Competitiveness of Tasmanian Agriculture for 2050

WHITE PAPER

2020
Contents

Minister’s Foreword ......................................................................................... 3
Introduction. ...................................................................................................... 4
Background. ...................................................................................................... 4
Policy Context .................................................................................................. 4
Scope .................................................................................................................. 5
White Paper Framework. .................................................................................. 5
   Figure 1: Key focus areas and emerging priorities. ...................................... 6
Focus Areas. ...................................................................................................... 7
   1: Research and Innovation. ............................................................................ 7
   2: Smarter Regulation .................................................................................... 9
      Case Study: Energy regulatory amendments. ............................................ 10
   3: Investing in People. .................................................................................... 11
      Figure 2: Overview of the agricultural skills and education pathways in Tasmania ......................................................... 12
   4: Managing Risk and Biosecurity. ............................................................... 14
   5: Harnessing Natural Capital. .................................................................... 16
      Case Study: Developing a Rural Water Use Strategy ............................... 17
   6: Capitalising on our Brand ...................................................................... 19
      Case Study: The Tasmanian moratorium on Genetically Modified Organisms (GMOs) .......................................................... 19
      Case Study: The Tasmanian Brand at home and abroad .......................... 20
   7: Climate-Ready Agriculture. ..................................................................... 22
Emerging Priorities ............................................................................................ 24
   1: Circular Economy and Value-Adding. ..................................................... 24
      Figure 3: An example of value-adding in a circular economy .................. 24
   2: Digital Transformation .......................................................................... 26
      Case Study: Easier and more precise chemical applications with drones .................................................................................. 27
   3: Responsive to Change ............................................................................. 29
Summary of Tasmanian Government Policy Responses. ................................ 31
Next Steps ........................................................................................................ 32
Appendices ....................................................................................................... 33
   Appendix A – The Tasmanian Agricultural Context. .................................... 33
      Tasmanian Agricultural Value ................................................................. 33
      Tasmanian Agricultural Growth. ............................................................ 33
   Appendix B – Competitiveness in Agriculture. ........................................... 36
      Economic Influences ............................................................................... 36
      Natural Resources .................................................................................... 36
      Market and Consumer Preferences ......................................................... 37
      Adoption of Technology ........................................................................... 37
      Labour and Skills ..................................................................................... 38
      The Investment Environment ................................................................... 38
   Appendix C – Tasmanian Government Strategies and Plans ....................... 39
References .......................................................................................................... 41
Minister's Foreword

Not only does the agricultural sector put food on our tables; it also underpins jobs and prosperity in our rural and regional communities. Agriculture is a vital driver of Tasmania’s economic growth. It generated $1.6 billion at the farm gate in 2017-18, and with the recent year-on-year growth, we are on track to grow the value of Tasmanian agriculture to $10 billion by 2050.

This White Paper sets out the Tasmanian Government’s framework for continuing to foster a competitive agricultural sector and profitable farming enterprises. We understand that it is the farmers and agribusinesses in the private sector that take risks, stimulate investment, create jobs and generate opportunities. It is government’s role to help build a supportive operating and regulatory environment for agriculture to flourish.

The government is already investing in a range of initiatives and policy improvements to promote agricultural growth. Public submissions received to our *Competitiveness of Tasmanian Agriculture for 2050 Discussion Paper* highlighted the positivity that currently exists in Tasmanian agriculture, however, they also emphasised that there is still more work to be done. We agree.

Overall, Tasmania is food secure and contributes to our national food and fibre security. The state produces a net surplus of many key food products, beyond what is required for local consumption, and is largely self-sufficient for key food products. While the majority of Tasmania’s processed food products are sold domestically, some industries rely on selling high-value branded products into international markets. At the same time, Tasmanian agriculture imports key inputs such as fertilisers, crop protection products and materials, as well as food products that are produced in other environments, such as sugar, tropical fruits, some grains and pulses.

The timing of the release of this White Paper coincides with the unfolding events associated with the COVID-19 (coronavirus) pandemic. Whilst there is underlying positivity in Tasmanian agriculture, this is an example of the type of unforeseen challenges or events that can significantly impact our farmers, agribusinesses, markets and rural communities. In the short term the Government will work with the Tasmanian community and business to respond to the immediate challenges. Importantly, this White Paper sets a robust long-term framework for the Government to work with the agricultural sector to build on our strengths and also manage risks and respond to significant disruptions and change.

This White Paper sits under *Tasmania’s Sustainable Agri-food Plan 2019-23*, and beside our *Growing Tasmanian Agriculture – Research, Development and Extension for 2050 White Paper*, along with other government strategies across education, brand, trade, infrastructure, waste, freight, climate change and more.

It considers the ongoing competitiveness of our state’s land-based agricultural sector in three emerging priority areas of Circular Economy and Value-Adding, Digital Transformation, and being Responsive to Change. It also reaffirms our policy focus in the areas of Research and Innovation, Smarter Regulation, Investing in People, Managing Risk and Biosecurity, Harnessing Natural Capital, Capitalising on our Brand and Climate-Ready Agriculture.

I sincerely thank all the individuals and organisations who provided their ideas, views and proposals for consideration in development of this White Paper. The government will work with agribusiness, farmers, agricultural industry groups and other stakeholders to develop specific policies, programs and projects to implement the directions in this White Paper.

Guy Barnett MP
Minister for Primary Industries and Water
Introduction

As the world population grows, food production will need to keep pace. By 2050, the world’s population is expected to reach more than nine billion people, and food production will need to increase by up to 70 per cent. With demand for higher protein diets in the growing Asian middle class, and increased expectations for fresh, quality food, Tasmania has a remarkable opportunity to leverage our strengths in agriculture – rich soil, a favourable climate, water infrastructure, strong biosecurity, enterprising farmers and a premium brand – to significantly expand our agricultural industries and food manufacturing capacity.

To do so, in an increasingly aggressive global marketplace, the agri-food sector must pursue opportunities and address challenges impacting on competitiveness. Fundamental to agricultural competitiveness is the ability to produce and sell farmed products in markets profitably, relative to producers of similar products. Competitiveness is determined by a complex range of factors, some of which are beyond the control of business and government.

Background

In 2018 the Tasmanian Government committed to prepare a whole-of-government White Paper on the Competitiveness of Tasmanian Agriculture for 2050.

The purpose of the White Paper is to present policy improvements and initiatives that will support greater competitiveness in Tasmanian agriculture, and to address issues impacting production, investment and profitability of Tasmanian farmers and agribusinesses.

In developing this White Paper, the Tasmanian Government worked collaboratively with primary industry peak bodies and members of the wider agricultural and research communities. Consultation identified a list of key issues that were grouped into focus areas and emerging priorities. These formed the basis of a Discussion Paper which was released for further public comment in early 2020.

A total of 29 submissions from stakeholders including peak industry bodies, major fresh produce growers, research institutes, Natural Resource Management (NRM) organisations and others interested in the sustainable growth of the agri-food sector were received. This White Paper incorporates feedback and submissions received during the consultation process, and sets out the Tasmanian Government’s proposed policy responses and initial actions.

Development of the White Paper has been led by Agrigrowth Tasmania, a division of the Department of Primary Industries, Parks, Water and Environment (DPIPWE), in conjunction with the Department of Treasury and Finance (Treasury).

Background information on the Tasmanian agricultural context including its value and projected growth is provided in Appendix A. Appendix B contains further information on key drivers of competitiveness in agriculture.

Policy Context

Under Tasmania’s Sustainable Agri-Food Plan 2019-23 the government is investing in, and delivering over 70 initiatives to improve infrastructure, support competition, and maintain an effective biosecurity and regulatory environment with the goal of sustainably growing the farm gate value of Tasmania’s agricultural sector to $10 billion per year by 2050.

This White Paper concentrates on cost and non-cost factors as they relate to enterprise competitiveness and profitability. It sits beside the White Paper on Growing Tasmanian Agriculture – Research, Development and Extension for 2050 which has a focus on productivity outcomes in the sector and outlines investment in RD&E initiatives.
Scope

In developing the White Paper, government has:

- assessed the many reviews which identified factors related to agricultural competitiveness at both the State and Federal Government level over the past ten to fifteen years;
- consulted with industry on its view of the key issues affecting enterprise profitability and competitiveness; and
- developed policies and initiatives in response to the issues identified.

The scope of this White Paper is restricted to land-based agriculture, while recognising that many of the policies and actions presented here will have positive impacts on the broader agriculture, fisheries and forestry sector.

Measuring the competitiveness of Tasmanian agriculture in relation to other jurisdictions is beyond the scope of this White Paper.

Matters under the control of the Australian Government or statutory bodies will be raised up through Commonwealth, State and Territory fora such as the Agricultural Ministers’ Forum (AGMIN) which is the peak forum for inter-jurisdictional collaboration on priority issues affecting the primary production sector.

While government can support the competitiveness of the agricultural sector through the development of appropriate policies and creation of an enabling regulatory environment, there are many factors beyond its control. Businesses and industry are in the best position to make the decisions needed to ensure their ongoing viability and competitiveness.

Not all ideas received through this White Paper process will be taken forward; however, the government’s work during this process is driven by a strong desire to ensure a sustainable and competitive Tasmanian agriculture sector for future generations.

White Paper Framework

The framework for the Tasmanian Government’s approach to competitiveness in Tasmanian agriculture is outlined in Figure 1. Seven areas that help to underpin competitiveness were identified as key policy focus areas: Research and Innovation; Smarter Regulation; Investing in People; Managing Risk and Biosecurity; Harnessing Natural Capital; Capitalising on our Brand; and Climate-Ready Agriculture.

In addition, three interlinking themes that are growing in importance as factors impacting competitiveness were identified as emerging priorities: Circular Economy and Value-Adding; Digital Transformation, and being Responsive to Change.
Figure 1: Key focus areas and emerging priorities to support the Competitiveness of Tasmanian Agriculture to meet AgriVision 2050.
Note that Appendix C contains further details including links to each of the strategies and plans listed.

Competitiveness of Tasmanian Agriculture for 2050

AGRIVISION 2050
Increasing the annual farm gate value of agriculture to $10 billion by 2050

OUR FOCUS

Research and Innovation
Smarter Regulation
Investing in People
Managing Risk and Biosecurity
Harnessing Natural Capital
Capitalising on our Brand
Climate-Ready Agriculture

EMERGING PRIORITIES

Circular Economy and Value-Adding
Closing agri-food resource loops for profit and sustainability. Towards zero waste.

Digital Transformation
Integrating digital technology across the agri-food supply chain. Agri-food businesses thriving in a technology-enabled world.

Responsive to Change
Generating timely solutions to problems and ideas to capture value. Connection, creation and capability.

BENEFITS

Economic Growth
Community Value
Sustainability
Focus Areas

The Tasmanian Government’s long-term vision is of thriving regions with all Tasmanians benefitting from a strong economy. To help achieve this, the government is focussing on seven key areas that underpin competitiveness in the state’s agricultural sector.

Each focus area is detailed below along with key points from public submissions and some of the actions the government is currently implementing in these areas.

Appendix C provides further details of the strategies and plans which set out the many existing initiatives being delivered by the government to create an environment for agricultural success.

1: Research and Innovation

Innovation is a crucial aspect of agricultural competitiveness, and many submissions noted the importance of technology adoption across the value chain, the identification of creative solutions to problems, value-adding, and the promotion of innovative processes, practices and systems.

Several submissions noted the need for wider and more rapid uptake of technologies and best-practice farming approaches. These submissions commented on the need for effective farmer education and demonstration opportunities within Tasmania, and highlighted the need for private consultants and extension officers who have the ability to take a holistic view of farm business management.

One crucial aspect of innovation is research and development, and government investment in the Tasmanian Institute of Agriculture’s (TIA) industry-focussed research program is a key component of this. The targeted support for innovative solutions to urgent industry problems provided through the Agricultural Innovation Fund established in 2018 is another example of how the Tasmanian Government supports innovation in the state.

One submission noted the role of the Australian Government’s R&D Tax Incentive for encouraging private sector investment in innovation, and urged the incentive be maintained at current levels.

The Tasmanian agricultural sector has a strong record of innovation in the adoption of new crops, with notable examples including pyrethrum, poppies and industrial hemp.
Submissions commented that further opportunities for innovation exist in this area including potential new high value crops and products such as Kunzea oil and Chinese herbs, the latter being the subject of a partnership signed in 2019 between TIA and the National Administration of Traditional Chinese Medicine, supporting research and development into growing Chinese Traditional Medicines in Tasmania for export.

Submissions also noted that the capacity to attract capital for the intensification or automation of enterprises in industries such as dairy and horticulture can be an innovation barrier for farmers and growers, especially small and medium-sized enterprises.

The Tasmanian Government will continue to prioritise Tasmania’s place in world-leading Research, Development and Extension (RD&E) through our Growing Tasmanian Agriculture – RD&E for 2050 White Paper initiatives. The government will partner with industry and TIA to provide the necessary infrastructure and encourage investment in RD&E which is focused on increasing the sustainable growth and productivity of Tasmanian agriculture and food.

Examples of current initiatives

- Funding of $28 million to TIA over five years.
- Supporting innovative food enterprises such as the Microwave-Assisted Thermal Sterilisation (MATS) technology at the Defence Science and Technology Organisation facility.
- Fast-tracking the development of young agricultural extension professionals through the Extension Accelerator program, delivered by TIA with the support of industry, to increase the application of new knowledge and R&D outputs on farms.

1 A more comprehensive list of initiatives being undertaken for each of these seven Focus Areas is available in Tasmania’s Sustainable Agri-food Plan 2019-23 at: https://dpipwe.tas.gov.au/agriculture/tasmanias-agri-food-plan.

2 Agricultural extension is the application of scientific research and new knowledge to agricultural practices through farmer education.
2: Smarter Regulation

It is important that Tasmania’s regulatory system remains contemporary, is streamlined and able to respond to emerging issues, and is open to alternative regulatory approaches where appropriate.

Several submissions noted that small businesses, which make up a significant proportion of the Tasmanian agri-food sector, can be disproportionally impacted by regulation. The government has identified and implemented a range of legislative and policy reforms to improve competitiveness through the Red Tape Reduction Coordinator and Small Business Advocate. The latest Tasmanian Red Tape Audit Report confirms that over 100 red tape reforms have been made since 2014 to help make doing business in Tasmania easier.

Industry stakeholders raised various regulatory matters under the control of the Australian Government or statutory bodies such as employment awards and taxation. Where appropriate, these issues are being raised up through inter-jurisdictional bodies such as the Council of Australian Governments (COAG) Deregulation Taskforce and the Agriculture Deregulation Working Group.

Consultations with TasWater, TasNetworks and industry representative bodies highlighted opportunities to simplify and streamline the process for obtaining the development approvals required for water and power utilities in the state. In recognition of this issue, the Tasmanian Government recently announced its plan to introduce legislated timeframes for the permit process for energy, water and sewerage services.

Some submissions commented on the need to preserve the right to farm in Rural and Agriculture Zones. The Primary Industry Activities Protection Act 1995, sometimes referred to as the Tasmanian ‘right to farm’ Act, was reformed in 2016 to simplify and extend upon the right to farm nuisance protections for primary producers. The Tasmanian Government is also working on measures to ensure that better information is available to improve decision making where there are competing demands on land use.

As Australia’s only island state, Tasmania faces unique challenges in accessing both domestic and international markets. Several respondents noted the importance of the Australian Government’s Tasmanian Freight Equalisation scheme (TFES) for ongoing competitiveness, suggesting possible improvements to its criteria and claiming process.

The cost of energy was raised by many submissions as an innovation constraint. One submission identified on-farm power sharing through the use of National Meter Identifiers (NMI) as an opportunity for farmers to reduce energy costs, and also commented on the opportunity for government to make the integration of renewable energy as smooth as possible through appropriate policy settings.
Case Study: Power-sharing for farmers - energy regulatory amendments

Peer-to-peer trading is an approach which allows grid-connected parties to trade electricity. This can occur either directly (i.e. between two market participants who form a short-term contract), or indirectly between two participants who remain anonymous to one another and trade across a secure, auditable marketplace.

Currently the national energy market rules do not easily allow peer-to-peer trading, however, regulatory sandbox arrangements will assist in the development of trials. A regulatory sandbox is a framework in which participants can test innovative concepts in the market under reduced information and regulatory barriers allowing a clear pathway for conducting trials and a process for knowledge sharing. The framework is the responsibility of the Australian Energy Regulator.

Currently the Australian Energy Market Commission has a consultation process underway regarding proposed amendments for the national energy laws and rules. Tasmania has strongly supported the regulatory sandboxing reforms.

The Tasmanian Government, through the Red Tape Reduction Coordinator and Small Business Advocate, will continue to support a regulatory environment where regulations are proportionate, consistent, transparent and targeted.

Examples of current initiatives

• Introducing legislative timeframes for the permit approval process for water, energy and sewerage services.

• Focussing on providing Tasmanian businesses and households with the lowest regulated electricity prices in the nation.

• Working with the industrial hemp industry to explore options to support future growth and streamline regulation, following Tasmania’s lead in developing the state’s Industrial Hemp Act 2015 and national hemp in food reforms.

• Undertaking an analysis of the small scale agricultural estate with a view to drafting guidelines under Section 4 of the State Policy on the Protection of Agricultural Land 2009 in order to improve decision making where there are competing demands on land use.

• Supporting regulatory sandbox reforms at COAG Energy Council including potential power-sharing arrangements for farmers.
3: Investing in People

The skills and collective experience of Tasmania’s agricultural workforce are important factors influencing the competitiveness of the sector, and a number of submissions discussed the issue of labour supply and emerging skill gaps. In particular, submissions discussed the increasing use of digital technology in agriculture and the need for training in this area to avoid a major digital capability gap. Industry responses noted the importance of ongoing investment in agricultural education and the need to promote the attractiveness of agricultural careers throughout primary and high school. The need to attract and retain workers in regional areas through the provision of essential services to meet high seasonal demand was also raised.

The Vision for Vocational Learning and VET in Tasmanian Schools to 2030 intends that all learners will have access to high quality, customised, personalised and localised opportunities to support their career and life aspirations. The government’s Primary Schools to Primary Industries initiative, overseen by the Department of Education (DoE), returned agriculture to the school curriculum and gives students a clear education pathway, as well as a foundation in the skills required for a career in agriculture. Submissions discussed both the benefits of, and possible improvements to, the Tasmanian Agricultural Education Framework.

This year the government will roll out a campaign to raise the profile of Vocational Education and Training (VET) and increase awareness of employment and career opportunities available. The government is improving pathways to VET with students able to get a head start in their careers by undertaking ‘VET in Schools’ study, or opting for a school-based apprenticeship, all while studying for their TCE.

Packages of Learning is a new approach to keep individual students engaged with learning in years 9 and 10 and allowing them to explore new pathways to vocational education and employment. Each Package of Learning is aligned to a growth industry area in Tasmania including advanced manufacturing, agriculture, food and natural resources, architecture and construction, and tourism and hospitality.

Figure 2 provides a summary of the pathways in agricultural education in Tasmanian schools from Kindergarten to Year 12, including options for further study in Tasmania at TasTAFE, the University of Tasmania (UTAS) and professional development provided by industry.

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3 The Vision for Vocational Learning and VET in Tasmanian Schools to 2030 is available at: https://publicdocumentcentre.education.tas.gov.au/Documents/Vision for Vocational Learning and VET in Tasmanian Schools to 2030.pdf

4 Further information about the Packages of Learning program is available at: https://www.education.tas.gov.au/students/school-and-colleges/packages-of-learning/
Supporting the growth of agricultural apprentices and trainees is seen as a key to increasing the workforce, and the skills of that workforce. TasTAFE, DoE and UTAS are collaborating on the most effective utilisation of teaching farms and involving industry in those discussions and strategies. Freer Farm is undergoing a revitalisation supported by a strong educational strategy informed by industry.

Several submissions noted the need for life-long learning and ongoing professional development to improve the business, financial and technological literacy of farmers, suggesting better promotion of existing opportunities and greater flexibility in the delivery of training.

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5 TASC refers to the Office of Tasmanian Assessment, Standards and Certification.
Tasmania’s Sustainable Agri-Food Plan 2019-2023 details a range of initiatives supported by government assisting in workforce development including the Rural Cadetship Project, the Agricultural Workforce Development Project for the North West, the Blundstone Scholarship for students completing a Diploma in Agribusiness, dairy industry training, and programs delivered by Rural Business Tasmania and Tasmanian Women in Agriculture.

Submissions noted the critical role that industry plays in promoting the attractiveness of agricultural careers. They highlighted the need for skills and training to be driven by industry rather than government, and for industry to incentivise additional training with higher pay rates, noting that uptake of training opportunities is likely to be higher where the benefits of undertaking additional training are evident.

One submission commented on the assistance that business Enterprise Centres can provide in supporting the growth of value-added enterprises. The government recently announced a refreshed and broadened Enterprise Centres Tasmania Program to operate in seven regions across the state in which highly skilled and experienced business advisors offer a range of services including finance and accounting advice, planning and marketing, regulation, administration and human resource management.

Another submission noted the diversity of careers emerging in agriculture such as wine promotion and sales, hospitality and agri-tourism. The sentiment of a number of submissions is expressed in one comment received:

“Ongoing training and skill development must be industry-led to ensure that the appropriate skills and expertise are being adopted to position workers for success”.

The Tasmanian Government will continue to support the range of educational pathways to careers in agriculture, and will encourage ongoing professional development for primary producers to maintain competitiveness and help meet the existing and future needs of the agricultural sector and regional communities.

Examples of current initiatives

- Building the capacity of teachers to deliver agricultural education and promote careers in primary industries through the Tasmanian Agricultural Education Framework, including better linkages with industry.

- Supporting the development of a contemporary learning facility for agriculture students centred around Burnie’s Freer Farm. The Centre of Excellence will include TasTAFE course delivery plus partnership with the University of Tasmania.

- Encouraging safer farms through support of WorkSafe Tasmania measures such as the Safe Farming Tasmania Program, which helps businesses improve practices, reduce lost productivity due to incidents, and market themselves as employers of choice.

- Working with the Australian Government to support the development of the National Agricultural Workforce Strategy.

- Delivering small business training and advisory services through the broadened Enterprise Centres Tasmania program.
Opportunities in the agri-food sector do not come without risks, whether they are localised or due to global factors. The finalisation of this White Paper coincides with the unfolding events associated with the COVID-19 (coronavirus) pandemic. The social and economic impacts of this event are examples of the type of unforeseen challenges farmers and agribusinesses face that can significantly disrupt industries and markets.

Disruptions to export markets caused by events such as coronavirus highlight the risks associated with reliance on a small number of markets. In addition to supporting trade with key existing markets, the development of additional Free Trade Agreements by government and access to a more diverse range of international markets will help mitigate this risk. Through the *Tasmanian Trade Strategy 2019-25*, the Tasmanian Government is supporting trade logistics and access to new markets, building the export capabilities of Tasmanian businesses and showcasing Tasmania in priority markets.

Ongoing competitiveness will require farmers and agribusinesses to continue to identify, plan for and manage hazards and threats. Access to more accurate agronomic insights, forecasting and risk assessment and an ability to adapt to changing circumstances, together with the use of production tools that make yields less variable and minimise risks throughout the production chain will help the industry navigate hurdles for continued success.

Submissions noted the potential impact of actual or perceived food safety issues, or biosecurity incursions on Tasmanian food markets, brand reputation and social license. In many cases, Tasmanian products have unique access to lucrative international markets due to the island’s relative pest and disease-free status. Tasmania’s frontline biosecurity services are a key element of managing risk to maintain competitiveness and protect the agricultural sector.

One submission commented on the technology being trialled to help trace produce and manage food safety in supply chains:

> “Harvest management systems are being trialled by fresh produce growers as a way to maximise the efficiency of growing operations. Supply chain technology is being trialled to test the ability to measure and record factors like temperature, location, humidity and other variables to maximise transport efficiency.”
Financial risk and the ability of producers to manage debt and negotiate business viability hurdles was also raised during consultation. It was noted that a banking and funding system that is sympathetic to farm variability is needed.

The Tasmanian Government will continue to support industry in risk planning and reduction strategies as one of the most powerful tools to underpin the ongoing competitiveness of the sector.

Examples of current initiatives

- Protecting Tasmania’s agricultural industries from pest and disease incursions by implementing the state’s new Biosecurity Act 2019, reviewing the Tasmanian Biosecurity Strategy and implementing the Securing Our Borders initiative, which will provide an additional $2.6 million to frontline biosecurity services.

- Establishing the new Biosecurity Advisory Committee, an independent advisory body which will work with industry to help inform government’s approach to biosecurity.

- Recognising the value of relationships in existing markets, while continuing to broaden and diversify our markets through activities undertaken as part of the Tasmanian Trade Strategy, including trade missions that support opportunities in food and agribusiness.

- Contributing to national traceability reforms in agriculture under the auspices of the National Biosecurity Committee and the Agriculture Senior Officials’ Committee Deregulation Working Group to develop future traceability reforms that deliver reduction in red tape through the use of new technologies and system harmonisation.

- Legislating to provide farmers with a legal right to participate in mediation before creditors can take enforcement action under a farm mortgage.
5: Harnessing Natural Capital

Tasmania’s clean air, soil, water and energy are the foundation of a competitive agricultural sector. In order to grow the value of agriculture, an ongoing transition towards land use for higher value enterprises without putting unsustainable strain on natural resources, will need to occur. This will involve not only improving the efficiency with which inputs are turned into outputs, but also the careful management of our natural resources and reduction of waste.

Many submissions recorded strong support for the state’s ongoing investment in irrigation schemes that have helped to transform Tasmanian agriculture. Water is one of Tasmania’s natural advantages. Irrigated agriculture contributes more than 50 per cent of the value of the state’s agricultural production from eight per cent of the land, and water infrastructure is recognised by Infrastructure Australia as one of the four nationally-significant matters that have the capacity to materially improve national productivity.

Tasmanian Irrigation, a state-owned company, to date has developed 14 new fully operational irrigation schemes, in two tranches across the prime agricultural lands of Tasmania via a public-private investment model with the Australian and Tasmanian Governments and farmers who invest in water rights. A fifteenth scheme is currently under construction. Tasmanian Irrigation currently has the capacity to deliver over 135,000 ML of high security water at 95 per cent reliability servicing over 1,000 farming businesses. A third tranche of irrigation development potentially involving up to 10 additional irrigation schemes is currently under planning and development by Tasmanian Irrigation. In addition to this, over the last 10 years there has been considerable private sector investment in developing local or farm scale irrigation.

Some submissions noted that there is a need to continue to focus not only on the establishment of irrigation schemes, but also on its efficient water use and mitigation of potentially negative environmental consequences such as erosion, salinity and nutrient runoff.

It is widely recognised that trees can deliver increased primary production productivity while simultaneously delivering biofuel, improvement in water quality and efficiency, improving the carbon balance and providing biodiversity benefits. A well-sited shelterbelt can also reduce wind speed which affects the rate of fire spread. Strategically growing, harvesting and replanting trees in a primary production landscape can be a win-win for the environment, society and landowners.
Some submissions provided specific suggestions to help farmers improve competitiveness while ensuring sustainable use of natural resources. These included promotion of the role of private forests in developing productive agricultural systems, support for programs that raise farmer awareness of environmental issues, integration of environmental management with farm business models such as improved nutrient and effluent management, improved water quality and riparian management, improved energy efficiency and reduced greenhouse gas emission intensity.

**Case Study: Developing a Rural Water Use Strategy**

Water is the lifeblood of Tasmanian agriculture, and the Tasmanian Government is working with farmers, irrigators, rural communities and other stakeholders to develop a Rural Water Use Strategy.

The Strategy will guide the state’s future water management arrangements to ensure integrated, fair and efficient regulation of the state’s water resources. This will help deliver sustainable outcomes for irrigators, rural communities and the environment, and maintain Tasmania’s competitive advantages in a changing climate.

The final Rural Water Use Strategy document is due for completion by the end of 2020. When complete, the Strategy will set the direction for the rural water sector for the next few decades. This will underpin the sustainable development of the state’s water resources to support an increase in irrigated agriculture and improve the prosperity of rural communities.
The Tasmanian Government will continue to support the sustainable use and management of our soil, water and other natural resources as this underpins farm productivity and the agricultural industry’s own efforts in meeting the expectations of consumers and markets about the attributes of the products they produce.

**Examples of current initiatives**

- Planning for Tasmania’s future infrastructure needs through development of Tasmania’s Draft 30-Year Infrastructure Strategy including intergenerational projects in the areas of irrigation, transport and freight.
- Progressing Pipeline to Prosperity or Tranche 3 irrigation schemes. $170 million in partnership with the Australian Government is committed to progress the first phase of at least the first five irrigation schemes. The total proposed 10 irrigation schemes in this tranche will provide an additional 78,000 megalitres of water and inject an estimated $114 million each year into the sector, and economy more broadly.
- Tackling weeds with the $5 million Weed Action Fund.
- Promoting the benefits of integrating native and farm forestry on private land as a means of increasing farm productivity.
- Supporting increased funding to the three regional Natural Resource Management (NRM) organisations and Landcare to help ensure sustainable production and underpin our brand – including the $2 million investment into the Landcare Action Grants and the *Cows out of Creeks Program*.
- Recognising the value of private forests by starting work on their inclusion in future editions of the *Tasmanian Agri-Food Scorecard*.
- Implementing the *State Policy on Water Quality Management 1997* which actively encourages sustainable water recycling and reuse, and releasing the final *Rural Water Use Strategy* by the end of 2020.
- Making it easier and faster for farmers and landowners to undertake fuel reduction burns to reduce their bushfire risk through red tape reduction, and the addition of three specialist Aboriginal ranger positions to draw on their fuel reduction expertise and maintenance of landscape through cultural burning.
6: Capitalising on our Brand

What the state’s agriculture sector lacks in terms of scale and cost to get products to market it makes up for by providing differentiated premium produce into markets that value the ‘quality’, ‘clean and green’ and ‘GMO-free’ brand attributes associated with Tasmania. The *Tasmanian Trade Strategy*\(^6\) articulates Tasmania’s export priorities and focuses efforts on those markets and activities that offer the greatest potential returns.

The *Tasmanian Trade Strategy Annual Action Plan* sets out the initiatives planned each year to help Tasmanian businesses grow trade and expand their presence in international markets. It encompasses multi-sector initiatives that target all Tasmanian exporters, as well as sector-specific activities, and is delivered by the Tasmanian Government in conjunction with industry partners.

Industry-led initiatives such as SeedLab Tasmania\(^7\), FermenTasmania\(^8\) and the Tasmanian Food Cluster\(^9\) have begun to provide additional help for Tasmanian farmers and agri-food businesses taking their produce to markets beyond the farm gate in a way that capitalises on Tasmania’s Brand.

**Case Study:** The Tasmanian moratorium on Genetically Modified Organisms (GMOs)

Tasmania’s GMO-free status is an aspect of the Tasmanian Brand, offering a marketing advantage for our high quality, high value primary industries. In November 2019, the Tasmanian moratorium on the release of GMOs into the environment was extended for a further ten years following a comprehensive public review and market analysis. The extension of the GMO moratorium enables farmers, agribusinesses and food businesses to confidently invest in their own marketing and market development activities to sell their products and to demonstrate the value of Tasmania’s GMO-free status, and also provides the state’s trading partners with assurance in the ongoing stability of Tasmania’s GMO-free provenance.

For further information, refer to the *Tasmanian Gene Technology Policy (2019-2029)*\(^10\).

Several submissions noted a role for government in further promotion of provenance branding, certification and transparency for Tasmania’s agri-food sector. Brand Tasmania is the custodian of the Tasmanian master brand and promotes the uniqueness of the state, its culture and its products.

\(^8\) [http://www.fermentasmania.com/](http://www.fermentasmania.com/)
\(^9\) [https://tasfoodcluster.org.au/](https://tasfoodcluster.org.au/)
Case Study: The Tasmanian Brand at home and abroad

Our state’s reputation is strengthened by the unique provenance stories behind each Tasmanian product. These stories are based in people and culture, and in place. Every destination has products. We seek to answer the question: why are Tasmanian products so special?

Collectively, these culturally specific narratives form part of the state’s place-brand and regional identity. Increasingly, the distinctive stories of Tasmanians and the food and beverages they produce are being used to promote the state as a food destination, with premium agri-food production coupled with an emerging agri-tourism industry.

Farm-to-plate experiences, farm stays and farm gate sales, retail outlets at chocolate and cheese factories, craft breweries, cider mills, distilleries and cellar door sales, pick-your-own fruit experiences, farmers’ markets, as well as food and wine festivals are growing. Visitors can create their own experiences through cooking schools, fermentation classes and beer making courses.

All of these opportunities strengthen the Tasmanian economy by providing regional jobs and supporting the sector’s competitiveness as they enable producers to vertically integrate, add value to products, and create agri-tourism experiences to attract visitors. The Tasmanian Brand is also important for raising confidence and pride within the Tasmanian agri-food sector, to encourage more young people to choose it as a career and to focus on high-quality products and experiences.

There is no doubt that Tasmania’s reputation and the provenance of our products and services attracts visitors to the state and our growing agri-tourism experiences strengthen the Tasmanian Brand internationally. The Tasmanian Government’s Draft Agri-Tourism Position Paper sets out the approach government is taking to support these growing agri-tourism opportunities.
Examples of current initiatives

- Implementing the *Tasmanian Trade Strategy* to help Tasmanian agri-food businesses enter new markets.
- Growing Tasmania’s agri-tourism industry and on-farm experiences as part of our visitor experience.
- Exploring the development of a digital Tasmanian Showcase for Brand Tasmania and its partners to tell the stories of the state’s producers, growers and creators.
- Exploring opportunities to enhance trust in the authenticity and quality of Tasmanian products through the Smart Trademark initiative, delivered through chain-of-custody technology which ties Blockchain\(^\text{11}\) capability to provenance storytelling.
- Encouraging producers in the state to become Tasmanian partners with Brand Tasmania to access support for their brand and marketing efforts, and explore opportunities for local produce to be appreciated in Tasmania by locals and visitors alike while contributing to the economic prosperity of our regions.
- Supporting businesses to strengthen trade with international and mainland markets through the *Accelerating Trade Grant Program* which provides assistance for market research, business matching, cluster support, supply chain improvement and promotional activities.

\(^{11}\) A brief explanation of blockchain technology is available at https://digitalready.tas.gov.au/blog/blockchains/
7. Climate-Ready Agriculture

Stakeholders consistently highlighted that climate change and its effects are a significant factor impacting agricultural competitiveness.

Tasmania is a genuine leader in responding to climate change. With the recent announcement of the first Tasmanian Liberal Minister for Climate Change, the Premier of Tasmania, the government recognises that helping industry capitalise on opportunities and manage risk in a changing climate will be a key priority of government.

The Tasmanian Government has committed $3 million to support the delivery of Tasmania’s Climate Change Action Plan 2017-2021 and this investment builds on over $400 million already invested by the Tasmanian Government to support action on climate change, including a significant investment in irrigation and infrastructure.

Tasmania’s greenhouse gas emissions have declined by 95 per cent from 1990 levels. The latest data (2017) shows Tasmania’s agriculture sector contributed around 27 per cent of Tasmania’s emissions. Enteric fermentation was the largest source of emissions from agriculture in 2017 followed by agricultural soils, manure management and liming. Agriculture is vulnerable to the projected impacts of climate change and the degree to which Tasmanian agriculture adapts to climate change will have a significant impact on its growth trajectory.

The government recognises that reducing agricultural emissions is complex and any emissions mitigation strategies must be balanced carefully to ensure that they can create opportunities for industry as well as supporting adaptation to improve farm productivity.

Many submissions held a general view that, in the context of a changing climate, the government needs to focus on supporting the development of long-term resilience and preparedness initiatives in rural communities, rather than reactively providing recovery assistance during or following extreme events such as droughts.

Energy use in agriculture is a key part of fostering long-term enterprise resilience in a changing climate. Renewable energy generation accounts for around 90 per cent of our total electricity supply and the state is on track to be 100 per cent self-sufficient in renewable energy by 2022. The government recently committed to a further expanded renewable energy generation target.

The government is assisting farmers to manage energy costs and efficiently use energy. For example the On-Farm Energy Audit and Capital Grant Program provided farmers with matched funding to undertake an on-farm energy audit. Funding was also available to purchase new energy-saving or energy efficient capital infrastructure.
Investment in irrigation to ensure high-surety water is another proven way of reducing the impacts of a changing climate in Tasmanian agriculture. When fully implemented, Tasmanian Irrigation’s Pipeline to Prosperity, or third tranche of public-private irrigation schemes, will deliver 10 proposed irrigation schemes with the potential to provide an additional 78,000 ML of high security water.

One submission noted that the expansion of irrigation has seen a shift in risk profiles from climate-related risks to financial risks associated with the capital investment required in on-farm irrigation infrastructure and water.

The Tasmanian Government will continue to support agricultural producers to reduce their emissions, adapt to, and be prepared for the impacts of climate change and leverage opportunities for growth.

**Examples of current initiatives**

- Reviewing the *Climate Change (State Action) Act 2008* (Tas) and developing a new *Climate Change Action Plan* for post 2021. This includes undertaking an analysis of the pathway Tasmania would need to take and the impacts on industry and jobs to achieve a zero net emissions target prior to 2050, including consultation with industry, businesses and the community.

- Targeting a new renewable energy goal of 200 per cent of our current needs by 2040 to double our renewable energy generation.

- Providing $50 million in support over ten years to fast track renewable hydrogen industry development in Tasmania.

- Implementing the *On-Farm Energy Audit and Capital Grant Program* and the *Aurora Energy Advocate service*.

- Supporting the TasNetworks *empPOWERING farms* trial project which, following a recent review of irrigation electricity tariffs, aims to work with agricultural customers on their energy management.

- Developing real-time decision support tools including those available through LISTMAP to assist the agricultural sector understand and manage the risks of a changing climate.

- Providing primary producers with access to state-based drought support programs during extreme events that promote longer-term resilience, including the Rural Financial Counselling Service, farm business management training, hardship support through the Tasmanian Rural Relief Fund, community outreach (Rural Alive and Well), farm planning tools for managing in-drought and rebuilding farm productivity post-drought in a changing climate.

- Supporting the *Fert$mart* program in partnership with DairyTas to help farmers improve the efficiency of fertiliser use to reduce emissions and costs.
Emerging Priorities

1: Circular Economy and Value-Adding

Circular economies do not use a traditional linear model of “take” (resources), “make” (products), and “dispose” (waste). Instead they aim to maximise the value and the use of materials and resources at every stage of the life of a product or material. Closing agri-food resource loops to move towards zero waste and improve profitability and sustainability is an emerging priority for Tasmania. An illustration of how value can be derived from waste products is provided in Figure 3.

*Figure 3: An example of value-adding in a circular economy.*
While there is growing community interest in ways to reduce household waste, there is also potential to reduce on-farm waste and capture value from material that would otherwise be discarded. There is a growing body of evidence that moving to a circular economy can help protect businesses from fluctuating resource commodity prices as well as providing a more stable operating environment for manufacturers, retailers and consumers. Reducing waste and increasing its use as a valuable resource, is likely to lead to increased innovation and a more creative, robust and productive economy.

One submission recommended that the government develops a Circular Economy Action Agenda for Tasmania. Several submissions noted examples of circular economies already underway in Tasmania including the production of commercially available compost from tree prunings, the production of cider from secondary fruit and the production of vodka and gin from sheep cheese whey. Other submissions raised the possibility of recovering and recycling nutrients from sewage treatment plants, and the use of more input-efficient crops and animals.

Another submission noted that at present it is often uneconomical for waste generated on farm to be converted to other forms and suggested that public investment in research is needed to help develop cost-effective technologies which enable waste to be converted to products which can provide an economic return for farmers.

DPIPWE has prepared a Draft Waste Action Plan which sets out a broad framework for waste management and resource recovery in Tasmania and is underpinned by a set of tangible actions.

The Tasmanian Government will work with the agricultural sector to identify options to increase the value of agricultural produce by value-adding, obtaining as much use out of products and materials as possible and reducing the amount of waste generated by the sector.

Additional Initiatives

- The government will introduce its Final Waste Action Plan during 2020 and will introduce a Container Refund Scheme by 2022.
- The government will work through the Council of Australian Governments (COAG) to implement a ban on the export of waste glass, tyres, paper and cardboard and plastic, while building Australia’s capacity to generate high value recycled commodities.
- The government will continue to support Fermentasmania through the Office of the Coordinator General to provide opportunities which add value to waste products and create premium foods and beverages that support the Tasmanian Brand.
2: Digital Transformation

Integrating digital technology across the agri-food supply chain will help agri-food businesses to thrive in a technology-enabled world. Agri-tech developments such as sensing technologies, robotics, big data, the Internet of Things\(^\text{12}\) and cloud computing can rapidly increase farm productivity and improve efficiency and profitability across the value chain.

Tasmania’s Digital Transformation Strategy identifies a number of major actions for our digital future as the community, businesses and government take critical steps towards digital maturity.

Infrastructure constraints were identified in areas such as access to high speed broadband. A repeated theme across many submissions was the need to encourage investment in digital technology to build upon and protect provenance claims relating to Tasmanian products and the Tasmanian Brand. Others noted that produce is often consigned in bulk and subject to co-mingling within the supply system. Policy that enhances product identification and traceability was encouraged so that Tasmanian producers can ensure they are not inadvertently implicated in food safety and/or biosecurity incidents.

The use of precision agriculture techniques involving proximal, drone and satellite sensors for digital soil mapping, measurement of soil moisture content, assessment of crop health and weed detection also presents opportunities for increased competitiveness.

A number of agricultural spray contractors in Tasmania expressed an interest in using Remote Piloted Aircraft (RPA) or drones to apply agricultural chemicals by boom spray on crops and forestry plantations, and by spot spray for use on dam walls and rugged terrain.

The Tasmanian Agricultural and Veterinary Chemicals (Control of Use) Act 1995 specifically excludes RPAs in the definition of an aircraft and there has not been appropriate legislation to license and control their use for spraying chemicals. However, under this legislation it is possible to issue a permit, if appropriate, to apply agricultural chemicals using an RPA.

Whilst licenses or permits for boom spray applications require more information on spray distribution, government has worked with industry on spot spraying for weeds in rugged terrain. This has been deemed to be of acceptable risk and approval has been given to provide permits for this purpose. To date, one permit has been issued for the application of agricultural chemicals on dam walls and other potentially hazardous areas using an RPA.

This is an example of government and industry working together on regulation to take advantage of new digital technologies.
One submission noted that there is a strong interest from industry in robotics across perennial horticulture in order to reduce reliance on seasonal labour for harvesting and increase the efficiency of other manual operations.

As industry takes the lead on developing digital technologies for precision agriculture, the Tasmanian Government helps promote developments in this area through support for the Tasmanian Agricultural Productivity Group annual Precision Farming Expo and Tasmanian Spatial Information Council industry events which raise awareness of on-farm application of these techniques.

The Tasmanian Government will assist the agricultural sector and its support services to address digital skill gaps and share information and technology solutions to enable the sector to implement more efficient practices that improve agricultural productivity.

Additional Initiatives

- The government, through Digital Ready for Business, will work with industry to improve awareness of the benefits of digital technologies such as blockchain that can be used to improve product traceability for biosecurity, food safety and brand protection purposes.

- The government, through the Office of the Coordinator General, will support a Tasmanian Agri-tech Accelerator program which will help advance the development of local startups and businesses, and also attract new cutting edge and hi-tech startups to Tasmania.

- The government will continue to work with the Tasmanian Spatial Information Council, Tasmanian Agricultural Productivity Group and other industry bodies to address digital skill gaps and promote digital technology solutions to improve agricultural productivity and efficiency.

- The government will continue to support the development of tools and information to help with farmer decision making including for example additional enterprise suitability maps on the Land Information System Tasmania (the LIST) to support better pasture management and farm productivity.
3: Responsive to Change

Looking to the future, Tasmanian agriculture can continue to be competitive in a rapidly changing world through generating ideas to solve problems and capture value, as well as keeping pace with developments happening globally. Harnessing knowledge and experience requires connections and collaboration.

One submission highlighted that a disconnected agricultural community will not support the goal of reaching a $10 billion industry, and suggested that identifying common challenges and opportunities and bringing key players together to drive solutions and economic growth was the way forward.

‘Responsive to Change’ captures this concept of co-innovation and collaboration across industries and sectors and the coming together of virtual or physical hubs of agri-food excellence. It also reflects the dynamic nature of industry opportunities and, equally, the speed at which business threats or market disruptions can present themselves. Industry partners indicated that governments need to be responsive to change to create the environment for industry to survive, thrive and unlock new opportunities.

In the short term, as significant challenges arise, the Tasmanian Government responds by supporting the Tasmanian community and agribusinesses in meeting these challenges as it has done in the past for events such as bushfires, floods, and the presence of Queensland Fruit Fly, and as it continues to do through the coronavirus pandemic.

In the long term, this White Paper sets a robust framework for government to work with the agricultural sector to manage risks, and anticipate change in order to survive disruptive events. The framework can also guide government action to support agricultural competitiveness in an environment where industry is recovering from the effects of coronavirus or future emergency events.

The Tasmanian Government will engage with the agri-food industry and facilitate cross-sectoral connections to raise up new ideas, explore emerging opportunities, and respond rapidly to significant challenges.
Additional initiatives

- The government will work with industry and TIA to deliver an agricultural innovation forum with leaders and innovators in the agri-food sector to increase collaboration and define future priorities for innovation.

- The government will draw on its $3 million Agricultural Innovation Fund\(^1\) to address specific industry-initiated priority research projects with a cross-sectoral impact.

- Through the Strategic Industry Partnership Program the government will co-invest with industry peak bodies and other organisations to promote collaboration and cross-sectorial connections for growth across the agri-food sector.

- The government will work with the agri-food sector to produce an annual Agribusiness Insight Report that captures key indicators, emerging opportunities, threats and trends to inform industry development and government policy. The insight report will complement the existing Tasmanian Agri-Food Scorecard.

## Summary of Tasmanian Government Policy Responses

### FOCUS AREAS

<table>
<thead>
<tr>
<th>Focus Area</th>
<th>Description</th>
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<tbody>
<tr>
<td>Research and Innovation</td>
<td>The Tasmanian Government will continue to prioritise Tasmania’s place in world-leading Research, Development and Extension (RD&amp;E) through our Growing Tasmanian Agriculture – RD&amp;E for 2050 White Paper initiatives. The government will partner with industry and TIA to provide the necessary infrastructure and encourage investment in RD&amp;E which is focused on increasing the sustainable growth and productivity of Tasmanian agriculture and food.</td>
</tr>
<tr>
<td>Smarter Regulation</td>
<td>The Tasmanian Government, through the Red Tape Reduction Coordinator and Small Business Advocate, will continue to support a regulatory environment where regulations are proportionate, consistent, transparent and targeted.</td>
</tr>
<tr>
<td>Investing in People</td>
<td>The Tasmanian Government will continue to support the range of educational pathways to careers in agriculture, and will encourage ongoing professional development for primary producers to maintain competitiveness and help meet the existing and future needs of the agricultural sector and regional communities.</td>
</tr>
<tr>
<td>Managing Risk and Biosecurity</td>
<td>The Tasmanian Government will continue to support industry in risk planning and reduction strategies as one of the most powerful tools to underpin the ongoing competitiveness of the sector.</td>
</tr>
<tr>
<td>Harnessing Natural Capital</td>
<td>The Tasmanian Government will continue to support the sustainable use and management of our soil, water and other natural resources as this underpins farm productivity and the agricultural industry’s own efforts in meeting the expectations of consumers and markets about the attributes of the products they produce.</td>
</tr>
<tr>
<td>Capitalising on our Brand</td>
<td>Through Brand Tasmania, and the implementation of the Tasmanian Trade Strategy, the Tasmanian Government will continue to tell the Tasmanian story with clarity and power and use it to unify our efforts to bring more value to everything Tasmanian - including what the agricultural sector does.</td>
</tr>
<tr>
<td>Climate-Ready Agriculture</td>
<td>The Tasmanian Government will continue to support agricultural producers to reduce their emissions, adapt to, and be prepared for the impacts of climate change and leverage opportunities for growth.</td>
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### EMERGING PRIORITIES

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</tr>
<tr>
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<td>The Tasmanian Government will assist the agricultural sector and its support services to address digital skill gaps and share information and technology solutions to enable the sector to implement more efficient practices that improve agricultural productivity.</td>
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<tr>
<td>Responsive to Change</td>
<td>The Tasmanian Government will engage with the agri-food industry and facilitate cross-sectoral connections to raise up new ideas, explore emerging opportunities, and respond rapidly to significant challenges.</td>
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</table>
Next Steps

The Tasmanian Government will work with agribusiness, farmers, agricultural industry groups and other stakeholders to develop specific policies, programs and projects to action the directions in this White Paper. Public reporting on the government’s actions will be through regular updates to Tasmania’s Sustainable Agri-food Plan.

A review of the White Paper will be undertaken in five years’ time (by December 2025).
Appendices

Appendix A – The Tasmanian Agricultural Context

This appendix is from the Competitiveness of Tasmanian Agriculture for 2050 Discussion Paper which is available at https://dpiw.tas.gov.au/agriculture/competitiveness-of-tasmanian-agriculture-for-2050 with some minor amendments.

Tasmanian Agricultural Value

Agriculture is a pillar of the state’s economy, with a gross value of $1.60 billion in 2017-18. Dairy was the state’s most valuable individual agricultural industry with a farm gate value of $429 million. The pasture-based systems employed in the state result in one of the lowest costs of production in the world. Other major pasture-based industries included beef ($329 million), sheep meat ($119 million) and wool ($117 million). Horticulture was another major contributor to agricultural value, including vegetables such as potatoes, carrots and onions ($251 million) and fruit such as berries, cherries and apples ($197 million). Broadacre production, included crops such as poppies and seed crops, accounts for $152 million at the farm gate.

Additional value was added to Tasmanian food production through local processing and packing to generate a processed food value of $3.24 billion for land-based agriculture. In 2017-18, major value-added industries included chocolate, with a processed food value of $594 million; beef ($545 million); dairy ($532 million); potatoes ($435 million); beer ($169 million); and wine ($146 million).

Land-based agri-food products accounted for 16.5 per cent of Tasmanian international merchandise exports in 2017-18, with a value of $605 million. Beef was the highest value food export at $210 million, with major markets in the United States and Japan. Other significant land-based agricultural exports included dairy ($104 million), chocolate ($50 million), cherries ($39 million) and lamb and mutton ($31 million).

Tasmanian Agricultural Growth

Despite challenges the broader Tasmanian economy is currently experiencing the fastest pace of growth in ten years. Tasmania was the only State or Territory (apart from Queensland) where value added in agriculture grew at all in 2017-18. Strong commodity prices have contributed to a positive outlook over the past few years, with the Rabobank Producer Sentiment quarterly survey regularly indicating that Tasmanian farmers are some of the most optimistic in the nation. This confidence has continued to fuel investment.

In 2014 a target was set for growing the farm gate value of the agriculture sector in the state tenfold to $10 billion per year by 2050 (AgriVision 2050). It was recognised that to achieve this goal our producers and processors would need to ‘Grow’ and ‘Make’ more, not just in terms of volume but in value. Together we would also need to ‘Protect’ through upholding biosecurity, product integrity, food safety and animal welfare. Finally, it was recognised that our agri-food businesses were contributing to tourism through cellar doors, farm shops, farmer’s markets and linked food and beverage tasting trails reinforcing Tasmania’s brand as a premium food producer and the ‘Experience’ of Tasmania as a food destination. ‘Grow, Make, Protect and Experience’ encapsulated the priorities across the agri-food value chain in progressing towards the AgriVision target.
The state remains on track to achieve this growth target, however meeting this goal will require a growth of more than double the rate experienced over the 20 years to 2013, as shown in Figure A1. Therefore, it is essential that the state has the right settings for businesses to operate.

**Figure A1 – AgriVision 2050 Growth Rate Progress 2017-18**

Tasmania produces a net surplus of many food products, meaning that the amount of food produced exceeds local requirements. In addition, the state’s farmers produce a sufficient variety of fruit, vegetables and protein sources to meet local dietary requirements. The majority of processed Tasmanian food products are sold into Australian markets, and in some product categories such as frozen vegetables and salmon, Tasmania is a critical supplier nationally, contributing to national food security. Figure A2 summarises Tasmania’s production of several key food categories, illustrating the net production surplus for these categories.
Figure A2 – Tasmanian production of key agri-food products. Local consumption statistics have been used to estimate the proportion of total Tasmanian production in excess of the total amount required to meet Tasmanian consumption.
Appendix B – Competitiveness in Agriculture

With some minor updates, this text has been taken from the Competitiveness of Tasmanian Agriculture for 2050 Discussion Paper which is available at https://dpipwe.tas.gov.au/agriculture/competitiveness-of-tasmanian-agriculture-for-2050.

According to the Productivity Commission, agricultural competitiveness is about advantage in markets. In its broadest terms, agricultural competitiveness means being able to profitably produce an agricultural product which is cheaper than products of the same quality, or is higher in quality or perceived value than products of the same price, relative to competitors. This results in the agricultural product being purchased in preference to others in the market.

As competitors are always working to gain an edge in the market, maintaining or improving competitiveness requires constant productivity improvements and innovation. At the same time, continuing productivity and profitability depends on good risk management and sustainable farming practices. While the concept of competitiveness is relatively simple, the range of factors influencing competitiveness (such as interest rates, skilled workforce or quality of physical inputs) are large and complex.

Changes in the national and global economy, availability of natural resources, market and consumer preferences, the adoption of technology, labour and skills, and the investment environment are all factors that influence the competitiveness of Tasmanian agriculture at every level from the individual farmer to consumer across the entire sector.

Economic Influences

Increasingly Tasmanian producers are creating extraordinary food and beverages and selling them into discerning markets where the quality of the state’s products are recognised and valued and they therefore command a superior price. However, a significant proportion of Tasmania’s agricultural output is produced under contract and sold into commodity markets and so competitiveness is directly affected by global considerations such as trade policies and geopolitical factors.

For example, Tasmania’s export-oriented industries are affected by exchange rates, with a weaker Australian Dollar increasing the competitiveness of Tasmanian exporters in global markets. The implementation of trade agreements with China and Japan have seen tariffs fall for Tasmanian beef exports in recent years, and through increased demand from the Middle East, high prices have been achieved for sheep meat.

Global trends such as the expansion of Asian economies are currently providing a source of demand for Tasmania’s premium products such as dairy, beef and fruit. This trend is set to continue in future decades. To maintain our competitive advantage in global markets, it will be necessary for Tasmanian farmers and agribusinesses to manage risks associated with exposure to international markets and changes in global economic conditions.

Natural Resources

Tasmania’s pure air, soil and water, relative freedom from pests and diseases and clean energy production provide the building blocks for the state’s primary industries. Tasmania’s agricultural estate was approximately 1.4 million hectares in 2017-18, representing around 20 per cent of the state’s total land area and comprising 2,235 farms. In order to maximise competitiveness in this relatively small geographical area, it will be necessary to grow both the output and value of agricultural production.

Sustainable intensification will be an important component of growth, particularly in managing limited natural resources and responding to an increasingly variable climate.
A key strategy that encompasses both sustainable intensification and responding to climate variation involves investment in irrigation infrastructure. Fourteen new fully operational schemes have been established by Tasmanian Irrigation, a state-owned company, with a fifteenth due to become operational in 2020. Availability of water has allowed agri-food businesses to invest with certainty in the production of higher value crops and in protected cropping systems. In 2017-18 while only 8 per cent of land used primarily for agricultural production was irrigated it produced 52 per cent of the gross value of Tasmania’s agriculture.

The need to intensify food production must be balanced with increasing urban and residential development, community preferences and environmental concerns, and be consistent with other policies and legislation on land use. 

**Market and Consumer Preferences**

The expectations of markets and consumers are constantly evolving, with changing dietary preferences, greater demands for safe, nutritious, and ethical food, and increased appreciation of food provenance. Increased discretionary income in emerging economies is enabling consumers in international markets to be more discriminating in their food choices.

Tasmania has the opportunity to capitalise on these changing preferences through its recognisable brand based on a reputation for premium, clean, green, and safe products. As a relatively small agricultural producer, the state has been able to compete in national and international markets by producing high-quality, niche and premium food and beverage products. An important part of improving the competitiveness of Tasmania’s agriculture will be continuing to build on this reputation, and in identifying further opportunities to value-add locally. Brand Tasmania is the custodian of the Tasmania master brand and promotes the uniqueness of the state, its products and its culture.

Policy settings that have helped underpin the Tasmanian Brand include strengthening organic food production, ensuring the safety of Tasmanian food and water supplies, maintaining the ban on the use of hormone growth promotants in beef and a moratorium on the release of Genetically Modified Organisms (GMOs) in Tasmania since 2001.

**Adoption of Technology**

Technology has provided a means of increasing agricultural productivity throughout history, and readiness to adopt new technologies in areas such as robotics, precision farming, automation, data analytics and gene technologies will impact strongly on the competitiveness of Tasmanian agriculture.

For example, the use of sensor technology has many applications in agriculture. Sense-T has led a range of projects in this area including the development of apps to assess weather and disease threats in vineyards, identification of improvements in potato storage, predictions of pasture growth, and sensors to inform irrigation decisions.

Analysis of large soil and climate datasets, combined with mapping technology, has seen the development of Enterprise Suitability Mapping tools that help producers to make decisions, manage resources, and ultimately to be more resilient.

Breeding programs that use scientific techniques to identify and select for genes responsible for important agricultural traits have the potential to deliver benefits to the local environment and enhance agricultural competitiveness. For example, the Tasmanian Institute of Agriculture (TIA) is currently focusing on developing waterlogging tolerance in barley for commercial varieties with the use of marker assisted selection (MAS).
Labour and Skills

At the time of the most recent ABS census in 2016, there were 7,847 people employed in Tasmanian agriculture, representing around 3 per cent of the Tasmanian workforce. Major areas of employment included sheep, beef cattle, grain and dairy cattle farming. Expansion of irrigation schemes and the development of intensive horticultural enterprises have seen rapid increases in the number of people employed in fruit production.

Securing labour is a significant challenge to the competitiveness of the sector. The projected employment outlook for the state for the period to May 2024 indicates slow growth in overall employment suggesting that challenges in attracting people to regional areas for work may continue. This is likely to have the greatest impact on industries such as fruit production which are particularly dependent on seasonal workers.

The skill profile required for agricultural work is changing throughout Australia. An increased focus on technology has resulted in fewer people employed in routine manual jobs, but also has the potential to attract interest and participation from non-traditional entrants to agriculture.

Investing in agricultural education is a key part of ensuring that the workforce is equipped with the necessary skills to obtain employment in the sector. Food and Fibre Production is part of the Australian Curriculum Technologies learning area, and the Tasmanian Government has developed agricultural education resources that are available to all schools. The Tasmanian Agricultural Education Framework takes a coordinated partnership approach to underpin agricultural education programs, from pre-school to Year 12 and pathways into undergraduate and post-graduate studies through the TAFE and TIA.

The Investment Environment

To ensure that Tasmanian agriculture continues to grow sustainably and remains competitive, investment from both private and public sources is essential.

There has been strong private investment from both domestic and international sources in Tasmanian agricultural industries that offer strong financial returns or supply stability. For example, the Tasmanian wine industry represents only a small portion of the Australian production by volume, but the level of investment is well above the Australian average in percentage terms. Investment is also strong in the dairy industry, with climate change forecasts pointing to a long term and profitable future for both Tasmanian dairy farms and the Tasmanian agricultural sector more generally provided businesses continue to adapt.

Private debt is an important source of funds particularly for family-owned farms. While the Royal Commission into Misconduct in the Banking, Superannuation and Financial Services Industry has created a more conservative rural lending environment, Tasmanian farmers remain confident with strong ongoing investment, particularly in irrigation infrastructure.

In terms of public funding, Tasmania is home to a diverse and substantial science research sector, which attracts around $500 million in investment annually. The government has invested significantly in TIA as the government’s preferred supplier of publicly funded agricultural research, development and extension (RD&E) services. This funding includes $3 million towards the establishment of an Agricultural Innovation Fund for specified industry-aligned priority research programs. This fund allows the government to invest strategically in innovative RD&E projects that capitalise on opportunities, and respond to immediate threats.

The AgriGrowth Loan Scheme has been established as a means of investing public funds into agri-food businesses with a strong business case but low equity.
Appendix C – Tasmanian Government Strategies and Plans

Tasmania’s Sustainable Agri-Food Plan 2019-23:

Growing Tasmanian Agriculture Research, Development and Extension for 2050 White Paper:

Tasmanian Trade Strategy 2019-2025:

Tasmanian Trade Strategy Annual Action Plan 2019-20:

A Strategic Growth Plan for the Tasmanian Forests, Fine Timber and Wood Fibre Industry:

Tasmanian Agricultural Education Framework:

Tasmanian Red Tape Reduction Audit Report 2019-20:

Draft 30-Year Infrastructure Strategy:

Climate Action 21: Tasmania’s Climate Change Action Plan 2017-2021:

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