

RURAL FUTURES TASKFORCE REPORT

October 2018



FCA
FARMERS FOR
CLIMATE ACTION

THE NEXT
economy



CONTENTS

Foreword	2
Background	4
Introduction	6
Our Vision for Regional Australia	8
Achieving Our Vision: Strengthening the Sectors that Sustain Regional Australia	12
• Agriculture, Forestry and Fisheries	13
• Energy	16
• Health, Education and Social Services	18
• Tourism	20
• Processing and Manufacturing	21
• Mining and Minerals Processing	22
Additional policy recommendations	24
Conclusion	26
References	28

FOREWORD

Rural and regional Australia stands at a crossroads. One way follows the well trodden path of business as usual. The downward spiral of rural and regional decline, punctuated by increasing localised battles over precious resources, the boom and bust cycles that are the story of commodity production and a loss of social and environmental capital as prime agricultural land grapples with the harsh realities of a changing climate.

The other path stares these challenges in the face and instead embarks on a journey of regional renewal and rejuvenation. Underpinned by principles of resilience and informed by the realities of the coming challenges, this path embraces high value, clean and green production, encourages healthy, resilient and adaptive ecosystems, community wellbeing, diverse economic opportunities and a vibrant, healthy democracy.

This report is targeted towards elected representatives, industry leaders and community visionaries and comes at a time when rural Australia is looking for alternative visions for a prosperous future.

With a dearth of political leadership at the highest levels, this report seeks to stimulate debate about the type of future regional Australia wants to see.

This vision does not assume to have all the answers. Instead it is designed to spark a conversation, with due consideration for additional core growth areas; including education, aged care, logistics and the arts.

We are poised at a pivotal moment in history. Climate change is already impacting the viability of regional areas across Australia, while the encroachment of fossil fuel extraction threatens prime agricultural land from the pristine wilderness of the Kimberley, to the fertile black soils of the Liverpool Plains. As custodians of the land, committed to intergenerational equity; farmers are on the front line. The future is in our hands.

Farmers for Climate Action is a not-for-profit movement of farmers, graziers and agricultural industry leaders committed to putting those on the front line of climate change front and centre in creating climate solutions.

Lucinda Corrigan

Chair, Farmers for Climate Action





Summary of key recommendations:

Agriculture, Fisheries & Forestry

- Integrate best practice and climate smart agricultural practices to improve the health of ecosystems, sequester carbon, enhance nutrient recycling and strengthen resilience to the impacts of a changing climate.
- Support schemes to enable farmers to make a sustainable living on the land through complementary income generating activities such as installing renewable energy projects on farm land; carbon farming and water quality initiatives.
- Encourage innovation and technology compatible with strengthening ecosystems, this includes investment in renewable energy technologies, automation and digital technologies for communication and monitoring.

Energy

- Provision of policy certainty to allow the flow of both private and public investment in sustainable energy projects.

Health, Education & Social Services

- Recognise the essential role health, education and social assistance institutions play in sustaining communities economically, and for the public sector to invest accordingly.

Tourism

- Ongoing support for economic development bodies, such as the Regional Development Authority, which support local government and businesses in regional areas with business training, feasibility studies, marketing, coordination and accessing infrastructure development funding.

Processing & Manufacturing

- Create new opportunities to process raw materials and waste locally in a cost effective, efficient and environmentally responsible manner by drawing on circular economy principles.

Mining & Minerals Processing

- Providing concerted and targeted support to diversify regional economies so that they are less dependent on the mining sector and more economically resilient to changes in global markets.
- Developing and enacting a national plan to phase out fossil fuel mining to address climate change, and prepare for the economic impacts associated with international markets moving away from fossil fuels. This includes addressing current incentives that hinder the orderly transition away from fossil fuels to renewable energy sources and storage.

BACKGROUND

The Rural Futures Taskforce is an initiative of respected community leaders from rural, regional and remote communities¹ all over Australia.

The Taskforce report is structured around three main sections. The first section proposes a vision for regional Australia developed at a gathering of community leaders on the 31st May 2018. The second section provides an overview of the six main economic sectors that support the prosperity of regional Australia. The final section includes recommendations designed to create the appropriate policy settings to support regional Australia to transition to a stronger, more diverse, low-carbon and inclusive economic future. Included throughout the report are case studies of rural and regional initiatives that are already contributing to greater economic resilience and prosperity across the country.

The following is a list of the members of the Rural Futures Taskforce.



Dr Amanda Cahill

Dr Amanda Cahill is the lead author of the Rural Futures Taskforce, CEO of The Next Economy, adjunct lecturer at the University of Queensland, co-founder of the New Economy Network of Australia and former director of the Centre for Social Change. She has degrees in Anthropology and Education from the University of Queensland and a PhD from the Australian National University on participatory approaches to local economic development.



Verity Morgan-Schmidt

Verity is the CEO of Farmers for Climate Action. Originally a farm girl from the sheep and wheat country of Western Australia, she is a former executive officer for the Western Australian Farmers Federation. Verity has also previously worked for Elders Ltd and was the former executive officer for Country Noosa, an organisation linking hinterland producers to coastal communities in South East Queensland. Verity holds a Master of Arts (Politics) in Sustainability and Bachelor of Arts with a double major in Politics and Global Studies.



Elizabeth Brennan

Elizabeth has facilitated a number of agricultural development programs and fresh produce marketing strategies across the WA Wheatbelt region, Australia and Papua New Guinea. She is currently occupying a number of positions, including commissioner for the Agricultural Produce Commission, director of the RRR Women's Network, mentor for DFAT's Australia Awards Women's Leadership Initiative and fellow with the Australian Rural Leadership Foundation. She was a board director with Australian Women in Agriculture for five years and has received a number of awards including the Most Outstanding Emerging Leader at the inaugural Women in Australian Agribusiness 100 in 2014 and the WA Young Achiever of the Year in 2016.



Charlie Prell

Charlie Prell is a fourth generation sheep farmer from Crookwell NSW, former councilor on the Upper Lachlan Shire Council, former director on the Goulburn Rural Lands Protection Board, co-founder of the Regional Renewables Alliance, regional organiser with the Australian Wind Alliance and deputy chair for Farmers for Climate Action.



Jim McDonald

Jim McDonald farms on the Liverpool Plains and is a member of the CSIRO Land and Water Flagship Advisory Committee. He was the inaugural chairman of the Namoi Catchment Management Authority, is a past member of the Federal Independent Expert Scientific Committee for Coal Seam Gas and large scale Coal Mining and has a long history in natural resource management.



David Mailler

David Mailler is a director of Meralli Projects, a solar construction enterprise revolutionising the Australian Solar industry. He was part of the successful installation of Australia's first privately funded, award winning solar farm, a fellow of the Australian Rural Leadership Foundation and an active farmer with interests in regional socio-economic sustainability who believes that renewables provide significant business opportunities for regional Australia.



Meriel Chamberlin

Meriel Chamberlin is the founder of Full Circle Fibres, Australia's only single origin paddock to product cotton supply chain, collaborating with Australian Super Cotton, St George, QLD. Meriel has twenty years' international experience in the Textile and Clothing Industry, with experience spanning four continents. She is passionate about the opportunities for regional diversification through the processing of fibre and biomass for textiles and more.



Stuart McAlpine

Stuart McAlpine is a Western Australian wheatbelt farmer with more than 35 years' experience in agriculture. He is co-founder of the Liebe Group, instigated the WA Regional Repopulation Plan, is former chair of the Regional Repopulation Advisory Committee and a non-executive director of Wide Open Agriculture.



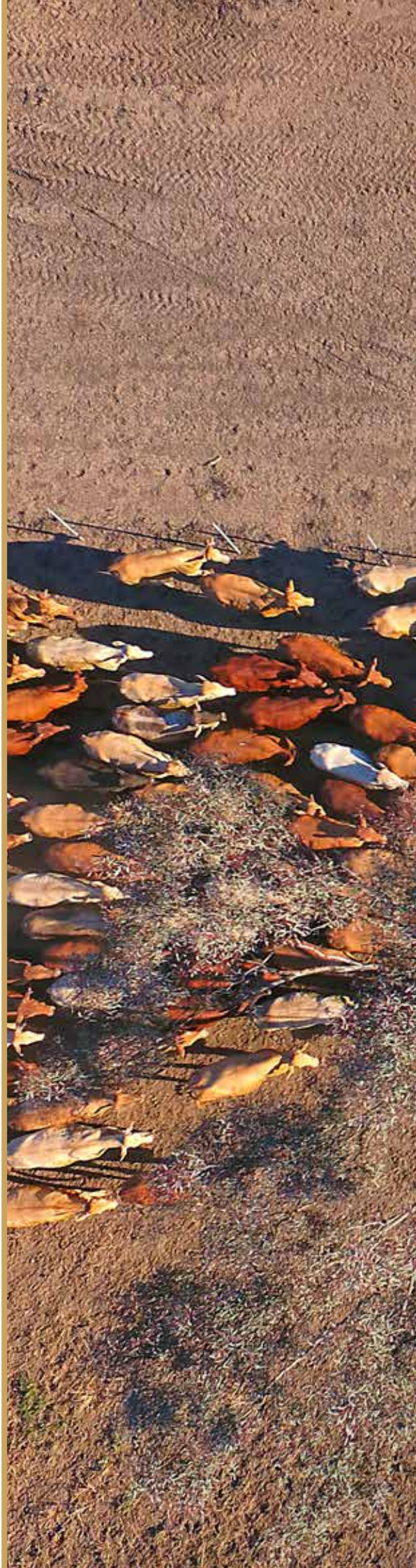
Robert Pekin

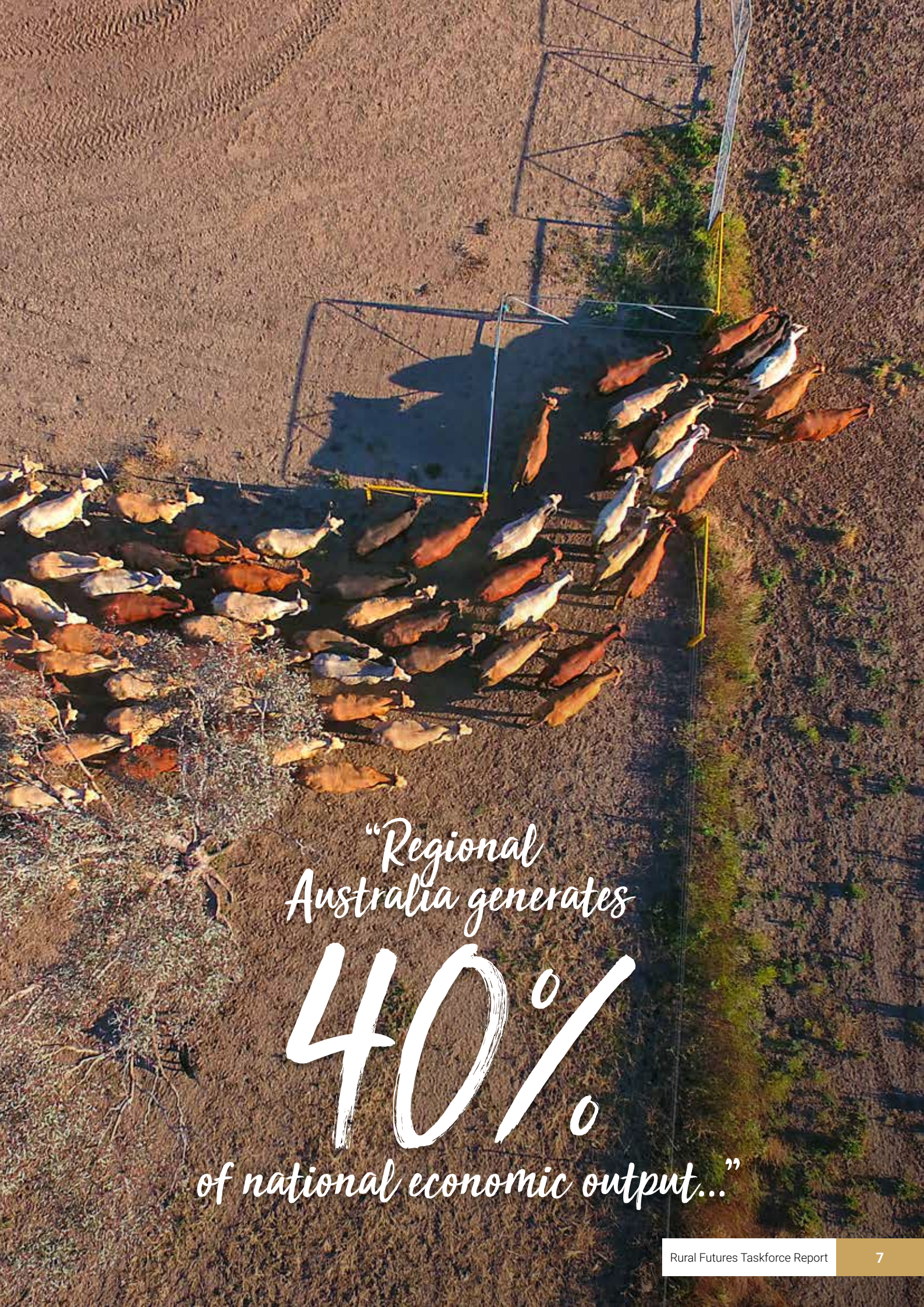
Robert is a former 4th generation organic dairy farmer who has spent the last 17 years building Community Supported Agriculture (CSA) systems in Australia. He is the director of the Food Connect Foundation Ltd, owner of Food Connect Pty Ltd, executive director of Food Connect Shed and director of the Open Food Network Ltd.

INTRODUCTION

The future prosperity of Australia rests on the ongoing viability of its regions. While regional Australia is home to under a third of the population, it generates 40% of national economic output and almost two thirds of export revenues from industries such as agriculture, tourism, services and manufacturing. Despite this contribution, the rest of Australia often overlooks the value created in regional areas, as well as the significant challenges regions continue to face, including:

- Difficulties in accessing services, particularly in the areas of health (including mental health and dental), education, child care, transport and financial services.
- Poor health and mental health outcomes compared to urban areas.
- Skills shortages impacting industries as diverse as health, aged care and meat processing.
- Higher unemployment rates and limited career opportunities and pathways, especially for young people seeking entry level positions.
- Changes in employment because of increasing automation across agriculture, mining and other sectors.
- Generally lower incomes and higher levels of debt (especially among farmers).
- High levels of out migration, particularly of youth aged between 18 and 25 years.
- An ageing population, with reduced access to aged care services.
- Inadequate infrastructure, especially in relation to digital communications and transport.
- Increasing competition over land use.
- Increasing vulnerability to natural hazards such as drought, floods and storms.
- Increasing levels of disillusionment and disengagement with formal political processes.





*“Regional
Australia generates
40%
of national economic output...”*

OUR VISION FOR REGIONAL AUSTRALIA

Communities around Australia are already working to address the challenges they face. Without the right support, innovation and investment however, such challenges will only be exacerbated by the impacts of climate change already affecting Australian communities. Efforts to adapt, innovate and build on existing strengths and assets are currently underway. It is these efforts that inspire our vision for regional Australia as a place in which everyone can enjoy:

- 1 Healthy, resilient and adaptive ecosystems
- 2 Community wellbeing and resilience
- 3 Diverse economic opportunities
- 4 A vibrant, healthy democracy

Our vision for each of these areas is described in more detail on the following pages.



1

Healthy, Resilient and Adaptive Ecosystems

We are all stewards of Australia's natural resources. This means it is everyone's responsibility to protect and regenerate land and water resources, while continuing to find ways to produce the food and other valuable resources on which we all depend. We share a responsibility to leave the land better off for future generations by adopting a long-term view and investing in practices that are guided by the need to address climate change while respecting the natural limits of our bioregions.

By 2030, we will have developed the capacity to meet the challenges of climate change, surpassing all sector and government climate change goals through practices designed to sequester carbon and reduce emissions. There will be broad-based acceptance that our economic systems serve people and nature (not the other way around), and we will as a society reward and invest in practices that protect and revitalise land and water systems.

Government and community will work in partnership with First Nations groups to care for our land and water, learning from them and involving them in decision making processes in powerful and meaningful ways.



2

Community Wellbeing and Resilience

Our vision for regional Australia is one of healthy, vibrant, safe, diverse and inclusive communities where everyone has a chance at a healthy and rewarding life. This starts with recognising the importance of regional Australia's contribution to the social, cultural, and economic prosperity and security of our nation.

By 2030 our regional communities will be places that people want to live in because everything that people need to enjoy a good standard of living—food, water, housing, health, education, energy, communications, transport and economic opportunities—is accessible, affordable, and of a comparable standard to those enjoyed in urban areas. In addition to everyone's basic needs being met, cultural, art, music, sport and lifelong education activities will be adequately resourced and recognised as fundamental to the sustainability and liveability of regional communities. These activities, sustained by both paid and unpaid labour, form the basis for strong ties of social capital and cohesion across different groups.

The diversity within our regional communities will reflect the diversity of Australia in terms of age, gender, culture, language, and religion. We will have achieved nationwide reconciliation with, and recognition of, Aboriginal and Torres Strait Islander Nations as the first people on this continent and we will celebrate their contribution in a meaningful and practical way. People of all backgrounds will feel welcome, safe and included in their communities. We will have achieved gender equity and people of all ages and abilities are respected and valued.



3

Diverse Economic Opportunities

Our vision is for regional communities to be able to produce all of the basic materials and services we need to sustain our lives. We will produce goods and services in ways that respect natural systems and embrace circular economy² principles to maximise the potential of resources while minimising waste and environmental impacts.

Our aim is to move away from traditionally extractive models of production to models that invest in local systems and new technologies to add value to local production for long-term prosperity and resilience.

The benefits and risks of economic and other activities will be shared fairly, with regional communities better equipped to capture the benefits of their economic endeavours through systems that support local ownership and governance, investment, employment opportunities and wealth distribution.

While economically resilient and self-sufficient at a regional level, communities will be highly networked and connected through communications and transportation systems that attract a mix of local, regional, national and global commercial opportunities.



4

A Vibrant, Healthy Democracy

By 2030 we will have restored public faith and trust in democracy. Our democratic processes will be founded on meaningful, place-based, community-led decision making processes that take into account the needs of all, including future generations.

The role of government in ensuring the wellbeing of the whole community and the natural environment will be respected and celebrated. Public spending will reflect the interests of everyone rather than the vested interests of a few. Our leaders and public servants will be held to account for how they protect the long-term security of the nation, not only in providing for essential goods and services, but also in restoring and protecting Australia's natural capital and mitigating the impacts of climate change. Public spending and regulation will encourage investment, innovation, and information sharing to stimulate local economic development in ways that benefit everyone.

Our political, business and community leaders will be positive and trusted role models who reflect the diversity of the Australian population. They are celebrated for their visionary and solutions-focussed approach to designing and delivering policies and programs that protect and invest in the wellbeing of people and the environment.



“We will produce goods and services in ways that respect natural systems and embrace circular economy principals.”



ACHIEVING OUR VISION: STRENGTHENING THE SECTORS THAT SUSTAIN REGIONAL AUSTRALIA

Underpinning our vision for a prosperous, vibrant, diverse, inclusive and healthy regional Australia is the ongoing viability of six key economic sectors:

1 Agriculture, Forestry and Fisheries

2 Energy

3 Health, Education and Social Assistance

4 Tourism

5 Processing and Manufacturing

6 Mining and Minerals Processing

The current and potential contributions of each of these economic sectors are described in the following section, along with a set of recommendations to ensure their ongoing viability.



Agriculture, Forestry and Fisheries

The Agriculture, Forestry and Fisheries (AFF) sector is one of the most important in Australia. Not only does it generate around \$48 billion each year (12.5%) in export revenues³ and employ around 310,000 people,⁴ it is the sector that produces the food and fibre on which we all depend. It is also the sector with the most scope to protect and revitalise natural resources and to mitigate the impacts of climate change through careful vegetation, soil and water management practices.

The AFF sector will experience significant changes in the number and types of jobs available over the next decade. The National Farmers' Federation is working to grow the agricultural sector into a \$100 billion industry.⁵ Expected areas of growth include fishing and hunting (9.2% and 14.8%), fruit and nut tree horticulture (13%), mushroom and vegetable growing (6.1%), and floriculture (5.8%).⁶



For this sector to continue sustainably into the future, additional support, funding and regulation is needed to:

- Integrate best practice and climate smart agricultural practices to improve the health of ecosystems, sequester carbon, enhance nutrient recycling and strengthen resilience to the impacts of a changing climate.
- Protect water systems from the impacts of inappropriate use and provide incentives for effective water quality management practices, drawing on previous water reform recommendations such as the National Water Initiative and others to ensure access for sustainable farming practices and other uses into the future.
- Restore land and improve soil quality through carbon farming and other measures while protecting agricultural land from competing uses such as mining and urban development.
- Provide adequate resources to research and extension programs to help farmers adapt to changing climate patterns and seasons.
- Provide economic incentives to encourage regenerative practices, including measures to adequately price externalities.
- Support schemes to enable farmers to make a sustainable living on the land through complementary income generating activities such as installing renewable energy projects on farm land; carbon farming and water quality initiatives.
- Support initiatives to add value to raw products locally by:
 - Researching, developing and marketing new products such as degradable cellulose, starch-based packaging and bio-fuels.
 - Providing funding and training support to develop new business models and market supply chains.
 - Drawing on new digital technologies and cheap, renewable energy to make regional processing more competitive.
- Encourage innovation and technology compatible with strengthening ecosystems, this includes investment in renewable energy technologies, automation and digital technologies for communication and monitoring.
- Develop the digital communication and transport infrastructure and supply chain systems needed to access both domestic and international markets.

Continued overleaf...

- Build on growing consumer awareness and interest in ethical, nutritious food to:
 - Ensure fair prices for farmers
 - Address growing food insecurity
 - Support the development of fresh food precincts near major transportation hubs, as well as regional food hubs and community supported agriculture to strengthen local food markets
 - Support local food processing to generate additional local value
 - Develop food provenance initiatives
 - Create greater accountability and transparency along food and fibre distribution chains to ensure the equitable sharing of both benefits and responsibilities
- Investigate and invest in effective ways to finance production in the AFF sector, such as cooperatives, community finance and blockchain technology.
- Provide incentives and training schemes to support young people to build their careers in the agriculture sector in order to address projected gaps in the workforce as older farmers retire, and to develop the necessary skills to adapt to the growing automation and digitisation of the sector.
- Remove barriers and provide incentives to encourage farmers to diversify their income sources. This includes recognising and celebrating the crucial role women, local businesses and others play in generating the off-farm revenue. Such revenue not only diversifies and sustains the income of farming households, but also subsidises agriculture to make it viable and resilient to shocks such as drought over the long-term.



Projected gap in the AFF workforce:

Between 2016–2024, there will be an estimated

123,000

additional workplace openings

as older farmers retire and the AFF sector grows.⁷



2

Energy

A huge transition is underway in the energy sector. Australia is moving away from electricity generated from fossil fuels to sources of renewable energy such as solar, wind, pumped hydroelectricity and bioenergy. The energy transition is not only affecting our domestic production of electricity, but also the future of our fossil fuel exports. The International Energy Agency projects that Australia's major trading partners—India, China, Korea and Japan—will reduce their thermal coal imports over the next five years.⁸

Apart from the environmental benefits of reducing carbon emissions from fossil fuels, renewable energy generates a number of economic benefits for regional areas including:

- Improved affordability and reliability of electricity supply;
- Employment opportunities in the construction and maintenance of renewable energy and energy storage systems;
- Reduced energy costs and increased local income from the generation of renewable energy on farms, roof-tops and community-owned renewable energy projects;
- Cheaper, cleaner, and locally-sourced energy that can be used to support a range of industries and businesses, including multi-scale manufacturing and processing;
- Reducing the impact of fossil fuel extraction on farm land and water systems;
- Reducing health costs associated with air pollution from coal mining and the production of coal-fired electricity; and
- The opportunity to convert agricultural products and waste into biofuels and bioenergy for heat, power and liquid fuels.



While the transition to renewable energy is well underway, more is needed to ensure that our energy supply remains secure and affordable into the future, including:

- Policy certainty to allow the flow of both private and public investment in renewable energy projects.
- Public investment in changes to the grid, including necessary and appropriate upgrades to transmission lines to support the roll out of renewable energy technology and the installation of battery infrastructure.
- Targeted funding, training and technical support for smaller-scale, decentralised systems that are more likely to be locally-owned and benefit regional communities through the generation of profits and local jobs. This also includes additional support for community-owned and off-grid renewable energy systems.
- Measures to support energy efficiency in buildings, and across all industries.
- Strong legislation to:
 - Ensure that renewable energy jobs are decent and fair;
 - Support on-the-job traineeships; and
 - Develop the local capacity needed to support the ongoing viability of the industry.
- Support for local manufacturing of renewable energy components such as wind turbine blades, mirrors for concentrated solar thermal projects, solar hot water systems, and batteries.

38,138GWh

of energy is generated from renewable energy each year.
That's enough to power 8,297,986 households.⁹

3.5

million solar panels
were installed on rooftops
in 2017. **That's equivalent
to a medium sized coal
fired plant.¹⁰**

Investment in large-scale
wind and solar projects in
Australia increased by

150%

to \$12 billion in 2017,
creating 5,500 new jobs.¹¹

3

Health, Education and Social Assistance

The strength of the health, education and social assistance sector is central to the viability of regional communities because of the essential services and economic benefits that flow from this sector. The health sector is the largest employer in Australia, currently employing 1,680,900 people,¹² while education is Australia's third largest export earner, generating over \$28 billion in 2016–17.¹³

These job figures are projected to rise even further over the next five years, with a 16% increase in employment opportunities in health with the implementation of the National Disability Insurance Scheme and an increasing demand for aged care and child care services. Education jobs are projected to rise by an additional 12%, with growth in the school-aged population and an increasing demand in the areas of international, adult and community education.¹⁴



The 10 occupations projected to add the largest number of new jobs over the next five years to May 2022 are:

1	Aged and Disabled Carers	77,400
2	Registered Nurses	65,300
3	Child Carers	25,800
4	General Sales Assistants	24,900
5	General Clerks	22,200
6	Education Aids	21,900
7	Truck Drivers	16,900
8	Software and Application Programmers	15,100
9	Advertising, Public Relations and Sales Managers	14,800
10	General practitioners and Resident Medical Officers	14,500

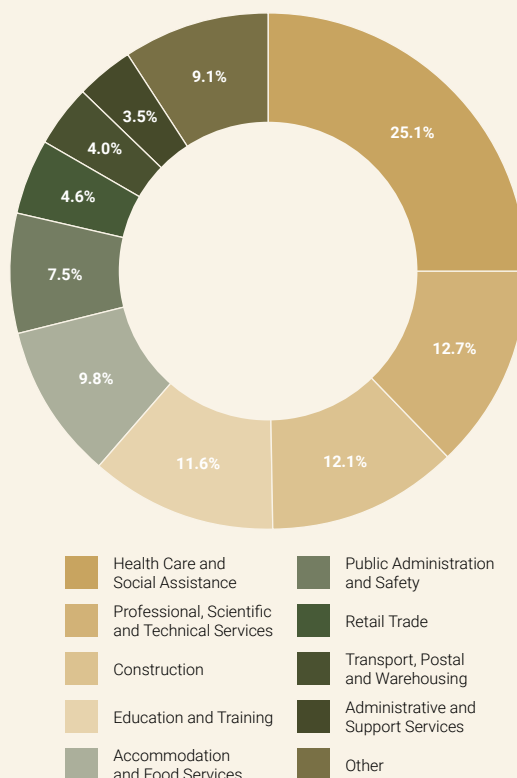
Source: Department of Jobs and Small Business (2017) Industry Employment Projections 2017 Report. Available at: <http://lmip.gov.au/default.aspx?LMIP/EmploymentProjections>



For the economic benefits of this sector to continue to flow to regional Australia, more support is needed to:

- Recognise the essential role health, education and social assistance institutions play in sustaining communities economically, and for the public sector to invest accordingly.
- Ensure that these essential services are not privatised further.
- Increase public investment in crucial research, infrastructure and technology to support health, education and social services.
- Re-invest heavily in universities, TAFE, and other programs that support people to train and work in regional areas such as Sustain, Soils for Life and the Rural Health Multidisciplinary Training Program.
- Provide additional investment and training support to small and medium sized enterprises to expand their capacity to service the needs of education and health facilities at regional level.

Industry employment projections



Source: Department of Jobs and Small Business (2017) Industry Employment Projections 2017 Report. Available at: <http://lmip.gov.au/default.aspx?LMIP/EmploymentProjections>



4

Tourism

Tourism is a \$130 billion industry and is currently Australia's fifth largest export earner.¹⁵ Income from this sector is not restricted to international visitors, with domestic visitors spending twice as much as international visitors in 2016–17 (\$82.3 billion versus \$40.6 billion).¹⁶ Tourism is particularly important to regional economies, with 45 cents in every tourist dollar spent in regional Australia.¹⁷

The tourism industry has been able to adapt and diversify to changing market demands in recent years, offering a diverse range of opportunities that attract visitors to regional areas. In addition to nature tourism, regions attract visitors interested in festivals and events; eco-tourism and conservation volunteering; renewable energy tourism; adventure tourism; cultural tourism; and food and wine tourism.

This innovation is key to not only sustaining existing revenue, but generates business for other sectors that provide a range of goods and services including food and beverages; retail; marketing; transport, health, education and construction.



To sustain the strength of the tourism sector, ongoing support is required for:

- Economic development bodies, such as the Regional Development Authority, which support local government and businesses in regional areas with business training, feasibility studies, marketing, coordination and accessing infrastructure development funding.
- Training in regional areas in business, marketing, tourism and hospitality through universities, TAFE and on-the-job traineeships.
- Investment in arts, sport, music and cultural activities that not only attract visitors, but also make regions more attractive places to live.
- Small business development.
- The development of local procurement processes.
- The development and ongoing maintenance of essential infrastructure such as roads, health services, parks and other public amenities.



Photo: The Bungle Bungle Range, Purnululu National Park, the Kimberley region of Western Australia.

5

Processing and Manufacturing

While manufacturing has declined in Australia over the last few decades, Australia continues to process a diverse range of products including:

- Food
- Beverages and tobacco
- Textiles, leather, clothing and footwear
- Wood products
- Pulp and paper
- Chemicals (including fertilisers, pesticides, pharmaceutical, medicinal, cleaning products, toiletries, cosmetics, photographic and explosive)
- Metals and plastics
- Machinery and equipment
- Furniture

The experience of other OECD countries suggests that the combination of cheap renewable energy and emerging digital technologies (such as robotics and 3D printing) holds the potential to stimulate new, decentralised forms of processing and manufacturing in regional Australia. Examples from places such as Lille in France¹⁸ and Cleveland, Ohio¹⁹ are demonstrating how small-scale manufacturing is revitalising regional areas in other parts of the world. To date, however, there is limited research on the potential of these new technologies to do the same for Australia.

With the right kind of funding incentives, research and industry support, Australia could capture the benefits of the current digital and renewable energy transitions to:

- Create new opportunities to process raw materials and waste locally in a cost effective, efficient and environmentally responsible manner by drawing on circular economy principles.
- Convert food waste into new products such as nutraceuticals and new forms of packaging.
- Create value-adding opportunities to reinvigorate manufacturing and processing for light industry in regional areas.
- Replace hydrocarbons with biofuels, bio plastics and alternative fibres.
- Produce ammonia to enable the export of renewable hydrogen energy.
- Manufacture components needed for the expansion of renewable energy, such as wind turbine blades, mirrors and batteries.



To take advantage of the emerging opportunities in the regional manufacturing space, more support is needed to:

- Develop supply chain systems and the appropriate infrastructure to better access national and overseas markets.
- Expand the availability of cheap, renewable energy in regional areas.
- Invest more in universities, TAFE and research institutions such as CSIRO to develop, trial and commercialise new products.
- Invest in traineeships and apprenticeships in regional areas.
- Establish regional hubs and maker labs to encourage local experimentation and innovation.
- Support both start-ups and existing businesses with grants, training, marketing support and incubator programs.

6

Mining and Minerals Processing

The mining sector is a significant contributor to the national economy, particularly in terms of export revenue. While some of these benefits have flowed to regional Australia, mining has also negatively impacted communities and undermined the potential of other economic sectors by:

- Making agriculture, education, tourism and manufacturing exports more expensive and less competitive in both international and domestic markets by driving up the dollar.²⁰
- Creating skills shortages and pushing up wage prices, making it difficult for non-mining related industries to recruit and retain staff.²¹
- Pushing up the cost of living, especially housing costs.²²
- Redirecting investment and infrastructure spending to service mining at the expense of other industries.
- Causing long-term, and irreversible damage to the climate, water quality and land resources that cannot be repaired through rehabilitation (even when it is undertaken).

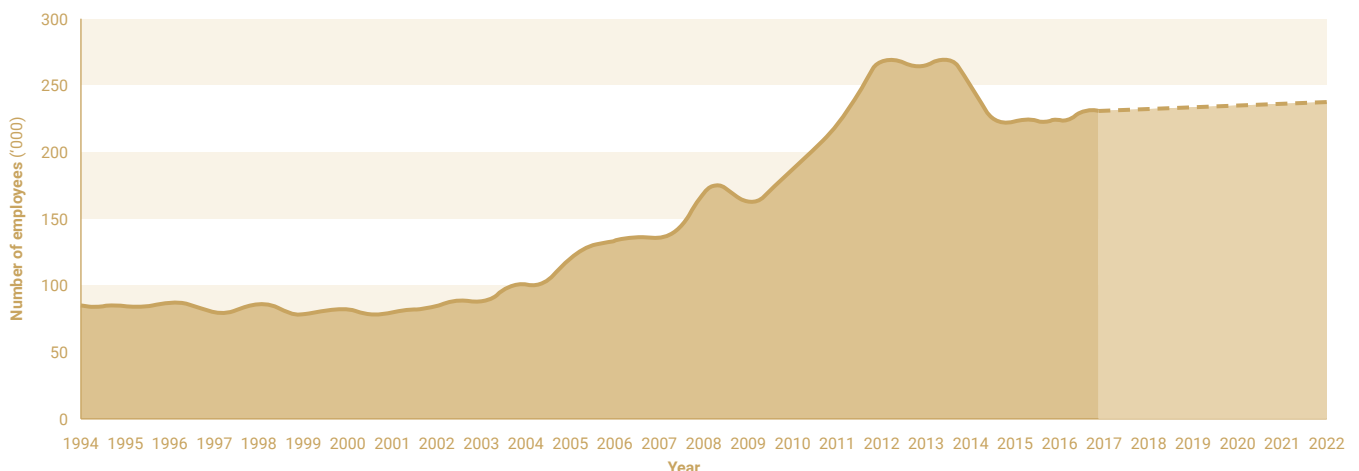


In addition to the negative impacts of mining, there is a growing body of evidence that questions the extent to which mining projects contribute economically to regional Australia. Research by the Regional Australia Institute shows that most of the direct economic benefits are captured by the company and foreign investors, with a portion of profits returned to the state as royalties. With the majority of jobs and wealth flowing to capital cities and larger regional centres, and a growing trend towards using FIFO workers and automation, there is limited evidence to suggest that mining projects have had much of an impact on unemployment on many of the areas of highest and

most persistent unemployment.²³ Research from Western Australia for example, indicates that for every ten jobs created by a mining development, two will be sourced from the host region, seven from adjacent regional cities and one from elsewhere.²⁴

While the number of jobs in the mining sector is projected to increase over the next five years, this growth is expected to be modest, with the total number of jobs remaining 13.7% lower than employment levels at the height of the mining boom in 2012.²⁵

Employment in the mining sector (time series and projection)



Source: Department of Jobs and Small Business (2017) Industry Employment Projections 2017 Report.
Australian Government, Canberra: p.3. Available at: <http://lmip.gov.au/default.aspx?LMIP/EmploymentProjections>.



For mining to be sustained in ways that benefit regional Australia into the future, a number of crucial measures need to be guaranteed including:

- Providing concerted and targeted support to diversify regional economies so that they are less dependent on the mining sector and more economically resilient to changes in global markets.
- Developing and enacting a national plan to phase out fossil fuel mining to address climate change, and prepare for the economic impacts associated with international markets moving away from fossil fuels. This includes addressing current incentives that hinder the orderly transition away from fossil fuels to renewable energy sources and storage.
- Greater investment across Australia in renewable energy and storage projects to rapidly achieve 100% renewable energy while ensuring energy security and affordability.
- Establish a National Transition Authority to ensure adequate training, employment, financial assistance and redeployment opportunities to support workers and others in regions dependent on fossil fuels to transition to new industries.
- Capturing the economic benefits generated by mining for the benefit of regional areas by ensuring that companies pay their fair share of tax and that royalties support infrastructure and services that benefit **all** economic sectors.
- Ensuring mining jobs and training opportunities are local.
- Expanding Australia's capacity to process minerals domestically.
- Wherever possible, supporting the capture and recycling of minerals to reduce the need for new mining projects and minimise waste.
- Stronger enforcement of regulation to ensure companies fully meet their rehabilitation requirements in a responsible and timely manner.
- Protecting water resources from the impacts of mining.
- Ensuring that the advice of the Independent Expert Scientific Committee for Coal Mining and Coal Seam Gas is encapsulated in conditions tied to any approvals, risks are assessed using the Bioregional Assessments, impact triggers are enforced and any legacy impacts are part of the proponent's planning and environmental responsibilities.
- Holding companies accountable to the standards outlined by the International Council of Mining and Metals.

Photo: The Super Pit gold mine in Kalgoorlie, Western Australia.

ADDITIONAL POLICY RECOMMENDATIONS

In addition to the recommendations already listed within this report, the following measures would encourage the right policy settings and incentives to support the ongoing viability of all of the economic sectors on which regional Australia depends.

A photograph of a man in a light blue shirt, jeans, and a brown hat riding a brown horse. He is seen from behind, leading a herd of brown and white cattle across a dry, grassy field under a cloudy sky. The image is partially covered by a gold-colored banner at the top and a white text box at the bottom left.

“Ensure access to good local jobs with secure working conditions for people who live in regional areas.”



Additional Policy Recommendations

- Take urgent action to address climate change and meet our international obligations under the Paris Agreement using measures that protect and regenerate our natural environment. This includes:
 - Adopting a long-term policy approach to reducing emissions across all sectors and coordinating investments, research and programs designed to mitigate, sequester and adapt to climate change;
 - Phasing out fossil fuel mining and use;
 - Establishing policy certainty in the energy sector to enable the flow of investment to renewable energy and storage projects;
 - Investment to ensure regional areas are able to adapt to and recover from severe weather events associated with climate change; and
 - Using existing areas and natural resources more effectively before opening up new areas to development.
- Enhance connectivity between regional Australia and urban and international markets with world-class supply chain infrastructure, digital communications technology and efficient road, rail, port and air transportation systems.
- Invest in digital technologies such as high speed internet, remote sensing, robotics and 3D printing to overcome the digital divide, attract professionals into regional areas, and create new jobs in developing and operating new technologies.
- Maintain and defend the role of government and public investment in services and infrastructure that ensure the liveability of our regions. This includes:
 - Expanding funding in health, education and social assistance.
 - Continuing the structured decentralisation of government jobs to regional areas while maintaining strong, direct lines of communication with decision makers in Canberra and elsewhere.
 - Increasing public investment in ‘blue sky’, ‘no regrets’ research and development to establish Australia as world leaders in innovation.
 - Developing and extending procurement policies for government and other institutions to support local businesses and Indigenous enterprises in regional areas.
- Ensure access to good local jobs with secure working conditions for people who live in regional areas, while embracing the critical role of migrant workers in addressing rural labour shortages.
- Facilitate supportive and innovative business models that enable investment and wealth creation at a regional level. This includes:
 - Ensuring government grants and investment funds such as Northern Australia Infrastructure Facility are available at a scale that is accessible and appropriate to the needs of regional businesses and not-for-profit organisations.
 - Investing in cooperatives, community finance institutions and small and medium sized enterprises to facilitate greater local ownership and employment creation.
 - Finding new ways to leverage private investment for public-private partnerships that adopt a long-term approach to investment. This includes encouraging greater investment by Australian superannuation funds in regional initiatives.


CONCLUSION

Economic diversity underpins the sustainability and prosperity of regional Australia. Our future prosperity depends on our ability to take advantage of emerging economic opportunities that will not only create local employment opportunities, but also protect the long-term health and wellbeing of our communities and natural environment.

While there is still a place for some types of responsible mining, Australia can no longer afford to support the fossil fuel industry. At this critical juncture we have a choice to make: we can continue to invest in mining at the expense of other industries, leaving our communities increasingly vulnerable to the peaks and troughs of global markets; or we can diversify and invest in a mix of industries that will continue to sustain our regions for generations for come.

We call on our leaders to have the courage and vision to stand up and fight for the wellbeing of all Australians, for future generations and for the ecosystems on which we all depend.





"We call on our leaders to have the courage and vision to stand up and fight for the wellbeing of all Australians, for future generations and for the ecosystems on which we all depend."

REFERENCES

- 1 For the purposes of this report, we use 'regional Australia' to refer to all of the towns, small cities and areas that lie outside of the major capital cities (Sydney, Melbourne, Brisbane, Canberra, Adelaide, and Perth), including remote areas.
- 2 The Circular Economy approach aims to reduce the need to extract natural resources and reduce waste by finding ways to return resources safely back to nature or into systems where they can be re-used or renewed. For more information, see: <https://www.ellenmacarthurfoundation.org/circular-economy> or <http://circulareconomyaustralia.com>
- 3 ABARES (2017) Agricultural Commodity Statistics 2017. Department of Agriculture and Water Resources, Canberra: p.26. Available at: http://data.daff.gov.au/data/warehouse/agcstd9abcc002/agcstd9abcc0022017_lugZg/ACS_2017_v1.1.0.pdf
- 4 ABARES (2017) Agricultural Commodity Statistics 2017. Department of Agriculture and Water Resources, Canberra: p.14. Available at: http://data.daff.gov.au/data/warehouse/agcstd9abcc002/agcstd9abcc0022017_lugZg/ACS_2017_v1.1.0.pdf
- 5 KPMG (2018) Talking 2030: Growing Agriculture into a \$100 Billion Industry. National Farmers Federation, Canberra. Available at: <https://www.talking2030.com/discussion-paper>
- 6 Department of Employment (2017). Employment Projections. Labour Market Information Portal. Available at: <http://lmp.gov.au/default.aspx?LMIP/GainInsights/EmploymentProjections>
- 7 Regional Australia Institute (2018) Riding the Next Wave of Automation in Rural Australia: Safeguarding agriculture and rural labour markets through migrant work and skills development. The Regional Australia Institute, Canberra: p.5. Available at: http://www.regionalaustralia.org.au/home/wp-content/uploads/2018/06/RAI_Riding-the-next-wave-of-automation-in-rural-Australia.pdf
- 8 Department of Industry, Innovation and Science (2018) Thermal Coal: Resources and Energy Quarterly, March 2018. Australian Government, Canberra: p. 48. Available at: <https://publications.industry.gov.au/publications/resourcesandenergyquarterlymarch2018/documents/Resources-and-Energy-Quarterly-March-2018-Thermal-Coal.pdf>
- 9 Clean Energy Regulator (2018) Clean Energy Australia Report 2018. Clean Energy Regulator, Canberra. Available at: <https://www.cleanenergycouncil.org.au/policy-advocacy/reports/clean-energy-australia-report.html>
- 10 Clean Energy Regulator (2018) Clean Energy Australia Report 2018. Clean Energy Regulator, Canberra. Available at: <https://www.cleanenergycouncil.org.au/policy-advocacy/reports/clean-energy-australia-report.html>
- 11 Clean Energy Council (2018) Renewable Energy Employment Hits New Peak, and the Best is Yet to Come. 11 May 2018. Available at: <https://www.cleanenergycouncil.org.au/news/2018/May/renewable-jobs-global-local-record-irena.html>
- 12 ABS (2018) Labour Force Trends, Australia, Detailed, Quarterly, cat. no. 6291.0.55.003. Available at: <http://lmp.gov.au/default.aspx?LMIP/GainInsights/IndustryInformation/HealthCareandSocialAssistance>
- 13 Department of Foreign Affairs and Trade (2017) Trade in Services Australia 2016-17 Report. Australian Government, Canberra: p. 11 Available at: <http://dfat.gov.au/about-us/publications/Documents/trade-in-services-australia-2016-17.pdf>
- 14 Department of Jobs and Small Business (2017) Industry Employment Projections 2017 Report. Australian Government, Canberra: p. 2. Available at: <http://lmp.gov.au/default.aspx?LMIP/EmploymentProjections>
- 15 Department of Foreign Affairs and Trade (2017) Trade in Services Australia 2016-17 Report. Australian Government, Canberra. Available at: <http://dfat.gov.au/about-us/publications/Documents/trade-in-services-australia-2016-17.pdf>
- 16 Tourism Research Australia (2017) State of the Industry Report. Australian Trade and Investment Commission, Canberra: p. 11. Available at: <https://www.tra.gov.au/tra/soi/2017/index.html>
- 17 Department of Infrastructure and Regional Development (2017) Regions 2030: Unlocking Opportunity. Australian Government, Canberra: p. 6. Available at: <http://regional.gov.au/regional/publications/files/regions-2030.pdf>
- 18 For a recent summary of the work supported by Jeremy Rifkin in Lille and elsewhere, visit: <https://www.sbs.com.au/guide/article/2018/03/06/inside-one-mans-radical-solution-impending-climate-change-apocalypse>
- 19 For more information on how manufacturing and processing is being revitalised in Cleveland through cooperatives, visit: <http://www.evgoh.com>
- 20 Downes, P., Hanslow, K. and Tulip, P. (2014) The Effect of the Mining Boom on the Australian Economy, RDP 2014-08, Reserve Bank of Australia, Sydney: p. 17. Available at: <http://rba.gov.au/publications/rdp/2014/pdf/rdp2014-08.pdf>
- 21 Swann, T., Ogge, M. and Campbell, R. (2016) Jobs Growth in Queensland: Trends and Prospects. The Australia Institute, Canberra: p.18. Available at: <http://www.tai.org.au/sites/default/files/Ogge%20Swann%202016%20QLD%20Jobs%20Growth%20FINAL%20w%20Cover%20v2.pdf>
- 22 Regional Australia Institute (2013) Benefits of the Boom? Regional Policy Briefing. RAI, Canberra: p. 4. Available at: <http://www.regionalaustralia.org.au/wp-content/uploads/2013/06/RAI-Policy-Brief-Resources-Projects-and-Regional-Communities.pdf>
- 23 Swann, T., Ogge, M. and Campbell, R. (2016) Jobs Growth in Queensland: Trends and Prospects. The Australia Institute, Canberra: p. 51. Available at: <http://www.tai.org.au/sites/default/files/Ogge%20Swann%202016%20QLD%20Jobs%20Growth%20FINAL%20w%20Cover%20v2.pdf>
- 24 Regional Australia Institute (2013) Benefits of the Boom? Regional Policy Briefing. RAI, Canberra: p. 2. Available at: <http://www.regionalaustralia.org.au/wp-content/uploads/2013/06/RAI-Policy-Brief-Resources-Projects-and-Regional-Communities.pdf>
- 25 Department of Jobs and Small Business (2017) Industry Employment Projections 2017 Report. Australian Government, Canberra: p. 3. Available at: <http://lmp.gov.au/default.aspx?LMIP/EmploymentProjections>



F C A
FARMERS FOR
CLIMATE ACTION

Get involved at:
farmersforclimateaction.org.au

 facebook.com/FarmersforClimateAction
 [@farmingforever](https://twitter.com/farmingforever)

THE NEXT
economy

For more information,
visit: nexteconomy.com.au

