

Northern New England High Country Regional Economic Development Strategy 2018-2022



Supporting Analysis

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1. Introduction

The NSW Government has assisted local councils and their communities to develop 37 Regional Economic Development Strategies across regional NSW. Each strategy is designed around one or more local government areas (LGAs) that form a functional economic region as defined by economic data and community input.

While the strategies have been developed using a consistent methodology, each is a product of detailed data analysis and local community consultation to ensure ownership through a 'bottom-up' process: it sets out a vision for the Region, the Strategies, and early stage actions required to achieve the vision.

The Northern New England High Country Regional Economic Development Strategy is based on the functional economic region (the Region) which encompasses Glen Innes Severn, Tenterfield Shire and Southern Downs Regional LGAs. The boundary of the Region was determined using an analysis of regional data, including commuting patterns and industry statistics, and confirmed with the Glen Innes Severn and Tenterfield councils (the Councils).

The Strategy has been developed in consultation with the Councils and the community and aims to align with the aspirations of the residents and businesses in the Region. It identifies the strengths of the local economy, articulates a long-term economic vision and identifies the immediate actions required to deliver that vision. The Strategy also takes into consideration the regional risk factors that are present and actions to mitigate these risks.

While the Northern New England High Country Councils are the custodian of the Strategy and the primary stakeholders, State and Federal Government agencies, local institutions, businesses and the broader community each have a role to play in its implementation.

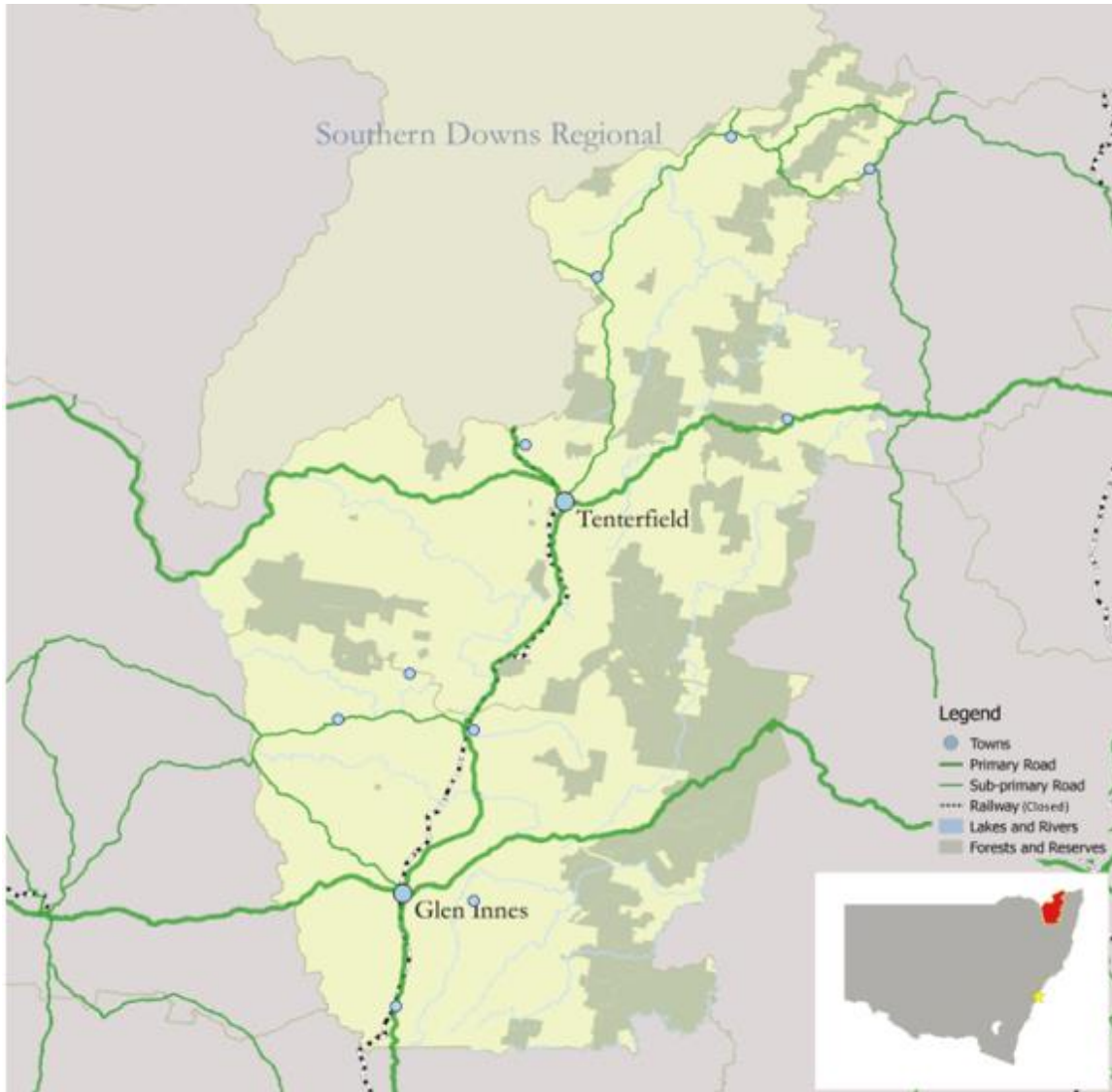
Geographic parameters

The Northern New England High Country Region covers an area of 19,911 square kilometres located on the Northern Tablelands of NSW and extends into the Darling Downs of Queensland. In 2016 the Region had a population of 50,580, with 35,117 (69%) living in the Southern Downs Regional Council area; 8,833 (17%) in the Glen Innes Severn Shire; and 6,630 (13%) living in the Tenterfield Shire. The main major population centres are the towns of Warwick (population 13,862); Glen Innes (5,161); Stanthorpe (4,973); and Tenterfield (2,914)¹.

The Region is bounded by the rest of the Darling Downs to the North and partly West, Inverell Shire to the remainder of the west, the NSW North Coast to the east, Armidale Regional LGA to the south. The Region as a whole has strong linkages with communities and industries in the broader New England – North West Region, Southern Queensland and the Northern Rivers Region of NSW.

¹ Australian Bureau of Statistics 2016 Census of Population and Housing (Urban Centre/Locality data)

Figure 1: The Northern New England High Country Functional Economic Region



Source: Sapere analysis using data from NSW Government spatial services



Objectives and timeframe

The Northern New England High Country Regional Economic Development Strategy sets out the long-term vision for the economic future of the Region and identifies the strategies and immediate actions that can be undertaken in the period to 2022 to pursue this vision. The key objectives of the Strategy are:

- to build on existing strengths in the Region and enhance those strengths
- identify new opportunities to enhance the development, performance and competitiveness of the Region
- set the Region on the path towards long term sustainability.

The economic fortunes of the Region will be influenced by a range of factors, including external influences, such as global and domestic megatrends, development in other parts of NSW, Queensland (and Australia) and changes in government policies and regulations. Changes in these factors can present both opportunities for, and challenges to, the Region's development. For this reason, the Strategy should be viewed as a living document and revised in response to the changing environment.

Strategic context

The Northern New England High Country REDS aligns with the NSW Government's Making it Happen in the Regions: Regional Development Framework, Economic Development Strategy for Regional NSW; the New England – North West Regional Plan 2036; and Queensland's Granite Belt Wine Country initiatives.

The strategic intent and direction of the Strategy is consistent with each council's Community Strategic Plan (CSP). The Strategy also aligns with and leverages other plans and strategies developed for the Region and the individual LGAs. Key plans and strategies are summarised in Table 1, with a list of all plans and strategies taken into consideration provided in Appendix 1.

Table 1: Key plans and strategies informing the Northern New England High Country Regional Economic Development Strategy

Plan / Strategy	Objectives/ Relevance
New England North-West Regional Plan 2036 (and informing documents)	Provides the overarching framework guiding the NSW Government's land use planning priorities and decisions for the New England – North West Region.
Community Strategic Plans (CSP): <ul style="list-style-type: none">• Tenterfield CSP 2017-2027• Glen Innes Severn CSP 2017-2027• Shaping Southern Downs 2027	Articulates how the communities in each LGA want to develop into the future. Each of these CSPs includes strategies to strengthen and grow the local economy.
Council Four Year Delivery Programs and annual Operational Plans	Outlines what the elected Council proposes to achieve towards the CSP strategic objectives during their term in office, and the actions to achieve this.
Council Economic Development Strategies (EDS): <ul style="list-style-type: none">• Glen Innes Severn EDS 2012 – 2017• Tenterfield EDS 2013-2017• Southern Downs Economic Development Strategy 2017-2020	The EDSs identify the economic development opportunities in each LGA and provide the vision, direction and framework for realising the opportunities, and facilitating and supporting growth.
Council Destination Management Plans (DMP): <ul style="list-style-type: none">• Glen Innes Severn DMP 2016-2020• Tenterfield & District DMP 2013-2017• Shaping Southern Downs 2027	The DMPs provide the framework and direction for growing the visitor economy (tourism sector) through product, infrastructure and market development, delivery of visitor services, and marketing and promotion.

Consultation methodology

Consultation has been an important part of the development of the Strategy. In conjunction with the local Councils a community engagement process was conducted involving an online survey and face-to-face and telephone interviews with businesses and members of the community.

Figure 2: REDS Consultation Process



- **Workshops** — Two workshops were conducted. The first workshop (held in Deepwater) was attended by Councillors and Council staff from the two Councils and a representative from the NSW Office of Regional Development. Participants discussed key endowments, issues and opportunities. The second workshop involved a selected group of Council staff and the Mayors and focussed on key findings and the directions forward.
- **Survey** — An online survey (~15 minutes) was conducted in October/November 2017. Seventy-seven responses were received from a mix of businesses and other stakeholders. The web-link to the survey was sent directly to key businesses and stakeholders and to business chambers to circulate. The survey covered strengths, weaknesses, risks, issues and opportunities.
- **Interviews** — Around 35 information gathering interviews were conducted with selected people from industry, Government and others in the Functional Economic Region community.



2. Regional Profile

Regional overview

Physical environment

The Northern New England High Country Region occupies the northern half of the Northern Tablelands of NSW and part of the Darling Downs region of Queensland. It sits on the Great Dividing Range, with the eastern side of the Region drained by the headwaters of the Clarence River and the western side by the headwaters of Macintyre and Dumaresq Rivers² which form part of the Murray-Darling Basin. The eastern edge of the Region is dissected gorge country, with the remainder of the Region being an elevated plateau. Several areas in the south, north and east of the Region have rich basaltic soils which are ideal for fruit and vegetable production. Across the Region, altitudes range from 100 metres to over 1,500 metres above sea level.

The Region has over 35 National Parks, State Conservation Areas, Nature Reserves and State Forests, including the World Heritage listed Washpool and Toolum National Parks. Around 20% of the Region is classified as 'Protected Estate'³.

The Region has a cool temperate climate in the higher altitude areas at the southern end of the region, grading to a sub-tropical highland climate in the north of Tenterfield Shire to the Southern Downs. The Region has four distinct seasons. Summers are mild-to-hot with low humidity. Winters are cold, frosty and windy, with temperatures often falling below 0°C. Frosts are prevalent and snow falls occur at higher altitudes. Rainfall is generally reliable and occurs year-round peaking in late spring and summer. Mean annual rainfall is highest along the eastern edge of the Region (over 1400mm pa), decreasing to the west (Glen Innes 858mm, Tenterfield 848mm).

The Region has the largest hard-rock tin deposit in Australia, and possibly in the world. In addition to tin, the deposit also contains silver and copper and rare earths — lithium, tungsten, molybdenum and rubidium.⁴



² Commonly referred to as the Border Rivers Region.

³ Protected Estate includes the National Park estate, State Forests and Crown Reserves.

⁴ NSW Government (2014) Tin – Opportunities in NSW www.resourcesandenergy.nsw.gov.au

Access

The Region is readily accessible to South East Queensland and to the Northern Rivers Region of the NSW North Coast. By road, areas within the Region are within 1 to 4 hours' drive of the Port of Brisbane, Brisbane Airport and the Wellcamp Airport (international freight hub) in Toowoomba.

The Region's main population centres of Warwick, Stanthorpe, Tenterfield and Glen Innes are located on the New England Highway which is a National highway and the main north-south route through the Region. The other important north-south route is the Mount Lindesay Road which links the Region to South East Queensland. This road is very narrow, in poor condition and has load limited bridges. The Gwydir and Bruxner Highways are important east-west routes, connecting the Northern New England High Country Region with the NSW Northern Rivers Region to the east and to the Upper North West Region in the west, continuing through to Outback NSW and into South Western Queensland. There are also several regional roads that link the Northern New England High Country Region to the Northern Rivers and Southern Downs regions. The Cunningham Highway links Ipswich through to Goondiwindi and transverse through the town of Warwick.

Northern New England High Country is located on the Main North Railway corridor. The line between Armidale and Wallangarra was closed in 1988. Daily rail-coach services operate between Armidale, Glen Innes and Tenterfield. Glen Innes is also on the rail-coach route between Grafton, Inverell and Moree.

Glen Innes and Tenterfield have airports which are Civil Aviation Safety Authority (CASA) registered and licensed for general aviation. Within the surrounding region, domestic Regular Passenger Transport (RPT) services are available from Armidale, Inverell, Lismore, Grafton, Ballina, Gold Coast and Brisbane Airports, with international flights available from the Gold Coast and Brisbane Airports.

Settlement – Towns and Villages

Warwick, Stanthorpe, Tenterfield and Glen Innes are the major settlements within the Northern New England High Country Region. They are administrative and service centres for the Region as well as service centres for highway travellers. Tenterfield Shire has 6 small villages, four located in the north of the Shire close to the NSW-Queensland border (Jennings, Liston, Legume and Urbenville), Drake to the east of Tenterfield and Torrington to the south-west. The driving time between Tenterfield and Urbenville is over two hours. Glen Innes Severn LGA has 4 villages — Deepwater, Emmaville, Glencoe and Red Range. Southern Downs LGA contains the townships of Allora, Killarney, Wallangarra and Yangan.

The Queensland towns of Stanthorpe (pop. 4,973) and Warwick (pop. 13,862) provide services for Tenterfield LGA, with the villages in the northern part of the LGA oriented to these towns rather than to Tenterfield. In the south of the Region, Glen Innes is less than 100km from Armidale and Inverell, with these centres providing higher order services for the LGA. Approximately 10% of workers in Tenterfield work in Queensland, while 5% of workers in Glen Innes work in Armidale and Inverell LGAs.

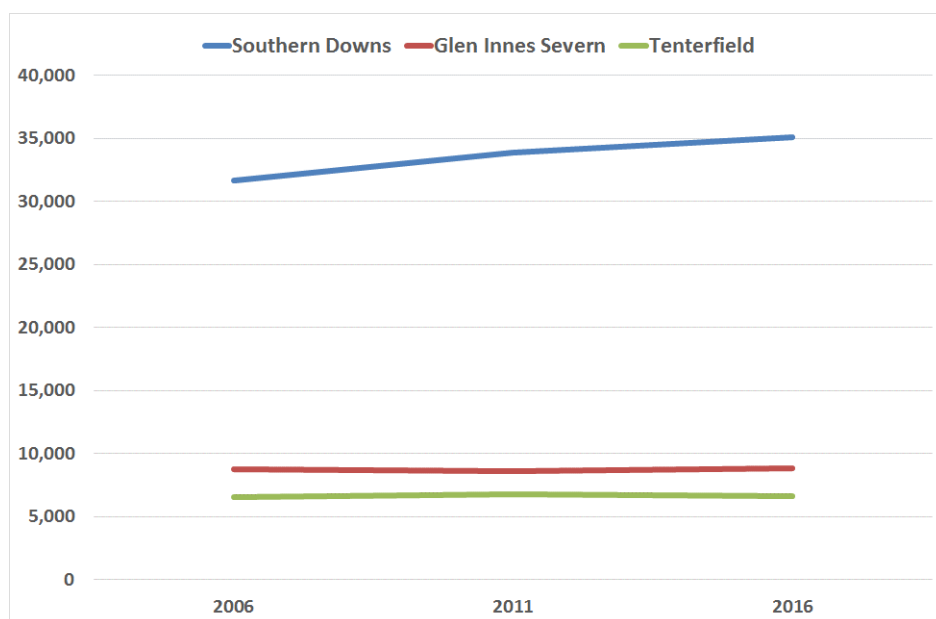


Demographic profile

Population

In 2016, the population of the Region was 50,580. Of this, 35,117 (69%) resided in the Southern Downs Regional LGA, 8,833 (17%) resided in Glen Innes Severn LGA, and 6,630 (13%) lived in Tenterfield Shire. Since 2006, the populations of Glen Innes Severn and Tenterfield have remained steady, and there has been an increase in the population of Southern Downs.

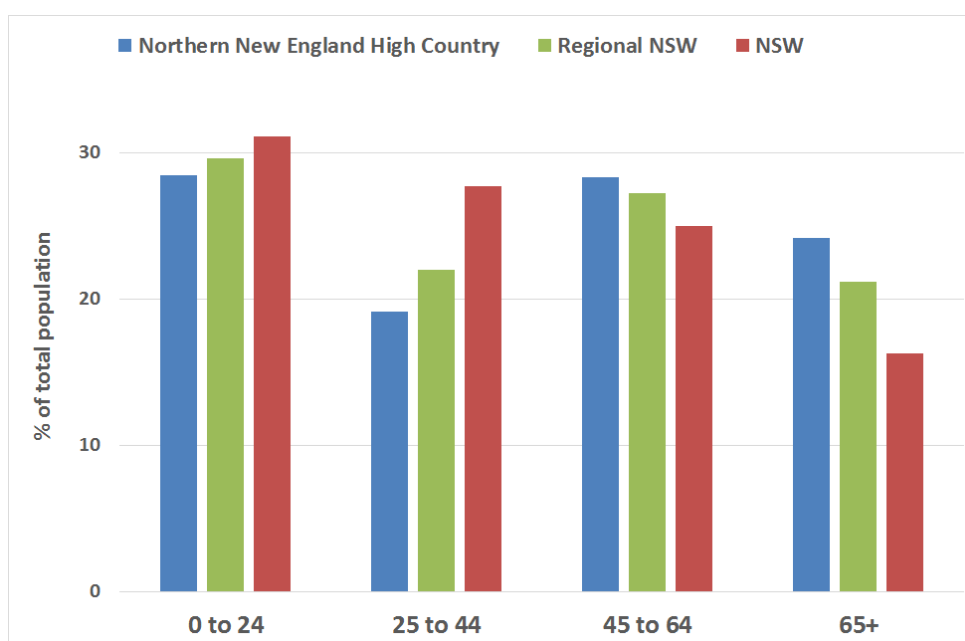
Figure 3: Historical population



Source: Australian Bureau of Statistics, 2016 Census of Population and Housing

As with many regional areas of NSW, there has been a change in population demographics in recent times, with the proportion of older residents increasing, and many young residents moving to larger cities for work.

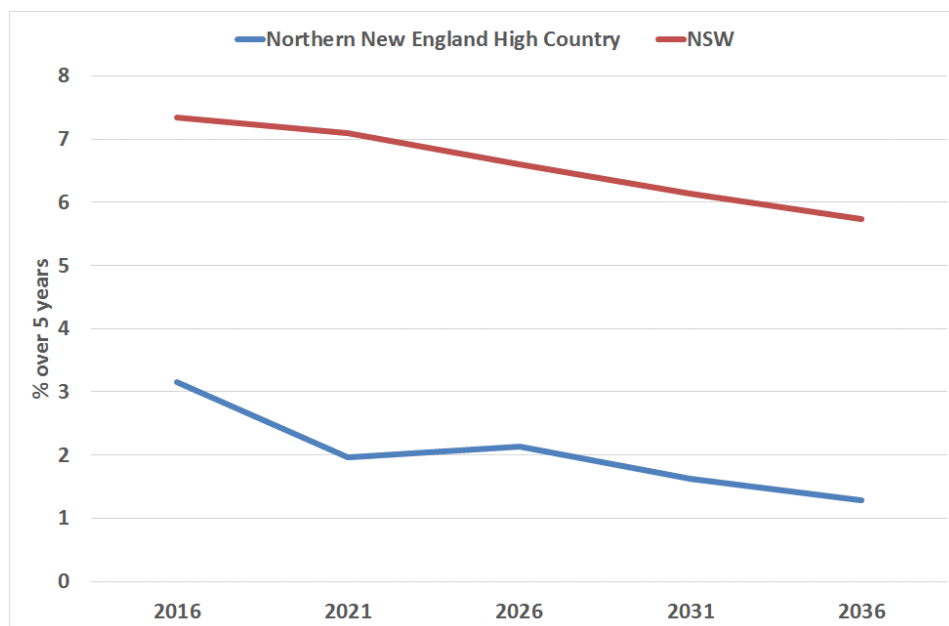
Figure 4: Population age profile in 2016



Source: Australian Bureau of Statistics, Estimated Resident Population (ERP).

The population of the Region is projected to continue growing (Figure 5) over the next two decades, but at a lower rate than the rate of NSW as a whole.

Figure 5: Population growth projections



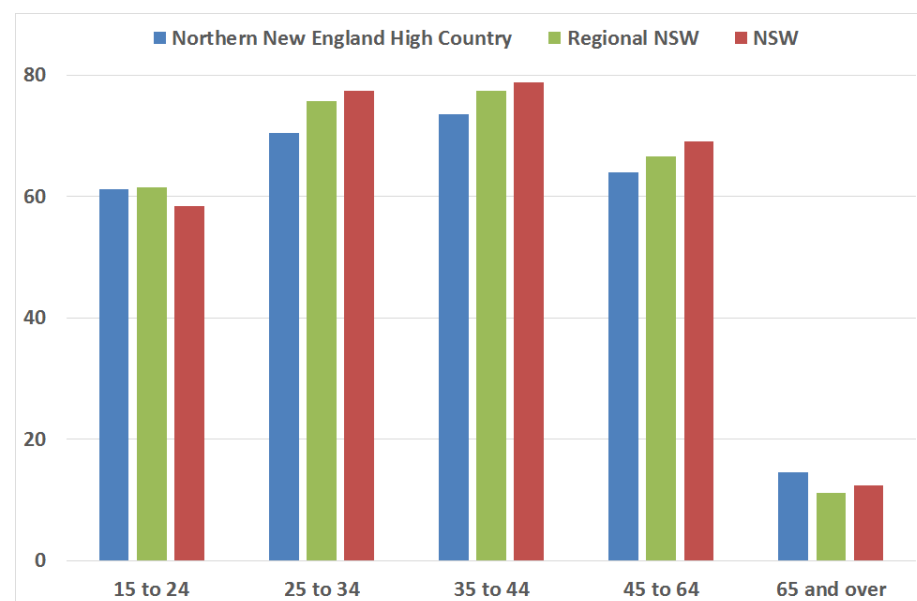
Source: NSW Planning and Environment, 2016 New South Wales State and Local Government Area Population Projections; Queensland Government population projections, 2015 edition.

Labour force

The size of Region's labour force was 19,688 in 2016. Of this 14,094 (72%) were based in Southern Downs LGA; 3,230 (16%) in Glen Innes Severn LGA; and 2,364 (12%) in Tenterfield Shire.

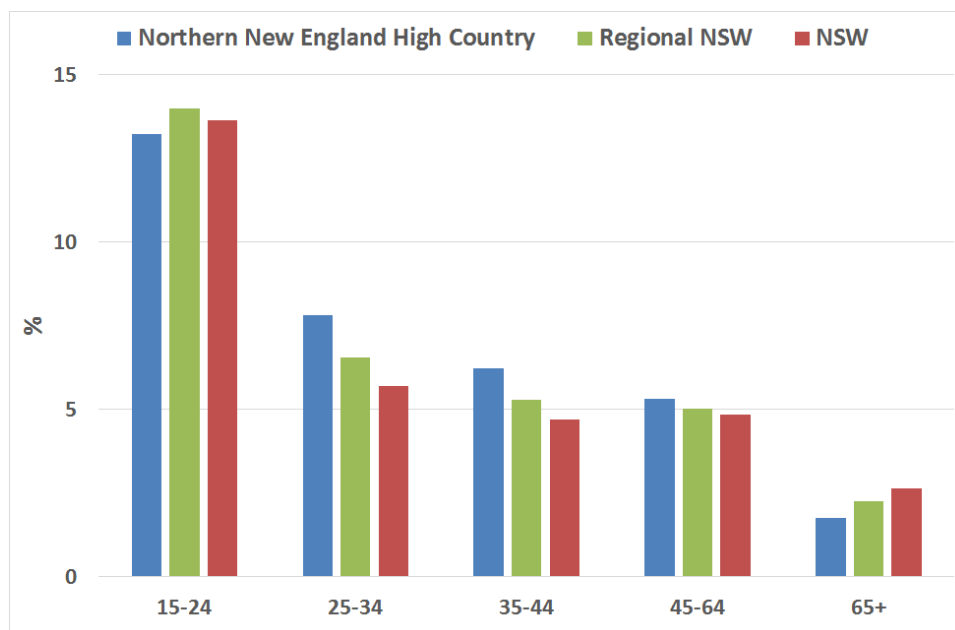
The age profile of the labour force reflects the population age profile with 54% of workers aged 45+ years. This is significantly higher than comparable proportions for NSW at 40% and Inland Regional NSW at 44%. There is also some unemployment concerns, with 13% of the labour force aged 15 to 24 being unemployed. However, in this Region people older than 65 appear more likely to work than in other localities (Figure 7).

Figure 6: Employment Participation Rate by age



Source: Australian Bureau of Statistics, 2016 Census of Population and Housing.

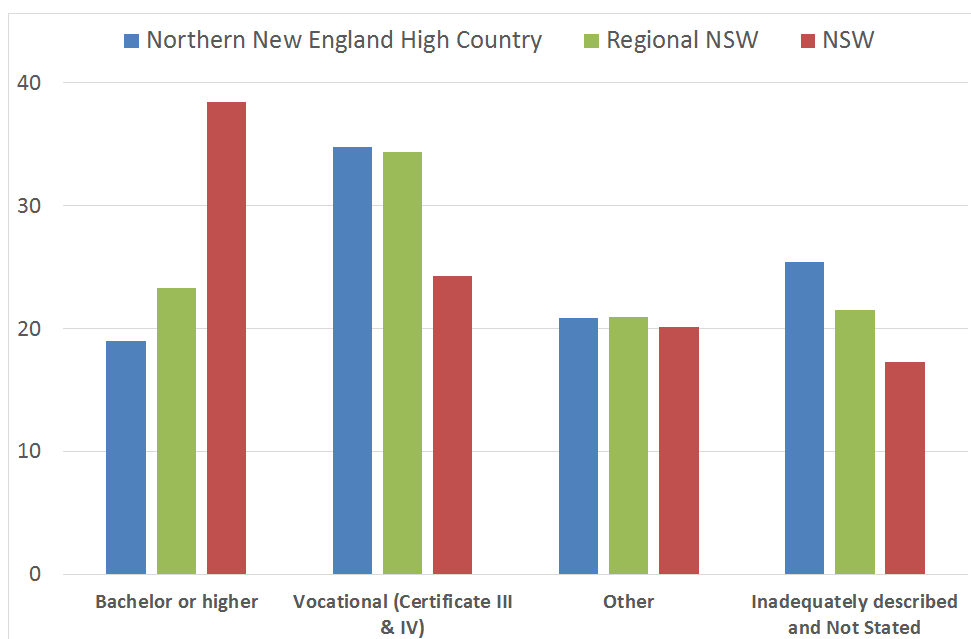
Figure 7: Unemployment rate by Age



Source: Australian Bureau of Statistics, 2016 Census of Population and Housing.

In 2016, the proportion of the Region's population aged over 15 with a bachelor degree or higher education at 19% was lower than for NSW as a whole at 38% and Regional NSW at 23% (Figure 8). The proportion of people with vocational qualifications (Certificates II and IV) at 35% was higher than for NSW at 24% but similar to Regional NSW at 34%.

Figure 8: Education level of labour force



Source: Australian Bureau of Statistics, 2016 Census of Population and Housing.

There are notable differences in the types of occupations held (

Table 2). The Northern New England High Country Region has a higher proportion of 'Managers' reflecting the predominance of self-employed farmers and small business owners. The Region also has a higher proportion of 'Labourers' and a lower proportion of 'Professionals' than NSW, Regional NSW and Inland Regional NSW.

Table 2: Labour force by Occupation

	Northern New England High Country	Regional NSW	NSW
Occupation type	% of total	% of total	% of total
Managers	18	13	13
Professionals	12	17	24
Technicians and Trades Workers	13	15	13
Community and Personal Service Workers	11	12	10
Clerical and Administrative Workers	11	12	14
Sales Workers	9	10	9
Machinery Operators and Drivers	8	7	6
Labourers	17	12	9

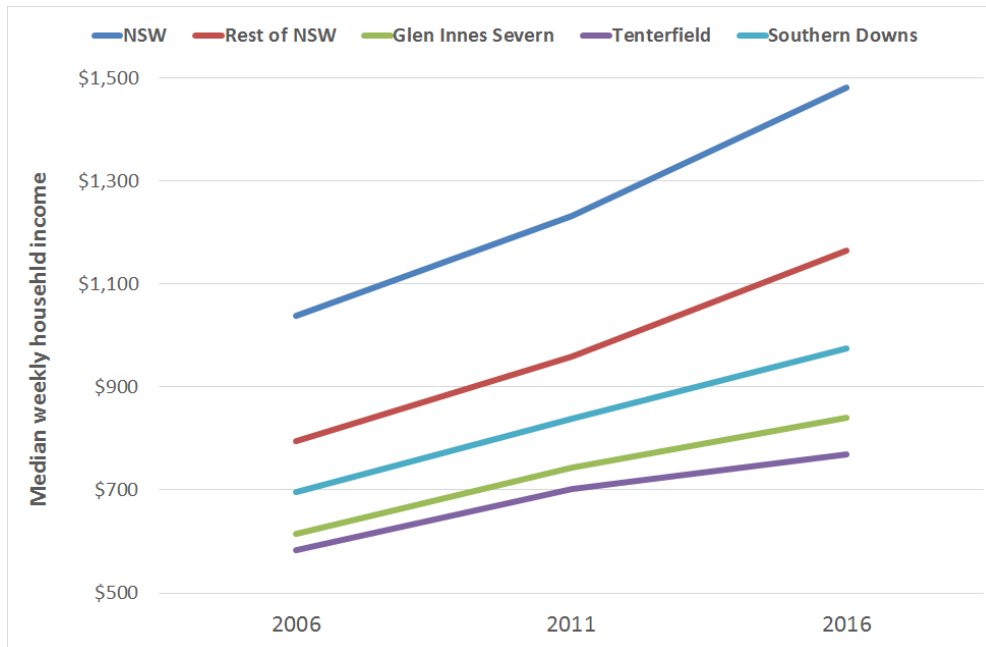
Source: Australian Bureau of Statistics, 2016 Census of Population and Housing; Note inadequately described/Not stated accounts for 2% of all occupation types.



Income

The median incomes of NSW and Regional NSW (NSW excluding Greater Sydney) were higher in 2016 than the Region's individual LGAs (Figure 9). Growth in median household income the three Southern Downs LGA's was lower than 43% in NSW and 47% in NSW (excluding Greater Sydney), with growth of 37% in Glen Innes Severn; 32% in Tenterfield; and, 40% in Southern Downs.

Figure 9: Median weekly household income



Source: Australian Bureau of Statistics, 2016 Census of Population and Housing.

Key Industries

Overview

Within a regional economy, industries can be classified as:

- **Engines** — industries that bring money into the Region (e.g. agriculture) and that drive the local economy
- **Enabling** — industries that support the engines (e.g. services to agriculture)
- **Population serving** — industries that support the local population (e.g. retail)

To foster economic development, it is important to focus on the engine sectors that drive growth, and the enabling industries that support these. The fortunes of the population serving industries depend primarily on the success of the engine industries.

Within the Northern New England High Country, the primary engine industries are agriculture-related (particularly, livestock and horticulture). The Transport and Logistics sector is a key enabler for agriculture. Tourism and Aged Care are emerging as important industries that can bring growth to the Region.

The Region has an emerging renewable energy sector, with two large wind and solar farms⁵ and a smaller wind farm under construction in the NSW part of the Region. Warwick has recently approved construction of a second solar farm that will be owned and operated by the University of Queensland. Some of the rivers within the Region have also been identified as potentially suitable for generation of hydro-electricity.

The Region also has a large tin deposit, with approval recently granted for tin mining and processing. Medium to longer term, and this could become an engine industry.

The Region's key and emerging industries are discussed in Chapter 5.



⁵ One of the large wind farms (Sapphire) is located on the boundary of Inverell and Glen Innes Severn shires, with only part of the farm in the NORTHERN NEW ENGLAND HIGH COUNTRY Region.

Industry performance

Agriculture, Forestry and Fishing contributes the most to the Gross Value Added the Region's industries at \$284 million or 14% of the total, followed by Construction at \$174 million (8.4%), and Health Care and Social Assistance at \$163 million (7.8%) (Table 3).

Table 3: Exports and Gross value added (GVA) by industry

	Gross Value Added			Exports	
Industry	\$ million	% of total	(\$) per FTE	\$ million	% of total
Agriculture, Forestry and Fishing	284	13.6	90,326	198	39.1
Mining	15	0.7	180,757	12	2.4
Manufacturing	100	4.8	82,924	132	26.1
Electricity, Gas, Water and Waste Services	84	4.0	283,359	1	0.1
Construction	174	8.4	166,981	1	0.3
Wholesale Trade	73	3.5	183,330	24	4.8
Retail Trade	148	7.1	69,063	13	2.5
Accommodation and Food Services	75	3.6	62,650	40	7.9
Transport, Postal and Warehousing	118	5.7	115,989	44	8.7
Information Media and Telecommunications	33	1.6	222,615	5	1.0
Financial and Insurance Services	112	5.4	475,450	5	1.0
Rental, Hiring and Real Estate Services	53	2.5	256,255	2	0.4
Professional, Scientific and Technical Services	69	3.3	111,649	10	2.0
Administrative and Support Services	28	1.3	105,446	3	0.5
Public Administration and Safety	122	5.9	110,640	1	0.1
Education and Training	129	6.2	94,714	7	1.5
Health Care and Social Assistance	163	7.8	81,682	1	0.2
Arts and Recreation Services	13	0.6	72,402	1	0.3
Other Services	45	2.2	61,656	1	0.2
Ownership of Dwellings	241	11.6	n/a	5	0.9
Gross Value Added	2,081	100.0	119,739	507	100.0

Source: CERD IO Tables. Note: Gross Value Added and Export value rounded to nearest \$m. Gross Value Added per FTE rounded to nearest \$. ANZSIC industries have been calculated by summing relevant Input-Output Product Classification.

Input-Output Product Classifications provide more detail. Retail Trade contributed the highest value added to the region at \$148 million (7.1%) of total Gross Value Added; Sheep, Grains, Beef and Dairy Cattle at \$133 million (6.4%); and Other Agriculture at \$125 million (6.0%) (Table 4).

Table 4: Gross value added (GVA) by Input-Output Product Classification

Input-Output Product Classification	\$ million	% of total
Retail Trade	148	7.1
Sheep, Grains, Beef and Dairy Cattle	133	6.4
Other Agriculture	125	6.0
Primary and Secondary Education Services (incl Pre-Schools and Special Schools)	112	5.4
Heavy and Civil Engineering Construction	98	4.7
Finance	98	4.7
Public Administration and Regulatory Services	97	4.7
Residential Care and Social Assistance Services	85	4.1
Health Care Services	78	3.7
Wholesale Trade	73	3.5

Source: CERD IO Tables. Note: Gross Value Added and Export value rounded to nearest \$m; List excludes Ownership of Dwellings.

Sheep, Grains, Beef and Dairy Cattle contributed the highest export value to the region at \$173 million (34%) of total Exports; Meat and Meat Product Manufacturing at \$77 million (15%); and Accommodation at \$31 million (6.1%) (Table 5).

Table 5: Exports by Input-Output Product Classification

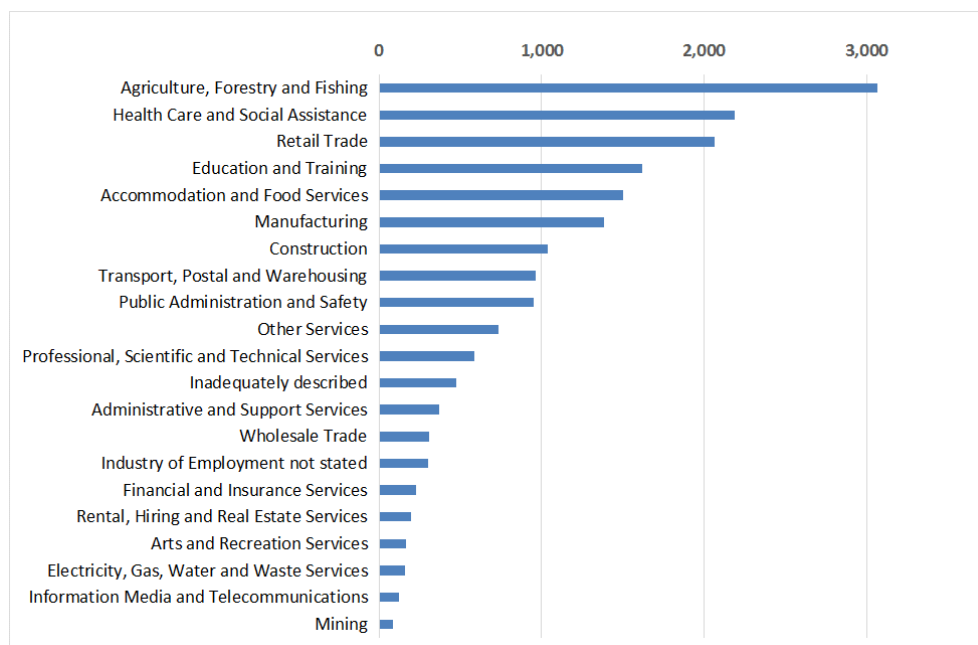
Input-Output Product Classification	\$ million	% of total
Sheep, Grains, Beef and Dairy Cattle	174	34.3
Meat and Meat product Manufacturing	77	15.2
Accommodation	31	6.1
Road Transport	30	5.9
Wholesale Trade	24	4.8
Other Agriculture	16	3.2
Retail Trade	13	2.5
Professional, Scientific and Technical Services	10	1.9
Wine, Spirits and Tobacco	10	1.9
Food and Beverage Services	9	1.8

Source: CERD IO Tables. Note: Gross Value Added and Export value rounded to nearest \$m.

Employment by industry

A snapshot of the Region's industries 'Employment by Industry' is summarised in Figure 10. The five highest employing industries are *Agriculture, Forestry and Fishing* at 3,065 persons (16.6%) of total employment; *Health Care and Social Assistance* at 2,190 (11.8%); *Retail Trade* at 2,062 (11.1%); *Education and Training* at 1,619 (8.7%); and *Accommodation and Food Services* at 1,500 people (8.1%).

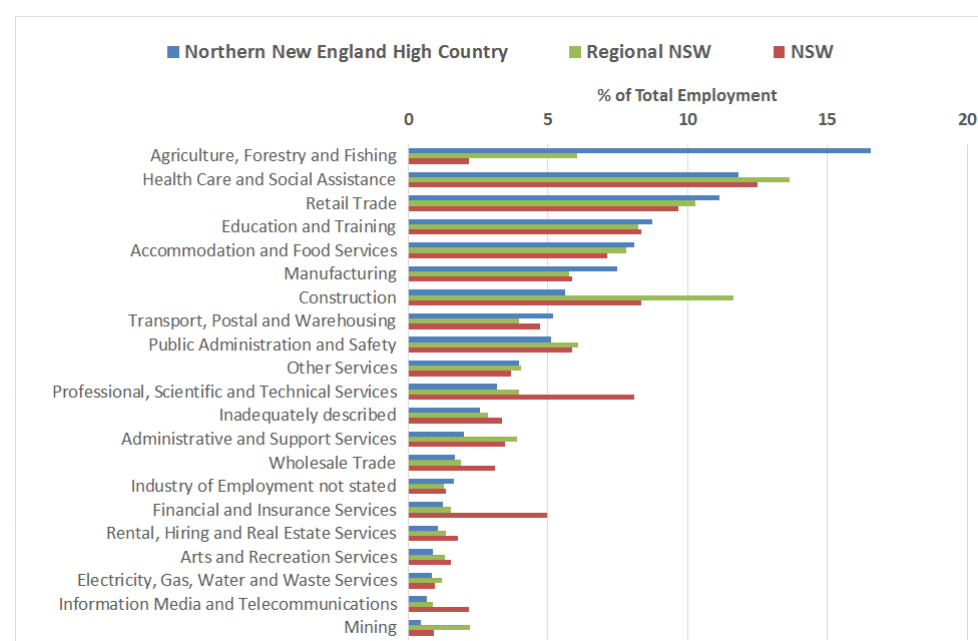
Figure 10: Employment by industry by place of work



Source: Australian Bureau of Statistics, 2016 Census of Population and Housing based on place of work.

The 16.6% of the workforce employed in the Agriculture, Forestry and Fishing industry was higher than the 6.0% share for Regional NSW and 2.2% share for NSW in 2016 (see Figure 11). Manufacturing also had a relatively high share of employment at 7.5% of the Northern New England High Country workforce compared with 5.8% for Regional NSW and 5.9% for NSW in 2016.

Figure 11: Employment by industry by place of work, New England High Country, Regional NSW and NSW



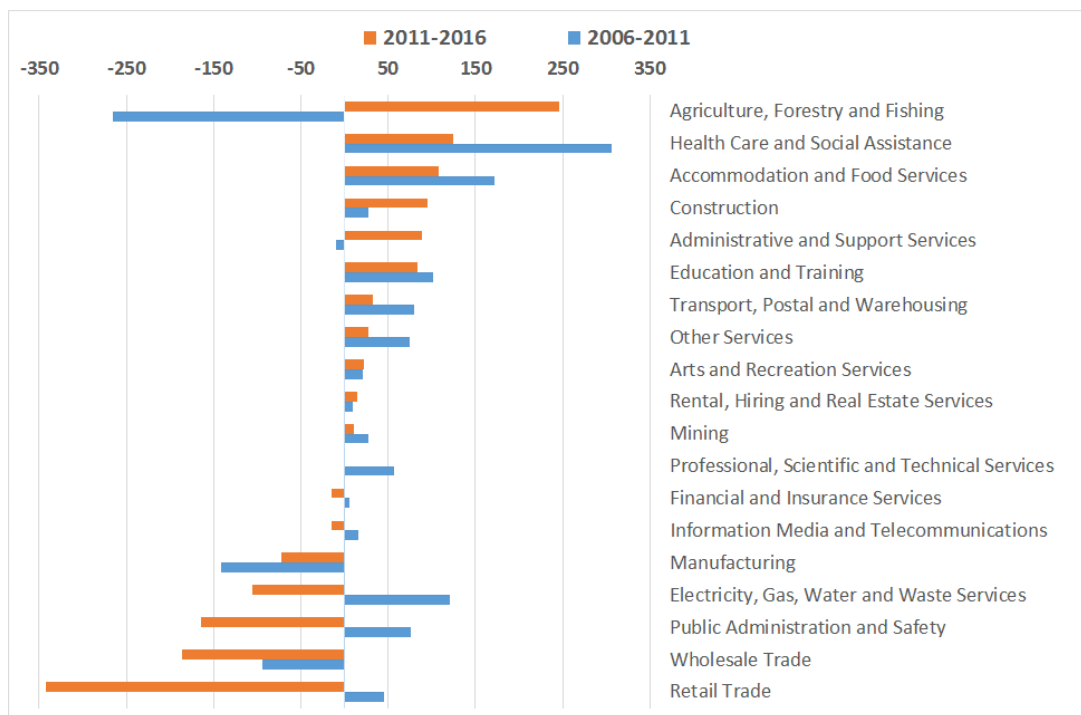
Source: Australian Bureau of Statistics, 2016 Census of Population and Housing based on place of work.

Employment in the largest industry of *Agriculture, Forestry and Fishing* grew the most of all industries between 2011 and 2016 at 246 jobs after a fall of 266 jobs between 2006 and 2011 (although some of this shifts in employment may reflect the impact of recover from the Millennium drought) (Figure 12).

Employment in *Health Care and Social Assistance* had the second largest increase of employment in this period with 124 jobs additional jobs, following a 306 job increase between 2006 and 2011.

The third largest increase in employment in the 2011 to 2016 period was Accommodation and Food Services, with 108 jobs in the five years to 2016, after an increase of 172 persons from 2006 to 2011.

Figure 12: Change in Employment by Industry



Source: Australian Bureau of Statistics, 2016 Census of Population and Housing based on place of work.



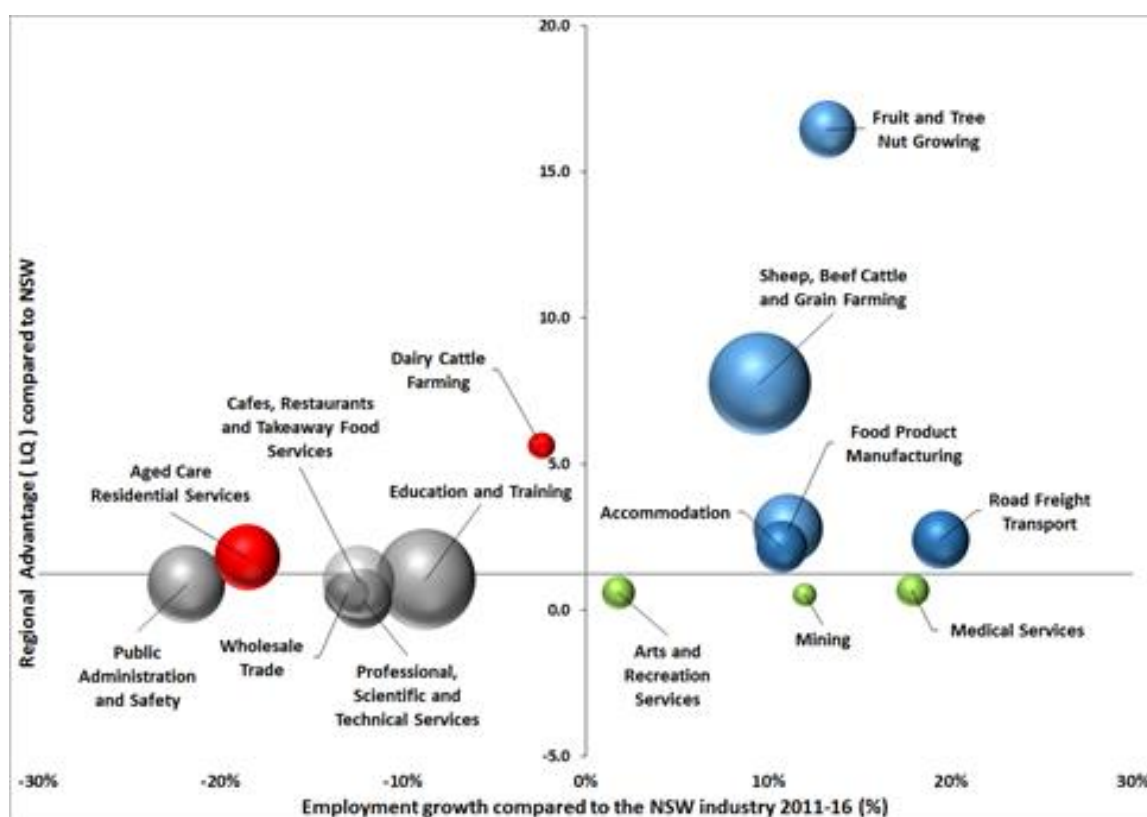
Industry specialisations

Regions are becoming increasingly specialised in the engine industries in which they have a relative advantage. The degree of specialisation can be measured by the relative concentration of each industry. A commonly used form of comparative advantage analysis is the Location Quotient (LQ) which measures the employment concentration in industry sectors within a regional economy, compared with the same sectors across NSW. The higher the LQ, the higher the likelihood that the Region is specialised in that industry relative to NSW.

Figure 13 shows selected industries in the Region by employment size, employment growth between 2011 and 2016, and LQ. An LQ of 1.25 or more is generally regarded as denoting a regional specialisation. A bubble's size represents the number of people employed in the industry.

The colour of the bubble is used to show employment growth from 2011 to 2016 relative to the NSW industry average. Blue and red represent industry specialisations that have grown (blue) or declined (red) in employment relative to NSW. Grey represents industries that are not specialisations and for which employment has declined over the period relative to NSW. Green represents industries that, although not a specialisation now, could continue to grow and become a specialisation in the future.

Figure 13: Employment by sector – growth and concentration relative to NSW



Source: Australian Bureau of Statistics, 2011 and 2016 Census of Population and Housing, based on place of work.

Note: The Australian Bureau of Statistics methodology of allocating employment-related Census data to LGAs (a non-Australian Bureau of Statistics structure) has changed between the 2011 and 2016 Census of Population and Housing and accordingly the changes in employment numbers may not be directly comparable.

Figure 13 reinforces that *Agriculture*, particularly broad acre livestock and cropping, horticulture, food manufacturing, and tourism (*Accommodation*) are strong specialisations in the Region. There is also specialisation in *Road Freight Transport*. *Aged Care Residential Services* is a specialisation, however, employment declined relative to the industry in NSW during the 2011-2016 period. There was strong employment growth in *Arts and Recreation Services*, *Medical Services* and *Mining* during the same period, although these are relatively small in terms of total employment.

Growth or decline in industry sectors can result from overall growth or decline in the economy, or reflect growth or decline in the industry sector across all regions, or may be a consequence of the local industry out performing or underperforming in comparison to industry sectors in other localities. To understand the relative importance of each of these factors, 'Shift Share Analysis' is used to decompose a sector's change in employment into a NSW State effect, an industry effect and a local effect.

The results of this analysis are summarised in Table 6. The shifts are expressed in percentage terms. For brevity, the NSW State and industry mix shifts have been combined.

Table 6: Shift Share Analysis

Industry Sector	Employed 2016	LQ relative to NSW 2016	Change (2011 to 2016)		State + Industry effect	Local effect
			no.	%		
Agriculture	2,940	8.3	224	8.2	3.5	4.7
Sheep, Beef Cattle and Grain Farming	1,671	7.7	72	4.5	-5.0	9.5
<i>Sheep Farming (Specialised)</i>	166	3.8	-36	-17.8	10.4	-28.2
<i>Beef Cattle Farming (Specialised)</i>	1,114	13.2	154	16.1	8.7	7.4
<i>Beef Cattle Feedlots (Specialised)</i>	44	24.5	17	60.9	111.4	-50.5
<i>Sheep-Beef Cattle Farming</i>	133	6.2	-99	-42.7	-24.9	-17.8
<i>Grain-Sheep or Grain-Beef Cattle Farming</i>	100	3.3	-13	-11.4	-35.0	23.6
Poultry Farming	81	4.6	52	179.3	68.0	111.3
Horticulture	922	12.0	110	13.5	22.2	-10.2
Manufacturing	1,386	1.3	-7.3	7.5	-24	19
Mining	88	0.5	11	0.5	2.3	12.0
Public Administration and Safety	955	0.9	-165	-14.7	7.2	-21.9
Professional, Scientific and Technical Services	580	0.4	—	—	12.2	12.2
Accommodation and Food Services	1,503	1.1	108	8.1	15.8	-8.0
Correctional and Detention Services	50	1.2	9	0.3	-4.9	26.8
Health Care and Social Assistance	2,198	0.9	124	11.9	17.8	-11.8
Aged Care Residential Services	697	1.8	-5	-0.8	17.8	-18.5

Source: Australian Bureau of Statistics, 2011 and 2016 Census of Population and Housing.

Note: The Australian Bureau of Statistics methodology of allocating employment-related Census data to LGAs (a non-Australian Bureau of Statistics structure) has changed between the 2011 and 2016 Census and accordingly the changes in employment numbers may not be directly comparable

The analysis indicates that:

- *Agriculture* is a specialisation (LQ 8.3) in the Region, with these activities growing at a faster rate than the NSW and industry growth rates. Relative to NSW, the Region has a high specialisation in *Sheep, Beef Cattle and Grain Farming* (LQ 7.7), *Poultry Farming* (LQ 4.6) and *Horticulture* (LQ 12.0) with growth in employment in *Poultry Farming* exceeding the State and industry growth rates. In the livestock and grains sector, there has been a decline in employment; however, the decline has been significantly less than the decline at State – Industry level.
- Although being important employers, *Manufacturing (excluding agri-related processing)* and *Professional, Scientific and Technical Services* are not a specialty of the Region, with employment in these sectors declining. The rate of decline in employment in the manufacturing sector is greater than the rate of decline at the State and industry level. Employment in the professional, scientific and technical services sector has declined while the counterpart number at State and Industry level has increased.
- *Accommodation and Food Services*, which is a proxy for tourism, is a semi-specialisation for the Region (LQ 1.1). While employment at State and Industry level has increased, the number of people employed remained steady in the Region.
- The *Health Care and Social Assistance* sector is a significant employer but not a specialisation for the Region (although the aged care part of this sector is). While employment in the sector has increased, the rate of increase is below the State and Industry average. The aged care part of the sector has grown reasonably fast in past 5 years; however the rate of growth was slower than the State and Industry average.



Institutions

Economic development depends in-part on the capacity of institutions to drive and support growth, and their willingness to work collaboratively. Key institutions in the Northern New England High Country Region involved in economic development include:

- **Glen Innes Severn, Tenterfield and Southern Downs Councils.** The Councils play a key role in coordinating and driving economic development with activities including policy development, planning and coordination; providing infrastructure; supporting industries and businesses; enhancing the appeal and 'liveability' of the Region; identifying and pursuing investment opportunities; advocacy; marketing and promotion
- **State and Federal Government agencies and organisations.** These organisations influence economic development through the policy and regulatory environments, provision of infrastructure, research and development, business advisory and support services and access to funds and resources. The key agencies are the Office of Regional Development; NSW Department of Planning; Jobs for NSW; National Parks and Wildlife Service; Department of Primary Industries; Local Land Services; Queensland Department of State Development, Manufacturing, Infrastructure and Planning; Queensland Department of Agriculture and Fisheries; Queensland Department of Infrastructure, Local Government and Planning; Regional Development Australia – Northern Inland, Aus Industry and NSW Correctional Services.
- **Business and industry groups and associations.** These groups provide a range of industry and business development activities and opportunities for networking and communication. They also have a strong advocacy function. For example, Meat Livestock Australia; NSW Farmers Federation; Queensland Farmers' Federation are three industry groups that have strong communication links to their members.
- **Education and training institutions and organisations.** These organisations include the high schools; University of New England; NSW TAFE; Queensland TAFE; and, the Glen Innes Wool Works Shearing School and are significant players in workforce training and development. The Queensland College of Wine Tourism which has an access hub for University of Southern Queensland is located in Stanthorpe with Queensland TAFE in Stanthorpe and Warwick. Access to education and training can also influence location decisions for both businesses and individuals.
- **Research institutions.** These institutions support industries and businesses through research and development of land and business management practices, technology, dissemination of information and advisory services. There are a range of government and private sector research establishments throughout the Region, such as the DPI Glen Innes Livestock Research Station, that support agriculture in the Region.

A summary of the key institutions and their role in economic development within the Northern New England High Country Region is given in Appendix 3. A number of the institutions have resource and capacity constraints that are slowing and/or inhibiting economic growth. These include:

- The capacity of the two Councils is limited. Glen Innes Severn and Tenterfield Councils have limited funds and resources to deliver infrastructure, facilities and services to facilitate and drive economic development. The councils are also faced with competing priorities for these funds. Within the Region significant investment is needed to improve road infrastructure and replace timber bridges to facilitate truck access to agricultural properties and to support tourism and other industries. The funds required are well beyond the resources of both councils
- Limited resources in some State Government agencies. The increase in regulatory and compliance requirements, coupled with cutbacks in staff and resources, is resulting in delays for approvals and other services. The limited resources available to the National Parks and Wildlife Service for the management of feral pests, weeds and bush fires are impacting on agricultural productivity.

Infrastructure to support economic development

The condition and capacity of the Region's infrastructure plays a significant role in economic development and is often a major consideration in relocation and investment decisions.

In the survey undertaken as part of the Regional Economic Development Strategy process, respondents were asked to identify the key infrastructure priorities within the Region. Telecommunications, roads and electricity infrastructure were identified as the key priorities. The survey results (summarised in Figure 4 in Appendix 4) corresponded with the key priorities identified in the industry consultation.

Transport infrastructure

Roads

All economic activity, including key agriculture activities in the Region are highly dependent on road transport. The road network and the condition and capacity of roads impacts significantly on connectivity which in turn impacts on the efficiency and cost of freight transport, inter and intra-regional travel, and tourism. Safety is also a significant consideration.

Within the Region, there are very few roads that have the capacity to accommodate a B-double vehicle (19m and above). There is virtually no B-double access in the area to the east of the New England Highway and north of the Gwydir Highway (see Figure 4 in Appendix 4). Agricultural producers in the Region face significantly higher transport costs than producers in the remainder of the New England North West Region and across the border in Queensland.

Highways

The New England Highway is the main north-south route through the Region. The Highway is part of the Auslink and National Freight Networks and provides a strategic connection between the Northern New England High Country Region, and the regional centres of Armidale and Tamworth to the south and onto Newcastle and the Hunter Valley and the Greater Sydney Region. To the north, the Highway links the Region to the rest of Queensland and facilitates the movement of freight to the Port of Brisbane and the Toowoomba Wellcamp Airport, as well as to agricultural processing plants in the remainder of the Darling Downs, Lockyer Valley and Brisbane Regions. The Highway will also provide access to the proposed intermodal terminals at Ebenezer (Brisbane West) and Bromelton (Beauresort). These factors make the New England Highway vital to the economic security of the Region.

The New England Highway intersects with the Gwydir Highway at Glen Innes and the Bruxner Highway at Tenterfield, both of which are important east-west links between the Northern New England High Country Region and the NSW North Coast to the east and the NSW Upper North West and Outback Regions to the west. Between the Hunter Valley and the NSW-Queensland border, the Gwydir Highway is the only route between the New England-North West Region and the NSW North Coast that is approved for B-Doubles and heavy vehicles over 19m in length.

There are several significant issues with the New England, Gwydir and Bruxner Highways that are impacting on freight movements, travel times and safety. Within the Region, priorities for improving the New England Highway⁶ are:

- Bolivia Hill — realigning the Highway to improve the route for heavy vehicles. Construction is due to commence in 2018

⁶ These are documented in the RMS (2017) New England Highway Corridor Strategy

- Tenterfield Heavy Vehicle by-pass — Tenterfield is a significant pinch point for heavy vehicle traffic, with heavy vehicles impacting negatively on the amenity of the town centre and posing a significant safety risk. Pre-planning and property acquisition has commenced for the by-pass. Funds need to be allocated by Government to expedite the project.

Roads and Maritime Services is yet to prepare corridor strategies for the Gwydir and Bruxner Highways. Key issues on these routes that impact on the Region are:

- The mountain passes between the coast and the tablelands, with both routes being narrow and winding with limited opportunities to overtake. The Gwydir Highway is being progressively upgraded
- Bruxner Highway — the wooden bridge over the Clarence River at Tabulum. Construction has commenced on a new bridge, which is due to open in 2019. This will remove one of the main barriers to truck movements between Tenterfield Shire and the coast
- Waterloo Range Crossing on the Gwydir Highway, 15km west of Glen Innes. This section needs to be improved to facilitate High Productivity Vehicle (HPV) access to Glen Innes and the New England Highway to improve access to the Rangers Valley Feedlot in Glen Innes Severn LGA and to markets and ports in South East Queensland.

The design of the proposed truck by-pass on the New England Highway at Tenterfield will have significant implications for the town. Highway travellers are an important visitor market for the town with the shopping centre having a strong 'lifestyle' appeal, a concentration of visitor accommodation and a range of facilities and services for visitors. The removal of trucks from the town centre will significantly improve the amenity and safety of the town centre and strengthen its appeal. In designing the by-pass, consideration needs to be given to encouraging non-truck traffic to continue to use the New England Highway and venture into Tenterfield. Signage and landscaping (potentially including public art) to encourage travellers into the town centre also need to be addressed as part of the by-pass design.

Regional (State) Roads

There are several regional (main roads) in the Northern New England High Country Region, of which 601km of main roads are in Southern Downs Regional Council; 235km in Tenterfield Shire; and, 67km in Glen Innes Severn LGA.

In Tenterfield Shire, the regional roads are important link roads into South East Queensland (Mount Lindesay, Killarney and Amosfield Roads), the Northern Rivers Region (Clarence Way) and to the Upper North West (Bruxner Way west of Tenterfield). Although mainly sealed, these roads are narrow, winding and in parts, not suitable for heavy vehicles. Load-limited bridges on these routes are pinch points.

The Mount Lindesay Road is a significant link road between Tenterfield and south-east Queensland, with this route becoming a highway on the Queensland side of the border. It is one of the main routes used by tourists from the Gold Coast and Brisbane to access the Northern New England High Country Region and a significant route for the movement of livestock and horticultural produce. The upgrading of this road and the replacement of the timber bridge over the Boonoo Boonoo River are priorities.

The Amosfield Road links the horticultural and livestock producers in the Amosfield – Liston area with the New England Highway at Stanthorpe, facilitating access to Warwick, Toowoomba and Brisbane. It also facilitates the movement of labour and machinery between Stanthorpe and the horticultural producers in Tenterfield Shire. The Killarney Road provides access between the village of Legume in Tenterfield Shire and Killarney in Queensland with links through to Warwick.

The Cunningham highway links the Region with Ipswich in the west of the Brisbane metropolitan region and Goondiwindi in the western part of the Darling Downs Region. This is the major and quickest route from Warwick, Tenterfield and Glen Innes to the port of Brisbane for the export of Agriculture commodities and sale at Rocklea markets.

Local Roads and Bridges

There are 5,660 kilometres of local roads in the Region; of which 2,027 are sealed and 3,633 kilometres are unsealed or dirt roads. The poor condition of the local rural road network is a constraint to the movement of livestock and other produce.

The main issue within the Region is the poor condition of many of the bridges. Within the Region there are 42 wooden bridges in Glen Innes Severn LGA and 58 in Tenterfield Shire, with most of these bridges in poor condition and at, or approaching, the end of their physical life. There are also a number of older concrete bridges that are in poor condition. Most of the wooden and older concrete bridges are load limited and, following a recent bridge collapse, Tenterfield Shire is further reducing the load limits on many of its timber bridges. This will impact significantly on truck access for the transport of livestock and agricultural produce, school bus access and movement of agricultural machinery.

Rail

The Main North Rail line through Glen Innes Severn and Tenterfield LGAs was closed in 1988 with rail services replaced by a daily NSW TrainLink coach services operating between Armidale and Tenterfield. In Tenterfield, the historic railway station, main line and sidings house the Tenterfield Railway Museum with this being a popular attraction. There is a proposal to close the rail corridor and establish a rail trail from Armidale to Tenterfield, and potentially onto Wallangarra in Queensland. This proposal is at the preliminary investigative stage.

The Queensland Government no longer operates rail services in the Southern Downs Region. It last ran a passenger service to Warwick in 1993, a freight service through the Southern Downs Region to Wallangarra until 2007. The Australian Railway Historical Society ran a tourist train until 2014.

Coach

There are three coach services per week operating along the New England Highway between Tamworth and Toowoomba. There are also coach services (Sunday to Friday) between Tenterfield and Toowoomba via Stanthorpe and Warwick, with connections available to Brisbane.

Air

There are no commercial (Registered Passenger Transport) air services available in Northern New England High Country Region. Brisbane and the Gold Coast are the closest major domestic and international airports. The Region also has ready access to the Wellcamp Airport (domestic passenger services and international freight) at Toowoomba. Wellcamp Airport provides a range of opportunities for exporting the Region's agricultural products, particularly fruit and vegetables.

The Glen Innes; Tenterfield Airports; Stanthorpe and Warwick airports (owned by their respective councils) are CASA registered and licensed for general aviation. The airports attract a variety of uses including private and charter planes, medical evacuation, emergency services, agricultural and recreational use. Local businesses and some agricultural properties, including Ranger Valley Feedlot, are dependent on the airport for access (use private planes and charter services).

The Glen Innes Airport has recently been upgraded and development approved for a 600-student International Flight School. The development consent includes the construction of accommodation units, kitchen, dining and leisure and recreation facilities and a flight operations and training centre including classrooms, 12 briefing rooms, simulators, offices and amenities. Council is currently seeking expressions of interest for the development of the Flight School.

There is also opportunity to leverage the other airports in the Region for aviation-based industries. Stanthorpe and Warwick airports are both CASA approved.

Utilities

Water

The water supply for domestic consumption for Tenterfield and Glen Innes is secure, with capacity for growth. The village of Emmaville needs a water supply system to enable the village to grow and accommodate the emerging tin-mining industry as discussed in Section 5.

Much of the water reticulation system in Glen Innes was built in 1938, with Council progressively upgrading the system. Council has also identified a need for a carbon dosing system to be installed at its filtration plant. Tenterfield Council is also progressively upgrading its reticulation system and needs a new water treatment plant.

Water for agricultural use is not secure. While the Region has traditionally had relatively good and reliable rainfall, there has been some increased rainfall variability and more severe weather events, including droughts. Parts of the Region are ideal for horticulture, irrigated cropping, feedlots and poultry farming. These activities need access to secure water supplies.

Opportunities to improve access to water and provide the water security needed for investment in more intensive forms of production include:

- Damming of the Mole River, with water provided downstream for irrigation. A preliminary feasibility study is currently being undertaken. If the dam proceeds, the availability of water would open up the Mingoola and Bonshaw areas for horticulture and intensive livestock and poultry production
- Damming of one of more headwater tributaries of the Clarence River. A suggested option is the damming of the Bookookooraa and possibly the Boonoo Boonoo Rivers. This would provide irrigation water for the northern parts of the Region, and potentially across the border to the Stanthorpe district, as well domestic water for Stanthorpe. The dams could also be used to generate hydro-electricity
- Providing a more flexible, cost effective approach to the development of farm dams and off-creek ring tank storage, with water pumped into these off-creek tanks during major rainfall events

Sewerage

Glen Innes has aging sewer reticulation infrastructure (constructed in the 1930s) with the sewer mains subject to joint failures and storm water intrusion. The reticulation infrastructure needs to be progressively upgraded. A sewerage system is needed in Emmaville to accommodate growth and address the increasing issues with on-site septic systems caused by the soil not being suitable for septic disposal.

Tenterfield has a new sewerage system with capacity for growth. Both Warwick and Stanthorpe have adequate sewerage systems.

Waste Management

Glen Innes Severn, Tenterfield, and Southern Downs Regional Councils operate landfill sites, with these sites having capacity for 25+ years. There may be opportunity to establish recycling operations.

Telecommunications

Telecommunications in the Region are poor and a major barrier to growth and investment. There is 4G mobile telephone coverage in Glen Innes, Tenterfield, Stanthorpe Warwick, and in the immediate surrounding areas (topography dependent) and there is a mix of 4G and 3G coverage along the New England and Gwydir Highway corridors. The rural areas in the west of the Region have patchy 3G coverage, with an antenna generally needed to access this service. The coverage to the east of the New

England Highway and north of the Gwydir Highway is very limited with large areas having no coverage. Where coverage is available an antenna is generally needed to access the service.

The lack of a mobile service in the Urbenville area is a major constraint to growth. Urbenville is only 1.5 to 2 hours from Brisbane and the Gold Coast, with the area being a highly desirable location for people looking to relocate. Lack of mobile coverage is preventing farmers and apiarists from introducing digital technology to improve farm and hive management and productivity.

Glen Innes Severn Council is seeking funding to provide additional mobile towers in the west of their LGA to provide services for agricultural producers including two major intensive agricultural producers and employers — Rangers Valley Feedlot and Mulgowie Farms (horticulture).

The NBN is due to be rolled out in mid-2018 in Tenterfield (fibre to the curb) and in late 2018 in Glen Innes (fibre to the node). NBN Fixed wireless is available in the rural areas surrounding both Tenterfield and Glen Innes, with access determined by the topography. The rural areas have access via Sky Muster satellite; however, concerns have been raised that the service is limited, unreliable and costly.

The NBN is under construction in Warwick and Stanthorpe and Fixed Wireless is available in some rural areas of Southern Downs Regional Council.

Electricity

Electrical power in the Region is provided by TransGrid, which owns and operates the high voltage transmission network that delivers electricity to the Region, and Essential Energy, which owns and operates the distribution network.

The main TransGrid high voltage lines (330 kilo Volt) are located along the western edge of the Region. It runs from the Hunter Valley via Armidale to Dumaresq on the NSW – Queensland border where it feeds into the Queensland transmission network. A 132-kilo Volt line from Armidale services Glen Innes and Tenterfield, with the line extending east to Casino and Lismore. There is also a 132 kilo Volt line connecting Glen Innes and Inverell with this line crossing the 330 kilo Volt line at White Rock, to the west of Glen Innes. White Rock is the location for the White Rock and Sapphire wind and solar farms that are currently under construction.

TransGrid is currently exploring options to reinforce and upgrade their transmission network in North Western NSW with low, medium and high capacity upgrade scenarios being assessed. These upgrades will support the renewable energy projects in the Region, with the high capacity upgrade providing opportunities for the development of a large renewable energy precinct in North Western NSW to supply both NSW and Queensland⁷.

Essential Energy controls power reticulation within the Region. Most of Glen Innes Severn LGA and Tenterfield Shire are serviced from the Glen Innes sub-transmission network; with the Urbenville area serviced by a 33 kilo Volt line from Casino. According to Essential Energy⁸ there are no capacity constraints with its transmission networks in the Region.

At the local level, there is a need to upgrade the power supply for the Glen Innes Industrial area. The area needs a new 200kVA substation to facilitate further developments in this area. The cost of installing the substation is a major deterrent to investment. The power to the Glen Innes Airport also needs to be upgraded to facilitate development, with the Airport requiring a 1,500 kilo Volt Amp pad-mounted substation.

⁷ TransGrid Transmission Annual Planning Report 2017

⁸ Essential Energy Asset Management Distribution Annual Planning Report 2016

Agricultural infrastructure

Infrastructure, which supports the agricultural sector, includes:

- Department of Primary Industries (NSW) Research Station at Glen Innes
- Department of Agriculture and Fishing (QLD) Hermitage Research Facility at Warwick
- Department of Agriculture and Fishing (QLD) Applethorpe Research Station
- Wool Works Shearing School at Glen Innes
- Saleyards — Glen Innes (sheep and cattle); Tenterfield Livestock Selling Centre (cattle); and, Warwick (sheep and cattle).

The Glen Innes and Tenterfield saleyards work together, with same day sales (Glen Innes in the morning and Tenterfield in the afternoon), to maximise the number of buyers. Both saleyards are council operated and generate economic benefits (employment and revenue) for the local economies. The Glen Innes saleyard is in poor condition, with the sheep facilities requiring a major upgrade. The Tenterfield Livestock Selling Centre is in good condition; however, investment is required to provide a truck wash and to continue to improve the yards and facilities.

The Wallangarra Abattoir, in Queensland, which once serviced the Region, closed in 2016. Cattle from the Region are primarily going to abattoirs in Warwick and Casino for processing, with sheep going to Tamworth, Dubbo and into Queensland. Facilities for packaging and processing fruit and vegetables produced in the Region are primarily located in the Southern Darling Downs, Lockyer Valley and Brisbane regions of Queensland.

Land and premises

There is a sufficient supply of serviced residential, commercial and industrial land and premises in Glen Innes to support economic development and population growth.

In Tenterfield there is a good supply of service industrial land available in Council's industrial estate, with the potential to bring further land of if required. There is significant under-supply of retail and commercial premises in the Tenterfield shopping centre within only one vacant premise. There are sufficient residential properties and land available in Tenterfield to facilitate growth.

The Glen Innes, Tenterfield Stanthorpe and Warwick airports are also potentially available for suitable aviation-based businesses.

There is strong interest from people looking for residential and rural residential properties in the northern villages in Tenterfield Shire. Lack of mobile phone coverage is the main constraint to development in these areas. If this issue is resolved, the demand for and take-up of land and premises is likely to increase significantly. This may exert pressure on the supply of land and premises and utility infrastructure.

Community services and facilities

The Northern New England High Country Region is reasonably well endowed with services and facilities to support the Regional community and cater for population growth. There is a strong sense of community in the three Shires.

Education

The Region has good education facilities. Glen Innes and Tenterfield both have State primary and high schools, Catholic primary school, TAFE's with Connected Learning Centres and University of New England Study Centres. Central schools are located at Emmaville and Woodenbong (Kyogle Shire), with the Woodenbong School servicing the Urbenville and north-eastern corner of the Region. Primary schools are located at Drake, Jennings, Urbenville, Mingoola, Red Range, Wyaliba and Deepwater.

Preschools, long day care, family day care and playgroups are available in Tenterfield and Glen Innes with Family Day Care available in Emmaville and play groups operating in some of the villages. Residents along the northern edge of the Region also have access to child care services across the border in Queensland.

The Southern Downs LGA contains more than 30 schools, with a mix of State and private institutions. The University of Southern Queensland (USQ) operates an art wine tourism campus on the outskirts of Stanthorpe, and provides training at secondary school and tertiary level in viticulture, oenology, tourism, hospitality and business. The University of Queensland (UQ) is planning to establish a 64-megawatt solar farm near Warwick, with construction to start late 2018. The farm will provide research, teaching and other engagement opportunities.

Health

Within the Region health services include:

- Community Hospitals in Glen Innes (37 beds), Tenterfield (18 beds), Stanthorpe (46 beds) and Warwick (66 beds) with Emergency Units, medical and allied health services. Glen Innes Hospital also has surgical, obstetrics and palliative care facilities.
- Multipurpose Health Centres at Emmaville (19 beds — 13 for aged care and 6 for emergency and medical) and Urbenville (22 beds — 18 aged care and 4 acute beds)
- Community Health Services in Glen Innes, Tenterfield, Stanthorpe, Warwick, Emmaville and Urbenville
- Medical Centres / General Practitioners, dental services, allied health and counselling and early intervention services in Glen Innes, Tenterfield, Stanthorpe and Warwick

Outreach specialist services are provided through Armidale and Warwick hospitals. There are also cross-border arrangements in place between the NSW and Queensland health systems. The Darling Downs Hospital and Health Service covers the Southern Downs Regional LGA as part of its extended area in southern Queensland.

Aged Care

Aged care is an important sector within the Region. Permanent residential aged care facilities are located in Warwick (2 facilities); Stanthorpe (1 facility); Tenterfield (2 facilities); Glen Innes (2 facilities); and, Killarney (1 facility). Aged care beds are part of the multi-purpose health centres in Emmaville and Urbenville. Community transport and other services to support aging in place are available in all LGAs.

Cultural and social facilities and activities

Facilities and activities include:

- Libraries in Warwick; Stanthorpe; Allora, Stanthorpe and Warwick, with a mobile library servicing Dalveen, Karara, Killarney, Leyburn, Maryvale, Pratten, Wheatvale; Yangan; Tenterfield; Glen Innes; Deepwater, Emmaville; and Glencoe.
- Tenterfield School of Arts Theatre — cinema and live theatre
- Glen Innes Chapel Theatre — cinema and live theatre
- Museums — Warwick; Stanthorpe; Tenterfield, Glen Innes; Emmaville; Killarney; and Allora



- Art galleries and art groups
- Men's Sheds in Warwick; Stanthorpe; Allora; Tenterfield; Glen Innes; and Emmaville
- Licensed Clubs and Hotels, some of which provide live music
- Poetry, music and arts events
- Cafes and restaurants
- All Councils have a range of community groups and service organisations which provide opportunities for social interaction and to volunteer

Sport and recreation activities and facilities

Sport and recreation facilities include:

- Sporting ovals – for all football codes
- Parks and playground
- Tennis and netball courts
- Showgrounds and equestrian facilities
- Off-road cycleways
- Swimming pools
- Golf Courses
- Lawn Bowls

The villages all have play equipment, with the larger villages having a recreation ground. In the rural areas, the river systems and National Parks, State Forests and Crown Reserves cater for a range of activities including fishing, bushwalking, 4WD, trail bikes, mountain bikes, horse riding, rock sports, fossicking and bird-watching.

Tourism Assets

Assets and infrastructure that underpins the Region's tourism industry include:

- Tourist attractions including:
 - Glen Innes Standing Stones and Celtic heritage, festivals and activities
 - National Parks, World Heritage Areas, State Conservation Areas, Nature Reserves, State Forests and Crown Reserves
 - Rivers, lakes and water bodies
 - Museums and historic sites including Tenterfield Rail Museum, Henry Parkes School of Arts, Land of Beardies Historic House Museum, Emmaville Mining Museum, World War II Tank Traps, Thunderbolt's hideout (various sites), Tenterfield Saddler, Sound Trails
 - Art and wood working galleries
 - Fossicking Parks
 - Wineries, distillery, meadery and local produce
 - 4WD and motor cycle parks
 - Guided and self-guided tours
 - Golf courses, with Tenterfield golf course attracting significant numbers of golfing visitors to the Region

- Festival and events, plus the event venues
- Accommodation: including motels, boutique and pub hotels, B&Bs, farm stays, lodges, caravan parks, primitive camping sites and National Park camping grounds
- Shopping and dining: cafes, restaurants, pubs and clubs, boutiques and lifestyle shops
- Accredited visitor information centres in Glen Innes, Tenterfield Stanthorpe and Warwick. The Tenterfield visitor information centre has a gateway role for both NSW and New England – North West Region, being the first NSW visitor information centre encountered for south-bound travellers on the New England Highway entering NSW from Queensland
- Warwick is renowned for its ‘roses and rodeos’ (red Arafura rose, Leslie Park and the annual Rose and Rodeo Festival). It has heritage appeal as a pioneering settlement with some of the Queensland's finest original sandstone buildings. There are well-preserved churches, cottages, railway stations and schools with links to the days when people travelled in horse-drawn carts.
- Stanthorpe is at the heart of Queensland’s “Granite Belt” which contains spectacular balancing prehistoric granite boulders. The area is becoming famous for its quality wines and developing microbreweries.

3. Endowments

In the context of the REDS, strengths are described as endowments — features of the Region that can be leveraged to drive economic growth. They include natural features (e.g. climate, agricultural land and water), built infrastructure (e.g. roads), institutional (e.g. research facilities) and other features that have some permanency.

The key strengths of the Region are its:

- Natural endowments — climate, water resources, good pastures and mineral deposits.
- Location and accessibility
- Tourism and lifestyle assets, including World Heritage Areas and National Parks

The Glen Innes Airport is also a significant asset that has the potential to be leveraged.

Natural endowments

The natural endowments of the Region underpin the Region's main economic activities and emerging industries.

Climate

The Region has a high altitude, cool temperate climate at subtropical latitude. It is characterised by four distinct seasons, cooler temperatures, low humidity, relatively high and reliable rainfall, high light intensity and, in some exposed localities, strong, consistent winds. The climate is ideal for a range of activities including:

- **Horticulture** — the climate from spring through to autumn is ideal for vegetable and fruit production. Due to the low humidity, the Region can grow many of the fruits and vegetables (e.g. tomatoes, beans, cabbages, potatoes etc.) that cannot be grown in the coastal areas of South East Queensland and the Northern Rivers Region in summer due to high humidity, temperatures, rainfall etc. The cooler temperatures and light intensity are also ideal for glasshouse (protected) horticulture, with the climate in the Glen Innes area essentially the same as Guyra which is the site of a large glasshouse operation⁹. The Northern Tablelands (which includes Glen Innes and Tenterfield) have been identified as a prime location for controlled environment horticulture.¹⁰

The ripening season is different to that in the surrounding regions, ensuring continuity of supply for wholesalers as well as price premiums for local producers. The Region is starting to replace Victoria as the source of fruit and vegetables for the South East Queensland market over the summer period. Cold temperatures in winter kill off pathogens, without the need for chemical control.

- **Wind and solar energy generation** — TransGrid has identified the Region as an ideal location for large-scale renewable energy projects.¹¹ The Region has strong natural climatic (wind, light intensity, temperature) and topographic advantages, with suitable sites located very close to high voltage (330kV and 132kV) transmission lines, with highway access to these sites

⁹ Guyra is the site of the Costa Tomato Farm which is a large glass-house operation.

¹⁰ Hadley D (2017) Controlled Environment Horticulture Industry Potential in NSW, UNE Business School University of New England

¹¹ TransGrid Transmission Annual Planning Report 2017

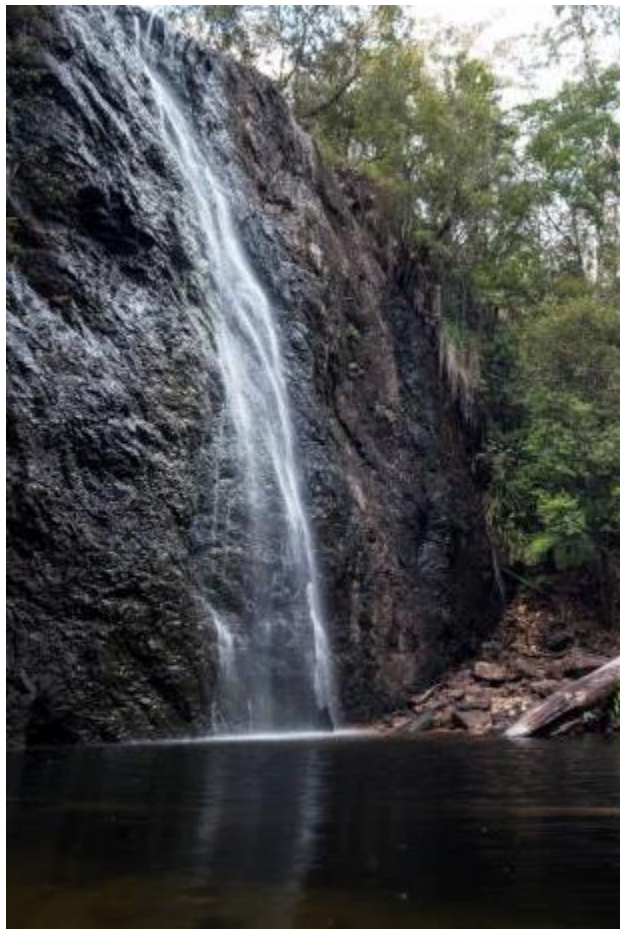
- **Livestock and cropping** — the combination of the climate and good soils supports quality perennial pastures for the livestock industry. These pastures recover well from grazing and are highly nutritious. Reliable rain also supports summer cropping
- **Bee-keeping** — the cooler temperatures and low humidity are ideal conditions for bees
- **Tourism** — the four distinct seasons (with the autumn colours and spring blossoms and wildflowers), cooler summer temperatures and low humidity and the occasional opportunity to see snow, is highly attractive to the touring markets as well as for the day trip and short-breaks markets out of South East Queensland and the Northern Rivers Region. For these latter markets, the Region is an 'escape' from the high humidity in the coastal areas
- **Lifestyle living / retirees** — attracted by the lower humidity and temperatures than the adjoining coastal regions

Water Resources

The Region sits on the Great Dividing Range and receives relatively high, reliable rainfall. It has permanent rivers and streams flowing east into the Clarence River and west into the Border Rivers catchment. There is potential to dam both the Mole River in the western part of the Region and possibly one or more of the headwater tributaries of the Clarence River for irrigation water and the generation of hydroelectricity.

Mineral Deposits

The Region has the largest, undeveloped, hard rock tin deposit in Australia, with this deposit also rich in 'rare earth metals' including lithium, rubidium and molybdenum¹². These minerals have applications in the electronics, aerospace, advanced manufacturing and renewable energy sectors. Global demand for these metals is increasing substantially, at a time when supply from traditional sources (e.g. Indonesia) is declining as resources are depleted.



¹² NSW Government (2014) Tin – Opportunities in NSW www.resourcesandenergy.nsw.gov.au

Location and accessibility

The Region has several strong location advantages:

- The Region is aligned along the New England Highway that is a major national route providing access to both Sydney, South East Queensland and the Port of Brisbane. The Highway intersects with the Gwydir Highway at Glen Innes and the Bruxner Highway at Tenterfield. These are important link roads between the New England Tablelands and the Upper North West Region of the State and the NSW Northern Rivers Region (Far North Coast). The Gwydir Highway is the only B-double route between the New England – North West Region and the North Coast
- Proximity to the Brisbane, Gold Coast and the NSW Northern Rivers Regions. At its northern and southern edges, the Region lies within 1.5 to 4 hours' drive, respectively, of these localities. The Region has ready access to the South East Queensland and Northern Rivers markets for both its produce and as a source of visitors, as well as access to the Brisbane and Gold Coast airports, the Port of Brisbane, and to higher order services, such as tertiary hospitals in Brisbane and on the Gold Coast. The Region will also have ready access to the Port of Yamba, if the Port proceeds
- Proximity to Toowoomba, with the Wellcamp Airport international freight hub being within 2-3 hours' drive of most parts of the Region. This provides significant opportunities for the air-freight export of fruit and vegetables and potentially stud livestock
- Proximity to fruit and vegetable processing and packaging plants in the Stanthorpe District, Lockyer Valley and Brisbane area and to the Stanthorpe Granite Belt wineries
- Proximity to feedlots in the Upper North West Region of NSW and the Darling Downs Region and meat processing plants in Inverell and Warwick
- Central location for bee keeping with access to the tablelands and western slopes and plains for beehives and processing facilities (primarily Capilano Honey) in South East Queensland.

Tourism and lifestyle endowments

In addition to its climatic and location endowments for tourism and lifestyle, other endowments include:

- The natural beauty of the Region – high country scenery with dissected gorge country along the eastern edge of the Region, rivers and waterfalls, tablelands, the granite country with spectacular rock formations, and the fertile, highly productive river valleys; combined with attractive, well presented towns with a strong heritage focus
- Concentration of World Heritage areas, National Parks, State Conservation Areas, Nature Reserves and State Parks incorporating the granite belt parks and the escarpment parks (rainforests, gorges and waterfall). High profile Parks include Bald Rock, Washpool and Gibraltar Range



- A diversity of quality tourist attractions, activities, accommodation and festivals and events including the Standing Stones in Glen Innes, the 'Rose and Rodeo Festival' in Warwick, prehistoric boulders and wine tours in Stanthorpe, and connection with Henry Parkes and Australian Federation in Tenterfield
- Availability of and access to fresh local produce, contemporary dining and local wineries, meadery and distilleries
- Friendly, caring, creative communities, with good health, aged care and community services and very few social problems
- Availability of affordable, serviced industrial land in Glen Innes, Tenterfield Stanthorpe and Warwick. The industrial estates have ready access to the New England Highway. Business establishment costs in the Region are far lower than in the Brisbane and Gold Coast metropolitan areas and the coastal towns and villages

The Region is ideal for tree-changers, people who can telecommute, semi- and active retirees; boutique / specialist agricultural producers, artisans and manufacturers; and the 'creative' professions such as architects and designers. Tenterfield Shire is positioning Tenterfield as the 'Bowral of Brisbane' with the town having many similarities with Bowral in the Southern Highlands of NSW.



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4. Barriers and Risks

Barriers and issues

Within the Northern New England High Country Region there are a number of barriers and issues that are inhibiting and constraining growth and impacting on productivity and profitability.

The main barriers to economic growth are:

- Poor telecommunications — particularly, lack of mobile phone coverage
- Condition and capacity of the local and regional road network
- Water security issues for horticulture and intensive agriculture
- Access to labour
- Resourcing of National Parks
- Government regulations

Communications infrastructure, roads and other transport infrastructure and access to labour were identified in the Strategy survey as being very important for local businesses, but significant weakness in the Region (see Appendix 4).

Telecommunications

Outside of Glen Innes, Southern Downs and Tenterfield, mobile coverage is very patchy with large parts of the Region having no coverage. Issues with the internet, particularly in the rural areas dependent on satellite access, include slow speeds, data constraints, lack of reliability and relatively high cost.

Poor telecommunication infrastructure:

- Renders it difficult for local business, manufacturers and agricultural producers to conduct business (e.g. access banking, down and upload forms), adopt digital technologies, access information and on-line training, meet compliance requirements, and trade on-line
- Restricts the ability of farmers to adopt digital-based smart farm monitoring and management systems and technologies
- Prevents apiarists from using smart hives and other digital based hive technology
- Is a significant deterrent to people and businesses interested in relocating to the Region
- Limits the ability of tourists to access information and make bookings on-line and navigate using their mobile devices.

Improving telecommunications, in particular the mobile phone coverage, would enable significant improvements in business and agricultural productivity, and the adoption of new technologies, as well as enhance the appeal and liveability of the Region for people and businesses interested in relocating, and meet visitor needs for information, navigation and ability to book on-line.

Local and regional roads

The local and regional road network is not conducive to efficient and cost effective transport of agricultural commodities. Very few of the roads within the Region are approved for B-Double access and none of the roads are approved for high productivity vehicles. Within the Region, there are around 100 wooden bridges and a number of older concrete bridges and culverts, many of which have load limits restricting access to small trucks only. Due to poor condition, load limits are being further reduced on some of the bridges in Tenterfield Shire. This may prevent truck and machinery access to some rural

properties and restrict school bus routes. The use of small trucks is highly inefficient and significantly increases transport costs, which results in reduced productivity and profitability. Poor road conditions also deter visitors, increase risks for road users, and reduce social interaction within and between local communities.

Water security for horticulture and intensive agriculture

The Region has strong climatic and location endowments for horticulture and intensive agriculture (feedlots, poultry, piggeries etc.). Increasing urbanisation in South East Queensland in areas such as the Lockyer Valley is also attracting horticultural producers into the Region. Queensland producers have established trial orchards and horticultural operations in the NSW parts of the Region in mutual collaboration. Producers as the main constraints to expanding operations identified lack of water security, along with the poor condition of the local roads and no mobile coverage. Water security could be addressed by damming local rivers and/or by providing a more flexible approach to on-farm storage of water (farm dams, off-river storage).

Access to labour

The Region is experiencing labour and skills shortages across most sectors. Businesses find it difficult to attract professional people, particularly those with IT, financial and engineering skills. There is also a shortage of on-farm and feedlot livestock workers and truck drivers.

With firms such as Photo Create (the largest photo-based processing operation in Australia), the horticultural and aged care sectors, there is a lot of casual and seasonal work available in the Region. The horticultural sector relies heavily on the backpacker market for seasonal pickers. While some picking can be mechanised, the poor condition of local roads and load-limited bridges impacts on the ability to bring machinery into the Region and to move it onto and between farms.

Resourcing of National Parks

The National Parks and Wildlife Service (NPWS) manage more than 15% of the Region. These Parks are one of the key drivers of visitation to the Region. The visitor facilities that have been provided are high quality and well maintained and are very popular with visitors.

The NPWS has however very limited resources available to manage their estate. The main area of concern is the impacts of that the National Parks appear to be having on the surrounding agricultural land, with the issues identified as:

- Damage caused by feral animals. Wild dogs have decimated the sheep flocks in the Region, with farmers moving out of sheep into livestock. The livestock industry is seeing an increase in calves being attacked and killed by wild dogs
- Weed infestation – impacting negatively on the productivity of the pastures and increasing operating costs. This is particularly challenging for organic producers who cannot use chemical herbicides for weed control
- Increase in the number and intensity of bush fires, with the Region now experiencing ‘wild fires’
- A significant reduction in access to floral habitat for the apiary industry. Areas previously used by the Apiary industry have been closed, and access roads to sites where hives are permitted are generally not maintained, rendering it difficult to access and move the hives. Bushfires have also destroyed habitat

Government policies and regulations

The policy and regulatory environment is impacting on economic growth and business productivity and profitability. At both State and Federal levels policies and regulations have been introduced which are perceived as reflecting a limited understanding and/or assessment of their implications for regional producers, businesses and communities.

The increasing number of regulatory and compliance requirements in relation to planning and development applications, employing apprentices and staff, work place health and safety, biosecurity, land management, transporting goods etc. is confusing, time consuming and costly for producers and businesses. These issues have been further compounded by the withdrawal of Government front-line personal from rural communities.

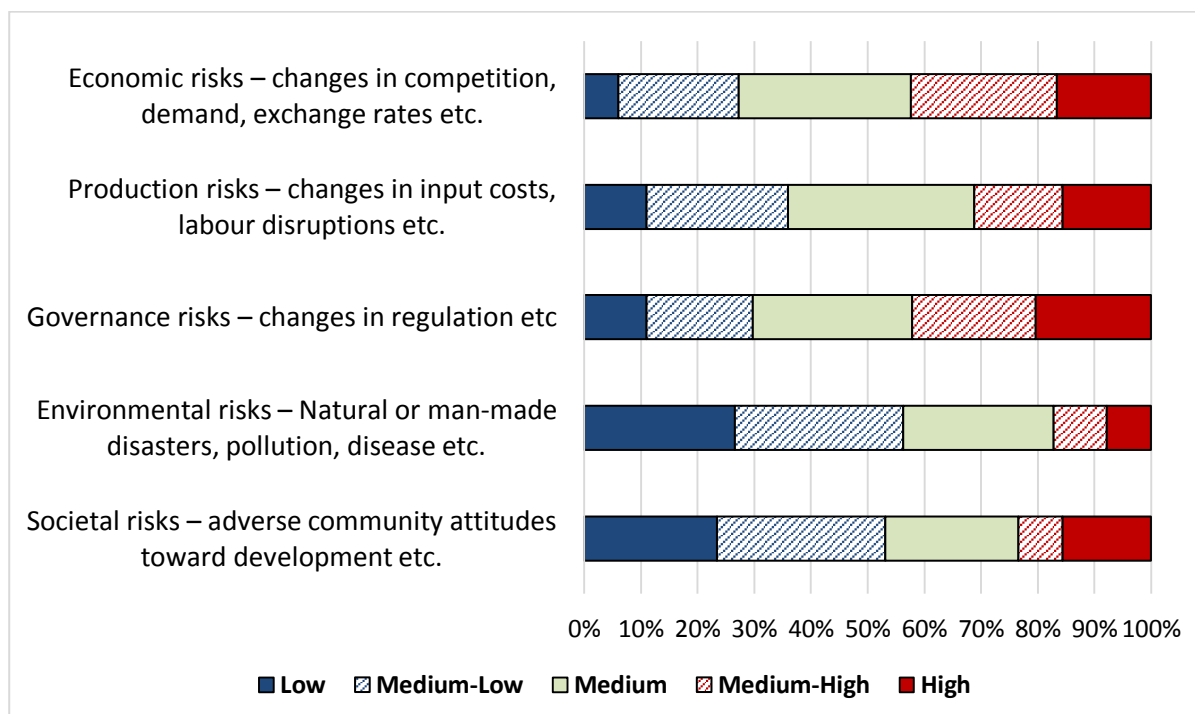
Government agencies are increasingly relying on on-line channels for information distribution and compliance, which can be challenging for rural producers and businesses particularly where telecommunication services are poor or do not exist, rendering it difficult and/or costly to access, download and upload information, forms etc. and to make payments. There exists room for improvement in government policies for fruit and potato packaging – for example, where Queensland will allow NSW fruit to enter Queensland for packaging and processing, but NSW regulations prevent Queensland fruit from coming into NSW.

Risks

The risks facing the Region have been identified through community consultation and a business survey.

In the business survey, respondents were asked to rate five broad types of risks facing their industry sector. Governance, followed by economic factors was rated as posing the highest risks.

Figure 14: Rating of Perceived Risks



The most significant risks identified were:

- The Region becoming increasingly less competitive for agriculture, tourism and as desirable location to live. Lack of / poor mobile phone coverage, slow and unreliable internet, and the poor condition of local roads and bridges were identified as root causes of the Region's decreasing competitiveness. Within Southern Downs, rural roads have been upgraded to enable use of B-doubles and high productivity vehicles.
- Risks to agriculture — exogenous risks from climate variability and associated severe weather events and changes in rainfall patterns, and changes in economic conditions which impact on exchange rates and commodity prices; as well as more localised risks from wild dogs, weed infestation and wildfires from the NPWS not having sufficient resources to manage their estate. In Tenterfield Shire, the need to further reduce load limits on wooden bridges poses a significant risk to producers limiting the ability to the transport of stock and agricultural commodities and machinery.
- For the horticultural and intensive livestock and poultry sectors, lack of access to secure water supplies was identified as a risk to production and future investment. With agriculture being the primary engine driver, changes in production and productivity have significant flow-on impacts for most other economic sectors.
- Labour shortage — particularly for people with IT, financial and engineering skills, truck drivers, farm and feedlot workers, seasonal fruit pickers and other casual workers. The welfare system was identified as a deterrent to un-employed people taking on casual, seasonal and part-time work, for fear of losing benefits.



5. Industry specialisations and opportunities

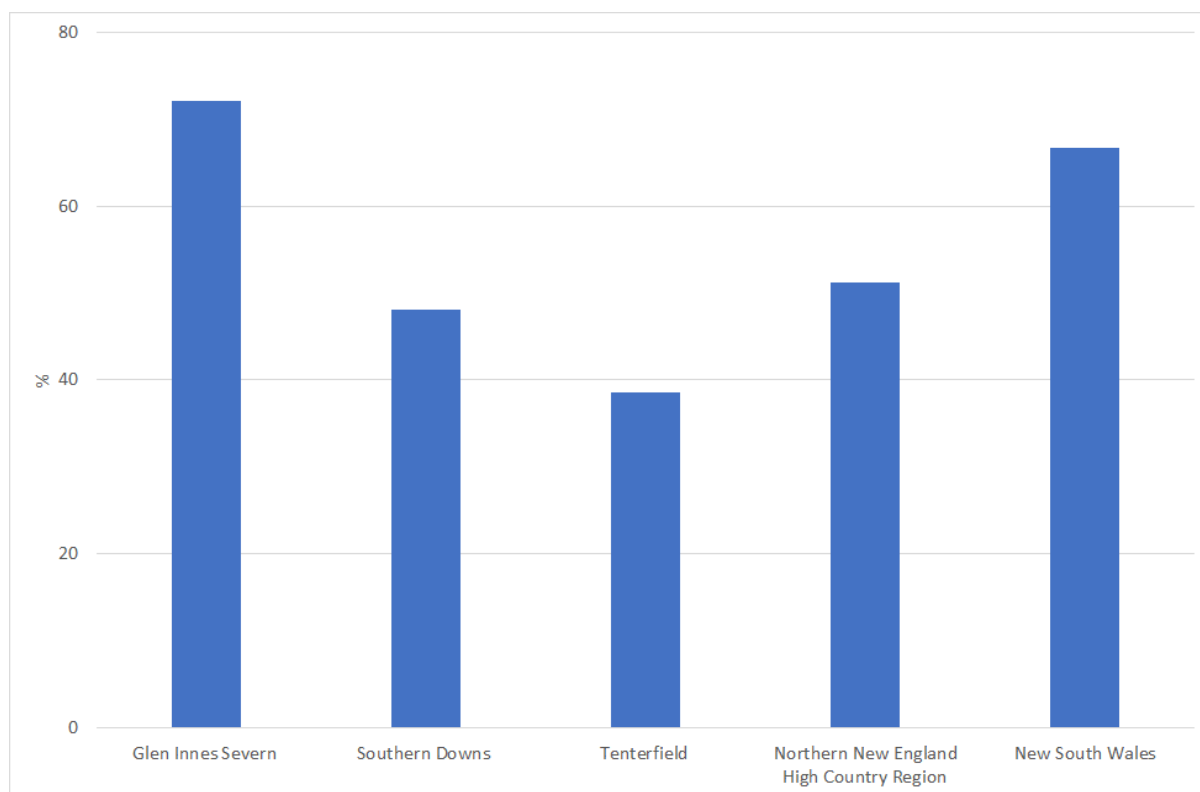
Agriculture, tourism and aged care are the key engine industries, with the Region also having specialty manufacturing and emerging renewable energy and mining sectors.

Agriculture

Agriculture is the main engine industry within the Region. Agriculture is dominated by horticulture, followed by the livestock sector, with cattle being the main activity. Other activities include poultry, goat and dairy farming, broad acre cropping, hay and silage, horticulture (fruit, vegetables, flowers) and vineyards.

Just over half – 51% - of the land area is for agricultural use (Figure) – with 72% of land in Glenn Innes Severn is used for agriculture, 48% in Southern Downs and 39% in Tenterfield Shire. A significant proportion of the area of Tenterfield Shire is held in the National Parks estate, State Forests and Crown Reserves. There are also areas that are topographically not suitable for agricultural production.

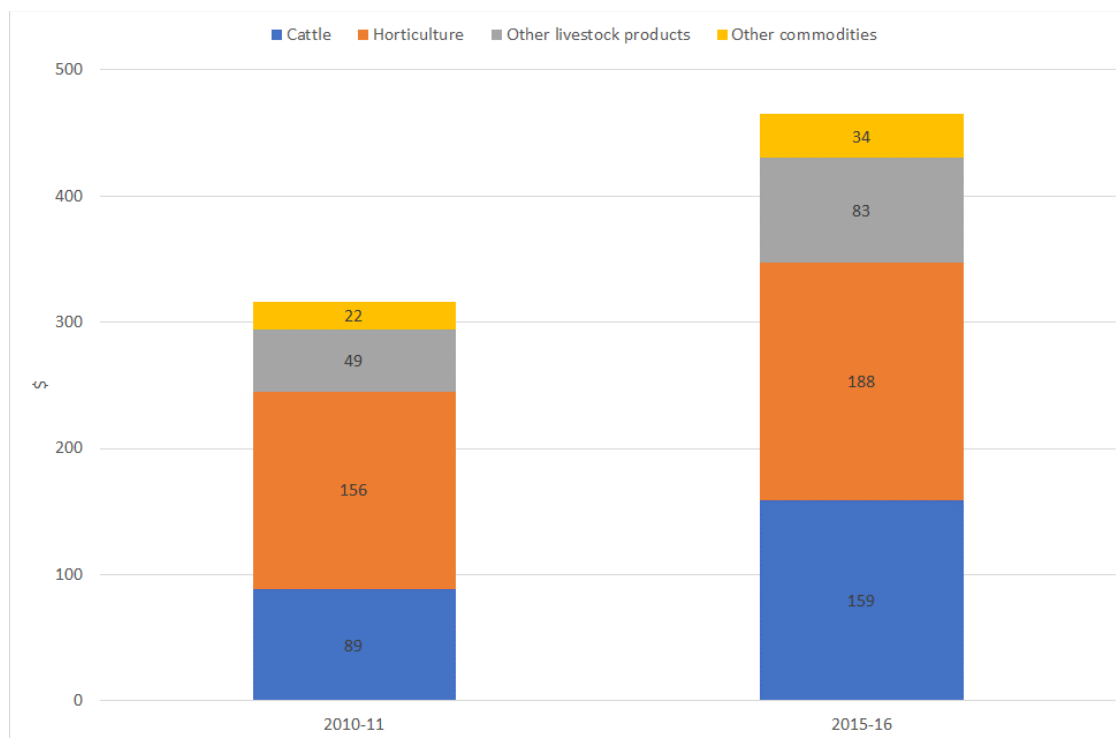
Figure 15: Percentage of land for agriculture use



Source: Census 2016 and Agricultural Census 2015-2016.

The total value of agricultural production was \$464 million, of which \$242 million (52%) was generated by the livestock sector; \$188 million (40%) by horticulture; and \$34 million (7.4%) were cropping. Cattle accounts for \$159 million (34%) of production value (Figure).

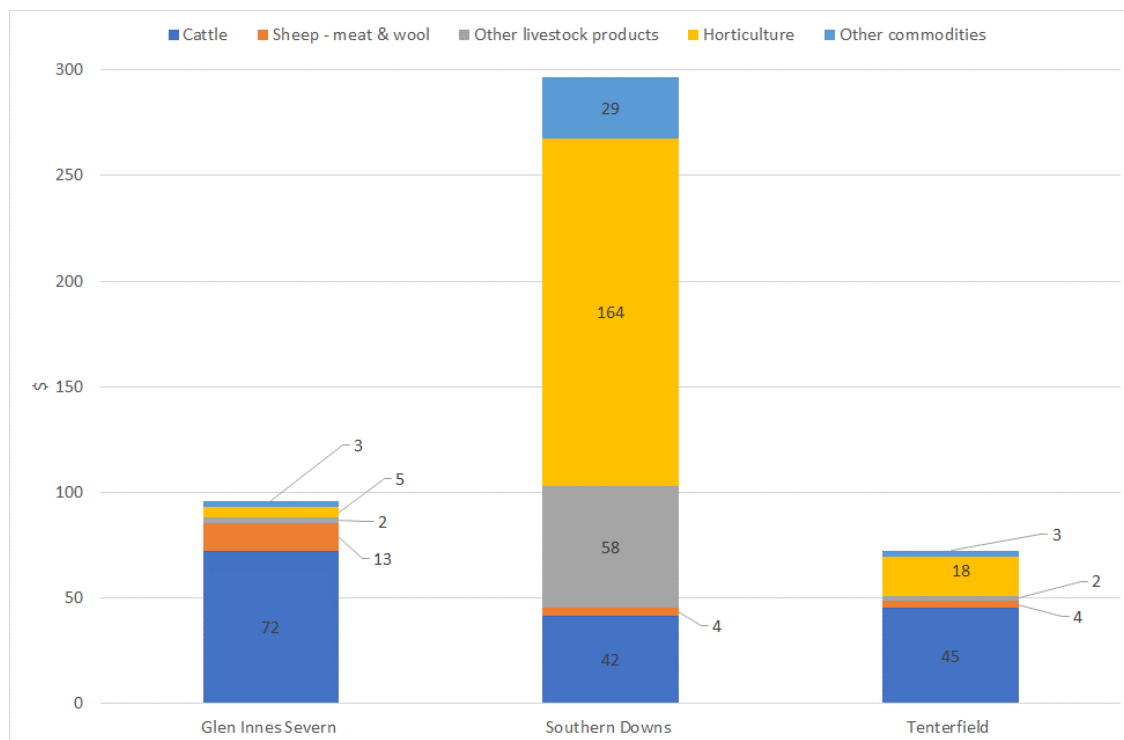
Figure 16: Value of major agricultural products



Source: Agricultural Census 2015-2016.

The value of Horticulture in Southern Downs Regional Council was significant at \$164 million in 2015-16. Orchard fruit and nuts at \$69 million and \$55 million for Vegetables drove this. Comparatively, Cattle dominated the value of production in both Glen Innes Severn Shire at \$72 million and Tenterfield Shire at \$45 million (Figure).

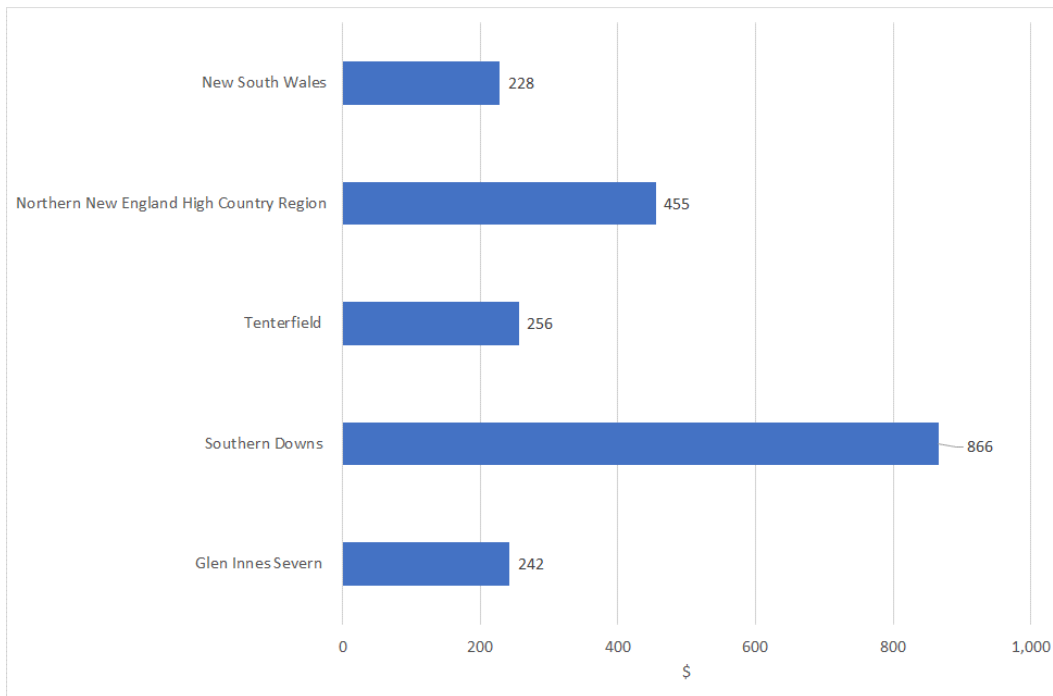
Figure 17: Value of agricultural production by LGA



Source: Agricultural Census 2015-2016.

The productivity of agricultural land (expressed as value of production per hectare) in the Northern New England High Country Region is lower than the New South Wales average (Figure). Productivity is highest in the Southern Downs Regional Council area at \$866/ha; followed by Tenterfield Shire at \$256/ha; and Glen Innes Shire at \$242/ha.

Figure 18: Productivity of agricultural land by LGA

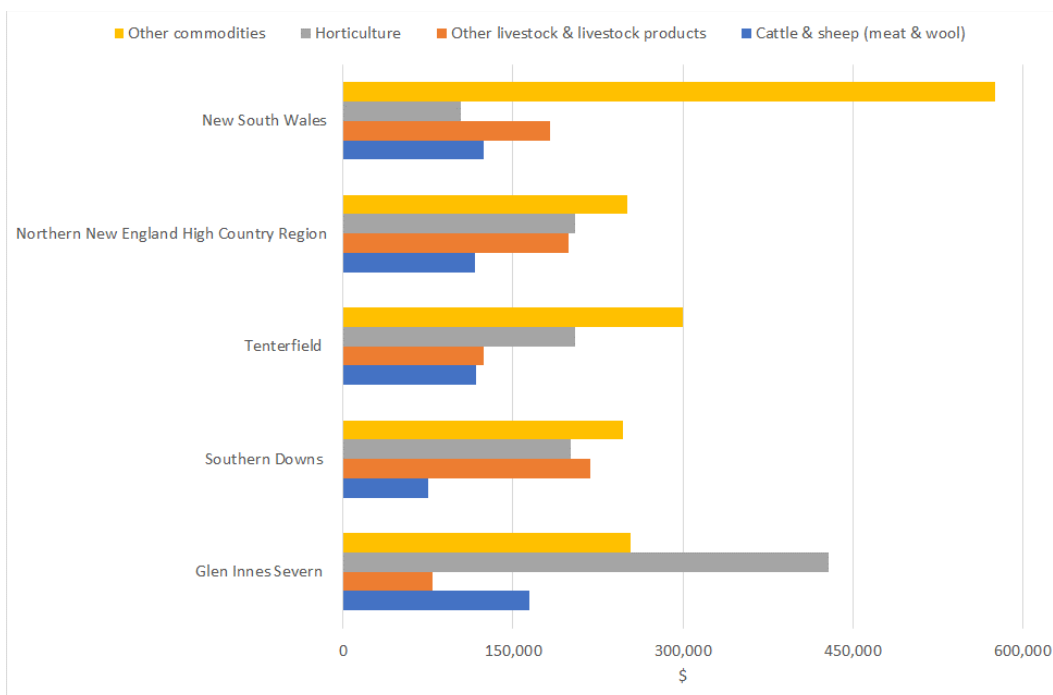


Source: Agricultural Census 2015-2016.

Note: only major agricultural commodities are included in the analysis.

The productivity of agricultural land (expressed as value of production per worker) in the Northern New England High Country Region is presented in Figure .

Figure 19: Value of agricultural production per person



Source: Census 2016 and Agricultural Census 2015-2016.

Note: only major agricultural commodities are included in the analysis. Other includes broad acre cropping

The value of production in the Northern New England High Country Region is presented in Table 7.

Table 7: Value of Production (\$) by Agricultural Commodity, 2015-16

	Glen Innes Severn	Tenterfield Shire	Southern Downs Regional Council	Northern New England High Country Region	Contribution
	\$	\$	\$	\$	% of Total
Cattle	72,093,130	41,511,279	45,279,039	158,883,448	34.2
Sheep – Meat & Wool	13,442,754	3,837,588	3,511,826	20,792,168	4.5
Pigs	1,078	22,282,024	711,974	22,995,076	4.9
Goats	20,708	2,071,104	61,079	2,152,892	0.5
Dairy – Milk	19,663	13,216,679	557,430	13,793,771	3.0
Poultry – Meat & Eggs	2,440,692	20,119,810	949,790	23,510,292	5.1
Total Livestock + Products	88,018,026	103,038,484	51,071,137	242,127,647	52.1
Cereal Crops	848,768	16,314,845	616,795	17,780,409	3.8
Oils Seeds	935,569	1,373,627	670,153	2,979,349	0.6
Pulses	69,119	2,223,999	68,807	2,361,925	0.5
Other Broadacre	5,384	239,334	0	244,718	0.1
Hay & Silage	766,654	8,698,779	1,590,064	11,055,497	2.4
Total Crops	2,625,495	28,850,584	2,945,819	34,421,898	7.4
Orchard Fruit & Nuts	0	68,520,842	4,496,958	73,017,801	15.7
Berries	89,178	18,125,923	12,344,520	30,559,621	6.6
Grapes	0	234,368	196,068	430,436	0.1
Vegetables	5,116,525	54,703,336	909,830	60,729,691	13.1
Cut Flowers / Nursery Plants	51,837	22,900,916	401,527	23,354,280	5.0
Total Horticulture	5,257,540	164,485,385	18,348,903	188,091,828	40.5
Total Value of Production	95,901,060	296,374,453	72,365,859	464,641,372	100
As % of Total	20.6	63.8	15.6	100.0	

Source: Australian Bureau of Statistics, Agricultural Census 2015-2016.

The outlook for the agricultural sector is very positive. Globally, there is increasing demand for agricultural products driven by strong economic growth in Asian and Indian markets, free trade agreements, world population growth, and concerns over food security. Allied to this is the increased awareness of and willingness to pay for ‘clean, green’ products.

The Region is exceptionally well located in relation to access to the Port of Brisbane and the Wellcamp Airport at Toowoomba for exporting produce. It is also ideally located to supply produce into the burgeoning South East Queensland market. Population growth in South East Queensland is driving the growth in demand for agricultural commodities, while increasing urbanisation and rising land values in the hinterland is reducing supply by displacing agricultural activities. This is creating opportunities for the Region.

Livestock (excluding poultry)

Cattle production is the major activity. Traditionally, cattle have been grown to weaner stage and sold on for finishing. There are opportunities to change this production model to increase yield. The Region has one large feedlot, Rangers Valley in Glen Innes Shire. Rangers Valley specialises in long-fed Black Angus and Wagyu cattle and produces premium-marbled beef. Some cattle properties in the Region are backgrounding cattle for the feedlot. The Region has several advantages for feedlots including its physical environment, proximity to processing plants in Inverell and Queensland, quality pastures and access to grain from the LGAs to the west.

The Region produces prime lamb and high quality fine and superfine merino wool. Since the 2010-11 Agricultural Census, there has been a shift out of sheep production into beef cattle. This is due to a combination of factors including higher cattle prices, wild dogs destroying sheep flocks, less work involved with cattle which suits aging farmers, difficulties in attracting and retaining staff (sheep are more labour intensive than cattle) and the costs of replacing aging sheep infrastructure (e.g. yards, shearing sheds) to meet current WHS standards. The closure of the Wallangarra Abattoir may have also had an impact, significantly increasing transport costs to access other sheep abattoirs. Increasing lamb and wool prices is resulting in some farmers, particularly younger ones, and moving back into sheep.

The Region produces a small number of pigs and goats.

Opportunities

There are opportunities for growing the livestock sector by improving productivity and intensifying production and encouraging and facilitating the expansion of the Rangers Valley Feedlot and potentially the dairy industry.

Increasing Productivity

A 1% increase in output (at 2015/16 prices) would have a present value of \$1.3million. Local sources estimate that a 7% increase in productivity is readily achievable. Growth in the productivity / profitability in livestock farming can be achieved in a number of ways including:

- Changing cattle production models to improve profitability
- More emphasis on genetics, measuring and monitoring with the focus on breeding for weight gain (cattle and sheep) and quality and yield (wool)
- Improved pasture management – addressing declining soil fertility, weed infestation and introducing winter pasture species
- Control of wild dogs and other feral animals
- Adopting new technologies for land, water and stock management – this is dependent on having mobile and internet access
- Reducing production costs, in particular transport costs. Upgrading local and regional roads and bridges to allow B-Double access would significantly reduce transport costs and increase efficiency and profitability.

Governments can assist in increasing productivity through:

- Investment in critical infrastructure - roads, bridges and telecommunication towers
- Research, development and agricultural extension services
- Funding initiatives to control wild dogs, feral animals and weed infestation (e.g. cluster fencing for wild dog control)
- Stream-lining the regulatory and compliance processes
- Helping to address labour and training needs in the agricultural sector, including the changing skill sets, particularly IT / technology skills.

Intensifying production

The Region is ideal for greater intensive livestock production.

Intensive production is more labour intensive than traditional grazing and is a significant user of agistment, feed, construction, transport and other services. In recent years there have been significant advances in management practices and technologies that have reduced potential environmental impacts.

The barriers to investment include higher transport costs due to the restriction on the size of cattle and feed trucks, poor telecommunications, unreliable power in rural areas, labour constraints, the time and costs involved in gaining development approval, and the red-tape and costs generated by EPA requirements. Southern Downs experiences similar issues, however legislation permits for higher productivity vehicles, and the region has stronger road infrastructure.

Councils and State Government can facilitate investment in intensive livestock production through ensuring that planning regulations permit the development of these activities and have flexibility in relation to minimum lot sizes and other conditions. It would also be opportune to review EPA requirements and processes taking into consideration the improvements in management practices and technology, with the view to reducing the time and costs involved in the development approval process and on going monitoring and compliance costs.

Expanding Rangers Valley Feedlot

Rangers Valley Feedlot has approval for 50,000 head of cattle. The Feedlot is currently operating at around 33,000 head and has the infrastructure in place to support 40,000 head. Expansion should be encouraged. Government could facilitate this by:

- Providing funding to improve Rangers Valley and Yarraford Roads to reduce travel time and distance
- Upgrading of the Gwydir (Waterloo Range) and New England Highways (Bolivia Hill and Tenterfield By-Pass as proposed by Roads and Maritime Services) to enable the use of higher productivity vehicles to bring in cattle and grain from the west and transport finished cattle to abattoirs
- Upgrading telecommunications infrastructure to improve internet speeds and reliability and provide good mobile phone coverage
- Reviewing EPA reporting requirements to reduce monitoring and compliance costs¹⁵.

Growing the Dairy Industry

The Region's climate and pastures are ideal for dairying. With the growing demand for milk in the South East Queensland and the ability to export fresh dairy products through Toowoomba Wellcamp Airport, there may be opportunity to grow the dairy industry in the Region by activating existing agricultural industries in the Southern Downs Region.

Poultry

The Region has a small poultry industry, producing chicken for meat and eggs. In 2015-16 the total value of poultry production was \$3.732 million, with meat generating 30.3% (\$1.129 million) of the value and eggs, 69.7% (\$2.603 million).

Opportunities

There is growing demand from South East Queensland for poultry products, with the Northern New England High Country Region (Southern Downs) well positioned to meet this demand. Investment in this sector can be facilitated through flexible planning controls, increasing water security in rural areas and improving telecommunication and power infrastructure.

Cropping

Cropping in the Region incorporates broad acre farming and the production of hay and silage for stock feed. Most of the cropping is undertaken as an adjunct to grazing. In 2015-16 the value of crops was \$5.791 million with broad acre cropping generating \$3.434 million and hay and silage production \$2.357 million. The main crops grown are wheat, oats, barley, maize, triticale, canola and other oil seeds, soya beans, lupins, faba beans and other pulses. Farmers also plant grain and other crops for grazing and green manure. Cotton and hemp production has recently been introduced in the northwestern part of the Region.

Opportunities

Productivity can be increased by:

- Access to research and agricultural extension services
- Improved telecommunications to enable the application of digital technology for crop monitoring and management
- Constructing the Mole River Dam – this would open up the Mingoola – Bonshaw area and the northern parts of Inverell Shire for irrigated cropping.
- Leverage Southern Down’s endowments of fertile soil to expand apple and grape harvest in Stanthorpe.



Horticulture

The Region has a growing horticultural sector, with the Region producing apples, stone fruits, avocados, mangos, kiwi fruit, strawberries, blueberries, tomatoes, vegetables, turf, macadamia nuts, pecans, chestnuts, lavender, garlic and herbs, cut flowers and nursery plants. In 2015-16 the value of horticultural production was \$27.09 million, with blueberries accounting for half the value. From 2010-2011 there has been a significant expansion in the production of blueberries, avocados and vegetables and a decrease in stone and pome fruit trees. Pecan trees have also been planted. Most of the fruit and vegetables produced in the Region supply the South East Queensland and North Rivers Region markets. There are a number of farm gate outlets within the Region, with the access to local produce being an attraction for visitors.



Opportunities

As discussed in Chapter 3, the Region has significant location, climatic and natural endowments for the horticultural industry. Proximity to Wellcamp Toowoomba Airport also provides opportunities for growing produce for the Asian market. Several Queensland-based fruit and vegetable producers have established trial farms in the Northern New England High Country Region, both for risk mitigation and to provide continuity of supply during summer when the climate in Queensland's coastal areas is too wet and humid to produce quality vegetables.

With the increasing variability in rainfall and frequency of severe weather events, and the changes in technologies and decreasing cost structures for protect (climate controlled) agriculture, fruit and vegetables growers in the Brisbane – Lockyer Valley areas are looking at investing in protective structures. With the increasing population pressures and rising property prices in the Brisbane hinterland, the case could be made for investing in the Northern New England High Country Region, which has a far more favourable climate for protective agriculture and lower property prices.

Actions that would facilitate expansion of the horticultural sector include:

- An assessment by NSW Industry and Queensland State Development in identifying prime localities within the Region for horticulture and the types of fruits, nuts and vegetables suitable for the area. This would significantly reduce risk for potential growers and investors
- A conducive planning environment that permits the subdivision of larger rural holdings for horticultural activities and also enables the erection of glasshouses and other protective structures
- Providing water security – the damming of the Mole River for irrigation water would open up the Mingoola-Bonshaw area for intensive cropping and horticulture. The damming of the headwaters of the Boonoo Boonoo and/or Bookookooraa Rivers for water for irrigation (and hydro-electricity) would provide water security for the highly productive areas in the northern part of Tenterfield

Shire and potentially the Southern Downs area. Changes to regulations and costs for on-farm harvesting of water could also improve water security.

- Leverage Warwick's warmer areas to produce heavier vegetables such as potatoes, carrots, pumpkins and carrots
- Providing mobile phone coverage in horticultural areas, enabling the adoption of digital monitoring and management systems
- Improving the capacity of the local and regional roads and bridges to and within the horticultural areas to enable the use of larger vehicles and facilitate the movement of machinery between properties.

Viticulture

The Northern New England High Country has a boutique wine industry located in Tenterfield Shire. Wine varieties produced include Semillon, Chardonnay, Shiraz, Merlot and Cabernet Sauvignon, Viognier, Tempranillo, Barbera and cold climate Pinot Noir. There are currently 2 cellar door outlets catering for the visitor market. Wine tourism is concentrated around the Stanthorpe area, which is known as Queensland's Granite Belt Wine Region.

Apiary – Bee keeping and honey production

The New England Region of NSW (which includes the Northern New England High Country) is recognised as one of the best honey producing areas in Australia. Within the Region and surrounding LGAs there are around 30-35 local commercial operators, plus hobbyists. Hive numbers per commercial operator range from a few hundred up to 4,000. All operators are small family businesses, employing up to 4 people plus



casuals.

Most of the honey produced in the Region is sold as raw honey to the large honey companies, primarily to the Capilano processing plant near Brisbane, which packages honey and associated products for the national and international markets. There are several apiarists that produce, package and sell locally, with local honey being part of the regional food and produce experience for tourists. Mead is also made within the Region.

In addition to honey production, bees are important for the pollination of pastures and crops, particularly fruit and nut crops. A strong apiary industry will help to support the expansion of horticulture in the Region.

The apiary industry in the Region is facing significant challenges with significantly reduced access to National Parks, the increasing frequency and intensity of bushfires, increasing costs of 'bee ranges' on public land, and bio-security threats.

Opportunities

The global market for honey is growing strongly. Growth is being driven by the increasing consumer preference for natural alternatives to artificial sweeteners, rising awareness of the benefits of honey over sugar, and the rising popularity of Manuka honey as an anti-bacterial and anti-inflammatory agent. Food and beverage manufacturers are increasing using honey to replace sugar and artificial sweeteners to produce healthier foods and beverages; and honey is being increasingly used in the manufacture of cosmetics, soaps etc. Research into the medical benefits of honey is driving demand for Manuka honey both for medical applications and preventative health care. Globally, the Asia – Pacific Region is the largest and fastest growing market for honey and honey-based products. There is also increasing demand for bees for pollination services to support pasture production, cropping and horticulture.

Actions that would help to support and grow the apiary industry in the Northern New England High Country Region include:

- Providing more access to the National Park and State Forest estate within the Region
- Reviewing the fee structure for Bee Ranges on public land, to reflect that the Ranges are not always productive
- Encouraging land-holders to allow bee hives on private property
- Re-introducing NSW Industry and Queensland State Development led research and extension officers to support the Apiary industry
- Improving mobile phone coverage to enable the adoption of smart hives and monitoring technologies to improve hive productivity.

Agri-Processing

Agri-processing in the Region is limited with most of the agricultural commodities produced are transported out of the Region for processing. The Region has a number of boutique food and beverage producers including wineries, distilleries, meadery, lavender distillery, jams and condiments, smokehouses and gourmet meat products, honey and associated products, specialty bakeries and confectionary. These producers are part of the Region's attraction base.



Tourism

The Visitor Economy is an engine industry for the Northern New England High Country Region. Tourism brings 'new' dollars into the Region with these 'new' dollars having a multiplier effect, filtering through to most sectors of the regional economy. The flow of dollars is independent of the agricultural industries, generating cash flow year-round and reducing the impacts of seasonal and cyclical activities. Tourism also helps to raise the profile of the Region and can play a part in relocation decisions.

Tourism is a difficult industry to analyse. Industry data is based on what product or service is provided, whereas tourism is defined by who consumes the product or service. The accommodation and food services sector is a proxy for tourism, with this sector being the 4th largest employer in the Northern New England High Country Region.

Destination NSW provides estimates of visitation and visitor expenditure in Glen Innes and Tenterfield. The most recent figures for both councils is for the year-ending September 2014, with estimates for Glen Innes Severn available for the year ending December 2016. Statistics for the Southern Queensland region were sourced from Tourism and Events Queensland, ending in 2017.

In the year-ending September 2014, the Region attracted and estimate 173,000 domestic overnight visitors and around 4,000 international overnight visitors, with domestic overnight visitors spending 466,000 nights in the Region. Estimates are not available on the number of day visitors, nor on the number of highway travellers who have a short stop in the Region. In 2016, Glen Innes Severn LGA attracted an estimated 97,000 domestic overnight visitors, with these visitors staying 249,000 nights in the Shire and spending \$26 million during their stay.

In the year ending September 2014, approximately 50% of domestic overnight visitors to the Region were from NSW and 50% were from interstate. Regional NSW is the main source of intrastate visitors, with Queensland being the main source of interstate visitors. Approximately 43% of visitors were holiday and leisure travellers, 35.1% were visiting friends and relatives, and 21.9% travelling for business and other purposes.

The primary market segments are long haul travellers visiting the Region as part of a touring holiday and the short-breaks and day visitor markets coming out of South East Queensland and the Northern Rivers Region of NSW. Glen Innes and Tenterfield are also important service centres for highway travellers. The Region also attracts special interest and activity-based visitation, with visitors coming to the Region specifically to undertake activities, including off-road activities (4WD, trail bikes), bushwalking, fossicking, fishing and bird watching. Visitors are also attracted by events and festivals held within the Region.



The Region has a diverse attraction base incorporating World Heritage Areas, National Parks, State Conservation Areas, State Forests; waterfalls, rivers and waterways; the Glen Innes Standing Stones; significant heritage buildings and sites; museums and galleries; fossicking areas; food, wine and local produce; boutique and lifestyle dining and shopping; and 4WD and motorcycle parks.

Opportunities

The primary opportunities lie in encouraging touring travellers to stay longer in the Region and continuing to grow the short-breaks and day visitor markets out of the South East Queensland and the Northern Rivers Region of NSW and the special interest and activity-based markets. The focus needs to be on expanding and improving the product (attractions, experiences and events) base of the Region, and ensuring that the infrastructure is in place to facilitate and support growth in visitation.

Product and infrastructure development required includes:

- Improving the condition of key local and regional roads, with the priority being the Mt Lindesay Road
- Improving and extending mobile phone coverage so that travellers can navigate, source information and make bookings while travelling
- Continuing to improve access to, and visitor facilities provided in the National Parks, State Forests and State Conservation Areas. Iconic experiences such as a canopy walk would raise the profile of and increase visitation to, the Region
- Strengthening the attractions in the Urbenville area (e.g. Tooloon Falls, Tooloon World Heritage Area) and establishing looped touring routes to draw travellers south from Woodenbong.
- Improving tourism directional signage
- Continuing to develop event facilities and infrastructure
- Expand the Warwick Industrial estate to accommodate for increased business growth and productivity

The Region is marketed as part of the New England High Country brand and this needs to continue.

Consideration also needs to be given to:

- The design, signage and intersection landscaping on the proposed New England Highway Tenterfield by-pass to encourage travellers into the Tenterfield Town Centre
- The Queensland Granite Belt Wine Country and Southern Queensland Country Strategies for Stanthorpe and Warwick respectively
- Using the VICs as 'touch points' to advertise local employment opportunities and promote the Region to potential 'tree-changers' and active retirees
- If the Mole Dam proceeds, including tourism and recreation facilities at the Dam
- Preparing a Destination Management Plan for the New England High Country Region



Aged care / Retiree sector

The proximity to South East Queensland and the Northern Rivers Region of NSW, coupled with the climate, lifestyle, affordability and strong sense of community is encouraging people to semi retire and retire to the Region. These new residents are generally active and are making both a financial and social contribution to local communities. Both Shires have services to support aging in place as well several aged care residential facilities. There is a need for additional aged care accommodation and nursing home beds.

Opportunities

The key opportunities lie in:

- Targeting semi-retirees and the active retiree markets
- Attracting investment in additional aged care accommodation, including nursing home beds.

Manufacturing

Although not a specialisation, the Region has a small non-food manufacturing sector that produces specialty products. At the 2016 Census there were 93 people employed in the manufacturing sector, with the sector contributing \$10.7million to value add. Local manufacturers include:

- Photo Create: located in Glen Innes, this is the largest on-line printer of photographs and producer of digital-based photographic products (e.g. photo books, photo canvasses, personalised memorabilia etc.) in Australia, as well as a developer and exporter of design software and systems. Photo Create undertakes the photo printing for national retailers such as Big W and Harvey Norman, and also operates in the UK and USA markets. It has production facilities in Australia and USA. In Glen Innes the company employs 70 full-time staff, and takes on up to 400 casual staff at peak production times (e.g. Christmas, Mother and Fathers' Day). The company is looking to expand further in Glen Innes, which will provide 10 additional full-time jobs and 100-200 additional casual jobs
- Hillier Hearses: based in Tenterfield: the company designs and manufacturers hearses for the domestic and international markets
- McKey Manufacturing: located near Woodenbong on the northern edge of the Region, McKey Manufacturing produces quality racing equipment for jockeys and horses, including boots for jockeys. The company supplies both the domestic and international markets
- StarLogixs: located in Deepwater, the company designs and manufactures safety and automation devices and systems for the agricultural, telecommunications, recycling and utility industries
- Tretheway Industries — Autobaler: located in Deepwater, the company designs and manufactures autobalers for the waste management industry (e.g. compressing and baling plastics, cardboard, paper etc), wool presses and pallet breakers for both the domestic and international markets
- Tretheway Dawson: located in Deepwater, the company fabricates metal piers and pier caps for the re-stumping of buildings
- John Dee: Australia's oldest, single-family owned meat processor in Australia and the biggest employer in the region. They specialise in producing and selling beef products.

Opportunities

- Support and facilitate the expansion of Photo Create and other existing manufacturers
- Showcase local industries as part of attracting additional boutique producers
- Further expansion of the industrial estates in the major centres.

Renewable energy

The renewable energy sector is a new industry for the Region and is not reflected in the Census statistics. The Region has strong climatic and location advantages for renewable energy generation. There are two large hybrid wind-solar farms under construction and a smaller wind farm approved:

- White Rock Wind Farm – Stage 1 of the project is operational with 70 turbines producing 175 Mega Watts of power. A 20 Mega Watts solar farm is under construction and will come on-line in 2018. Construction has commenced on Stage 2 of the wind farm (48 turbines), which will bring total production from wind energy to 202 Mega Watts
- Sapphire Wind Farm – the project is on the border of Inverell and the Glen Innes Severn LGAs with most of the turbines located in Inverell Shire. The wind farm will produce 270 Mega Watts of power. Approval is also being sought to establish a 200 Mega Watts solar power station and battery storage facility as an extension to the wind farm
- Glen Innes Wind Farm – 25-turbine farm generating around 90 Mega Watts of power. The project is approved with construction due to commence in 2018



As part of these developments, new substations are being established to feed power into both the 330-kilo Volts and 132-kilo Volts transmission networks.

The projects are being developed in a locality identified by TransGrid¹⁶ as having significant potential for large-scale renewable energy farms. Further farms could be developed. Some of the rivers have also been identified as potentially suitable for generation of hydro-electricity.

Opportunities

- Facilitate the development of wind and solar farms and the upgrading of transmission infrastructure to support these
- Investigate the feasibility of generating hydro-electricity – both through the construction of dams and in-stream projects

¹⁶ TransGrid Transmission Annual Planning Report 2017

Mining

The Northern New England High Country Region has a long history of mining. Gold, antimony, silver and copper were mined in the Region from the 1850s to the 1890s. Tin was discovered in 1872 and mined through to the early 1900s. Arsenic and other rare earths were also mined in the area in the late 1800s-early 1900s. Commercial gemstone mining commenced in the 1920s, boomed in the 1960s and had declined by the 1980s. Gemstones mined include sapphires, topaz, garnet, zircon, aquamarine, emeralds, citrine and quartz. Today there are several small gemstone mines, with gemstone fossicking being one of the Region's tourist attractions. The historic Ottery Arsenic Mine at Emmaville, the Emmaville Mining Museum and the Minerama Gem Festival, are also part of the Region's attraction base.

The Northern New England High Country Region has the largest undeveloped hard-rock tin deposit in Australia and possibly in the world. With growing demand for tin and rare earth metals, a tin min and processing plant has been approved at Taronga near Emmaville. Stage 1 involves a trial open cut mine and pilot processing plant to evaluate the concentration of the tin in the ore and the feasibility of recovering by-products including copper, silver, tungsten, lithium, rubidium and molybdenum. Exploration is occurring in the Torrington – Emmaville area surrounding the Taronga Mine, which this having the potential to increase mining activity within the Region, extend the life of the processing plant and provide additional employment.

The other mining activity in the Region is the Glen Innes Aggregates Quarry that is operated by Glen Innes Severn Council. The quarry produces basalt aggregate for road construction and concrete. There is a shortage of hard-rock aggregate within the Region, with Council seeking approval to expand the quarry to ensure continuity of supply in the medium to long term. Despite its tin mining roots, Southern Downs council closed their last commercial mine in 2015.

Opportunities

- Support and facilitate the expansion of tin and rare earth metals mining and processing to meet growing global demand for these commodities
- Support and facilitate the expansion of hard rock aggregate quarrying to ensure adequate supplies of aggregate to meet the needs of the Region. Road works on Bolivia Hill and the construction of the Tenterfield by-pass is likely to increase demand for aggregate.



6. Vision and strategy

Long term economic vision

The long-term economic vision for the Northern New England High Country Region is:

A strong and growing region with caring, creative and connected communities, that leverages its high-country climate, quality lifestyle, stunning natural environment, resources, and proximity to international gateways and the burgeoning South East Queensland market.

In the future:

- The Region is well connected. Investment in critical enablers — telecommunications infrastructure, roads and bridges and water security in rural areas, is stimulating and facilitating growth
- Through improved land, water, stock and crop management practices, adoption of smart farm technologies, a significant reduction in road transport costs, and the control of wild dogs, the productivity of the Region's livestock industry has increased substantially. Water security has supported growth in irrigated cropping and intensive livestock, poultry, dairy and horticultural production
- The Region is home to a large horticultural sector with a mix of protective and field-based producers. The Region is a major supplier of fresh fruit and vegetables for the South East Queensland market and is exporting fruit and vegetables globally. The apiary industry has grown and in addition to increased honey production, contributes through its pollination role to the success of the horticulture, value-added processing activities and to tourism
- The Region is an established, high profile, location of choice for the short-breaks and day trip markets out of South East Queensland and the Northern Rivers Region. Tenterfield has achieved its vision of becoming the 'Bowral of Brisbane' and Glen Innes is widely known for its Standing Stones and Celtic heritage and festival. The Region is recognised for its National Parks and World Heritage areas, highland climate and four distinct seasons, regional produce, diversity of outdoor activities, rich heritage and its quality festivals and events
- The town and village communities are vibrant and creative. The Region is an aspirational destination for tree-changers and active retirees. Underpinned by its setting, highland climate and location attributes, the Region has seen an influx of specialty producers, manufacturers, telecommuters and small and micro-businesses



Strategies

The Strategy focuses on growing and leveraging the ‘engine’ industries. Growth in these industries can be achieved through increasing productivity and profitability of existing activities and through diversification and/or expansion. Growth in the engine industries will stimulate growth in the ‘enabling industries’ with this flowing through to the ‘population-serving’ industries. Growing the engine industries will also create opportunities for new business start-ups and the inward migration of businesses to the Region.

Core strategies to drive growth, realise the opportunities and achieve the vision are:

- A: Improve connectivity as a foundation for growth
- B: Support and grow key sectors
- C: Attract new businesses and residents to the Region.

A: Improve connectivity as a foundation for growth

The level of connectivity within the Region and between the Region and other localities underpins economic development. Currently connectivity issues are hindering economic growth. For example, Queensland-based fruit and vegetable producers are looking to invest in the Region are deterred by the lack of telecommunications infrastructure (they cannot put in place the technology to monitor and turn on pumps) and issues with road access (they cannot transport harvesting equipment to the farms).

Within the Region, providing mobile phone coverage, improving internet services, and upgrading roads and bridges is critical to enabling and facilitating economic growth.

Good telecommunication services will open opportunities for wide-scale adoption of digital-based technologies and improve access to information and communication, which will increase productivity and profitability of local businesses. It will also meet the needs and expectations of visitors and also of businesses and people looking to relocate to the Region.

For industries and businesses reliant on road freight transport, upgrading the road network and local bridges will increase transport efficiency and reduce transport costs, resulting in increased productivity and profitability. It will also improve the connectivity to and within the Region, increase safety, and support tourism.

Key Initiatives

Key initiatives within this Strategy are:

- Improve telecommunications infrastructure and services to enhance connectivity, enable adoption of new technologies, improve business systems and provide access to information, services, markets, and education and training etc.
- Remove the pinch points on the New England, Gwydir and Bruxner Highways to improve transport efficiency, safety and amenity
- Upgrade key local and regional roads and replace load-limited bridges to Improve inter and intra-region connectivity and enable use of larger trucks for freight transport

Infrastructure priorities

- Mobile phone towers and related infrastructure to provide coverage throughout the Region.
- NBN rollout.
- Removal of highway pinch-points:
 - New England Highway – Tenterfield and Warwick by-passes
 - Gwydir Highway – Waterloo Range crossing to the west and improvements on the range crossing to the east

- Improvements to the Bruxner Highway to enable B-double access once the new Clarence River bridge is in place
- Upgrading key regional and local roads and replacing load-limited timber and older concrete bridges.

Potential benefits

- Good telecommunication services will enable adoption of digital-based technologies and improve access to information and communication, which will increase productivity and profitability of local businesses. It will also meet the needs and expectations of visitors and those of businesses and people looking to relocate to the Region.
- For industries and businesses reliant on road freight transport, upgrading the road network will increase transport efficiency and reduce transport costs, resulting in increased productivity and profitability. It will also improve the connectivity to and within the Region, increase safety, and support tourism.

Challenges and considerations

- The directions and priorities of telecommunications infrastructure and services providers, generally do not align with the needs of rural communities
- The Councils do not have the funds needed to upgrade key local and regional roads and replace load-limited bridges. The sheer size of the Region, its topography and the large areas of non-rateable Crown Lands, are significant challenges
- There is the potential for the Region to draw revenue into NSW from exporting its produce into Queensland and internationally, and attracting additional visitors and investment

B: Support and grow key sectors

Economic growth in the Region will depend on the success of the engine sectors that bring income to the Region. There are a number of key sectors that are expected to drive the Region's economy in the foreseeable future. These include existing industries of agriculture and tourism and emerging industries including renewable energy, mining and specialised manufacturing. This strategy focuses on providing targeted support to these key sectors.

Key initiatives

The key initiatives in this Strategy are to:

- Grow the agricultural sector by:
 - provide a positive environment to facilitate growth and diversification
 - Improve water security to support and grow intensive livestock production, cropping and horticulture
 - encourage and facilitate improvements in the productivity of the livestock industry
 - support and grow the Region's horticultural sector and apiary industry
 - encourage and facilitate the establishment and growth of value-adding industries
- Support the development of existing and emerging industries — specialised manufacturing, renewable energy generation and mining
- Support development of the renewable energy sector by ensuring access to the 'poles and wires' to facilitate growth
- Grow the tourism sector (visitor economy) through product development, improved signage, marketing promotion, and growing the events sector.

Included in this strategy is the need to reduce or remove the challenges and barriers facing producers and businesses including providing a positive planning and regulatory environment, reducing 'red tape', providing access to research and industry extension and support services, addressing labour and skills shortages and providing assistance with 'last mile' infrastructure.

Infrastructure priorities

The key sectors will benefit from the improved connectivity infrastructure improvements under Strategy

1. Additional key infrastructure priorities under this Strategy are:

- Construction of the Mole River Dam and potentially water storage infrastructure on one or more headwater tributaries of the Clarence River.
- Investments in the tourism sector including:
 - Product development – improving existing attractions and facilities and developing new attraction
 - Signage
 - Improving event venues.

Potential benefits

- Retention and expansion of existing businesses and emergence of new businesses and business opportunities, leading to increased wealth, new investment and job creation
- Retention of existing residents and attraction of new residents due to business and job opportunities
- Growth in visitation, injecting 'new' dollars into the Regional economy
- Access to secure water for agricultural activities will facilitate and stimulate growth in the intensive livestock, poultry, cropping and horticultural sectors, and potentially encourage the development of a dairy industry. Growth in these activities will create jobs within the Region as well as increased demand for a range of goods and services. Exporting produce to South East Queensland and internationally will also bring money into both the Region and NSW
- Access to the 'poles and wires' will facilitate growth of the renewable energy sector.

Challenges and considerations

- Difficulties in achieving policy and regulatory changes and reforms
- Attracting new businesses and residents to the Region is dependent in part on the 'attractiveness' and 'liveability' of the area, with the Region competing with other localities throughout Australia. In addition to providing infrastructure, facilities and services, there is a need for investment in presentation, community development and marketing and promotion
- Gaining approvals for the development of water storage infrastructure is difficult and will potentially involve long lead times
- Other than infrastructure, most of the investment in the key sectors will come from private investment. Being 'open for business' and removing barriers will assist in improving business confidence.

C: Attract businesses and residents to the Region

The Region has range of natural, location, lifestyle and built assets that can be leveraged to attract new businesses and residents to the Region.

Ensuring that the Region is an attractive place to live, work, invest and visit, and has the right facilities and services is part of the foundation for growth of the active-retiree sector and niche manufacturing businesses. Existing built assets include the Glen Innes Airport that can be used to attract aviation-based industries.

Key initiatives in this Strategy:

- Enhancing the appeal and 'liveability' of the Region
- Using the Glen Innes Airport to attract a flying school and/or aviation-based businesses
- Community development
- Marketing and promoting Northern New England High Country as a 'location of choice'.

Infrastructure priorities

- Providing assistance with the electricity substation needed at Glen Innes Airport and upgrades to transformers and other power infrastructure needed for new business start-ups.

Potential benefits and implications

- Attraction of new businesses and residents
- Growth in visitation.

Challenges and other Considerations

- Limited funds and resources, restricting the ability of Council's to deliver non-core facilities and services
- Competition from other regional towns also looking to increase the utilisation of their airports and other localities offering lifestyle opportunities.



7. Implementation

The initiatives and actions to deliver on the strategies are summarised in the following Tables. Table 8 provides a high-level summary. Table 9 is a detailed Action Plan. It includes

- The potential impact/ importance of each action (those recorded as high or very high are highlighted)
- The responsibility for undertaking the action and/or providing funding support
- Funding – Councils need funding support to implement the action.

Glen Innes Severn and Tenterfield Councils will have primary responsibility for coordination and the implementation of this Strategy. The Councils will work closely with the State Government, business community and other private, public and community stakeholders. The Councils will require funding support from the State and Federal Government to implement some of the actions.

The Action Plan is a working document and will need to be progressively revised and updated.



Summary of strategies and actions

Table 8: Summary of strategies and actions¹⁷

Enablers	Connecting the region (Improving roads and telecommunications)	Supporting and grow key sectors (Agriculture, tourism and emerging industries including renewable energy, mining and niche manufacturing)	Attract businesses and residents to the Region (Leveraging assets and lifestyle)
Infrastructure	<ul style="list-style-type: none"> • Construct mobile towers in strategic locations to provide services for the villages and rural areas • Fund the Tenterfield truck by-pass • Remove highway pinch-points – Gwydir and Bruxner Highways • Upgrade key regional and local roads to provide access for B-double vehicles • Replace load limited bridges and culverts 	<ul style="list-style-type: none"> • Examine feasibility to develop the Mole River Dam • Investigate water storage on headwater tributaries of the Clarence River • Investigate the feasibility of hydro-electricity within the Region • Tourism signage and way finding • Increase the industrial areas in Glen Innes and Tenterfield • Upgrade the Glen Innes and Tenterfield livestock selling centres (saleyards) 	<ul style="list-style-type: none"> • Complete the upgrade of the Tenterfield town centre and entry corridors • Advocate for funding to upgrade power to Glen Innes Airport and the Region's industrial estates to facilitate the establishment of new businesses • Continue to improve event facilities and infrastructure
Government regulation and planning		<ul style="list-style-type: none"> • Review regulations in relation to building farm dams and off-stream storage to increase water security • Facilitate Rangers Valley Feedlot expansion • Review EPA on-going monitoring and compliance requirements to reduce costs for 	<ul style="list-style-type: none"> • Progressively improve the presentation of the villages throughout the Region • Endeavour to attract a large flight school and/or aviation businesses to Glen Innes Airport

¹⁷ The most potentially significant actions have been bolded.

Enablers	Connecting the region (Improving roads and telecommunications)	Supporting and grow key sectors (Agriculture, tourism and emerging industries including renewable energy, mining and niche manufacturing)	Attract businesses and residents to the Region (Leveraging assets and lifestyle)
		producers <ul style="list-style-type: none"> • Undertake a study to identify and assess the Region's potential for field and protected horticulture • Increase access for apiarists to public lands and review fees for bee-keeping ranges • Formulate a Destination Management Plan for the Region 	
Land use		<ul style="list-style-type: none"> • Review planning controls for agricultural land to accommodate new activities including intensive production and tourism. • Support and facilitate the expansion of tin and rare earth metals mining and processing in the Region • Identify and protect hard rock aggregate resources to ensure sufficient supplies of aggregate to meet regional needs in the long term • 	<ul style="list-style-type: none"> • Advocate for medical, health, education and other social services to have the capacity for growth • Encourage the development of Over 55's housing, supported aged care facilities and nursing home beds as well as the expansion of services to support aging in place
People, skills and services	<ul style="list-style-type: none"> • Provide and support forums to support NBN rollout to the community and through specialist training for businesses 	<ul style="list-style-type: none"> • Provide agricultural extension services • Control wild dogs, other feral animals and weeds • Retain and expand agricultural research and development institutions and programs • Continue to improve access to and visitor facilities • Develop new accommodation, attractions, activities and experiences 	<ul style="list-style-type: none"> • Marketing and promoting Northern New England High Country as a 'location of choice'

Action Plan

Abbreviations GISC= Glen Innes Severn Council, TSC= Tenterfield Shire Council, RMS = Roads and Maritime Services, DPI = Department of Primary Industries, LLS = Local Land Services, NPWS = National Parks and Wildlife Service, DPC=Department of Premiers and Cabinet, RDANI = Regional Development Australia Northern Inland.

Table 9: Action Plan

Ref#	Initiative / action	Importance	Responsibility	Funding Required
A	Improve connectivity as a foundation for growth			
A.1	Improve telecommunication infrastructure and services			
A.1.a	Prepare a mobile phone tower development strategy including recommended positioning and criteria for additional towers.	Critical	Council with State Government support	✓
A.1.b	Advocate for funding to address mobile black spots and invest in additional mobile phone towers to extend and improve coverage, speed and reliability outside of the townships.	Critical	Council, Business Organisations	✓
A.1.c	In support of the NBN rollout, organise forums to brief and educate residents and businesses in Glen Innes, Tenterfield and the villages about the NBN, connection process and opportunities.	High	Council, NBN	
A.2	Invest in key road and bridge infrastructure to improve access to and throughout the Region – increasing connectivity, capacity and efficiency and increase safety			
A.2.a	Advocate for the State Government to commit funding for the construction of the Tenterfield Highway by-pass and for this project to be expedited.	Very High	Councils, State Government, RMS	✓
A.2.b	Advocate ensuring that the Tenterfield by-pass and the connecting intersections for the New England Highway are designed, signposted and landscaped to encourage non-truck traffic to continue to drive through Tenterfield.	Very High	TSC, RMS, Tenterfield Business Community	✓
A.2.c	Advocate for improvements on the Gwydir Highway to provide access over the Waterloo Range for road trains and high productivity vehicles (HPV), and for ongoing improvements to the mountain pass section of the Highway to the east of Glen Innes	High	Councils, RMS	✓

Ref#	Initiative / action	Importance	Responsibility	Funding Required
A.2.d	Advocate for the upgrading of the Bruxner Highway to the east of Tenterfield to facilitate B-double access once the new Clarence River Bridge is open.	Medium	TSC, RMS	✓
A.2.e	Upgrade key regional roads to enable B-double (25-26m) access in the areas to the east of the New England Highway, road train and HPV access on the Bruxner Way and other key routes to the west of the New England Highway (see Appendix 5 for priorities).	High	Councils, State Government	✓
A.2.f	Progressively upgrade the local road network and replace load limited timber and concrete bridges. (See Appendix 5 for priorities).	Very High	Councils with State Government support	✓
B	Support and grow key sectors <i>(These actions are in addition to improving telecommunications and the road infrastructure which is critical for all sectors)</i>			
B.1	Provide a positive environment to facilitate growth and diversification of the Region's agricultural sector			
B.1.a	Review planning controls to ensure agricultural (rural) land have the flexibility to accommodate new activities (including intensive production, horticulture and agri-processing) and innovative business models that may include horizontal or vertical integration and/or tourism activities and events.	High and ongoing	Councils, Planning NSW	
B.1.b	Support initiatives to address labour and skills shortages within the Region	Medium	Councils	
B.2	Improve water security for the agricultural sector			
B.2.a	If the project is feasible, progress to the construction of the Mole River Dam.	High	State Government	✓
B.2.b	Investigate the feasibility of damming one or more headwater tributaries of the Clarence River to facilitate growth in horticulture and potentially intensive livestock, poultry and cropping.	Medium	State Government	✓
B.2.c	Investigate options for improving water security through changes to the regulations and costs for the development of farm dams and ring tanks for off-stream storage for horticulture and intensive livestock and crop production.	High	State Government – DPI	
B.3	Encourage and facilitate improvements in the productivity of the livestock industry.			

Ref#	Initiative / action	Importance	Responsibility	Funding Required
B.3.a	Retain and expand agricultural research and development institutions and programs within the Northern New England High Country and broader New England – North West regions, including research into improving perennial pastures and identifying suitable winter pastures	High	State Government	✓
B.3.b	Provide agricultural extension services in the Region, to facilitate the rollout and take up of improved land, water, stock and business management practices and technology	High	State Government through DPI and LLS	✓
B.3.c	Control wild dogs, including investigating options for funding and installing cluster fencing	Very High	State Government – through LLS and NPWS	✓
B.3.d	Advocate for increased funding for the NPWS for feral animal control and weed and fire management within the Region	High	Councils and farming groups	✓
B.3.e	Support and facilitate the expansion of the Rangers Valley Feedlot	High	GISC, State Government	
B.3.f	Encourage and support sustainable, intensive agricultural activities (including poultry and dairying) and on-farm value adding and tourism activities	Ongoing	Councils, State Government	
B.3.g	Review the Region's saleyard infrastructure to ensure it is upgraded and maintained to support the livestock sector	Ongoing	Councils	✓
B.4	Support and grow the Region's horticultural sector			
B.4.a	Commission a study to identify and assess the Region's potential for field and protected horticulture, and develop strategies to expand the sector and to leverage the South East Queensland and Asian markets	High	DPI / State Government to fund	✓
B.4.b	Formulate and implement a strategy to attract key horticultural producers to the Region	Medium	Councils working with RDA and DPC	✓
B.5	Retain, strengthen and grow the Region's apiary industry			
B.5.a	Advocate for improved access to public lands (including National Parks) for the Apiary industry and a review of policies, range fees etc.	High	Councils, Apiary Industry	
B.5.b	Take the needs of the Apiary industry into consideration in the review of the Plans of Management for the	Ongoing	NPWS, Apiary Industry	

Ref#	Initiative / action	Importance	Responsibility	Funding Required
	Region's National Park Estate.			
B.5.c	Re-introduce DPI-led research and extension officers to support the Apiary industry.	High	State Government	✓
B.5.d	Encourage investment in bee / honey-based value-add activities.	Ongoing	Councils	
B.6	Grow the Tourism Sector			
B.6.a	Formulate a Destination Management Plan for the Region.	High	Councils	✓
B.6.b	Strengthen and diversify the product base of the Region through the development of new accommodation, attractions, activities and experiences.	High and ongoing	Private sector, Councils, State Government	
B.6.c	Continue to improve access to and visitor facilities provided in the National Parks, State Conservation Areas and State Forests.	High and ongoing	NPWS, Forests NSW	✓
B.6.d	Investigate the feasibility of establishing an iconic National Parks attraction.	Medium	Councils, NPWS	✓
B.6.e	Focus on building the short breaks and day visitor markets out of SE Queensland and the Northern Rivers Region and the special interest – activity based and long haul touring markets.	Ongoing	Councils in conjunction with the local tourist associations, the New England High Country Marketing Group and DNSW	
B.6.f	Improve way finding and facility signage.	Ongoing	Councils, RMS	✓
B.6.g	Continue to improve event facilities and infrastructure.	Ongoing	Councils, Showground Trusts and venue managers	✓
B.7	Support the growth of specialty manufacturing			
B.7.a	Encourage and support the growth of niche, specialty manufacturing within the Region.	Ongoing	Councils	

Ref#	Initiative / action	Importance	Responsibility	Funding Required
B.7.b	Refer existing manufacturers who are looking to expand to Government advisory services and grant programs.	Ongoing	Councils	
B.8	Encourage and support the development of the renewable energy industry within the Region			
B.8.a	Support the development of wind and solar farms in appropriate locations.	Ongoing	Councils, State Government	
B.8.b	Investigate the feasibility of generate hydro-electricity within the Region.	Medium	State Government	✓
B.8.c	Advocate for access to poles and wires for renewable energy schemes.	Ongoing	State Government	
B.9	Grow the mining sector			
B.9.a	Support and facilitate the expansion of tin and rare earth metals mining and processing in the Region.	Ongoing	State Government, Councils	
B.9.b	Identify and protect hard rock aggregate resources to ensure sufficient supplies of aggregate to meet regional needs in the long term.	Ongoing	Councils	
C	Attract businesses and residents to the Region			
C.1	Enhance the appeal and 'liveability' of the Region			
C.1.a	Advocate for medical, health, education and other social services being in-place and having the capacity for growth	High and ongoing	Councils, State Government	✓
C.1.b	Once the Tenterfield by-pass is in place, complete the upgrade of the Tenterfield town centre and entry corridors		TSC, RMS	✓
C.1.c	Progressively improve the presentation of the villages throughout the Region	Ongoing	Councils, village communities	✓
C.1.d	Continue to improve sport, recreation and cultural facilities throughout the Region	Ongoing	Councils	
C.1.e	Ensure that land use strategies and planning instruments provide for a diversity of housing and land	Ongoing	Councils, NSW Planning and	

Ref#	Initiative / action	Importance	Responsibility	Funding Required
	choices within and surrounding the towns and villages		Environment	
C.1.f	Encourage the development of Over 55's housing, supported aged care facilities and nursing home beds, and the expansion of services to support aging in place	High	Councils	
C.1.g	Advocate for funding to upgrade power to Glen Innes Airport and the industrial estates to facilitate the establishment of new businesses	Medium	Councils	✓
C.2	Leverage the Glen Innes Airport			
C.2.a	Endeavour to attract a large flight school and/or aviation businesses to Glen Innes Airport	High	Councils, RDANI, DPC	
C.3	Position and promote the Northern New England High Country Region as a location of choice for investment, businesses and residents			
C.3.a	Formulate and implement marketing initiatives for attraction of horticultural producers, businesses, investment and residents (including retirees and skilled labour)	Ongoing	Councils	
C.3.b	Build the Region's on-line presence and harness the digital space (including social media) to raise awareness and encourage visitation and investment	Ongoing	Councils	
C.3.c	Leverage opportunities to, generate publicity and showcase the Northern New England High Country Region – its lifestyle, industries, businesses and products	Ongoing	Councils	
C.3.d	Use the Visitor Information Centres and local events as 'touch points' for potential tree changers, show-casing the Region and ensuring information is available for people considering relocating	Ongoing	Councils	
C.3.e	Build the profile of the NNECH as a visitor destination	Ongoing	Councils	



Appendices

Appendix 1: Reference List

Documents reviewed as part of the REDS process are listed below

LGA specific development strategies and plans

Glen Innes Severn LGA

- Glen Innes Severn Council (2007) Glen Innes Severn Land Use Strategy
- Glen Innes Severn Council (2010) Glen Innes Regional Saleyards Strategic Plan
- Glen Innes Severn Council (2012) Economic Development Strategy
- Glen Innes Severn Council (2012) Implementation Plan for the Economic Development Strategy
- Glen Innes Severn Council (2013) Asset Management Plan: Roads
- Glen Innes Severn Council (2013) Asset Management Plan: Bridges
- Glen Innes Severn Council (2015) Fit for the Future Proposal
- Glen Innes Severn Council (2016) Destination Management Plan 2016-2020
- Glen Innes Severn Council (2017) Asset Management Plan: Water
- Glen Innes Severn Council (2017) Asset Management Plan: Sewerage
- Glen Innes Severn Council (2017) Community Strategic Plan + Delivery Plan
- Glen Innes Severn Council (2018) Discussion Paper - Future Viability of the Glen Innes Saleyards
- Glen Innes Severn Council (2018) Glen Innes International Flight Academy - EOI

Tenterfield Shire

- Tenterfield Shire Council (2013) Road Network Management Plan
- Tenterfield Shire Council (2013) Road Register
- Tenterfield Shire Council (2013) Waste Management Strategy 2013-2020
- Tenterfield Shire Council (2013) Main Street Master Plan
- Tenterfield Shire Council (2013) Economic Development Strategy 2013-2015
- Tenterfield Shire Council (2014) Cultural Plan
- Tenterfield Shire Council (2014) Tenterfield and District Destination Management Plan
- Tenterfield Shire Council (2014) Industrial Estate Marketing Strategy 2014/15
- Tenterfield Shire Council (2015) Strategic Business Plan for Water Supply and Sewerage Services
- Tenterfield Shire Council (2015) Tenterfield Heritage Study
- Tenterfield Shire Council (2016) Saleyards Strategic Plan
- Tenterfield Shire Council (2017) Community Strategic Plan + Delivery Plan

Southern Downs LGA, Queensland

- Southern Downs Regional Council (2013) Horticultural Production in Queensland's Southern Downs Region.
- Southern Downs Regional Council (2016) SDRC Socio-Economic Profile
- Southern Downs Regional Council (2016) A Snapshot of our Region
- Southern Downs Regional Council (2017) Community Plan 2017-2030
- Southern Downs Regional Council (2016) Economic Development Strategy 2017-2020

State & Regional Plans and Strategies

NSW Government

- Review into Agricultural Education and Training in NSW (2013)
- Economic Development Strategy for Regional NSW (January 2015)
- Jobs for NSW – Jobs for the future

Regional Development Australia Northern Inland

- Northern Inland Investment Profiles (each LGA and Northern Inland)

NSW Planning & Environment

- Strategic Regional Land Use Plan New England North West (2012)
- SGS Economics & Planning (2015) Housing Market Analysis for New England – North West Region
- New England North-West Regional Plan (2017)

Sector and issue specific – reports and projects

Agriculture

- ABARES Agriculture and Forestry in the New England and North West region of New South Wales, 2016
- ABARES (2016) Australian Honey Bee Industry: 201402915 Survey Results
- Australian Bureau of Agricultural and Resource Economics and Sciences reports on Agricultural commodities in Australia
- Agricultural Expansion Analysis: New England North West NSW, Final Report, RCMG (2015) for the NSW Department of Planning and Environment
- Cattle Council Beef Industry Strategic Plan
- Centre of International Economics (2005) Future Directions for the Australian Honey Bee Industry
- Hadley D (2017) Controlled Environment Horticulture Industry Potential in NSW, UNE Business School University of New England
- High Country Table (2017) Tenterfield's Local Producers
- Local Land Services Northern Tablelands Local Strategic Plan 2016-2021
- NSW Department of Primary Industries Agriculture Industry Action Plan (IAP) Primed for growth: Investing locally, connecting globally
- NSW Department of Primary Industries (2015) NSW Apiculture Industry Overview
- NSW Department of Primary Industries (2016) NSW Agribusiness Positioned for prosperity
- Deloitte Access Economics Powering Growth: Realising the potential of AgTech for Australia.
- Smart farming Inquiry into agricultural innovation, House of Representatives Standing Committee on Agriculture and Industry

Energy

- Essential energy - Network Investment Consultation Reports
- Essential Energy Asset Management Distribution Annual Planning Report 2016
- Essential Energy Electricity Network Performance Report FY2015/16
- TransGrid (2014) Network Development Strategy
- TransGrid (2017) Transmission Annual Planning Report 2017

Mining

- Aus Tin Mining (2017) Annual Report + Fact Sheets and Updates on the Taronga Tin Project
- NSW Minerals Industry Action Plan
- NSW Government (2014) Tin – Opportunities in NSW
www.resourcesandenergy.nsw.gov.au

Tourism

- Destination NSW (2011) Visitor Economy Industry Action Plan
- Destination NSW LGA Visitor Profiles – Glen Innes Severn and Tenterfield
- Country and Outback Destination Network (2018) Draft Destination Management Plan
- New England North West Satellite Accounts

Transport & Logistics

- Containerised Cargo Demand Assessment Northern NSW (2015)
- Department of Infrastructure and Transport (2012) National Land Freight Strategy - A Place for Freight
- North West Slopes and Plains Regional Freight Connectivity and Productivity Analysis
- Northern Inland Region of NSW – Freight Study (2012)
- Queensland Transport and Main Roads – Connecting South East Queensland – An Integrated Regional Transport Plan for South East Queensland
- Transport for NSW - New England Highway Draft Corridor Strategy
- Transport for NSW (2015) Summerland Way Corridor Strategy 2015
- Transport & Infrastructure Council (2015) National Remote and Regional Transport Strategy
- Transport for NSW Origin & Destination of Freight in NSW – by LGA
- Transport for NSW (2013) NSW Freight and Ports Strategy

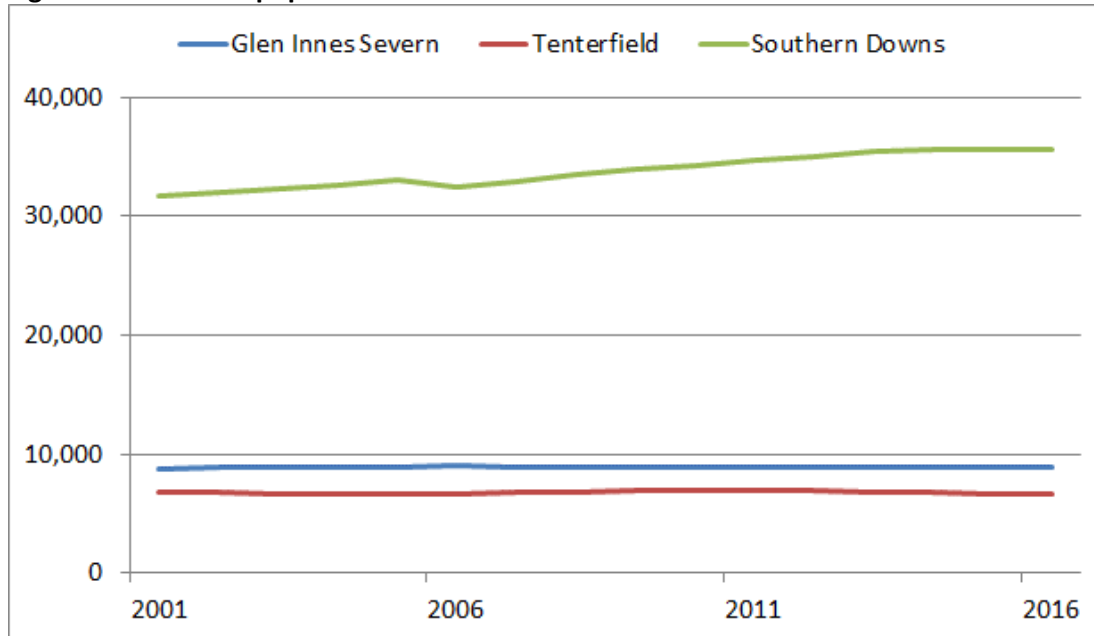
Other miscellaneous

- Australian Wings Academy – Australia Asia Flight Training Case Study
- BITRE, The evolution of Australian towns
- Glen Innes Health Service – Local Health Report 2016-2017

Appendix 2: Socio-economic statistics

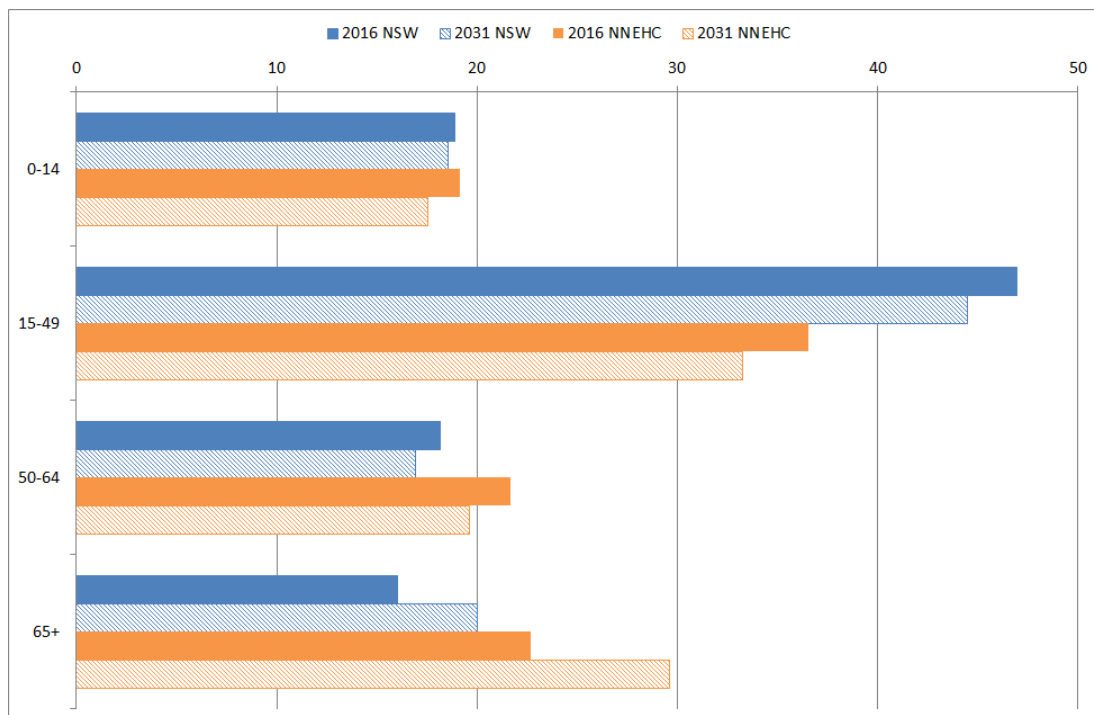
Demographic profile

Figure 19: Historical population



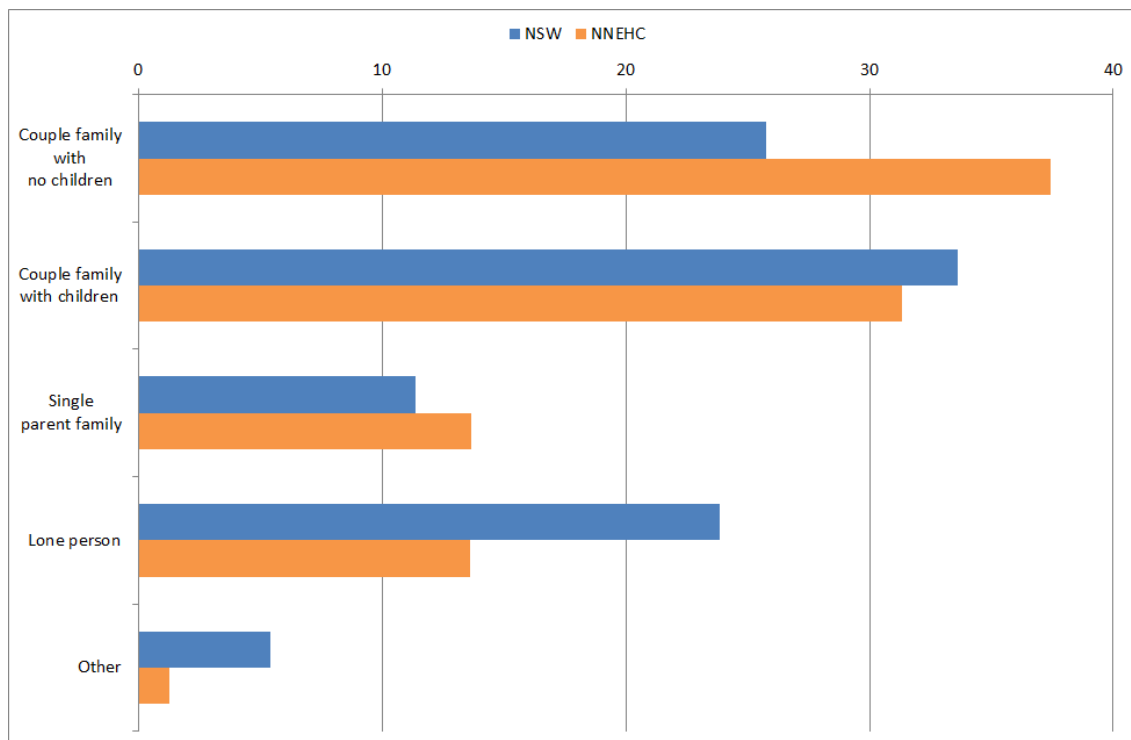
Source: Australian Bureau of Statistics, Estimated Residential Population by LGA

Figure 20: Population mix projections



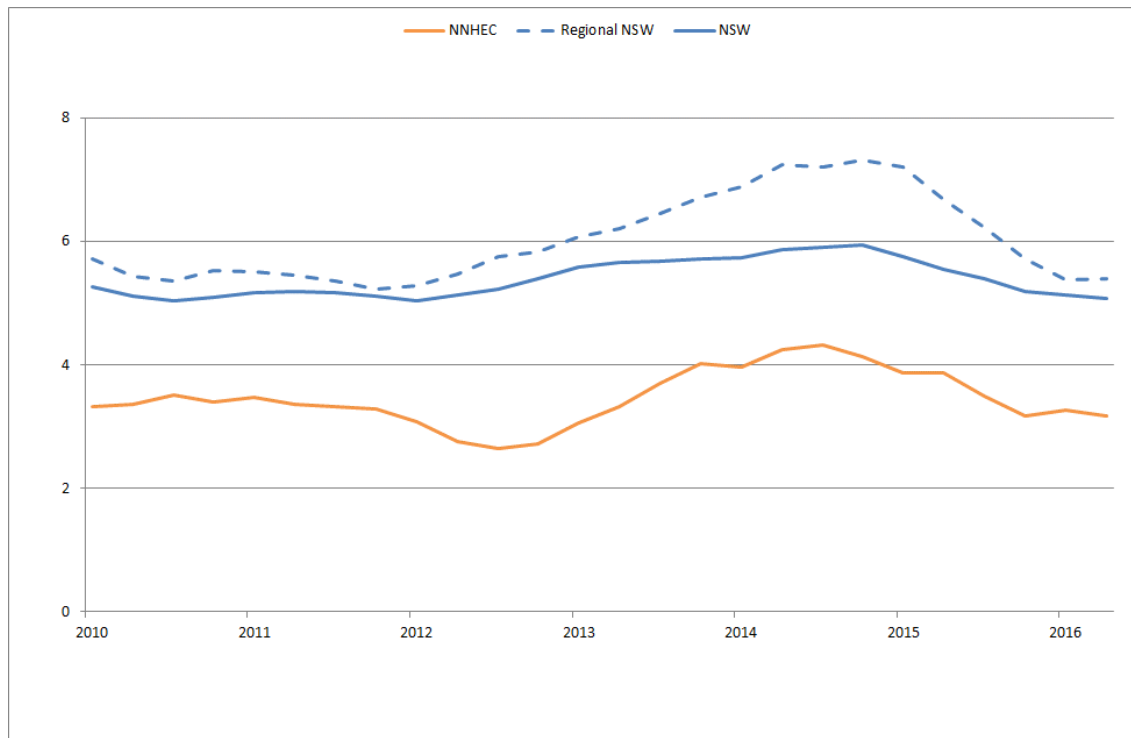
Source: NSW Department of Planning and Environment – Population Projections; Queensland Government population projections, 2015 edition.

Figure 21: Household composition profile



Source: Australian Bureau of Statistics, 2016 Census of Population and Housing

Figure 22: Unemployment over time

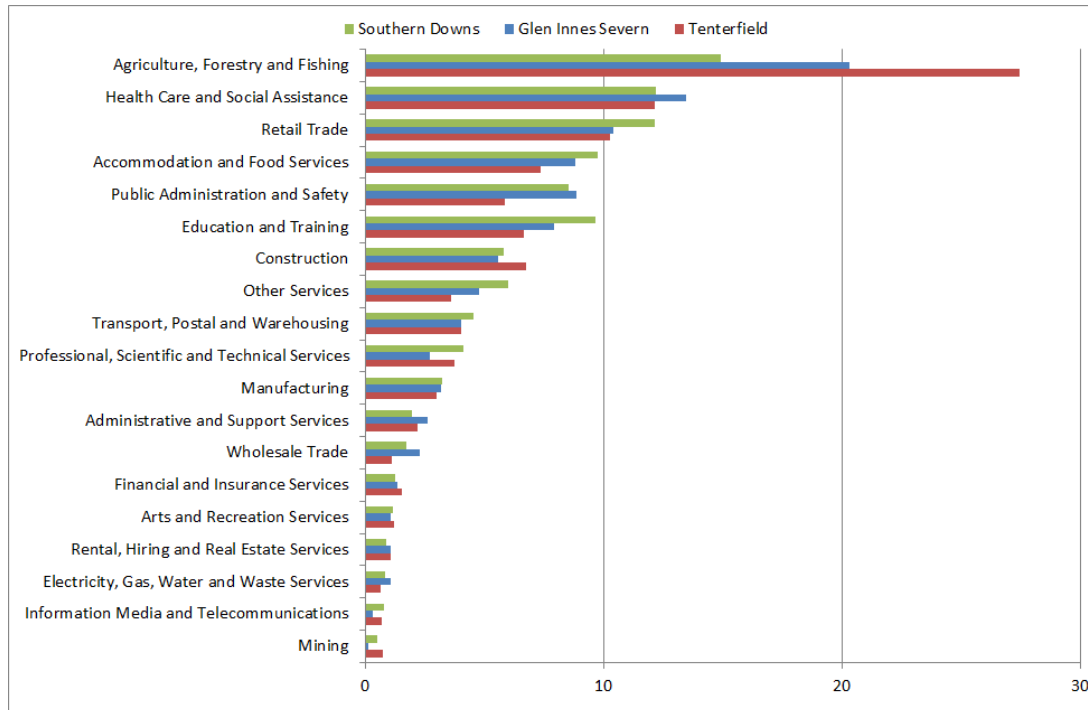


Source: Department of Employment, LGA Data tables — Small Area Labour Markets — March quarter 2017

*Note: estimates in the diagram are smoothed and averaged over four quarters. As suggested by the Department, estimates in the diagram above are synthetic estimates based on Australian Bureau of Statistics and Centrelink unemployment numbers and labour force data from the 2011 Census; accordingly, employment estimates should not be derived from these statistics.

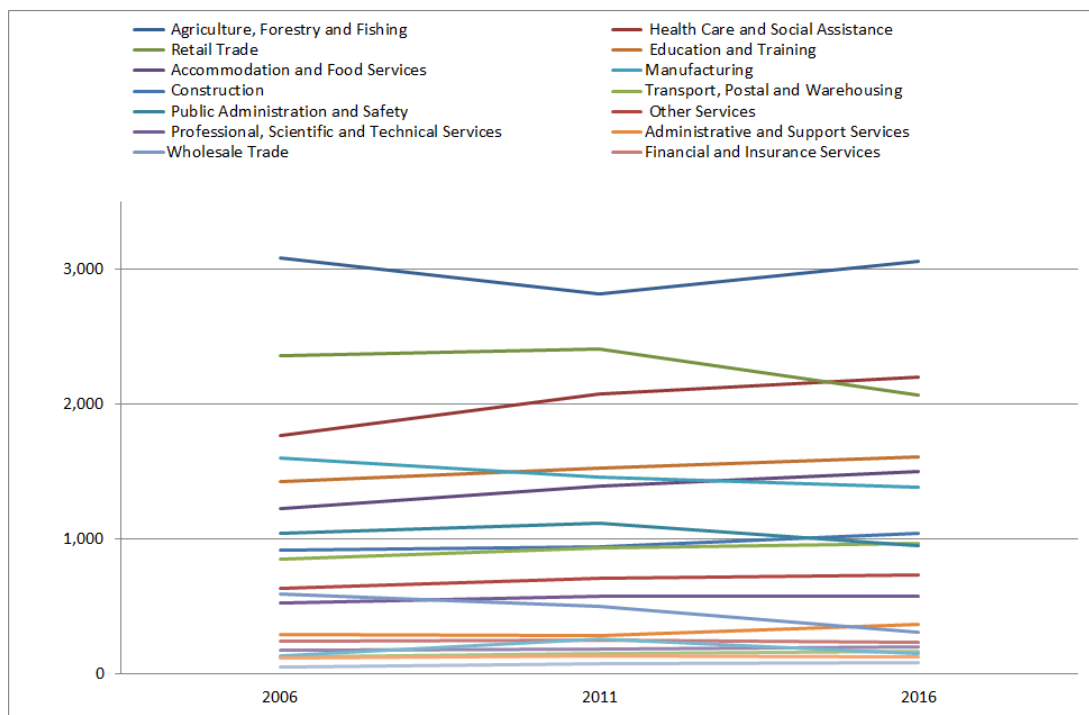
Industry statistics

Figure 23: Employment concentration by LGA



Source: Australian Bureau of Statistics, 2016 Census of Population and Housing based on place of work

Figure 24: Historical employment in the Region by industry



Source: Australian Bureau of Statistics, 2016 Census of Population and Housing based on place of work.

Table 10: Employment forecasts by industry – forecast growth from 2017 to 2022 (%)

ANZIC Industry sector	New England North West &	NSW (excl Sydney)	Australia
Agriculture, Forestry and Fishing	-14.0	-4.9	-8.3
Mining	-10.7	-1.1	-9.8
Manufacturing	-7.6	-8.3	10.5
Electricity, Gas, Water and Waste Services	-4.3	-9.8	1.5
Construction	10.3	10.5	1.7
Wholesale Trade	2.5	1.5	6.5
Retail Trade	-5.1	1.7	-2.0
Accommodation and Food Services	12.0	6.5	10.8
Transport, Postal and Warehousing	2.9	-2.0	2.4
Information Media and Telecommunications	9.8	10.8	2.9
Financial and Insurance Services	3.6	2.4	8.1
Rental, Hiring and Real Estate Services	-2.5	2.9	4.5
Professional, Scientific and Technical Services	6.4	8.1	11.1
Administrative and Support Services	-6.0	4.5	12.5
Public Administration and Safety	13.8	11.1	18.8
Education and Training	10.6	12.5	14.9
Health Care and Social Assistance	16.6	18.8	1.6
Arts and Recreation Services	11.5	14.9	6.3
Other Services	0.4	1.6	—
Total (industry)	4.0	6.3	1.4

Source: Department of Employment, 2017 Employment Projections.

Appendix 3: Institutions important for economic development

Institution	Role in economic future of the Region	Capacity and linkages
Government Agencies		
Glen Innes Severn and Tenterfield Councils	Provides critical infrastructure to support economic activity, as well as leadership and coordination. Sets and enforces local regulations, and provides support to businesses including marketing support.	The capacity of the two Councils is limited. Both have a significant backlog of unfunded infrastructure projects, with the need to replace timber bridges and improve road infrastructure in Tenterfield critical to economic growth. Important linkages with business chambers and community organisations.
NSW Office of Regional Development (ORD)	Provide advice and assistance to Councils, businesses and other stakeholders on a range of matters including access to grant funding.	Strong linkages with key organisations. Works with Councils and other Govt and non-Govt organisations including private businesses.
NSW Department of Planning	Develops land-use policy and regional plans, and approves Council Local Environmental Plans. Assesses projects deemed as being 'State significant development'.	Strong links with Councils.
Jobs for NSW	Business support and administers the 'Regional Jobs Now' portfolio which is a suite of financial products designed to assist companies to create new jobs in regional NSW.	New England – North West regional officer + Sydney based resources that can be leveraged. Works with closely with industry, Council and Government agencies.
Regional Development Australia Northern Inland (RDANI)	Facilitates regional development; undertakes research; provides advice and assistance to businesses including access to Australian Government Grants and the skilled migration schemes.	Office based in Armidale that service the Northern Inland (New England – North West) regions. Part of a national network of RDA committees. Work closely with ORD and Councils.
NSW Department of Primary Industries	Works to increase the value of primary industries. Key role in undertaking agriculture productivity research with research stations in Tamworth (crops), and Armidale (cattle), Narrabri (cotton), and Glen Innes (sheep and cattle).	Maintains close linkages with other research groups, Govt departments and industry organisations. Due to the cessation of extension services, NSW DPI has limited engagement with agricultural producers, which significantly reduces and slows the take-up rates for land management and production techniques and application of technology.
Local Land Services	Provides agricultural production advice and training; responsible for biosecurity, natural resource management and emergency	NSW Govt agency with strong links with local agricultural producers.

Institution	Role in economic future of the Region	Capacity and linkages
	management	
National Parks and Wildlife Service	Manages the World Heritage Areas, National Parks, State Conservation Areas and Nature Reserves within the Region. These assets underpin tourism in the Region and are important for lifestyle and attracting tree changers.	NPWS does not have the resources needed to effectively manage its estate within the Region. As a result, there are significant issues in relation to weed, feral animal (particularly dogs) and fire management. NPWS policies have also significantly reduced the habitat available for the Region's apiary industry.
AusIndustry	Facilitate access to Commonwealth Government programmes	Has one FTE across Northern / Central NSW
Department of Corrective Services	Operates the Glen Innes Correctional Facility. Significant employer and purchaser of local goods and services. Provides work crews for some projects.	

Business and Industry Associations

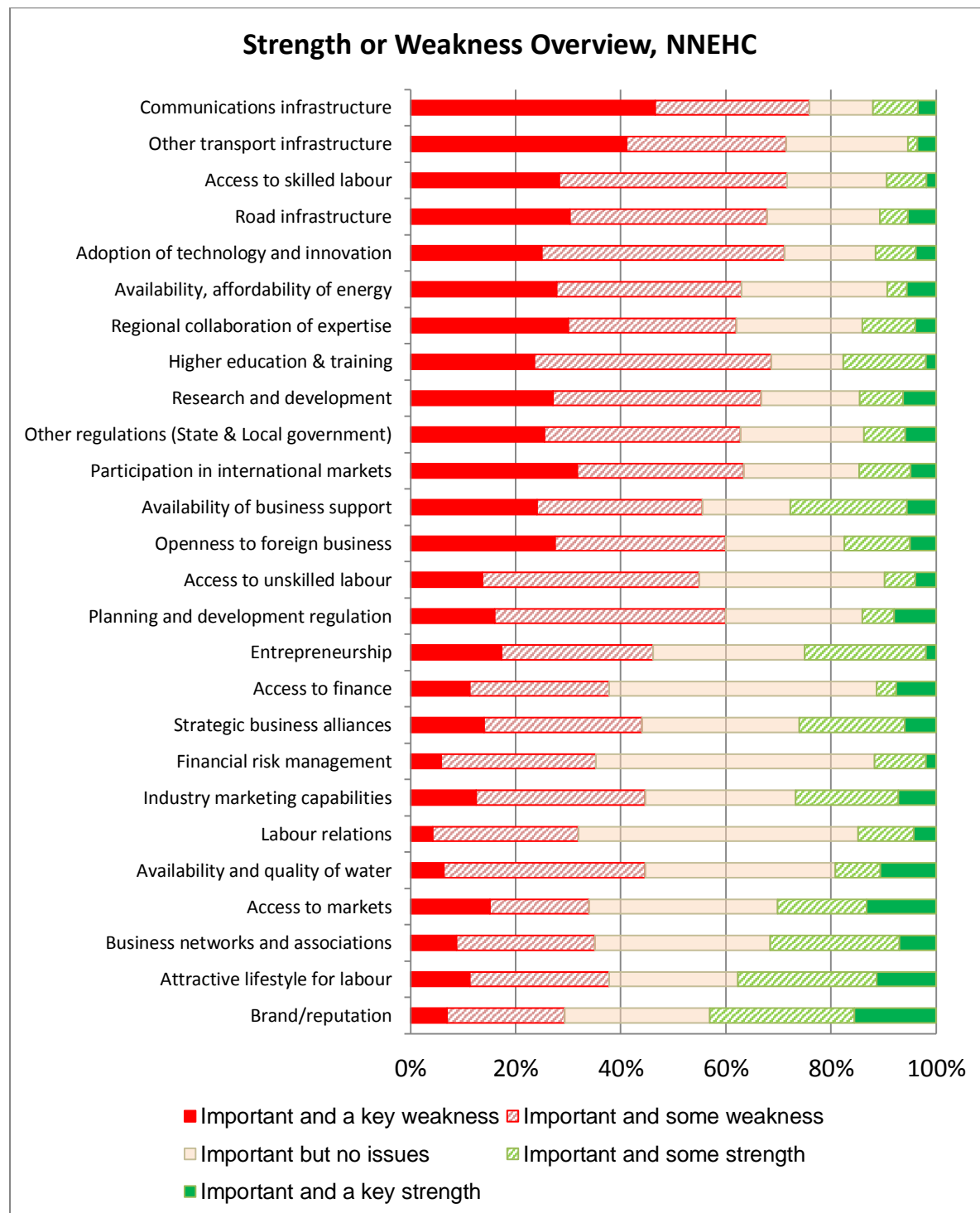
Chambers: <ul style="list-style-type: none"> Business in Glen Tenterfield Chamber of Tourism, Industry and Business 	Advocacy; business networking; access to training and development activities; business promotion.	Strong links to business community Chambers are linked through NSW Business Chamber
New England North West Business Chamber	Advice to businesses on workplace practices, regulations and requirements; business training and development; access to resources; advocacy.	Conduit between the NSW Business Chamber and local business chamber. Provides advice and access to training and resources for member businesses.
New England North West NSW Business Enterprise Centre (BEC)	Not-for-profit organisation located in Armidale that provides low cost business and financial advice for businesses in the New England – North West Region.	Receives government support in providing services. Provides networking services and advice on government programs
Employment service providers	Support local businesses and job seekers with employment services. Have insights into training and development needs	Main links are with local businesses and training providers
Industry organisations (e.g. Meat Livestock Australia, NSW Farmers Federation)	Advocacy – represents industry interests; information (e.g. research findings, innovation) dissemination; member support; access to research and resources; and access to training and development. Some organisations fund research and/or undertake marketing and promotion.	Engages with Govt agencies on policy matters. Strong communication links with members.

Education

Institution	Role in economic future of the Region	Capacity and linkages
University of New England Study Centres – located at Glen Innes and Tenterfield	Training and research functions. The main campus is in Armidale with Regional Study Centres in Glen Innes and Tenterfield. The Study Centres are available for access 24/7, with support from Campus staff 8am - 5pm week days via the internal phone located in each Centre.	Links to schools and TAFE.
TAFE NSW (Glen Innes and Tenterfield Campus)	Aims to provide education and training aligned to the employment needs in the Region.	The TAFE Colleges at Glen Innes and Tenterfield have recently been upgraded to include Connected Learning Centres, which provide on-line access (including virtual reality tools) to course across the whole TAFE NSW platform. Links with schools, businesses and employment service providers.
The Community College (New England) – Glen Innes Campus	Provide vocation and training programs – entry level courses in construction, traffic control, barista, food handling and chain saw use + lifestyle courses.	Links to schools and local businesses.
Tenterfield Community College Inc	A not for profit community organisation run by a volunteer Committee to provide short skill courses for work, for pleasure, for leisure, for income.	Links to schools and local businesses.
Wool Works Shearing School, Glen Innes	Runs shearing + basic sheep husbandry courses for high school students.	Cooperative program between RDA, DPI, Local Land Services, Council and TAFE
Community Organisations		
Village Progress Associations	Local community groups that advise Council on infrastructure and other issues impacting on the villages and surrounding areas and advocate for improvements. Influence attractiveness and amenity of the villages.	Volunteer groups with strong links to the local villages and district communities.

Appendix 4: Survey Results – Strengths and Weaknesses

Figure 25: Survey Results - Strengths and Weaknesses



Appendix 5: Road and bridge infrastructure priorities in the Region

The Northern New England High Country Region is a major producer of cattle and sheep and has a growing horticultural industry supplying both the NSW North Coast and Brisbane – South East Queensland Markets. The Region also has a growing tourism sector, driven primarily from increasing drive-based visitation out of Brisbane and the Gold Coast. Roads are critical infrastructure for the agricultural and tourism sectors. Capacity constraints on regional and local roads and bridges limit the size of trucks and machinery that can operate along the roads.

In most parts of the Region, cattle have to be transported by rigids and semi-trailers, rather than by B-doubles. A B-double will hold 72 head of cattle, where as a single semi will only hold 48 head, with rigids holding less than a semi.

In the growing horticultural industry there are issues in transporting produce to market and bringing in fertiliser. It is also difficult to transport picking machinery to the farms due to narrow roads and load constrained bridges. Tourists frequently complain about the poor condition of the roads, and there are numerous roads that are not suitable for caravans and motorhomes.

Heavy Vehicle Access

Heavy vehicle access to the Northern New England High Country Region is very limited. GML and HML B-Double access (to 25-26m long vehicles) is permitted along the New England Highway and the Gwydir Highway. HML short combination vehicles are permitted on the Bruxner Way east of Tenterfield, with load conditions applying on the Clarence River Bridge at Tabulum. HML vehicles are not permitted on the Bruxner Way west of Tenterfield, between Tenterfield and Bonshaw. West of Bonshaw HML vehicles are permitted to Texas and North Star, providing access at Texas to Queensland (Figure).

GML B-Doubles are permitted along the Bruxner Way to the west of Tenterfield and on some regional and local roads that feed into Glen Innes. There is no B-Double access to northeastern part of the Region (north of the Gwydir Highway and east of the New England Highway) (Figure 28).

As a result of limited B-double / HML vehicle access, transport of livestock and agricultural produce is more inefficient and costly than in the remainder of the New England – North West Region and across the border in Queensland.

Figure 26: HML Approved routes Northern New England High Country Region

Short Combinations

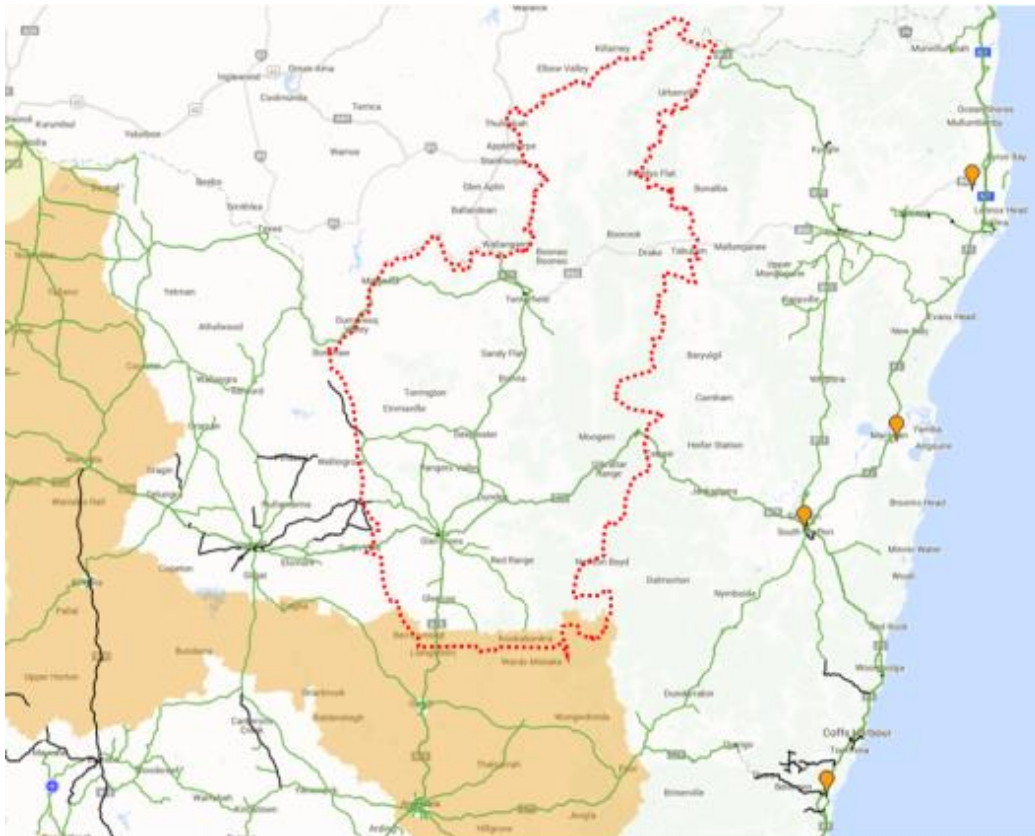


25-26 metre vehicles



Source: NSW Road & Maritime Services Restricted Access Vehicle (RAV) maps

Figure 27: Approved GML B-Double Routes, Northern New England High Country Region



Source: NSW Road & Maritime Services Restricted Access Vehicle (RAV) maps

Highways

The three highways servicing the Region are the New England, Gwydir and Bruxner (east of Tenterfield). Works required to remove pinch-points and improve truck / freight movements are listed in the table below.

Table 7: Works required to remove pinch-points

Road	Location	What needs to happen	Comments	Status
New England Highway	Bolivia Hill	Realignment to improve safety		Pre-construction phase, funds committed.
New England Highway	Tenterfield	Truck by-pass around Tenterfield.	Priority of Roads and Maritime Services. \$6 million spent on planning, \$10 million currently being spent to acquire the property needed No funds committed to build the route	Requires funding from the State Government to proceed to construction
New England Highway – Bourke Street Intersection	Glen Innes	Re align and increase capacity of the intersection	Significant black spot, with frequent accidents.	Detailed design stage – 6 months to shovel ready
Gwydir Highway	Mountain pass east of Glen Innes / Grafton LGA	Continued upgrading of the highway, overtaking lanes needed	This is the only route between the New England area and the Coast that can be used by B-Double vehicles. B Double use is increasing – slowing traffic on the pass.	
Gwydir Highway	Waterloo Range Crossing 15km west of Glen Innes	Realignment of road to improve truck access		Need: \$0.5 million for detailed design and \$5 million for construction
Bruxner Highway	Tabulum – Bridge over the Clarence River	Replace timber bridge	New bridge will facilitate truck access. Timber bridges on roads feeding into the Highway at Tabulum need to be replaced to enable truck access along the feeder roads.	New bridge under construction – due to open 2019

In relation to the proposed truck by-pass on the New England Highway at Tenterfield, it needs to be recognised that Highway travellers are a significant visitor market for the town. The town is also ready a popular destination, with the shopping centre having a strong 'lifestyle' appeal. The removal of trucks from the town centre will significantly improve the amenity and safety of the town centre and strengthen its appeal. In designing the by-pass consideration needs to be given to encouraging non-truck traffic to continue to use the New England Highway and venture into Tenterfield. Signage and landscaping (potentially including public art) encouraging travellers into the town centre, also need to be addressed as part of the by-pass design.

Local and Regional Road Priorities

There are 7 regional roads in the Region, 5 in Tenterfield Shire and 2 in Glen Innes Severn. There is also 2,586.1 kilometres of local roads, the majority of which (73.3%) are unsealed. The Region has 100 old wooden bridges plus a number of older concrete bridges and culverts, most of which are at or approaching the end of their physical life. Being the headwaters for the Clarence River to the east and the Border Rivers catchment to the west, there is a myriad of creeks, rivulets

Table 8: Summary of roads by LGA

LGA	Regional Roads			Local Roads		
	Total length (km)	Length unsealed (km)	% unsealed	Total length (km)	Length unsealed (km)	% unsealed
Glen Innes Severn	67.9		100	1,061.0	754.0	71.1
Tenterfield	235.4	20.8	8.8	1,525.1	1,141.7	74.9
Northern New England High Country Total	303.3	20.8	6.9	2,586.1	1,895.7	73.3

Regional Roads

There are seven regional roads in the Region:

- Emmaville Road, GISS
- Wellington Vale Road, GISS
- Bruxner Way (MR 462), TS
- Mount Lindesay Road (MR 622), TS
- Amosfield Road (MR 290), TS
- Killarney Road (MR 189), TS
- Clarence Way (MR 361), TS.

Figure 29: Regional Roads, Northern New England High Country



The regional roads (Emmaville Road and Wellington Vale Road are approved for GMV B-Double access. In Tenterfield Shire, only the Bruxner Way west of Tenterfield is approved for GMV B-Double access. None of these roads are approved for HMV access.

The Mount Lindesay Road is the most significant regional road in the eastern half of the Region, servicing the northern half of Tenterfield Shire and linking Tenterfield to Brisbane via the Gold Coast Hinterland. The Mount Lindesay Road is the main access road to the horticultural areas in the northern part of the Region, and a significant livestock and tourism route. Sections of the road are unsealed and, to the north of Liston, the road is narrow and winding with sections of the pavement in poor condition. The bridge over the Boonoo Boonoo River is load limited and restricts the movement of freight.

Amosfield and Killarney Roads are short roads linking Mt Lindesay Road across the border to Stanthorpe and Killarney respectively. Both roads are important routes for the horticultural sector. Clarence Way is an important feeder road for the eastern edge of Tenterfield Shire, linking Woodenbong (on the northern edge of Tenterfield and Kyogle Shires) on the Mount Lindesay Road to Urbenville, and onto the Bruxner Highway east of Tabulam and continuing south to Grafton. This route is used for the transport of livestock to the abattoir at Casino, fruit and vegetables to the NSW north coast and logs to the sawmills in the Casino area.

Local Roads

The majority of the local roads within the Region are not sealed, with many being narrow and in poor condition, with load limits on the bridges and culverts.

Glen Innes Severn LGA

The local road priorities in Glen Innes Severn LGA are:

- Gravel re-sheeting of roads that are at end of life
- Bitumen re-sealing of sealed roads that are overdue and at risk of pavement failure
- Pavement rehabilitation of sealed roads that are at end of life and potentially unsafe

Bridge renewals in priority order are:

- Mt Mitchell Road over Mann River
- Yarraford Road over Severn River
- Shannon Vale Road over Mann River
- Furracabad Road over Furracabad Creek
- Cherry Tree Road over Furracabad Creek

These bridge projects are 'shovel ready' through tender on a design and construct basis.

The upgrading of Rangers Valley and Yarraford Roads would facilitate the expansion of the Rangers Valley Feedlot.

Tenterfield Shire

The local road priorities in Tenterfield Shire are:

- Undercliff Road – seal the road to service the growing horticultural industry – semi trailers are being used to transport produce (average 5-6 per night) and bring in fertiliser and machinery, with machinery having to be unloaded on the Mt Lindesay Road and driven to the farms. The road is also used by workers (including pickers) to access the farms and tourists
- Cullendore Road – this needs to be upgraded and sealed, including replacing load limited culverts. This is the main livestock route between the northeastern corner of the Region and the meat processing plants in Warwick. In Queensland, Cullendore Road is classified as a State significant road, with the road being of highways standard on the Queensland side of the border
- Tooloom Road – upgrade and widen the road from Urbenville to the Mount Lindesay Road and replace the Beaury Creek Bridge which has collapsed. Tooloom Road is used for the livestock transport and to access the Tooloom National Park World Heritage Area

The majority of the 58 timber bridges in Tenterfield Shire need to be replaced. One bridge has recently collapsed and inspection of the bridges shows that others could also fail. Council is in the process of further reducing load limits on these bridges, to prohibit trucks. This will impact significantly on agricultural producers and the school bus runs.

From an economic development perspective, the priorities for bridge replacements are:

- Mount Lindesay Road – bridge over the Boonoo Boonoo River
- Beaury Creek Bridge – Tooloom Road Urbenville. The bridge has collapsed and a temporary river crossing is in place
- Hooton Bridge near Tabulum. This is needed to enable truck access to the blueberry farm and other farming activities in the area