Emerging Business Models
for the Kadadu Plum Industry

by PwC’s Indigenous Consulting
November 2017
Emerging Business Models for the Kakadu Plum Industry

Final Report

by PwC’s Indigenous Consulting

November 2017

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Foreword

Australia’s rural industries make a fundamental contribution to the Australian economy and way of life. In addition to the major, traditional industries such as cattle, wheat and horticulture, there are now a number of emerging rural industries that are bringing new opportunities, diversity and resilience to agricultural Australia.

Native foods and botanicals are an important group of opportunities in the new and emerging industry arena. All new industries face a number of challenges, some of which include securing investment, developing product quality and quantity, developing markets and supply chains, and establishing industry leadership. Native foods and botanicals can bring an element of traditional knowledge and an opportunity to develop inclusive business models with indigenous Australians. This project was developed to help us understand how best to build such inclusive business models to make the most of these opportunities as we build new value chains with emerging industries.

This report uses Kakadu Plum, one of 6,500 native foods in Australia, as a case study to explore emerging business models for the native foods industry and agriculture more broadly. Findings are built on Indigenous knowledge, our rich agricultural past in Australia and international examples.

Most of AgriFutures Australia’s publications are available for viewing, free downloading or purchasing online at www.agrifutures.com.au. Purchases can also be made by phoning 1300 634 313.

John Harvey
Managing Director
AgriFutures Australia
About the Author

PwC’s Indigenous Consulting (PIC) is a national Indigenous consulting business. It is the result of a unique partnership between a group of Indigenous Australians and PwC, one of the world’s largest professional services firms. The unique power of PIC is the combination of Indigenous expertise and experience, with PwC’s world-leading consulting capability.

We are a business like no other. PIC is majority owned, led and staffed by Indigenous Australians. We are 51% Indigenous owned, 49% PwC owned, and we have Supply Nation certification. The majority of the Board and staff are Indigenous including the CEO’s and Chair, and we collaborate formally with a number of other Indigenous businesses through sub-contractual arrangements, to increase Indigenous presence in the economic supply chain. By working with PIC, you are contributing to realising real employment and community development outcomes for Indigenous Australians.

We have a passionate belief that Indigenous people should have the opportunity to fulfil their aspirations. We use our professional expertise to assist communities, governments, and businesses achieve the outcomes they are looking for.

PIC specialises in providing advice and developing strategies to help realise the commercial and community potential of Indigenous policies, programs, projects, organisations and businesses. We are renowned for our high quality delivery, ability to build collaboration quickly, inspire practical innovation and our focus on outcomes.

Our corporate culture is firmly grounded in our values and is guided by the following principles:

- We respect those who have walked this earth before us
- We are accountable to our clients, our communities and ourselves
- We strive for excellence in Indigenous consulting and operate with integrity
- We respect diversity and different points of view.

Over the past 3 years we have demonstrated our capacity to deliver across…

- 38 staff (79% Indigenous)
- 7 locations across Australia
- Over 240 successful projects completed in the past 3 years.
- Indigenous co-design approach specialisation
Acknowledgments

We would like to acknowledge Australian Native Foods and Botanicals (ANFAB) and its members, along with the wider native foods industry, for their support, hospitality and information that has contributed greatly to the development of this report. We would further like to acknowledge the Indigenous communities and people we have worked with to build this report, including AgriFutures Australia for their constant support.
Abbreviations

ABS  Access and Benefit Sharing
AMS  Australian Macadamia Society
ANFAB Australian Native Foods and Botanicals
ANFIL Australian Native Foods Industry Limited
APW  Australian Premium White
ASIC Australian Securities and Investment Commission
AWB  Australian Wheat Board
AWI  Australian Wool Innovation
BBF  Bimbia Bonadikombo Forest
CBOT  Chicago Board of Trade
CNL  Co-operatives National Law
CSA  Community Supported Agriculture
CSR  Corporate Social Responsibility
DAWR Department of Agriculture and Water Resources
FSANZ Food Standards Australia New Zealand
GCNA  Global Compact Network of Australia
GRDC  Grains Research Development Corporation
GDP  Gross Domestic Product
IAK  Indigenous Agricultural Knowledge
IAS  Indigenous Advancement Strategy
ICE  Intercontinental Commodity Exchange
IFOAM International Federation of Organic Agriculture Movements
ILO  International Labour Organisation
KP  Kakadu Plum
MAYA Most Advanced. Yet Acceptable.
MSC  Marine Stewardship Council
MDG  Millennium Development Goals
NFF  National Farmers Federation
NRMA National Roads and Motorists’ Association
OC  Operational Committee
PIC  PwC’s Indigenous Consulting
PWA Palngun Wurnangat Association
PwC  PricewaterhouseCoopers
RAP  Reconciliation Action Plans
T.H.E Traditional Homeland Enterprises
TIK  Traditional Indigenous Knowledge
UNGC United Nations Global Compact
WWF  World Wildlife Fund
# Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foreword</td>
<td>iii</td>
</tr>
<tr>
<td>About the Author</td>
<td>iv</td>
</tr>
<tr>
<td>Acknowledgments</td>
<td>v</td>
</tr>
<tr>
<td>Abbreviations</td>
<td>vi</td>
</tr>
<tr>
<td>Executive Summary</td>
<td>x</td>
</tr>
<tr>
<td>Introduction</td>
<td>1</td>
</tr>
<tr>
<td>Objectives</td>
<td>4</td>
</tr>
<tr>
<td>Methodology</td>
<td>5</td>
</tr>
<tr>
<td>Key Engagement Methodology</td>
<td>5</td>
</tr>
<tr>
<td>Ripple Engagement Methodology</td>
<td>6</td>
</tr>
<tr>
<td>1. The Agricultural Industry</td>
<td>8</td>
</tr>
<tr>
<td>Australian Context</td>
<td>8</td>
</tr>
<tr>
<td>Australian Agricultural Representative Bodies</td>
<td>10</td>
</tr>
<tr>
<td>Global Trends</td>
<td>13</td>
</tr>
<tr>
<td>2. Native Foods Industry</td>
<td>15</td>
</tr>
<tr>
<td>Background</td>
<td>15</td>
</tr>
<tr>
<td>Research Approach</td>
<td>15</td>
</tr>
<tr>
<td>Industry Stakeholders</td>
<td>15</td>
</tr>
<tr>
<td>Key Findings</td>
<td>16</td>
</tr>
<tr>
<td>Native Foods Process to market</td>
<td>16</td>
</tr>
<tr>
<td>The Native Food Industry and MAYA</td>
<td>17</td>
</tr>
<tr>
<td>3. The meaning of “Value” in agriculture</td>
<td>19</td>
</tr>
<tr>
<td>Introduction</td>
<td>19</td>
</tr>
<tr>
<td>Value to rural and regional economies</td>
<td>19</td>
</tr>
<tr>
<td>Farmer or grower values</td>
<td>20</td>
</tr>
<tr>
<td>Industry values</td>
<td>20</td>
</tr>
<tr>
<td>Cultural values</td>
<td>21</td>
</tr>
<tr>
<td>4. Current State – Kakadu Plum</td>
<td>22</td>
</tr>
<tr>
<td>Product Supply</td>
<td>22</td>
</tr>
<tr>
<td>Supply Chain</td>
<td>24</td>
</tr>
<tr>
<td>Risks to Supply</td>
<td>25</td>
</tr>
<tr>
<td>5. Pricing in Agriculture</td>
<td>30</td>
</tr>
<tr>
<td>Drivers of Agricultural Prices</td>
<td>30</td>
</tr>
<tr>
<td>Pricing Methods for Australian Agricultural Products</td>
<td>31</td>
</tr>
<tr>
<td>Pricing Advisorys and other Support Services</td>
<td>32</td>
</tr>
</tbody>
</table>
Table 1. Five key drivers of the Australian Agricultural Industry ........................................9

Figures

Figure 1. Current locations of Kakadu Plum wild harvest .......................................................xi
Figure 2. A graphical depiction of the Ripple Engagement Methodology ................................6
Figure 3. PIC’s Approach to Collaboration Methodology .........................................................7
Figure 4. The Ripe for Change Food System Map .................................................................9
Figure 5. A snapshot of Australia’s agricultural representative bodies ..................................10
Figure 6. The demographics of survey respondents ...............................................................16
Figure 7. Native Foods Industry characteristics .......................................................................16
Figure 8. Process to market ......................................................................................................17
Figure 9. A desktop analysis of the supply and demand for the Kakadu Plum .......................22
Figure 10. Current locations of Kakadu Plum wild harvest ....................................................23
Figure 11. Northern Territory permit data for the commercial harvest of Kakadu Plum 1996–2006 .........................................................................................................................23
Figure 12. High level supply chain ..........................................................................................24
Figure 13. Kakadu Plum supply chain .....................................................................................25
Figure 14. A proposed model by Traditional Homeland Enterprises Kakadu Plum Pty Ltd .................................................................................................................................28
Figure 15. PWA’s target and total Kakadu Plum picked in 2016 .............................................29
Figure 16. Calculation of the Australian cotton price .............................................................31
Figure 17. The Shared Value Model ........................................................................................38
Figure 18. Triple Bottom Line ..................................................................................................40
Figure 19. Self-assessment decision tree for R&D tax incentives ........................................63
Figure 20: The Bonn Guidelines ............................................................................................120
Figure 21: The Shared Value Model .......................................................................................121
Figure 22: Social Needs and Economic Value Creation ........................................................122
Figure 23: Triple Bottom Line .................................................................................................124
Figure 24: Human rights framework for business model development ................................126
Figure 25: The United Nations Development Programme’s Sustainable Development Goals .................................................................128
Executive Summary

The Australian native foods industry is an emerging agricultural industry experiencing unprecedented growth. The last few years have seen substantial growth in both the national and international demand for the products, coverage in mainstream media and an increase in the number of native food growers.

One of the native food products experiencing this growth is the Kakadu Plum. Kakadu Plum (also known as Gubinge, Billygoat Plum or Murunga) is an Australian native plant that contains the world’s richest natural source of Vitamin C. It has been used for tens of thousands of years by Indigenous people for medicine and as a food source, and is most prominent in northern Australia.

Today, the Kakadu Plum has been referred to as an ‘emerging superfood’,\(^1\) with the industry rapidly increasing in scale and size. This has seen the industry grow in harvest locations across the nation, and the first harvest has since been conducted in a traditional agricultural plantation.\(^2\) Current research and exploration has also moved the Kakadu Plum into new markets, and has included applications for increasing the shelf life of red meats, skincare and health applications.

The report has been written for several stakeholders. They include the:

- Minister of Agriculture and the broader Government
- AgriFutures Australia
- Department of Agriculture and Water Resources
- Northern regions interested in Kakadu plum production
- Existing stakeholders currently engaged in the Kakadu Plum industry
- Australian Native Foods and Botanicals and its members
- Wider agricultural industry, looking for emerging and innovative ways to design their business model.

The industry is predominantly located in northern Australia, with the primary wild harvested products being picked in Wadeye and Kakadu in the Northern Territory, and in Broome in Western Australia. With the demand for the product increasing, other Indigenous communities, such as Arnhem, are now investigating the potential to harvest Kakadu Plum. Some stakeholders, predominately researchers, are also mapping individual trees in order to better understand the traits of cultivation and to map for future supply.

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Key recommendations and findings from this report include:

- The native foods sector is a supply limited market, however there is also a need to connect existing supply to industry demand.
- There is a great potential for the industry to change their focus to become price makers, not price takers.
- A new sustainable, cooperative model should be created for all native foods, allowing for warehousing to match supply and demand, monitor quality and value add a portion of the supply to maximize value.
- Value should be placed on Traditional Indigenous Knowledge. There is a huge potential to combine Indigenous knowledge and story to native foods to provide a shared value industry.
- More research is needed on the domestication of Australian native foods and their application in the mainstream food industry.
- The industry should also explore growing agricultural innovation, such as block chain, to track product demand and supply. The industry should also explore an “Indigenous Wild Harvest” certification for premium prices.

This report is the final report prepared for AgriFutures on this topic. It further includes a financial tool designed for the industry and a business plan template for individual business use.
Introduction

There are over 6,500 types of native foods in Australia, with 13 specified native foods currently FSANZ certified and developed within the Australian and International markets.\(^3\)

The recent growth in the popularity of Australian native foods has stemmed from the trend towards natural products generally, as well as the growing consumer conscience regarding the origin of food products. This is particularly evident in the Chinese market, which is demonstrating an increasing desire for quality, safe and natural products from Australian sources.\(^4\)

In response to the substantial demand for Australian bush foods, the ‘Australian Native Food and Botanicals’ (previously known as ANFIL, or Australian Native Foods Industry Limited) was established in 2006 as the peak body to represent interests in the industry and promote commercialisation.\(^5\)

The commercialisation of the native foods industry in Australia is still relatively new; until now it has mostly been supported and developed by ‘trail blazers’ who have been engaged with the industry for over 30 years. There have been numerous attempts to capitalise on Australia’s unique competitive advantage in realising the potential of its native foods industry, however, these attempts have historically failed to identify a sustainable commercial model. In order to improve bargaining positions across the globe, research into emerging business models is pivotal. This forms the basis of this research investigation, and the following report will also serve as a guide to:

- strengthen the business orientation of farmers, particularly for Kakadu Plum and native food producers;
- increase potential production volume; and
- farmers to operate at a larger scale, potentially along with Traditional Owners.

By conducting in-depth research into emerging business models and assisting native food industry farmers to understand alternate options, the agricultural sector has the potential to:

- allow for diversification of on-farm income;
- boost employment, particularly for regional Australians;
- increase local income and localised job opportunities;
- strengthen cultural ties and respect;
- reduce the cost of social services in productive regions; and
- various social determinants like health, as a result of higher incomes.

This research report focuses on the development of one particular native food industry with significant commercialisation potential and widespread international demand, following its identification as a “superfood” and applicability across the sector, the Kakadu Plum.

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Kakadu Plum (also known as Gubinge, Billygoat Plum or Murunga) is an Australian native plant becoming well known as the Australian native “superfood”, identified as the single food with the highest source of Vitamin C on the planet. The Kakadu Plum has been used for tens of thousands of years by Indigenous people for medicine and as a food source, and is most prominent in northern Australia. The harvesting season is variable by location, and can be year-round across Northern Australia.

In 2007, the industry was worth an estimated $14 million, with this amount increasing significantly in recent years given further industry and product research, and a heightened mainstream media profiling.

2015 was a pivotal year for the Kakadu Plum Industry, with an increased amount of commercial businesses using the Plum in existing products, demand growing exponentially for Kakadu Plum powder and the first commercial Kakadu Plum harvest taking place in the Kimberley. While the Kakadu Plum market has started to mature, there remains no clear business model, strategic plan or whole-of-industry knowledge surrounding the product’s supply and demand. Further research, such as this report, is necessary to depict what stable and sustainable supply and demand for the product may look like.

Supply of Kakadu Plum is currently regulated to a large extent by permits awarded by State and Territory Governments. However, potential supply of the Plum far exceeds the production afforded by the available permits. At the time of writing, only a small number of commercial harvests had ever been undertaken, and only a handful of farms had attempted to respond to the ever-expanding global market for Kakadu Plums.

On the demand side, major international health and cosmetic companies have expressed interest in purchasing large quantities of the fruit, and it is already becoming increasingly found in beauty products including cleansers, body lotions and hand creams. A number of additional potential markets have also indicated demand for Kakadu Plums, and these include Asia, Switzerland, America, Argentina and the company, Pepsi. This significant (and growing) demand makes growing the industry and maximising outcomes for rural and Indigenous communities a high priority.

However, hampering the efforts to develop the Kakadu Plum industry, is the nation’s previous experience in exporting of seeds and germplasm. These cases highlighted how product development, market share and profits from commercialising native Australian products could be lost to foreign-owned enterprises, particularly at the expense of Indigenous Australians. Particular consideration must also be given to the management of the intellectual property arising from the harvesting and commercialisation of the fruit, to ensure that Indigenous Australians particularly are not prevented from accessing and using this native food as per Indigenous traditions.

As a result, it is of paramount importance that the Indigenous Australian population have input and share in the benefits of the production, marketing and selling of the native Plum.

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Ideally this would be achieved through close collaboration with non-Indigenous Australians in rural Australia, given the very strong alignment of interests.

Consideration must also be given to the intellectual property that arises from the harvest and commercial use of the Kakadu Plum, and whether this can be patented by overseas firms.

The appropriate development of the Kakadu Plum industry is the focus of this research report commissioned by RIRDC. This report is the culmination of two and a half years of research conducted by PIC, which has included stakeholder consultations and site visits with parties such as ANFAB and existing businesses, as well as extensive desktop research. While the initial findings have been progressively shared with industry and other stakeholders to encourage collaboration and ongoing conversation, this research report serves to summarise the final results.
Objectives

The objectives for this project are to:

- enhance understandings of Indigenous, farmer and land holder engagement, co-design and collaboration;
- increase the buy in from participants in the Kakadu Plum industry;
- share innovative business models for the commercial use of native foods, for development and testing;
- explore the potential supply and demand for the Kakadu Plum industry; and
- provide insights and business models that can translated for alternate Native Food Industries, agricultural commodities and other sectors.

The expected benefits from this project include:

- community engagement and empowerment;
- sustainable commercialisation;
- an understanding of the commercial potential and reality for native foods; and
- longevity of Kakadu Plum production in both the wild stands and commercial stands; and
- expansion of agriculture into previously non-arable lands.
Methodology

A variety of engagement methodologies were used throughout the first year of the project, based on stakeholder, location, time and place. At all times, PIC adhered to the protocols for project engagement set out in Appendix 1.

The following section outlines the key methodologies used. The first is the key methodology that informed our research collection and current findings, while the second discusses ripple methodology, which is a methodology designed for agricultural, rural and Indigenous communities to build trust and obtain a holistic understanding of the topic.

Key Engagement Methodology

Primarily, we adopted the following methodology for engaging with users, devolving risk throughout the process through authentic engagement. This methodology was co-developed to consensus at our initial meeting in 2015, and re-affirmed with the Department of Agriculture and Water Resources during the Native Food Export Roadmap co-design session in 2016.

1. User-centred research, including survey development

This involved informal engagement and formal consultation with key stakeholders to inform understanding of the ecosystem surrounding native foods. Initially, at the co-design workshop, a shared understanding was developed of how people and organisations in the space are connected and influenced. This informed how results from this project, and other work including the potential future development of project findings, could be communicated. From this, a quantitative survey instrument was developed. This was shared widely through stakeholder networks. It was short and simple, and gauged industry sentiment towards export at an aggregate level.

2. Observational and participatory research, including site visits

Observational research involves collecting data related to how users act within a system. Site visits were conducted at a number of growing and processing facilities, to ground truth in initial findings and provide a complementary qualitative data instrument. This provided rich contextual data, enabling the story of collective industry priorities to be told.

3. Quantitative survey data

Quantitative data was conducted by promoting the survey to the industry stakeholder groups. This was distributed through ANFAB, personal networks, media and social media. This provided statistical data for effective decision making.

4. Iterative co-design

Iterative co-design involves repeated engagement with stakeholders to design this report and findings together. The focus of these processes was to ensure that the final roadmap was fit for purpose, met real stakeholder needs, and could be implemented practically. Further, this highly collaborative approach was useful for engaging stakeholders to demonstrate the value of the end product. The co-design focused on delivering a framework that could be used by industry.
5. Continued engagement

In the next phases, continued engagement and iteration with users is vital. We suggest continuing the process in the same spirit of co-design which has successfully been used to design and build the native foods industry to date.

Ripple Engagement Methodology

What it is

A way of working with people, drawing on Indigenous understanding of connection together with sociological approaches such as referral sampling. It is free flowing and puts impetus on the facilitator rather than the participant. It is built on trusted relationships.

Why we use it

This methodology:

- Creates and promotes respect, especially where there have previously been difficulties.
- Provides access to people and spaces that might otherwise remain hidden or unknown.
- Leaves space for gaining unexpected insights, and gathering different kinds of data for evidence-led analysis.
- Builds broad engagement and support for change.
- Creates the environment for self-determination to be enacted, either supported or autonomously.

How we do it

We put a lot of effort into creating, building and maintaining culturally relevant trust circles. We identify trusted individuals within a system and build relationships with them. These are not just transactional. They produce value for all involved. They may be immediately valuable or be an investment in a potential future value. We are then invited to enter new circles through trusted introductions and social capital. When collecting data, we plan participant sampling and engagement locations to allow enough time and resources for ripple-based referral to occur within agreed scope.

Figure 2. A graphical depiction of the Ripple Engagement Methodology
PIC’s Approach to Collaboration

We have further used our proven approach to collaboration for working with stakeholders and organisations. This is detailed in the figure below.

Five pillars to PIC’s approach to working with people and organisations from all backgrounds

1. Storylines
   People, Families, Communities, Governments, Corporates - all have storylines. These storylines provide meaningful insight into why certain beliefs are held and why certain relationships exist. Through our networks and personal connections, PIC is often able to begin engagements with an initial view of the underlying dynamic of a community, providing a solid foundation for engagement.

2. Respect
   Perhaps the most valued commodity in Aboriginal communities, mutual respect is required in order for Indigenous Organisations to build trust, connect with and sometimes hurtful information. This information is required to ensure the formation of effective outcomes.

3. Understanding
   We appreciate that Indigenous Organisations are often complex, and there can be deeply embedded beliefs and structures built over time. Our philosophy is one grounded in an understanding that individuals, organisations and communities contain multiple wisdoms, and that we must search for and find ways to inform our thinking before we can properly analyse issues in any detail.

4. Engagement and ownership
   Organisational ownership is essential for any lasting change to take place. Well-considered and well-structured strategies will not deliver sustainable outcomes unless they are developed by the organisation’s constituents – this is not only for the delivery of quality services, but also in building the capacity of the organisation.

5. Experience
   Our teams are experienced in stakeholder engagement that requires effectively supporting groups in meeting expectations level of engagement around their priorities and directions through focusing on perspectives that are central, achieving effective and relevant outcomes, aligned to the organisation’s purpose.

“We understand the wisdom that exists within Indigenous communities and organisations.”

PIC Co-owners

Figure 3. PIC’s Approach to Collaboration Methodology
1. The Agricultural Industry

Australian Context

In 2014-15, the Agriculture, Forestry and Fishing industry accounted for 2.2% of the Australian economy.\(^{10}\) Although its share has decreased over time, output from the sector has continued to grow with the total industry value added for the sector rising by 1.5% in real terms in 2014-15.\(^{11}\) This growth was driven by several key industries:

- **Nut growing:** a traditionally modest crop, nut growing has risen rapidly and has become an increasingly important source of domestic supply and exports. In fact, nut production is expected to expand from around 139,000 tonnes in 2014 to 170,000 tonnes in 2020.\(^{12}\)
- **Meat:** increased production of mutton and pork output has been a key driver of growth in Australia’s agriculture sector in 2014-15, with a higher rate of growth than traditional meat products such as beef and lamb.\(^{13}\)
- **Fruit and vegetables:** exports of Australian fruit and vegetables have grown rapidly in recent years, with the value of vegetable production increasing by around one-third since 2006–07.\(^{14}\)

In order to support these trends, in 2015 the Commonwealth Government released the Agricultural Competitiveness White Paper, a policy outlining plans to strengthen the Australian agriculture industry.

The Paper forms part of a $4 billion investment in the industry and demonstrates the Commonwealth Government’s recognition that the agricultural industry is a vital part of building a strong and prosperous economy.\(^{15}\) The Paper reiterates that the agricultural sector is one of the five pillars of the Australian economy and emphasises why the sector is a Government priority.\(^{16}\) In 2013-14, the value of farm production was $51 billion and agriculture comprised approximately 2% of Australia’s gross GDP.\(^{17}\)

The broad themes encompassed within the paper include: lowering tax, cutting red and green tape, developing infrastructure, facilitating trade, developing Northern Australia, and supporting business innovation.\(^{18}\) In particular, the focus on Northern Australia as a growth opportunity for agriculture is evidenced by the government’s commitment in the Northern Australia White Paper to fund a $75 million Cooperative Research Centre on Developing Northern Australia, with an initial focus on agriculture, food and tropical health.\(^{19}\) In 2010-11, the gross value of Northern Australia agricultural production was $5.2 billion, 11% of


\(^{12}\) Ibid.

\(^{13}\) Ibid.

\(^{14}\) Ibid.

\(^{15}\) Ibid.

\(^{16}\) Ibid.

\(^{17}\) Ibid.

\(^{18}\) Ibid.

Australia’s total production - $46 billion.\textsuperscript{20} As outlined in the table below, the Paper identified five key drivers of the Australian agricultural industry.\textsuperscript{21}

Table 1. Five key drivers of the Australian Agricultural Industry

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<thead>
<tr>
<th>Driver</th>
<th>Rationale</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Increased food consumption</td>
<td>Population growth will drive demand for food products</td>
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<tr>
<td>2 Wealth</td>
<td>Growing middle class that are wealthier and can afford differentiated products</td>
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<tr>
<td>3 Education</td>
<td>Customers that are educated and informed about their food choices leading to demand based on ethics, sustainability and health</td>
</tr>
<tr>
<td>4 Technology</td>
<td>New technologies advancing production and transport</td>
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<td>5 Climate change</td>
<td>Weather conditions will change practices and methodologies</td>
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</table>

In the last few years, the Australian food and agricultural systems have undergone intense change, primarily due to the additional interest in food production from increased media surrounding issues such as live export, country of origin labelling and farming practices. This increase in public media has encouraged consumers to have a heightened interest in where the food comes from and the way it was produced.

In response, the Australian Environmental Grantmakers Network developed a ‘Ripe for Change’ initiative to better understand and positively impact the food system. As part of this process, a food system map was developed in 2016, and has been summarised as follows\textsuperscript{22};

![Figure 4. The Ripe for Change Food System Map](https://www.aegn.org.au/wp-content/uploads/2016/05/FoodSystemMap-A3.pdf)

The key interests for this project are the growing number of connected consumers, with many seeking traceability and accurate country of origin labelling. Given the shift in consumer attitudes, there is a great opportunity for the native foods sector to focus their


\textsuperscript{21} Ibid.

efforts on promoting the Australian grown aspect of native foods, the social impact for rural and Indigenous communities where products are wild harvested, and the connection that consumers can have with the growers, many of whom are selling the product directly.

It is also critical to mention the growing trends of farm transparency and agriculture's social licence. As societal views shift around the governance and sustainability of corporations, so too does the interest in food production and animal welfare. Farmers are increasingly held accountable for their actions and asked not only to provide, but also to protect and care for the environment and animals that support the production of food. All farmers must ensure that farm and industry acts will uphold to public scrutiny as the public desire grows beyond the farm gate.

**Australian Agricultural Representative Bodies**

The Australian agricultural industry can be characterised to a large extent by the composition and extent of its representative bodies, which serve to advocate for and advance the interests of its members. These bodies, some of which are shown below, cover locations all throughout Australia, the majority of agricultural industries, and all stages of the agricultural value chain.

![A snapshot of Australia's agricultural representative bodies](image)

Given the large extent to which the Australian agricultural industry is dominated by representative bodies, it appears likely that the Kakadu Plum industry will be similarly represented. Given the current landscape, the Kakadu Plum industry, along with other native foods, may be best represented through a commodity body under ANFAB.

Some of Australia's largest and most successful bodies are explored in greater detail below, including their purpose and characteristics.

**Australian Native Foods and Botanicals (ANFAB)**

ANFAB – previously known as Australia Native Food Industry Limited, or ANFIL - is the peak national body that represents all interests in the rapidly growing Australian native food and botanical industry. This includes traditional and new indigenous plant products. ANFAB is a not-for-profit with broad involvement in the native foods industry on a national scale, and

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Potard G, Keogh M, Opportunities to Improve the Effectiveness of Australian Farmers’ Advocacy Groups (2014), The Australian Farm Institute.
advocates nationally on behalf of the industry. ANFAB particularly advocates for research and development in areas such as the nutritional and functional benefits of Australian native foods, as well as commercialisation activities across the industry.\textsuperscript{24}

ANFAB’s vision is to ‘be the recognised leader in delivering world-class research, development and marketing outcomes that benefit the Australian native food and botanicals industry’, and part of their mission includes strengthening working relationships with Traditional owners to ensure they are the leaders in the food community.\textsuperscript{25}

For the purposes of this project, it is important to note that all native foods, including Kakadu plum, already is a priority area for this industry group.

**The Australian Macadamia Society (AMS)**

The Australian Macadamia Society (AMS) is the peak industry body for the Australian macadamia industry, established over 40 years ago. The AMS is regarded as one of Australia’s strongest horticulture industry organisations and currently has over 600 members who are responsible for 85% of Australia’s macadamia production.\textsuperscript{26}

Despite a growing supply of macadamias produced around the world, Australia contributes more than 30% of the global crop. Of this, 70% of this production is exported to over 40 countries.

**Australian Wool Innovation (AWI)**

AWI is a not-for-profit company responsible for delivering research, development and marketing for the Australian wool industry. The company is owned by more than 24,000 Australian wool levy payers who have registered as AWI shareholders. AWI was established in 2001 by the Australian Federal Government and wool industry as the Australian wool industry’s rural Research and Development Corporation (RDC). AWI is one of 15 rural RDCs for specific rural industries. They work with woolgrowers, government and industry, manufacturers and brands, fashions designers, retailers and consumers.\textsuperscript{27}

**Grain Research and Development Corporation (GRDC)**

GRDC’s is a government funded organisation whose purpose is to invest in RD&E to create enduring profitability for Australian growers which has been in operation for 27 years. They invest in projects and partnerships that drive profitability, productivity within Australia’s grains industry. They are involved with the 3 major agroecological regions for grain:

1. Northern Region, encompassing Queensland and northern New South Wales.
2. Southern Region, encompasses south-eastern Australia, including central and southern New South Wales; Victoria; Tasmania; and south-eastern South Australia.
3. Western Region, area of Western Australia.\textsuperscript{28}

\textsuperscript{25} Ibid.
Cotton Australia

Cotton Australia is the peak representative body for the Australian cotton growing industry, led by a Board of nine cotton growers and ginners. Established in 1972, originally as the Australian Cotton Foundation, Cotton Australia merged with the Australian Cotton Growers Research Association in 2008 to provide a united voice for cotton growers across research, stewardship, natural resource management and cotton production issues. Cotton Australia partners with: National Farmers Federation (NFF), NSW Irrigators Council (NSWIC), Queensland Farmers Federation (QFF) and National Irrigators’ Council (NIC).^29

Dairy Australia

Dairy Australia is the national services body for the dairy industry. Their role is to help farmers adapt to a changing operating environment, and achieve a profitable, sustainable dairy industry. They act as the ‘investment arm’ of the industry, investing in projects that can’t be done efficiently by individual farmers or companies.^30

Their annual funding is a combination of levy, government and leveraged funds:

- $34 million – Dairy Services Levy, paid by farmers based on milk production
- $19 million – the Government supports dairy by matching payments for eligible R&D

Dairy Australia also attracts funding at project level from state governments, universities, research organisations and other dairy support organisations, in the realm of $20-30 million annually.^31

National Farmers’ Federation (NFF)

The National Farmers' Federation (NFF) is an Australian non-profit, membership–based organisation that has been in operation for 38 years. It is the peak national body representing farmers and agriculture more broadly across Australia. It is a leader in the identification, development and achievement of policy outcomes - championing issues affecting farmers and dedicated to the advancement of agriculture. The NFF is dedicated to proactively generating greater understanding and better-informed awareness of farming’s modern role, contribution and value to the entire community.^32

The NFF policy is set by the NFF Members' Council, which comprises the presidents of the NFF’s 31–member organisations. This member organisations pay a membership fee of which funds the NFF. One of the NFF’s core projects is Streamline and Strengthen.^33

Streamline and Strengthen

Project Streamline & Strengthen is an initiative by the NFF to achieve more effective national advocacy for farmers on agricultural issues, particularly relating to long-term benefits and sustainability within the industry. The project arose from the complications associated with the existing farm representation structures, which are based on an outdated, federated model.

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^31 Ibid.
The project aims to create a unified platform for farmer advocacy, and overcome the duplication of resources and effort across all levels of representation (local, state and national), the inefficient allocation and returns on limited funds available for representation, and other complications arising from the legacy based structure.\(^{34}\)

At this stage, the process of consultation about options for a unified model of farmer representation has begun.

**Global Trends**

The Australian agricultural industry is influenced to a large extent by global trends. Some of the greatest opportunities and trends in the global and national food supply systems include:\(^{35}\)

- **Globalisation of food supply**
  
  The nature of today’s global and complex supply chains means contamination can turn up in more products, more quickly than ever before. There needs to be full visibility and control over supply chains, particularly in terms of the safety and quality practices of suppliers and growers. It is also becoming pivotal that consumers can trace the product back to the farm it

- **Integration of supply chains**
  
  Food companies spend millions to integrate their supply chains and improve control. Consideration must be given to the greater integration of supply chains, including different commodities to reduce risk. Processes and controls also need to be developed to mitigate

- **Scandals and increasing scrutiny**
  
  A single lapse in quality control can easily become a brand or industry damaging global scandal, triggering public health concerns or damaging consumer trust. A risk landscape profile should be developed to identify and quantify supply chain risks. Strategy must also be developed to defend the industry or supply chain against issues such as fraud, contamination, and quality failures. This involves greater interaction with stakeholders, and listening to their feedback. A strategy should further be developed for recalls, crisis management and recovery procedures. A response to supply chain disruptions without unacceptable losses also needs to be considered.


\(^{35}\) PwC, A recipe for food trust: PwC’s Food Supply and Integrity Services (2016).
Rising regulatory standards

Governments are adopting more stringent food safety regulations and sanctions, creating unprecedented compliance risks and costs across markets. Anticipation surrounding regulatory change should occur frequently, along with considering how standards in one country may impact exports and views within other countries. Marketing and stakeholder engagement is critical to enhance customers’ trust, beyond regulatory compliance.

Shifts in global economic power

The growth of maturing economies is creating huge consumer markets where they did not exist before. Consideration as to changes on the horizon that could rapidly reshape the industry or market needs constant attention, particularly in terms of opportunities or challenges. Global megatrends and their impact also need to be explored, along with the industry’s own growth strategy.

Tech, traceability and transparency advancements

A combination of emerging technologies and scientific advances are making big differences to improving food quality and traceability to the consumer. Track-and-trace technologies may be adopted to optimise the supply chain and monitor supply and demand. Technology can also be used to help improve yields.

Changing food demand

Economic development and population growth are increasing overall food consumption, while middle class growth and informed consumers are demanding better quality and variety. Greater purchasing power has resulted in significant increases in the consumption of resource-intensive protein products, with big impacts on the environment and agriculture. Demand for certain standards, such as organic or halal, is growing strongly. Who are the target consumers for your industry or product and what are their views? Customer behaviour, in particular, has become more complicated as values and buying preferences evolve.

Empowered consumers

Mobile connectivity and social media have become fundamental ways to get information and buy goods and services. Digital technologies enable people all over the world to be better connected, more informed, and as a result, more empowered and interested in what goes on behind the farm gate. Technology is giving people access to information about what food companies do and the impact of their actions. Using nothing but the phone in their pocket, anyone can share opinions, pictures and videos to expose issues and trigger a scandal – including employees, activists and media. Digitisation may reshape the way consumers find and share information about food, the industry and its associated brand.

From compliance to competitive advantage

Large food supermarkets and industry groups are setting internal standards that are far more stringent than those required by law. Rather than just complying with regulatory safety requirements and farming practices, they are aiming for enhanced quality that distinguishes them from their competition and builds consumer trust and brand loyalty.

Population growth and resource scarcity

With population growth and the associated increased demand for food, agricultural production will need to increase by at least 70% to feed everyone by 2050, yet current consumption rates are already unsustainable. Governments and companies are adopting new technologies, corporate acquisitions and even diplomatic relations to secure access to the water, energy and land required to ensure sufficient food supplies in the future.
2. Native Foods Industry

Background

The value of the Australian native foods industry is approximately $10 to $16 million, and growth projections are favourable to Australian growers. Of the 6,500 native food opportunities within Australia, only 13 products have received Food Standards Australian and New Zealand certification. While native foods in Australia are increasingly becoming part of mainstream society through culinary reconciliation, there are increasing opportunities for Australian native foods to expand further into the international market.

PIC previously conducted an extensive research project into the current state of the Australian Native Foods Industry, outlining the key industry stakeholders and demographics to inform an evidence-based industry export plan. This chapter will summarise some of the findings from the report, and also explore the MAYA principle as it applies to the Native Foods Industry. The full report commissioned for the Department of Agriculture and Water Resources can be found in Appendix Two.

Research Approach

To complete the industry analysis and export roadmap, PIC was required to conduct original research as a result of the lack of prior quantitative research in this area. To do this, PIC conducted a number of site visits and phone interviews, and distributed a national survey through ANFAB membership, networks and social media. The survey was completed by 31 businesses and individuals from across Australia.

Industry Stakeholders

It is crucial to understand the stakeholders of the Australian Native Foods Industry, to allow informed policy making and the application of relevant business models. PIC’s research indicated that there was significant diversity within the native food sector. 59% of stakeholders described themselves as a grower and/or a retailer/wholesaler, while others focussed on food service, value-adding and the promotion of native foods within Australia. The location and categories of survey respondents are shown below.

Key Findings

The Australian Native Foods Industry is a diverse, domestic-focused sector with supply side constraints. Only one product, Lemon Myrtle, is a mature, fresh and value added product with developed export procedures and supply chains.

A summary of the key findings for the entire industry are as follows:

Figure 7. Native Foods Industry characteristics

Native Foods Process to market

The following diagrams outline the existing process to markets for both fresh and processed products. Note that the steps in blue can also be completed by the grower in some instances.

38 PwC’s Indigenous Consulting, ‘Native Foods Export Roadmap,’ Australian Native Food Industry Limited, 2017
These diagrams also show the value architecture throughout the chain, and can be useful to inform policy and analyse market efficiency.

**FRESH**

![Diagram of the FRESH process]

**PROCESSED**

![Diagram of the PROCESSED process]

Figure 8. Process to market

**The Native Food Industry and MAYA**

Anticipating consumer trends and actively influencing consumer preferences can be a difficult task. The difficult nature of this task can be attributed to two opposing forces acting on a consumer at one time: neophilia, a curiosity about new things; and neophobia, a fear of anything too new. A relevant design principle to account for these forces is 'MAYA,' which is an abbreviation for 'Most Advanced. Yet Acceptable.'.

The MAYA principle was introduced by Raymond Loewy, who is widely regarded as having changed the landscape and thinking of industrial design. He designed many famous creations, including some of the most recognisable cars of the 40’s to the 60’s, the Coca

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Cola bottle, logos including that of Shell, and the Air Force One livery. He designed for his users’ present needs and skills, whilst pushing the boundaries of design and technology beyond his users’ expectations.

"The adult public’s taste is not necessarily ready to accept the logical solutions to their requirements, if the solution implies too vast a departure from what they have been conditioned into accepting as the norm." - Loewy

This concept can be adapted to consumers and restaurants exploring new food groups, such as native foods and bush tucker. To date, this has been done effectively by a number of Indigenous chefs and native food specialists, including Jock Zonfrillo, Clayton Donovan, Bryant Wells, Mark Olive and Andrew Fielke. An analysis of their practices offers several insights to help strike the right balance in transitioning and encouraging the public to explore new ingredients and concepts. These include:

- advancing designs and boundaries gradually over time, by slowly introducing new ingredients and pushing the boundaries of your consumer – a gradual process makes the process and each step seem more attainable and familiar.
- including familiar patterns in the visual design of a dish, so users can orient themselves with an experience as well as taste.

Case Study: Clayton Donovan, Indigenous Chef

Clayton’s cuisine has been labelled ‘stunningly innovative’ by the Australian Good Food & Travel Guides Awards, which has awarded the Jaaning Tree a chef’s hat on three occasions. All such accolades aside, however, it is his family and community, preserving and sharing his culture, and supporting the region’s food producers and growers about which Clayton remains most passionate. He has been able to accomplish this through following a few simple values:

1. Help people connect with and to know where their food comes from and how it is prepped.
2. Making visitors feel like that they are part of a family.
3. Taking advice and criticism on board and trying to improve where it is possible.
4. Using online forums to increase reach and educate people about their produce.
5. Bringing people together around the table.

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3. The meaning of “Value” in agriculture

Introduction

Value is what is important to people, organisations and the system. It is precious, protected and selectively shared. It can be tangible and intangible. It is not just value in the Western lens; it may include people, knowledge, place, Country, wisdom, time, learning and resources (financial and other). It means looking at the system holistically, considering all elements and long-term timescale. It also means considering who the value is held by, who it is supporting, who it is shared with, what it means for family, community and the system and how it underpins long term sustainability. It means understanding that everyone has something of value to share.

In a financial context, the ability to harness knowledge and resources to build value for rural and Indigenous communities, presents a significant opportunity for direct financial returns; but also community returns in greater cohesion, higher economic value to the regions, lower social security spend for the government, and better health outcomes via improving areas relating to the social determinants of health.

As the agricultural industry expands in terms of a financial commodity, it becomes increasingly important to understand the “value” of agriculture more broadly. This involves exploring the growing impact of agriculture to our rural and regional economies, farmer or grower values, industry values and cultural values. Native foods, particularly the Kakadu Plum, provides a great example of these values in the agricultural sector.

Value to rural and regional economies

Agriculture is at the core of our rural and regional towns, being the greatest employer in our communities. The sector and the associated agricultural support services industry is often the reason our small country towns have survived and continued to thrive, with the direct relationship evident during the late ‘80’s and ‘90’s wool crash.

But the agriculture sector provides more than financial benefits to our regional economies, it also provides culture and community spirit.

Case Study: Boorowa Irish Woolfest

Every year, the small town of Boorowa shares their Irish and woollen roots by running sheep down the main street. The event showcases the wool industry that helped establish the town and has been the back bone of the economy since. The Woolfest visually shows the convergence between the town and the agricultural sector, providing culture and community spirit between farmers and the local community.

Now in its 21st year, the Boorowa Irish Woolfest confirms the connection between farmers and their communities,

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43 https://theconversation.com/australias-five-strong-pillar-economy-agriculture-40388

44 http://www.abc.net.au/worldtoday/content/2011/s3282386.htm
along with the roll that agriculture plays in agritourism and embracing community spirit.

**Farmer or grower values**

While farming is a commercial exercise, studies and experience show that pure economic value is not a substantial or stand-alone incentive for contemporary farmers. By contrast, the practice of farming is viewed by growers in its relation to the land, community and family.

For example, a 2003 study on the attitudes and values of Australian farmers found the following four values to be the highest ranked across the board:

- leaving the land better than they found it,
- caring for workers and family,
- being most satisfied with their life, and
- being progressive and innovative.\(^{45}\)

The above values indicate that conservation, community and personal fulfilment are of great importance to those within the agricultural industry, and rank higher than generating large incomes and profits.

The above survey also speaks to the nostalgic farming that often occurs in agriculture beyond financial return. This is demonstrated when farmers choose or seek to purchase the ‘family farm’, continue farming ‘the way Dad did’ or select the commodity grown based on their parents or grandparents, often over the commercial opportunities on the farm.

This suggests that in valuing the Kakadu Plum industry, and other agricultural industries more broadly, an alternate value lens should be applied when decision making, if the industry is to reach its full potential in all aspects of value.

**Industry values**

The agricultural industry prides itself on its contribution to the nation. Throughout much of the 20\(^{th}\) century, the agricultural industry was the backbone of the Australian economy, and today remains an industry that provides for the basic needs of the nation, by growing products that feed and clothe.

Beyond this, at a commodity level, there are industry values immersed. These are often viewed in terms of commodity engagement through training, scholarships, networking events and the individual research development corporations and lobby organisations. Each commodity has developed their own values, which are shared both internally and externally to consumers.

Once instance of this is the Sydney Cherry Auction detailed below.

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Case Study: Sydney Cherry Auction

Using business to achieve social and economic outcomes simultaneously is evident in the annual Sydney Cherry Auction.

The official start of the cherry season occurs in late October, with the first box of cherries going under the hammer at Sydney Markets at this time. Each year the Cherry experts are scouring the country to find the best box of cherries money can buy – and as is tradition, the first box of Cherries is auctioned to raise funds for charity.

The charity auction for the first box of cherries or summer fruits is a significant occasion for all involved. Prices have been recorded as high as $110,000 AUD for a single case of cherries, raising much needed funds for charities, as well as building hype for the newly available summer fruit.46

This particular initiative may be of interest to the Kakadu Plum industry.

Cultural values

The agricultural sector, and the native foods industry more specifically, offer large cultural value particularly in Australia. At its heart, the agricultural industry uses and looks after community resources (i.e. land), to grow products that can be used by the entire nation. This communal aspect is also largely prevalent in Indigenous culture.

The knowledge required to successfully farm products also presents the opportunity for larger crossover between Indigenous Australian communities and farmers. For example, traditional knowledge regarding ‘caring for Country’ is of great value to the agricultural industry in Australia, given that looking after agricultural land will generate the largest returns in terms of high quality products.

Beyond this, farming native foods also provides Indigenous communities to learn and share traditional knowledge, while also providing the opportunity to leverage this information in a commercial sense.

4. Current State – Kakadu Plum

The Kakadu Plum industry has had unprecedented growth in the last few years, primarily attributable to the increase in media attention and awareness of the product. This has seen an increase in the number of Kakadu Plum businesses and products, both within Australia and internationally.

The tonnes of Kakadu Plum harvested has been steadily increasing for a number of years, and the fruit has been predicted to realise a retail value of up to $760 per kilogram. However, growers and harvesters are expected to receive only $6-$15 per kilogram. This information is based on preliminary consultation with the wider industry and does not speak to the Kakadu Plum’s potential. The below graphic highlights the uncertainty of the products potential, based on the newspaper clippings and articles over the last few years.

![Figure 9. A desktop analysis of the supply and demand for the Kakadu Plum](image)

**Product Supply**

Predominantly, Kakadu Plums are a wild harvested product, with the exception of one or two plantations in Australia. The industry is located in northern Australia, with the primary wild harvested products being picked in Wadeye and Kakadu in the Northern Territory, and in Broome in Western Australia. With the demand for the product increasing, other Indigenous communities, such as Arnhem, are now investigating the potential to harvest Kakadu Plum. Some stakeholders are also mapping individual trees in order to better understand the traits for future cultivation and also to map for future supply.
The total amount of Kakadu Plum harvested in recent years across Australia is unknown, however in Wadeye, the largest hub for the product, only 5.39 tonnes were harvested in 2016. This was in line with the amount harvested in previous years, noting that production fluctuates depending on weather events and the availability of pickers.

In 2012, the commercial value of the Kakadu Plum sector was estimated at $240,000 as a result of only 12 tonnes being produced that year. Today however, with reports of China alone requesting hundreds of millions of tonnes of the product, it appears the value of this industry has increased significantly. While it is important to understand the value of this industry from a financial perspective, the industry’s value also needs to be explored in an Indigenous context, given the areas Kakadu Plum has the biggest opportunity to transform.

Showing the industry’s growth, the 2017 Kakadu Plum harvest results proved difficult for agents, with some organisations having to find new organisations to sell their product to.

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47 Clarke, Michael, ‘Australian Native Food Industry Stocktake’, Rural Industries Regional Development Corporation, 2012. Please note that the figure above shows the Wild Harvest Take Permit or the amount allowed to be harvested (in black), with the white bars showing the reported amount harvested.

48 Ibid.
Remarkably, the ripening and supply of native foods occur in a vertical manner across Australia, unlike other horticultural products that occur in a horizontal fashion.

**Supply Chain**

The supply chain for Kakadu Plum is not known in its entirety by either the Indigenous pickers or the processor. At a high level, the process involves picking, sorting, freighting and then processing the product as either whole, pureed or as powder.

![Diagram of supply chain](image)

**Figure 12. High level supply chain**

However a more detailed understanding of the picking and sorting process demonstrates the importance of knowing the entire supply chain. The following figure, Figure 13, demonstrates a more detailed understanding of the initial components of the supply chain. The process in Wadeye typically involves:

1. Families walk between seven to ten kilometres out to the picking site.
2. The whole family is involved in harvesting the product, including the children who often climb trees to harvest the Kakadu Plums.
3. The families walk back, seven to ten kilometres, to the aggregation site in town, carrying green shopping bags holding up to ten kilograms of Kakadu Plum in each bag.
4. The women then sort the Kakadu Plum at the Women’s Centre.
5. The Kakadu Plums are then weighed and the women are paid $10.00 per kilogram for the good fruit. They must also provide a signed consent form from that area’s Traditional Owner, otherwise they are not paid.
6. The products are then snap frozen and then placed into freezer shipping containers.
7. They are then sent by barge to Darwin, and then freighted by truck into Brisbane.
8. The product is then packaged whole, pureed, or pureed and then turned into powder.
Risks to Supply

As a new industry limited by supply, the Kakadu Plum industry faces a number of supply risks. These risks include, but are not limited to:

- Lack of funding to research, commercialise and advertise product characteristics;
- Seasonal disruptions and natural disasters in growing areas, including bush fires and/or floods;
- Limited experience and track record of producing consistent quantities;
- Potential intellectual property issues; and
- Possible exclusion of Indigenous Australians from commercialisation, including the impact of Traditional Indigenous knowledge.

In addition to the general supply risks, there are additional risks associated with the attempted domestication of native foods.

It is often held in traditional agricultural models that the way to remove the risk of a variable supply is through plantations and orchards. While this has proven reliable for conventional agriculture, supported by large research budgets, there are great concerns for the domestication of native foods.

For the Kakadu Plum, this may include:\(^{49}\)

- Reduced dormancy
- A tendency to ripen simultaneously
- Germination inhibition
- A lack of plant growth

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\(^{49}\text{Informed from Traditional Indigenous Knowledge obtained through consultation and Bruce Pascoe, Dark Emu Black Seeds: agriculture or accident (Magabala Books, 3 March 2014).}\)
• Uncertain levels of Vitamin C
• A lack of natural propagation

Potential Markets

The demand for Kakadu Plum has been growing rapidly over the past few years, primarily due to the additional media coverage and the understanding of additional uses for the product. This has been noted by all stakeholders, many of whom have made a decision to only supply national, rather than international markets.

Currently, Kakadu Plum is used for a raft of products, including as a seafood and red meat preserver, for skincare and anti-ageing, as a multivitamin and as a superfood product. It is sought by many of the big nutraceutical and pharmaceutical companies around the world, particularly sought after for the high levels of Vitamin C and antioxidants.

However like all native foods, Kakadu Plum is a supply limited market, providing the potential to increase the price even further of the product. Currently, large aggregators have been quick to increase the product price each year, depending on demand from the previous year and the expecting demand for the current year.

There is however a great need to connect demand and supply further than a few direct wholesalers. Despite there being significant demand detailed in newspapers and social media (please see Figure 9), suppliers often find it difficult to find a marker to sell the product in bulk amounts.

There have also been many concerns raised regarding the previous export of seeds and germplasm. This is based on the risk of international product development, competition for market share and a loss of profits for Australian companies and Indigenous communities. 50

There are also concerns over the ownership of intellectual property, particularly in terms of the processing and plant material.

Limiting Factors on Industry

Currently identified limiting factors in the past for the Kakadu Plum industry are; 51

• Roads used to access the plums become unusable due to the wet season, resulting in the use of boats to access the plums.
• The limited ability to freeze the plums within 24 hours to maintain optimum quality.

• A permit is needed to harvest the plums; said permits are limited to 10 tonnes of harvest.\textsuperscript{52}

• The supply chain lacks integration.

• There are a lot of small farmers partaking in wild harvest and only two commercial farms.

• There is no centralised distribution/collection.

• Industry supply chain does not align with commercial needs.

• Four to five commercial buyers, with one owning significant Intellectual Property. At this stage they are unable to purchase all product.

**Current Proposed Business Model**

**Case study: Traditional Homeland Enterprises Kakadu Plum\textsuperscript{53}**

With the current Kakadu Plum industry currently undergoing the process to maturity, the Traditional Homeland Enterprises (T.H.E) Kakadu Plum model provides an example of a co-operative model example that may be adopted.

T.H.E Kakadu Plum is a recently founded co-operative that was established by the Kindred Spirits Foundation, to form regional and central hubs for Kakadu Plums, with retail sales being sold through The Australian Super Food Company. It is a supplier of bulk wholesale Kakadu plums, in various forms such as frozen whole fruit, frozen purée, powder and extract.

Currently, the main supplier of T.H.E Kakadu Plum is *Palngun Wurnangat’s Mi Marrarl*, an independently owned Indigenous women’s organisation in Wadeye, Northern Territory (see case study below). T.H.E. Kakadu Plum is also wild harvested in the Kimberley in Western Australia, and between Wadeye and Arnhem Land in the Northern Territory.

According to advice from the Kindred Spirits Foundation, the model uses regionally based co-operatives located in central locations which feed into supply hubs. This is the major source of product delivery to a central warehouse. Kindred Spirits are currently in the process of seeking funding for a central warehouse in Darwin, which would have the ability to process other native foods.

The hub model enables partnerships between regional co-operatives who work with Indigenous people and communities to create their own enterprises. This is designed to enhance the value of the natural resources, ensure long term stability and preserve and promote Indigenous culture and tradition.

\textsuperscript{52} Brann, M and Kerrigan, V, ‘Kakadu plum season creating jobs and economic opportunities for women in Wadeye’, Australian Broadcasting Corporation, 10 July 2015,

During the first two years of T.H.E Kakadu Plum’s operation, the business acquired over nine tonnes of Kakadu Plum from the Wadeye Community.

![Diagram of T.H.E Traditional Homeland Enterprises Kakadu Plum Pty Ltd model]

Figure 14. A proposed model by Traditional Homeland Enterprises Kakadu Plum Pty Ltd

Kakadu Plum in Community

Case Study - Palngun Wurnangat Association (Women’s Association)

The Wadeye area is one of the largest suppliers of Kakadu Plum in the world. Palngun Wurnangat Association is an independently owned, Indigenous women’s organisation based in Wadeye in the Northern Territory. Palngun Wurnangat can be defined as ‘women all together’ or ‘all the women here’ in Murrinhpatha, the main shared language spoken in the Wadeye region. The Association oversees a range of community-based projects and businesses, including a commercial bakery and take-away food store, in an attempt to preserve and promote Indigenous culture and tradition, while fostering self-sustaining organisations run by and for Indigenous people. Other businesses provided by PWA include a laundromat, café, IT services, mentoring and a community hub.

In 2014, the Association commenced the harvesting and picking of the Kakadu Plum, with the possibility of providing approximately 200 seasonal, 3-4 month, picking jobs in a town with high unemployment. Workers also receive training in picking and business skills while completing their work. Importantly, the income received for the Kakadu Plums circulates in the local economy and has impact year round.

The Association has also worked to expand and cement the longevity of the industry, purchasing new equipment and implementing local policies and procedures. The initial capital expenditure and time spent for the creation and application of policy has created a robust platform with the Wadeye community, with the opportunity to produce an additional $110,000 in revenue to the town.\(^{54}\) While this revenue is based on only 10 tonnes, it is expected the Kakadu Plum in Wadeye could reach anywhere from $22,000,000 to $55,000,000.\(^{55}\)

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55 Ibid.
The Kakadu Plums in this area are likely to be used for either the superfoods industry, the seafood industry or as skin care products.

Figure 15. PWA's target and total Kakadu Plum picked in 2016
5. Pricing in Agriculture

Pricing in agricultural industries, and whether they should be regulated, has been a controversial topic in Australia since the wool industry crisis of 1990-91. Pricing is also a key factor affecting the viability and long-term success of any agricultural industry. This chapter explores past pricing drivers for the Australian agricultural industry, pricing options of other Australian agricultural products, as well as the concept of ‘price floors.’

Drivers of Agricultural Prices

Simply speaking, the price of any product in a market is affected by the economic forces of supply and demand, both of which can be influenced by national and international policy. Some of these drivers of supply and demand are the results of the global trends identified in Chapter One, such as population growth and consumer preferences.

On the demand side, agricultural prices have been influenced greatly by the increased demand from emerging economies. This is consistent with the steady global population growth of 1.18%-1.25% per annum over the ten years to 2015, and global economic growth averaging approximately 3% per annum over the same period, noting the global financial crisis of 2008-09. In addition to this, incomes of consumers generally have been rising, further increasing global demand for agricultural products.

On the supply side, there are also a number of factors influencing global agricultural prices. For example, water shortages, extreme weather and global warming have affected many growers globally, by rendering land unusable for crops and increasing the variability of crop yields, thereby reducing food security in the process. These challenges have indeed been the focus of a number of significant international gatherings and policies in the past, including the 2012 G20 Agricultural Ministers meeting. The Ministers agreed that agricultural prices were a global challenge, and created a comprehensive “Action Plan on Food Price Volatility and Agriculture” to address the issue.

Some of the actions and resolutions included the need to increase agricultural production and productivity on a sustainable basis, through improvements in land and water management, as well as rural area development. The Ministers also resolved to strengthen agricultural research and innovation, and enhance knowledge sharing between nations.

The prices of agricultural commodities globally are also influenced to an extent by the price of crude oil and other fuels used in the production process, which can be affected further by international trade policies and trade restrictions. In the future, the production of synthetic foods has the potential to be a major driver the prices of agricultural goods.

Interestingly, food storage levels and consumption are found to be relatively insignificant in driving agricultural prices.

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59 Ibid.
Pricing Methods for Australian Agricultural Products

Just as there is diversity between Australian agricultural products, there is similar diversity amongst the pricing mechanisms and structures for each. For example, Australia’s larger export products such as cotton and grain follow international pricing trends to a large extent, while products such as fruits and vegetables are much more dependent upon geographic locations and individual exporters’ inclinations.

The perishability or shelf life of agricultural products also strongly influences their pricing methods. Particularly, whether products are able to be stored, affects the magnitude and regularity of price fluctuations. For example, raw fruits often experience more rapid price changes, while cotton is less volatile in the short-term.60

Cotton

The Australian cotton industry operates in a sophisticated, deregulated market with numerous ginners, merchants and producers. While the majority of cotton produced is sold using forward contracts (selling physical cotton forward for up to five years), there is a complex market for hedging/pricing cotton including using futures, options, Bank SWAPS and on call contracts.

Over 90% of Australian cotton produced is exported, and local cotton prices are heavily influenced (as shown) by the Intercontinental Commodity Exchange (ICE) No.2 Cotton futures contract (a US based contract), movements in the Australian Dollar and basis.61

\[
\text{A$ per bale} = \frac{(\text{ICE Cotton Futures in US c/lb} + \text{Basis}) \times 5}{\text{AUD/USD exchange rate}}
\]

The futures market is highly transparent as is the exchange rate, however each cotton merchant will have a modified basis according to their own commercial requirements. The basis is the X factor in the price.

Figure 16. Calculation of the Australian cotton price

Grain

Similar to cotton, grain prices are set on the world market, generally in the United States. There are three main factors in determining Australian prices: futures prices, currency and basis.

Generally the Chicago Board of Trade (CBOT) wheat price is used as a benchmark for international pricing, as it is one of the most fluid futures market in the world.

The basis represents the difference between the cash price offered for a commodity at a specific location, and the future contract price for the same commodity. For grain, the basis is usually small or negative. The basis is deducted from international pricing to form the Australian Dollar price, usually expressed as “delivered port” as a Multi Grade contract. The base grade is Australian Premium White (APW) with different grades attracting a different price. Premiums are paid for high grade milling wheats, discounts for lower grades of milling and feed wheat.62

**Fruit**

Unlike cotton and grain, the price of fruit and vegetables is not largely set by a single international standard, nor are they as heavily traded on futures exchanges. Fruit pricing is highly dependent upon a number of factors including geographic location, source country, produce quality and individual exporter preferences. For example, Chinese fruit exports are often sold much cheaper than produce from other countries, however there have been some cases of Chinese produce being restricted or banned due to chemical residue and produce quality.63

**Pricing Advisories and other Support Services**

There is a wide range of pricing advisory and insurance services available to Australian agricultural exporters, covering everything from weather influences, to unfavourable market conditions.

The Australian Wheat Board (AWB) is one such service provider to the Australian grain export industry, specialising in the provision of financial and marketing advice to growers. One of their services involves applying and building in risk management practices to pricing contracts, to protect growers from commodity price volatility to the extent possible. Some AWB pricing advisory services include setting minimum prices, payment gates, minimum volumes and flexible pricing.64

There are a number of other pricing advisories and insurance firms available to growers, although it is noted that crop insurance products alone represent almost 90% of the total value of agricultural insurance policies written globally.65

The impact of pricing advisories and other financial support services is to protect growers and reduce the risk for other industry stakeholders, such as financial providers. This minimising of risk encourages higher levels of production and industry investment, and is especially appropriate for growers in areas that are prone to extreme weather and other perils. This may be considered as a potential help to the Kakadu Plum industry in its infancy, although it is noted that pricing advisories are more suited towards industries with large production volumes.

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Price Floors

Price floors refer to a situation whereby an artificial minimum price is imposed on a product or service – usually above the market price. Price floors are a form of government intervention in the free market, and are most often used as a form of protection for an industry, usually to save domestic jobs during tough market conditions, or to help a new industry mature until it can achieve efficiencies (through large-scale production and economies of scale) and become internationally competitive.

Government intervention in the form of price floors is a phenomenon well known to the Australian agricultural industry. While it has served to protect growers to some extent, it has not been without its consequences.

Case Study: The Australian Wool Crisis

From the 1840s to the 1950s, the wool industry was the powerhouse of the Australian economy – indeed, it is often said that during this time, ‘Australia rode on the sheep’s back.’ Australia also enjoyed the wool price boom as a result of the Korean War of 1950-53, but was subsequently ill-prepared to deal with the upcoming threat posed by synthetic fibres and the re-emergence of cotton. To protect Australia’s most iconic industry and the wealth of the industry’s most powerful stakeholders, a price reserve scheme was arranged and maintained for almost 40 years.66

The reserve price for Australian wool was set during a time of high demand, and it assumed that the current high prices would continue indefinitely. Instead, demand faltered, and the reserve price was not adjusted downwards accordingly. This put pressure on the government to acquire the surplus supply of wool at the reserve price, and the government’s wool stockpile began to increase.

The industry began borrowing billions of dollars to pay for and store its own wool, optimistic that prices would eventually increase again. However, the pressure only increased, and at its peak, storage costs for the 4.8 million bales purchased amounted to almost $3 million per day.67

To address the oversupply of wool, the government then imposed a wool tax on producers, with the tax funds put towards promoting the Australian wool industry overseas to boost sales. This outcome did not eventuate.

Eventually, the pricing scheme was removed, and prices fell dramatically in what is now known as the Australian wool crisis of 1990-91. The reserve price scheme is estimated to have cost approximately $12 billion in today’s terms.68 Today, the Australian wool industry is a third of its former size. The government intervention to ‘help’ Australia’s iconic industry via protectionism and price floors, appears to have had the opposite effect in the long-term.

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The Futures Market

A futures market is an auction market in which participants buy and sell commodity and futures contracts for delivery on a specified future date. Examples of futures markets are the New York Mercantile Exchange, the Kansas City Board of Trade, the Chicago Mercantile Exchange, the Chicago Board of Options Exchange and the Minneapolis Grain Exchange. Originally, trading was carried on through open yelling and hand signals in a trading pit, though in the 21st century, like most other markets, futures exchanges are mostly electronic.

Futures contracts are made in an attempt by producers and suppliers of commodities to avoid market volatility. These producers and suppliers negotiate contracts with an investor who agrees to take on both the risk and reward of a volatile market. Futures contracts are not designed to maximise profits for producers; it is instead a form of risk management, effectively creating a hedge against a change in the market. They are used to a large extent in the pricing of agricultural products such as cotton and grain (see cotton pricing example above).

Futures markets are for more than simply agricultural based contracts, and now involve the buying, selling, and hedging of financial products and future values of interest rates. Futures contracts can be made or "created" as long as open interest is increased, unlike other securities which are issued. The size of futures markets (which usually increase when the stock market outlook is uncertain) is larger than that of commodity markets, and are a key part of the financial system.
6. Considerations when choosing Kakadu Plum Business Models

Developing a sustainable farming business model that serves as a foundation for a community-based local food economy is imperative for future generations. Agriculture today is a very sophisticated and highly technical industry and its success in Australia has been that of pure innovation and efficiency. Despite Australia having low levels of subsidies, farmers have remained competitive in a global food market. This in turn has emphasized the ability of the industry to adapt and therefore continue a strong, prosperous and sustainable food security. 69

While the Australian native foods industry in particular has rapidly expanded in recent years due to the increased interest in natural products and an expanded consumer conscience, an appropriate, working business model has not been implemented.

Business models are a plan for the successful operation of a business, identifying sources of revenue, the intended customer base, products, and details of financing. The choice of an appropriate model is critical to a business or industry’s long-term success, and is highly dependent upon a large number of variables. These variables include, but are not limited to:

- Liability
- Tax
- Governance
- Compliance
- Financing
- Reporting, including social metrics
- Agricultural application
- Indigenous Application

These variables will be explored throughout this chapter as they relate to the following themes:

- Stakeholders
- Access and benefit sharing
- Value architecture
- Reporting
- Policy landscape
- Sources of industry knowledge

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Stakeholders

This section will include a stakeholder analysis for the Kakadu Plum industry, which is a crucial first step in designing a business model that accounts for stakeholder interests, responsibilities and relationships. The analysis categorises each stakeholder’s interests into six attributes (economic, product management, promotion, legal, natural resource management and cultural/societal), as well as the level of impact the Kakadu plum industry has on each stakeholder group, and the level of influence they have on the Kakadu plum industry. This determines the stakeholders’ level of involvement in the development of the potential business model. The four categories of stakeholder engagement are collaborate, maintain confidence, keep informed, and monitor and respond. The resulting stakeholder analysis is depicted in Appendix 4.

Protecting shareholders: learning from past experience

The complexity of managing natural resources amongst various stakeholders is highlighted in the transitioning of the Bimbia Bonadikombo Forest (BBF) over to community management. This case study found an inverse relationship between the stakeholders’ relative revenues (benefits) and their respective rights and responsibilities. For example, the stakeholders who benefitted the most were resource users, such as firewood collectors, whereas stakeholders with more responsibilities and greater rights, such as chiefs, benefitted very little from the current situation.70

A number of learnings were developed throughout the case study, and several are applicable to the Australian Kakadu Plum industry. The recommendations include:

- establish a producers association or group under the existing ANFAB organisation; and
- embed an access and benefit sharing framework into a national Kakadu plum permit system.

The full case study, as well as the detailed application of these recommendations to the Australian Kakadu Plum industry, can be found in Appendix 4.

Access and benefit sharing

A key risk in the emerging Kakadu plum industry is enforcing the access and benefit sharing (ABS) on native flora, whose multi-facets uses was long known to Indigenous people. This is evident in the case of eucalyptus oil, which is largely produced overseas, and the macadamia nut, which requires intensive research and investment for Australia to regain their position as the world’s major exporter of macadamia nuts.71 However, in both instances Indigenous people have benefitted very little from both native flora industries.

The issue of access and benefit sharing for Indigenous people within the Kakadu plum industry is evident in the multinational cosmetic company, Mary Kay Inc.’s, patent application for Kakadu Plum extract for skin care cream. This application raises questions of “Australian


biological resource, sovereign rights, enforcement of the access and benefit sharing and how to ensure that Indigenous Australia are beneficiaries”.

Access and benefit sharing was the focus of the Sixth Meeting of the ‘Conference of the Parties (COP) to the Convention on Biological Diversity,’ held in the Netherlands in 2002. This particular meeting led to the formation of the world-renowned “Bonn Guidelines”.

The “Bonn Guidelines on Access to Genetic Resources and fair and equitable Sharing of the Benefits arising out of their Utilisation” are an international framework, adopted by 180 countries, which identifies the specific steps in the access and benefit-sharing process. The Guidelines were endorsed by Australia in October 2002.

The guidelines have the triple objective of conserving biological diversity, using natural resources sustainably, and fairly and equitably sharing benefits deriving from the use of genetic resources. The guidelines’ key principal is ‘prior and informed consent,’ which dedicates consent from the relevant stakeholders, in particular Indigenous communities, to be sought prior to the resource negotiation process and information to stakeholders in a culturally appropriate manner in order to make informed decisions.

The guidelines also provide basic requirements for mutually agreed terms of natural resource negotiation which include (but not limited to):

- type and quantity of genetic resources, and the geographical/ecological area of activity;
- any limitations on the possible use of material;
- whether the genetic resources can be transferred to third parties and under what conditions;
- recognition of the sovereign rights of the country of origin; and
- capacity-building in various areas to be identified in the agreement.

**Value architecture**

An effective business model is highly dependent upon the value chain that sustains it. And due to the unique value chain and needs of the Kakadu Plum industry in the Northern Territory and Western Australia, it is necessary to identify potential business models that assure the needs of all stakeholders, both internal and external.

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76 Ibid.

77 Ibid.

Shared Value

Shared value is a management strategy in which companies find business opportunities in social problems. While philanthropy and CSR focus efforts on “giving back” or minimising the harm business has on society, shared value focuses company leaders on maximizing the competitive value of solving social problems in new customers and markets, cost savings, talent retention, and more. To qualify as shared value, there must be an identifiable economic benefit to the company as well as measurable impact on a social or environmental issue. This particular business model can also be useful within a social enterprise to increase reach and ultimately desired impact.\(^\text{79}\) The shared value concept is demonstrated in the graphic below.

Figure 17. The Shared Value Model\(^\text{80}\)

Case Study

Patagonia grew out of a small company that made tools for climbers, and today is one of the world’s largest outdoor clothing manufacturers. Patagonia claims that ‘a love of wild and beautiful places demands participation in the fight to save them,’ and as a result the company is committed to sustainable practices in an effort to “cause no unnecessary harm.” For example, Patagonia’s products are made from recycled polyester or organically grown cotton, they are 100% traceable and Fair Trade Certified. In addition, Patagonia offer to repair all products at cost, and collect all un-repairable items of clothing for recycling into new products, to ensure their products do not end up in landfill.

In this way, Patagonia demonstrates shared value by addressing environmental and social needs, whilst capturing business value through obtaining recycled material for free, as well as customer interactions and loyalty.

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Business opportunities from shared value

Reconceiving products and markets

Create new products and services for existing or new markets, based on collaboration with customers and community stakeholders to understand societal needs.

**Example:** Life insurance company AIA Australia’s 'Vitality Program' targets preventative health problems by incentivising customers to live a healthy lifestyle through a rewards program and lower premiums. This not only meets social needs by improving the health of the customer base, but this also results in lower claims costs for the company.

Redefining productivity in the value chain

Work with suppliers and internal/external stakeholders to improve processes, quality, sustainability, productivity, social outcomes and competitive advantage.

**Example:** NAB created NAB Assist, incentivising and training all collections employees to recognise, manage, and proactively assist customers in financial hardship. This significantly reduced loan defaults and costs for the bank, and increased the number of clients that sought advice before a collections event.

Enabling local cluster development

Facilitate the clustering and sustainable development of the market and geographic environments in which the company operates.

**Example:** Bendigo and Adelaide Bank created their Community Bank model, supporting self-selecting communities to run their own branches as franchises, leveraging the bank’s financial services, infrastructure and expertise, whilst reinvesting portions of the revenue into the community to drive long-term growth.

The Kakadu Plum industry presents a perfect opportunity for utilising a shared value model, due to the industry’s heavy involvement with remote and disadvantaged communities.

**Reporting**

Businesses are required to report at least annually on their financials and other progress, and the form of the business has a large bearing on these results. In the past decade, focus has shifted significant from reporting only financial results, to sustainability also. However, measuring the degree to which an organization is being sustainable or pursuing sustainable growth can be difficult.81

**Triple Bottom Line Reporting**

The term ‘Triple Bottom Line’ (TBL) was first coined by John Elkington, and today TBL refers to an accounting framework that goes beyond the traditional measures of profits, return on

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investment, and shareholder value to include environmental and social dimensions. By focusing on comprehensive investment results—that is, with respect to performance along the interrelated dimensions of profits, people and the planet—triple bottom line reporting can be an important tool to support sustainability goals.82

There is a strong argument that triple bottom line or building sustainable businesses creates more profitable and successful business. Pursuing environmental and social objectives doesn't have to be at the expense of financial objectives and often is reinforcing.84

During its early stages, the Kakadu Plum Industry may lack the expertise to develop an in-depth and cost-effective solution to a social problem of interest. It may be appropriate for the industry to fund independent entrepreneurs to tackle this challenge; the industry can learn from their efforts and acquire their solutions.

Policy Considerations

It is imperative to consider the overarching policy landscape and priorities, both nationally and internationally, prior to the examination of an appropriate business model.

The Australian policy landscape

The Commonwealth Government considers Indigenous economic development to be 'at the heart of the national agenda', and have committed to working with Aboriginal and Torres Strait Islander peoples to develop clear pathways to turn business development ideas into

82 Ibid.
‘viable, sustainable businesses.’ These businesses are intended to contribute to the broader wealth of the nation, and ‘generate employment opportunities’ and ‘improve social outcomes’ for Aboriginal and Torres Strait Islander Australians.85

The Commonwealth Government is also committed to the development of the Indigenous Business Sector, for example through the Indigenous Procurement Policy. While the Commonwealth Government’s intentions are consistent with international development objectives, it is crucial that national, state and territory policies, legislation and regulation should also be consistent in order to ensure the strategy results in sustainable outcomes.

The international development framework

International policy plays an important role in the operating environment of Indigenous businesses in Australia. Of particular relevance is the international human rights framework, which ascribes rights to persons within member nations. The central objectives of these policies are Indigenous peoples’ rights to development and self-determination. These are underpinned by numerous documents, declarations and policies including the:

The Protect, Respect and Remedy Framework

Adopted by the United Nations in 2008, this Framework aims to align human rights and business interests. It identifies the responsibilities of business in relation to human rights, and is underpinned by three principles:

- Protect - the State duty to protect against human rights abuses by third parties, including business, through appropriate policies, regulation, and adjudication
- Respect - the corporate responsibility to respect human rights, which means to act with due diligence to avoid infringing the rights of others and to address adverse impacts that occur; and
- Remedy - both State and business responsibility to provide greater access by victims to effective remedy, both judicial and non-judicial.

A Business Reference Guide

The United Nations Global Compact released A Business Reference Guide - United Nations Declaration on the Rights of Indigenous Peoples in 2013.86 The guide is designed to assist businesses to understand, respect, and support the rights of Indigenous Peoples by illustrating how they are relevant to business activities.

The guide encourages companies to consider the rights of Indigenous peoples in their corporate social responsibility policies, such as by ensuring that their operations do not put Indigenous communities at risk of harm, as well as investing in capacity building and working with Indigenous communities and businesses where possible.

Sustainable Development Goals

The Sustainable Development Goals (SDGs) are a set of universal goals that meet the urgent environmental, political and economic challenges facing the planet. They were created at the United Nations Conference on Sustainable Development in Rio de Janeiro in 2012, and came into effect in January 2016. 87

By implementing a business model that incorporates the standards mentioned above, the Kakadu Plum industry can incorporate the element of sustainable farm development into business pursuits with Indigenous peoples.

Agriculture knowledge sharing

Information is a vital tool to enable and increase farmers' livelihoods, provided the farmer can use the information positively. The method by which industry knowledge is obtained and shared is an important consideration for an appropriate business model and its structure. The model chosen must consider and understand how best to attract and retain this knowledge.

Research from Commonwealth Bank shows that Australian farmers continue to seek the wisdom of their parents when learning how to run their farm businesses, even as the sector becomes more complex and globalised. This intergenerational link is very strong and is a trait not seen to this extent across other business sectors. The research indicates that parents are key first teachers of farm business across all states and commodity types.88

In addition to commercial farming knowledge, there is an increasing shift to towards understanding traditional knowledge to enhance sustainability.

Indigenous Agricultural Knowledge

Indigenous knowledge can be defined as the local knowledge that is unique to a culture or society. It is passed from generation to generation, usually by word of mouth and cultural rituals, and has been the basis for agriculture, food preparation, health care, education, conservation and the wide range of other activities that sustain societies in many parts of the world.

Indigenous agricultural knowledge (IAK) can be analysed for its technical role in food production strategies, and for its role as cultural knowledge producing and reproducing mutual understanding and identity among the members of a farming group. IAK can also be approached from the perspective of critical theory, analysing the relationship between knowledge and relations of power, with the goal of liberating indigenous farmers from forms of domination.89

The United Nations Intergovernmental Panel on Climate Change, in its 2007 assessment, suggests the use of ancient indigenous technologies from the Americas as a means of

89 Bebbington, A. Agric Hum Values (1991) 8: 14. doi:10.1007/BF01579652
mitigating the effects of climate change. Evidence indicates that global warming is increasing the frequency and severity of both droughts and inundations.\textsuperscript{90}

It is evident that Indigenous methods and decision making in the agricultural sector can produce positive and sustainable outcomes, by working with the land rather than on the land. This Indigenous agricultural knowledge is yet to be fully realised, and provides significant opportunities for the Kakadu Plum industry, as a native food industry, in particular.

7. Business Model Analysis

Co-operative farming model

The formation of a co-operative farming model is to create a shared venture, through members (at least five), with the aim of achieving a mutual benefit, while addressing common challenges within the industry or market. The International Cooperative Alliance (ICA) defines the cooperative model as “an autonomous association of persons united voluntarily to meet their common economic, social and cultural needs and aspirations through a jointly owned and democratically controlled enterprise.” It is estimated that there are 2.6 million cooperatives globally, encompassing more than one billion members, and employing 12% of the working population within G20 countries.

In Australia alone, there are approximately 1,700 member-owned businesses with more than 13 million members between them. Co-operatives (including superannuation funds) account for 7% of the Australian Gross Domestic Product (GDP). 91 Collectively, agricultural cooperatives are the second largest type in Australia by turnover: in 2014, CBH Group had a turnover of $2.8b, and Murray Goulburn had a turnover of $2.39 billion.

Case Study

CBH Group is Australia’s largest cooperative, and a leader in the Australian grain industry. Its operations extend along the value chain and include grain storage, handling, transport, marketing and processing. It is owned and controlled by 4,200 Western Australian grain growers, and exports approximately 90% of the WA grain harvest, making it the 33rd largest agricultural cooperative in the world. CBH’s assets are worth more than $2 million AUD.

Co-operative models are the oldest farming models in existence, based on family farms working together to create a lasting legacy for the farming industry. Co-operative models keep the authority in the original area where the crop is produced, allowing regional centres to access the benefits of primary production. 92

Co-operatives are required to be registered under the Co-operatives Act 1996 and operate in accordance with the Co-operatives National Law (CNL), from 3 March 2014 (with the exception of Western Australia and Queensland as they remain subjective to legislative priorities).

Cooperatives can operate under two types:

- Distribution co-operatives (previously known as trading co-operatives)

92 Ibid.
A trading cooperative must have share capital, and charge its members a set fee for a share. This capital is used to run the business. It can return or distribute profits to its members.

- Non-distributing co-operatives (previously known as non-trading co-operatives)

A non-trading cooperative does not provide financial returns to its members. This rule applies to returns or distributions on surplus or capital. Non-distributing co-operatives can trade and make a profit, but cannot distribute these profits to its members; it can only use these profits to expand its primary activities.

Advantages of the farming co-operative model are:

- Pooling of resources
- Mutual benefit
- Inexpensive to register
- Stable and non-volatile market
- High growth potential
- Consolidation of small units of land
- Continuity
- Creating relationships/power of people
- Access to capital
- Continuity
- Use of machinery
- Fair price for product.

Disadvantages of the farming co-operative model:

- Dishonesty
- Repayment of debt
- Lack of capital
- High degree of management required
- Formal organisation with rules and regulations
- Lack of co-operative spirit
- Attachment to land.

A co-operative model provides a positive opportunities for growth, and is well-placed to take advantage of branding and provenance prospects. This model is also appropriate to apply to Indigenous development as it:

1. allows the focus of the industry to be kept local;


2. it is based on collective ownership and provides access to a local knowledge base; and
3. it has the potential to increase local employment in the area.

The co-operative model also aligns with the Protect, Respect and Remedy Framework by reiterating the overarching standards of Human Rights, Indigenous development, and social responsibilities that businesses should apply when developing their business models. This is imperative to Indigenous economic development as it identifies the rights of Indigenous peoples involved in the business to freely pursue their economic and social development (as identified in Articles 3, 5, 20 and 21 in the United Nations Declaration on the Rights of Indigenous Peoples).

**Mutuals**

Similar to co-operatives, mutuals are owned by members and run exclusively for their benefit.\(^95\) Internationally, mutuals are larger than co-operatives and specialise in certain sectors. Consequently, they are well known in Canada as insurance companies where the policy holder is a participant in the business.\(^96\)

The advantages of mutuals are:
- Cost effectiveness
- Increased competition
- Supporting Australian businesses
- Creating jobs.\(^97\)

The disadvantages of mutuals are:
- Regulated audit requirements
- Minimum of three members required to establish a mutual, (a minimum of two members are required to establish a co-operative)
- Can be expensive and troublesome
- Repayment of debt
- High degree of management required
- Formal organisation with rules and regulations.\(^98\)

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Case Study

The National Roads and Motorists’ Association (NRMA) is one of Australia's well-known and largest mutuals with 2.4 million members in NSW and ACT. The NRMA is a for-profit organisation. The concept is based on a group of people, applying mutual co-operation, and achieving mutual benefit (which they would not achieve acting alone). The benefit is derived for the members, and not to derive profit.

Even though most insurance mutuals are registered or incorporated as companies limited by guarantee under section 9 of the Corporations Act 2001, they are not exclusively recognised as mutuals under the same Act.

Mutuals are similar to the co-operative model but operate on a larger scale and support the advancement of local businesses and increased competitiveness. As the Kakadu Plum industry is smaller in relation to larger insurance companies, it may not be a model that could apply within the Kakadu Plum industry due to the potential costs and legal requirements that could be involved with operating a smaller scale industry.

The mutuals model is, however, consistent with the UN's Protect, Respect and Remedy Framework in that it supports the overarching standards and Indigenous Rights, particularly in relation to the economic development of Indigenous peoples. By encouraging self-determination and economic development, the business model aligns with these standards (as identified in Articles 3, 5, 20 and 21 in the United Declaration on the Rights of Indigenous Peoples).

Partnership

A partnership consists of two or more people (up to 20), that operate a business as co-owners and share income. All co-owners, or partners, act on behalf of each other in the business. Like the sole trader structure, a partnership entity is not separate from its operators.

The advantages of partnerships are:

- inexpensive to register;
- must carry on business under a trading name;
- partnerships combine the resources and expertise of a number of people;
- simple to administer;
- profits and losses are shared between partners according to his/her share as stipulated in the partnership agreement;
- do not have to disclose profits to the public; and


• changing the legal structure is relatively easy
The disadvantages of partnerships are:

• all partners are responsible for debts;
• all partners have a right to participate in the management of the partnership;
• tax is charged at a personal rate;
• partners cannot transfer their partnership to an outside person unless agreed to by the
remaining partner(s); and
• personal differences may interfere with the business.¹⁰¹

Partnerships are governed by the *Partnership Act 1958* and either classified as general or
limited.

Although the model aligns to the UN’s *Protect, Respect and Remedy Framework*,
Indigenous development, and the social responsibilities of businesses, a partnership model
may not be easily applied within the Kakadu Plum industry. In light of the industry seeking a
commercial base focussed on national and international expansion, there are limitations of
the partnership model, particularly the individual tax rate being applied.

A partnership business model identifies the combination of knowledge and resources from a
number of people to administer processes moving forward. While it is less stringent in terms
of legal requirements and disclosing profits (and losses) to the public, a partnership
agreement may be too comprehensive when applying to the Kakadu Plum industry.

**Social Enterprise**

Social enterprises are businesses that trade to intentionally tackle social problems, improve
communities, provide people access to employment and training, or help the environment
(Social Traders 2017).

In the Australian context, there is no specific ‘social enterprise’ legal structure, however a
social enterprise can be defined as an organisation that:

• is driven by a public or community cause, be it social, environmental, cultural or
  economic;
• derives most of its income from trade, not donations or grants; and
• uses the majority (at least 50%) of its profits to work towards its social mission (Social
  Traders 2017)

Social enterprises are still businesses and need to make a profit to compete in the market, to
ensure their continued survival and investment in their social or environmental aims. For
many social enterprises, being sustainable - in every sense of the word - enables them to
become more independent and to reduce any dependency on public grants. It also ensures
they can continue to help provide a solution for a social or environmental problem.

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¹⁰¹ Queensland Government, 'Business and industry portal', 2016. At:
(accessed 30 November 2016).
Advantages of Social Enterprises are:

- potential to avoid dependence on funding and volunteering, allowing purposeful work; to be self-supporting by using the income it generates;
- flexibility and innovation in achieving social purposes;
- passion as business driver, attracting committed staff and volunteers;
- combination of corporate skills for social purposes; and
- job satisfaction through social outcomes

Disadvantages of Social Enterprises are:

- possibility for the business to fail if the market changes or a social idea isn’t commercially viable;
- blurred priorities between economic and social outcomes;
- addition of new staff can affect original momentum; and
- the social benefits of a social enterprise may take years to appear.

The Kakadu plum industry in its current state has the potential to create major impact on the social sector. However, for this potential to be realised, the social enterprise must be aligned and designed effectively. The industry must define its desired impact and outcomes in target community areas, before it can move forward with this model. It is important to make these social goals or aspirations S.M.A.R.T; Specific, Measurable, Attainable, Relevant and Timely, in order to maximise impact. Potential avenues for the Kakadu Plum industry could include increasing access to high level, low cost medical facilities, suicide prevention and mental health programs, or training to increase employment opportunities for surrounding communities.

Case Study

Mission Australia’s social enterprises work like any other business, however their first priority is to help create healthy and productive communities.

In New South Wales, Mission Australia run Op Shops in the Illawarra, Southern Tablelands and South-Western Sydney areas. This provides local jobs and training, raises funds for community services and reduces landfill in the local community. Mission Australia’s IT Services local enterprise refurbishes and sells IT equipment donated by the community and businesses.

In Victoria, Mission Australia’s social enterprises focus on alleviating youth unemployment in pockets of disadvantage. They give young people the chance to learn new skills, build workplace confidence and gain qualifications. Trainees also receive support to overcome any other personal challenges that may have held them back in the past (Mission Australia, 2017).

Community Supported Agriculture

Community Supported Agriculture (CSA) involves creating a relationship between the producer and consumers directly, to develop a relationship for mutual gain. CSA was
developed to maintain the sense of community whilst honouring the knowledge and experience of growers and producers working with small to medium size farms.\textsuperscript{102}

CSA is acknowledged as a more recent socio-economic model of food production, sales and distribution developed in response to the increase in food imports. The increase in food imports resulted in a subsequent decrease in local farming production, and therefore the CSA model was developed in order to maintain local farms and establish a local relationship between the consumers and producers.

Consumers supporting the farms are provided weekly shares of produce, usually at a reduced price in comparison to identical produce available at their local supermarket. By supporting these local farms, consumers are able to provide economic benefits to the local small scale farmers as well as receiving fresh, high quality produce.

Advantages of the community supported agriculture model include:

Consumer benefits:
- access to fresh, organic produce;
- reduced price in comparison to grocery stores;
- creation of connection to their food and the producers of the food;
- understanding the conditions of food production; and
- knowing the original source of their food.

Environmental benefits:
- ensuring biodiversity in the area.
- protecting agricultural diversity – diversity of food.
- protects local farmland from urban development by assisting with small farms to remain economically viable operations.
- helps consumers to develop an ethos of caring for the land.
- reduces waste created from marketing, packaging and transport.

Farmer benefits:
- improved economic security by providing money at planting.
- increased share in food dollar.
- shared risks with consumers.
- less produce is wasted.
- guaranteed market for produce.
- focus on producing quality food through environmentally sustainable farming practices.
- direct connection with consumers and customers.
- fewer marketing costs.\textsuperscript{103}


Disadvantages of the community supported agriculture include:

- consumers are limited to the particular farm they are supporting;
- consumers must be ready to use the produce as produce will perish;
- monetary commitment must be provided initially;
- CSA may require volunteer assistance;
- CSA may provide unexpected produce – consumer only receives what is grown;
- CSA model is not successful in highly urbanised areas due to the proximity of local supermarkets; and
- consumer shares the risk with the farmer (i.e. failed harvests).\(^\text{104}\)

CSA aligns with the abovementioned overarching Human Rights and Indigenous Rights standards and consequently the UN’s *Protect, Respect, Remedy Framework*. CSA aligns with Indigenous business and cultural values as it promotes an intimate business model developed for the sustainability of land and to reduce waste and to provide farmers more of an opportunity outside of the larger retail grocers. This is imperative to Indigenous economic development as it identifies the rights of Indigenous peoples involved in the business to freely pursue their economic and social development (as identified in Articles 3, 5, 20 and 21 of the United Nations Declaration on the Rights of Indigenous Peoples).

While CSA is a sustainable model, in the context of the Kakadu Plum, this model could only be applied to the primary product, i.e. the Kakadu Plum itself. This model does not incorporate all levels or opportunities arising from the value chain. However, the CSA model could service a specific purpose, i.e. to act as an indicator to gage demand from consumers and potential investors. It should be noted also, that a CSA model could only easily be applied to a farming production model based on harvesting produce for one use only, i.e. producing fresh fruit. With the Kakadu Plum industry planned to expand into value added products, complications arise in addressing demand of consumers, particularly regarding packaged products and cosmetics.

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**Case Study**

FoodConnect Australia is a larger scale CSA model, where 80 organic farmers have come together to provide local, seasonal and ecological food direct to customers.\(^\text{105}\) This allows farmers to grow their produce seasonally, efficiently manage their land, and reduce waste by reusing products.

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**Company limited by guarantee**

A company limited by guarantee is a specialised form of public company designed for non-profit organisations. In Australia, companies limited by guarantee are subject to *The Corporations Act 2001* (Cth) and are administered by the Australian Securities and


Investment Commission (ASIC). Like incorporated associations, this business model designates an organisation as a separate legal entity. A company limited by guarantee can be sued, legally lease a property, enter into contracts or hold assets in its own name.

The term ‘company limited by guarantee’ refers to what occurs in the winding up of this type of company. The members of a company limited by guarantee must specify the amount they are willing to contribute to the property of the company on its winding up, and this will determine or limit the liability of the company’s members. Dependent on the amount of liability determined, different regulations will apply.\(^{106}\)

Guarantee companies are useful for non-profit organisations that require corporate status, meaning that the profits are not distributed to its members but contribute back into the company’s activities.\(^{107}\)

While the company is limited by guarantee, it is a model that is becoming increasingly considered by Indigenous businesses as it allows for greater independence than is offered under other forms of regulation. In some instances, Indigenous businesses are limited through their incorporation by how they engage with the broader market. For example, Native Title prescribed body corporates (Native Title holding organisations) must be registered under *The Corporations (Aboriginal and Torres Strait Islander) Act 2006* (CATSI Act). In addition, Indigenous Advancement Strategy (IAS) grant recipients need to be incorporated under the CATSI Act in order to access program and funding support unless they are able to receive an exemption from the Minister.

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Results

Appropriate model for the Kakadu Plum Industry

Of all the models outlined in Chapter Six: Business Model Analysis, the co-operative model provides the best fit for Indigenous engagement in the Kakadu Plum industry. As outlined above, the co-operative model is consistent with human rights principles, the rights of Indigenous peoples and the UN’s Protect, Respect and Remedy Framework, including economic, social, and cultural rights and sustainable development outcomes. It also provides the best opportunity for whole of sector success.

In designing and creating a co-operative model, the following ‘seven principles’ form the most comprehensive and widely accepted best-practice guidelines. These principles should be in-built to the Kakadu Plum co-operative model to ensure it meets international best practice.

Best Practice for Cooperative Model Design: The Seven Principles

The International Co-Operative Alliance (ICA) is an independent, non-governmental organisation established in 1895 to unite, represent and serve co-operatives worldwide. Consistent with its purpose to provide a global voice and forum for knowledge, expertise and co-ordinated action for co-operatives, in 1995 the ICA developed the seven core principles of co-operatives, designed to guide co-operatives in putting their values into practice.

The seven principles, implemented by co-operatives worldwide, are listed below. Note that further guidance notes are available online from ICA (http://ica.coop/en/whats-co-op/co-operative-identity-values-principles).

1. Voluntary and Open Membership

Co-operatives are voluntary organisations, open to all persons able to use their services and willing to accept the responsibilities of membership, without gender, social, racial, political or religious discrimination.

2. Democratic Member Control

Co-operatives are democratic organisations controlled by their members, who actively participate in setting their policies and making decisions. Men and women serving as elected representatives are accountable to the membership. In primary co-operatives members have equal voting rights (one member, one vote) and co-operatives at other levels are also organised in a democratic manner.

3. Member Economic Participation

Members contribute equitably to, and democratically control, the capital of their co-operative. At least part of that capital is usually the common property of the co-operative. Members usually receive limited compensation, if any, on capital subscribed as a condition of membership. Members allocate surpluses for any or all of the following purposes: developing their co-operative, possibly by setting up reserves, part of which at least would be indivisible; benefiting members in proportion to their transactions with the co-operative; and supporting other activities approved by the membership.
4. Autonomy and Independence

Co-operatives are autonomous, self-help organisations controlled by their members. If they enter into agreements with other organisations, including governments, or raise capital from external sources, they do so on terms that ensure democratic control by their members and maintain their co-operative autonomy.

5. Education, Training and Information

Co-operatives provide education and training for their members, elected representatives, managers, and employees so they can contribute effectively to the development of their co-operatives. They inform the general public - particularly young people and opinion leaders - about the nature and benefits of co-operation.

6. Co-operation among Co-operatives

Co-operatives serve their members most effectively and strengthen the co-operative movement by working together through local, national, regional and international structures.

7. Concern for Community

Co-operatives work for the sustainable development of their communities through policies approved by their members.

In addition to applying these globally enacted Co-Operative principles, empirical evidence and research have numerous additional factors that are positively correlated with the success of any given co-operative.

**Priorities for a successful co-operative**

‘What makes a co-operative successful’ has been the topic of many research papers and investigations around the world. Noting that ‘success’ for co-operatives is varied and self defined, and that each co-operative has unique challenges and objectives, the following list comprises a number of commonalities between the majority of successful co-operatives, both nationally and internationally.

**Good governance**

A key factor in differentiating cooperatives from other business organisations relates to how policy and other decisions are made within a cooperative. The United States National Cooperative Business Association, as well as numerous other organisations including the ICA, emphasise the need for policy decisions to be made by all members. A crucial research finding is that decisions should be based on ‘one member one vote,’ regardless of any one member’s investment in the cooperative. Indeed, it has been found that many cooperatives fail because the democratic control is inadequate, and therefore members become disenfranchised and gain little from membership.

**Balancing social outcomes with remaining economically viable**

Cooperatives can also be distinguished from other types of organisations by the requirement of their management to balance social outcomes with financial stability and economic success. Cooperatives are often faced with complex decisions, in which they must choose between meeting one need, at the expense of the other. For this reason, cooperatives must be very clear on their objectives and measures of success, and employ management capable of making decisions consistent with the cooperative’s goals.
Employing qualified, full-time management

The most successful cooperatives employ full-time management to manage business risks, assets, and pursue business opportunities and marketing of the cooperative more broadly. A lack of managerial skills has often been cited as a cause for cooperative failure, including the sale of vital assets and becoming uncompetitive in the market or economically unsustainable.

Business Capacity and Volumes

Large cooperatives benefit from bulk buying and selling, through combined production and business operations. Indeed, this is often a primary reason for cooperative formation; to reap economies of scale, attract large volumes of business and remain economically viable.

Market Environment

The context in which a co-operative exists plays a large role in its survival and sustainability. The market environment particularly affects cooperative success, and includes such factors as government policy, regulations, marketing systems and poverty issues. The market environment must be conducive for all players to participate and be competitive.

Partnering with other cooperatives

Consistent with the ICA’s sixth principle, cooperatives should work together to advance the wellbeing of their members. For an agricultural cooperative, strategic partnerships may include cooperatives in industries such as insurance, marketing or banking.

Agricultural Co-Operative Case Studies

The three examples below demonstrate how a co-operative model can be applied to the Kakadu Plum industry and Indigenous business development. The first example demonstrates a current model within the Kakadu Plum industry, followed by two, best-practice examples that expand on the potential of the industry to a more commercialised outcome.

Adelaide Hills Apple Industry of South Australia

The Adelaide Hills Apple Industry of South Australia boasts some of the best farming practices in Australia. In addition to a model based on the production of whole fruits, it also incorporates value-add innovation to its model.

The Adelaide Hills has been long established as an apple and pear growing industry which currently supports a range of farmers and businesses, by way of local sales through farmers’ markets, domestic sales through large scale grocers, and a number of value added enterprises that utilise lower grade fruit.

This organisation is well known for producing more than 85% of the state’s apple and pears, which are consistently of the highest market quality. The Adelaide Hills industry also partners with niche producers using the 2nd and 3rd grade fruit in high end innovations such as boutique ciders, fruit leather and juices.

The industry operates fairly consistently through a co-operative farming business model. A value chain analysis of the industry uncovered some challenges for those involved in the co-operative models. The contextual challenges for the industry moving forward include:

- the lack of an overarching 30 year agricultural plan for greater Adelaide
- water management decisions
- an applicable industry structure that is predominantly small scale farmers
- a lack of integration between layers of government and policy and regulatory bodies
- a lack of integration, consultation and co-creation between these bodies and the community of farmers/orchardists and secondary product producers
- development plans which are constructed mainly for township and urban areas, and weighted towards wineries which creates blocks and extra costs for small, niche producers such as cider makers
- a problematic labour hire situation which has removed flexibility to cater for seasonal requirements
- an ageing farmer/orchadist profile in an industry where the majority of orchards are handed down over several generations, a practice which has been made more problematic through regulations regarding succession planning
- the lack of recognition of the value of farming
- the lack of career opportunities within small agricultural businesses, as well as restrictions on family members’ unpaid activities in their own businesses, creating a negative incentive for young people joining the industry
- A lack of support for developing basic business skills in the industry, including training and inclusion regarding the planning and development decision making process.

It has been identified that there is potential for innovation both in the region and also in terms of export and global competitiveness. With strategic decision making, South Australia could be positioned as a leading innovator in farming and production.

This type of co-operative farming and value-add business model should be considered by the Kakadu Plum industry to support Indigenous economic development and to allow the industry to move to a more commercialised space both nationally and internationally.

The industry can be supported by a recent initiative introduced to support further development in this space.

Farming Together

The Farming Together (Farm Co-operatives and Collaboration Pilot Program) has been recently announced by the Australian Government. Its focus is to provide farmers with knowledge, skills and materials regarding co-operatives, collective bargaining and other forms of collaboration. It aims to change ideas into reality. ¹⁰⁹ Farming Together aims to:

- improve knowledge of how co-operatives, collective bargaining and supply chain negotiations can improve farmers’ returns.

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• Increase the knowledge of options available to farmers and farm advisors regarding such innovative business models including various forms of collaboration.

• improve the agricultural-focused legal and financial expert advice available, regarding the process, implementation and management of such business models.

The pilot program provides primary producers the opportunity to receive assistance in regards to issues preventing them from being successful from the land. During previous consultations by the Government, discussions and feedback received have developed the Agricultural Competitiveness White Paper.¹¹⁰ This paper identifies five key areas of focus for the Australian Government. These key priorities are:

1. A fairer go for farm businesses.
2. Building 21st century water, transport and communications infrastructure.
3. Strengthening our approach to drought and risk management.
4. A smarter approach to farming.
5. Access to premium markets.

This initiative could have positive implications if implemented by the Kakadu Plum industry going forward.

Implications

Through the research process on the Kakadu Plum and native food industries, a number of opportunities for future industry development have been discovered and developed. These opportunities have the potential to increase profit and returns for rural and Indigenous communities, and have been summarised below as snapshots for future consideration by the industry.

Blockchain

“Put simply; blockchain needs to save time and money as well as take agriculture forward to create new pockets of value. If we can move beyond the hype and simply do better business, the future of agriculture will indeed be blockchain.”

In Australia, history was made on December 8 2016, when Australian wheat grower David Whillock delivered 23.46mt to Fletcher International Exports in Dubbo, New South Wales. The transaction was settled through blockchain, which is the technology underpinning emerging cryptocurrencies such as bitcoin. And Whillock got his payment instantaneously; this was a global first between a grower and a buyer for the agriculture industry. This transaction was led by Australian startup AgriDigital, which has since won a number of national and international awards, and is taking its technology global.

As agricultural produce travels from the farm to the consumers plate, different stakeholders play key roles across multiple processes. For example, producers, inspection & insurance, logistics & shipping, banks, manufacturers and importers are all involved in creating the final product. However, this expanse of stakeholders makes it difficult to track the place of origin, ingredients and quality, tracing custodian and other information, potentially putting at risk the trust between stakeholders, information flow and transparency across the value chain.

Blockchain is able to eliminate these concerns, through stakeholders forming a private network through the use of a distributed ledger. Any activity can be documented and/or stored in the distribution ledger, but only with the consensus of all stakeholders. This makes the network more trustworthy than a single entity process.

There are companies like EdgeVerve in India that have created a block chain service that caters for the needs of the agricultural industry. For example, this service provides a platform for the producer to add details about their crop, request inspections and get the right insurance at the right time. The contracts between producer and exporter, as well as the retail buyer are stored in the blockchain as smart contracts, with each activity verified by a minimum of two other stakeholders on the network. With the onset of the harvest season, relative stakeholders certify the produce with standard certificates. Once the produce is harvested, the producer generates the invoice and requests a pick up. The logistics company picks the produce up and delivers it to the export company, and this whole process is made visible to all stakeholders. Once the exporter approves the produce, the payment is sent to the producer. Considering the above listed processes and the many more that


blockchain can address, it is easy to see how blockchain will have a big effect on the agriculture industry.

Blockchain has the potential to simplify transactions and build transparency for all stakeholders in every transaction through a trustworthy process. It can be argued that blockchain could also have a ripple effect on decreasing fraudulent produce, which would ultimately increase the world’s ability to buy from a range of different countries.113 (Edge Verve 2017).

Case Study

In mid 2017, Walmart, in partnership with IBM, have started testing the application of blockchain using mangos and pork as part of a global trial.

While commonly thought to verify the authenticity of products, some users have also indicated that it could be applicable to address food safety concerns such as salmonella. The technology is also believed to help make agriculture and farming systems more transparent.

Sustainably Sourced

There is also the option for the native food industry to become a sustainably sourced product, potentially partnering with organisations such as the World Wildlife Fund. This certification system could help certify that the end product was sustainably picked was part of a sustainable wild harvest, in line with Indigenous knowledge and industry best practice.

Case Study

John West Foods is a UK-based company established in 1857, known worldwide for its production of seafood. It is also a company that uses blockchain technology for competitive advantage.

John West prides itself on making its supply chain transparent. For example, codes are printed on John West tuna cans that allow consumers to trace the tuna all the way back to the fisherman who caught it. This innovation has so far netted the company over $22 million in increased sales.114

John West’s technology includes digital records about where the fish was raised, how it was caught, its freshness, where and when it was canned, and its journey through the supply

chain.\textsuperscript{115} With this level of transparency and accountability, consumer confidence grows in direct proportion to their brand loyalty.

John West Australia have also partnered with the World Wildlife Fund and the Marine Stewardship Council to help achieve their sustainability goals.\textsuperscript{116}

**Wild Harvest**

Similar to the premium pricing provided to Savanna Burning Systems in the voluntary carbon trading exchange, the Kakadu Plum market has the potential to provide a standard product and then charge a premium price for Indigenous wild-harvested products. This would require a certifying body and an increase in the supply of plantation produced products. The industry could also use the wild harvesting aspect as an additional branding and marketing opportunity generally, increasing the media coverage and cost of the product for the future.

This may also be established similar to the “Gold Standard” for carbon credits, explored in the following case study.

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**Case Study**

Carbon offsets are a way for businesses and consumers to compensate for their CO2 emissions by purchasing carbon certificates generated by emission-reduction projects. The income from the sale of certificates enables the project to achieve further reductions.

The Gold Standard, supported by WWF, is the most rigorous certification standard globally for carbon offset projects. It ensures that energy efficiency and renewable energy projects actually reduce carbon dioxide (CO2) emissions, and provide benefits to the local population.\textsuperscript{117}

The Gold Standard is currently supported by over 80 civil society groups around the globe, including WWF. It also has the support of the United Nations, as well as many national governments and corporations. Gold Standard projects must meet the following strict criteria and be verified by UN accredited independent auditors:\textsuperscript{118}

- The project contributes to a real reduction of CO2 emissions
- The local population is involved and participates in the project
- The project fosters know-how and experience with renewable energy or energy efficiency technologies in developing countries
- The project respects the environment and contributes to the conservation of biodiversity and the sustainable use of natural resources

**Certified Indigenous Foods**

In 1987, the Intertribal Agriculture Council\textsuperscript{119} was founded, recognising that land-based agricultural resources are a critical component to the social welfare and economic development opportunities for Native American and Alaskan Tribes. The IAC, after

\textsuperscript{116} Ibid.
\textsuperscript{118} Ibid.
recognising that there was no specific certification or recognition of American Indian Products, developed the “Made/Produced by American Indians” trademark (See Appendix 3) in 1991.

The trademark can currently be used in three key areas:

1. Small domestic utensils and containers (not of precious metals, or coated therewith); combs and sponges; brushes (other than paint brushes); brush making materials; instruments and materials for cleaning purposes, steel wool; unworked or semi-worked glass (excluding glass used in building); glassware, porcelain and earthenware, not included in other classes.

2. Meats, fish, poultry and game, meat extracts; preserved, dried and cooked fruits and vegetables; jellies, jams, eggs, milk and other dairy products; edible oils and fats; preserves, pickles.

3. Coffee, tea, cocoa, sugar, rice, tapioca, sago, coffee substitutes, flour, and preparations made from cereals; bread, biscuits, cakes, pastry and confectionery, ices; honey, treacle; yeast, baking powder; salt, mustard, pepper, vinegar, sauces, spices; ice.

The trademark recognises that many of the American Indian farming practices from hundreds of years ago are still used today, allowing a premium price to be charged for these products due to the farming methods and area of origin. The IAC currently has over 500 licenced trademark users, and uses this base to also guide and influence government policy, particularly in terms of agriculture and Indigenous Rights.

In Australia, Supply Nation\textsuperscript{120} is the certifying agency for Indigenous businesses, however there is no official certification of Indigenous products other than a Statement of Authenticity. Therefore, there is the potential for the Indigenous market, more broadly than Kakadu Plum, to create a certification system for Indigenous foods and other products.

\section*{Case Study}

Yunmi is an enterprise that supports Aboriginal entrepreneurs in remote Australia to create various products. Their creations drive change in their communities through employment and connection to culture. One product sold by Yunmi is Gulbarn Tea, which is a plant containing high levels of antioxidants, and traditionally used for medicine. Grown on Alawa Country in the Northern Territory, it is picked by people from the Minyerri community.\textsuperscript{121}

\textsuperscript{120} Supply Nation, 2017, Home page, \texttt{http://www.supplynation.org.au/}.


61
Fair Trade

Fair Trade is a global initiative aimed at providing farmers with ‘stable prices, decent working conditions’ and empowerment.\textsuperscript{122} The certification is one of the most widely recognised ethical labels in the world, being recognised by 57% of consumers globally.\textsuperscript{123}

Fair Trade provides a model in which the producers own 50% of the agricultural business, while the other 50% is owned by Fair Trade. This model also creates a minimum price for products to cover the costs of sustainable production for that product in that region and provides a premium fund, whereby pickers can use funds to improve their social, economic and environmental conditions.

Code of Conduct\textsuperscript{124}

There is also the potential for the native foods industry to establish a Code of Conduct similar to that of the Australian Wine Industry. The Code of Conduct seeks to:

- “establish a common Australian wine grape supply contract framework, and,
- provide a dispute resolution system to manage disagreements which arise over price or quality assessments”\textsuperscript{125}

Given the industry similarities between native foods and the wine industry, there is a great opportunity to establish a Code of Conduct during the early stages of development. It is recommended that this would be established to incorporate:

- Pricing methods and terms,
- Dispute resolution procedures,
- Terms of payment, and,
- Quality requirements.

Incentive R&D

The Research and development (R&D) tax incentive replaced the R&D tax concession from 1 July 2011. It provides targeted R&D tax offsets designed to encourage more companies to engage in R&D. The incentive has two core components. Entities engaged in R&D may be eligible for a:

1. 43.5% refundable tax offset for eligible entities with an aggregated turnover of less than $20 million per annum, provided they are not controlled by income tax exempt entities; or
2. 38.5% non-refundable tax offset for all other eligible entities (entities may be able to carry forward unused offset amounts to future income years).

The rate of the R&D tax offset is reduced to the company tax rate for that portion of an entity’s notional R&D deductions that exceed $100 million for an income year. This change

\textsuperscript{125} Ibid.
applies to assessments for income years starting on or after 1 July 2014 and before 1 July 2024.

The R&D tax incentive aims to boost competitiveness and improve productivity across the Australian economy by encouraging industry to conduct R&D that may not otherwise have been conducted, and improving the incentive for smaller firms to undertake R&D.

During the self-assessment process to access the tax offset, companies must be careful to recognise that eligibility under the R&D Tax Incentive is based on identifying specific activities and not based on whole projects or large parts of projects. It is very unlikely that all of the activities being conducted in an agricultural project would be eligible R&D activities. Assessing whether an activity is eligible for the tax incentive, the flowchart below provides a guide.

Incentive R&D tax offsets may be ideal for the Kakadu Plum industry as it requires further research and development to mature and uncover efficiencies.126

Figure 19. Self-assessment decision tree for R&D tax incentives127

127 Ibid.
Recommendations

Key recommendations and findings from this report include:

1. The native foods sector is a supply limited market, however there is also a need to connect existing supply to industry demand.

2. There is a great potential for the industry to change their focus to become price makers, not price takers.

3. A new sustainable, cooperative model should be created for all native foods, allowing for warehousing to match supply and demand, monitor quality and value add a portion of the supply to maximize value.

4. Value should be placed on Traditional Indigenous Knowledge. There is a huge potential to combine Indigenous knowledge and story to native foods to provide a shared value industry.

5. More research is needed on the domestication of Australian native foods and their application in the mainstream food industry.

The industry should also explore growing agricultural innovation, such as block chain, to track product demand and supply. The industry should also explore an “Indigenous Wild Harvest” certification for premium prices.
Appendix 1: Protocols for Project Engagement

PricewaterhouseCoopers Indigenous Consulting upholds the Declaration on the Rights of Indigenous Peoples. In order to optimise the engagement and input from Indigenous communities, PIC will at all times adhere to the following Principles of Engagement:

1. **Cultural heritage and identity as assets**: PIC will acknowledge and build upon the asset of each community’s cultural distinctiveness. We will assist communities in taking full advantage of their traditional knowledge, culture, governance systems and natural resources, all of which form part of their tangible and intangible heritage.

2. **Free, prior and informed consent**: PIC shall support the participation of Indigenous People’s communities in determining priorities and strategies for their own development.

3. **Community-driven development**: Community-driven development ensures ownership, commitment and sustainability of investments, and increases self-reliance and community empowerment. PIC will follow and enhance community-driven development approaches that are particularly well suited to the holistic perspectives of Indigenous Peoples, where ecosystems and social and economic systems are intertwined.

4. **Land, territories and resources**: Central to the identity of Indigenous Peoples is their relationship to ancestral territories and resources, which form the basis of their livelihoods. Access to and management of these resources are often regulated by complex customary laws and systems of which PIC must have an adequate understanding.

5. **Indigenous People’s Knowledge**: Indigenous peoples are often bearers of unique knowledge and custodians of biodiversity. PIC will value Indigenous People’s knowledge and practices when undertaking this project. It will also build on these assets by supporting pro-agri-cultural research that blends traditional knowledge and practices with western Scientific approaches. PIC acknowledges that in many cases, Indigenous People’s knowledge advances western scientific understanding. Blending new ways with traditional ones may be the key for Indigenous Peoples to improve their livelihood. In this regard, PIC will promote partnerships between Indigenous People’s communities and others.

6. **Environmental Issues and Climate Change**: Indigenous Peoples are among those most affected by climate change. Environmental degradation, erosion of natural resources and biodiversity loss are challenging their ability to cope with and adapt to climate change. PIC will support Indigenous People’s in enhancing the resilience of the ecosystems in which the live and in developing innovative adaptation measures.

7. **Access to markets**: While Indigenous Peoples’ traditional livelihoods continue to fulfill an important role in many rural areas, Indigenous societies have also joined the market economy, which brings both opportunities and challenges. PIC will explore these opportunities and enable Indigenous Peoples’ communities to value their products and engage in markets on more profitable terms.

8. **Empowerment**: Empowerment is a sine qua non for all Indigenous Peoples’ to improve their livelihoods in a sustainable way. PIC will support the empowerment of Indigenous Peoples’ by providing resources for training, capacity building, and
developing management skills, to enable them to effectively interact and negotiate with local and national governments, private companies and other interested parties to secure and manage their resources and lead their own development processes.

9. **Gender equality**: Indigenous women often experience triple discrimination: as women, as members of an Indigenous Peoples’ and as women within Indigenous Peoples’ communities. PIC will incorporate a gender focus in this project with a special commitment to improve the well-being of Indigenous Women by: (a) expanding their access to and control over fundamental resources such as land, capital, traditional knowledge and technologies; (b) strengthening their agency, decision-making role in community affairs, and representation in local institutions; and (c) building on their untapped potential for sustainable development, by recognising their role as stewards of natural resources and biodiversity, and bearers of rich varied traditional knowledge systems.

**Protocols for Partnerships with stakeholders**: PIC will broaden its efforts to combine its resources with those of other institutions, companies and businesses in order to expand coverage, create synergies, reduce duplication and achieve economies of scale.

**Information and knowledge management**: PIC respects and protects all information and knowledge management rights of all parties.
Appendix 2: Native Foods Export Roadmap

The following is a copy of a report produced by PIC in 2017 for the Department of Agriculture and Water Resources.
Foreword

The Australian native foods industry is a new and emerging agricultural industry that provides opportunities for rural, regional and remote areas. It further encourages local based solutions and entrepreneurship, fostering growth in remote areas typically unknown for their traditional agricultural potential. There are over 6,500 types of native foods in Australia, with currently 13 specified native foods FSANZ certified and developed within the Australian and International markets.

This report was supported by funding from the Australian Government Department of Agriculture and Water Resources for the Australian Native Food Industry Limited (ANFIL). It provides an independent, evidence-based, co-designed roadmap for the Australian native foods industry.

As the industry has developed further, Australian Native Food Industry Limited (ANFIL) was formed in 2006 as the peak national body for native foods in Australia. It is responsible for lobbying and developing the industry on a national scale, working with and representing a range of passionate growers.

This report details some of the first in depth research into the native foods industry, with a particular focus on the exportation of native foods. It highlights the great opportunities for the future of the industry and some of the restrictions that growers and the industry currently face. The crux of this report is the co-designed roadmap detailing the future strategy for the exportation of native foods.

I would like to thank all growers and educators within the industry who took the time to complete the survey and met with the consultants to complete this report.

Amanda Garner

ANFIL Chair
This report was prepared by PwC’s Indigenous Consulting for the Australian Native Food Industry Limited (ANFIL). It was supported by funding from the Australian Government Department of Agriculture and Water Resources (the Department).

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**Abbreviations**

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<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANFIL</td>
<td>Australian Native Foods Industry Limited</td>
</tr>
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<td>HIA</td>
<td>Horticulture Innovation Australia</td>
</tr>
<tr>
<td>PIC</td>
<td>PwC's Indigenous Consulting</td>
</tr>
<tr>
<td>RIRDC</td>
<td>Rural Industries Research and Development Corporation</td>
</tr>
</tbody>
</table>
# Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Executive summary</td>
<td>06</td>
</tr>
<tr>
<td></td>
<td>Summary</td>
</tr>
<tr>
<td></td>
<td>Key findings and recommendations</td>
</tr>
<tr>
<td></td>
<td>Co-designed Roadmap</td>
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<tr>
<td>2</td>
<td>10</td>
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<tr>
<td>Introduction and aims</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>13</td>
</tr>
<tr>
<td>Engagement approach and methodology</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Data and Information Collection</td>
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<tr>
<td></td>
<td>Engagement Framework</td>
</tr>
<tr>
<td>4</td>
<td>17</td>
</tr>
<tr>
<td>Findings: Current State of Native Foods Industry</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Who are the stakeholders?</td>
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<td></td>
<td>What is their current export experience?</td>
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<td>Current State: Process to market</td>
</tr>
<tr>
<td>5</td>
<td>25</td>
</tr>
<tr>
<td>Findings: Broader Agricultural Industry</td>
<td></td>
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<tr>
<td></td>
<td>Introduction</td>
</tr>
<tr>
<td></td>
<td>Current State: Global trends</td>
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<td>Australian Food Trends</td>
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<td>6</td>
<td>30</td>
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<tr>
<td>Summary of Findings</td>
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<td>Introduction</td>
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<td>Findings</td>
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<td>7</td>
<td>38</td>
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<tr>
<td>Recommendations: Roadmap to export</td>
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## Appendices

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<thead>
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<tbody>
<tr>
<td></td>
<td>40</td>
</tr>
<tr>
<td>Survey Questions</td>
<td>41</td>
</tr>
<tr>
<td>Survey Stakeholders</td>
<td>42</td>
</tr>
</tbody>
</table>
Executive Summary
1.1 Summary

Introduction

The Australian native foods industry is an emerging agricultural industry experiencing unprecedented growth. The last two years has seen substantial growth in both the national and international demand for the products, coverage in mainstream media and an increase in the number of native food growers. There are over 6,900 types of native foods in Australia, with currently 33 specified native foods FSANZ certified and developed within the Australian and International markets.

The Department of Agriculture and Water Resources sought an independent, evidence-based export plan for the Australian Native Foods Industry. To deliver this, the Department engaged PwC’s Indigenous Consulting to develop a roadmap in collaboration with key stakeholders including Australian Native Food Industry Limited (ANFIL), the Rural Industries Research and Development Corporation (RIRDC), Horticulture Innovation Australia, together with people and organisations who produce, process and market native foods and products containing native foods.

The findings of this report, and particularly the roadmap, will help position the industry to maximise opportunity. Because the roadmap was co-designed, the industry and its representative bodies are placed to drive change going forward. This research and roadmap forms an initial investigation into the industry, conducting some of the first market research into native food growers, their production and their aspirations. Of note for this project, only 15 producers noted that they either had, or intended to, export native foods, with the majority opting to do this in a value added form.

In summary, the industry is a diverse, domestic focused sector with supply side constraints. Many target value added opportunities to increase revenue and stabilise product supply, with only a few interested and with the capacity in exporting fresh product. Of those exporting, only one, Lemon Myrtle, is a mature, fresh and value added product with developed export procedures and supply chains.

Much of the industry’s export potential is stifled by the lack of supply, either wild harvested or commercially grown, and a lack of funding and access to commercial kitchens for value added products. Only four stakeholders identified that regulatory restrictions may turn them away from exporting to some regions, with only two identifying that fruit fly hosting may be an issue for exporting raw product.

The following statistics were obtained from those who completed the survey:
## 1.2 Key findings and recommendations

**Findings:**

Stakeholders were consulted with in person, on phone or via a survey distributed through ANFF and personal networks. All stakeholders were optimistic about the industry and many enjoyed the opportunity to commercialise a relatively new market. All stakeholders were proud of the products they produced and many were looking for opportunities to share their Australian Native Food products around the world.

The key findings from consultation can be summarised as follows:

<table>
<thead>
<tr>
<th>Icon</th>
<th>Finding</th>
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<tbody>
<tr>
<td>📈</td>
<td>Supply limited market</td>
</tr>
<tr>
<td>🧠</td>
<td>Knowledge is held by individuals</td>
</tr>
<tr>
<td>💰</td>
<td>Potential to become price makers, not price takers.</td>
</tr>
<tr>
<td>⚠️</td>
<td>Risk of aggregation</td>
</tr>
<tr>
<td>🌿</td>
<td>Benefits have been sought by attaching native foods to a broader industry</td>
</tr>
<tr>
<td>📦</td>
<td>The need to Value Add</td>
</tr>
</tbody>
</table>
### 1.3 Co-designed Roadmap

The following roadmap to export was co-designed with ANFIL, taking into account the industry bodies objectives and focus areas for the coming years. It uses the findings of this report as the focus areas for the association going forward, looking at the opportunities for strengthening the export market in the short, mid and long term.

<table>
<thead>
<tr>
<th>Supply limited market</th>
<th>Knowledge is held by individuals</th>
<th>Potential to become price makers, not price takers</th>
<th>Risk of aggression</th>
<th>Benefits have been sought by attaching native foods to a broader industry</th>
<th>The need to Value Add</th>
</tr>
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<tbody>
<tr>
<td>0-6 months</td>
<td>6-12 months</td>
<td>Within 2 years</td>
<td></td>
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<td></td>
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<tr>
<td>- Co-op model development (start analysis)</td>
<td>- Develop models</td>
<td>- Promotion of models</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>- Aggregation (collect current models)</td>
<td>- Advocacy</td>
<td>- Aligning industry practice to meet international legislative requirements</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Access (analyses of barriers continued)</td>
<td>- Native food confidence build</td>
<td>- Harmonising domestic legislation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Equal access to books and publications</td>
<td>- Seasonality Planning</td>
<td>- Greater Indigenous engagement</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Food focus on education and meal awareness</td>
<td>- Indigenous knowledge and IP protocol established</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Design and plan a marketing body</td>
<td>- Establishment of a marketing body</td>
<td>- Collaboration for better production in Indigenous Communities</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Industry wide risk assessment</td>
<td>- Increase research and development funding for native food clone selection</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Quality analysis of products</td>
<td>- Connection with other industry groups</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Look at shared investment and marketing opportunities</td>
<td>- Find collaboration partners</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Work with R&amp;D for greater native food certification</td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
Introduction and aims
2.1 Understanding the potential for native food export

The Department of Agriculture and Water Resources sought an independent, evidence-based export plan for the Australian Native Foods Industry. To deliver this, the Department engaged PeCs Indigenous Consulting to develop a roadmap. The roadmap was developed in collaboration with key stakeholders including Australian Native Food Industry Limited (AANFL), the Rural Industries Research and Development Corporation (RIRDC), Horticulture Innovation Australia, together with people and organisations who produce, process and market native foods and products containing native foods.

The two key elements of the project were to:

- consult across the Industry to determine what the collective priorities are for exports in this sector; and;
- develop a roadmap, co-designed with industry, to assist with the future export potential for the industry.

Background

There are over 6,500 types of native foods in Australia with currently 13 specified native foods FSANZ certified and developed within the Australian and international markets:

- **Lemon myrtle**: Backhousia citriodora (leaf and oil)
- **Mountain pepper**: Tasmanian lanceolata (leaf and berry)
- **Bush tomato**: Solanum centrale
- **Anise myrtle**: Backhousia anisata (leaf and oil)
- **Finger limes**: Citrus australasica
- **Kakadu plum**: Terminalia ferdinandiana
- **Desert limes**: Citrus glauca
- **Quandong**: Santalum acuminatum
- **Muntries**: Kurrajong pinnata
- **Wattleseed**: Acacia victoriae
- **Riberry**: Syzygium lehmannii
- **Davidson plum**: Davidsonia ang.
- **Lemon aspen**: Akarunta coccinea

The commercialisation of the native foods industry is still relatively new, supported and developed by ‘trailblazers’ who have been engaged with the industry for over 30 years. Many of these stakeholders are still actively engaged in the industry.
2.1 Understanding the potential for native food export

The popularity of native foods has stemmed from the trend towards natural products and a growing consumer conscience that is concerned with the origin of food products. This is particularly evident in the Chinese market, which is demonstrating an increasing desire for quality, safe and natural products from Australian sources. The demand for Australian bush foods is so substantial that the Australian Native Food Industry Limited was established in 2006 as the peak body to represent interests in the industry and promote commercialisation. There are still challenges facing the industry in seeking to grow export markets due to the historically small quantity of exported bush foods; however, with growing demand and the peak body, this is evolving.

In recent years, the industry has developed further, with the Australian Native Food Industry Limited (ANFIL) being formed in 2006. ANFIL is the peak national body for native foods in Australia and is responsible for lobbying and developing the industry on a national scale.

Engagement Methodology and Approach
3.1 Engagement Methodology
Data and Information Collection

We used the following methodology for engaging with users, devolving risk throughout the process through authentic engagement. This methodology was co-developed to consensus at the co-design workshop on 25 July 2016.

1. User-centred research, including survey development

Informal engagement and formal consultation with key stakeholders to inform understanding of the ecosystem surrounding native foods. Initially, at the co-design workshop, a shared understanding of how people and organizations in the space are connected and influenced. This informs how results from this project, and other work including potential future development of export plans, can be communicated. From this, a quantitative survey instrument was developed. This was shared widely through stakeholder networks. It was short and simple, and gauged industry sentiment towards export at an aggregate level.

2. Observational and participatory research, including site visits

Observational research involves collecting data related to how users act within a system. Site visits will be conducted to a number of growing and processing facilities, to ground truth initial findings and provide a complementary qualitative data instrument. This will provide rich contextual data, enabling the story of collective industry priorities to be told.

3. Quantitative survey data

Quantitative data was conducted by promoting a survey to the industry stakeholder groups. This was distributed through ANFF and personal networks and social media. This will provide statistical data for effective decision making.

4. Iterative co-design

Iterative co-design involves repeated engagement with stakeholders to design the final roadmap together. The focus of these processes is to ensure that the final roadmap is fit for purpose, meets real stakeholder needs, and can be implemented practically. Further, this highly collaborative approach can be useful for engaging stakeholders to demonstrate the value of the end product. The co-design will focus on delivering a framework which can be used by industry.

5. Continued engagement

In the next phases, continued engagement and iteration with users is vital. We suggest continuing the process in the same spirit of co-design which has successfully been used to design and build the roadmap.
3.1 Engagement Methodology
Ripple Engagement

What it is:
A way of working with people, drawing on Indigenous understanding of Connection together with sociological approaches such as referral sampling. Like Conversation-led Flexible Facilitation it is free flowing and puts impetus on the facilitator rather than the participant. It is built on trusted relationships.

Why we use it
This methodology:
- Creates and promotes Respect, especially where there has previously been difficulties.
- Provides access to people and spaces that might otherwise remain hidden or unknown.
- Leaves space for gaining unexpected insights, and gathering different kinds of data for Evidence-led Analysis.
- Builds broad engagement and support for change.
- Creates the environment for self-determination to be enacted, either supported or autonomously.

How we do it
We put a lot of effort into creating, building and maintaining culturally relevant trust circles. We identify trusted individuals within a system and build relationships with them. These are not just transactional. They produce Value for all involved. They may be immediately valuable or be an investment in a potential future value. We are then invited to enter new circles through trusted introductions and social capital. When collecting data, we plan participant sampling and engagement locations to allow enough time and resources for ripple-based referral to occur within agreed scope.
3.2 Engagement Framework

While the outputs of the project will be formed in conjunction with the industry, including ANFIL, growers and Horticulture Innovation, the framework below provides an initial understanding of the main focuses of the project. In particular, we focused on the people, markets, products and biosecurity for native foods in Australia, with a current and future state focus and understanding of the future opportunities.

The following framework will inform discussions with each of the stakeholders:

<table>
<thead>
<tr>
<th>People</th>
<th>Markets</th>
<th>Products</th>
<th>Biosecurity</th>
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<tbody>
<tr>
<td><strong>Current State</strong></td>
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<tr>
<td>Who are already</td>
<td>Where are they</td>
<td>What products are</td>
<td>What products are</td>
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<tr>
<td>exporting?</td>
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<td>Who would like to</td>
<td>Where would they</td>
<td>What products would</td>
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<td>export?</td>
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<td>they like to export?</td>
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<tr>
<td><strong>Future State</strong></td>
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<td>What products would</td>
<td>What products would</td>
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<tr>
<td>export in the future?</td>
<td>people like to export</td>
<td>people like to export in</td>
<td>people like to export</td>
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<tr>
<td>How can we get more</td>
<td>in the future?</td>
<td>in the future?</td>
<td>in the future?</td>
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<tr>
<td>people involved in</td>
<td>How can we decrease</td>
<td>How can we decrease</td>
<td>How can we increase</td>
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<tr>
<td>exporting?</td>
<td>the barriers to</td>
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<tr>
<td><strong>Opportunities and Roadmap</strong></td>
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What is the future stakeholders envisage? What biosecurity risks may exist in the future? What policy do we need to decrease biosecurity risks?
Findings: Current State of Native Foods Industry
4.1 Who are the stakeholders?

In conjunction with various site visits and phone interviews, a survey was also sent out to the industry to obtain quantitative data. The survey was distributed through the ANFIL membership database, through personal networks and social media. The survey questions can be found in Appendix 3.1.

The survey was completed by 43 businesses and individuals.

The diversity of respondents and stakeholders in the native food sector is evident in the following graph. The majority (39%) describe themselves as a grower and/or a retailer/wholesaler, while others focus on the food service, value adding and promotion of native foods within Australia.

It is also important to acknowledge that many individuals within the industry take on many different roles. This was confirmed during physical consultations, where stakeholders would engage in growing the product, aggregate wild harvested and other commercially grown products, value add the raw product and then finally brand and market the product nationally and internationally.

However, similar to the mainstream agricultural industry, there are inherent risks of aggregating product and knowledge. This has been recently demonstrated in the native foods industry with large amounts of export product lost due to unforeseen circumstances and knowledge lost due to key players leaving the industry.

Survey respondents were also asked about the location of their businesses. The results depict the diversity of locations of native foods in Australia and highlight the potential for other supply into the future. Many of the respondents are located along the East Coast of New South Wales and Queensland, and surrounding Adelaide City.

The maturity and breadth of these native food clusters can be attributed to the commercialisation pioneers within this industry. Referenced to as ‘trailblazers’, these influencers often shared their knowledge in the local community and inspired others to start growing and cultivating native foods in the local area.
4.1 Who are the stakeholders?

Despite many stakeholders driven to grow native foods due to the cultural ties and the Traditional Indigenous Knowledge held by Indigenous People, the vast majority of stakeholders in the industry are non-Indigenous.

This provides an opportunity for the industry to expand and increase supplies, particularly in northern Australia where land is often held under Aboriginal and Torres Strait Islander land. The attraction to this opportunity is increased by the access to a highly knowledgeable workforce and could also provide the industry with other potential native foods that have not currently been commercialised.

The majority of native food growers also have additional income sources, therefore are often not solely reliant on the income generated through selling raw or value added products. However, there is also a fair portion of the community that are reliant on the income generated from their native food business, often those that are actively and heavily involved in the industry and those who were engaged in the early commercialisation of native foods.

Similar to mainstream agricultural commodity stakeholders, those involved in the native foods industry are often aged over 50. Many in the “More than 10 years” category are the initial ‘trailblazers’ or pioneers of the commercialisation process who are still working within the industry today.

This means that there is a potential industry risk to knowledge being transferred, which has usually been kept commercial in confidence. Other knowledge is held in Traditional Indigenous Knowledge and shared in books and during workshops.

This raises the concern, similar to traditional agriculture, that the industry does not have the breadth of people to take it on in the future. Therefore, engagement of youth is pivotal for the industry into the future.
4.1 Who are the stakeholders?

What attracted stakeholders to growing native foods?

Stakeholders shared that there are three primary drivers as to why stakeholders became involved in the native foods industry:

1. To grow a sustainable commodity, while further providing on-farm diversity.
2. To connect with Indigenous culture and to preserve Traditional Indigenous Knowledge.
3. The taste and health benefits of native foods.

Other reasons cited as to why people were attracted to the industry included the challenges and opportunities in establishing a new industry, the potential to use native foods as a tourist related industry and being exposed to the industry by early promoters, such as RIRDC.

Area of production

The area of production is also critical when exploring the supply of native foods in Australia. Similar to other horticultural industries, the size of production ranged from growing products for personal and private use to managed plantations of 16 hectares and 100,000 trees. Many described their area as “small”, while others acknowledged the role that wild harvest played in their production.

From the stakeholders that provided an actual area of managed growing systems, the average size of a native food production area is approximately 11 hectares. The production area for native foods is representative of similar niche products, which are typically low volume, high dollar commodities.

Type & Amount of produce

With over 6,500 types of native foods in Australia, there is no surprise the diversity of native foods that stakeholders are growing across Australia. Predominately these include:

- Lemon and anise myrtle
- Wattle seed
- Finger limes
- Ribberries/Lilly pililies
- Warrigal greens
- Strawberry gum
- Pepper- mountain and Tasmanian peppers.
- Muntries
- Kakadu plums
- Native raspberries

The survey data indicated that there was approximately 150 tonnes of native foods grown each year, however this ranged from personal use, to 5 kilograms, up to one stakeholder producing 100 tonnes or two-thirds of the industry production.
4.2 What is their current export experience?

When asked whether stakeholders had or were interested in exporting native foods into the future, just 55% of the industry had considered exporting. This represents 15 people, each with a variety of experiences from mature businesses exporting 30 tonnes per year and includes 4 stakeholders hoping to export into the future.

![Pie chart showing 55% Yes and 45% No.]

Of those who have or were interested in exporting native foods, the majority stated that this was or would be in a value-added form. This would help alleviate many of the biosecurity concerns that were listed as a barrier to export for several of the products.

Of the minority who noted they had or wished to export raw products, current exports were on consignment up to 1 tonne. Two mentioned that further research was needed into fruit fly host testing, while the majority said that securing supply, additional funding and access to kitchens and equipment would assist them exporting in the future.

![Pie chart showing 32% Value-added and 68% Raw.]

Export locations:

The most common export location for native foods is to the European Union, with 8 stakeholders identifying that they currently are, or intend to export native food products into those regions. The United States and Asia were also identified highly as a preferred market. New Zealand, Korea and Canada were also specifically identified, each being mentioned twice as a preferred potential destination for export, particularly with value-added products.

Others took the opportunity to highlight the current supply shortages of native foods, particularly in Australia, stating that there isn't enough supply to meet the local market and therefore we should be working on a more stabilised and established supply chain.
4.2 What is their current export experience?

Amount exported:
Holistically, the amount of native foods exported from Australia is over 100 tonnes/year, however this ranges from businesses exporting 250kgs to the biggest producer solely exporting 60 tonnes. Of the 8 current exporters of native foods who completed the survey, the majority of these stakeholders were exporting between 1-5 tonnes per year.

If the largest exporter, who is an outlier in the statistics, is taken out of the statistics, it is reported that 10.35 tonnes are being exported each year, approximately 22.5% of Australia’s total native food product.

Barriers to export:
The main barriers to exporting native foods are:

1. Supply
   The greatest barrier to exporting native foods is having enough supplies to meet the demand for product both nationally and internationally. This was highlighted by almost half of those who are, or intend to export in coming years.

2. Importing country regulations
   Importing country regulations, particularly the Novel Foods Act in Europe and fruit fly protocols in other countries. Other concerns were raised about the Food and Drug Administration restrictions in the United States.

3. Finances
   Finances are also a big limitation to small businesses getting started, restricting the ability to purchase the necessary machinery to produce value added products and the ability to purchase more land, particularly to increase the supply of native foods.

4. Connections
   The maturity of the native foods industry is also a barrier to export, prohibiting marketing and international connections for the wider industry.
4.2 What is their current export experience?

What would assist in the exporting of more products?

Stakeholders identified the following things would assist them in exporting their products overseas into the future:

- Understanding the process to export, particularly with professional advice into the legal, food safety and transport processes.

- Better government liaison and connections to negotiate non-trade barriers.

- A structured supply chain to enable greater supply for both the national and international markets.

- Protection of growing rights and intellectual property, particularly for Indigenous people and Traditional Owners.

- Encourage investment and knowledge into the industry for marketing and infrastructure, particularly commercial kitchens.

- Government funded research into shelf life and the understanding of pests and diseases.
4.3 Current State
Process to market

The following diagrams outline the existing process to markets for both fresh and processed products. Please note that the steps in blue can also be completed by the grower in some instances.

**FRESH**

- Grow / Collected
- Consolidate / Market
- Wholesale
- Retail / Restaurant
- Consumer

**PROCESSED**

- Grow / Collected
- Consolidate
- Process / Value add
- Market & sales
- Wholesale
- Retail / Restaurant
- Consumer
Findings: Broader Agricultural Industry
5.1 Introduction

In 2014-15, the Agriculture, Forestry and Fishing industry accounted for 2.2% of the Australian economy. Although its share has decreased over time, output from the sector has continued to grow with the total industry value added for the sector rising by 1.5% in real terms in 2014-15. This growth was driven by several key industries:

- Nut growing: A traditionally modest crop, nut growing has risen rapidly and has become an increasingly important source of domestic supply and exports. In fact, nut production is expected to expand from around 130,000 tonnes in 2014 to 170,000 tonnes in 2020.9

- Meat: Increased production of mutton and pork output has been a key driver of growth in Australia’s agriculture sector in 2014-15, with a higher rate of growth than traditional meat products such as beef and lamb.10

- Fruit and vegetables: Exports of Australian fruit and vegetables have grown rapidly in recent years, with the value of vegetable production increasing by around one-third since 2006-07.11

In order to support these trends, in 2015 the Commonwealth Government released the Agricultural Competitiveness White Paper, a policy outlining plans to strengthen the Australian agriculture industry.

The Paper forms part of a $4 billion investment in the industry and demonstrates the Commonwealth Government’s recognition that the agricultural industry is a vital part of building a strong and prosperous economy. The Paper reiterates that the agricultural sector is one of the five pillars of the Australian economy and emphasizes why the sector is a Government priority. In 2013-14, the value of farm production was $51 billion and agriculture comprised approximately 2% of Australia’s gross GDP.12

The broad theme encompassed within the paper includes, lowering tax, cutting red and green tape, developing infrastructure, facilitating trade, developing Northern Australia, and supporting business innovation. In particular, the focus on Northern Australia as a growth opportunity for agriculture is evidenced by the Government’s commitment in the Northern Australia White Paper to fund a $75 million Cooperative Research Centre on Developing Northern Australia, with an initial focus on agriculture, food and tropical health. In 2010-11, the gross value of Northern Australia agricultural production was $5.2 billion, 12% of Australia’s total production - $46 billion. As outlined in the table below, the Paper identifies five key drivers of the Australian agricultural industry.13

Five key drivers of the Australian Agricultural Industry:

<table>
<thead>
<tr>
<th>Driver</th>
<th>Rationale</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Increased food consumption</td>
<td>Population growth will drive demand for food products</td>
</tr>
<tr>
<td>2. Wealth</td>
<td>Growing middle class that are wealthier and can afford differentiated products</td>
</tr>
<tr>
<td>3. Education</td>
<td>Customers that are educated and informed about their food choices leading to demand based on ethics, sustainability and health</td>
</tr>
<tr>
<td>4. Technology</td>
<td>New technologies advancing production and transport</td>
</tr>
<tr>
<td>5. Climate change</td>
<td>Weather conditions will change practices and methodologies</td>
</tr>
</tbody>
</table>

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10 Ibid.
11 Ibid.
13 Ibid.
14 Ibid.

15 Ibid.
5.2 Current State

Global trends

The value of the Australian native foods industry is approximately $10 to $16 million (AAP General News Wire 2007 and RIRDC 2009). Of the 6,500 native food opportunities within Australia, RIRDC, in association with ANZIL, have received Food Standards Australia and New Zealand certification for 13 products.

While native foods in Australia are increasingly becoming part of mainstream society through culinary reconciliation, there are increasing opportunities for Australian native foods to expand further into the international market. Some of the greatest opportunities and trends in the global and national food supply systems include:

1. Globalisation of food supply
   The nature of today’s global and complex supply chains means contamination can turn up in more products, more quickly than ever before. There needs to be full visibility and control over supply chains, particularly in terms of the safety and quality practices of suppliers and growers. It’s also becoming pivotal that consumers can trace the product back to the farm it was grown on.

2. Integration of supply chains
   Food companies spend millions to integrate their supply chains and improve control. Consideration must be given to the greater integration of supply chains, including different commodities to reduce risk. Processes and controls also need to be developed to mitigate risk.

3. Scandals and increasing scrutiny
   A single lapse in quality control can easily become a brand or industry damaging global scandal, triggering public health concerns or damaging consumer trust. A risk landscape profile should be developed to identify and quantify supply chain risks. Strategy must also be developed to defend the industry or supply chain against issues such as fraud, contamination, and quality failures. This involves greater interaction with stakeholders, and listening to their feedback. A strategy should further be developed for recalls, crisis management and recovery procedures. A response to supply chain disruptions without unacceptable losses also needs to be considered.

4. Rising regulatory standards
   Governments are adopting more stringent food safety regulations and sanctions, creating unprecedented compliance risks and costs across markets. Anticipation surrounding regulatory change should occur frequently, along with considering how standards in one country may impact exports and views within other countries. Marketing and stakeholder engagement is critical to enhance customers’ trust, beyond regulatory compliance.

5. Shifts in global economic power
   The growth of maturing economies is creating huge consumer markets where they did not exist before. Consideration as to changes on the horizon that could rapidly reshape the industry or market needs constant attention, particularly in terms of opportunities or challenges. Global megatrends and their impact also need to be explored, along with the industry’s own growth strategy.
5.2 Current State (cont.)
Global trends

Tech, traceability and transparency advancements
A combination of emerging technologies and scientific advances are making big differences to improving food quality and traceability to the consumer. Track and trace technologies may be adopted to optimise the supply chain and monitor supply and demand. Technology can also be used to help improve yields.

Changing food demand
Economic development and population growth are increasing overall food consumption, while middle class growth and informed consumers are demanding better quality and variety. Greater purchasing power has resulted in significant increases in the consumption of resource-intensive protein products, with big impacts on the environment and agriculture. Demand for certain standards, such as organic or halal, is growing strongly. Who are the target consumers for your industry or product and what are their views? Customer behaviour, in particular, has become more complicated as values and buying preferences evolve.

Empowered consumers
Mobile connectivity and social media have become fundamental ways to get information and buy goods and services. Digital technologies enable people all over the world to be better connected, more informed, and as a result, more empowered and interested in what goes on behind the farm gate. Technology is giving people access to information about what food companies do and the impact of their actions. Using nothing but the phone in their pocket, anyone can share opinions, pictures and videos to expose issues and trigger a scandal – including employees, activists and media. Digitisation may reshape the way consumers find and share information about food, the industry and its associated brand.

From compliance to competitive advantage
Large food supermarkets and industry groups are setting internal standards that are far more stringent than those required by law. Rather than just complying with regulatory safety requirements and farming practices, they are aiming for enhanced quality that distinguishes them from their competitors and builds consumer trust and brand loyalty.

Population growth and resource scarcity
With population growth and the associated increased demand for food, agricultural production will need to increase by at least 70% to feed everyone by 2050, yet current consumption rates are already unsustainable. Governments and companies are adopting new technologies, corporate acquisitions and even diplomatic relations to secure access to the water, energy and land required to ensure sufficient food supplies in the future.
5.3 Australian Food Trends

In the last few years, the Australian food and agricultural systems have undergone intense change, primarily due to the additional interest in food production from increased media surrounding issues such as live export, country of origin labelling and farming practices. This increase in public media has encouraged consumers to have a heightened interest in where the food comes from and the way it was produced.

The Australian food system map has recently been produced by the Australian Environmental Grantmakers Network and has been summarised as follows:

The key interests for this project is the growing number of connected consumers, with many who are seeking traceability and accurate country of origin labelling. Given the shift in consumer attitudes, there is a great opportunity for the native foods sector to focus their efforts on promoting the Australian grown aspect of native foods, the social impact for Indigenous communities where products are wild harvested and the connection that consumers can have with the growers, many of whom are selling the product directly.

Summary of Findings
6.1 Introduction

The following section provides further detail on the findings listed previously in the document. They have been formulated based on observational and participatory research, quantitative survey data and the iterative co-design process adopted throughout the project.

The findings can be summarised as follows:

- **Supply limited market**: The native foods sector is a supply limited market, particularly in cases where wild harvest is the primary supply method.

- **Knowledge is held by individuals**: Most native foods knowledge is held by individual farmers who have developed their commodity and have invested heavily.

- **Potential to become price makers**: Given that native foods are a supply limited market niche, there is the potential for the industry to aggregate product and become price makers.

- **Risk of aggregation**: There are inherent risks of aggregating product in one area, such as seasonal, environmental and production risks.

- **Benefits have been sought by attaching native foods to a broader industry**: The greatest benefits for exporting native foods have been found by attaching them to like products in the broader and more established markets.

- **The need to Value Add**: The greatest opportunities and margins are in the value add of native foods, with one stakeholder saying we need to be the chocolate maker of Switzerland, not the cocoa grower of Africa.
6.2 Findings
Supply Limited Market

The big question facing native foods is how much is out there to pick, where it is located and is there a sustainable supply. This is particularly true for the wild harvest species (such as Kakadu Plum and Pepperberry). Even for cultivated species, there are issues around sustainable growing conditions in close quarters, as demonstrated by the emergence of rust in Lemon Myrtle. Environmental changes and fluctuations (e.g., weather, water, wind, pollen, disease, etc.) pose a different risk profile for wild harvest (e.g., less control, but populations are dispersed so may mitigate risk of single event wiping out an entire population).

For wild harvest species, there is still limited knowledge as to where the supply exists and how much supply exists for each product, particularly when harvested on an industrial or semi-industrial scale. Compounding this issue is the revelation that the market is supply limited. That is, currently growers are selling all the product they are able to harvest. Rather than needing to identify new customers, they need to ensure robust (and increasing) supply. This will enable them to meet their current commitments comfortably, and expand in the confidence that they have sufficient supply, as required.

The risks and limitations of wild harvest and of aggregation are obvious, but there is a need to support and induce capital investment in the alternative, for instance managed commercial production and supply chains needs to be addressed.

In addition, this ability to scale through supply will:

- Bring economies of scale for growers, meaning they are not dealing in small quantities with high overheads and processing per unit. This will also remove cost inhibitors currently placed on smaller producers.
- Enable growers to access larger scale processors, for example, a producer sought to partner with a juice manufacturer in Australia but did not have a secure supply.

Where growers are looking to expand markets, our research reveals that for consumers, uptake is inhibited by:

- Unfamiliarity
- Lack of Confidence
- Insecurity around flavours
- Conservative palette
- Inconsistent supply

Options for increasing supply include:

- Producing more directly (cultivate plants and plant out on own land)
- Act as an intermediary for other growers or pickers (also means having to ensure uniformity which can be risky, time-consuming and costly.)

In summary, it’s not sufficient to just generate product – each element needs to grow in concert with its partners up and down the chain – this is often hard to coordinate. Presently the industry has some successful vertically integrated enterprises that manage this problem ‘in house’, however it is vital for the rest of the industry to work with these businesses to share skills and knowledge.
6.2 Findings
Knowledge is held by individuals

Most native foods knowledge is held by individual farmers who have invested heavily in developing their commodity. It is also known and understood that traditional, or cultural knowledge must be dealt with respectfully and broadcast only to the extent allowed by its custodians. This presents special challenges to communities or enterprises wanting to capitalise on that.

Passionate individuals drive the industry, with often little discussion about a succession plan or the identification of somebody to learn from experienced growers or researchers. This has been demonstrated on two occasions recently, once where someone passed away with information to assist with novel food applications for other native foods. A second example is a person who has developed a database of Indigenous uses of native foods, however it is uncertain who owns the research or what will happen once this person passes away.

People who enter the industry early are driven by passion and curiosity. There is a risk that later people may not have the same motivation (or investment), nor the knowledge in how to grow, harvest or consume native foods. Therefore, as an industry, it is critical in ensuring that native food knowledge is kept and recorded for future generations.

Public knowledge must be retained by publication and dissemination, traditional knowledge transfer is the responsibility of the custodial communities, and transmission of private learnings. This should be handled by each business as part of normal due diligence.

The report also acknowledges the potential for conflict between providing public benefit and supporting entrepreneurial initiative. Knowledge obtained by research, scientific study or private investment should be disseminated only to the extent that it is paid for or sponsored by the wider community. This would include Government research, matters of public importance, and knowledge that helps the whole industry develop, for instance issues that have generic significance, or are consumer focused.

On the other hand, problem solving, though sometimes a public enterprise, is often (especially in novel industries) achieved at substantial cost to individuals or businesses, and so should be seen as part of their private assets.
6.2 Findings
Potential to become price makers, not price takers.

Assuming native food supply remains consistent or has relatively low levels of growth, there is a huge potential for growers to capitalise on the limited amount of product being generated and become price makers, not price takers. It is critical that the industry capitalise on the niche products that they are producing and obtain a fair value for the native foods they are producing.

Currently, native food growers are basing costing on either what they think the market will find acceptable or based on the price that was determined up to 20-30 years ago. This means that growers, like in traditional agriculture, need to focus on economies of scale or on-farm efficiencies to improve the profit margin they receive for their products. However, given the size of the industry and the limits of supply, growers could capitalise on the growing demand (please see diagram below) and charge a premium price for their products.

In some ‘down years’ when supply was low, some growers stated that they would increase the price and receive a higher premium for their products. However some noted that noted that if the price got too high, some consumers would just move to a similar product or go without.

Value adding and wild harvest assists in providing consistent supply, which can removes price fluctuation and guarantees cost received, while also alleviating the seasonal variance issue. By value adding native foods, the volatility of the processing costs can be restricted and prices can be set by the producer to what is a fair and reasonable price. This should be tested with consumers to see what is the greatest price that they are willing to pay, while still selling the quantity required.
6.2 Findings
Risk of aggregation

As demonstrated on page 21, the supply chain for native foods is short. The value within the supply chain is in aggregation, that is bringing product together, value adding, packaging and connecting with the buyer. Growers observed that to be successful someone in the supply chain needs to play this role, and to capitalise the product. There are pros and cons of this occurring at every level:

- For the aggregator:
  - This offers economies of scale and a value add premium. However, it also presents significant risk to the aggregator. These risks include:
  - People may rely on the aggregators as a ‘warehouser’ (both growers/pickers and customers). This is a risk because the aggregator holds a lot of stock, which an adverse event can damage or destroy.
  - May become a ‘consolidator’ and information source for the native food industry in general - customers often ask: ‘Where can I get...?’ This is a pro and a con, since it can take a lot of time away from core business, however it may also offer additional product or revenue options.

- For the picker (in the case of wild harvest):
  - Option to sell right away, since may not be able to support cash flow or the time required (terms of trade etc)

- For the processor:
  - Diversity and security of supply through the aggregator (although they may often be the same person or entity)

- For the buyer:
  - Control and/or options in the supply chain

- There is also a risk if everyone in the supply chain is capitalising, everyone is making a tiny margin and no one is making money. Survey respondents/growers observed that if everyone is capitalising, then there would be limited opportunities to grow profit margins.
6.2 Findings
Benefits have been sought by attaching native foods to a broader industry

Agriculturalists are natural innovators. Native food innovation has been leveraged from other industries and leveraged for knowledge translation.

- For example:
  - Native products, such as finger limes, have found benefit in exporting their products under the citrus category, and therefore allowing ease of entry to importing countries. However, it has meant that they must meet the guidelines imposed for all citrus plants, including fruit fly restrictions.
  - Macadamia growers have found ways to harvest produce on the ground using technology for golf ball collection on golf ranges. This increases the potential supply and decreases harvesting costs.
6.2 Findings
The need to Value Add

While there is a great need to ensure the consistent supply of native foods to the market, the greatest opportunity for those within the industry is to value-add product. As one stakeholder commented, we need to ‘be the chocolate maker of Switzerland, not the cocoa grower of Africa’.

Currently, those that value add native foods experience greater benefits to the grower. These include:

• A better financial gain.
• The ability to control the quality of the product.
• The ability to increase production, by utilising the strong flavours that native foods contain.
• The opportunity to utilize value added products to ensure constant supply.
• Innovation within the sector to create leading products.

This was again highlighted in a comparison to traditional agricultural products, with the stakeholder saying we don’t give people wool and say to spin your own clothes, we don’t give them a box of wheat and say make your own bread, so why would we give them raw native foods and hope they know what to do with them.

Value adding native foods also presents the opportunity to sell higher quantities of products, as consumers are able to relate these products to other traditional items available. For example, a native pepper is comparable to pepper, native jam is comparable to other jams and Kakadu plum powder as a superfood is comparable to other superfood powders.
Recommendations: Roadmap to export
7.1 Roadmap to export

The following roadmap to export was co-designed with ANFIL, taking into account the industry bodies objectives and focus areas for the coming years. It uses the findings of this report as the focus areas for the association going forward, looking at the opportunities for strengthening the export market in the short, mid and long term.

<table>
<thead>
<tr>
<th>0-6 months</th>
<th>6-12 months</th>
<th>Within 2 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply limited market</td>
<td>Develop models</td>
<td>Promotion of models</td>
</tr>
<tr>
<td>• Co-op model development (start analysis)</td>
<td>• Develop models</td>
<td>• Aligning industry practice to meet international legislative requirements</td>
</tr>
<tr>
<td>• Aggregation (collate current models)</td>
<td>• Advocacy</td>
<td>• Harmonising domestic legislation</td>
</tr>
<tr>
<td>• Access (analysis of barriers continued)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge is held by individuals</td>
<td>• Native food conferences held</td>
<td>Greater Indigenous engagement</td>
</tr>
<tr>
<td>• Equal access to books and publications</td>
<td>• Succession Planning</td>
<td></td>
</tr>
<tr>
<td>• Focus on education and food awareness</td>
<td>• Indigenous knowledge and IP protocol established</td>
<td></td>
</tr>
<tr>
<td>Potential to become price makers, not price takers.</td>
<td>• Establishment of a marketing body</td>
<td>Collaboration for better production in Indigenous Communities</td>
</tr>
<tr>
<td>• Design and plan a marketing body</td>
<td>• Native food Certification model</td>
<td></td>
</tr>
<tr>
<td>• Standardised product names</td>
<td>• Increased research and product development</td>
<td></td>
</tr>
<tr>
<td>Risk of aggregation</td>
<td>• Increase research and development funding for</td>
<td></td>
</tr>
<tr>
<td>• Industry-wide risk assessment</td>
<td>native food clean selection</td>
<td></td>
</tr>
<tr>
<td>• Quality analysis of products</td>
<td>• Increased research and development funding for</td>
<td></td>
</tr>
<tr>
<td>Benefits have been sought by attracting native foods to a broader industry</td>
<td>native food clean selection</td>
<td></td>
</tr>
<tr>
<td>• Connection with other Industry groups</td>
<td>• Look at shared investment and marketing opportunities</td>
<td></td>
</tr>
<tr>
<td>The need to Value Add</td>
<td>• Find collaboration partners</td>
<td>• Work with FSANZ for greater native food certification</td>
</tr>
<tr>
<td>• Kick start value add initiatives</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix
8.1 Survey Questions

- Are you:
  - A grower
  - Retailer/wholesaler
  - Nursery
  - Food Service
  - Other (please describe)
- What is the name of your business?
- Where are you located?
- Are you an Aboriginal or Torres Strait Islander majority owned business?
  - Yes
  - No
- What is your area of production?
- If you wild harvest, over what area do you collect produce?
- How long have you been growing native foods for?
  - Less than 1 year
  - 1-2 years
  - 3-5 years
  - 5-10 years
  - More than 10 years
- Do you currently grow other types of agricultural commodities as well or have additional income from activities not related to native foods?
  - Yes
  - No
- What attracted you to growing native foods?
- What type of native foods do you produce?
- How long have you been growing native foods for?
- What amounts of product do you harvest (please list which species as well)?
- Where did you get knowledge about growing native foods?
- Have you ever exported or have you considered exporting your native produce overseas?
  - Yes
  - No
- Was this in a raw or value-added form?
  - Raw
  - Value-added
- What countries have you or do you currently export to?
- What quantity of products do you currently export?
- What products would you like to export and to which countries?
- What would assist you to overcome these barriers and export native foods to these countries?
- What barriers currently prevent or discourage you from exporting native foods to these countries?
- Are you aware of any biosecurity legislation or restrictions with exporting native foods?
- Are you aware of any specific biosecurity legislation or phytosanitary restrictions on export of these native foods within Australia or in importing countries?
- How do/would you find information about these requirements?
- How do/would you approach complying with these requirements?
- Have you sought assistance through any local, state or federal government channels? (e.g. the Package for Assisting Small Exporters, or business.gov.au's Entrepreneur's Program)
  - Yes
  - No
8.2 Survey Stakeholders

- A Garden for Life
- ALMP Pty Ltd
- Astrids - The Unique Taste of Australia
- Australian Functional Ingredients Pty Ltd
- Australian Native Bushfoods
- Bakariindi Bush Foods
- Beaux Desserts
- Black Knight Table Grapes
- Blak markets
- Brushtail bushfoods
- Bushfood sensations Inc
- Buurringa Marrung Bush Tucker Catering
- Didja Plant Natives
- Diemen Pepper
- Edible Eden Design
- Fervor
- Footeside farm
- Fragrant Natives
- GrumbleTumms
- Kakadu Plum Co.
- Kindred Spirits Foundation, trading as Traditional Homeland Enterprises Holding Co Pty Ltd
- Millamolong Australia
- Murawin Pty Ltd trading as ‘Game Enough?’
- NATIF – Australian Native Superfoods
- Peppermint Ridge Farm
- Playing with Fire Native Foods Pty Ltd
- Sacred Grove
- Something Wild Australia
- The Lime Caviar Company Pty Ltd
- Woolgoolga Rainforest Products
Appendix 3: American Indian Foods-Certification Application

The individual, Tribe or Indian organization named below is applying for a license to use the “Made by American Indians” trademark for the production of agricultural or other Indian made products which have been produced and/or processed by enrolled members of a federally recognized Tribe. This will be an annual license which expires on December 31 of each year. No licensing fee is currently required. (Trademark registration pending in some categories.)

Company Name: ________________________________

Contact Person: ________________________________ Tribal Affiliation: ________________________________

Mailing Address: ________________________________

Company Phone: ________________________________ Email Address: ________________________________

Website Address: ________________________________ Fax: ________________________________

1. What specific product(s) will carry the Trademark?

________________________________________________________________________________________

________________________________________________________________________________________

________________________________________________________________________________________

2. What type of operation do you have? (i.e., small business, entrepreneur, farmers market, farm or ranch operation, cooperative, manufacturing, wholesale, retail, etc.)

________________________________________________________________________________________

________________________________________________________________________________________

________________________________________________________________________________________

3. How do you plan to make use of the trademark?

☐ Incorporate trademark on packages?

☐ Attach sticker to existing package?

☐ Combination of imprinted containers and stickers?

☐ Other (please explain):

________________________________________________________________________________________

4. Please provide and attach documentation that verifies the user is a federally recognized Tribal member/entity or an Alaskan Village as defined by law, or at least a controlling share holder with 51% interest or more. (Applies to individuals, Tribes, Tribal Organizations, Firms, Partnerships, Corporations, or Associations applying)

TRIBAL ENTERPRISES/ENTITIES: Proof of tribal ownership includes tribal council resolutions or authorized statement from the current tribal treasurer/leader.

INDIVIDUAL INDIAN PRODUCERS: Proof of tribal enrollment includes tribal identification or enrollment card.

5. Please provide pictures of the products or items you propose to put the trademark on.

________________________________________________________________________________________

________________________________________________________________________________________

________________________________________________________________________________________

Please sign below. Return original to the IAC office and keep a copy for your records. You will be notified yearly for renewal.

Authorized Signature: ________________________________ Date: ________________________________

Print Name: _______________________________________ Title: ________________________________

Return Application form to: Intertribal Agriculture Council | 100 North 27th Street, Suite 500 | Billings, MT 59101

Phone: 406-259-3325 | Fax: 406-256-9980

# Appendix 4: Stakeholder Analysis

<table>
<thead>
<tr>
<th>Key Stakeholders</th>
<th>Key Interests and Responsibilities</th>
<th>Level of Engagement</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Government level</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Federal government</td>
<td>Economic</td>
<td>Legal</td>
</tr>
<tr>
<td></td>
<td>• Collecting revenue through income taxes</td>
<td>• Management of Indigenous Land Usage Agreement (ILUA)</td>
</tr>
<tr>
<td></td>
<td><strong>Product management</strong></td>
<td>• Protection of intellectual property</td>
</tr>
<tr>
<td></td>
<td>• Advancing product research and development (R&amp;D) through tax concessions</td>
<td><strong>Natural resource management</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Promotion</strong></td>
<td>• Reducing carbon emissions</td>
</tr>
<tr>
<td></td>
<td>• N/A</td>
<td>• Management of national parks</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Cultural/societal</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Preserving cultural significate sites on national parks</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Advancing Indigenous social determinates i.e. health, education, employment</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Maintain confidence</strong></td>
</tr>
<tr>
<td>State government (Queensland, Northern Territory and Western Australia)</td>
<td>Economic</td>
<td>Legal</td>
</tr>
<tr>
<td></td>
<td>• Collecting revenue through permits and employment taxes</td>
<td>• Management of Kakadu plum harvest permit system</td>
</tr>
<tr>
<td></td>
<td><strong>Product management</strong></td>
<td><strong>Natural resource management</strong></td>
</tr>
<tr>
<td></td>
<td>• N/A</td>
<td>• Management of state parks</td>
</tr>
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<td></td>
<td><strong>Promotion</strong></td>
<td><strong>Cultural/societal</strong></td>
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<td></td>
<td>• N/A</td>
<td>• Preserving cultural significate sites on state parks</td>
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<td>• Advancing Indigenous social determinates i.e. health, education, employment</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Maintain confidence</strong></td>
</tr>
<tr>
<td>RIRDC</td>
<td>Economic</td>
<td>Legal</td>
</tr>
<tr>
<td></td>
<td>• Increasing profits in the rural industries</td>
<td>• Compliance with the Primary Industries Research and Development (PIRD) Act 1989</td>
</tr>
<tr>
<td></td>
<td><strong>Product management</strong></td>
<td><strong>Natural resource management</strong></td>
</tr>
<tr>
<td></td>
<td>• Investing into research and development (R&amp;D) to be utilised across rural industries</td>
<td>• Enhancing sustainability in the rural industries</td>
</tr>
<tr>
<td></td>
<td><strong>Promotion</strong></td>
<td><strong>Cultural/societal</strong></td>
</tr>
<tr>
<td></td>
<td>• Promoting Australian rural industries domestically and internationally</td>
<td>• N/A</td>
</tr>
<tr>
<td></td>
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<td></td>
</tr>
<tr>
<td><strong>Industry level</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Producers (Growers, pickers and farmers)</td>
<td>Economic</td>
<td>Legal</td>
</tr>
<tr>
<td></td>
<td>• Maximising profits</td>
<td>• Harvesting Kakadu plums within state permit limits</td>
</tr>
<tr>
<td></td>
<td>• Creating cost efficiencies in Kakadu plum harvest and extraction</td>
<td>• Patenting Kakadu plum strains and extraction methods</td>
</tr>
<tr>
<td></td>
<td><strong>Product management</strong></td>
<td><strong>Natural resource management</strong></td>
</tr>
<tr>
<td></td>
<td>• Achieving higher yield of Kakadu plum pulp</td>
<td>• Achieving resource efficiency in Kakadu plum harvest and extraction</td>
</tr>
<tr>
<td></td>
<td>• Investing into research and development of Kakadu plum harvest and extraction</td>
<td><strong>Cultural/societal</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Promotion</strong></td>
<td>• Generating benefits i.e. employment for local community and traditional owners</td>
</tr>
<tr>
<td></td>
<td>• Promoting the multi-facet usage of the Kakadu plum</td>
<td></td>
</tr>
<tr>
<td>Suppliers (Wholesalers, retailers and secondary processors)</td>
<td>Economic</td>
<td>Promotion</td>
</tr>
<tr>
<td></td>
<td>• Maximising profits</td>
<td>• Promoting the multi-facet usage of the Kakadu plum</td>
</tr>
<tr>
<td></td>
<td>• Creating cost efficiencies throughout the supply chain</td>
<td></td>
</tr>
<tr>
<td>Key Stakeholders</td>
<td>Key Interests and Responsibilities</td>
<td>Level of Engagement</td>
</tr>
<tr>
<td>------------------</td>
<td>-----------------------------------</td>
<td>---------------------</td>
</tr>
<tr>
<td><strong>Product management</strong></td>
<td>Enhancing shelf life of Kakadu plums products i.e. cosmetic</td>
<td>Development of domestic and international markets</td>
</tr>
<tr>
<td></td>
<td>Investing into research and development of Kakadu plum products</td>
<td>Legal</td>
</tr>
<tr>
<td></td>
<td>Fulfilling customer demand</td>
<td>Patenting Kakadu plum products and processing methods</td>
</tr>
<tr>
<td><strong>Cultural/societal</strong></td>
<td>Meeting Reconciliation Action Plan (RAP) targets (where applicable)</td>
<td>Natural resource management</td>
</tr>
<tr>
<td></td>
<td>Achieving resource efficiency throughout the supply chain</td>
<td></td>
</tr>
<tr>
<td><strong>Consumers</strong></td>
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<td>Legal</td>
</tr>
<tr>
<td></td>
<td>Product pricing</td>
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</tr>
<tr>
<td><strong>Product management</strong></td>
<td>Receiving high quality Kakadu plum products</td>
<td>Natural resource management</td>
</tr>
<tr>
<td></td>
<td>Ensuring availability of Kakadu plum product</td>
<td>Environmental sustainable sourcing of Kakadu plum products</td>
</tr>
<tr>
<td><strong>Promotion</strong></td>
<td>N/A</td>
<td>Cultural/societal</td>
</tr>
<tr>
<td></td>
<td>Promoting multi-facet usage of the Kakadu plum</td>
<td>Ethical sourcing of Kakadu plum products</td>
</tr>
<tr>
<td><strong>Finance level</strong></td>
<td>Economic</td>
<td>Legal</td>
</tr>
<tr>
<td><strong>Financial institutions (commercial banks, mutual banks and Indigenous Business Australia)</strong></td>
<td>Maximise return on investments</td>
<td>Maintain confidence</td>
</tr>
<tr>
<td></td>
<td>Minimise investment risk</td>
<td>Natural resource management</td>
</tr>
<tr>
<td></td>
<td>Ensuring loan portfolio diversification</td>
<td>Ensuring environmental sustainability (where applicable)</td>
</tr>
<tr>
<td><strong>Product management</strong></td>
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<td>Cultural/societal</td>
</tr>
<tr>
<td></td>
<td>N/A</td>
<td>Maximise social returns (where applicable)</td>
</tr>
<tr>
<td><strong>Promotion</strong></td>
<td>N/A</td>
<td>Meeting RAP targets (where applicable)</td>
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<tr>
<td><strong>Investors (Private equity, angel investors and shareholders)</strong></td>
<td>Economic</td>
<td>Legal</td>
</tr>
<tr>
<td></td>
<td>Maximise return on investments</td>
<td>Collaborate</td>
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<td></td>
<td>Minimise investment risk</td>
<td>Natural resource management</td>
</tr>
<tr>
<td></td>
<td>Ensuring investment portfolio diversification</td>
<td>Ensuring environmental sustainability (where applicable)</td>
</tr>
<tr>
<td><strong>Product management</strong></td>
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<td>Cultural/societal</td>
</tr>
<tr>
<td></td>
<td>N/A</td>
<td>Maximise social return (where applicable)</td>
</tr>
<tr>
<td><strong>Promotion</strong></td>
<td>N/A</td>
<td>Meeting RAP targets (where applicable)</td>
</tr>
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</table>
Appendix 5: Case Study – Bimbia Bonadikombo Community Forest

The complexity of managing natural resources amongst various stakeholders is highlighted in the transitioning of the Bimbia Bonadikombo Forest (BBF) over to community management. The BBF was described as having “weak traditional authority, low government capacity to agree and implement legal forest management and confusing land tenure agreements”. The transition was part of the Mount Cameroon Project, which aimed to “establish the means by which biodiversity could maintained and the livelihoods of local resource users improved”.

An Operational Committee (OC) was established, consisting of various community stakeholders, to examine the factors effecting the generation and sharing of benefits, of the proposed community forest. The 4Rs tool was used to analysis stakeholders’ rights (legal, cultural, societal), responsibilities (environmental, legal, cultural), revenues (income, employment, benefits) and relationships, to demonstrate the interdependence and interaction between different stakeholders to create a basis for future negotiation.

The OC narrowed down the potential stakeholders to 18 important clients of the proposed community forest, and analysed their current rights, responsibilities and revenues (benefits). The table below shows 9 of 18 key stakeholders, with key points and relative scores (1= least important, 5= most important) recorded against their current rights, responsibilities and revenues (benefits).

Table 2: Stakeholder rights, responsibility and revenue analysis

<table>
<thead>
<tr>
<th>Stakeholder</th>
<th>Rights</th>
<th>Score</th>
<th>Responsibility</th>
<th>Score</th>
<th>Revenue (benefit)</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Charcoal Burners</td>
<td>Part access</td>
<td>2</td>
<td>Registered with OC</td>
<td>2</td>
<td>Direct income</td>
<td>4</td>
</tr>
<tr>
<td>Timber Exploiters</td>
<td>Part access</td>
<td>0.5</td>
<td>None</td>
<td>0</td>
<td>Direct income - timber</td>
<td>4</td>
</tr>
<tr>
<td>Firewood collectors</td>
<td>None</td>
<td>0</td>
<td>None</td>
<td>0</td>
<td>Direct income, resource</td>
<td>4.5</td>
</tr>
<tr>
<td>CDC (state-owned plantation company)</td>
<td>Rightful leasehold owners</td>
<td>5</td>
<td>Ensure proper land management</td>
<td>1</td>
<td>None</td>
<td>0</td>
</tr>
</tbody>
</table>


132 Ibid.

133 Ibid.

134 Ibid.
<table>
<thead>
<tr>
<th>Chiefs</th>
<th>Authorise access to all resources</th>
<th>3</th>
<th>Custodians; Monitor</th>
<th>2</th>
<th>Fees; Gifts</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farmers</td>
<td>Access to land; Participation/decision making</td>
<td>2</td>
<td>Implement land use plan (tree planting); Registration</td>
<td>1</td>
<td>Crop sales; Crop consumption</td>
<td>5</td>
</tr>
<tr>
<td>Ministry of Environment and Forest (MINEF)</td>
<td>Supervision; Management</td>
<td>4</td>
<td>Control exploitation; Collect government taxes; Community forest procedure</td>
<td>2</td>
<td>Auction sales revenue; Exploitation fees</td>
<td>3.5</td>
</tr>
<tr>
<td>BBNRMC</td>
<td>Management; Authority; Negotiate on behalf of the community; Sanctions</td>
<td>3</td>
<td>Implement land use plan; Monitoring and control; Establish community forest</td>
<td>3</td>
<td>Allowances; Training; Gifts; Informant fees</td>
<td>2</td>
</tr>
<tr>
<td>Traditional Doctors</td>
<td>User right; Participation</td>
<td>1</td>
<td>0</td>
<td>Consultation fees; Treatment; Herb sales</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

Next, the interests and responsibilities of key stakeholders were categorised into the following six attributes:

1. **Economic:** Stakeholders economic interests and/or responsibilities derived, directly or indirectly, from the Kakadu plum industry i.e. collection of income tax.
2. **Product management:** Stakeholders interests and/or responsibilities in relation to the product management of the primary and secondary Kakadu plum products i.e. research and development into Kakadu plum commercial properties.
3. **Promotion:** Stakeholders interests and/or responsibility in relation to the promotion and marketing of the Kakadu plum products i.e. promoting of the medical and multi facet use of the Kakadu plum.
4. **Legal:** Stakeholders legal interests and/or responsibility i.e. compliance with wild harvest permits.
5. **Natural resource management:** Stakeholders legal rights and/or responsibilities in relation to management of natural resources such as land and water i.e. ensuring the perpetuity of the land.
6. **Cultural/societal:** Stakeholders cultural and societal rights and/or responsibilities i.e. meeting Reconciliation Action Plans (RAP).

The key stakeholders were assessed upon to the level of impact the Kakadu plum industry has on them and the level of influence they have on the Kakadu plum industry, which will determine the stakeholders’ level of involvement in the development of the potential business model:

1. **Collaborate:** High level of influence and high level of impact
2. **Maintain confidence:** High level of influence and less level of impact
3. **Keep informed:** Less level of influence and high level of impact
4. **Monitor and respond**: Less level of influence and less level of impact

The resulting stakeholder analysis is shown in Appendix 4.

The stakeholder analysis shows an inverse relationship between the stakeholders’ relative revenues (benefits) and their respective rights and responsibilities. The table below shows that the stakeholders currently benefiting the most were resources user, such as firewood collectors, whereas stakeholders with more responsibilities and greater rights, such as chiefs, were benefiting very little from the current situation.  

Table 3: Stakeholder Ranking by responsibilities and benefits

<table>
<thead>
<tr>
<th>Rank</th>
<th>Greatest Rights</th>
<th>Most responsibilities</th>
<th>Most benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Cameroon Development Corporation (CDC)</td>
<td>MCP</td>
<td>Farmers/fishers</td>
</tr>
<tr>
<td>2</td>
<td>MINEF</td>
<td>BBNRMCC</td>
<td>Firewood/traditional doctors</td>
</tr>
<tr>
<td>3</td>
<td>MCP</td>
<td>MINEF/villages/chiefs/charcoal burners/LUC</td>
<td>Timber/charcoal</td>
</tr>
<tr>
<td>4</td>
<td>BBNRMCC/chiefs</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The OC then reviewed the relationships between the key stakeholders, and created a relationship matrix to show the status of the current relationships on a scale of ✓ excellent; ✓ fair; X poor; - no relationship.

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Table 4: Stakeholder relationship matrix

<table>
<thead>
<tr>
<th></th>
<th>Chiefs</th>
<th>Farmers</th>
<th>MINEF</th>
<th>BBNRMC</th>
<th>Villages</th>
<th>Admin</th>
<th>LUC</th>
<th>Trad. Doc</th>
<th>Charcoal</th>
<th>Timber</th>
<th>Fuelwood</th>
<th>Hunters</th>
<th>MCP</th>
<th>MINAGRI</th>
<th>CDC</th>
<th>Elites</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chiefs</td>
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<td>✓</td>
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</table>

The findings from the 4Rs analysis led the OC to focus on improving relationships between the key stakeholders, and to identify potential entry points to start new relationships or negotiations. The OC worked collaboratively with charcoal burners, who work with and depended upon the timber exploiters, to bring timber exploiters into the community forest process through charcoal burners group. In addition, the OC used the good relationship of the elites with CDC to help release land to the community.

Furthermore, the finding from 4Rs analysis led to the need for further clarification of technical requirements before setting rates for resource rights and benefit sharing. The following criteria was established for the benefit-sharing mechanisms:

- Agreeing ‘quota’ of each valuable resource, which are allocated to users over a set time;
- Agreeing an equitable system for access by user to agreed quotas, managed by independent government agency based on payment of fees, customary entitlement, and accountability.

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138 Ibid.
139 Ibid.
140 Ibid.
• Cost-benefit analysis of single resources to inform the setting of appropriate fees and rates for permits.
• Establishing a Community Development Fund, which would derive a proportion of profits from the permit system, which contribute to the maintenance and sustainable use of the community forest.141

The key findings from the 4Rs process included:

• Compensating stakeholders who take on responsibilities for resource management as well as granting rights for resource users;
• Increasing rights and revenues of stakeholder based on incentives to take on increased responsibility in forest management.
• Creating new relationships and alliances based on rational analysis of all the stakeholders’ situation, needs and interests.
• The need for community involvement at all stages of the community forest process. This was evident in the evolving role of the OC, which consisted of various community stakeholders, went from a potential self-interest group into a community broker. This was the result of their preliminary stakeholder analysis conducted by the OC showed the independent community broker based on the failure of government agencies to establish control of forest resources. The OC was able to enact more proactive stakeholder management by building positive relationship with difficult clients i.e. farmers (see relationship matrix) and anticipate opportunities, problems and conflicts arising from the proposed changed to forest management based on the proposed impact on all relevant stakeholders.142

Learnings for Kakadu Plum

Based upon the key findings from the development of the Bimbia Bonadikombo community forest and capacity gaps identified in Kakadu plum industry as part of the stakeholder analysis, two relevant recommendations are offered:

• establish a producers association, and
• embed an access and benefit sharing framework into a national Kakadu plum permit system.

Based upon the stakeholder analysis conducted, there is currently an absence of a producers’ association to consolidate and coordinate production to create efficiencies in the supply chain.143 This is evident in success of the multi-million dollar cut flower, tea tree oil and macadamia nut industries, each having producers association in most states and being represented by a national peak body.144 The role of the producer association would include:

• Sharing costs in relation to research and development, marketing and certification amongst producers
• Strengthen tenure over Kakadu plum trees and land to ensure sustainable harvest
• Assisting in the establishment of local governance regimes at the community level to create flexible production methods that satisfy social, cultural and business obligations

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141 Ibid.
142 Ibid.
144 Ibid.
- Develop quality control protocols
- Established research and development funds
- Coordination production of the Kakadu plum to offer competitive pricing.\textsuperscript{145}

\textsuperscript{145} Ibid.
Appendix 6: Detailed Research on Business Model Considerations

Access and Benefit Sharing

The access and benefit sharing for the Kakadu plums are embedded in the permit system for each state, which require mutually agreed terms with the ‘provider’ of the biological resources with consideration exchanged between the parties. In reviewing the patent application for Mary Kay Inc., questions were raised around the suppliers of Kakadu plums, who provided the genetic material necessary for the intensive R&D required for a patent to be granted. When Mary Kay Inc. was questioned it would not publicly name the suppliers only stating that it was ethically sourced from the Northern Territory. This raised questions as to the benefits, if any, which might accrue to Indigenous people. The Mary Kay Inc. patent on the Kakadu plum was rejected by IP Australia on the grounds of lack of novelty and obviousness.

The topic of access and benefit sharing, particularly as it relates to genetic resources, has been a topic of international discussion for some time. It was a particular focus of the Sixth Meeting of the ‘Conference of the Parties (COP) to the Convention on Biological Diversity,’ held in the Netherlands in 2002. This particular meeting led to the formation of the world-renowned “Bonn Guidelines”.

International Framework on Access and Benefit Sharing

The “Bonn Guidelines on Access to Genetic Resources and fair and equitable Sharing of the Benefits arising out of their Utilisation” are an international framework, adopted by 180 countries, which identifies the specific steps in the access and benefit-sharing process. The guidelines have the triple objective of conserving biological diversity, using natural resources sustainably, and fairly and equitably sharing benefits deriving from the use of genetic resources. The guidelines’ key principal is ‘prior and informed consent,’ which dedicates consent from the relevant stakeholders, in particular Indigenous communities, to be sought prior to the resource negotiation process and information to stakeholders in a culturally appropriate manner in order to make informed decisions.

The guidelines also provide basic requirements for mutually agreed terms of natural resource negotiation which include (but not limited to):

- type and quantity of genetic resources, and the geographical/ecological area of activity
- any limitations on the possible use of material
- whether the genetic resources can be transferred to third parties and under what conditions
- recognition of the sovereign rights of the country of origin


147 Ibid.


150 Ibid.
capacity-building in various areas to be identified in the agreement.\textsuperscript{151}

The diagram below is a graphical representation of Bonn guideline in action, showing input of tradition knowledge, prior and informed consent along with mutual agreed terms between the contracting parties and benefits flowing to the relevant stakeholders.\textsuperscript{152}

\begin{figure}[h]
\centering
\includegraphics[width=0.5\textwidth]{figure20.png}
\caption{The Bonn Guidelines}
\end{figure}

\textbf{Value architecture}

An effective business model is highly dependent upon the value chain that sustains it.\textsuperscript{153} There are two parts to a business value chain, and the first includes the activities that are associated with creating and designing a product, purchasing raw materials and manufacturing. The second step involves the activities associated with selling a product, such as reaching and selling to customers, transacting sales and distribution.\textsuperscript{154}

Due to the unique value chain and needs of the Kakadu Plum industry in the Northern Territory, it is necessary to identify potential business models going forward to ensure the business meets the needs of all stakeholders, both internal and external.

\textsuperscript{151} Ibid.
\textsuperscript{152} Ibid.
Shared Value

Shared value is a management strategy in which companies find business opportunities in social problems. While philanthropy and CSR focus efforts focus on “giving back” or minimising the harm business has on society, shared value focuses company leaders on maximizing the competitive value of solving social problems in new customers and markets, cost savings, talent retention, and more. To qualify as shared value, there must be an identifiable economic benefit to the company as well as measurable impact on a social or environmental issue. This particular business model can also be useful within a social enterprise to increase reach and ultimately desired impact. The shared value concept is demonstrated in the graphic below.

![The Shared Value Model](image)

**Figure 21: The Shared Value Model**

Business opportunities from shared value can include:

1. **Reconceiving products and markets**
   
   Create new products and services for existing or new markets, based on collaboration with customers and community stakeholders to understand societal needs.

   **Example:** Life insurance company AIA Australia’s ‘Vitality Program’ targets preventative health problems by incentivising customers to live a healthy lifestyle through a rewards program and lower premiums. This not only meets social needs by improving the health of the customer base, but this also results in lower claims costs for the company.  

2. **Redefining productivity in the value chain**
   
   Work with suppliers and internal/external stakeholders to improve processes, quality, sustainability, productivity, social outcomes and competitive advantage.

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Example: NAB created NAB Assist, incentivising and training all collections employees to recognise, manage, and proactively assist customers in financial hardship. This significantly reduced loan defaults and costs for the bank, and increased the number of clients that sought advice before a collections event.157

3. Enabling local cluster development

Facilitate the clustering and sustainable development of the market and geographic environments in which the company operates.

Example: Bendigo and Adelaide Bank created their Community Bank model, supporting self-selecting communities to run their own branches as franchises, leveraging the bank’s financial services, infrastructure and expertise, whilst reinvesting portions of the revenue into the community to drive long-term growth.158

Shared value has the potential to reshape capitalism and its relationship to society, by driving the next wave of innovation and productivity growth in the global economy. There are immense human needs that must be met, large new markets to be served, and the internal costs of social deficits—as well as the competitive advantages available from addressing them. Attaining the ideal shared value end state will require managers to develop new skills and knowledge and governments to learn how to regulate in ways that enable shared value, rather than work against it (Porter and Kramer 2011).

Figure 22: Social Needs and Economic Value Creation159

Shared value is not:
- Sharing the value already created
- Personal values
- Employee engagement
- Corporate value systems (although it may inform them)
- Balancing stakeholder interests (community or stakeholder engagement)
- Philanthropy or CSR (in these cases, an organisation’s social contributions are not necessarily intrinsic to business value)

The Kakadu Plum industry presents a perfect opportunity for utilising a shared value model, due to the industry’s heavy involvement with remote and disadvantaged communities. Kakadu plums should also set their value for the long term to get the best outcomes, although it is noted that measuring the impact of social value, and monitoring social progress, is difficult.

Reporting

Businesses are required to report at least annually on their financials and other progress, and the form of the business has a large bearing on these results. For example, a for-profit corporation and a social enterprise model in the same industry are likely to report very different financial, social and environmental returns.

In the past decade, focus has shifted significant from reporting only financial results, to sustainability also. However, measuring the degree to which an organization is being sustainable or pursuing sustainable growth can be difficult.¹⁶⁰

Triple Bottom Line Reporting

John Elkington was the first to coin the term ‘triple bottom line,’ when he strove to measure sustainability during the mid-1990s by encompassing a new framework to measure performance in corporate America. This triple bottom line (TBL) accounting framework went beyond the traditional measures of profits, return on investment, and shareholder value to include environmental and social dimensions. By focusing on comprehensive investment results—that is, with respect to performance along the interrelated dimensions of profits, people and the planet—triple bottom line reporting can be an important tool to support sustainability goals.¹⁶¹

There is a strong argument that triple bottom line or building sustainable businesses creates more profitable and successful business. Pursuing environmental and social objectives doesn't have to be at the expense of financial objectives and often is reinforcing.\footnote{Trumpold, Ruth. '8.1 Sustainable Development', Design Technology, <http://www.ruthtrumpold.id.au/destech/?page_id=1375>}

**Sustainability Reporting Standards**

Despite the significant uptake of triple bottom line and other sustainability reporting in the past decade, there exists no universal system to monitor progress against social and business benefits. However, there are numerous organisations worldwide attempting to develop an internationally-consistent measurement system. Two of these organisations are the:

1. **Sustainability Accounting Standards Board (SASB):** based in San-Francisco, the SASB mission is to “set industry-specific standards for corporate sustainability disclosure, with a view towards ensuring that disclosure is material, comparable, and decision-useful for investors.” \footnote{Ibid.}

2. **International Integrated Reporting Council:** based in London, the IIRC’s mission is to establish integrated reporting and thinking within mainstream business practice, as the norm in the public and private sectors. This is to align capital allocation and corporate behaviour to wider goals of financial stability and sustainable development through the cycle of integrated reporting and thinking. \footnote{Sustainability Accounting Standards Board, 2017, ‘Welcome’, <https://www.sasb.org/>.

Both of these organisations are a work in progress.\textsuperscript{166} In the meantime, organisations can estimate the economic and social return of initiatives by anticipating how a degree of change in a social condition will drive profits, through either incremental sales or reduced costs, and then linking those benefits to the resources needed to achieve them. It is an iterative process that considers how much social change is needed to unlock business value, strategies for achieving that change, and the possibility of getting others to invest in the initiative.\textsuperscript{167}

During its early stages, the Kakadu Plum industry may lack the expertise to develop an in-depth and cost-effective solution to a social problem of interest. It may be appropriate for the industry to fund independent entrepreneurs to tackle this challenge; the industry can learn from their efforts and acquire their solutions.

**Policy Considerations**

It is imperative to consider the overarching policy landscape and priorities, both nationally and internationally, prior to the examination of an appropriate business model.

*The Australian policy landscape*

The Commonwealth Government considers Indigenous economic development to be 'at the heart of the national agenda', and have committed to working with Aboriginal and Torres Strait Islander peoples to develop clear pathways to turn business development ideas into 'viable, sustainable businesses.' These businesses are intended to contribute to the broader wealth of the nation, and 'generate employment opportunities' and 'improve social outcomes' for Aboriginal and Torres Strait Islander Australians.\textsuperscript{168}

The Commonwealth Government is also committed to the development of the Indigenous Business Sector, for example through the Indigenous Procurement Policy. While the Commonwealth Government’s intentions are consistent with international development objectives, it is crucial that national, state and territory policies, legislation and regulation should also be consistent in order to ensure the strategy results in sustainable outcomes.

*The international development framework*

International policy plays an important role in the operating environment of Indigenous businesses in Australia. Of particular relevance is the international human rights framework, which ascribes rights to persons within member nations. The central objectives of these policies are Indigenous peoples’ rights to development and self-determination, and these are supported by the *Declaration on the Right to Development*\textsuperscript{169}, the *Universal Declaration on Human Rights*\textsuperscript{170}, the *United Nations Declaration on the Rights of Indigenous Peoples*\textsuperscript{171} (the
Declaration), and the *International Covenants on Economic, Social and Cultural Rights*, and *Civil and Political Rights*; all of which have been endorsed, adopted or ratified by Australia.

Two additional frameworks to consider are the *Protect, Respect and Remedy Framework*, the *United Nations Sustainable Development Goals* and the *International Labour Organisation (ILO) Convention 169*.

A summary of the instruments that should underpin an Indigenous economic development model are shown below.

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**Figure 24: Human rights framework for business model development**

**The Protect, Respect and Remedy Framework**

The United Nations adopted the “Protect, Respect and Remedy Framework” in 2008, after several years of research into aligning human rights and business interests. This Framework identifies the responsibilities of business in relation to human rights, and is underpinned by three principles:

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- Protect - the State duty to protect against human rights abuses by third parties, including business, through appropriate policies, regulation, and adjudication
- Respect - the corporate responsibility to respect human rights, which means to act with due diligence to avoid infringing the rights of others and to address adverse impacts that occur; and
- Remedy - both State and business responsibility to provide greater access by victims to effective remedy, both judicial and non-judicial.

A Business Reference Guide

In 2013, the UNGC released A Business Reference Guide - United Nations Declaration on the Rights of Indigenous Peoples. The guide is designed to assist businesses to understand, respect, and support the rights of Indigenous Peoples by illustrating how they are relevant to business activities.

The guide encourages companies to consider the rights of Indigenous peoples in their corporate social responsibility policies, such as by ensuring that their operations do not put Indigenous communities at risk of harm, as well as investing in capacity building and working with Indigenous communities and businesses where possible.

An effective business model should be underpinned by these rights and interests as they apply to the business in the context of agreement making and economic development for Indigenous peoples.

Sustainable Development Goals

The Sustainable Development Goals (SDGs) are a set of universal goals that meet the urgent environmental, political and economic challenges facing the planet. They were born at the United Nations Conference on Sustainable Development in Rio de Janeiro in 2012, and came into effect in January 2016.

The SDGs underpin the policies made by the United Nations Development Programme, and specifically aim to eradicate poverty whilst maintaining peace and promoting longevity for future generations. These goals should be used as a guide to apply to new business models globally.

Building from the previous Millennium Development Goals (MDGs), the SDGs are intimately connected and work in the spirit of partnership to ensure the right choices are made in working towards a sustainable future. The Kakadu Plum business model should be underpinned by the SDGs shown below.

Prioritising sustainable development as the central element of the business model:

- contributes to achieving the sustainable development goals
- is consistent with human rights standards and the protect, respect and remedy framework that applies specifically to businesses
- promotes the rights and interests of Indigenous peoples
- contributes to building a positive reputation of CSR for those companies/businesses engaged.

By implementing a business model that incorporates the standards mentioned above, a whole new method of CSR can be achieved, by promoting sustainable development. For Kakadu Plum, this approach can incorporate the element of sustainable farm development into business pursuits with Indigenous peoples. Overall, a societal development model differs to issue-management and traditional stakeholder models by providing a more holistic approach with sustainable development remaining the focus of the organisation.178

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Agriculture knowledge sharing

Information is a vital tool to enable and increase farmers’ livelihoods, provided the farmer can use the information positively. The method by which industry knowledge is obtained and shared is an important consideration for an appropriate business model and its structure. The model chosen must consider and understand how best to attract and retain this knowledge.

Research from Commonwealth Bank shows that Australian farmers continue to seek the wisdom of their parents when learning how to run their farm businesses, even as the sector becomes more complex and globalised. This intergenerational link is very strong and is a trait not seen to this extent across other business sectors. The research indicates that parents are key first teachers of farm business across all states and commodity types.

However, although generational transfers of knowledge is the most common method, farmers are now turning to other farmers for knowledge, both domestically and internationally. As a result, knowledge sharing forums have been convened to promote the exchange of agricultural information among farmers, using participatory peer-to-peer education and learning. These forums become a platform where government organisations, local farmers and the general public can discuss best practices and current challenges.

There has also been a significant increase in farmer knowledge transfer through the growing use of modern and advanced technology. For example, some technology furthers a farmer’s ability to learn from others, and provides a forum for them to post their own findings for others to adapt or avoid. By embracing such technological advancements, farmers are able to spend more time farming and producing for the consumer, diversify their income-generating activities, and ultimately achieve bigger returns by learning from others’ mistakes and reducing “trial and error”.

A further consideration is that commercial farming knowledge is not all that is being used; there is an increasing shift to towards understanding traditional knowledge to enhance sustainability. Traditional knowledge passed down through generations is a valuable and unique resource to all cultures and societies. How this knowledge can be used to improve development planning and implementation is becoming an increasingly important part of contemporary development practice.

Indigenous Agricultural Knowledge

Indigenous knowledge can be defined as the local knowledge that is unique to a culture or society. Other names include: ‘local knowledge’, ‘folk knowledge’, ‘people’s knowledge’, ‘traditional wisdom’ or ‘traditional science’. This knowledge is passed from generation to generation, usually by word of mouth and cultural rituals, and has been the basis for agriculture, food preparation, health care, education, conservation and the wide range of other activities that sustain societies in many parts of the world.

Indigenous people have a broad knowledge of how to live sustainably. However, formal education systems have disrupted the practical and everyday life aspects of indigenous knowledge and ways of learning, instead replacing them with abstract knowledge and academic ways of learning. Today, there is a grave risk that much indigenous knowledge is being lost and, along with it, valuable knowledge about ways of living sustainably.179

Indigenous agricultural knowledge (IAK) can be analysed for its technical role in food production strategies, and for its role as cultural knowledge producing and reproducing mutual understanding and identity among the members of a farming group. IAK can also be approached from the perspective of critical theory, analysing the relationship between knowledge and relations of power, with the goal of liberating indigenous farmers from forms of domination.\(^{180}\)

The United Nations Intergovernmental Panel on Climate Change, in its 2007 assessment, suggests the use of ancient indigenous technologies from the Americas as a means of mitigating the effects of climate change. Evidence indicates that global warming is increasing the frequency and severity of both droughts and inundations.\(^{181}\)

It is argued that early Australia was 'a farm without fences', and a myriad of early journal entries reflected the fact that Indigenous Australians did cultivate the land. The key point is that through the use of Indigenous farming methods, farmers can organise the landscape so as to make those resources more predictable and accessible when needed.\(^{182}\)

It is evident that Indigenous methods and decision making in the agricultural sector can produce positive and sustainable outcomes, by working with the land rather than on the land. This Indigenous agricultural knowledge is yet to be fully realised, and provides significant opportunities for the Kakadu Plum industry, as a native food industry, in particular.

\(^{180}\) Bebbington, A. Agric Hum Values (1991) 8: 14. doi:10.1007/BF01579652


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