate Services (+55.3% pts), and Electricity, Gas, Water and Waste Services (+35.7% pts). Of the thirteen, all sectors except Agriculture, Forestry and Fishing have also recorded a net increase in GVA since 2015. That is, regional factors have contributed to the strong performance across a range of sectors, while also driving total growth over the past five years. Whereas Agriculture has declined over the past five years, however it has declined less in Central Highlands than across the state. In addition, there are five sectors which have recorded GVA growth over the past five years but underperformed relative to the Victorian average.

Central Highlands exhibits further strengths among its subindustries. Over the past five years, Residential Care Services, Water Supply, Sewerage and Drainage services, Food Retailing and Food Product Manufacturing are strongly outperforming the state's average growth rate, alongside traditional subindustries in the Mining and Agriculture sectors.

Industry Cluster Analysis

Cluster Analysis is used to help identify industries which may have a comparative advantage. Understanding the networks of businesses which create wealth in the region assists in determining the factors which makes a region successful and the strengths which can be leveraged to pursue future economic opportunities. Industry clusters can be supported by a range of conditions:

- **Factor conditions:** Businesses located near each other enjoy low-cost transportation of basic factors, such as raw materials and other physical resources. Advanced factors, such as knowledge and 'the business spirit', are also likely to be shared by businesses operating in close proximity.
- **Demand conditions:** Proximity to a sizeable and sophisticated local market can encourage businesses to compete for customers by providing quality and personalised service.
- **Related and supporting industries:** Businesses can focus on reducing costs by efficiently improving their production process if supplementary suppliers are nearby.
- **Company strategy, structure, and rivalry:** Businesses can gain from constructive rivalry if they learn from opportunities i.e. niche information, shared resources, or ideas, and if they can strategically innovate from rival threats.⁴

In Table 1.1.4 on the following page, each industry's employment LQ and business count LQ are presented to help identify clusters. A score above 1.25 is considered the benchmark for an industry cluster.

4. Porter, M. (1998). Clusters and the new economics of competition. Harvard Business Review, 76 (6), 77 -90

Table 1.1.4: Industry Cluster Analysis

Sector	LQ (Employment)	LQ (Business count⁵)	Clusters
Agriculture, Forestry and Fishing	2.19	2.61	~
Mining	2.57	2.51	*
Manufacturing	1.00	1.04	×
Electricity, Gas, Water and Waste Services	0.77	1.24	×
Construction	1.11	1.18	×
Wholesale Trade	0.50	0.59	×
Retail Trade	1.17	0.95	×
Accommodation and Food Services	1.22	1.06	×
Transport, Postal and Warehousing	0.70	0.66	×
Information Media and Telecommunications	0.71	0.65	×
Financial and Insurance Services	0.28	0.95	×
Rental, Hiring and Real Estate Services	1.01	0.86	×
Professional, Scientific and Technical Services	0.51	0.69	×
Administrative and Support Services	0.66	0.68	×
Public Administration and Safety	1.05	0.66	×
Education and Training	1.12	0.79	×
Health Care and Social Assistance	1.32	0.90	?
Arts and Recreation Services	1.24	1.20	×
Other Services	0.93	1.09	×

(ABS, 2021) (NIEIR, 2020)

With higher concentrations than the state average, the region has strong clusters in Agriculture, Forestry and Fishing, and Mining industries. While the analysis did not indicate clusters of businesses in the Healthcare and Social Assistance sector, employment within these industries is also disproportionately large.

Figure 1.1.5: Cluster mapping

Agriculture businesses



Mining businesses



5. Business count sourced from REMPLAN and includes all active GST trading businesses with the exception of family trusts and self-managed superannuation funds

Gross Value Add

Since 2001, Central Highlands has realised growth in Gross Value Add (GVA); the region's total GVA rose from \$5.1 billion to \$8.2 billion between FY2001 and FY2020 (see Figure 1.1.6).

At an LGA level trends vary. Ballarat is the largest economy in the region and has driven a significant proportion of the region's growth. This is followed by Moorabool, Golden Plains, Hepburn and Ararat. In comparison, Pyrenees Shire has seen falls in GVA.

Ballarat's strong growth has been supported by its growing population. This support has boosted activity across Health Care and Social Assistance, Construction and Education and Training services.

The GVA decline observed in Pyrenees Shire is driven by a decline in Beverage and Tobacco Product Manufacturing. This decline has however been partially offset by increases in service industries such as Construction, Public Administration and Safety and Health Care and Social Services.



Figure 1.1.6: GVA over time by LGA

(NIEIR, 2020)

Health Care and Social Assistance GVA has experienced notable growth over the past 20 years making it the largest contributor to Central Highlands' GVA (see Figure 1.1.7). This is followed by Construction, which also experienced significant growth since FY2001, particularly between FY2001 and FY2010 and FY2017 and FY2019. Agriculture, Forestry and Fishing has fluctuated over the years. Despite this, the industries remain the third most significant contributors to the region's economic output. Education and Training, has experienced steady growth over the years, making it the fourth largest contributor the Central Highlands GVA. Finally, Manufacturing services have realised slow declines since the turn of the century but remains the region's fifth largest contributor to GVA.

Figure 1.1.7: GVA by industry



(NIEIR, 2020)

Consistent with the rest of the state and partially explained by population and demographic changes, Health Care and Social Assistance has realised steady growth over time. Most notable has been the substantial growth in Hospitals in recent years (see Figure 1.1.8)



Figure 1.1.8: Health Care and Social Assistance

(NIEIR, 2020)

Construction GVA is supported by growth across all subindustries, however most notably in Construction Services. Building Construction and Heavy and Civil Engineering have also contributed to growth since FY2001.





At a subindustry level, a decline in Manufacturing GVA since FY2001 is largely accounted for by a decline in Beverage and Tobacco Manufacturing between FY2001 and FY2016.

Figure 1.1.10: Manufacturing GVA



(NIEIR, 2020)

The region's growth in Education and Training services GVA is driven by preschool and school education. This growth was particularly significant between FY2016 and FY2019. Tertiary education, predominantly concentrated in Ballarat, experienced steady growth until FY2013, after which it has seen a slight contraction. (see Figure 1.1.1)

Figure 1.1.11: Education and Training GVA



The Agriculture, Forestry and Fishing industry in the Central Highlands region is driven by Agriculture. Forestry and logging, which experienced growth until FY2018, has been declining ever since. (see Figure 1.1.12) Success in the Agriculture industry in the region is due, in part to its well-connected export markets, agritourism advantages, access to Ballarat – Victoria's largest inland city and its strength in mixed cropping.



2020

Aquaculture

Fishing, Hunting and Trapping

Figure 1.1.12: Agriculture, Forestry and Fishing GVA

(NIEIR, 2020)

Agriculture

Forestry and Logging

Agriculture, Forestry and Fishing Support Services

\$0 _____

Business growth

Over the past five years, nearly 4,400 new businesses have established themselves in the Central Highlands region, mostly concentrated around Ballarat. By industry, the highest proportion are in Construction (24 per cent or 1,081 businesses), Professional, Scientific and Technical Services, and Transport, Postal and Warehousing (10 per cent each). Among subindustries, Housing Construction, Carpentry, Electrical and Site Preparation accounted for 450 of the new businesses. Growth in these sectors is likely to reflect the region's increasing population and, as it relates to transport and technical services, as Ballarat's emergence as a key services hub across a range of industries.

Other industries of significant business growth are:

- Agriculture, Forestry and Fishing (381 new businesses),
- Health Care and Social Assistances (298 new businesses),
- Retail Trade (259 new businesses), and
- Rental, Hiring and Real Estate Services (257 new businesses).

Among subindustries, significant business growth has occurred across:

- Non-Residential Property Operators (160 new businesses),
- Management Advice and Related Consulting (143 new businesses),
- Road Freight Transport (137 new businesses),
- Cafés and Restaurants (118 new businesses), and
- Taxi Drivers (113 new businesses).

While many of these areas reflect population growth, emergence of businesses in several industries reflects the growing 'gig economy' in retail, hospitality, and passenger vehicle services.

Note that business growth does not indicate the size of businesses.

Figure 1.1.13: Business Entries (September 2015 to September 2020)



Manufacturing

- Construction
- Agriculture, Forestry & Fishing
- Electricity, Gas, Water & Waste Services
- Rental, Hiring & Real Estate Services
- Health Care & Social Assistance
- Mining
- Public Administration & Safety
- Retail Trade
- Education & Training
- Accommodation & Food Services
- Financial & Insurance Services
- Professional, Scientific & Technical Services
- Transport, Postal & Warehousing
- Wholesale Trade
- Administrative & Support Services
- Other Services
- Information Media & Telecommunications
- Arts & Recreation Services

International Exports

Despite its inland location, the region's producers are well connected with international markets via the Western and Midland Highways. These major freight routes link the region with Melbourne and Geelong's air- and seaports as the State's principal export gateways. International export value has significantly increased from \$733.6 million in 2010 to \$1.3 billion in 2020. Manufacturing, and Agriculture, Forestry and Fishing products are driving growth, comprising 68.1 per cent of total export value in 2020.

Contributing \$508.6 million in international export value in 2020, the Manufacturing sector has realised strong growth since 2016. Worth \$327.4 million in 2020, Food Product Manufacturing is the most significant contributor to growth, but the region also generates value from Primary Metal and Metal Product Manufacturing (worth \$42.8 million) and Transport Equipment Manufacturing (worth \$42.0 million). The region is serviced by food processing centres in Ballarat, Ararat, and Bacchus Marsh, focussed on fruit and vegetable, meat, and beverage (beer and wine) processing.

Over the past ten years, the Agriculture, Forestry and Fishing industry has realised strong growth in international export value; from \$134.0 million in 2010 to \$368.5 million in 2020, down from \$478.1 million in 2018. Sheep, meat and grains (including cereals, pulses, legumes and oilseeds) are the region's most valuable agricultural products. United States leads China and Japan as most significant sheep markets while China, Indonesia and Vietnam are top destinations for Victoria's grain. The decline in agricultural export value since 2018 can be partly attributed to record-high water prices, and subsequently exacerbated by COVID-19 and China's imposition of trade restrictions on key Australian commodities, including barley, and challenges re-listing abattoirs following a COVID-19 induced pause on trade.

Education and Training (worth \$91.9 million in 2020, down from \$102.8 million) is the next largest export industry, supported by growing international student numbers at Federation University in Ballarat. Other smaller sectors are Accommodation and Food Services (worth \$81.3 million in export value in 2020), Wholesale Trade (worth \$55.8 million) and Transport, Postal and Warehousing (worth \$48.0 million).



Figure 1.1.14: International Export Value, Key Industries

Visitor Economy

Home to historic gold towns, Australia's largest concentration of natural mineral springs and a series of walking and bike paths, tourism is a significant contributor to the regional economy, particularly for Hepburn Shire. Prior to COVID-19, visitor numbers and expenditure were growing year-on-year (see Figure 1.1.15). Domestic daytrips visitors have been the most common category of visitation, followed by domestic intrastate overnight visitors. However, restrictions associated with COVID-19 including international and state border closures, stay-at-home orders and density limits have significantly impacted the region's visitor seconomy. The total number of domestic daytrips, and domestic and international overnight visitors fell from 5.9 million in 2019 to 3.1 million in 2020. This decline led to a fall in total visitor expenditure; from \$1.1 billion in 2019 to \$586 million in 2020. Despite the easing of restrictions and vaccine rollout, the pandemic is likely to have lasting effects on visitation patterns to the region.



Figure 1.1.15: Visitation Overview (2015 – 2020)⁶

Among categories of visitation, international overnight visitors have fallen the most (78.0 per cent), however there have also been substantial falls in domestic interstate (65.1 per cent) and intrastate (57.5 per cent) overnight visitors and domestic day-trippers (40.7 per cent). Due to its proximity to metropolitan Melbourne, the region is among those areas to have disproportionately realised the negative impacts of restrictions on movement between Victoria's regional and metropolitan areas.

As Australia's vaccine rollout progresses and international travel is more limited, the region has the opportunity to capture tourism demand from those seeking to substitute overseas holidays. The region is already realising these benefits; average visitor spend is substantially higher in 2020 than 2019 among domestic visitors, in part due to increases in the average length of time domestic overnight visitors are staying in the region. Since the region is proximate to metropolitan Melbourne, it is well positioned to attract higher spending and longer staying overnight visitors.

^{6.} From 2021, tourism data for Regional Partnership regions are defined based on SA2 boundaries while prior data is based on LGA boundaries therefore estimates may slightly differ.

Table 1.1.16: Visitation & Average Spend (2019 – 2020)7

	Number of Visitors		Average Visitor Spend	
	2019	2020	2019	2020
Domestic Daytrip	4,049,000	2,402,000	\$104	\$118
Domestic Intrastate Overnight	1,512,000	643,000	\$325	\$369
Domestic Interstate Overnight	264,000	92,000	\$471	\$663
International Overnight	44,000	10,000	\$852	\$496

Source: (Tourism Research Australia, 2021a)

Beyond the four major categories of visitation, the region also previously received substantial international day-trippers to Ballarat, Daylesford, Hepburn Springs and Macedon Ranges⁸. An estimated 148,700 international day-trippers visited Ballarat in 2019 and 24,700 visited Daylesford and Hepburn Springs. With only 29,000 and 20,100 international tourists to each of the destinations staying a night, day-tripping has been the more popular form of visitation. Total international visitation to Ballarat fell to 26,200 visitors in 2020 and only 9,900 visited Daylesford, Hepburn Springs and Macedon Ranges. It is unlikely that these types of visitors are going to return in the short- to medium-term. To replace the international visitation shortfall, efforts are required to encourage first-time domestic tourists and/or create incentives for past tourists to return.

Most of the region's tourism businesses are small enterprises. In 2019, there was 1,988 tourism businesses across the region. Of these, 75.4 per cent have four employees or fewer, with 41.6 per cent sole proprietors. Just 5.5 per cent of businesses have 20 or more employees.

Table 1.1.16: Average Number of Tourism Businesses (2016 – 2019)

Local Government Area	Tourism Businesses
Ararat	135
Ballarat	1,146
Golden Plains	158
Hepburn	250
Moorabool	234
Pyrenees	65
Total	1,988

Source (Tourism Research Australia, 2020)

7. From 2021, tourism data for Regional Partnership regions are defined based on SA2 boundaries while prior data is based on LGA boundaries therefore estimates may slightly differ.

8. Visitor numbers for Daylesford and Hepburn Spring are grouped with those visiting Macedon Ranges which does not form part of the Central Highlands region. Sources: (Tourism Research Australia, 2021b)

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1.2 Demographic Profile

Over the past 20 years, Central Highlands has experienced strong population growth. Notwithstanding the impacts of COVID-19, this trend is expected to continue.

- Regional growth has been driven by Ballarat and, to a lesser extent, by Moorabool and Golden Plains shires. This trend reflects the growing liveability appeal of regional cities and the peri-urban fringe for those seeking to move away from metropolitan Melbourne.
- Between 2019 and 2020, the most important contributor towards the region's population growth was the inflow of domestic migrants from within Australia.
- The enduring nature of population changes due to COVID-19 are yet to be determined and as such, the impact on economic activity yet to be fully understood.

While overall population growth is strong, there is significant outward migration of young people (aged 15 to 24 years) across all LGAs, with the exception of Ballarat.

- This movement is consistent with trends across regional Victoria and is likely to reflect lower diversity of employment, training, and education pathways.
- The potential impact on working age population trends is offset by net gains in the 25 to 44 years and 45 to 64 years age cohorts. This movement may reflect the region's strong economic growth and appeal for families and mature workers as a migration destination.

Population and population growth

In 2020, Central Highlands was home to an estimated resident population of 207,300 people. 111,361 (54 per cent) of these lived in the city of Ballarat, 36,013 (17 per cent) in Moorabool Shire, 24,249 (12 per cent) in Golden Plains Shire, 16,157 (8 per cent) in Hepburn shire, 11,965 (6 per cent) in Ararat Shire and 7,555 (4 per cent) in Pyrenees Shire.

Central Highlands' population increased by 11.7 per cent between 2001 and 2010 and by 18.1 per cent between 2011 and 2020. While growth has underperformed metropolitan Melbourne over the same periods, these rates outpace the average rates across regional Victoria (see Figure 1.2.1).

Central Highlands' population was forecast to continue to grow more rapidly than the average rate across regional Victoria however, the impacts of COVID-19 on domestic and international migration is likely to alter previous forecasts (see Figure 1.2.2).

As the major socioeconomic centre, population growth has been driven by strong growth in Ballarat. There has also been steady growth in Moorabool and Golden Plains Shires. These LGAs are in the peri-urban fringe, with proximity to Melbourne and Geelong. As such, it is likely that they have benefited from the impacts of urban sprawl and long-distance commuters relocating to the region. The smaller and more rural LGAs of Hepburn, Ararat and Pyrenees have experienced minimal population growth (see Figure 1.2.3).



Figure 1.2.1: Population Growth

Source: (Australian Bureau of Statistics (ABS), 2020a)

Figure 1.2.2: Population Forecast



2021-2026 2021-2031

Source: (Department of Environment, Land, Water and Planning (DELWP), 2019)



Figure 1.2.3: Population Growth by LGA (2000 – 2036)

Source: (Australian Bureau of Statistics (ABS), 2020a) (Department of Environment, Land, Water and Planning (DELWP), 2019)

Components of population change

Between 2019 and 2020, population growth in Central Highlands was realised via positive net internal migration (NIM), natural increases and net overseas migration (NOM) (see Figure 1.2.4). For all LGAs, population growth has been led by Australian residents moving into the locality (NIM).

In addition, Ballarat, Moorabool and Golden Plains LGAs have substantial natural growth (more births than deaths). In contrast, the Pyrenees, Hepburn and Ararat LGAs are experiencing net declines or stagnant natural growth. This may reflect low birth rates and/or high death rates due to ageing populations.

Population change across the region is varied. As government and local leaders plan for growth, it is important to recognise that the magnitude and drivers substantially differ across the region's LGAs, and therefore policy responses should vary. Furthermore, the impacts of COVID-19 are likely to be differentially experienced across regional communities.



Figure 1.2.4: Population Change by Components (2019 – 2020)

Source: (ABS, 2021)

Regional internal migration

While all LGAs recorded positive population growth over the past year, a breakdown of net internal migration by age indicates a significant outflow of those aged 15 to 24 years from the region. This pattern evident across all LGAs excluding Ballarat (see Figure 1.2.5). Ballarat's result supported by its relatively strong tertiary education system and a diversified economy, which provides young people with more opportunities than many other regional communities.

Among the 24 to 44 years and 45 to 64 years age cohorts, the majority of LGAs are realising positive inflows of domestic migrants, particularly those areas which are part of Melbourne and Geelong's peri-urban fringes (Moorabool and Golden Plains East). The exception to this trend is Ararat which has experienced a net outflow of the 25 to 44 years age cohort.

Figure 1.2.5: Net Internal Migration (Proportion by Age Group), Annual Average (2016 – 2019)



Source: (ABS, 2020b)

Note: data indicates average migration as a proportion of 2016 population by age group. Data refers to domestic / internal migration in Australia. Note: the ABS time series of internal migration is broken at 2016 to align with new statistical regions. 2016-18 insights are consistent with the movements represented in previous statistical regions where alignment is possible.

Note: where relevant, LGAs have been grouped to most closely match the 2016 ABS statistical region (at SA3 level) for this measure of regional internal migration. Golden Plains is split into East and West. The East component comprises Bannockburn, Teesdale, Lethbridge and Meredith while the West comprises Enfield and Smythesdale.

Population cohort analysis

Central Highland's population is 50.5 per cent female and 49.5 per cent male. With a median age of 40 years, the Central Highlands is among the youngest Regional Partnership regions. The median age is younger than regional Victorian (42 years) but older than metropolitan Melbourne (36 years). The working aged population (15 to 64 years) comprises 62.7 per cent of the population and 18.0 per cent of the population are 65 years or older (see Figure 1.2.6).

Figure 1.2.6: Population by Age



Source: (ABS, 2020c)

1.3 per cent of the region's population are Aboriginal and Torres Strait Islander while 6.3 per cent live with a disability. The former is half the regional Victorian average, and the latter is consistent with the regional rate. Central Highlands has a relatively low proportion of culturally and linguistically diverse (CALD) people; 5.2 per cent of the population speak a language other than English at home, 0.6 per cent speak a language other than English with poor to no proficiency in English, and 11.1 per cent are born overseas. All these measures of CALD population are slightly lower than regional Victorian averages, and significantly lower than metropolitan Melbourne averages (see Figure 1.2.7).



Figure 1.2.7: Population Cohorts

Source: (ABS, 2016a)

1.3 Socio-Economic Profile

Despite overall growth in employment and economic output over the past five years, successes have not been equally realised across geographies and cohorts.

- As it relates to household incomes, socio-economic disadvantage and educational attainment, the Central Highlands tends to outperform regional Victorian averages.
- While Moorabool and Golden Plains shires are relatively well off, Ararat and Pyrenees shires tend to underperform the region across all socio-economic measures.
- Relative to the general population rates in the Central Highlands and regional Victoria, local Aboriginal and Torres Strait Islander communities have poorer outcomes across labour force engagement and income measures.

While the region performs strongly overall, there remains significant opportunities to improve educational attainment, engage disadvantaged cohorts and lift wages.

Income

Relative to regional Victorian averages, Central Highlands has slightly higher average household incomes. Five per cent of households in the region sit in the upper income bracket, earning over \$2,000 per week. This rate is equivalent to the regional average however lags the metropolitan Melbourne rate of 12 per cent. In the lowest income bracket, 43 per cent of households earn below \$650 per week. This rate is marginally lower than the regional average of 45 per cent but exceeds metropolitan Melbourne's 34 per cent.

At an LGA level, Moorabool and Golden Plains LGAs are higher income municipalities; 39 per cent and 38 per cent of households respectively earn more than \$1,000 per week. These proportions exceed the Central Highlands (34 per cent) and regional Victoria (32 per cent) averages. Conversely, Pyrenees, Hepburn and Ararat are lower income municipalities; 57 per cent, 49 per cent and 48 per cent of households respectively earn less than \$650 per week (see Figure 1.3.1).



Figure 1.3.1: Household Income Distribution (Weekly)



Education attainment

Broadly speaking, educational attainment in Central Highlands is consistent with regional averages. However, there is a slightly higher proportion of people with a bachelor's degree or higher qualification (20 per cent compared to 17 per cent) and slightly fewer people which did not progress beyond high school education (48 per cent compared to 50 per cent) (see Figure 1.3.2). In both cases, the region underperforms metropolitan Melbourne however these differences are likely to reflect the qualification levels required for many of the region's major employing industries, namely Agriculture, Manufacturing, and Construction, and may be partly attributable to regional Victoria's older demographic profile.

Across the LGAs, there are discrepancies in educational attainment. Hepburn and Ballarat residents tend to have higher levels of educational attainment, while Pyrenees and Ararat residents tend to have lower levels.



Figure 1.3.2: Educational Attainment (Highest Level)

Source: (ABS, 2016c)

Socio-economic Disadvantage

Map 1.3.3: Index of Relative Socio-economic Disadvantage (IRSD) Rankings (2016)



Source: (ABS, 2016d)

The Index of Relative Socio-economic Disadvantage (IRSD) is a general socio-economic index that summarises a range of information about the economic and social conditions of people and households within an area. The index provides an overall measure of the degree to which circumstances are unfavourable to socio-economic wellbeing and prosperity. It is calculated as part of the ABS Socio-economic Indexes for Areas (SEIFA) released with each Census.

Levels of socio-economic disadvantage differ across the Central Highlands. The LGAs closest to metropolitan Melbourne; Moorabool and Golden Plains are the least disadvantaged LGAs in the region and are among the least disadvantaged in the State. Conversely, Ararat is the one of the most disadvantaged LGAs in Victoria, ranked 8th out of 80 LGAs in 2016. Pyrenees and Ballarat are also relatively disadvantaged while Hepburn falls around the median.

Between 2011 and 2016, Pyrenees, Hepburn and Moorabool realised improvements in their relative levels of disadvantage, while Ararat and Golden Plain deteriorated relative to other LGAs (see Table 1.3.4).

Table 1.3.4: LGA Relative IRSD Rankings (2011 and 2016)

Local Government Area	2016 Rank (of 80)	2016 Decile	2011 Rank (of 80)	
Ararat (RC)	8	1	11	
Pyrenees (S)	17	3	8	▼
Ballarat (C)	29	4	29	=
Hepburn (S)	44	6	28	▼
Moorabool (S)	53	7	52	▼
Golden Plains (S)	61	8	63	

Sources: (ABS, 2016d) (ABS, 2011)

Aboriginal local communities and Traditional Owners

Figure 1.3.5: Illustrates the Traditional Owner Groups Present in the Region.



(First Peoples State Relations, June 2021)

Aboriginal and Torres Strait Islanders⁹

Table 1.3.6 (below) indicates a range of measures which compares socio-economic outcomes for the broader Victorian population and for Aboriginal and Torres Strait Islanders. It shows that in each of the categories, the local Aboriginal and Torres Strait Islander population is more disadvantaged.

In the Central Highlands regions, Aboriginal and Torres Strait Islanders are over two times more likely to be unemployed, with a 14.5 per cent unemployment rate.

The labour force participation rate among Aboriginal and Torres Strait Islanders (51.3 per cent) is more than 10 percentage points lower than the average rate across the regional population. Aboriginal and Torres Strait Islander households are more likely to earn less than \$650 per week (52.1 per cent of homes) than average (41.6 per cent of homes).

Furthermore, 24.1 per cent of Aboriginal and Torres Strait Islander young people in Central Highlands are not engaged in work or study. This is significantly higher than the average rate of 11.4 per cent

Table 1.3.6: Aboriginal and Torres Strait Islander Analysis

Category	Measure	Victoria	Regional Victoria	Metro Melbourne	Central Highlands
Economic	Labour force participation rate (%)	64.5%	60.9%	65.8%	62.0%
performance	Aboriginal and Torres Strait Islander Victorians	57.8%	52.8%	62.4% 🔳	51.3% 🔳
	Unemployment rate (%)	6.6%	5.9% ▲	6.8% ▲	6.3%
	Aboriginal and Torres Strait Islander Victorians	13.9%	16.5%	11.8% 🔳	14.5% 🔻
Disadvantage and shared	Households earning less than \$650 per week (2016 dollars) (%)	34.8%	43.1% 🔻	31.8% 🔻	41.9% 🔻
prosperity	Aboriginal and Torres Strait Islander households	47.7%	56.6% ▼	39.2% ▼	52.1% 🔻
	Children in jobless households (%)	16.4%	16.5%	16.3%	16.2%
	Aboriginal and Torres Strait Islander children in households	36.3%	40.9% ▼	31.4% 🔻	
Cohesive	People aged 15+ who volunteer (%)	20.9%	26.7%	18.9% 🔺	25.3% 🔺
and liveable communities	Aboriginal and Torres Strait Islander Victorians	19.9%	19.5%	20.3% 🔺	19.1% 🔳
Skills and education	People aged 15–24 not engaged in work or study (%)	8.6% *	[•] 11.3% *	7.9% *	11.4% *
	Aboriginal and Torres Strait Islander Victorians	21.7% *	* 25.0% *	18.6% *	24.1% *

Notes: All figures were calculated by aggregating Regional Partnership level data, to allow for comparison between each figure. Accordingly, figures for Victoria, Regional Victoria and Metro Melbourne may differ from headline figures used by the Victorian Government.

Trend

(over five years, unless noted otherwise in the Data Dictionary):

- ▲ or ▼ **Favourable trend** average annual movement of 1.0% or more
 - **Stable trend** average annual movement of less than 1.0%
- ▲ or ▼ Unfavourable trend average annual movement of 1.0% or more
 - * Trend not calculated as comparable time series data was unavailable.

(ABS Census, 2016)

Shading

(not applied where comparison between regions is uninstructive):

- More favourable than the corresponding regional Vic average by 5.0% or more
- Similar to the corresponding regional Vic average difference is less than 5.0%
- Less favourable than the corresponding regional Vic average – by 5.0% or more

1.4 Labour Market

With 70 per cent of the region's workforce spread across seven industries, Central Highlands' employment is relatively diversified. However, despite the range of employing sectors, the region is specialised in Agriculture, Forestry and Fishing, Mining, and Health Care and Social Assistance.

 Over the past 10 years, 14 industries have realised employment growth, with Mining and Construction being the fastest growing.

The region has outperformed regional Victoria across a range of employment measures.

- Despite intra-regional disparities, Central Highlands has a lower unemployment rate and higher labour participation rate than average rates across regional Victoria.
- In contrast to the trends across regional Victoria, the region has realised steady productivity growth while still being outpaced by metropolitan Melbourne.

Across the region, local jobs tend to be filled by workers from within the municipality, but a significant number of workers commute within and beyond the region. This is particularly evident within the peri-urban shires.

Employment¹⁰

In 2020, there were 97,884 employed persons (see Figure 1.4.1) in the Central Highlands. Health care and Social Assistance (15,150 workers) was the largest employing sector, followed by Construction (11,579 workers) and Retail Trade (10,891 workers). The top seven employing industries account for approximately 70 per cent of the region's workforce.

Construction Services is the highest employing sub-industry accounting for almost 8 per cent of all workers in the region and 66 per cent of workers within the Construction sector (see Figure 1.4.2).

Figure 1.4.1: Employment by Industry



Source: (NIEIR, 2020)

10.Labour Market insights have used employment data by place of Usual Residence. Usual Residence refers to the area where a person usually lives regardless of where they were on Census night. This has been done to capture insights in the workforce who reside in the region. Journey to Work employment data has been used elsewhere in the supporting analysis and strategies as a measure of industry presence in a region. There will be small discrepancies between the two particularly in peri-urban regions where commuter patterns into Melbourne are higher.



Figure 1.4.2: Subindustry Employment (Proportion of Top 5 Industries)

Source: (NIEIR, 2020)

Over the past ten years, employment grew by an average rate of 1.6 per cent per year. This rate well exceeds the average across regional Victoria (1.0 per cent) but falls short of metropolitan Melbourne (2.1 per cent). Among industries, only five have realised employment falls (see Figure 1.4.3)

Figure 1.4.3: 10-year Average Annual Growth Rate (2011 - 2020)



Source: (NIEIR, 2020)

Pre-COVID projections (see Figure 1.4.4) forecast employment to increase by 6.0 per cent over the next five years. This growth had been predicted to be driven by employment in Retail Trade, and Professional, Scientific and Technical Services. Two industries were expected to realise employment declines; Transport, Postal and Warehousing and Agriculture. However, due to the significant disruptions caused by COVID-19, employment outcomes will now significantly differ from those previously forecast.

Figure 1.4.4: Projected change in employment ('000), Ballarat SA4, 2019 – 2024



Source: (National Skills Commission, 2020)

In Central Highlands, 34 per cent of the workforce works part time (see Figure 1.4.5). This rate is slightly lower than the average for regional Victoria (35 per cent) however, it is higher than that of metropolitan Melbourne (32 per cent).



Figure 1.4.5: Composition of Employment (2020)

Unemployment rate

Over the past 10 years, the unemployment rate in the Central Highlands has fluctuated around the average rate across regional Victoria. (see Figure 1.4.6).

Prior to the onset of the COVID pandemic (March Qtr 2020), the unemployment rate in the region was 3.4 per cent. This is below the average rate in regional Victoria (3.9 per cent) and metropolitan Melbourne (5.2 per cent).

The region's long-term unemployment rate (December Qtr 2010 to March Qtr 2021) is 5.1 per cent; below that of regional Victoria (5.3 per cent) and metropolitan Melbourne (5.8 per cent).

Since March, unemployment has risen across all LGAs, with the exception of Ararat, bringing the region's unemployment rate to 5.9%, above the regional Victorian average of 4.8%. Prior to the COVID-19 pandemic, the unemployment rate trended down over the past 10 years (see Figure 1.4.7).

Figure 1.4.6: Unemployment Rate (2011 – 2020)







Participation rate

The labour force participation rate in Central Highlands (62.0 per cent) is slightly higher than regional Victoria (60.9 per cent) and below metropolitan Melbourne (65.8 per cent) (see Figure 1.4.8). The region experiences similar rates of participation to regional Victoria across all age groups while lagging metropolitan Melbourne across all age groups with the exception of those aged 15–24 (see Figure 1.4.9).





Figure 1.4.9: Participation Rate Age Comparison



Source: (ABS Census, 2016)

Consistent with the pattern across the state, the female labour force participation rate in Central Highlands (58.0 per cent) lags significantly behind the male participation rate (65.2 per cent). While participation rates for both genders exceeds that of regional Victoria, there are opportunities to boost future economic growth if participation rates, particularly for women, could be lifted and employment opportunities created (see Figure 1.4.10).



Figure 1.4.10: Participation Rate by Gender (2016)

Source: (ABS Census, 2016)

Labour Productivity (Gross Regional Product (GRP) per worker)

Since 2001, labour productivity in the Central Highlands has gradually increased and is now equal with the regional Victoria average. The region's GRP per worker remains significantly below metropolitan Melbourne which has shown a steady increase since the turn of the century (see Figure 1.4.11).

Across LGAs there are notable discrepancies in worker productivity. For example, Pyrenees Shire has realised large falls between 2001 and 2011 driven by a decline in Beverage and Tobacco Manufacturing. Conversely, Moorabool, Ararat, Hepburn and Ballarat have seen labour productivity increase. (see Figure 1.4.12)

Figure 1.4.11: Regional Productivity

Figure 1.4.12: LGA Productivity, Central Highlands



Worker mobility and commuting across regions

An analysis of journey-to-work patterns between the LGAs indicates varied levels of movement between LGAs for work.

Ballarat has the largest proportion of local jobs filled by residents (81 per cent); known as self-sufficiency. In comparison, Golden Plains has the smallest share at 64 per cent (see table 1.4.13).

Consequently, there are also large variations in the proportion of workers who work within their local LGA; known as self-containment.

Among LGAs, 87 per cent of employed residents in Ballarat work in Ballarat. In contrast, only 22 per cent of employed residents in Golden Plains work within the municipality. The majority commute to Greater Geelong and Ballarat for work. Similarly, Moorabool has 36 per cent of its employed residents working in the municipality, with a large number working in Western Melbourne, Inner Melbourne and Ballarat.
Table 1.4.13: Labour mobility

			Golden			
	Ararat (RC)	Ballarat (C)	Plains (S)	Hepburn (S)	Moorabool (S)	Pyrenees (S)
Total local workers (working anywhere) (UR)	4,707	44,715	10,193	6,348	14,629	2,673
Number of jobs in local area (POW)	4,871	45,794	3,324	4,650	7,500	2,003
Number of local jobs held by locals	3,841	37,255	2,128	3,137	4,941	1,308
Number of locals employed outside LGA	866	7,460	8,065	3,211	9,688	1,365
Employment Self containment	85%	87%	22%	53%	36%	52%
Employment Self Sufficiency	79%	81%	64%	68%	66%	65%

Source ABS, Census 2016

As the regional hub, Ballarat attracts workers from neighbouring LGAs (Golden Plains, Hepburn, Moorabool and Pyrenees), while peri-urban workers are likely to commute to other urban centres. Despite its hub status however, Ballarat also has a large commuting population into Melbourne. The movement of people outside local labour markets suggests that there are a greater number of workers in the Central Highlands than available jobs (see Table 1.4.14).

Table 1.4.14: Labour mobility across LGAs

Place of work → Place of residence ↓	Ararat (RC)	Ballarat (C)	Golden Plains (S)	Hepburn (S)	Moorabool (S)	Pyrenees (S)	Outside CH
Ararat (RC)	3,841	54	4	0	0	52	591
Ballarat (C)	227	37,255	320	682	469	345	3,576
Golden Plains (S)	21	2,858	2,128	28	51	33	4,409
Hepburn (S)	11	1,386	8	3,137	74	15	1,303
Moorabool (S)	7	1,482	56	152	4,941	43	7,066
Pyrenees (S)	138	637	27	15	16	1,308	375
Outside CH	626	2,111	781	633	1,949	207	

Source: (ABS Census, 2016)

Note: The Employment Self-Containment describes the percentage of employed residents who are employed within the boundaries of the LGA. The Employment Self-Sufficiency describes the percentage of local jobs that are filled by local residents for an LGA. Highlighted cells represent workers living and working within the same LGA.

1.5 Skills

The Central Highlands has experienced employment growth among skilled professions. The increase in skills demand however reflects the changing nature of the region's industry structure towards Health Care and Education services.

Occupation skill levels are closely associated with measures of disadvantage such as educational attainment and income levels. Rising demand for skilled workers will support efforts to tackle entrenched pockets of disadvantage across the region.

Occupation

In 2021, there were 52,000 workers in Central Highlands working in skilled occupations, representing 61.4 per cent of the local workforce. As a proportion of the total workforce, Central Highlands has a similar share of skilled workers as regional Victoria (62.2 per cent) but lags behind metropolitan Melbourne (67.3 per cent).

In the five years to 2021, the number of skilled workers increased by 4,193 workers (8.8 per cent), while the number of low skilled workers decreased by 192 workers (0.6 per cent). Among skilled occupations, Central Highlands' growth was equivalent to regional Victoria (up 8.8 per cent) yet lagged metropolitan Melbourne (up 22.1 per cent).

Sales Assistants (General) were the largest employing occupation in Central Highlands, followed by Registered Nurses and Retail Managers. In the five years to 2021, seven of the top ten employing occupations experienced an increase in the total number of workers.

Table 1.5.1: Top 10 employing occupations

Central Highlands	2021	2016	Change	Skill level*11
Sales Assistants (General)	5,000	5,100	-100	Low Skilled
Registered Nurses	3,200	2,600	600	Skilled
Retail Managers	2,400	1,900	500	Skilled
Primary School Teachers	2,300	1,800	500	Skilled
General Clerks	1,900	1,800	100	Low Skilled
Receptionists	1,800	1,700	100	Low Skilled
Secondary School Teachers	1,700	1,400	300	Skilled
Truck Drivers	1,700	1,400	300	Low Skilled
Livestock Farmers	1,500	2,100	-600	Low Skilled
Aged and Disabled Carers	1,500	1,600	-100	Skilled

(Department of Education and Training, 2021) * skill level is defined as a function of the range and complexity of the set of tasks performed in a particular occupation. The greater the range and complexity of the set of tasks, the greater the skill level of an occupation. Skilled workers are defined as being classed between an ANZSCO Skill level of 1-3, while low skilled is classed as 4 or 5.

^{11.} The concept of skill level. In ANZSCO, skill level is defined as a function of the range and complexity of the set of tasks performed in a particular occupation. The greater the range and complexity of the set of tasks, the greater the skill level of an occupation. Skill level is measured operationally by the level or amount of formal education and training; the amount of previous experience in a related occupation, and the amount of on-the-job training required to competently perform the set of tasks required for that occupation.



02 Comparative Advantage

The historical economic performance of a region serves as a good indicator of the industries which have a comparative advantage.

LQ analysis provides useful insights into the region's employment specialisation and business clustering. While insightful, they are only partial measures for understanding regional economies and comparative advantage. Comparative advantages can shift as a result of changes in government policies, new trade agreements and changes in the global economy, such as changing consumption patterns or increasing trade barriers. This analysis should therefore be considered alongside qualitative evaluations to help identify sectors with untapped and growing potential and support those industries to acquire a comparative advantage in the future.

Nonetheless, the analysis in this report provides a consistent picture of the region's revealed comparative advantage. As indicated by high levels of employment and GVA specialisation, and business clustering, the region has a strong advantage in Agriculture, Forestry and Fishing and Mining alongside strength across a breadth of industries. This suggests the region has many local factors which may lead to additional economic opportunities.

The drivers behind the comparative advantages of the region are varied and will include local infrastructure, natural resources and proximity to inputs or key markets. A point in time snapshot undertaken by Infrastructure Victoria in 2019 (Central Highlands Industry Profile 2019) found the region has considerable endowments across a range of attributes:

2.1 Transport Infrastructure

Central Highlands is located to the west of Melbourne and is well connected to the state capital through an extensive road and rail network (see Figure 2.2.1). These networks connect the region to the ports at Melbourne, Geelong and Portland and are important for supporting economic activity and accessing interstate and international markets.

A regional profile of Central Highlands completed in 2019 for Infrastructure Victoria identified that key transport infrastructure is centred around the road network, including:

- the Western Highway which connects Ballarat to Melbourne and Adelaide,
- the Midland Highway which connects the region to Geelong, Bendigo, Shepparton, Wangaratta and Mansfield, and
- the Glenelg Highway which connects Ballarat with Hamilton and Portland and therefore provides access to Portland's deep-water port.

In addition, there are several region-crossing roads, including the Sunraysia Highway linking Ballarat to Mildura, and Pyrenees highway connecting Ararat to Bendigo.

The rail network includes direct passenger and freight rail routes from Ararat, via Ballarat to Melbourne, and from Maryborough to Melbourne through Ballarat. Rail freight enables movement of goods to Melbourne, Geelong and Portland and their ports.

The region does not have a major airport however it has smaller regional airports such as at Ballarat and Ararat. The east of the region is in close proximity to the Avalon airport which provides access to international markets, and also has proximity to Tullamarine international airport.



Figure 2.2.1: Transport Connections, Central Highlands

Source: (Infrastructure Victoria, 2019)

2.2 Digital Infrastructure¹²

There are significant discrepancies in the levels of digital inclusion between regional areas and metropolitan areas. The Australian Digital Inclusion Index (ADII) is a composite index used to measure digital inclusion across three dimensions of Access, Affordability and Digital Ability. In 2021, All LGAs in the region scored below the state average (71.0) on the index, with Pyrenees and Ararat scoring lowest, while Moorabool scored highest.

Table 2.2.1: ADII score comparison2021, VIC

Local Government Area	Score
Ararat	64.0
Ballarat	66.0
Golden Plains	66.0
Hepburn	63.0
Moorabool	69.0
Pyrenees	62.0
Vic Average	71.0

(Thomas, 2021)

Within population centres, mobile coverage appears to be adequate based on public coverage maps, however regional stakeholders often report the lived experience differs from what public coverage maps suggest. Mobile coverage quality also tends to be less reliable outside of regional population centres. The NBN Co rollout map (as at September 2020) indicates areas served by NBN Co fixed-line and fixed wireless services (purple) and those served by lower quality NBN Co Satellite services (white areas). The higherquality fixed-line services (like FTTN and FTTP) are largely limited to town centres, with lower quality fixed wireless services serving the more sparsely populated surrounding areas (See Figure 2.2.2). In addition, coverage should not be taken to indicate connection quality.

Figure 2.2.2: NBN Rollout Map, Central Highlands



(NBNco, 2020)

2021 Connecting Victoria roundtable discussions identified a number of key digital issues for the region;

- Increased need for better home connectivity to support remote work, learning and tele health.
- Need for connectivity during natural disasters and emergencies.
- Competitive internet speeds are needed to attract businesses, new residents, and tourism from major cities.
- Dual needs in agriculture in addressing lack of connectivity for farmers working in remote areas and support for Internet of Things and other digital advancement in agriculture.

^{12.} Fixed Broadband access terminology includes National Broadband Network (NBN) fixed-line broadband services including Fibre to the Premises (FTTP), Fibre to the Node (FTTN), Fibre to the Curb (FTTC), Fixed Wireless and Satellite service. Digital mobile networks capable of supporting voice telephony and data applications such as through 4G networks, with emerging Internet of Things capability.

Permanent tourist attractions in cities and towns (such as Sovereign Hill) are well served with broadband and mobile coverage. Periodic visitor events (such as Meredith Music Festival, Avoca Races) in more remote places face mobile network capacity bottlenecks and inadequate broadband for WiFi backhaul. (RDV, 2019)

The Victorian Government's \$550 million Connecting Victoria program is designed to give more Victorians across the state access to business-grade broadband and high-quality mobile services. This includes improving 4G mobile coverage, helping more places become 5G ready, and improving public safety during emergencies through more resilient and accessible services.

The program will enable more businesses to take advantage of digital opportunities with more reliable, better value broadband in more places, including popular shopping streets and business parks.

The quality of digital infrastructure across the region is highly variable. General information about the pattern of digital infrastructure availability across regional locations is summarised in table 2.2.3 below.

Table 2.2.3: General findings for the supply of digital infrastructure in regional Victoria

	Fixed broadband access	Mobile access
Cities and large towns, such as Ballarat and Ararat	Generally comparable to metropolitan Melbourne with some access to FTTP and widespread provision of FTTN within town centres, but fixed wireless and satellite serving the town fringe and beyond	Generally comparable to metropolitan Melbourne with multiple carriers operating 4G networks, but quality and reliability of access can fade beyond town centre
Small towns and localities, such as Beaufort and Lake Bolac	Generally provisioned with fixed wireless services in the town centre with the fringe and surrounding areas receiving satellite. Some small towns receive higher-speed FTTN or FTTC services	Less capacity and reliability than in larger towns. Better quality within the town centre than when moving into surrounding areas and between towns
Primary production areas, such as sheep and beef grazing between Ballarat and Lake Bolac	Lower capacity fixed broadband technologies like fixed wireless and satellite available due to remoteness of these farms / businesses. Fixed wireless more available closer to population centres	Variable service quality across primary production areas. Better when closer to population centres and unimpeded by local topography
Tourist locations, such as Sovereign Hill	Most relevant to tourist operators and businesses. Higher capacity technologies like FTTN available to operators in town centres, but lower capacity services like fixed wireless and satellite in more remote tourist locations	Often weak coverage in remote locations such as trail walks and national parks and network limitations in accommodating large influxes of visitors such as periodic events
Transport corridors, such as major highways and rail lines	N/A	Stronger and more reliable coverage on large highways and rail lines, with service quality and reliability compromised on smaller roads and in more remote areas

(Infrastructure Victoria, 2019)

2.3 Natural Endowments

Figures 2.3.1 and 2.3.2 indicate the land use in the Central Highlands and its constituent LGAs. Land use in the region varies, however most of land is used for primary production (79%). Sheep and Beef grazing covers a significant proportion of land across the region, while parts of Ararat and southern Golden Plains are also used for cropping. While agriculture remains the primary use of land, the growing urban sprawl is evident, particularly around Ballarat.

The second most common use of land is parkland (15%) (see Environmental Assets). There are clusters of private forestry around the region, including within central Pyrenees LGA and Moorabool.

The region's eastern border is increasingly urban which could be expected to grow into the future as Melbourne's urban fringe extends. This may cause contested land use between agricultural and residential / industrial use in the future.



Figure 2.3.1: Land Use by LGA, Central Highlands

Source: (ABS, 2017)

Figure 2.3.2: Spatial Map of Land Use



(Agriculture Victoria, 2020)

Urban

Environmental Assets

15% of Central Highland's land is public land and parkland. Public land is concentrated in Moorabool and Hepburn; home to Lerderderg State Park and The Castlemaine Diggings National Heritage Park. The western border of Ararat also encompasses part of the Grampians National Park. This land provides environmental, social and economic value to the region (summarised in Table 2.2.3 and displayed in Figure 2.2.4). The environmental assets include woodland, forests and grasslands. (Infrastructure Victoria, 2019). Many of these sites are associated with Aboriginal Cultural heritage and provide amenities to local communities and region tourists.

Table 2.2.3: Key Environmental Assets, Central Highlands

National Parks	State Forest and State Parks	Other
 Grampians (Gariwerd) National Park 	 The Pyrenees Range State Forest 	 Numerous conservation reserves including
 St Arnaud Range National Park 	 The Castlemaine Diggings National Heritage Park 	Landsborough and Dunach.
Brisbane Ranges	Lerderderg State Park	 Regional Parks including Ararat, Hepburn and
National Park	• Wombat State Forest	Creswick.
	 Enfield State Park 	
	 Werribee Gorge State Park 	
	 Mount Cole State Forest 	
	 Mount Buangor State Park 	
	 Langi Ghiran State Park 	

Figure 2.2.4: Key Environmental Assets, Central Highlands



Source: (Infrastructure Victoria, 2019)

Mineral resources and forestry

Historically, the Central Highlands region has been a strong goldmining region, with the far east hosting coal mining. The region continues to have ongoing mining operations and there is currently exploration activity for local reserves of coal, coal seam gas, copper, gold and other precious metals. Other than Gold, the region has mineral sand and stone, the proximity to which allows the region to leverage advantages in cost effective construction. The Central Highlands region also supports commercial forestry industry due to the establishment of hard and softwood plantations. (State Government of Victoria, 2014)

Renewable energy

To date, renewable energy generation in the Central Highlands has been focused on wind power, with the region home to a number of operating wind farms which power local grids and export energy out of the region ((Grampians New Energy Taskforce, 2019). These farms include (DELWP, 2020):

- Ararat (240MW),
- Challicum Hills (52.5MW),
- Chepstowe (6.2MW),
- Crowlands (80MW),

- Hepburn (4.1MW),
- Lal Lal (228MW),
- Mount Mercer (131MW), and
- Waubra (192MW)

There is also considerable solar energy generation potential. On average the region generates approximately 1300-1500 kWh/kWp of solar energy per year (Global Solar Atlas, 2020). The Grampians regional roadmap to Net Zero emissions, which comprises the Central Highlands region, identifies a progressive expansion of solar as important to the region's future energy mix.

The Central Highlands also hosts the Ballarat Energy Storage system; a 30MW system comprising a Fluence battery at AusNet Services Ballarat Terminal Station in Warrenheip ((Energy Australia, 2020).

While there is opportunity to generate significant amounts of solar and wind power in the region, the roadmap to net zero for the region identifies the limitations of the transmission infrastructure and current storage capabilities in the region and recommends local authorities work with state and federal government to upgrade the existing power grid.

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04 Strategic context

Central Highlands Regional Economic Development Strategy

The following table describes the local strategies, plans and frameworks that shaped the Central Highlands REDS, including to define an economic narrative for the region and ensure the strategic directions in the REDS are aligned with local priorities. It forms part of the *Supporting Analysis – Central Highlands REDS*.

The following groups did not have an up-to-date strategy or plan focused on regional economic development outcomes at the time of drafting: Pyrenees Shire, Wurundjeri Woi Wurrung Cultural Heritage Aboriginal Corporation

Table 4.1.1: Strategic context

Central Highlands Regio 2019	onal Partnership Outcomes Roadmap	
Purpose	Outlines the desired long-term outcomes for the region and the challenges associated with achieving them	
Identified priorities	 Better health Transport connectivity Digital connectivity New and renewable energy Agriculture Social welfare and community Visitor economy Education and training Advanced manufacturing Workforce planning Shared services 	
Influence on the REDS strategic directions	 Agri-food value add Tourism and creative Renewable energy Service sectors Innovation ecosystem 	
Purpose	Identifies gaps and opportunities across the region's digital landscape and makes recommendations to address gaps and to realise the region's full digital potential	
Identified priorities	 Identifies 'digital hubs' as a priority project for the region Outlines three key issues to address: inadequate mobile coverage, lack of NBN business-grade services and low uptake of Internet of Things applications 	
Influence on the REDS strategic directions	 ✓ Agri-food value add ✓ Tourism and creative Renewable energy Service sectors ✓ Innovation ecosystem 	

Purpose	Explores what a Net Zero Emissions goal means and discusses three different approaches – a business as usual, Local Action and Collaborative Action approach
Identified priorities	Supports the Grampians New Energy Taskforce' strategic goal of reducing greenhouse gas emissions to zero by the year 2050 across five domains of action: energy, buildings, industry, transport and land
Influence on the REDS strategic directions	✓ Agri-food value add
	Tourism and creative
	✓ Renewable energy
	Service sectors
	✓ Innovation ecosystem
	Provides a regional approach to land use planning in the Grampians region
	2014 Provides a regional approach to land use planning in the Grampians region (which includes Central Highlands) to ensure growth and change is managed
	2014 Provides a regional approach to land use planning in the Grampians region (which includes Central Highlands) to ensure growth and change is managed
Purpose	2014 Provides a regional approach to land use planning in the Grampians region (which includes Central Highlands) to ensure growth and change is managed to capitalise on the Grampians region's competitive advantages and strength
Purpose	 Provides a regional approach to land use planning in the Grampians region (which includes Central Highlands) to ensure growth and change is managed to capitalise on the Grampians region's competitive advantages and strength Plan for growth
Purpose	 Provides a regional approach to land use planning in the Grampians region (which includes Central Highlands) to ensure growth and change is managed to capitalise on the Grampians region's competitive advantages and strength Plan for growth Improve transport infrastructure and services
Purpose	 Provides a regional approach to land use planning in the Grampians region (which includes Central Highlands) to ensure growth and change is managed to capitalise on the Grampians region's competitive advantages and strength Plan for growth Improve transport infrastructure and services Raise the region's profile as a tourist and heritage destination Utilise the region's strength in information and communications
Purpose	 Provides a regional approach to land use planning in the Grampians region (which includes Central Highlands) to ensure growth and change is managed to capitalise on the Grampians region's competitive advantages and strength Plan for growth Improve transport infrastructure and services Raise the region's profile as a tourist and heritage destination Utilise the region's strength in information and communications technology to provide better services to business and communities
Purpose	 Provides a regional approach to land use planning in the Grampians region (which includes Central Highlands) to ensure growth and change is managed to capitalise on the Grampians region's competitive advantages and strength Plan for growth Improve transport infrastructure and services Raise the region's profile as a tourist and heritage destination Utilise the region's strength in information and communications technology to provide better services to business and communities Improve access to health services and tackle health inequality
Purpose	 Provides a regional approach to land use planning in the Grampians region (which includes Central Highlands) to ensure growth and change is managed to capitalise on the Grampians region's competitive advantages and strength Plan for growth Improve transport infrastructure and services Raise the region's profile as a tourist and heritage destination Utilise the region's strength in information and communications technology to provide better services to business and communities Improve access to health services and tackle health inequality Provide better access to education and training
Purpose Identified priorities Influence on the REDS	 Provides a regional approach to land use planning in the Grampians region (which includes Central Highlands) to ensure growth and change is managed to capitalise on the Grampians region's competitive advantages and strength Plan for growth Improve transport infrastructure and services Raise the region's profile as a tourist and heritage destination Utilise the region's strength in information and communications technology to provide better services to business and communities Improve access to health services and tackle health inequality Provide better access to education and training Continue to foster leadership capacity within in the region
Purpose Identified priorities Influence on the REDS	 Provides a regional approach to land use planning in the Grampians region (which includes Central Highlands) to ensure growth and change is managed to capitalise on the Grampians region's competitive advantages and strength Plan for growth Improve transport infrastructure and services Raise the region's profile as a tourist and heritage destination Utilise the region's strength in information and communications technology to provide better services to business and communities Improve access to health services and tackle health inequality Provide better access to education and training Continue to foster leadership capacity within in the region A productive and resilient landscape
Purpose Identified priorities Influence on the REDS	 Provides a regional approach to land use planning in the Grampians region (which includes Central Highlands) to ensure growth and change is managed to capitalise on the Grampians region's competitive advantages and strength Plan for growth Improve transport infrastructure and services Raise the region's profile as a tourist and heritage destination Utilise the region's strength in information and communications technology to provide better services to business and communities Improve access to health services and tackle health inequality Provide better access to education and training Continue to foster leadership capacity within in the region A productive and resilient landscape
Victorian Government 2 Purpose Identified priorities Influence on the REDS strategic directions	 Provides a regional approach to land use planning in the Grampians region (which includes Central Highlands) to ensure growth and change is managed to capitalise on the Grampians region's competitive advantages and strengths Plan for growth Improve transport infrastructure and services Raise the region's profile as a tourist and heritage destination Utilise the region's strength in information and communications technology to provide better services to business and communities Improve access to health services and tackle health inequality Provide better access to education and training Continue to foster leadership capacity within in the region A productive and resilient landscape

For Want of a Worker: Grampians region workforce 2021 (ongoing)

Purpose	Literature review and analysis of trends, drivers and barriers that are shaping the Grampian's region's workforce			
Identified priorities	To be announced			
Influence on the REDS strategic directions	Agri-food value add			
	Tourism and creative			
	Renewable energy			
	Service sectors			
	Innovation ecosystem			
Purpose	Outlines priority activities and areas of intervention that will contribute to achieving Grampians' <i>double triple</i> vision (double population and tripe			
Purpose				
	economic growth)			
Identified priorities	 Build on renewable energy assets to become Australia's largest and most dynamic sustainable energy region and skills centre 			
	 Create a regional food hub and ecosystem of technology, innovation and excellence 			
	 Focus on enablers of regional population growth and economic growth 			
Influence on the REDS	✓ Agri-food value add			
strategic directions	Tourism and creative			
	✓ Renewable energy			
	Service sectors			
	✓ Innovation ecosystem			

Ballarat & Grampians Visitor Economy Workforce Development Strategy 2020

Purpose		s to understand workforce skill needs and shortages and lays out ised actions to support gaps and issues in the current tourism workforce	
Identified priorities	 Industry attractiveness and promotion Training, qualification and workforce preparation Industry professionalism, collaboration and support Building Aboriginal tourism capability and engagement Skilled and unskilled resident attraction 		
Influence on the REDS		Agri-food value add	
strategic directions	~	Tourism and creative	
	Renewable energy		
	Service sectors		
		Innovation ecosystem	

Grampians RDV Region Cycling and Trails Infrastructure Business and Master Plan 2018 Purpose Identifies means to establish the Grampians region as a premier tourism destination for cycling and trail related experiences **Identified priorities** • Attract 50,000 cycle visitors per annum • Attract \$10 million investment in business services the cycle tourism sector • Improve cycle infrastructure • Support a calendar of cycle tourism events Influence on the REDS Agri-food value add strategic directions 1 Tourism and creative **Renewable energy** Service sectors Innovation ecosystem

Grampians Pyrenees Wine Tourism Masterplan 2017-20 Western Victoria Wine Tourism Collective 2017

Purpose	in av	tifies and prioritises projects and activities that will lead to growth vareness, visitation and wine sales for the Grampians and Pyrenees region	
Identified priorities	• Pro	ofile: Build our reputation through brand and communications strategies	
	 Product: Create culinary experiences that are on trend, accessible, fun and easy to find 		
	 People: Cultivate excellence by increasing ongoing collaboration between local government, tourism organisations, operators and industry 		
Influence on the REDS	~	Agri-food value add	
strategic directions	~	Tourism and creative	
		Renewable energy	
	Service sectors		
		Innovation ecosystem	

Today Tomorrow Togeth 2020	ner; The Ballarat strategy for 2040	
Purpose	Sets out the long-term strategic plan and associated initiatives and key actions to shape the development of Ballarat to 2040	
Identified priorities	 Productive Ballarat Settlement for a highly liveable Ballarat Housing Ballarat Connected Ballarat Sustainable Ballarat 	
Influence on the REDS strategic directions	 ✓ Agri-food value add ✓ Tourism and creative ✓ Renewable energy ✓ Service sectors ✓ Innovation ecosystem 	

Ballarat's Creative City Strategy & Ballarat's Creative City Master Plan 2019

Purpose	Sets out the strategic direction and associated goals and actions to coordinate the development of the arts and creative sector in Ballarat City	
Identified priorities	 Maintain and enhance a creative core Extend the reach of arts and culture initiatives 	
	 Attract and retain creative professionals Facilitate connections between creative sectors 	
Influence on the REDS	Agri-food value add	
strategic directions	✓ Tourism and creative	
	Renewable energy	
	Service sectors	
	✓ Innovation ecosystem	
Ballarat Event Strategy 2018	r 2018-28	
Purpose	Provides a framework for enhancing and coordinating events in Ballarat to make Ballarat a compelling destination for world class events	
Identified priorities	Generate benefitsGrow the region's reputation	

 Optimise the economic contribution from events 	•	Optimise the	economic	contribution	from events
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Influence on the REDS strategic directions		Agri-food value add
	~	Tourism and creative
		Renewable energy
		Service sectors
		Innovation ecosystem

Ballarat Traveller Experience Plan 2021-30 City of Ballarat 2021

Purpose	Brings together Ballarat City's visitor economy and events strategies and destination marketing plan to increase economic, social and community benefits from the visitor economy		
Identified priorities		temporary heritage: Experiences that are created against the rich estry of Ballarat's history and architecture	
	 Cultural and creative: A fusion of cultural and creative experiences crafted by exceptional artisans, growers, markets, designers, creators and performers 		
Influence on the REDS		Agri-food value add	
strategic directions	~	Tourism and creative	
		Renewable energy	
		Service sectors	
		Innovation ecosystem	

Fertile Ground Econom Hepburn Shire 2016	ic Development Strategy	
Purpose	Outlines projects and initiatives for supporting economic activity in the Shire	
Identified priorities	 Produce – harnessing existing and emerging sectors Trade – encourage opportunities for increased trade 	
	 Live – provide a place that is navigable, safe and with services available to residents in all towns 	
	 Grow – provide guidance through government systems so businesses can prosper 	
	 Visit – ensure positive visitor experiences 	
Influence on the REDS	Agri-food value add	
strategic directions	✓ Tourism and creative	
	Renewable energy	
	✓ Service sectors	
	Innovation ecosystem	

Economic Development and Tourism Strategy Golden Plains Shire 2017

Purpose	Provides a consistent and coordinated approach to facilitate Council's tourism and economic development initiatives, activities and events to create jobs and strengthen the region's economy
Identified priorities	 Investment attraction Business support Tourism development Lobbying and advocacy Partnerships
Influence on the REDS strategic directions	 ✓ Agri-food value add ✓ Tourism and creative
	Renewable energy Service sectors
Moorabool Shire Econor 2015 Purpose	Identifies the vision, objectives and targets for the future of the economy
	and details strategies and actions for the Council to support local growth while enhancing the region's lifestyle
Identified priorities	 Vision: To create 'vibrant and resilient communities with unique identifies' Objectives: new local jobs, for local people; a diverse and entrepreneurial local industry base; facilitate the capacity and diversity of our workforce
Influence on the REDS strategic directions	 Agri-food value add Tourism and creative
	 ✓ Tourism and creative Renewable energy
	✓ Service sectors
	✓ Innovation ecosystem

Dhelkunya Dja – Dja Dja Wurrung Country Plan

Purpose		
	Outlines aspirations for the future of the Dja Dja Wurrung people, including the vision for the Dja Dja Wurrung to be political empowered with an established place in society, and being capable of managing our own affairs from a strong and diverse economic base	
Identified priorities	• Djaara (people)	
	Cultural Practices and Customs	
	Cultural Heritage	
	 Bush Tucker (edible and medicinal plants and animals) 	
	Rivers and Waterways	
	• Land	
	Self-determination	
	Traditional Owner Economy	
	 Joint Management 	
Influence on the REDS	✓ Agri-food value add	
strategic directions	✓ Tourism and creative	
	Renewable energy	
	Service sectors	
	Service sectors Innovation ecosystem	
Dja Dja Wurrung – Self I		
Dja Dja Wurrung – Self I Purpose	Innovation ecosystem	
	Innovation ecosystem Determination Principles Provides a framework for the rights of Dja Dja Wurrung people in	
Purpose	Innovation ecosystem Determination Principles Provides a framework for the rights of Dja Dja Wurrung people in accordance with the Recognition and Settlement Agreement (Native Title)	
Purpose	Innovation ecosystem Determination Principles Provides a framework for the rights of Dja Dja Wurrung people in accordance with the Recognition and Settlement Agreement (Native Title) • Culture	
Purpose	Innovation ecosystem Determination Principles Provides a framework for the rights of Dja Dja Wurrung people in accordance with the Recognition and Settlement Agreement (Native Title) Culture Partnerships	
Purpose	Innovation ecosystem Determination Principles Provides a framework for the rights of Dja Dja Wurrung people in accordance with the Recognition and Settlement Agreement (Native Title) Culture Partnerships Look After Country	
Purpose Identified priorities Influence on the REDS	Innovation ecosystem Determination Principles Provides a framework for the rights of Dja Dja Wurrung people in accordance with the Recognition and Settlement Agreement (Native Title) Culture Partnerships Look After Country Traditional Knowledge	
Purpose Identified priorities	Innovation ecosystem Determination Principles Provides a framework for the rights of Dja Dja Wurrung people in accordance with the Recognition and Settlement Agreement (Native Title) • Culture • Partnerships • Look After Country • Traditional Knowledge • Economic	
Purpose Identified priorities Influence on the REDS	Innovation ecosystem Determination Principles Provides a framework for the rights of Dja Dja Wurrung people in accordance with the Recognition and Settlement Agreement (Native Title) Culture Partnerships Look After Country Traditional Knowledge Economic Agri-food value add	
Purpose Identified priorities Influence on the REDS	Innovation ecosystem Determination Principles Provides a framework for the rights of Dja Dja Wurrung people in accordance with the Recognition and Settlement Agreement (Native Title) • Culture • Partnerships • Look After Country • Traditional Knowledge • Economic Agri-food value add Tourism and creative	

Dja Dja Wurrung Aboriginal Corporation – Corporate Strategy

Purpose	Sate out the actions required to deliver the sime and objectives of the
	Sets out the actions required to deliver the aims and objectives of the Corporation, consolidating an array of governance and strategic documer
Identified priorities	• Djaara (people)
	Cultural Practices and Customs
	Cultural Heritage
	 Bush Tucker (edible and medicinal plants and animals)
	 Rivers and Waterways
	• Land
	Self-determination
	Traditional Owner Economy
	 Joint Management
Influence on the REDS strategic directions	Agri-food value add
strategic anections	Tourism and creative
	Renewable energy
	Service sectors
	Innovation ecosystem
Purpose	Sets out the key achievements of the corporation and its objectives for 2021-22
	2021-22
	2021-22Djaara (people)
	2021-22Djaara (people)Cultural Practices and Customs
	 2021-22 Djaara (people) Cultural Practices and Customs Cultural Heritage
	 2021-22 Djaara (people) Cultural Practices and Customs Cultural Heritage Bush Tucker (edible and medicinal plants and animals)
	 2021-22 Djaara (people) Cultural Practices and Customs Cultural Heritage
	 2021-22 Djaara (people) Cultural Practices and Customs Cultural Heritage Bush Tucker (edible and medicinal plants and animals) Rivers and Waterways Land
	 2021-22 Djaara (people) Cultural Practices and Customs Cultural Heritage Bush Tucker (edible and medicinal plants and animals) Rivers and Waterways Land Self-determination
	 2021-22 Djaara (people) Cultural Practices and Customs Cultural Heritage Bush Tucker (edible and medicinal plants and animals) Rivers and Waterways Land Self-determination Traditional Owner Economy
Identified priorities	 2021-22 Djaara (people) Cultural Practices and Customs Cultural Heritage Bush Tucker (edible and medicinal plants and animals) Rivers and Waterways Land Self-determination Traditional Owner Economy Joint Management
Identified priorities	2021-22 Djaara (people) Cultural Practices and Customs Cultural Heritage Bush Tucker (edible and medicinal plants and animals) Rivers and Waterways Land Self-determination Traditional Owner Economy Joint Management Agri-food value add
Identified priorities	2021-22 Djaara (people) Cultural Practices and Customs Cultural Heritage Bush Tucker (edible and medicinal plants and animals) Rivers and Waterways Land Self-determination Traditional Owner Economy Joint Management Agri-food value add Tourism and creative
Purpose Identified priorities Influence on the REDS strategic directions	2021-22 Djaara (people) Cultural Practices and Customs Cultural Heritage Bush Tucker (edible and medicinal plants and animals) Rivers and Waterways Land Self-determination Traditional Owner Economy Joint Management Agri-food value add Tourism and creative Renewable energy
Identified priorities	2021-22 Djaara (people) Cultural Practices and Customs Cultural Heritage Bush Tucker (edible and medicinal plants and animals) Rivers and Waterways Land Self-determination Traditional Owner Economy Joint Management Agri-food value add Tourism and creative

Paleert Tjaara Dja: Wadawurrung Healthy Country Plan 2020-2030

Purpose	The plan lays out how Wadawurrung see Country being cared for and managed over the next 10 years
Identified priorities	 Walking together with government (federal, state and local) and other key stakeholders to achieve self-determination Have a sustainable Wadawurrung managed investment in Country
Influence on the REDS	Agri-food value add
strategic directions	Tourism and creative
	Renewable energy
	Service sectors
	Innovation ecosystem

Eastern Maar Country F 2020	Plan – Meerreengeeye Ngakeepoorryeeyt
Purpose	Defines the self-determined vision for the future of the Eastern Marr
Identified priorities	 Wellbeing of citizens Active youth Strong identity Healthy Country Cultural strength Economic independence
Influence on the REDS strategic directions	Agri-food value add Tourism and creative Renewable energy Service sectors Innovation ecosystem

Growing What Is Good Country Plan: Voices of the Wotjobaluk Peoples 2016

Purpose	Defines the self-determined vision for the future of the Wotjobaluk People
Identified priorities	Strong and Health Wotjobaluk Culture
	 Healthy Wotjobaluk Country
	 An Engaged and Connected Wotjobaluk Community
	Recognition and Respect
	Economic Sustainability
	 Healthy Wotjobaluk Peoples
	 A Strong Corporation with Excellent Governance
	 A Strong Voice for Wotjobaluk Peoples
Influence on the REDS strategic directions	Agri-food value add
	Tourism and creative
	Renewable energy
	Service sectors
	Innovation ecosystem

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