Appendix 3 Discussion paper and literature review

TASMANIAN FRUIT AND VEGETABLE INDUSTRY TASKFORCE

LITERATURE REVIEW AND DISCUSSION PAPER

APRIL 2014

Prepared by the Tasmanian Fruit and Vegetable Industry Taskforce Secretariat.

Contents

1. Introduction

The Coalition's Economic Growth Plan for Tasmania—August 2013 committed the Coalition Government to creating a Fruit and Vegetable Industry Taskforce focussing on the growth of the fruit and vegetable sectors. The Taskforce will develop an industry-led plan to promote competitiveness, investment and jobs growth in these sectors.

The terms of reference prescribe the scope of the taskforce; 'The Taskforce will review existing work, draw conclusions and develop a unified and agreed plan for the Tasmanian fruit and vegetable industries to:

- increase grower returns and reduce their costs;
- increase competitiveness, investment and jobs growth across the supply chain; and
- develop domestic and export markets.'

Tasmania is an important producer of fruit and vegetables—mainly potatoes, onions, carrots, cherries and other stone fruit, pomefruit and berries. In 2011–12, the gross value production of fruit and nuts in Tasmania was $100.8 million, vegetables $213.4 million and nursery production (nurseries, cut flowers and cultivated turf) $28.4 million (ABS 2013). Tasmania is also an important producer of the special crops poppy and pyrethrum.

In contrast to other states, exporting and direct sales to processors are the predominant sales channels for fresh produce. For example, in 2011–12, an estimated 70 per cent of Tasmanian vegetable growers sold their produce directly to a processor (this includes the manufacturing of canned, bottled, preserved, quick frozen or dried vegetable products, dehydrated vegetable products, soups, sauces, pickles and mixed meat and vegetable cereal products, processing and packaging of fresh salads and pan-ready vegetables, as well as bulk packaged and cleaned vegetables) and 10 per cent for export (Valle et al. 2014). This compares to the national average of 26 per cent and four per cent respectively (Valle et al. 2014). In 2011–12 only five per cent of Tasmanian vegetable farms reported selling direct to state capital wholesale, compared to the national average of 62 per cent (Valle et al. 2014).

Tasmania exports significant volumes of onions and cherries. In the 12 months to June 2013, it exported $44 million of fresh fruit and vegetables, 6.7 per cent of the total value of national exports of fresh fruit and vegetables (World Trade Atlas 2014). Of this 98 per cent of the fruit were cherries and 94 per cent of the vegetables were onions. Tasmania accounted for 52 per cent of all cherries and 86 per cent of all onions exported from Australia in 2012–13 (World Trade Atlas 2014). In 2012 the Australian exports of fresh onions and fresh cherries accounted for 0.9 per cent and 0.4 per cent respectively of global exports of these products (World Trade Atlas 2014).

An independent assessment of the economic development potential of sectors of the Tasmanian economy (West et al. 2012) found that the wine, dairy and aquaculture sectors had the greatest economic development potential. Horticulture also presents opportunities for growth in value-added, although growth in employment could be limited compared to the wine, dairy and aquaculture sectors (West et al. 2012).

The challenges and opportunities faced by Tasmania's fruit and vegetable industry have been well documented and the industry has been subject to many reviews and planning processes. To assist the deliberations of the Taskforce, the Australian Government Department of Agriculture, as the secretariat to the Taskforce, has identified and summarised a collection of previous work. In so doing the Secretariat is mindful that individual Taskforce members would be familiar with a number of these documents, in some cases contributing directly to their production.

This summary is not intended to be an authoritative source. It provides a common level of understanding of existing work, recommendations and implementation progress as a starting point for the deliberations of the Taskforce.

While this discussion paper concentrates on Tasmanian industries the Secretariat notes there are other national reports, such as *Creating Our Future* (Agriculture and Food Policy Reference Group 2006) and the *Australian Horticulture Plan* (Future Focus 2008) relevant to the deliberations of the Taskforce. For example, both these reports include sections on increasing competitiveness in supply chains and developing export markets. Information from these national reports has been included in this paper.

2. Literature review methodology

In recent years numerous reports, reviews and plans have been published about the Tasmanian and national horticulture industries. A literature review of relevant documents has been undertaken. Documents included in this review are:

- Profit from innovation: Tasmanian vegetable industry strategic plan 2007–2012 (Laird 2007)
- Vegetable industry facilitator: final report December 2012 (Heap 2012)
- Marketing plan for the Tasmanian vegetable industry November 2007 (McKinna et al Pty Ltd 2007)
- Vegetable industry strategic investment plan 2012–2017 (AUSVEG 2012)
- Australian vegetable export opportunities (AUSVEG 2013)
- Exporting vegetables to China: Examining opportunities and barriers (Bensley 2013)
- Diversifying Tasmania's economy: analysis and options—final report (West et al 2012)
- Tasmanian Labor Government economic development plan: Wine, poppy, fruit and vegetable sector summaries (Tasmanian Labor Government 2014)
- Australian Cherry Strategic Investment Plan 2012–17 (Cherry Growers Australia 2012)
- Adjusting to apple imports: Economic impact statement; Industry transition plan; and, A comprehensive industry plan (Centre for International Economics 2010)
- What Asia wants: Long-term food consumption trends in Asia (ABARES 2013b)
- Infrastructure and Australia's food industry: Preliminary economic assessment (Nguyen et al. 2013)
- Simplot Vegetable Growers Group—presentation 2013 (Simplot Vegetable Growers Group 2013).

A summary of each document has been provided in Appendix A. The summaries focus on:

- the purpose
- the findings
- the recommendations (if any)
- progress with implementation of the recommendations.

Section 3 [Observations] provides a summary of the common messages and key points, relevant to the Taskforce's Term of Reference, from reviewed documents.

Section 4 [Recommendations] summarises recommendations made by reviewed documents grouped according to the Taskforce's Term of Reference.

Section 5 [Government support] summarises actions taken by governments to assist horticultural industry development in Tasmania and Australia.

Appendix B provides an overview of the Tasmanian horticulture industry.

Appendix C provides information on features of the industry's operating environment.

Appendix D provides information on Tasmanian irrigation scheme development funded under the National Partnership Agreement on Water for the Future.

3. Observations relevant to the Taskforce's Terms of Reference

Observations have been distilled from documents summarised in Appendix A—Literature Review or from sources used to draft Appendices B—Tasmanian Horticulture Industry Overview and C - Operating Environment. Observations are grouped according to the Taskforce's terms of reference. There has been considerably more focus on the Tasmanian vegetable processing sector than the fresh vegetable and fruit sectors.

A. Increase grower returns and reduce their costs

The processed vegetable industry is under pressure

1. Reliance on the commodity frozen processed-vegetable industry has placed pressure on grower profitability due to increasing competition from low-cost countries (AUSVEG 2012). Growers that have traditionally relied on supplying the vegetable processing industry may have not developed the necessary skills to operate effectively in the fresh vegetable market (Tasmanian Labor Government 2012). Similar to other Australian farm businesses there is, likely to be significant variation in skills and cost of production amongst processing-vegetable growers.

2. Reports suggest the Tasmanian vegetable industry suffers a significant small-farm problem (Heap 2012).

    - Some authors have proposed interventions by government (removing regulatory barriers; stamp duty rebate; exit grants) and the finance sector (repayment arrangements; lending criteria) to facilitate farm consolidation (Heap 2012; West et al. 2012)
    - Experience with other farm exit type programs has shown limited uptake. It appears there are significant non-financial factors that influence the decision to sell or consolidate family farms (Productivity Commission 2009)
    - As in other agricultural industries many smaller scale operators have off-farm income which boosts household income (Valle et al. 2014).

Recommendations aimed at increasing returns and reducing costs

3. Many of the recommendations to address cost of production and increase grower returns relate to strategies aimed at more efficient use of inputs, improved varieties or management systems, improved business management skills and reduction in regulatory burden (Heap 2012; Simplot Vegetable Growers Group 2013)

4. The Tasmanian Farmers and Graziers Association (TFGA 2014) summarised previous industry planning and reported seven key areas where growers could focus and know they are making a positive contribution to their own and the Tasmanian vegetable industry's future. These are:

    - at an industry level, fund market development and awareness of the environmentally 'special' product attributes to consumers

- lower the cost of key inputs, such as fertilizer, through collaboration with supply chain stakeholders
- increase efficiency in installing and accessing energy—pumps, metering, electricity aggregation - and assess alternatives
- benchmark costs and compare farming practices at a regional level
- implement controlled traffic farming machinery standards (by commodity) through collaboration with contractors, processors and wholesalers
- consolidate and streamline farm assets—specifically land and machinery—to lower fixed overheads
- aggressively research, select and promote lower nutrient-using varieties of high input commodities such as potatoes.

Is greater industry leadership needed?

5. Several authors consider the establishment of appropriate industry development agencies/bodies as a pre-requisite to further industry development (Laird 2007; Heap 2012; West et al. 2012)

- In part, the stalled implementation of the Tasmanian Vegetable Industry Strategic Plan reflected the absence of an appropriate agency (with appropriate resourcing) to implement it (Heap 2012)
- Models for this vary and range from an individual industry facilitator to a government funded company (that is, the Tasmania Irrigation Pty Ltd model) that could leverage private investment and plan, co-ordinate and organise the various 'assets' (and to overcome any regulatory roadblocks) necessary to grow industry sectors (Heap 2012; West et al. 2012).

B. Increase competitiveness, investment and jobs growth across the supply chain

Challenges in developing efficient supply chains

1. Tasmania's vegetable farming businesses generally grow relatively small areas of vegetables and have a diverse enterprise mix (Valle et al. 2014). Although this enterprise structure has advantages in terms of risk management at the individual farm level, it presents challenges in delivering production and supply chain efficiencies that are required to meet price points set by supermarkets, exporters and processors, which are operating in a very competitive marketplace (Future Focus 2008).

2. There are reports that an adversarial approach prevails within the vegetable processing sector and that this works against the implementation of grower and processor cost competitiveness solutions (Heap 2012).

Greater collaboration within the supply chain is needed

3. Greater collaboration among growers, and more fully exploiting the benefits from 'production clusters' that already exist, and developing this clustering further to include transport and logistics businesses, is often recommended as a way to deliver supply chain

efficiencies (Heap 2011; West et al. 2012; AUSVEG 2012; Heap 2012). However, there are significant cultural barriers to this type of collaboration (Heap 2012; AUSVEG 2012).

4. As part of its vegetable industry strategy the previous Tasmanian Labor Government committed, where appropriate, to encourage agribusinesses to consider ways to improve collaboration to achieve economies of scale, and greater efficiency through alternative business structures. (Tasmanian Labor Government 2014).

> *There is no point expecting a 'silver bullet' that will deliver long-term prosperity at the individual or collective farm level, or to any through chain sector including the processing industry. The only practical plan is for all industry sectors to work together to form strong, inter-dependent relationships focused on meeting end consumer demand.'*
>
> *Andrew Heap: Vegetable Industry –Situation Analysis—2011*

Private sector led supply chain development

5. There is a growing fresh vegetable industry in Tasmania characterised by a few large vertically-integrated companies with well developed supply chains. Demand for leafy green vegetables and pre-packed fresh and ready-to-use vegetable products has shown strong growth (Tasmanian Labor Government 2014). Export cherries have also shown strong growth taking advantage of the seasonal marketing window and supplying into high-end international markets (West et al. 2012).

6. Australian or international enterprises that are seeking to extend their supply windows or range to meet supermarket or export demand and/or manage climatic risk, may consider investing in production sites in Tasmania (West et al. 2012). Recent investments by Brown Brothers (wine), Sumich (carrots), Costa Exchange (berries) and the development of large vertically-integrated companies in the fresh vegetable industry, are examples of this strategy.

7. An alternative approach to the 'bottom-up' facilitation of supply chain efficiency from among producers of a commodity is the 'top-down' delivery of supply chain efficiency when a large growing, marketing, processing or exporting company, with existing logistics and marketing channels locates or develops an operation in a region (West et al. 2012; Tasmanian Labor Government 2014). This can have the added advantage of helping to overcoming any issues relating to industry scale thresholds (should any exist). For example the previous Tasmanian Labor Government aimed to attract a large national/multinational wine company to establish in Tasmania to facilitate the development of the Tasmanian industry (Tasmanian Labor Government 2014).

Greater focus on consumer needs

8. A major structural shift has occurred in the sale of horticultural produce in Australia in the past 25 years. This has been caused by increasingly competitive commercial conditions,

economies of scale in processing and retailing, and increasingly complex consumer demands (Future Focus 2008).

9. Supermarkets, processors and exporters require consistent lines of product produced to tight quality specifications. To achieve this they tend to look beyond the wholesale market, to larger producers, wholesalers and grower co-operatives (category managers) who can fulfil large supply contracts, either directly, or by co-ordinating the supply of product from other producers (Future Focus 2008).

10. National R&D allocation, at least in the vegetable sector, has focused primarily on in-field productivity and resource use and been characterised by small short-term investments (AUSVEG 2012). The Australian vegetable industry Strategic Investment Plan 2012–2017 proposes a new strategic direction more heavily focused on taking a total value-chain approach to understanding and meeting consumer and customer demands while developing capabilities to expand into new markets (AUSVEG 2012).

Irrigation infrastructure supports future growth

11. Further development of irrigation infrastructure is regarded by many authors as important to support the further expansion of horticultural industries in Tasmania (West 2009; West et al. 2012; Tasmanian Labor Government 2014). Although there has been substantial investment by governments and the private sector in irrigation scheme development since 2009, there appears scope for further sustainable irrigation development (CSIRO 2009; Tasmanian Liberals 2014). There is evidence of businesses taking advantage of the new opportunities presented by the increased irrigation infrastructure, but the full benefits are yet to be realised (Tasmanian Labor Government 2013).

C. Develop domestic and export markets

Reduce costs of production to increase competitiveness in domestic and export markets

1. Labour costs in Australia are high and horticulture is typically labour intensive. Rather than try to compete on cost, novel, distinctive and quality products need to be produced (AUSVEG 2012).

2. Compared to alternative international suppliers Tasmania is regarded as a relatively high-cost producer of fresh and processed horticultural products (West et al. 2012). For instance, a report prepared on the processed potato industry for McCain Foods noted that Tasmania has the highest production costs within Australia and of all major processing potato countries (McKinna 2010). Tasmania had the highest land cost, second highest fertiliser cost and highest other overheads including seed (McKinna 2010). According to McCain Foods its decision to relocate to New Zealand was based on New Zealand providing flexible working conditions, lower labour costs and consistently lower raw material costs when compared to their Tasmanian plant (McCain Foods 2012).

3. Entry to the counter-seasonal market requires the ability to grow internationally price competitive, high quality produce (West et al. 2012). The implication for Tasmanian

growers is that they need to reduce production costs, even for higher value produce (West et al. 2012), to compete with countries like Chile, New Zealand and South Africa.

4. Greenhouse crop production in Tasmania is currently limited to a small number of producers. The sector ranks highly in terms of innovative capability, providing the potential for rapid growth. Similar to the rest of the horticulture sector, growth could be dependent on low-cost access to large markets on the mainland (West et al. 2012).

Increased export market access

5. Increased export market access does not always lead to increased exports. To ensure maximum return from new export markets, commodities with sufficient production volumes (current or future) and markets which offer sufficient returns need to be targeted (Bensley 2013).

    - The information required for effective export market identification is not always available (Bensley 2013)
    - One of the most significant impediments to exporting vegetables appears to be that returns on exports can be less than from supplying domestic markets (which is not the case in most other Southern Hemisphere countries) (James 2013). In order to boost returns, costs will need to be driven down or innovative products developed which can attract a premium in international markets (James 2013).

Stronger brand development

6. Some authors consider the further development of the 'Tasmanian brand' to be a priority (Heap 2012). Others consider this to be a later step, which is secondary to the establishment of the value proposition for Tasmanian products (either achieving appropriately competitive price points and/or high consumer appreciation; (West et al. 2012)). Others consider that a 'Brand Australia' program should be pursued that encompasses and promotes Australia horticulture's safety and premium quality (Bensley 2013).

4. Recommendations made by previous reports relevant to the Taskforce's Terms of Reference.

In this section we summarise the recommendations made by previous reports, grouped under the Taskforce's terms of reference.

A. Increase grower returns and reduce their costs

More efficient use of inputs

- government grants for farm energy audits; clean energy opportunities; irrigation energy efficiency (Simplot Vegetable Growers Group 2013)
- more efficient resource utilisation-precision agriculture (Simplot Vegetable Growers Group 2013)
- R&D to develop effective strategies for increasing labour efficiency (AUSVEG 2012)
- commission a supply chain analysis of fertiliser inputs to map costs and determine opportunities and barriers for savings and consult with potential consolidators regarding business models (Heap 2012)
- develop more fertiliser use efficient varieties of high input crops (for example, potatoes) (Heap 2012).

Increased yields

- increased research and development particularly in new varieties/crops and new production systems, including developing production guidelines to meet the needs of supply chain stakeholders (West et al. 2012; AUSVEG 2012; Simplot Vegetable Growers Group 2013).

Improved on-farm infrastructure

- government grants for irrigation, drainage and on-farm infrastructure upgrade (Simplot Vegetable Growers Group 2013)
- government tax incentives for on-farm infrastructure (environmental netting, computerised irrigation infrastructure, mobile orchard platforms, spray technology, packhouse equipment and cool room technology, renewal of unproductive trees) (Centre for International Economics 2010)
- government grants to facilitate packhouse consolidation (Centre for International Economics 2010)
- a working party be formed to set machinery widths and a timeline for machinery modification—on a commodity-by-commodity basis (Heap 2012).

Improved business management

- enhancing producer capability to exploit emerging technologies/machinery (AUSVEG 2012)
- government subsidised business, farm management and technical assistance for growers (Centre for International Economics 2010)

- explore collaborative business model options to increase economies of scale to improve productivity and reduce costs (AUSVEG 2012; Heap 2012; West et al. 2012; Simplot Vegetable Growers Group 2013)
- farm management and worker skills upgrade and training (Simplot Vegetable Growers Group 2013)
- 'LEAN thinking' in agricultural value chains (Simplot Vegetable Growers Group 2013). (A lean value chain is one that produces just what and how much is needed, when it is needed, and where it is needed. The underlying theme is to produce more or do more with fewer resources while giving the end customer exactly what is wanted.)
- improved market information (Laird 2007; Centre for International Economics 2010; Heap 2012)
- research and development on new management models, technologies, different ways of doing business and managing risk for example, protected cropping, forward selling and hedging (AUSVEG 2012)
- develop effective strategies for attracting skilled labour at both industry and farm levels (Heap 2012).

Addressing regulatory and red tape issues

- occupational health and safety pro-forma standard approach (Simplot Vegetable Growers Group 2013)
- research and development to deliver more standardised quality assurance standards, occupational health and safety standards, domestic biosecurity arrangements, traceability and grower registration leading to more competitive domestic markets (AUSVEG 2012).

Establish industry leadership

- establish and resource an industry development body (Laird 2007; West et al. 2012; Heap 2012).

B. Increase competitiveness, investment and jobs growth across the supply chain

Public infrastructure investment

- transport infrastructure (West et al. 2012; Simplot Vegetable Growers Group 2013)
- irrigation infrastructure (West 2009; West et al. 2012; Tasmanian Labor Government 2014).

Attract and support private investment

- provide information and facilitation services to attract new investors (Laird 2007; West et al. 2012)
- support manufacturing-based processors (West et al. 2012)
- develop a prospectus and canvass interest from commercial parties to invest in greenhouse vegetable production in Tasmania (McKinna et al. 2007)

Collaborative supply chain models and grower clusters

- establish efficient and collaborative supply chain models (Laird 2007)
- facilitate the development of grower clusters to maximise production/supply chain efficiencies (Laird 2007)

- collective industry price negotiations need to reflect efficiency-based grower pricing rather than a price to cover the highest cost growers (Heap 2012)
- support collaborative initiatives in the value chain (West et al. 2012).

Investigate options to facilitate farm consolidation

- more flexible payment arrangements in early loan years
- relatively tight lending criteria—covering grower age and skills
- a percentage rebate on farm purchase stamp duty
- the Tasmanian Government consider options to assist unviable farmers to exit the industry (Heap 2012).

Benchmarking/training

- benchmarking-local, peer-to-peer sharing, overseas study trips (Simplot Vegetable Growers Group 2013)
- benchmark costs and compare farming practices at a regional level (TFGA 2014)
- develop and deliver programs to improve market awareness and supply chain understanding by growers (Heap 2012)
- develop and implement an education and training plan for the Tasmanian vegetable industry (Laird 2007).

Addressing regulatory and red tape issues

- remove regulatory barriers that are specific to the industry sectors (West et al. 2012).

Research and development

- R&D to better understand costs and technical issues with retailers
- R&D on emerging post-harvest production technologies such as novel thermal and non-thermal technologies
- emerging technologies for quality assessment
- emerging technologies to extend quality
- packaging/processes, automation, benchmarking (AUSVEG 2012)
- support innovations at any point of the value chain that will reduce costs at any point along the value chain (West et al. 2012).

C. Develop domestic and export markets.

Brand development/marketing

- leverage Tasmania brand image and co-development of 'niche' products (West et al. 2012; Simplot Vegetable Growers Group 2013)
- a Brand Australia program that encompasses Australian safe and premium produce should be pursued, along with a campaign to be used in China that promotes Australia horticulture's safety and premium quality (Bensley 2013)
- undertake market development and maintenance activities to maintain and/or grow existing markets and access new markets, including leveraging national marketing activities (West et al. 2012)
- trade missions (Simplot Vegetable Growers Group 2013)

- the government should focus on building relationships within Australia (between Commonwealth, State and Territory governments and industry) to ensure a 'unified front' when approaching the challenge of market access to China (Bensley 2013)
- strategies to link into international networks (AUSVEG 2012)
- protect the processing industry by implementing a generic promotional program for frozen vegetables jointly funded by processors and processor growers (McKinna et al. 2007)
- raise the national profile of the Tasmanian vegetable industry by seasonal promotion with mainland independent retailers & supermarkets of Tasmania's icon vegetable products (McKinna et al. 2007)
- develop the fresh and minimally processed categories with branded premium vegetable products marketed in terms of 'fitness for purpose' and a range of functionally and/or nutritionally enhanced branded vegetables (McKinna et al. 2007)
- maximise opportunities in the local (Tasmanian) market by collaborating with the major supermarkets and assessing the potential to supply the local (Tasmanian) market (McKinna et al. 2007)
- identify domestic and export market opportunities for Tasmanian vegetables (Laird 2007).

Better information/industry capacity building

- information on priority export markets and crops for these markets (AUSVEG 2012)
- the opportunities for growth in various markets, including China as the demand in developing economies in our region grows (AUSVEG 2012)
- make greater use of existing Austrade services (AUSVEG 2013)
- examine the experiences of vegetable businesses already exporting to China (Bensley 2013)
- work with other growers across various agricultural commodities in order to share ideas and knowledge (AUSVEG 2013)
- training programs to assist growers in becoming export-ready (AUSVEG 2013)
- the government should investigate ways to provide more cost-effective access to tools essential to market access, such as information on phytosanitary requirements, market information and fees associated with export registration to encourage exporters to look to China (Bensley 2013)
- development of a market intelligence capability whereby the latest market data, information and knowledge is collected and disseminated to industry (McKinna et al. 2007)
- implement a change management strategy and infrastructure to enable change including: market intelligence, leadership program; overseas study tours, benchmarking study and competitor analysis (McKinna et al. 2007)
- establish a vegetable processing industry round table & communication program to foster a collaborative rather than adversarial approach (McKinna et al. 2007).

Reduce tariffs and other regulatory barriers

- R&D to remove sanitary/ phytosanitary and other barriers to trade (AUSVEG 2013)

- prepare market access documentation and negotiating to open access to markets (West et al. 2012)
- the Australian Government should make the completion of the Australian-China FTA a priority (Bensley 2013).

Achieve scale and consolidation in areas of export potential

- 'clustering' growers to develop target export opportunities (Simplot Vegetable Growers Group 2013)
- co-operatives seem to have been successful in achieving some success in exports for certain nations (AUSVEG 2012).

5. Government support and activities

This section summarises support and activities offered and undertaken by governments to assist horticultural industry development in Tasmania and Australia.

5.1 Irrigation scheme development

Under the National Partnership Agreement on Water for the Future the Australian Government provided $140 million (2009–10 to 2015–16) towards the development of modern and efficient irrigation in Tasmania. This funding is fully committed and no further funds are available through this program.

The total development costs for this irrigation infrastructure development program is approximately $310 million, comprising an Australian Government component ($140 million), a Tasmanian Government component ($80 million) with the balance of $90 million provided by farm-user contributions. Furthermore, it is estimated an additional $265 million will be invested on on-farm infrastructure by the private sector.

The project is estimated to deliver up to 100 000 megalitres (ML) of water per year, to an area covering around 146 000 hectares (ha) and potentially deliver up to $192 million worth of new produce per annum at the farm gate.

In November 2009, the Australian Government also provided $14.8 million to Tasmania, to contribute to the development of comprehensive project plans and business cases for a number of proposed irrigation schemes. This included undertaking detailed environmental, economic, social and engineering assessments of each proposed irrigation development. The development of the project is being managed by Tasmanian Irrigation Pty Ltd, which is a Tasmanian Government-owned company.

The primary aim of the project is to expand agricultural production in each region through the provision of water with a reliability of greater than 95 per cent. This provides the opportunity for sustainable growth in agricultural production and jobs in the region. The project's secondary aim is to mitigate against the impacts of drought and climate change in each region.

A funding requirement for the schemes is that individual water users ensure the intended water use is sustainable, through developing and implementing farm Water Access Plans. Individual irrigators pay operational and maintenance costs.

Six projects are now complete with three under construction. The completed irrigation projects are: Headquarters Road Dam, Whitemore Irrigation Scheme, Sassafras-Wesley Vale Irrigation Scheme, Winnaleah Irrigation Scheme Augmentation, Lower South Esk Irrigation Scheme and Kindred North Motton Irrigation Scheme. The three currently under construction are: Midlands Water Scheme, Upper Ringarooma Irrigation Scheme and the South East Irrigation Scheme. More information on these projects is at Appendix D - National Partnership Agreement On Water for the Future - Progress With Tasmanian Projects.

In February 2014 the Australian Government announced funding of $9.06 million to Tasmania Irrigation Pty Ltd for the construction of the Dial Blythe irrigation scheme.

There is no further Commonwealth funding currently allocated for irrigation scheme development in Tasmania.

Tasmanian Irrigation Pty Ltd has made a submission to Infrastructure Australia for further investment in irrigation development in Tasmania. The submission is seeking around $130 million in Commonwealth funding for tranche two of Tasmanian Irrigation's development strategy. Tranche two is currently included on Infrastructure Australia's Priority List at Real Potential. (Note: The Infrastructure Priority list is split into four distinct categories: Early stage, Real potential, Threshold and Ready to Proceed. The categories provide greater transparency as to the potential of the initiatives and their stage of development).

Tranche two proposes five irrigation projects to develop infrastructure to capture, store and transport water:

- Southern Highlands ($22.6 million): works include the construction of a dam and pipeline
- Circular Head ($60.7 million): works include the construction of an off-river storage and pump
- Scottsdale ($46.2 million): works include the construction of a dam and pipeline
- North Esk (Evandale) ($13 million) works include the construction of a dam and pipeline
- Swan River ($12 million): works include the construction of a dam.

The Hodgman Liberal Government has committed to provide $30 million to these Tranche two projects.

5.2 Industry research, development and marketing

The Australian and Tasmanian governments invest in research and development to benefit the horticulture and wine sectors. Statutory national horticulture and wine marketing organisations also exist, funded by industry levies.

Horticulture Australia Limited (HAL)

HAL is the industry-owned R&D Corporation for the horticulture sector. HAL receives statutory marketing and R&D levy funds, voluntary contributions and matching Australian Government funding for eligible research, development and extension (RD&E) expenditure. The HAL Annual Operating Plan 2013–14 estimates income for 2013–14 at $107.658 million, comprising $40.184 million in industry levy contributions, $43.500 million in government matching contributions, $18.454 million in voluntary contributions and $5.520 million in other income. Total expenditure is estimated at $107.584 million.

HAL works in collaboration with its national peak industry body members to identify their needs and to commission R&D and marketing projects (including export marketing) to meet these needs. HAL industry's strategic investment plans for the cherry and vegetable industry are summarised in Appendix A.

The Grape and Wine Research and Development Corporation (GWRDC)

The GWRDC is the statutory authority responsible for RD&E along the whole value chain 'from vine to glass' for the Australian wine sector. It invests in R&D providers including the Australian Wine Research Institute, the National Wine and Grape Industry Centre, the CSIRO, universities and state agencies. According to its annual operating plan the GWRDC estimates its income for 2013–14 at $22.92 million, comprising $3.18 million in wine grape levy contributions, $8.07 million in wine levy contributions and $11.46 million in government matching contributions.

Wine Australia

Wine Australia is the Australian Government statutory authority responsible for regulating and developing markets for Australian wine, and providing wine sector information and analysis. According to its Annual Operating Plan, Wine Australia's total income in 2013–14 is forecast to be $13.4 million, consisting $5.9 million of levy contributions from industry through the Wine Grape levy and Wine Export charge, $2.2 million of industry contributions to user-pay promotional activities, $3.7 million of export approval process fees, and $1.8 million of other income.

The Australian Grape and Wine Authority, which results from the merger of the GWRDC and Wine Australia, will commence operations on 1 July 2014.

Rural Industries Research and Development Corporation (RIRDC)

RIRDC manages the investment in research, development and extension (RD&E) for those primary industries which are too small to set up their own RD&E entity and addresses multi-industry and national interest RD&E needs. RIRDC is the primary funding source for RD&E that investigates the potential of new plant and animal industries for Australia, and for providing support to new industries as they develop. According to its annual report, in 2012–13 RIRDC had a total income of $24.2 million, consisting of $11.2 million of Commonwealth appropriation, $4.6 million of industry levies, $3.4 million of Commonwealth matching funds, and other income of $5.2 million.

Tasmania Institute of Agriculture (TIA)

TIA is a joint venture between the University of Tasmania and the Tasmanian Government. It provides education and training, as well as RD&E services to the Tasmanian agricultural sector.

In 2012, TIA received approximately $10 million in external funding and $8 million of funding from the Tasmanian Government and University of Tasmania (approximately $4 million each). The institute has research centres on food systems, perennial horticulture and vegetables.

Brand Tasmania

The independent Brand Tasmania Council Inc. was established to formulate and promote place-of-origin branding for the State. The council's members include leaders of the private sector and representatives of relevant government agencies.

The Tasmanian Master Brand identity is a registered trademark. It is a stylised graphic image of the map of Tasmania and the word Tasmania. Partners of Brand Tasmania are permitted to use the Tasmanian Master Brand identity system in approved situations. It can be used in marketing the partner's product, either in associated packaging or imbedded in the product or as a part of the partner's communications to identify a Tasmanian place of origin link.

5.3 Export market access

The Australian domestic market is relatively small. Gaining access to new export markets, or improving the terms of existing access arrangements, can expand the size of the market for Australian horticultural produce, supporting the growth of the Australian industry.

Free trade agreements

Free trade agreements (FTAs) provide a framework for Australia's commercial relationship with trading partners, increase trade and investment opportunities, bring money into the Australian economy and help create jobs. Australia pursues high-quality, comprehensive trade agreements when they offer net benefits to Australia, are World Trade Organization-consistent, and support the global trade system.

The Australian Government's objective is that trade agreements must deliver meaningful commercial outcomes to Australia's farmers and exporters. Australian agriculture is highly dependent on world markets, as two-thirds of Australian agricultural production is exported ($41 billion in 2012–13). However, global trade in agriculture is highly distorted, with many countries applying export subsidies and/or tariff and other protective measures. International trade agreements are important to the agriculture sector because they help to reduce these distortions and other trade barriers.

Australia's agricultural tariffs are generally already set at zero. Therefore, in return for improved access for our agricultural exports, other countries generally seek concessions in other sectors, such as manufacturing or investment. Australia seeks to maintain its competitive advantage and negotiations are therefore undertaken as a whole-of-government process.

Positive outcomes for Australia's agriculture sector from existing FTAs include:

- Under the FTA with the US (2005), AUSFTA, two thirds of all agricultural tariffs — including in important commodities such as red meat and horticultural products — were eliminated immediately, with a further nine per cent of tariffs cut to zero in 2008, and almost all agricultural tariffs will be removed on full implementation in 2022. The elimination of tariffs means that agricultural sectors such as horticulture can look to the US market as a serious commercial prospect. Horticulture is a growing export industry and should benefit over time from new access opportunities in the AUSFTA.
- Under the FTA with Thailand (2005), tariffs on sheepmeat, yoghurt, dairy spreads and fruit juice were eliminated from 2010.
- Under the FTA with Chile (2009), tariffs on most agricultural goods were eliminated on entry into force in 2010 (The entry into force (EIF) is the date the treaty comes into effect. This follows ratification of the treaty by the relevant governments.). Tariffs on all agricultural goods will be eliminated by 2015, with the exception of sugar. Australia's

beef grading system was also recognised resulting in an increase in Australia's beef exports from $13.3 million in 2009–10 to over $100 million in 2011–12.

- Under the FTA with ASEAN and NZ (AANZFTA 2010), movement of tariffs for products with already low bound rates (bound tariff rate is the most-favoured-nation tariff rate resulting from negotiations under the General Agreement on Tariffs and Trade) were constrained preventing increases possible under WTO provisions, assisting a range of products traditionally traded by Australia into ASEAN countries. AANZFTA also delivers over time tariff elimination commitments from the more developed ASEAN countries and Vietnam on between 90 and 100 per cent of tariff lines, covering around 96 per cent of Australia's exports to the region.

  ASEAN is an important export market for Australian fruits, nuts and vegetables, worth about $176 million in average annual exports. AANZFTA will ensure the maintenance of current market access in ASEAN countries for these products and enhance this access through the reduction and elimination of tariffs. Tariffs on all vegetable products will be bound at 0 per cent on EIF, or phase to 0 per cent, in Malaysia and Vietnam, and tariffs on most products will phase to 0 per cent in other countries. However, high tariffs on a number of products (including potatoes and carrots in Indonesia, and potatoes, celery, carrots, cauliflowers, broccoli and lettuce in the Philippines) will only be subject to modest reductions.

  Tariffs on most fruit products will be eliminated, the major exceptions being mandarins and mangoes in Indonesia, and a range of tropical fruits in Malaysia on which the high specific rates are phased out leaving only a 5 per cent tariff. Many 5 per cent tariffs were eliminated in 2010, particularly in Indonesia and Malaysia.
- Under the FTA with Malaysia (2012), Malaysia and Australia have cut tariffs earlier and on a wider range of goods than negotiated under AANZFTA. The Agreement also addresses other barriers to trade and makes administration for traders simpler 97.6 per cent of Australian goods currently exported to Malaysia are eligible for tariff-free treatment, rising to 99 per cent in 2017.
- Negotiations of the Korea-Australia FTA (KAFTA) were recently finalised. When this agreement enters into force it will deliver tariff elimination on a wide range of Australian agricultural exports including, beef, wheat, sugar, dairy, wine, horticulture (not onions or walnuts) and seafood. Australia and Korea are working to bring the agreement into force as soon as possible.

  Many products, including priorities such as cherries, almonds and dried grapes, will enter Korea duty free on EIF. These currently face tariffs of 8 to 24 per cent. Tariffs on other priorities such as macadamia nuts, fruit juices, mangoes, asparagus and lentils, ranging from 27 to 54 per cent, will be phased out over 3 to 10 years. Taking advantage of counter-seasonal production, high tariffs on potatoes for chipping (Australia's largest horticultural export—current tariff 304 per cent), oranges (50 per cent), fresh table grapes (24 per cent), and mandarins (144 per cent) will be eliminated during our exporting seasons.

The Australian Government recently concluded negotiations on the Japan Australia Economic Partnership Agreement (JAEPA). JAEPA will provide a very liberalising outcome for fruit,

vegetables, nuts and juice, resulting in quick tariff elimination on the vast majority of Australian horticulture exports to Japan. The tariffs on canned products such as tomatoes, peaches and pears will also be eliminated. As per usual practice, treaty texts are not publicly disclosed without the agreement of all parties to the treaty, normally, this occurs after the treaty is signed. The treaty will be signed as soon as possible.

Concluding FTA negotiations with China is a priority for the Australian Government.

Technical market access negotiations

Removing technical barriers to trade imposed by other countries is a negotiating priority to improve market access for Australia's agricultural products. These barriers are often measures such as labelling, pest and disease requirements and residue limits that are inconsistent with Australia's production systems and in many cases with agreed international standards, rights and obligations under international trade rules.

Key technical market access achievements that have delivered outcomes for Tasmanian fruit and vegetable industries are presented in Table 1: Market Access Activities That Have Involved Outcomes For Tasmanian Fruit and Vegetables—Completed and Active. Issues other than technical market access drive export activity, including exchange rates, free trade agreements, scale of supply and international competition in markets. For this reason, improved market access arrangements have not always led to increased export volumes.

Table 1. Market access that have involved outcomes for Tasmanian Fruit and Vegetables—completed and active

Country	Product	Objective	Status	Year	Comments
United States	Multiple products	Area freedom recognition for Tasmania	Completed	1998	
United States	Apples & Pears	Access for pomefruit	Completed	<2001	
United States	Cherries	Access for cherries	Completed	2002	
United States	Blackberries, raspberries, blueberries	Access	Completed		
South Korea	Multiple products	Area freedom recognition Tasmania	Completed	2004	Applied to permitted commodities
Japan	Cherries	**Access for Tasmanian cherries**	Completed	2005	
Japan	Multiple products	**Area freedom Tasmania**	Completed	2005	Applied to permitted commodities
Taiwan	Multiple products	Qfly area freedom for Tasmania re instatement	Completed	2006	When Taiwan closed the market to QFF host products DA negotiated for trade to continue from Tasmania PFA
Japan	Cherries	**Revised protocol for Tasmanian cherries**	Completed	2008	Removal of fumigation for codling moth
South Korea	Carrots	Maintained trade	Completed	2007	Proved free of the burrowing nematode
South Korea	Cherries	Access for cherries, Tasmania	Completed	2010	Protocol, recognition of PFA
China	Apples	**Revised protocol for Tasmanian apples**	Completed	2010	Removal of requirements for fire blight and European canker and access without cold treatment
Thailand	Cherries	Reinstated market access (trade terminated 1 Jan 12)	Completed	2014	Industry seeking to export in February 2014
China	Cherries	Access to China from all states	Completed	2013	Tasmania has access without cold treatment though PFA not formally recognised
Thailand	Seed potatoes	Additional states- (Tas & NSW)	Active		
China	Multiple products	Area freedom request for Tasmania	Active		

5.4 Tasmanian Liberal Government—Cultivating Prosperity in Agriculture

The recently elected Tasmanian Liberal Government policy document *Cultivating Prosperity in Agriculture* (Tasmanian Liberals 2014) lists the following election commitments for Tasmanian agriculture.

- $30 million towards the development of second tranche irrigation schemes in the State, including proposed schemes in the Circular Head, Evandale, Scottsdale, Swan Valley, and the much delayed Southern Highlands regions.
- An additional $500 000 to Tasmanian Irrigation Pty Ltd to ensure that, within 12 months, Tasmanian Irrigation Pty Ltd can provide comprehensive advice on the potential for inter-connectivity between existing schemes within the State, together with proposals for the enhancement and modernisation of existing schemes.
- A commitment to grow the value of the agricultural sector in Tasmania tenfold to $10billion per year by 2050, backed by the long-term AgriVision 2050 Plan.
- Establish a high-level specialised division from within the existing resources within the State Service to deliver the 2050 Vision for Agriculture. This whole-of-government approach will deliver our AgriVision 2050 plan, and will ensure a strategic and long term approach is taken to developing Tasmania's food and agriculture sector. It will:
    - develop and implement a sustainable agri-food system for Tasmania
    - proactively identify and seize new opportunities, especially in premium food production
    - partner with industry to identify, develop and access new markets
    - target a dramatically increased and better aligned spend in research and development to improve productivity and competitiveness
    - work with Brand Tasmania on provenance/branding and packaging/pricing
    - model workforce needs/skills and integrate with vocational education/training
    - provide streamlined cross-departmental approvals
    - develop individual and relevant strategic plans for each sector (for example, horticulture, red meat, dairy, viticulture, aquaculture, protected cropping, fibre and agri-tourism).
- Skills and Innovation for Future Growth including:
    - a $1.5 million Water for Profit program
    - deliver $800 000 more for research and development
    - provide $600 000 to help farmers improve on-farm productivity, sustainable farming practices and reduce costs
    - revitalise Vocational Agricultural Training by providing $450 000 towards the implementation of our Agriculture Skills Plan—an additional investment to implement the Tasmanian Farmers and Graziers' Agricultural Skills Plan
    - establish an Agricultural Industry Training Advisory Board
    - provide better rural skills and education pathways—through the development of closer links and clear pathways between TasTAFE, Tasmanian Institute of Agriculture and other rural skills providers
    - provide $1 million to grow private forestry
    - provide $250 000 to develop a low-interest, profit-contingent loan scheme.

Other commitments listed in *Cultivating Prosperity in Agriculture* include:

- establish a regulation reduction coordinator to help cut red and green tape
- establish an Energy Working Group to assist the government develop a comprehensive State Energy Strategy. The key objective of the State Energy Strategy will be to identify ways in which energy can once again be utilised as an economic driver including by securing a stable and sustainable price path for power that can provide relief to consumers and help grow the economy and attract new investment
- establish, within the Department of State Growth, a Planning Reform Taskforce which will commence work on creating a single state-wide planning scheme for all developments in Tasmania, replacing the more than 30 schemes that currently exist.
- take decisive action to ensure the reintroduction of an international shipping service from Tasmania to key Asian ports, by investing up to $11 million per year over three years ($33 million total). The re-introduction of this service will be a critical step to getting our economy growing again, and to creating jobs
- Invest an additional $900 000 to strengthen Tasmania's Biosecurity
- Align all the core biosecurity responsibilities across government through the establishment of Biosecurity Tasmania, a specialised division to protect Tasmania's primary production, economy, natural environment, community health economy and our Tasmanian Island Brand from exotic weeds, pests and disease introductions.

5.5 Tasmanian Economic Development Plan (Tasmanian Labor Government)

Originally launched in August 2011, the Economic Development Plan sets the direction for the Tasmanian Labor Government's priorities in economic development over the next 10 years. An updated version of the plan was released in 2014. There are eighteen overarching economic development priorities established by the plan. Five of these are relevant to the horticulture sector.

- Tasmanian Freight Strategy—Consistent with the Tasmanian Labor Government's Infrastructure Strategy, the new Freight Strategy aims to identify opportunities for improvement in freight efficiency and infrastructure provision.
- Transport infrastructure—Key transport initiatives support the ability of our transport system to move freight from producers to processers and on to markets locally, interstate and overseas.
- Tasmanian irrigation schemes—In order to develop sustainable irrigation across the state, a priority will be completion of 10 major irrigation schemes with the potential to double the water available for irrigation.
- Invest Tasmania—Promotes, retains and attracts investment in Tasmania and facilitates large or strategic investments through Invest Tasmania's dedicated project teams and proactive account management.
- Brand development and marketing—The Tasmanian Labor Government will continue to develop the state's brand and encourage people to live, work, invest, visit and study in Tasmania. The focus will be on promoting Tasmania's capability in its priority sectors in local and national markets, and to manage strategic branding projects that increase awareness of the Tasmanian brand in local, national and international markets.

The Plan identifies food and agriculture as a key trade and investment sector. Priorities for the food and agriculture sector outlined in the Economic Development Plan include:

- focus research, development, extension and education activities in the agribusiness sector
- support skills development and workforce development planning to enhance productivity and support growth
- provide market information and support targeted branding and marketing activities
- maintain adequate risk-based biosecurity regulations, controls and resources for enforcement to protect Tasmania's unique quarantine status.

The Tasmanian Labor Government's sector strategies for the fruit, vegetable, wine and poppy industries and progress with the implementation of the strategies are summarised at Appendix A—Literature Review.

5.6 Government grants

Over the past five years, Tasmanian horticulture producers, processors, exporters and associated support businesses have received funding from a number of government-funded grants programs.

The **North West and Northern Tasmania Innovation and Investment Fund** (NWNTIIF; 2010–11; $17 million (made up of $12.5 million from the Australian Government and $4.5 million from the Tasmanian Government) provided competitive, merit-based grants to local businesses and groups for new employment creation in the north west and northern region of Tasmania. Projects funded through this package relevant to the Tasmanian horticulture industry include:

- onion grading and packing lines development; $225 500 (Charlton Farm Produce Pty Ltd)
- echalions to Europe - the purchase of new packing equipment and storage containers in order to supply the export market and develop the domestic market; $260 000 (Ertler Trading Pty Ltd (Premium Fresh))
- a new facility to increase fresh market broccoli and bean production in NW Tasmania; $2 056 600 (Forth Farm Produce Pty Ltd (Harvest Moon)).

The **Tasmanian Innovation and Investment Fund** (TIIF; 2011–2014; $8 million from the Australian Government) was a competitive, merit-based program aimed at companies seeking $50 000 or more in grant funds for investments in activities that provide sustainable employment and diversify Tasmania's economy. Projects funded through this package relevant to the Tasmanian horticulture industry include:

- acquisition of a new self-propelled celery harvesting and packing facility; $198 750 (Forth Farm Produce Pty Ltd (Harvest Moon))
- cidery and orchard tour development; $120 000 (Spreyton Fresh Pty Ltd)
- construction of a new glasshouse complex to assist the increase in flower production; $440 000 (Flowerdale Flowers (Tas) Pty Ltd).

During the 2010 election, the Australian Government committed $3.0 million to Simplot Australia Pty Ltd through the **Food Producers Program.** The funding was to assist in the $15.6 million capital cost of replacing the three existing coal fired boilers at the company's Tasmanian Ulverstone Plant with an eight megawatt gas fired co-generation system producing electricity and steam.

The **Clean Technology Investment Food and Foundries Program** ($200 million from the Australian Government; 2012–13) provided grants to existing Australian food and foundry manufacturing businesses to invest in energy efficient capital equipment and low emissions technologies, processes and products.

- lighting upgrade; $331 428 (Simplot Australia Pty Ltd)
- replacement of two degraded refrigeration compressors; $133 098 (Simplot Australia Pty Ltd)
- tank insulation, PV solar system installation and insulating a dedicated 832 square metre cool room; $199 916 (Josef Chromy Wines Pty Ltd)
- new passive thermal underground barrel maturation facility $100 000 (Stefano Lubiana Wines Pty Ltd).

The **Tasmanian Forests Intergovernmental Agreement** (TFIGA; 2011–12; $16 million from the Australian Government) economic diversification package was established to assist

Tasmania diversify its economy in response to the high Australian dollar and the downturn in the forest industry.

Projects funded through this package relevant to the Tasmanian horticulture industry include:

- Circular Head Agricultural Trade College—Agritas; $4.25 million (Agritas)
- wine research: identification of sites to expand Tasmanian wine production and provision of development extension services; $400 000 (TIA)
- soft fruit chilling and snap freezing facility in the Derwent Valley; $300 000 (Derwent Valley Council)
- $3.6 million in funding to support the establishment of SenseT, a world leading sensor and knowledge management network to drive economic, social and environmental benefits for Tasmania.

Sustainable Resource Management Innovation Grants. The Tasmanian Agricultural Productivity Group Limited was awarded funding up to $1.034 million for a project on sustaining vegetable production with controlled traffic and sub-soil manuring (2014). The project will work with fresh market and processing companies and vegetable growers to plan and establish large field sites to demonstrate the economic and environmental benefits of controlled traffic farming, combined with sub-soil manuring such as on duplex soils.

Energy Efficiency Information Grants program. Apple and Pear Australia Limited was awarded funding of up to $700 667 to fund the 'Watts in your Business' energy efficiency information project (2013). The project will work to identify ways in which businesses can reduce energy usage (and save money) within the apple, pear, summerfruit and cherry industries.

The project will conduct 30 energy audits in 10 Australian fruit growing regions, including the Huon Valley, to determine where business could reduce their energy use and save money.

5.7 Coalition's Economic Growth Plan For Tasmania

In addition to the formation of the Tasmanian Fruit and Vegetable Industry Taskforce, the *Coalition's Economic Growth Plan for Tasmania* includes commitments to:

- establish a Tasmanian Major Projects Approval Agency: a 'one-stop-shop' for new major projects ($50 million in new gross fixed capital by no later than 2020) intended for Tasmania requiring some form of Commonwealth regulatory approval or compliance reporting. To improve business confidence and minimise the potential for unnecessary delays, the Agency will work with Commonwealth regulatory agencies to ensure necessary assessments are completed in accordance with agreed timeframes
- boost Jobs Growth in Tasmania: a trial jobs program which will provide $3250 to any Tasmanian business that hires an unemployed job seeker who has been on *Newstart Allowance* for six months and continues to employ them for a period of at least six months. This program commenced on 1 January 2014.
- establish a Joint Commonwealth and Tasmanian Economic Council: a high level government-business council that will consider the type of competitive reforms needed to boost Tasmania's long-term growth and develop agreed plans and lines of

accountability for the implementation of these reforms. The Council met for the first time on 12 December 2013.

- upgrade the Hobart International Airport and the Midland Highway; invest $38 million to increase the length of the runway at Hobart international airport and $400 million to upgrade the Midland Highway that connects Launceston and Hobart
- continued funding of the Sense-T project: to accelerate commercialisation of the 'Pathways to Market' project and establish an advanced sensor manufacturing facility
- conduct a Productivity Commission inquiry into Tasmanian shipping and freighting: the Australian Government has tasked the Productivity Commission with reviewing Tasmania's shipping costs, the competiveness of Tasmania's freight industry infrastructure and economic infrastructure, Bass Strait freight equalisation schemes (the Tasmanian Freight Equalisation Scheme (TFES), the Tasmanian Wheat Freight Scheme and the Bass Strait Passenger Vehicle Equalisation Scheme (BSPVES). The Australian Government has stated its intention to retain the TFES and the BSPVES. This inquiry has concluded. The final report was sent to Government on 7 March 2014. The release of the final report by the Government is the next step in the process. Under the *Productivity Commission Act 1998*, the Government is required to table the report in each House of the Parliament within 25 sitting days of receipt.

As part of the Coalition's Economic Growth Plan for Tasmania, the Australian Government will honour existing and committed contracts under the previous government's Tasmanian Forests Intergovernmental Agreement. The Australian Government is moving quickly to deliver the $106 million in funding to recipients under the plan and has commenced value for money assessment and risk analysis. These analyses will be conducted progressively as project proponents supply the required information.

A full list of projects is at Appendix E - $106 Million Economic Package For Tasmanian Projects. Projects relevant to the Tasmanian horticulture industry include:

- Dial Blythe Irrigation Scheme; $9.060 million (Tasmanian Irrigation Pty Ltd)
- strawberry production site; $400 000 (Hugh Mackinnon)
- expansion to support contract packing and infrastructure investment to support increased production of organic fruit juice; $1 250 000 (Juicy Isle)
- cherry packhouse development; $500 000 (Reid Fruits)
- modified atmosphere packaging facility to service the berry and stone fruit sectors; $1 million (Costa Exchange Pty Ltd)
- pickled onion production facility; $500 000 (Tasmanian Pickled Onions Pty Ltd)
- Tasmanian whiskey and cider trail; $120 000
- Stage II of Sense-T, to continue its work in establishing the world's first economy-wide sensor network in Tasmania ($10 million) and an additional $1 million to accelerate commercialisation of the 'Pathways to market' project and $2 million to establish an advanced sensor manufacturing facility.

5.8 The Coalition's Policy for a Competitive Agriculture Sector

The Coalition's Policy for a Competitive Agriculture Sector includes commitments to:

- develop a white paper on the competitiveness of Australian Agriculture, which will drive the long-term agricultural policies of the government and ensure Australia's agriculture

sector remains a significant contributor to the economy and local communities. Meetings were held in Tasmania in February 2014

- provide an additional $100 million in funding for Rural Research and Development Corporations, to assist with greater capacity to deliver cutting edge technology, continue applied research, and focus on collaborative innovation and extension
- cut the cost of red and green tape by $1 billion a year, including repealing the carbon tax, improving the performance efficiency and reducing unnecessary red tape in export certification, Australian Pesticides and Veterinary Medicines Authority chemical registration, and the Live Export Supply Chain Assurances Scheme
- improve export market access conditions, by investing $15 million over four years to support small exporters and working with industry to improve market access conditions and increase the flow of two way trade
- increase resources to finalise Free Trade Agreements with China, South Korea, Japan, India, the Gulf Cooperation Council and Indonesia
- strengthen Australia's biosecurity and quarantine capabilities.

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APPENDIX A –LITERATURE REVIEW

Profit from innovation: Tasmanian vegetable industry strategic plan 2007–2012 (Laird 2007).

Purpose

The development of a Tasmanian vegetable industry strategic plan was a key recommendation from the Tasmanian Vegetable Industry Taskforce, convened in 2005 by the Tasmanian Premier and President of the TFGA.

Findings

Strengths	**Weaknesses**
A significant well established production and processing industries	Distrust and lack of communication along the value chain
Favourable environmental and biosecurity status	A highly conservative culture and aging demographic profile
Concentrated growing regions	Production focus, not market focus
Some very competitive businesses	High cost producer in global terms
Tasmania has a positive brand image	Heavy reliance on the processing sector and processing potatoes in particular
Opportunities	**Threats**
Improve industry-wide collaboration	Increasing competition in the domestic and export markets
Encourage and support innovation and leadership	Increasing input costs
Diversify into new crops and markets	Increasing value of the $A
Improve business management skills	Increased government regulation
Stronger marketing of the Tasmanian brand	Inability to attract new workers

Recommendations

The Strategic Plan lists six goals and 23 strategies.

1. Supportive culture, people, leadership and industry structures
    1.1. establishing industry leadership with the skills and resources to meet the challenges ahead
    1.2. enhancing human resource capacity across the supply chain
    1.3. upgrade leadership development and succession planning
    1.4. recognising industry achievements towards industry vision
    1.5. improving industry communication and change management.
2. Innovative products and services
    2.1. achieving effective quality assurance for domestic and export markets
    2.2. developing and commercialising new products and services

2.3. establishing an effective whole-of-supply chain R&D system
2.4. achieving efficient and effective service delivery to support industry growth.

3. Innovative market development, marketing and public relations
   3.1. using Brand Tasmania to promote the consumption of Tasmanian vegetable products
   3.2. targeting global and domestic consumer market research
   3.3. increasing the marketing and promotion of Australian vegetables
   3.4. partnering with Australian health and educational initiatives
   3.5. building competitive advantage for domestic and export markets.
4. Innovative and profitable business and supply chain models
   4.1. establishing efficient and cooperative supply chain relationships
   4.2. promotion of best practice business models across the supply chain
   4.3. minimising cost burdens in supply chain systems
   4.4. refining industry data and information collection
   4.5. upgrading industry information dissemination systems
   4.6. improving technical, business and financial information systems
   4.7. encouraging innovative vegetable businesses to set up operations in Tasmania.
5. Innovative production practices and sustainable natural resource management
   5.1. supporting sustainable vegetable production.
6. Innovative policy and government relations
   6.1. improving information services to policy makers and the media.

Under these strategies there are 100 actions (42 of which are Tasmania-specific and 58 are whole-of-industry, as captured from the then vegetable industry strategic plan VegVision 2020). Eight foundation actions were listed as priorities as the building blocks for industry growth:

1. establish and resource an industry leadership team to implement the strategic plan
2. facilitate the development of grower clusters to maximise production/supply chain efficiencies
3. establish efficient and collaborative supply chain models
4. undertake consumer market research focused on Tasmanian vegetable products
5. identify domestic and export market opportunities for Tasmanian vegetables
6. develop and implement a marketing and public relations strategy to promote Tasmanian vegetable products
7. develop a business case outlining the benefits of branding Tasmanian vegetables in retail outlets and implement and on-going campaign to gain the support of retailers
8. develop and implement an education and training plan for the Tasmanian vegetable industry.

Implementation

Lack of industry resources stalled the implementation of the plan. In 2010 the State government funded the TFGA to engage a facilitator to undertake the implementation of the Tasmanian

Vegetable Industry Strategic Plan 2007–12. The Vegetable industry facilitator conducted an audit of the strategic plan against the eight foundation actions:

- Establish and resource an industry leadership team to implement the strategic plan

Not achieved formally. However, both the McCain Taskforce and the Vegetable Industry Marketing Committee were established and sought to coordinate fresh market development activity and encourage new local investment in the industry. The main areas of activity was largely undertaken by the TIAR to: undertake market and consumer research; develop new fresh vegetable supply channels on the Australian mainland; endeavour to build recognition of the Tasmania brand and product image; develop promotional (point of sale) information; and explore new fresh product market opportunities in Asian (growth) markets.

- Facilitate the development of grower clusters to maximise production/supply chain efficiencies

Currently the vegetable industry demonstrates collective action or clustering in a number of forms such as: best-practice discussion groups; collective grower price negotiations; landlord and tenant production contracting, leasing and machinery sharing; and other farm input supplier services such as trucking and fertiliser distribution. The loss of McCain vegetable processing has prompted a greater focus on fresh market supplier clustering.

- Establish efficient and collaborative supply chain models

Although more progress can be made in this direction, collaboration along the supply chain already appears to be alive and well in the vegetable industry, except where growers have chosen against it. Fresh product supply aggregation of vegetables in Tasmania has been central to mainland market development through such commercial entities as Premium Fresh and Harvest Moon.

- Undertake consumer market research focused on Tasmanian vegetable products

In 2009 and 2010 the Vegetable Industry Marketing Committee (VIMC) engaged the Australian Produce Group to develop fresh market outlets through independent wholesalers and retailers in the Sydney market. The Tasmanian brand cut-through to consumers would appear to have been found wanting.

- Identify domestic and export market opportunities for Tasmanian vegetables

Through TIAR-Burnie, a project pursuing domestic and export market development opportunities has been taking place. In parallel with this work, Australian mainland investor interest in Tasmania (including the vegetable industry) is also being followed up based on this being a primary market for Tasmanian product. Searching out potential customers and/or investors has recently been ramped up with government sponsored attendance at the Produce Marketing Association conference in Orlando, USA.

- Develop and implement a marketing and public relations strategy to promote Tasmanian vegetable products

A Tasmanian vegetable industry promotion was initiated in 2009 in the Sydney market on a limited scale funded by the government through the VIMC.

- Develop a business case outlining the benefits of branding Tasmanian vegetables in retail outlets and implement and on-going campaign to gain the support of retailers

While Brand Tasmania branding of some vegetables is taking place, managed through TIAR, the business case and commitment to it (by business) - does not appear to have been developed.

- Develop and implement an education and training plan for the Tasmanian vegetable industry.

Tasmanian growers that have actively sought advice and business management help and training have been able to get it if willing to pay. Many vegetable growers are working together in loose discussion groups sponsored by processors. There is also the Rural Finance Counselling Service offered to Tasmanian growers in need of specific financial help.

Vegetable industry facilitator final report December 2012 (Heap 2012).

Purpose
The State government funded the TFGA to engage a facilitator to undertake the implementation of the Tasmanian Vegetable Industry Strategic Plan 2007–12 (Oct 2010 to Dec 2012).

Findings
The facilitator audited the Tasmanian Industry Strategic Plan to identify goals that had already been achieved and to identify strategies to support plan implementation. Seven strategies were outlined:

1. re-establishing Discussion Groups
2. exploring avenues to lower costs of key farm inputs
3. undertaking energy audits at individual enterprise level
4. communicating with farmers on their role in market development and branding
5. ensuring that farmers have a clear understanding of the effect of farm size on costs and returns
6. exploring opportunities for co-operation between growers, aggregators and processors
7. accessing market research on consumer perceptions of Brand Tasmania.

The project implemented many aspects of the Strategic Plan. For examples understanding and addressing key on-farm costs through energy audits, energy supply contract options, controlled traffic farming and adoption of low-input varieties.

Some tasks that were envisaged as high importance/high priority by the Strategic Plan were attempted but failed to gain traction. They were either inappropriate for the industry culture (as with grower discussion groups and benchmarking) or unrealistic in scope (as with developing new, high efficiency, supply chains).

Unless the strategies that relate to developing leadership are implemented, the industry is likely to struggle to maintain the momentum for change. (some of these individual leadership development opportunities are available through the national vegetable R&D program).

The Tasmanian vegetable industry has a 'small farm problem'. The industry contains many profitable and progressive enterprises in production and marketing, as well as processing. There is no future in aligning industry cost and pricing models to enterprise models that are simply not viable.

Farm consolidation, especially of adjoining holdings, can be difficult for a range of reasons. Farm production under leasing, share-farming or contracting arrangements partly addresses the problem. However, the marketplace may not be fully effective at solving this, particularly as the issue of protecting strategic cropping land emerges as a State government issue.

The project focused on innovative approaches to cost management as a key element of maintaining the economic viability of enterprises. It is essential that a holistic 'whole of enterprise' approach be taken that recognises regional factors. For example, in Tasmania, many growers gain profitability through diversification options not available to mainland growers. This is due, in part, to alternative, higher margin crops, such as poppies and pyrethrum.

Recommendations

- Collective industry price negotiations need to reflect efficiency-based grower pricing rather than a price to cover the highest cost growers.
- The Tasmanian industry should collaborate with the national industry program to be developed to improve market information for vegetable growers. Regional facilitation will be required to provide analysis suitable for the Tasmanian industry and to assist with the interpretation and use of the information.
- In consultation with commercial supply chain participants, the State government to provide assistance to complement industry market development.
- Programs to improve market awareness and supply chain understanding by growers should be developed and delivered.
- Industry to commission a supply chain analysis of fertiliser inputs to map costs and determine opportunities and barriers for savings and consult with potential consolidators regarding business models. An alternative strategy to reducing fertiliser costs is to adopt new lower nutrient potato varieties– such as Bondi and Horizon - which can reduce potato fertiliser input costs (and sprays) by the order of 10 per cent.
- Industry to commission R&D to explore the suitability of new varieties and, if feasible, develop production guidelines to meet the needs of supply chain stakeholders.
- That a working party be formed to set machinery widths and a timeline for machinery modification—on a commodity-by-commodity basis.
- That the Tasmanian government investigate options to facilitate farm consolidation. These might include:
  - more flexible payment arrangements in early loan years
  - relatively tight lending criteria—covering grower age and skills
  - a percentage rebate on farm purchase stamp duty
  - that the Tasmanian government consider options to assist unviable farmers to exit the industry. (This would need to include consideration of policy regarding urban sprawl and rural residential development and associated issues).
- That the vegetable industry in Tasmania consults with Ausveg to determine how the Strategic Investment Plan is to be implemented and what opportunities there may be for investment or co-investment that meets the needs of Tasmanian levy-payers, some of which are captured in these recommendations.
- That the vegetable industry in Tasmania reviews the SIP and uses this as a basis for a regional plan that addresses those factors still outstanding from the 2007–12 Strategic Plan and this VIF project, some of which are captured in these recommendations.
- Due consideration should be given to further supporting the vegetable industry as it adapts to changing economic circumstances.
- The investment plan should provide a good business case for the prioritisation of particular strategies, with a budget sufficient for implementation. This should also provide a clear framework for both managing project activities and reporting on them.
- It is equally important that the strategic investment plan should be designed to be adapted to changing circumstances. This requires clarity over the information used to

justify the goals and strategies initially selected and the budget determined. This will enable transparency over any decisions to vary strategic direction.

Implementation
Many of the recommendation are reflected in the priorities in the HAL-Vegetable Industry Strategic Investment Plan 2012–2017 and could be considered for funding from this source.

Marketing Plan for the Tasmanian Vegetable Industry November 2007 (McKinna et al Pty Ltd 2007).

Purpose
The overarching goal of the marketing plan, in conjunction with the Tasmanian Vegetable Industry Strategy Plan, was to maintain or increase the value and prosperity of the Tasmanian vegetable industry. The plan spanned five years from 2007 to 2012.

Findings
The plan noted that the Tasmanian vegetable industry was under significant pressure and identified some major challenges as well as opportunities.

Challenges

Competitiveness is currently limited by the scale of operations, the prevalence of mixed farms, over-capitalisation, particularly on equipment, high land prices forming a barrier to business expansion and growth, seasonality of key commodities and freight and logistical disadvantages. Increasingly, the availability and cost of water will become more important in determining enterprise mix choices.

Reliance on processing also presents a significant challenge. Of particular concern is that the current prices received by both farmers and processors are unsustainable. Supermarket private label programs and supermarket market power is putting severe downward pressure on prices whilst at the same time supermarkets' increasingly demanding compliance requirements are putting upward pressure on costs.

Vegetables are a mature and stagnant market category. Apart from a few new innovative sub-categories, consumption of vegetables in Australia is flat or declining on a per capita

Opportunities

The most significant opportunities are in the fresh and fresh-cut markets which have been showing growth both in volume and value terms. Premium fresh-cuts in particular are enjoying annual growth rates of 20% per annum and are expected to continue sustained growth for at least the next decade in line with overseas trends. Time-poor consumers are seeking convenience style, ready-to-serve meals and fresh vegetable meals

For a growing sector of the population, origin, environmental sustainability, carbon/food miles, labour exploitation and ethics increasingly influence food choices. This creates significant opportunities for Tasmania, which is perceived to be a clean and environmentally responsible producer of vegetables.

The food service market is growing on the back of demographic and social shifts, presenting opportunities to market premium vegetable products to high-end restaurants and time-saving, value-added products to food service establishments looking to reduce labour costs.

basis.

The plan listed 14 key market research findings including that vegetables are a low involvement category, being purchased without much thought or emotion and play a secondary role in meal planning. However, consumers responded very positively to:

- vegetables selected and marketed on the basis of 'fitness for purpose' (for example, potatoes for mashing, roasting)
- premium, branded vegetables that delivered superior eating quality
- a premium range of vegetables produced with superior 'clean and green' credentials
- ready to cook/serve convenience products.

Recommendations

The marketing plan listed six key strategies with associated projects.

1. Protect the processing industry
    1.1. generic promotional program for frozen vegetables jointly funded by processors and processor growers.
2. Raise the national profile of the Tasmanian vegetable industry
    2.1. seasonal promotion with mainland independent retailers & supermarkets of Tasmania's icon vegetable products through in-store promotions
    2.2. full-scale public relations program to build the profile of Tasmanian vegetables on the mainland and locally.
3. Develop fresh and minimally processed categories
    3.1. branded premium vegetable products that have superior performance marketed in terms of 'fitness for purpose' (for example, potatoes for mashing, roasting) and eating quality
    3.2. a range of premium quality branded vegetables supported by a money back guarantee through boutique retail outlets and high-end food service
    3.3. a range of functionally and/or nutritionally enhanced branded vegetables
    3.4. a range of branded vegetables promoted on a platform of minimal chemical and more environmentally friendly.
4. Maximise opportunities in the local market
    4.1. collaborate with the major supermarkets and assess the potential to supply the local (Tasmanian) market.
5. Develop greenhouse vegetable industry
    1.1. in conjunction with the Department of Economic Development (DED), develop a prospectus and canvass interest from commercial parties to invest in greenhouse vegetable production in Tasmania.
6. Enhance industry market alignment
    6.1. development of a market intelligence capability whereby the latest market data, information and knowledge is collected and disseminated to industry

6.2. implement a change management strategy and infrastructure to enable change including: market intelligence, leadership program; overseas study tours, benchmarking study and competitor analysis
6.3. establish a vegetable processing industry round table & communication program to foster a collaborative rather than adversarial approach.

Implementation
Simplot growers and Simplot have invested significantly in promotion of frozen vegetables under Australian Grown brand. The Vegetable Industry Marketing Committee with funding for TIAR ran a number of communications campaigns promoting Tasmanian vegetables under the tagline Tassie Vegetables - Taste is in our Nature. These were run annually between 2009 and 2011.

Vegetable Industry Strategic Investment Plan 2012–2017 (AUSVEG 2012).

Purpose
The plan guides the investment of the vegetable industry levy funds and matching Australian Government funding to help realise the industry's vision 'To be a cohesive, financially and environmentally sustainable, and highly efficient industry focused on growing demand profitably'.

Findings
A longer term approach to mechanisation and technology may assist in reducing high labour costs. However, financial ability of farms to access innovative mechanical systems is low with nearly 60 per cent of vegetable farms revenue at $150 thousand p.a. or less. With the mechanical harvesters costing typically between $100 thousand and $450 thousand farmers are unable to either justify or finance mechanisation even when available.

Despite vegetable growers not expecting to be directly impacted by any emission trading schemes it does pose a significant indirect impact as it could raise costs and therefore place further pressure on margins.

The growing bargaining power and consolidation of food retail chains increases the buying power of a small number of retailers. Currently major supermarket retailers purchase 50–70 per cent of their fresh produce directly from growers rather than through wholesalers. The vegetable industry must embrace the changing structure and influences of the downstream retail market and how they might influence the costs (and opportunities available) to growers.

Increasing import competition is thought to have led to a fall in the volumes of processing vegetables grown by the industry and to have put downward pressure on prices. This trend seems set to continue with the processing sector progressively consolidating operations around the world. Australia as a relatively high cost producer, with a small domestic market has not attracted investment capital and is likely to face increasing competition from imports.

With historically stagnant per capita consumption rates, there appears to be a legitimate need to change consumers' perceptions and sentiments of vegetables if the industry is going to increase domestic demand above population growth rates. However, the question of a marketing levy is unresolved until research is dedicated to understanding the potential benefits.

Exports represent a significant lost opportunity because global markets and trade for horticultural products is growing each year at an equivalent rate to Australia's entire horticultural output. The question is how Australian vegetable farmers can position themselves to be able to supply on a scale and consistency required.

Despite the attractiveness of exporting, Australia's ability to successfully access export markets at the present time has some limitations, for example:

- increasing competition in horticulture production has caused deterioration of export markets for Australian vegetables—for example, China, Chile, South Africa ('clean and green' is no longer a differentiator for Australia in production)
- exchange rate movements over the prior two years have made Australian goods approximately one-third more expensive in export markets
- imports of processed vegetable products are rising, substituting home grown vegetable products
- most levy payers do not have the scale, quality assurance processes, market knowledge or capability to access international markets
- large global retailers plan their requirements to secure supply—'category managers' therefore are powerful, while smaller suppliers (like Australia) have more difficulty in accessing retailers
- new storage technologies mean that overseas competitors are able to store fresh food longer - seasonal supply advantages in Australia are weaker and import threats increase
- high direct (for example, tariff barriers) and indirect (for example, quarantine restrictions) barriers to trade exist—which makes access to key export markets difficult (for example, China, India).

Recommendations
The strategic plan recommended that vegetable industry levy funds be invested against three priorities:

1. Consumer Alignment

This priority's objective is increasing consumer demand and willingness-to-pay for vegetable products on a global scale. This is achieved through increasing domestic per capita consumption, increasing international interest in Australian vegetable products, and improving the value of Australian vegetables in all consumers' minds.

2. Market & Value Chain Development.

This priority relates to the development of value adding processes and both domestic and international supply chains. Vegetable markets need to expand to grow the value of the industry and be developed properly to capture a larger portion of this value for growers. This requires cooperation and alignment both horizontally as well as vertically within the supply chain.

3. Farm Productivity, Resource Use and Management.

This priority involves developing innovative techniques and technologies to improve on-farm production efficiencies, including the formation of collaborative or cooperative structures to deliver greater efficiency to small scale producers.

Implementation
This R&D plan guides the vegetable industry advisory committee's selection of projects for funding by HAL. HAL manages a very large number of projects for the vegetable industry. Projects reported in the 2012–13 annual report include:

- identifying market opportunities for Australian vegetables in China
- strategically addressing domestic and export market access and trade viability issues
- on-farm demonstration of controlled traffic farming for vegetables (TIAR)
- managing pesticide access in horticulture (vegetables)
- coordinated knowledge and industry development program.

Australian vegetable export opportunities (AUSVEG 2013).

Purpose
This discussion paper explores Australian vegetable exports, in particular vegetable export opportunities for Australia in the future. The research examines the current state of the vegetable export market by analysing individual vegetable commodities and growth markets.

Findings
The over-reliance on the domestic market leads to short-term problems with oversupply and lack of control of the supply chain. In the longer term, it inhibits the industry fulfilling its potential and limits future growth opportunities.

The growing demand from international markets and freeing of trade barriers will present growers with opportunities that did not exist before. Strong economic growth in developing countries is likely to spur demand for vegetables. Developing countries are growing at more than 5 per cent per year, with East Asian countries growing at 7 per cent. These high growth rates are projected to continue, leading to an increase in demand for quality food commodities.

Vegetable exports composed a mere 0.8 per cent of the $30.6 billion value of Australian food exports in 2011–12. In comparison, grain and meat exports are more than 25 times larger than vegetable exports and are worth $8.8 billion and $7.2 billion of the Australian food export market respectively.

Australian vegetable growers have comparative technological advantages. The mechanisation of vegetable growing has reduced labour costs and improved productivity. Technological developments have improved fresh vegetable shelf life, enabling fresh vegetables to be shipped to a larger number of destinations. To become a key supplier of vegetables in export markets, Australian producers must continue to adopt new farm technologies to increase efficiency and reduce the industry's dependence on labour.

Growers have the opportunity to take advantage of seasonal conditions to export vegetables to overseas markets during times when overseas production slows. This strategy has been successful for other vegetable exporting countries.

One of the major challenges that growers will have to contend with is competition from other vegetable exporting countries. There is a high level of global self-sufficiency in vegetables and some Asian markets that have traditionally imported Australian vegetables are becoming net

exporters of vegetables. The opening up of trade barriers will further intensify competition. This will be particularly challenging for Australian growers, given high input costs and limited investment capital in the industry. Australia's labour and marketing costs are among the highest in the world.

Australia's isolation also means higher transport and logistics costs. Domestic trucking and freight costs are comparatively high in Australia. However, transportation of fresh vegetables is improving and Australia's proximity to Asia results in lower shipping costs and delivery times. Despite this, growers still face transportation issues in securing freight capacity and ensuring the proper handling of produce. For growers to succeed at exporting, it is essential that the supply chain infrastructure is efficient and cost-competitive.

Recommendations

- Collaboration is the key to tackling the export market. Vegetable growers interested in exporting are encouraged to work with other growers across various agricultural commodities in order to share ideas and knowledge.
- It is beneficial for growers to partner with overseas importers. These relationships are immensely valuable for growers as it helps them understand the customer's needs and work out how to meet them.
- Growers are encouraged to utilise the resources and programs available through the vegetable industry and government. Austrade provides growers with a range of services including market research, business introductions and funding.
- Future success in vegetable exporting will depend heavily on the ability to deliver produce of consistent quality. Given Australia's reputation for food safety and quality, it makes sense for Australian growers to compete on quality as opposed to price.
- Expanding access to export markets is essential for supporting Australian growers and manufacturers as reducing tariffs and other trade barriers will improve the competitiveness of Australian exports.
- It is recommended that research be undertaken to develop better approaches to export markets. These include looking at other countries that are successfully exporting vegetables, strategies to build connections with overseas customers, and training programs to assist growers in becoming export ready.

Implementation

The plan was written as a discussion paper to stimulate consideration of export potential for vegetables within the private sector.

HAL has recently funded a series of projects to deliver better information about export market opportunities and export capacity building for the Australian vegetable industry including:

- Malaysia and UAE market analysis and strategy: carrots, sweet corn, baby leaf and beans
- Market analysis and strategy: broccoli to Japan
- Japan export symposium
- Export readiness program
- Identifying market opportunities for Asian vegetables in China.

Exporting Vegetables to China: Examining opportunities and barriers (Bensley 2013).

Purpose
A report prepared for Senator the Hon. Richard Colbeck as part of the Australian National Internships Program.

Findings
Counter seasonality is an important element in Australia's trade in fresh fruit and vegetables, including citrus, table grapes and asparagus. As such, counter seasonal trade with countries in the southern hemisphere, for example, supplying out of season produce to the northern hemisphere, is a strength of Australia's. However, seasonality seems to be both a reason for the success of Southern Hemisphere growers exporting to Japan and Singapore, as well as a major constraint in not being able to supply these markets beyond a few months each year.

The exchange rate is an important macroeconomic variable that significantly influences the performance of Australian export industries via its impacts on export earnings and international price competitiveness. Various industries within the horticultural sector have been reporting that the high Australian dollar is causing export losses to their respective sectors.

The attitudes of vegetable growers need to be positive towards the possibility of export if Australia wants to gain better access to the Chinese market. However, data from government bodies and interviews indicated this was not the case.

It is evident that the mindset shown by the current vegetable growing enterprises towards China as an export market is one of some interest, but given that the high dollar is putting some pressure on their business, more focus is going into maintaining existing export relationships.

Export markets are time consuming and are often difficult. Exporters in Australia rely on the market information available to them through government and industry bodies to navigate exporting. However, some concerns were expressed about the accuracy and lack of access and to this kind of information for small and medium enterprises, which have fewer resources and capacity to understand technical market access issues.

All sources consulted for this report saw investment into R&D essential for Australian vegetable producers to move forward into export, or further improve the competitiveness of those already exporting.

Recommendations
The Australian government should make the completion of the Australian-China FTA a priority.

A Brand Australia program that encompasses Australian safe and premium produce should be pursued, along with a campaign to be used in China that promotes Australia horticulture's safety and premium quality.

The government should focus on building relationships within Australia (between Commonwealth, State and Territory governments and industry) to ensure a 'unified front' when approaching the challenge of market access to China.

The government should investigate ways to provide more cost-effective assistance to tools essential to market access, such as information on phyto-sanitary requirements, market information and fees associated with export registration to encourage exporters to look to China.

Research is recommended which examines the experiences of vegetable businesses already exporting to China.

Implementation
The plan was written as a discussion paper to stimulate consideration of export potential for vegetables within the private sector.

Diversifying Tasmania's Economy: Analysis and Options—final report (West et al. 2012)

Purpose
The report aims to support governments in identifying high potential sectors of the Tasmanian economy and opportunities to support their growth.

Findings

Wine

The wine industry offers great potential to Tasmania. Market and production conditions exist to increase the supply of Tasmanian wine in the short and longer terms, to the substantial benefit of the Tasmanian economy.

As yet, the planted area in Tasmania is a very small proportion of New Zealand's (4.5 per cent) and the mainland's (0.92 per cent) vineyard area.

A simple thought exercise can demonstrate the opportunity: It is estimated that Tasmania possesses roughly 150 000 hectares of land capable of growing wine grapes of sufficient quality to produce wine that would sell for greater than $30 per bottle. Were Tasmania to expand to 3000 hectares of vineyards, occupying only two per cent of this potential and producing 1.2 per cent of Australia's wine, and were the same ratio of 0.7 jobs per hectare on average to hold as elsewhere (which is likely), Tasmania's wine industry would employ 2100 people, an 1100-job increase.

Cool climate Tasmania, predicted to be little affected by projected global warming, will look increasingly attractive to mainland grape and wine producers.

High quality grape-growing land is relatively cheap in Tasmania (however, as vineyard plantings and irrigation spread, this may change) water resources are plentiful, much of the climate is suitable to produce ultra-premium wine, and opportunities exist to grow the market for Tasmanian wine.

The industry could profitably expand faster than in the past 10 years, indeed evidence suggests that growth itself could solve many of the Tasmanian industry's existing problems, and thereby become self-sustaining.

Irrigation scheme development will substantially underpin water security for future vineyard development in Tasmania.

Wine tourism has begun in Tasmania, but based on the experience of other states there is considerable scope for growth.

Key obstacles to growth include lack of skills training and location-specific research investment, inappropriate zoning regulations, inadequate infrastructure, low levels of investment in marketing and promotion, and lack of scale in vineyards, processing, and distribution.

Cider is a small sector, but with high potential for growth. Several Tasmanian winemakers are now showing an interest. Tasmania has the climate and resources to grow cider variety apples, and so develop a premium quality, boutique industry.

Horticulture

The world is increasingly hungry for reliable sources of high-quality and secure sources of these products, but Tasmanian (and Australian) growers have been shut out of many export markets because of high production costs.

There is the ability to provide counter-seasonal production for the northern hemisphere markets and late season produce for interstate markets, both being significant benefits.

The potential for growth in value-added in this sector is substantial if Tasmanian growers can drive costs down through reaping economies of scale, using agglomeration effects to their advantage, implementing continuous innovation, and exploiting the advantages of collaboration.

The main factors for reducing production costs are to increase production in order to create economies of scale that can support mechanisation, irrigation, transport, planting of higher-yielding varieties, the co-location of ancillary suppliers and experts, and the establishment of processors.

Currently, the level of output for several horticultural products is either too low or too scattered to create economies of scale. The lesson for Tasmania is to think on a bigger scale. Moving production from a boutique operation to a large scale farming operation could drive down Australian prices, but this will be more than compensated by an increase in demand.

The clean and green branding of Tasmanian products could attract a small price premium that complements boutique production, but branding, on its own, will not move Tasmanian horticulture from a small scale high-cost producer that is partially dependent on biosecurity trade barriers to a large scale, internationally competitive producer.

Entry to the counter seasonal market requires the ability to grow high quality produce at prices that are competitive with growers in other cool-climate counter seasonal regions, including Chile, New Zealand and South Africa. The implication for Tasmanian growers is that they need to reduce production costs, even for higher value produce.

Greenhouse crop production in Tasmania is currently limited to a relatively small number of producers. The sector ranks highly in terms of innovative capability, which provides a source of

potential rapid growth in the sector. Similar to the rest of the horticulture sector, growth could be dependent on low cost access to large markets on the mainland.

Given high labour costs in Tasmania, future growth opportunities are likely to be greater for fruit that can be harvested mechanically (at least a significant share of production). For some fruits such as blueberries, mechanical harvesting can produce fruit of sufficient quality for the fresh produce market.

Factors that constrain the horticulture industry in Tasmania are:

- rising input costs, including electricity
- water security, including supply of irrigation.
- cost competitiveness
- absence of processor to can use lower grade fruit
- high overhead costs as a result of smaller scale production systems
- increasing competition from imported processed fruit and vegetable products
- labour factors (including cost, quality and supply of skilled and seasonal labour)
- transport costs and logistics (including Bass Strait freight, port access and air freight facilities and costs).

Also of concern to the future of many other agricultural businesses is the management of businesses over the coming years as the average age of producers continues to rise.

Recommendations:
The role for government, then, is to act to help overcome these issues in ways that support the private sector, not substitute for it, which provide and encourage coordination, and which facilitate the development of Tasmania's potential. The key is to focus on only a few opportunities, to remove blockages specific to the target sectors, and to address in particular the issues of grower-processor interaction:

1. create three new task-oriented development-facilitation authorities –develop industry development authorities for wine, dairy and horticulture based on the Tasmanian Irrigation Pty Ltd model
2. do not make grants –they are rarely successful in promoting industry development (in the absence of an industry development program, with private-sector leadership)
3. redeploy forestry assets—the forestry industry posses' significant assets which should be preserved or enhanced by redeploying them to growth sector industries
4. integrate with irrigation—most opportunities for growth in the agriculture sector depend on, or are enhanced by, the provision of water to new areas through irrigation
5. remove regulatory barriers that are specific to the priority sectors –regulatory complexity and uncertainty is the most commonly mentioned barrier to entrepreneurs seeking to develop Tasmania's opportunities
6. focus on investing in skills ahead of need –investment in skills ahead of market need helps to promote new industries
7. create assets, rather than simply meeting operating costs, and prioritise investment in supportive infrastructure –infrastructure is a vital arena for government support, it is difficult for the private sector to undertake alone and infrastructure development is always heavily regulated

8. support manufacturing-based processors that will induce grower production expansion – additional processor capacity is a key to unlocking the growth potential for Tasmania's grower based industries
9. support collaborative initiatives in the value chain—small scale, potentially high opportunity sectors, are too small to undertake some necessary activities. Government facilitated collaboration could assist growth in these sector
10. integrate with tourism, especially wine and boutique foods—to capture greater value from the synergies that exist.

Other areas where Government can support and assist the horticultural and wine industries include:

- provide accurate data for the industry
- maintain biosecurity measures
- prepare market access documentation and negotiating to open access to markets.
- investigate possibility of new fruit producing industries, varieties and technology.
- provide information and facilitation services to attract new investors
- fund targeted economic research on the Tasmanian wine industry
- fund R&D programmes that are relevant to Tasmanian conditions
- support innovations at any point of the value chain that will reduce costs at any point along the value chain
- take a role in marketing Tasmanian produce and or developing/maintaining marketing cost structures in the longer term
- ensure appropriate skills training available at regional and state level
- investigate opportunities in diversification of vegetable production and value adding where appropriate and a market can be identified

Implementation

The recommendations from the report have influenced the design of the Tasmanian Labor Government's Economic Development Plan and the Tasmanian Forests Intergovernmental Agreement (TFIGA) economic diversification package.

Economic Development Plan: Wine, poppy, fruit and vegetable sector summaries, January 2014 (Tasmanian Labor Government 2014).

Purpose

The Tasmanian Government worked with industry stakeholders to develop detailed strategies for key trade and investment sectors to guide its investments in the sectors.

Wine

Constraints	Opportunities
Yield variability associated with cool climate viticulture.	Build the state's reputation as a producer of premium cool-climate wines.
The global oversupply of wine	Emerging export markets for Australian wine, such as China and Hong Kong.
Access to water and water security (in some areas).	Build interstate trade by increasing brand recognition of Tasmanian wines.
High freight costs and the necessity to import empty bottles and other	Joint promotions with Tasmanian producers of other premium food and beverage products
Any further reduction in port access and/or sea freight services to the mainland.	Increase business and technical skills across the sector.
Access to relevant and accurate data and information regarding production, profitability, markets and exports	Promote Tasmania as a highly suitable alternative for investment.
Tasmania is a small-scale and high-cost producer and must compete on the basis of quality.	Identify new areas of the state that are suitable for wine grape production.
The small scale of the Tasmanian wine industry and the ability to reliably supply new markets.	Tasmanian Irrigation Pty Ltd is progressing a suite of regionally significant irrigation schemes in many parts of Tasmania.
Availability of highly skilled casual labour.	Growing global demand for cool climate wine styles
Availability of investment funds to grow the industry	

Tasmanian Labor Government Strategy:

- the government will support marketing and promotion initiatives and in other areas such as research, development and extension activities, and risk-based biosecurity
- The government will also explore attracting one or more large processors to the state to drive rapid expansion of the industry, which cannot be achieved from local investment.

Industry Strategy

- marketing and promotion—raising awareness and therefore increasing sales of Tasmanian wine
- member services and support—developing member capabilities
- sustainable production and market-led growth—research, development and extension activities with a focus on best practice environmental stewardship and initiatives to encourage market-led growth.

Poppies

Constraints

As demand for poppy product has grown, an increasing number of countries have commenced production, introducing greater competition into the market.

A significant concern of processors is that their customers see high levels of risk in relying heavily on one location for the production of raw material.

Tasmanian farmers need to deliver ongoing productivity improvements to maintain their position in the industry. Additionally, it is important that Tasmanian farmers maintain other cropping options to ensure that sufficient crop rotation timetables are maintained.

As Tasmania is a relatively high-cost production area, it must maintain high levels of productivity to offset those higher costs. High input, freight and power costs all impact on the profitability of the sector, and the strong Australian dollar has also affected industry profitability, particularly as all poppy material is traded in US dollars.

Expansion of production into areas outside of Tasmania would significantly change the structure of the poppy industry in the state and introduce a range of challenges.

Opportunities

The world market for licit narcotic products is growing rapidly and is experiencing a step change in scale and production.

The Tasmania poppy industry is a world leader in terms of production, research and development, and yields. Tasmania has access to poppy varieties that deliver high levels of alkaloid of varying types, which has given it a significant advantage over other production areas.

Farmers have long-term experience in both the growing and management of poppy crops, and supporting processors to build the Tasmanian poppy industry over the past 40 years.

Tasmania is a proven growing area and offers a safe, secure and well-regulated environment in which to produce and process poppies.

Ongoing investment in poppy varieties and production techniques for Tasmanian conditions ensures the state has good opportunities to continue to be an important poppy production region.

Processors have suggested that there are significant productivity gains still to be made in a number of production regions.

Tasmanian Labor Government strategy:

- continue to support industry activities that enhance the productivity and competitiveness of the state's poppy growers and will implement those actions agreed to in industry discussions
- continue to engage with other governments to advocate for a strong and sustainable Tasmanian poppy industry into the future
- review Tasmania's poppy industry regulation to ensuring its operation is effective and efficient in the modern industry environment.

Industry strategy:

- processors are continuing to invest in poppy processing capability in Tasmania, with Tasmanian Alkaloids commencing a $21 million investment to improve its factory efficiencies in July 2013

- processors intend to continue to conduct research, development and extension in poppy production and processing practices in Tasmania
- work to implement of-farm productivity improvements.

Fruit

Constraints	Opportunities
Increasing global competition from low-cost production countries for both fresh and processed product makes it difficult to compete in some markets.	Island status offers freedom from many diseases, giving production benefits and market access advantages, particularly in high-value niche markets.
Tasmanian fruit producers generally face higher production costs, in terms of key inputs such as labour, water and energy, relative to global competitors.	Increased market access into Asian markets, focussing on competitively priced quality food for Asia's growing middle class and the marketing of premium products to Asia's high-income consumers.
The issue of greatest concern is currently the cost of labour, which makes up a significant proportion of production costs	Climate change may open up new markets and investment opportunities for the state, with recognition that the state's climatic conditions are optimal for the production of stone and berry fruit.
Reduced investment by industry and/or government in research and development.	Development and promotion of the Tasmanian brand offers opportunities for premium niche markets in both the domestic and international markets.
Issues with ensuring reliable, timely and cost-effective freight services to the mainland and export markets impact on the industry.	

Tasmanian Labor Government strategy:

- maintaining a risk based approach to biosecurity in line with the Tasmanian Biosecurity Strategy 2013–2017
- assisting with access to new (and develop existing) markets
- advancing investment and development opportunities
- addressing regulatory and red tape issues through the Government Red Tape Action Project which has commenced in the agricultural industry and includes representation from the fruit sector
- supporting research, development and extension services applicable to industry and the state's unique environmental conditions.

Industry strategy:

- ensure Tasmania maintains and strengthens its level of biosecurity and border protection, in line with the strategies developed in the Primary Industry Biosecurity Action Alliance

- undertake market development and maintenance activities to maintain and/or grow existing markets and access new markets, including leveraging national marketing activities
- maintain and/or increase competitiveness in key markets.

Vegetables

Constraints	Opportunities
Small scale and relatively high cost production systems make it difficult to compete.	Opportunities exist to increase supply of fresh vegetables into domestic markets during warmer months
Rising input costs such as labour, power and water are affecting producer (farmer) and processor profitability.	Relative pest and disease-free status allows access to markets.
Reliance on the commodity, price-driven frozen process vegetable industry has placed pressure on grower profitability due to increasing competition from low-cost countries	North West Tasmania has been assessed as Australia's best location for greenhouse vegetable production, but has seen only limited investment in such facilities to date
Physical isolation from large markets and the costs and structure of freight services affect competitiveness. Issues with infrastructure related to port access and/or sea freight services to interstate areas also have major impacts on the industry.	Growth in the fresh vegetable sector especially niche markets including leafy green vegetables, seeds and ready-to-eat products
	Irrigation infrastructure investment has and will continue to open up new areas and improve performance and reliability in existing cropping areas.

Tasmanian Labor Government strategy:

Key strategies to support the industry include:

- maintain investment in the Tasmanian Institute of Agriculture (TIA) to deliver research, development and extension support to industry. Work collaboratively with industry to identify opportunities and priorities
- undertake investment attraction activities with industry where appropriate. Continue to make information about market opportunities available where possible
- continued support for Tasmanian Irrigation Pty Ltd and leverage opportunities from improved access to reliable water
- implement the Tasmanian Labor Government's planning reform program. Implement actions from the Red Tape Review
- work with industry to support best practice risk-based biosecurity measures.
- continue to engage with the Freight Logistics Coordination Team and other bodies addressing freight and logistics issues in Tasmania
- offer information and learning opportunities targeted at priority sectors and activities likely to deliver the greatest benefits
- support skills development in line with industry priorities. Continue to investigate and identify ways to meet the sector's non-accredited skills needs

- wherever appropriate encourage agribusinesses to consider ways to improve collaboration to achieve economies of scale, and greater efficiency through alternative business structures.

Industry strategy:

- reduce input costs and increase productivity to achieve a long-term sustainable and cost competitive model. Exploring options to increase economies of scale will be a key tool to improving productivity and reducing costs
- maintain investment in research, development and extension support to industry. Work in close collaboration with the Tasmanian Institute of Agriculture to identify areas of industry priority
- maintain biosecurity service and maintenance of standards across Tasmania.
- working through the supply chain to work effectively to improve performance and productivity. Where possible benchmarking and the compilation and sharing of accurate performance data will assist
- pursue marketing and market development activities individually and investigate opportunities to promote the qualities of Tasmanian and Australian-grown vegetables
- lobby to reduce local, state and Australian government legislative/regulatory constraints to reduce red tape costs and barriers.

Implementation

The Tasmanian Labor Government reviewed the performance of its economic development plan after 22 months of implementation (August 2011-April 2013, published in July 2013). At this time, many projects were not yet complete or were not yet delivering the longer term outcomes intended. According to the review key outcomes so far achieved for the horticulture sector included:

- six new irrigation schemes have leveraged $46 million in private investments in water rights
- the Premier's trade mission to Asia in September 2012 included discussions with China's quarantine authority with regard to Tasmanian cherry access to the Chinese cherry market. This has come to fruition with a market protocol between Tasmania and China, and the first shipment of 75 tonnes to China at the end of the 2013 season
- wine Industry Development Program: focussed on investment attraction, vineyard expansion, workforce development, and research, development and extension activities
    - the International Cool Climate Symposium held in Hobart in February 2012 was highly acclaimed by industry and media and served to focus an international spotlight on the Tasmanian industry
    - in April 2012, one of the Europe's leading drinks publications, *The Drinks Business*, named Tasmania as one of the top two locations in the world for vineyard investment
    - a major study is underway to identify new Tasmanian sites with the potential to produce top-quality wine grapes. More research, development and extension activities are funded under the Vineyard and Orchard Expansion Program

(introduced in April 2013). Even more positive results are expected at the next two-year effectiveness review.

- 'Tasmania' brand development and marketing—Under the 'Export Active' program, $7 million of contracts and 162 business-matching opportunities were facilitated, nine promotions and trade missions undertaken, nine in-bound trade missions facilitated, four exporter-skills workshops delivered and 100 per cent of clients surveyed were satisfied
- Wealth from Water: a joint DEDTA, DPIPWE and Tasmanian Institute of Agriculture program. Provides information and tools to support land use change to higher-value production and uptake of irrigation water. This project concluded in December 2012. Feedback from the target audience is that the tools are of a high standard and fit for purpose
- agri-park feasibility study: did not proceed on industry advice. New focus sub-sectors are poppies and berries
- the Government invested approximately $4.6 million in TIA in 2012–13. This was matched by $3.9 million from UTAS and $10.4 million in competitive Industry and Research Grants. In 2012–13 TIA achieved outstanding results under the national Excellence in Research Assessment (ERA). It is one of the highest ranked universities in agriculture, and received the highest possible ERA ranking for agriculture, land and farm management
- the Sense-T project will see huge potential for 'agricultural optimisation'; a microclimate, water and soil sensor network will help enterprises use our investment in irrigation, manage disease, adapt to climate change and monitor environmental impacts. Sense-T will is currently undertaking demonstration research projects in fruit and viticulture optimisation in the Huon Valley and East Coast.

Australian Cherry Strategic Investment Plan 2012–17 (Cherry Growers Australia 2012).

Purpose
The plan guides the investment of the cherry industry levy funds and matching Australian Government funding to help realise the industry's vision 'the best quality Australian cherries to meet consumer needs!'

Findings
The industry has been undergoing significant growth for more than a decade—doubling in volume in the last 10 years. The current growth cycle is set to continue and there continues to be increased plantings in the main growing regions.

Australia is a very small player in the world cherry market, with less than 1 per cent of world production and less than 0.2 per cent of world exports in 2011. Currently the Australian cherry industry exports 20 per cent of its crop. Its aim is to increase this level to 50 per cent of its crop by 2017.

Tasmania has a strong export focus, enhanced by its relative pest and disease freedom. Tasmania has national and international recognition for Area Freedom status for Fruit Fly. This

recognition provides access to a number of international markets where stringent import regulations are in place including Japan, South Korea and Taiwan.

Australian growers have over the last five years had a period of diminishing terms of trade impacted by increasing supply and lack of access by some mainland States to key export markets. Contrastingly, for Tasmanian grown fruit there has been improved market access and markets have opened up due to the State's fruit fly free status.

Over the last 5 years export has grown from 1100 tonnes to approximately 2000 tonnes. There is still significant export potential for Australian cherries across a range of markets including China, South Korea and Japan. The main impediment to export market growth is market access. It is critical for the industry to maintain and secure improved access to current and new export markets with workable protocols.

New technology is facilitating the development of improved products that are better meeting consumer needs - for cherries, this includes innovatively packaged and processed products.

The industry's export marketing program involves a mix of initiatives including trade show representation and individual companies working in particular markets. Beyond levy investment, marketers and supermarkets also invest heavily in cherry promotion. Exporters are also undertaking specific in-country education and promotions activities to grow exports.

In export markets, Australia's main competitors are other southern hemisphere producers, in particular Chile and New Zealand. Chile has implemented a major expansion program over the last few years and indications are they continue to oversupply northern hemisphere markets with lower priced fruit. Argentina and South Africa also have a small but growing presence in export markets and could be greater threats in the future.

Food manufacturing, distribution and retailing are becoming increasingly dominated by a relatively small number of firms, globally and locally. As a consequence, marketing channel options for cherries are declining, particularly for small to medium-sized growers who lack the scale to interest larger buyers. Growers often view the increasing market power of the retail sector negatively. However, opportunities exist for the Australian cherry industry to develop advantageous relationships with the retail sector and drive domestic demand for cherries through promotion.

Increasingly innovation and productivity improvements are being driven by commercial value chains and as a result there is a need for growers to develop relationships with and participate in these supply chains to gain access to markets and technology. Factors that impact the efficiency and growth of these supply chains have previously been identified as:

- inconsistent fruit quality
- inadequate production forecasting
- lack of consolidation of fruit volumes
- lack of training of supply chain staff, particularly at retail level.

Recommendations

Build a competitive supply of quality Australian cherries to ensure that consumers can confidently purchase consistently high quality fresh cherries at retail level:

- continuously improve the efficiency of cherry production and packhouse systems
- improve post harvest handling and presentation of fruit
- implement appropriate information systems and risk management strategies to underpin supply.

Facilitate a profitable production sector by increasing demand for Australian cherries in line with increasing supply:

- conduct research to inform marketing strategies and identify opportunities for product development
- drive growth in targeted domestic and export market segments through effective market development and promotion
- increase consumer confidence in Australian cherries through managing product issues effectively.

Ensure the Australian cherry industry has appropriate and sufficient capacity to manage change and industry expansion:

- develop appropriate leadership, structures and resources to provide sound industry stewardship
- improve industry communication and extension to facilitate improved outcomes for industry and industry investors
- ensure the industry has appropriate resources / risk management strategies to function effectively.

Implementation
The plan is currently being implemented by HAL and its cherry industry advisory committee.

Adjusting to apple imports: Economic Impact Statement; Industry transition plan; and A comprehensive industry plan (Centre for International Economics 2010).

Purpose
These three reports were developed by the Centre for International Economics for Apple and Pear Australia Limited to support the apple industry's campaign for adjustment assistance following the decision to permit the importation of apples from New Zealand.

Findings
The Australian apple industry has become relatively uncompetitive by international standards. Specifically:

- Australian growers lag behind international competitors on a number of indicators of orchard productivity
- product quality is inconsistent, which reduces demand in both domestic and export markets and lowers the price received by growers
- the supply chain is highly fragmented preventing Australian producers from taking advantage of economies of scale in packing and marketing.

Variety transition and the replacement of low density orchards and less productive orchard systems are necessary for producers to improve their competitive position. There is evidence that Australia lags behind key competitors on these measures.

Australia's competitors have rationalised supply chains, achieved greater efficiency and reduced costs. By contrast, there appears to have been increased investment in packing sheds in Australia. This is impacting the cost of production as well as quality outcomes. There is an abundance of small pack houses without the size to invest in expensive equipment capable of improving the consistency in product quality.

As a result of the distance to markets, freight costs paid by Australian exporters are inherently higher than other apple-exporting countries. Whilst New Zealand is also relatively isolated from international markets it has been able to minimise this disadvantage through utilising charters. Chartering a ship involves the coordination of a significant volume of product, supported by well integrated supply chains and effective marketing and distribution channels in export markets. These capacities are not yet developed within the Australian apple industry.

Tasmania has a variety of different growers ranging from innovative to less adaptive. Several growers in Tasmania were unaware of key production statistics such as their yields and percentage pack outs, whilst others appeared to be nearing benchmarks. Averaging these highly distinct segments of the industry suggests that regional characteristics, in terms of regional averages, are consistent with the industry average. This includes:

- an estimated average density of around 1350 trees per hectare
- all new trees are being planted in high density, at an average of at least 2 000 trees per hectare
- based on the estimated total orchard area (approximately 1050 hectares) and ABS production data, the average yield in production per hectare over the past three years has been approximately 29 tonnes per hectare.

Recommendations

Initiative 1: Satisfaction Guarantee Scheme

It is widely recognised that the high level of inconsistency in the quality of apples is resulting in consumer dissatisfaction. The CIE recommends these issues be addressed through the establishment of a registered brand of Australian apples which guarantees to consumers a high level of satisfaction.

Initiative 2: Business and technical assistance for growers

The industry signalled that growers are often unable to achieve optimal yields from both modern and traditional plantings due to deficits in skills, knowledge and time. The proposal for funding to assist growers to utilise extension support services, including technical advisers, was widely supported by industry and is expected to be highly cost effective.

Initiative 3: Facilitation of pack house consolidation

The benefits from pack house consolidation include improved capacity to undertake grading by eating quality characteristics, better marketing capability and the potential for a reduction in the unit cost of processing. Despite these benefits having already been demonstrated, few pack houses have consolidated. The aim would be to reduce the existing barriers that are preventing

growers from getting together and creating efficient regional pack houses to their mutual benefit.

Initiative 4: Collection of farm gate and supply chain data
It would be highly beneficial for the industry to have access to regular farm statistics and supply chain information to be able to access accurate production, productivity and profitability data to inform decision making processes.

In addition to the above initiatives, the comprehensive industry plan also recommended:

- on-farm tax incentives (for environmental netting, computerised irrigation infrastructure, mobile orchard platforms, spray technology, renewal of unproductive trees)
- supply chain tax incentives (for pack house equipment and cool room technology)
- the registration of the Pink Lady™ brand.

Implementation
Apple and Pear Australia Limited has been progressing the implementation of eligible initiatives through Horticulture Australia Limited.

What Asia wants: Long-term food consumptions trends in Asia (ABARES 2013a).

Purpose
This report examines factors likely to influence the future pattern of Asian food consumption and trade and longer-term prospects for consumption and trade of a range of food-based commodities.

Findings
Demand for food products in many Asian countries changed substantially over the past two decades, reflecting population growth, urbanisation and income growth. Food consumption increased, as a whole and on a per person basis, and consumption patterns shifted from traditional diets oriented around starchy staples, to more varied diets with greater quantities of higher value and higher protein foods, particularly meat and dairy products.

Challenges such as resource constraints have emerged that may affect Asia's future production potential, in particular, land availability, land degradation, water availability, water quality and climate change.

Increasing affluence in the studied countries has given rise to a shift in dietary patterns. Consumption of horticultural products for food, averaged over all the countries, increased from 150 kilograms a person in 1990 to around 280 kilograms in 2009. Horticultural products include fruit, vegetables, roots and tubers and tree nuts. Fruit and vegetable consumption each increased more than 5 per cent a year, while consumption of roots and tubers grew at only 1.2 per cent. The contribution of horticultural products to the total daily calorie intake rose from 8.2 per cent in 1990 to 11.3 per cent in 2009 averaged over all countries in the study.

As part of the What Asia wants series, further work is underway which will examine prospects for Asian food demand and supply in more detail; potential developments in the export capacity of Australia's key competitors; and implications and opportunities for Australian agriculture and food industries in the Asian century.

Recommendations and Implementation

The report contains no recommendations.

Infrastructure and Australia's food industry: Preliminary economic assessment (Nguyen et al. 2013).

Purpose
This study identifies key possible research directions for future work that would assess impediments to infrastructure and identify policy response options that would support growth in Australia's food production and processing industry.

Findings
In 2008–09, the latest year available, infrastructure services accounted for 11 per cent of total intermediate input costs in the agriculture, forestry and fishing sector, 10 per cent in the food processing industry and 14 per cent in the food services industry (includes storage facilities).

Infrastructure that allows food to be moved cost-effectively and efficiently to markets will be important in making the most of opportunities presented by rapidly growing Asian markets. The road network is of particular importance to food supply chains and as production and exports expand it will become increasingly important that issues affecting performance are addressed.

The case studies conducted in Tasmania and in the Victorian greenhouse protected cropping industry highlight the need to address issues related to multi-use infrastructure for production expansion. These issues include infrastructure access pricing and availability

Further infrastructure investments in Tasmania are only viable if certain volume thresholds can be met and infrastructure use can be spread throughout the year. Even when viable infrastructure investments are available, making investments happen requires knowledge of production and consumption and the mechanisms to match this knowledge to funds.

The necessary production threshold issue was noted when discussing the most commonly cited impediment to low cost production in Tasmania—a freight leg to Melbourne necessary for export—that all interviewees claimed was more expensive than subsequent freight legs to Asian destinations. However, most also noted that to support a direct export facility, export volumes would need to be much greater than Tasmanian food producers currently supply.

Nearly all airfreight food exports of Tasmanian origin are recorded as exports from mainland Australian airports. The economies of scale that would justify infrastructure investment to support airfreight food exports directly from Tasmania is a potential issue for future research.

Recommendations and Implementation
The report recommends key future research directions that may be considered including:

- undertake a more comprehensive assessment of key supply-side factors influencing the pattern of food production, processing and exports to 2050 in regional and remote areas of Australia, and identify implications for infrastructure requirements
- integrate food production and processing activities into model framework for infrastructure in Australia

- undertake simulations of important aspects of Australia's food supply chain with a focus on infrastructure requirements to support export growth of key food commodities to 2050
- assess impediments to investment in infrastructure, including the private provision of infrastructure, and identify policy response options that would support growth in Australia's domestic and international food supply chains.

Simplot vegetable growers group—presentation 2013 (Simplot vegetable growers group 2013).

Purpose
This presentation examines factors affecting processing vegetable farmers that supply Simplot and recommends a government funded activity plan to assist the industry become sustainable and export capable within five years.

Findings
Competitive pressure has been building on the Simplot frozen vegetable business since mid 1980's. By 2012, Simplot is last remaining frozen vegetable processor in Australia. In June 2013; Simplot placed its Devonport & Bathurst plants under review due to on-going lack of profitability of vegetable sector of the Simplot business.

85 per cent of grower suppliers receive less than $200 000 each in payments from Simplot, accounting for 53 per cent of Simplot's total payments. 15 per cent of growers receive more than $200 000 each in payments from Simplot, account for 47 per cent of Simplot's total payments.

Recent forces impacting the frozen vegetable market include: strong Aussie dollar; retailer power & home brands; growth of discount supermarkets; Northern Hemisphere economics; growing Asian capabilities (corn)

Grower profitability has been declining because of: reduced prices & margins to 'stay with the market', increasing input costs, esp. energy, water, labour rates & on cost, regulation & compliance, limited scale issues.

Simplot growers and Simplot have invested significantly in productivity improvements and market in recent years.

The Sugar Industry Reform Program (2004) provides a precedent for government support to an industry in similar circumstances to the Tasmanian processed vegetable industry.

Recommendations

1. Business package
    1.1. farm business review & planning
    1.2. collaborative business model opportunities
    1.3. farm management & worker skills upgrade & training.
2. Productivity package
    2.1. irrigation, drainage & on-farm infrastructure upgrade

2.2. long-term cost reduction- scale, collaboration
2.3. benchmarking- local, peer-to peer sharing, overseas study trips
2.4. more efficient resource utilisation- Precision Agriculture
2.5. LEAN in an agricultural context
2.6. yield improvements; R&D, varieties & new production systems.

3. Energy package
    3.1. farm energy audits
    3.2. irrigation energy efficiency, Clean Energy opportunities
    3.3. Aurora issues.
4. Export package
    4.1. 'clustering' growers to develop target export opportunities
    4.2. leverage Tasmania brand image & co-development of 'niche' products
    4.3. trade mission, barriers to entry (no China FTA).
5. Regulatory package & Other
    5.1. transport infrastructure
    5.2. OH&S pro-forma standard approach.

Implementation

Actions that are underway that are relevant to the recommendations include:

- some Tasmanian businesses have received grants to invest in on-farm infrastructure (harvesters, packing lines, cool rooms etc; see section 5.5)
- HAL has recently funded a project 'Economic evaluation of farm energy audits and benchmarking of energy use on vegetable farms'
- the adoption of controlled traffic farming—precision agriculture is already occurring and research, development and extension (RD&E) projects to enhance adoption are underway (see Section 5.5)
- the Australian Government has committed to further transport infrastructure investment in Tasmania (upgrade the Hobart International Airport and the Midland Highway) and the review of Tasmania's shipping and freighting arrangements
- the Australian Government has recently finalised a FTA with South Korea and is finalising a FTA with China and Japan are priorities for the government.

Appendix B -Tasmanian Horticulture Industry overview

Fruit

The Tasmanian fruit industry, including wine grapes, had a gross value of production of $106.2 million in 2010–11. The five highest value fruit crops were apples, cherries, wine grapes, raspberries and apricots (Table 1).

Table 1. The gross value of production, production volume and number of producing businesses for the five highest value fruit crops in Tasmanian 2010–11

Crop	Value ($ million)	Volume (tonnes)	Number of businesses
Apples	$ 30.7	27 254	99
Cherries	$ 28.4	3416	109
Wine grapes	$ 17.7	7446	165
Raspberries	$ 8.4	305	27
Apricots	$ 7.7	1846	24

Source: Australian Bureau of Statistics. 2012a. Agricultural Commodities 2010–11. Catalogue No. 7121.0
Australian Bureau of Statistics. 2012b. Value of Agricultural Commodities Produced 2010–11. Catalogue No. 7503.0
For privacy reasons the ABS does not publish statistics on mushroom production in Tasmania

Tasmanian fruit exports totalled $19.85 million in 2012–13 with cherry exports contributing 98 per cent of this value and apples a further 1.4 per cent (Table 2).

Table 2. The value and volume of fruit exports from Tasmania in 2012–13

Crop	Value ($ million)	Volume (tonnes)
Cherries	19.5	1 499
Apples	0.3	207
All other	0.05	32

Source: World Trade Atlas, based on ABS Data

Apples

The apple industry in Tasmania has contracted significantly since the late 1960's, when production volumes were 151 322 tonnes in 1967–68. Production volumes have continued to decline over recent years with the 2010–11 production volume being approximately 50 per cent of that achieved in 1992–93 (56 200 tonnes). The decrease in production volume has occurred as a result of a decrease in tree numbers (which reduced from more than 2.7 million in 1967–68, to 1.5 million in 1992–3 and 1 million in 2010–11) and bearing area.

Tasmanian apple exports have declined significantly in line with the long term reduction in production, with export volumes reaching 247 tonnes in 2010–11, being 0.9 per cent of production, down from approximately 70 per cent of production in 1967–68 and down from 8071 tonnes in 2005–06.

Tasmanian apple production was based on overseas exports to Europe, in particular the United Kingdom. Britain's entry into the European Economic Community in the 1970s led to the decline of major export markets. More recent declines in apple production and export may be attributable to the historically high value of the Australian dollar in the period 2010–2012 and the replacement of some apple orchards with cherries.

Cherries
The cherry industry in Tasmania has grown substantially since 2000–01, when production volumes were 542 tonnes off 149 000 bearing trees, to be 3 416 tonnes off 506 000 bearing trees in 2010–11.

Export volumes have grown steadily since 2005–06 when 373 tonnes were exported with a value of $5 million. In 2012–13, cherries accounted for 98 per cent of fresh fruit exports by value from Tasmania, with a value of approximately $19.5 million from an export volume of 1499 tonnes.

Tasmanian cherries are highly seasonal with the majority exported in January each year. Taiwan is the major destination for Tasmanian cherries, followed by Hong Kong. Tasmania is the only region with access to the Japanese, South Korean and United States markets, but trade to these markets has not developed as anticipated.

Wine grapes
The production of wine grapes in Tasmania has grown substantially since 2000–01, when producing volumes were 3 147 tonnes off 909 bearing hectares to be 5 379 tonnes off 1 229 bearing hectares in 2011–12. Nevertheless, Tasmania is presently a small participant in the Australian wine market, producing less than 0.6 per cent of Australia's wine grapes from 0.9 per cent of the vineyard area.

Tasmania is a highly regarded producer of higher-quality cool season wines, especially still wines from Pinot Noir and aromatic white varieties, and sparkling wines. These wine styles are currently experiencing strong market growth off a very small base. The premium quality of Tasmanian wine is reflected in the fact that Tasmania enjoys the highest prices paid for grapes in Australia (West et al. 2012).

West et al. (2012) have explored the potential future prospects of the Tasmanian wine industry in great detail (Appendix A; pp 44). They conclude that the wine sector offers substantial opportunity for future growth in Tasmania. However, the wine industry is characterised by boom-bust cycles. If plantings get ahead of demand the result could be a rapid and prolonged fall in prices. Any growth in plantings would need to be done on a careful analysis of demand.

Raspberries (and other berries).
Berry production in Tasmania includes: strawberries, raspberries, blackcurrants, blueberries, and blackberries and other rubus. Berries are grown for a mixture of fresh market and processed products. Most berries are consumed either locally or interstate (West et al. 2012). The total Tasmanian berry category had a GVP of $16.9 million, of which slightly less than half was raspberries ($8.4 million).

Tasmanian has a long history of berry production and historical production volumes are far greater than those currently being achieved, suggesting the opportunity for future growth in the sector (for example, in 1948–49 raspberry production was 3,449 tonnes compared to 305 tonnes in 2010–11; ABS 1970; ABS 2012a).

The berry category has enjoyed substantial growth internationally in the last decade, driven by increased consumer demand, in part reflecting recognition of the health properties of berries and in part through reinvigorated retail presentations. Recent investments in berry production in Tasmania will lead to increased production and value from the sector in the near term future. There are currently no berry exports from Tasmania.

The majority of berry fruit processing is conducted by Cascade Beverages who produce juices and juice concentrates from blackcurrants and raspberries. Berries are also used for production of jam, sauce, dessert (puddings and ice cream), fruit wine, and frozen or freeze dried products. This processing occurs both within Tasmania and interstate (West et al. 2012).

Apricots
Apricot production has increased substantially in Tasmania since 2001–02, when 88 tonnes was produced off 12 000 trees, to be 1 846 tonnes off 192 000 trees in 2010–11 (ABS 2003; ABS 2012a). The growth in production is driven by demand from the domestic market, with only five tonnes of summer fruit exported from Tasmania in 2012–13.

Vegetables

The Tasmanian vegetable industry had a gross value of production of $183.8 million in 2010–11. The five highest value vegetable crops were potatoes, onions, carrots, peas and lettuce (Table 1).

Table 3. The gross value of production, production volume and number of producing businesses for the five highest value vegetable crops in Tasmania in 2010–11†

Crop	Value ($ million)	Volume (tonnes)	Number of businesses
Potatoes			
- processing	$ 68.8	224 717	251
- fresh market	$ 19.8	27 035	133
Onions	$ 37.2	93 302	124
Carrots	$ 20.5	52 958	78
Peas			
- processing	$5.8	13 241	127
- fresh market	$ 0.1	20	6
Lettuce	$ 3.2	2 768	11

†Source: Australian Bureau of Statistics. 2012a. Agricultural Commodities 2010–11. Catalogue No. 7121.0
Australian Bureau of Statistics. 2012b. Value of Agricultural Commodities Produced 2010–11. Catalogue No. 7503.0
For privacy reasons the ABS does not publish statistics on mushroom production in Tasmania.

Onions account for 94 per cent of fresh vegetable exports by value from Tasmania (Table 4). Tasmania accounted for 86 per cent of all onions exported from Australia in 2012–13. Carrots are the second largest product exported from Tasmania, but Tasmania only accounts for just over one per cent of Australian carrot exports.

Table 4. The value and volume of vegetable exports for Tasmania in 2012–13

Crop	Value ($ million)	Volume (tonnes)
Onions	22.9	44 720
Carrots	0.8	887
Broccoli	0.2	75
Peas and Beans	0.2	280
Potatoes	0.2	68
All other	0.2	n/a

Source: World Trade Atlas, based on ABS Data

Tasmanian vegetable farms

In 2011–12 there were 568 agricultural businesses in Tasmania growing vegetables on 14 322 hectares (ABS 2013). Of these, 368 had an estimated value of agricultural production of more than $40 000 per annum (that is, were commercial scale farm businesses; Valle et al. 2014). The information below on industry structure and financial performance is drawn from ABARES vegetable farm survey and relates to commercial vegetable growing enterprises (Thompson and Zhang 2013; Valle et al. 2014).

Most Tasmanian vegetable farms plant a small area of vegetables, with a relatively small number of large vegetable farms. In 2011–12 the average area planted was 30 hectares, but there was significant variation around this average—the smallest 25 per cent of vegetable producers planted areas of 6 hectares or less, while the largest 10 per cent of farms planted an average of 66 hectares (Valle et al. 2014). Given the positive relationship between scale of production and farm financial performance among vegetable farms (Thompson and Zhang 2013), the relatively small scale of production of some Tasmanian producers represents a threat to the financial performance of these farms.

More Tasmanian vegetable farmers market their produce through direct sales to processors than in other states (Table 5). In 2011–12, an estimated 70 per cent of Tasmanian growers sold their produce directly to a processor. This compares to the national average of 26 per cent. Reflecting the relative importance of selling direct to processors, interstate markets and the capital wholesale market are relatively less important for Tasmanian vegetable farmers.

Table 5. Vegetable selling methods (percentage of farms), 2011–12

Proportion of growers selling	Units	Tasmania	Australia
For export	%	10	4
Direct to food service	%	0	3
Interstate	%	4	23
State capital wholesale	%	5	62
Local market	%	32	22
Direct to processor*	%	70	26
Direct to retail	%	16	14

* The category 'Direct to processor' includes the manufacturing of canned, bottled, preserved, quick frozen or dried vegetable products. It also includes dehydrated vegetable products, soups, sauces, pickles and mixed meat and vegetable cereal products as well as the processing and packaging of fresh salads and pan-ready vegetables, as well as bulk packaged and cleaned vegetables (such as potatoes). The sum of percentages will not add to 100 per cent because farms could have multiple sale methods.
Source: Valle et al. 2014

Tasmanian vegetable growing farms have a more diverse enterprise mix than those in other states. The percentage of total cash receipts accounted for by vegetable receipts totalled 60 per cent for Tasmanian vegetable farms in 2011–12, the lowest across all states. In contrast, vegetable farms in Western Australia averaged 97 per cent of cash receipts from vegetable sales.

The cash costs per tonne for vegetables grown in Tasmania are lower than in other states. This is likely to be due to the higher proportion of production for the processing market and the production mix undertaken on these farms. Processing vegetables tend to be less labour intensive (that is, more suited to mechanisation) and require less handling and grading that would occur on farm, thereby reducing labour costs (Thompson and Zhang 2013).

Vegetable farms in Tasmania had the second lowest average cash receipts of all states in 2011–12 at $542 900 per farm, of which $325 200 came from the sale of vegetables, largely reflecting the smaller average area planted to vegetables per farm in Tasmania and the generally lower per unit return for vegetable grown for processing compared to those grown for the fresh market. ABARES provisionally estimates that cash receipts from vegetables will decline to $216 000 in 2012–13, based on decreased planting and decreased yields due to poor seasonal conditions, leading to a negative farm cash income of -$35 000.

Anecdotal evidence was reported by ABARES field officers who surveyed along the central coast and north west region of Tasmania in 2013. Farmers were very pessimistic about the future viability of vegetable growing in the region under current constraints. Lower prices for vegetables, stagnating growth of capital asset values and the high cost of freight were the main concern for growers; farmers also had to increase their access to short-term debt financing to overcome lower income. Many vegetable growers intended to continue in agriculture, but move towards other activities such as dairy or fodder production.

Potatoes

Potatoes are the highest value vegetable industry in Tasmania representing approximately 50 per cent of the value of vegetable production. Tasmania is the largest producing state for processing potatoes, accounting for 34 per cent of the Australian industry in 2010–11.

Potato production in Tasmania grew strongly from 62 900 tonnes in 1974 to 373 600 tonnes in 1998. Production has since trended down slightly to average 287 600 in the three years from 2009–2011.

The contracting market for processing potatoes reflects the significant increase in processed potato imports into Australia and the resulting reduction in throughput of Australian processors. Over the past decade processed potato imports increased at an average growth rate of more than 20 per cent a year from $19 million in 2002–03 to $133 million in 2011–12 (ABARES 2013b).

Simplot Australia operates a potato processing plant at Ulverstone and McCain Foods operate another potato processing plant in Smithton.

In addition to potatoes for human consumption, seed potatoes are also a significant industry with a gross value of production of $15.6 million from 541 hectares in 2010–11.

Onions
Onion production increased from 62 975 tonnes in 2001–02 to 93 302 tonnes in 2010–11, reflecting both increased plantings and increased per hectare yields.
Onions have by far the highest export value among vegetables exported from Tasmania (Table 4). Onion exports do not display a discrete trend and have been in the range of $22–29 million dollars per annum between 2006–07 and 2012–13.

Major markets for Tasmanian onion exports in 2012–13 were Germany, Japan, the Netherlands, Malaysia and the United Kingdom.

Carrots
Carrots are produced for the fresh and the processing market, with only a small volume exported (Table 4).
Carrot production has not shown any discrete trend between 2003–04 and 2010–11, being in the range of approximately 55 000 to 65 000 tonnes per annum over the period.

Carrot exports were relatively stable between 2004–05 and 2011–12, generally in the range of 2 500–3 500 tonnes per annum, but declined to 887 tonnes in 2012–13.

Peas
The majority of peas grown in Tasmania are for the processing market (Table 3). Tasmania has the only significant vegetable processing sector in Australia. Production of peas for processing have decreased from 25 793 tonnes in 2001–02 to 14 935 tonnes in 2006–07 and 13 241 tonnes in 2010–11. Decreased production reflects decreased demand from domestic processors as a result of increased imports of frozen vegetables into the Australian market over the time period. Other vegetables grown in Tasmania primarily to supply the processing sector (for example, beans, broccoli and cauliflower) have similar downward trends in production over the same time period.

Lettuce

Lettuce production is Tasmania occurs on only 11 enterprises. The area of lettuce production has grown from 151 hectares in 2001–02 to 470 hectares in 2010–11, but the volume of production has only grown from 1 923 tonnes to 2 768 tonnes over the same period. This may reflect a trend away from the production and marketing of whole lettuces toward pre-packed lettuce leaf products.

Other horticulture

Poppies

The poppy industry was established in Tasmania in the 1960s. Today, Tasmania is the largest producer of licit narcotic material in the world. Licences were granted for the growing of around 30 000 ha of poppies in 2012–13. The industry is worth approximately $290 million in total (farm gate and factory gate). Tasmania is the only Australian state licensed to grow poppies for the commercial production of alkaloid-based pharmaceuticals. Poppies are an important rotation crop for the state's cropping sector and it is reported that over 800 farmers grow poppies as a part of their mixed farming enterprises (Tasmanian Government 2014). Processing takes place in Tasmania and Victoria.

Pyrethrum

Botanical Resources Australia Pty Ltd (BRA) is the Tasmanian based grower of over 60 per cent of the world's pyrethrum. According to BRA the Tasmanian pyrethrum industry has grown from 750 hectares in 1996, when BRA was formed, to almost 4000 hectares, harvesting more than 10 000 tonnes of pyrethrum flowers in 2011 (Botanical Resources Australia 2014). Approximately 90 growers produced pyrethrum in Tasmania in 2010–11 (ABS 2012a). From 2011, BRA will source a proportion of its pyrethrum from growers based in Ballarat, Victoria.

Nurseries, cut-flowers and cultivated turf.

The nursery, cut-flower and cultivated turf sector had a gross value of production of $39.4 million in 2010–11 off 477 hectares with 110 business (ABS 2012b). West et al. (2012) consider the greenhouse crops sector (nursery, floriculture and vegetable growing under cover) as having a good opportunity for further growth based on the high innovative capacity within the sector. North West Tasmania has been assessed as Australia's best location for greenhouse vegetable production, but has seen only limited investment in such facilities to date (Tasmanian Labor Government 2014).

Hops

The Tasmanian hop industry had a gross value of production of $5.0 million, producing 490 tonnes of hops of 195 ha in 2010–11. Only three businesses grew hops in 2010–11 (ABS 2012a). Business numbers, production areas and volumes are only a fraction of those in the past—for instance in 1973–74, 76 businesses produced 1 949 tonnes from 703 hectares (ABS 1980). The recent growth in the craft beer brewing industry may stimulate increased demand for hops, especially varieties of hops with unique flavour and aroma properties (as has been the case in New Zealand).

Walnuts

The Tasmanian walnut industry had a gross value of production of $2 million in 2010–11, based on 541 tonnes of production from 204 000 bearing trees. Twelve businesses grew walnuts in

2010–11 (ABS 2012a). Walnuts Australia, a wholly owned subsidiary of Webster Limited, is the major grower with 540 hectares planted. Production in future years is expected to increase significantly as earlier plantings mature. Investment in new orchard establishment will slow with the demise of Managed Investment Scheme (MIS) funding (Australian Nut Industry Council 2014).

Other small, new or emerging industries

Other subsectors of horticulture in Tasmania include other nuts (hazel nuts and chestnuts), olives, ginseng, wasabi, truffles and saffron. All these industries are relatively small at present, but with increased market demand there is potential for them to grow (West et al. 2012).

Appendix C - Operating environment

Tasmania's environmental advantages and fruit fly free status

Tasmania has several natural advantages in the growing of temperate fruit and vegetable crops, including:

- a moderate climate
- ample sunlight during ripening times
- relatively abundant water supplies
- freedom from Mediterranean and Queensland fruit fly.

The value of these advantages for the cultivation of some crops is arguably increasing as a consequence of the spread of Queensland fruit fly in the eastern states of Australia and the expected increase in weather extremes due the effects of climate change.

There is scope for further sustainable irrigation development in Tasmania, even when the effects of future climate change are taken into account. The CSIRO assessed the future affects of climate change on 24 proposed irrigation schemes in Tasmania. It concluded that 10 of the proposed schemes can be supplied with their full demand for water in all years, another five can be supplied with their full demand for water in more than 80 per cent of years, four in 50 to 80 per cent of years and the other five in less than 50 per cent of years (CSIRO 2009).

Tasmania is a relatively high-cost producer

Tasmania is regarded as relatively high cost producer of fresh and processed horticultural products when compared to alternative international suppliers. For instance a report prepared on the processed potato industry by David McKinna for McCain Foods in 2010 noted that Tasmania has the highest production costs within Australia and all major processing potato countries. Of all the producing regions studied, in Australian and overseas, Tasmania had the highest land cost, second highest fertiliser cost and highest other overheads including seed.

According to its submission to the Senate Select Committee on Australia's Food Processing Sector (2012), McCain Foods closed its Smithton vegetable plant in November 2010 because of a combination of the significant capital investment required to upgrade the plant to global standards, and consistently high raw material costs. McCain Food's decision to relocate to Hastings (New Zealand) and invest in plant upgrades there was based on New Zealand providing flexible working conditions, lower labour costs and consistently lower raw material costs when compared to their Tasmanian plant.

The exchange rate of the Australian dollar

The value of Australia's net trade (export less imports) in fruit and vegetables is closely related to movements in the exchange rate of the Australian dollar, especially against the US dollar. During the 2000s, the value of net trade in fruit and vegetables fell, partly as a result of appreciation of the Australian dollar. The effect of the high value of the Australian dollar of trade is twofold—it decreases the price competitiveness of Australian product in export markets at the same time it increases the price competitiveness of imported products in the Australian market.

The exchange rate of the Australian dollar against the United States dollar appreciated to historically high values during the period 2010–2013. Starting in mid–2013 the exchange rate of the Australian dollar has decreased by approximately 16 per cent relative to the United States dollar (Figure 1), which will improve the competitiveness and returns for Australian exports. Although the exchange rate has fallen, it remains at above long-term average rates. The price competitiveness of imported processed horticultural products relative to Australian processed products is expected to continue due to the higher input and production costs of fruit and vegetable processing in Australia relative to international sources (ABARES 2012a).

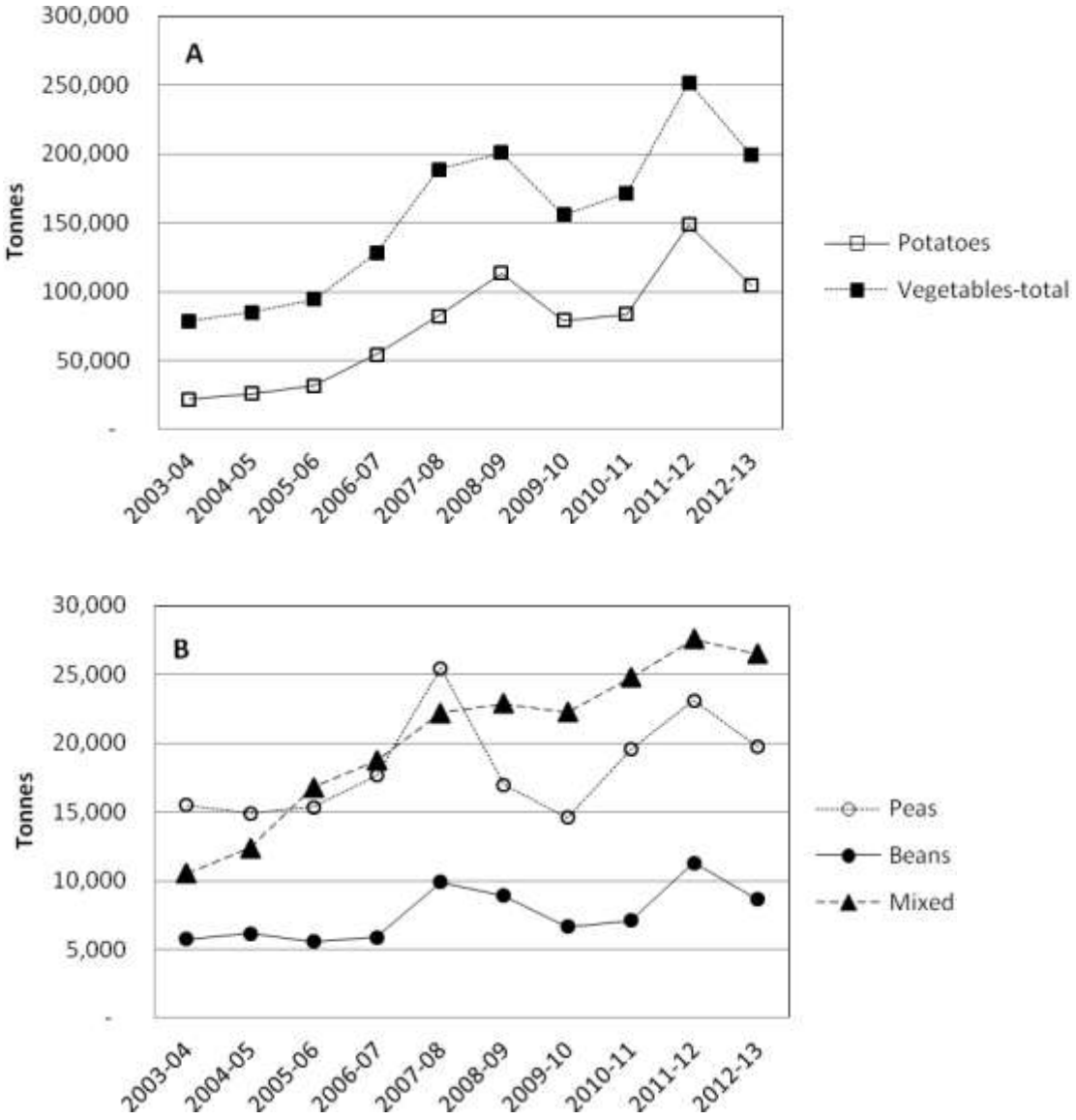
Figure 1. Exchange rate of the Australian dollar against the United States dollar between January 1998 and January 2014 (Source RBA)

International trade

Imports of processed products

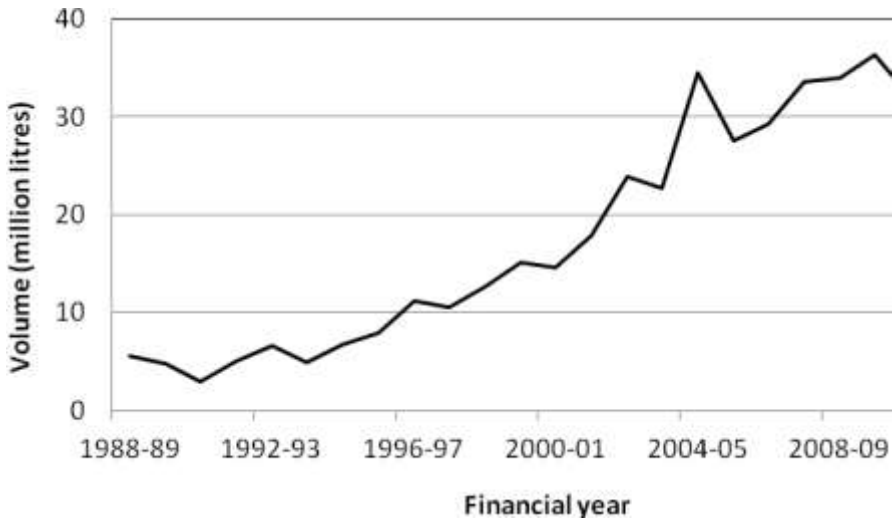
Imports of frozen vegetables into Australia have increased in the 10 years to 2012–13 (Figure 2). Extended periods of adverse seasonal conditions in this period led to a significant reduction in irrigation water availability and constrained production. The appreciation of the Australian dollar during this period resulted in cheaper imports. Strong domestic demand by the fast food industry contributed to increased frozen processed potato imports during the period (ABARES 2012b).

Figure 2. Imports of frozen vegetables (total) and frozen potatoes (A) and frozen peas, beans and mixed vegetables (B) into Australia annually from 2003–04 to 2012–13



The Australian apple industry has been exposed to significant competition from imported apple juice for more than a decade. The volume of apple juice imported into Australia increased approximately 5-fold between 1994–95 and 2010–11. The increased volume of apple juice imports caused domestic prices for juice grade apples to decline, reducing the returns to growers for lower grade fruit. Apple growers responded by shifting juice grade fruit to the fresh apple market, increasing the quantity of apples on the market and leading to declines in the price (and quality) of fresh apples (Hassall and Associates 2001).

Figure 3. The volume of apple juice imports into Australia annually from 1988–89 to 2010–11.
(*Source: Australian Bureau of Statistics, International Trade, Australia, cat. no. 5465.0, Canberra*)



Opportunities for exports to Asia

Unlike other Australian agricultural industries, which export large proportions of their production, the Australian horticulture industry has generally focused on supplying the domestic market (however there are exceptions, in the wine, citrus and table grape industries, nationally, and the onion and cherry industries in Tasmania).

Demand for food products in many Asian countries changed substantially over the past two decades, reflecting population growth, urbanisation and income growth (ABARES 2013b). The growing demand from international markets and freeing of trade barriers will present growers with opportunities that did not exist before (AUSVEG 2013).

Although opportunities for increased exports exist, there are impediments to realising this potential. ABARES assessed vegetable farmers perceptions of some of these impediment as part of its most recent farm vegetable survey (Table 6; Valle et al. 2014).

Table 6. Perceived impediments to developing export markets, 2011–12 percentage of farms

Impediments to developing export markets	Units	Tasmania	Australia
No local agents	%	37	10
Prices not high enough	%	77	39
Shipping costs too high	%	79	21
Transport not available	%	43	8
Infrastructure on farm needed	%	47	12
Too hard / time consuming	%	65	81

Percentages do not add to 100 because more than one response was allowed.

One of the most significant impediments to exporting vegetables appears to be that returns on exports are less than those from supplying domestic markets (which is the opposite of most other Southern Hemisphere countries). The opportunities for vegetable growers appear more aligned with the development of niche vegetable markets either by providing high quality innovative product or through taking advantage of counter seasonal trading opportunities (James 2013).

Consolidation of marketing supply chains

A major structural shift has occurred in the sale of horticultural produce in Australia in the past 25 years. This has been caused by increasingly competitive commercial conditions, economies of scale in processing and retailing, and increasingly complex consumer demands (Future Focus 2008).

Supermarkets, processors and exporters require consistent lines of product produced to tight quality specifications. To achieve this they tend to look beyond the wholesale market, to larger producers, wholesalers and grower co-operatives who can fulfil large supply contracts, either directly, or by co-ordinating the supply of product from other producers (category managers).

The major supermarkets have been the catalyst for many of the marketing and market place changes that have taken place (the creation of category managers; direct buying from producers; the introduction of product specification and grade standards). Larger wine companies played this role in the successful development of wine exports. However, small volume, independent producers are often not included in these integrated production—marketing supply chains.

Supermarket purchasing policies

Since mid–2013 the major supermarkets are reported to have entered new and expanded contracts with Australian producers/processors, including for their private label ranges.

- In August 2013, Woolworths announced it had signed a $7 million contract with SPC Ardmona (SPCA) in which it would replace imported fruit for its Select range with produce from Goulburn Valley growers. In September 2013, it announced a $3 million deal committing to source its entire private label packaged fruit range from SPCA.
- Coles has said it sources 80 per cent of its own-brand canned fruit from SPCA and is continuing to work with the company to improve sales and explore new opportunities for Goulburn Valley fruit.
- In September 2013, Coles announced it would sign a five year contract with processed vegetable supplier Simplot. Coles plans to increase its frozen vegetable and potato orders by 12 per cent. Coles also indicated all frozen vegetables under its own-brand labels will be Australian grown by early 2014.
- In October 2013, Woolworths announced that by May 2014 it would replace imported vegetables with locally produced vegetable in its private label Select label frozen vegetable products. Woolworths also indicated that it would shift the production of some of its Homebrand frozen peas to Simplot.
- In 2013, Woolworths announced that three of its own-brand canned pineapple products would be sourced from Queensland, rather than South Africa and Thailand.

- On 24 January 2014 Coles announced it would replace all of its Smart Buy frozen vegetables with only Australian grown vegetables.

Appendix D: National Partnership Agreement on Water for the Future- progress with Tasmanian projects.

Six projects are now complete with the remaining three under construction. The completed irrigation projects are: Headquarters Road Dam, Whitemore Irrigation Scheme, Sassafras-Wesley Vale Irrigation Scheme, Winnaleah Irrigation Scheme Augmentation, Lower South Esk Irrigation Scheme and Kindred North Motton Irrigation Scheme.

The three currently under construction are: Midlands Water Scheme, Upper Ringarooma Irrigation Scheme and the South East Irrigation Scheme. Further detail on the individual projects follow.

Title	**Headquarters Road Dam Irrigation Scheme**
Total Funding	$4.5 million
Funding	$1.4 million Australian Government $0.7 million Tasmanian Government $2.4 private contributions
Summary	The Headquarters Road Dam Irrigation Scheme is a 1980 ML dam which has been built on the headwaters of the Great Forester catchment, near Scottsdale. The dam harvests winter water for release during the summer irrigation season and utilises the river's natural watercourse to deliver water to properties downstream with an irrigable area of 1800 hectares
Completed	December 2011

Title	**Whitemore Irrigation Scheme**
Total Funding	$11.3 million
Funding	$3.0 million Australian Government $1.7 million from the Tasmanian Government $6.6 private contributions
Summary	The Whitemore Irrigation Scheme delivers over 5500 ML of water to irrigation communities near Bracknell through 40 km of pipeline across 12 000 hectares of farmland. This water is sourced from the tailrace of Hydro Tasmania's Poatina Power Station. It incorporates an existing on-farm off-stream dam of about 400 ML which will be used as community storage to enhance reliability when the Poatina power station is turned-off for maintenance. The scheme also provides increased water security for Carrick and Bracknell as a back up water supply.
Completed	December 2011

Title	Sassafras-Wesley Vale Irrigation Scheme
Total Funding	$12.3 million
Funding	$3.7 million from the Australian Government $2.0 million from the Tasmanian Government $6.6 private contributions
Summary	The Sassafras-Wesley Vale Irrigation Scheme supplies up to 5460 ML of water sourced from the Mersey River via 74 km of pipes to irrigators within the Sassafras Wesley Vale region of northern Tasmania. The scheme services about 120 farms covering more than 10 000 hectares stretching from east of Devonport almost to Port Sorell and south of the Bass Highway east of Latrobe
Completed	December 2011

Title	Winnaleah Irrigation Scheme Augmentation
Total Funding	$10.8 million
Funding	$3.9 million Australian Government $2.2 million from the Tasmanian Government $4.7 private contributions.
Summary	The Winnaleah Irrigation Scheme Augmentation delivers an additional 3700 ML of water to irrigation communities near Winnaleah, through 14 km of pipeline. The Winnaleah Irrigation Scheme Augmentation delivers water from the Frome Dam, crossing the Ringarooma River and connecting with the northern end of the existing Winnaleah Irrigation Scheme. The previous Winnaleah Irrigation Scheme sourced 3250 ML of water from the Cascade Dam. The augmentation allows for the greater utilisation of the Cascade and Frome Dams flowing into the one scheme. The augmentation to the existing scheme services 38 farms across about 4500 hectares and has the capacity to deliver additional water (subject to availability) outside the irrigation season to fill on-farm storages.
Completed	June 2012

Title	Lower Esk Irrigation Scheme
Total Funding	$14.8 million
Funding	$6.3 million Australian Government $2.2 million from the Tasmanian Government $6.3 private contributions
Summary	The Lower South Esk Irrigation Scheme, located in Tasmania's northern midlands will supply up to 5300ML of high reliability irrigation water over more than 41 000 hectares. It will benefit between 16 and 24 irrigators along the South Esk River from Milford Dam to Longford as well as communities in Longford, Perth and Evandale. Under the project, water will be harvested during high winter flows from the South Esk River. A pump station and pipeline will transport the water to the proposed Milford Dam. During the irrigation season (November to April) water held in the dam will be returned via the pipeline to the South Esk River to be accessed by downstream irrigators. Milford Dam will have a storage capacity of around 6000ML with an annual yield of 5298ML and a reliability of greater than 95%. Two small saddle dams (eastern and southern) will also be constructed to contain inundation in the lower areas.
Completed	Construction completed in May 2013 and the scheme is now commissioned.

Title	Midland Water Scheme
Total Funding	$104.0 million
Funding	$51.3 million from the Australian Government $11.5 million from the Tasmanian Government $41.2 private contributions
Summary	The Midlands Water Scheme will supply up to 38 500 ML of high reliability irrigation water over more than 55 000 hectares. It will benefit approximately 350–400 irrigators in the central and southern Midlands regions of Tasmania. Up to 15 822 ML will be available during a 150 day summer period with the remaining 22 678 ML available during a 215 day winter supply period. The water will be delivered from Arthurs Lake through 35 km of high pressure gravity pipeline, from the eastern spill zone of Arthurs Lake to a mini hydro electric power station at Floods Creek at the base of the Western Tiers to the west of Tunbridge. The water will then enter a dam to be constructed at Floods Creek for water storage prior to its distribution for irrigation. The distribution system utilises 119 km of medium to low pressure pipes and 210 km of existing water courses from Floods Creek to the Isis Valley, Tunbridge, Oatlands, Mt Seymour and Lower Marshes (Jericho). Electricity from the Floods Creek mini hydro will power two pumping stations in the Tunbridge area as well as being fed into the main power grid.
Still under construction	The Midlands Water Scheme is currently under construction and is expected to begin operations during the 2014–15 irrigation season.

Title	Kindred North Motton Irrigation Scheme
Total Funding	$10.6 million
Funding	$5.7 million Australian Government $1.9 million Tasmanian Government $3.0 million private contributions
Summary	The Kindred North Motton Irrigation Scheme (KNMIS) will deliver around 2 500 ML of high reliability water to irrigators near the River Forth on the north-west coast of Tasmania to an irrigable area of 8 485ha. The project will provide wide ranging benefits in terms of regional development, drought security and climate change adaptation benefits and will enable the development of new cropping areas. Water for the KNMIS will be taken from the River Forth below the Paloona Dam either opportunistically during power production by the Paloona Power Station or by specific release of water from the dam for the scheme. Currently, the Paloona Power Station operates around 30% of the time that water will be required during the 120-day irrigation season. There would be no charge levied by Hydro Tasmania for such water. Releases from the dam specifically to meet the needs of the scheme outside this time will need to be purchased from Hydro Tasmania. A new pump station will be constructed on private land on the western side of the River Forth, approximately 200 metres south of the Paloona Road bridge. The pump station, comprising 3 x 415 kW pumps, will deliver water through a 5.6 km, 450 mm steel pipeline to a new storage - the Sprent Dam - with a capacity of 250 ML. Water from the Sprent Dam will then be reticulated through two booster pump stations to landholders throughout the region.
Completed	As of November 2013, the installation of the pipeline and associated infrastructure has now been completed. Commissioning of the scheme has commenced.

Title	Upper Ringarooma Irrigation Scheme
Total Funding	$28.0 million
Funding	$19.1 million Australian Government $1.7 million Tasmanian Government $7.2 million private contributions
Summary	The Upper Ringarooma Irrigation Scheme (URIS) will construct a 6500ML earth-fill dam on Dunns Creek to provide 5700ML of high reliability water to irrigators via the Ringarooma River and 38.5 km of underground distribution pipelines. The project will provide wide ranging benefits in terms of regional development, drought security and climate change adaptation. The scheme, in the upper catchment of the Ringarooma River, approximately 30 km south-east of Scottsdale in north east Tasmania will enable expansion by existing growers as well as avoiding a contraction in irrigation output due to reductions in allocations in the catchment. The dam will be filled predominantly by winter flows from Dunns Creek that are surplus to environmental flows and existing water licence commitments. When required, the storage volume will be supplemented by surplus winter flows pumped from the Ringarooma via the supply line.
Still under	The Upper Ringarooma Irrigation Scheme is currently in

construction	construction phase and is expected to begin operations during the 2015–16 irrigation season.

Title	**South East Irrigation Scheme**
Total Funding	$33.0 million
Funding	$19.5 million from the Australian Government $4.6 million from the Tasmanian Government $8.9 private contributions.
Summary	The South East Irrigation Scheme (SEIS) will deliver up to 3000ML of summer water annually to the south east region at greater than 95% reliability. The water will be sourced from the Derwent River at Bryn Estyn and delivered to irrigators via existing Southern Water infrastructure at Granton and a new 82km pipeline network. A new 200ML holding dam at Rekuna will provide short term balancing capability between supply and demand. The scheme will also have the capacity to deliver a further 3000ML of winter water to the same region, if future demand warrants. The project will provide wide ranging benefits in terms of regional development, drought security and climate change adaptation and will enable expansion of existing production in fresh market vegetables, stone fruit and cool climate grapes.
Still under construction	The South East Irrigation Scheme Stage 3 has received final approvals and is now in the construction phase. This involves pre-construction design work followed by on-ground construction works. It is expected to begin operations during the 2015–16 irrigation season.

Appendix E: $106 million Economic Package for Tasmanian Projects.

Project	Funding commitment
Costa Exchange Pty Ltd, Modified Atmosphere Packaging facility	$1 000 000
DairyTas, Into Dairy Sustainable Dairy Development	$400 000
Derwent Valley Council, Plenty Link Road feasibility study	$100 000
Dorset Economic Development Group, Three-phase Power for Dairy Conversion - initial studies	$100 000
Dorset Renewable Industries Pty Ltd, Integrated Timber Processing Facility in North East Tasmania	$2 800 000
Haulmax, Advanced Manufacturing Business for the North West Region	$3 000 000
Hugh Mackinnon, Strawberry production	$400 000
Huon Aquaculture, Construct processing facility at Parramatta Creek	$3 500 000
Juicy Isle, expansion to support increased production	$1 000 000
Juicy Isle, infrastructure investment	$250 000
Launceston City Council, North Bank Precinct Redevelopment	$6 000 000
Oak Tasmania, Oakdale Industries, Hardlam - Timber Lamination Production	$4 000 000
SFM Forest Management, Hydrowood	$5 000 000
Ta Ann, Plywood Mill	$7 500 000
Circular Head Council and TasGas, Gas Extension to Smithton	$6 000 000
Tas Irrigation, Dial Blythe Irrigation Scheme	$9 060 000
Tasmanian Pickled Onions Pty Ltd, Pickled Onion Production Facility	$500 000
Tasmanian Wood Panels, Energy Reduction Projects	$1 305 000

Project	Funding commitment
Elphinstone and Tasrail, Triabunna Manufacturing Jobs Initiative - 'Tasrailer' Container Frames	$1 000 000
UTAS, Sense-T Stage 2 Development	$13 000 000
Tassal, Tasmanian Fish Protein and Oil Facility Triabunna	$3 850 000
Britton Timbers Processing Expansion	$1 190 000
Reid Fruits, Cherry Packhouse Development	$500 000
Caterpillar, Advanced Manufacturing Development	$5 000 000
North East Marine Engineering, Dry Dock Facility	$700 000
Clarence City Council, Kangaroo Bay Community and Economic Development Project	$5 000 000
Australian Government Regional Tourism Package	$4 500 000
Australian Government Innovation and Investment Fund	$11 000 000
Macquarie House Catalyst Project	$3 000 000
Guilford Young College, Glenorchy Creative Arts Link Building	$3 500 000
Hobart City Council, South Hobart Community Hub	$1 650 000
Fly Fishing Museum	$261 000
Glenorchy City Council, Abbotsfield Park Upgrade	$200 000
Sandy Bay Sailing Club Safety and Rescue Equipment and Club Upgrade	$60 000
Taroona Soccer Club Lighting	$50 000
St Stephen's Church Historic Windows Restoration	$25 000