



**Report to Department of Agriculture, Water
and the Environment**

DROUGHT RESILIENCE AND INNOVATION IN RURAL AND REMOTE FIRST NATIONS COMMUNITIES

GAPS, BARRIERS, AND OPPORTUNITIES

FINAL REPORT

June 2022



Terri Janke and Company acknowledge the First Nations people of Australia as the traditional custodians of the lands and waters on which we live and work, and everywhere in Australia. We offer our respect to the Elders of this Country and extend that respect to First Nations Elders past, present and emerging.

Acknowledgments

This report was prepared by Dr Terri Janke and Laura Melrose of Terri Janke and Company. Support and guidance during consultation was provided by Clara Klemski and Anika Valenti.

Language

First Nations peoples may refer to themselves and be referred to by others in a variety of ways, including as Aboriginal and Torres Strait Islander people; Indigenous people; collectively as First Nations, First or Indigenous Australians or Australia's First Peoples; and individually according to language or geo-cultural community groups.

This document prefers the term First Nations peoples, though terms will be used interchangeably throughout. When working with specific communities or language groups, it is advisable to seek guidance from those in authority about the respectful and appropriate language protocols.

Cultural notice

First Nations readers should be aware that this document may contain the names of deceased Aboriginal and Torres Strait Islander peoples.

Contents

Executive Summary	4
1 Introduction	5
1.1 Background.....	5
1.2 Indigenous Cultural and Intellectual Property	6
1.3 Integrating Indigenous knowledge.....	11
2 First Nations Innovation and RDEA&C	12
2.1 What is RDEA&C?	12
2.2 How do rural and remote First Nations communities currently use RDEA&C?	12
2.3 Integrating and expanding Indigenous knowledge	21
3 Indigenous Business in Remote Australia	21
3.1 Background.....	21
3.2 Demographics.....	22
3.3 Indigenous entrepreneurship	25
3.4 Existing entities in remote Australia	26
3.5 Factors for success in First Nations business	26
4 Barriers to Innovation in Remote Australia	27
4.1 Education.....	27
4.2 Trust	29
4.3 Land and waters	30
4.4 Resourcing	31
4.5 Governance and structure.....	33
4.6 Community wellbeing.....	35
5 Summary of Opportunities and Recommendations	36
6 Appendices	38
6.1 Methodology	38
6.2 Literature Review.....	38
6.3 Acronyms and initials	43

EXECUTIVE SUMMARY

First Nations people and communities have unique and interconnected ways of doing, being and knowing. Underpinning everything is an understanding of the connections between people, culture and Country. Indigenous heritage links to the past but is also a vibrant, dynamic and living cultural practice. Any works, projects or partnerships involving First Nations people and culture requires respect and understanding of the holistic and all-encompassing nature of Aboriginal and Torres Strait Islander cultures.

Indigenous Cultural and Intellectual Property, or **ICIP**, is a concept and a mechanism for understanding, recognising and protecting cultural values. ICIP may often be referred to as traditional knowledge or Indigenous knowledge, though really it encompasses much more than this. ICIP refers to all aspects and elements of Indigenous peoples' cultural heritage, and the rights that Indigenous people hold in relation to that cultural heritage. The role of ICIP is crucial to an analysis of the gaps, opportunities and barriers to Indigenous business and innovation in remote and regional communities.

First Nations peoples are concentrated in rural and remote regions of Australia. According to the Australian Bureau of Statistics, 38.9% of Indigenous people live in regional and remote areas of Australia, compared to 9.5% of the non-Indigenous population.¹

Indigenous business in Australia is a growing sector. Many successful businesses have been started and expanded by First Nations people in remote and rural areas of Australia, often focusing on bringing economic development and opportunity to their communities. Factors in successful Indigenous businesses include community control, strong cultural connections, local employment, good governance, flexibility, and access to funding.

Indigenous people and communities are demonstrating innovation in a wide variety of sectors. Community groups and First Nations organisations are working in research and development (**R&D**) and taking advantage of commercial opportunities to bring economic benefit and socio-cultural advancement to their local areas, and wider communities. Some areas in which this innovation has occurred include cultural fire, land and sea country management, native nurseries and horticulture, the bushfoods and bush medicine industry, education, technology, language, arts, health, and renewable energies.

Despite these examples of innovation, First Nations people in business face considerable adversity in remote and rural communities. These include impacts of past economic marginalisation and policies to restrict Indigenous wealth and economic growth opportunities, as well as the ongoing impact of poor education, employment and health outcomes, and higher rates of incarceration. Barriers to Indigenous innovation include lack of education, skills and training, limited inter-cultural competency and literacy, lack of trust in non-Indigenous partners and projects, restrictions associated with funding sources, low visibility impacting resource availability, limited access to services and technology, poor corporate governance, and impacts associated with low community wellbeing and social disadvantage.

Improvement in this sector requires increased access to funding, facilitating knowledge sharing and capacity building, support to access services and develop skills on Country and

¹ Australian Bureau of Statistics, *Estimates of Aboriginal and Torres Strait Islander Australians*, June 2016 Census (online, released 31 August 2018) <https://www.abs.gov.au/statistics/people/aboriginal-and-torres-strait-islander-peoples/estimates-aboriginal-and-torres-strait-islander-australians/jun-2016>.

in community, extension of existing technologies and innovative industry practices to remote communities, and recognising the value and importance of strong cultural connections and community wellbeing not only for social goals, but also organisational and commercial ones.

1 INTRODUCTION

1.1 Background

The Future Drought Fund (FDF) provides secure, continuous funding for drought resilience initiatives. \$100 million from this \$5 billion dollar fund is made available each year to help Australian farms and communities prepare for the impacts of drought.

The department's FDF Drought Resilience Research and Adoption Program routinely assesses National Drought Resilience Research and Adoption priorities. This helps ensure future drought resilience research, development, extension, adoption, and commercialisation (RDEA&C) activities stay focused on national priorities and the needs of primary producers and rural and remote communities.

Terri Janke and Company (TJC) is a 100% Indigenous owned and run firm of lawyers and consultants, with expertise in Indigenous engagement and Indigenous Cultural and Intellectual Property (ICIP). The firm is led by Dr Terri Janke (Solicitor Director), a Wuthathi/Meriam woman and multiple award-winning international expert in protection of Indigenous knowledge and ICIP.

TJC brings a First Nations-led lens and perspective to the work of the FDF and has been engaged by the department to deliver a desktop research project to identify gaps, barriers and opportunities for drought innovation activities in rural and remote Indigenous communities. This report discusses the research outcomes and analysis through the lens of best practice engagement with First Nations peoples, including the role of ICIP in Indigenous innovation and commercialisation, which a particular focus on rural and remote communities. The sections of the report include:

1. **Introduction** – a background of the project, and introduction to ICIP and the existing laws and protection frameworks in Australia;
2. **Indigenous Business in Remote Australia** – a characterisation of Indigenous corporations and organisations in rural and remote communities, including a discussion of factors of success;
3. **First Nations Innovation and RDEA&C** – consideration of some examples and sectors where rural and remote Indigenous communities currently use RDEA&C, including case study examples;
4. **Barriers to Innovation in Remote Australia** – a breakdown of identified barriers to innovation in rural and remote communities, including associated opportunities for improvement and mitigation;
5. **Summary of Opportunities and Recommendations**
6. **Literature Review**

1.2 Indigenous Cultural and Intellectual Property

All engagement with Aboriginal and Torres Strait Islander people requires understanding of and respect for Indigenous Cultural and Intellectual Property, or **ICIP**. ICIP may often be referred to as traditional knowledge or Indigenous knowledge, though really it encompasses much more than this. ICIP plays a pivotal role in Indigenous innovative capacities.

1.2.1 What is ICIP?

ICIP refers to all aspects and elements of Indigenous peoples' cultural heritage, and the rights that Indigenous people hold in relation to that cultural heritage. In terminology, 'ICIP' is often used interchangeably with 'cultural heritage' and vice versa.

ICIP includes:

- Traditional knowledge (**TK**) (including scientific, agricultural, technical and ecological knowledge, ritual knowledge),
- Traditional cultural expressions (**TCEs**) (including stories, artworks, designs and symbols, literature and language),
- Performances (ceremonies, dance and song),
- Cultural objects (including, but not limited to arts, crafts, ceramics, jewellery, weapons, tools, visual arts, photographs, textiles, contemporary art practices),
- Ancestral remains (human remains and tissues),
- Cultural environment resources (including minerals and species),
- Secret and sacred material and information (including sacred/historically significant sites and burial grounds), and
- Documentation of Aboriginal and Torres Strait Islander peoples' heritage in all forms of media such as films, photographs, artistic works, books, reports and records taken by others, sound recordings and digital databases.²

ICIP incorporates both tangible (sites, objects) and intangible (knowledge, oral stories, performances) elements.

Understanding ICIP requires respect for cultural protocols around knowledge holding, cultural authority, permissions, and communal ownership. Aboriginal and Torres Strait Islander heritage is a dynamic, living heritage that is handed down from generation to generation, which means that modern and emerging knowledges that have been developed by Indigenous people based on history and culture can also be classified as ICIP.

ICIP is captured under Article 31 of United Nations Declaration on the Rights of Indigenous Peoples (**UNDRIP**):

*Indigenous peoples have the right to maintain, control, protect and develop their **cultural heritage, traditional knowledge and traditional cultural expressions**, as well as the manifestations of their sciences, technologies and cultures, including human and genetic resources, seeds, medicines, knowledge of the properties of fauna and flora, oral traditions, literatures,*

² Terri Janke, *Our Culture: Our Future – Report on Australian Indigenous Cultural and Intellectual Property Rights* (Report prepared for Aboriginal and Torres Strait Islander Commission and the Australian Institute of Aboriginal and Torres Strait Islander Studies, 1998).

*designs, sports and traditional games and visual and performing arts. They also have the right to **maintain, control, protect and develop their intellectual property** over such cultural heritage, traditional knowledge, and traditional cultural expressions.*³

Under the UNDRIP, Aboriginal and Torres Strait Islander people have the rights to:⁴

- own, control, maintain and expand their ICIP;
- ensure that any means of protecting ICIP is based on the principle of self-determination;
- be recognised as the primary guardians and interpreters of their cultures;
- authorise or refuse to authorise the commercial use of ICIP according to Indigenous customary laws;
- maintain the secrecy of Indigenous knowledge and other cultural practices;
- guard the cultural integrity of their ICIP;
- be given full and proper attribution for sharing their cultural heritage; and
- control the recording of cultural customs and expressions and the particular language which may be intrinsic to cultural identity, knowledge, skill and teaching of culture.

1.2.2 Intellectual property laws

ICIP rights are enshrined in the *United Nations Declaration on the Rights of Indigenous Peoples*, but they are not currently protected under law in Australia. Best practice requires that ICIP be considered and respected in a similar way to intellectual property (IP) rights (including copyright).

Legally, ICIP can be protected under Australian IP laws where it meets the requirements for protection.

Copyright: Copyright protects artistic, literary, dramatic and musical works, as well as film, sound recordings, broadcasts and published editions. It is a requirement that the work be recorded in material form e.g. written down or recorded in some way. In Australia, copyright protects the work for 70 years after the death of the creator. Generally, the owner of copyright is the author, creator or maker of the work (being the person who wrote down, painted, sculpted, etched, photographed, produced or otherwise recorded the work), unless altered by contract. Copyright fails to protect many important elements of ICIP by way of them being not recorded in material form (i.e. dance, songlines, traditional knowledge) or beyond the time period of protection (i.e. ancient rock art).

Moral rights: Moral rights refer to the personal rights of the creator of a copyright work to:

1. Be attributed as the creator of the work,
2. Stop someone else from being credited as the creator, and
3. Ensure that their work is not subject to derogatory treatment (e.g., acts that are harmful to the creator's honour or reputation).

These rights are retained by the creator even where they assign (transfer) or licence their copyright in their work to a third party. Moral rights, like copyright, last for the life of the

³ *United Nations Declaration on the Rights of Indigenous Peoples*, GA Res 61/295, UN Doc A/RES/61/295 (2 October 2007, adopted 13 September 2007) ('UNDRIP').

⁴ Janke (1998) p. 47.

creator plus 70 years. Moral rights are limited to individual creators and are not capable of recognising communal ownership of the ICIP incorporated in a work, such as where a painting depicts a Dreaming story that is held and owned by a whole community.

Patents: Patents protect invented products and methods of manufacture which are novel and include an inventive step. Patents give the patentee control over their invention in the form of exclusive rights over their patented material to exploit the invention, or to authorise another to exploit the invention, for the term of the patent. Patents have ICIP challenge when inventions are derived from traditional knowledge such as medicinal remedies of plants. Any use of Indigenous knowledge should be applied with the consent of the traditional knowledge holders and should result in benefits back to communities.⁵ Patents can be applied as a way to protect traditional methods but are expensive to obtain.

Confidential information: The law of confidential information and trade secrets protects knowledge that is deemed confidential in nature, where the publication of it would cause detriment to the owner of the knowledge. This can apply to secret/sacred information where it is given under a duty to keep it secret.

There are also other forms of IP protection, including design law, plant breeders' rights, and trade marks. Plant breeders' rights can be relevant when considering Indigenous interests relating to traditional ecological knowledge (i.e. medicinal properties in particular plants). Trade marks are often used to protect words and logos, but there are no laws to ensure that Indigenous language words are only trade marked by or with the permission of Indigenous people.

Any use of First Nations material must comply with IP law where applicable. There should also be an appropriate contract in place addressing IP, including any licensing permissions or assignment of ownership.

At the same time, best practice demands that parties identify any ICIP incorporated in the First Nations material and seek cultural permission for use. This may include seeking consent not only from the creator of the work, but also the wider Aboriginal or Torres Strait Islander community, as well as giving proper attribution and sharing benefits.⁶

1.2.3 Best practice protocols for ICIP protection

Where there are gaps in the laws with regard to ICIP, proper protection can be enacted via protocols and contract clauses.

Protocols are a method for implementing best practice standards in the operations of an organisation, industry or government. They can outline a framework for action that must be adhered to by staff or by partners seeking engagement.

Dr Terri Janke has developed the sector-leading True Tracks® Principles for best practice Indigenous engagement. There are ten principles:

- 1. RESPECT** - Aboriginal and Torres Strait Islander peoples have the right to maintain, control, protect and develop their diverse cultures. ICIP rights should be considered in addition to any legal or intellectual property (IP) rights that exist in material that contains ICIP.

⁵ Terri Janke, *True Tracks: Respecting Indigenous knowledge and culture* (2021) NewSouth Publishing, Sydney.

⁶ Janke (2021).

2. **SELF-DETERMINATION** - Aboriginal and Torres Strait Islander people have the right to self-determination in relation to their ICIP. Aboriginal and Torres Strait Islander people must be encouraged and empowered in decision-making processes about projects that involve or affect their ICIP.
3. **COLLABORATION, CONSULTATION AND CONSENT** - Free prior informed consent for use of ICIP should be sought from Aboriginal and Torres Strait Islander peoples. This is best achieved through collaboration and co-design of projects. This includes giving adequate information about the risks and implications of giving consent to use ICIP.
4. **INTERPRETATION AND AUTHENTICITY** - As the primary guardians of their cultures, Aboriginal and Torres Strait Islander people should be involved in any representation or interpretation of their ICIP.
5. **CULTURAL INTEGRITY** - Maintaining the integrity of ICIP is important for the continuing practice of culture.
6. **SECRET, SACRED AND PRIVACY** - Aboriginal and Torres Strait Islander peoples have the right to maintain their cultural practices relating to secret and sacred information and knowledge. The privacy and confidentiality concerning aspects of Aboriginal and Torres Strait Islander people's personal and cultural affairs must also be respected.
7. **ATTRIBUTION** - Aboriginal and Torres Strait Islander people should be acknowledged as the owners and custodians of their ICIP.
8. **BENEFIT SHARING** - Aboriginal and Torres Strait Islander people have the right to share in the benefits for use of their ICIP.
9. **MAINTAINING ABORIGINAL AND TORRES STRAIT ISLANDER CULTURE** - Aboriginal and Torres Strait Islander cultures are not static, and measures need to be taken so that Aboriginal and Torres Strait Islander people can maintain, revitalise and advance their cultures
10. **RECOGNITION AND PROTECTION** - Use Australian law, protocols and policies to recognise and protect ICIP rights.

Other examples of protocols include:

AIATSIS Code of Ethics for Aboriginal and Torres Strait Islander Research: The Australian Institute of Aboriginal and Torres Strait Islander Studies has created the *AIATSIS Code of Ethics for Aboriginal and Torres Strait Islander Research* to ensure that research with and about Australian Indigenous peoples follows a process of meaningful engagement and reciprocity between the researcher and the individuals and/or communities involved in the research.⁷

Our Knowledge Our Way: These caring for Country Best Practice Guidelines give a voice to Indigenous land and sea managers, allowing them to both strengthen their knowledge and build partnerships for knowledge sharing in caring for Country.⁸

⁷ AIATSIS, *Code of Ethics for Aboriginal and Torres Strait Islander Research* (2020)

<https://aiatsis.gov.au/research/ethical-research/code-ethics>.

⁸ NAILSMA and CSIRO, 'Our Knowledge, Our Way guidelines' (2020)

<https://www.csiro.au/en/research/indigenous-science/indigenous-knowledge/our-knowledge-our-way>.

Australia Council for the Arts, *Protocols for using First Nations Cultural and Intellectual Property in the Arts*:

These Protocols are for creative practitioners working with Indigenous artists or Indigenous cultural heritage in their creative practice. Those being funded by the Australia Council grant assessment panels are required to comply with the protocols.⁹

***Collaborative Science on Kimberley Saltwater Country – A Guide for Researchers*:**

This guide was produced by traditional custodians in collaboration with partners and aimed to address shortfalls in existing research practice and to provide consistency for researchers. It provides access to established network of Aboriginal land and seas management professionals, knowledgeable Elders and Aboriginal rangers, and emphasises the need for consent, consultation and collaboration.¹⁰

Screen Australia, *Pathways and Protocols*: A guide to assist all filmmakers working with Indigenous content and communities and provide advice about the ethical and legal issues involved in transferring Indigenous cultural material to the screen. These Protocols are relevant for any projects that involve filming on country.¹¹

1.2.4 Access and benefit sharing laws

Access and benefit-sharing refers to the way in which genetic resources may be accessed, and how the benefits that result from their use are shared between the people using the resources and the people that provide them.

The Nagoya Protocol: The Nagoya Protocol (2014)¹² implements one of the three main objectives of the Convention on Biological Diversity (1992)¹³, which is to promote the fair and equitable sharing of benefits arising from the utilisation of genetic resources. The Protocol contains guidelines for the access to genetic resources, compliance with prior informed consent, and mutually agreed terms. Australia has ratified the Convention on Biological Diversity but has only signed (not ratified) the Nagoya Protocol.

The Bonn Guidelines: The Bonn Guidelines¹⁴ are a set of guidelines to assist users and providers of genetic resources by setting standards in access and benefit sharing strategies. The Guidelines promote the use of negotiating mutually agreed terms between contracting parties (for example, between private parties or the State and Indigenous communities). The Guidelines also promote obtaining free, prior and informed consent from providers. The

⁹ Australia Council for the Arts, *Protocols for using First Nations Cultural and Intellectual Property in the Arts* (2019) <https://australiacouncil.gov.au/investment-and-development/protocols-and-resources/protocols-for-using-first-nations-cultural-and-intellectual-property-in-the-arts/>.

¹⁰ Kimberley Land Council et al, *Collaborative Science on Kimberley Saltwater Country – A Guide for Researchers* (2017) https://www.ipaustralia.gov.au/sites/default/files/kimberley_indigenous_saltwater_science_project_-_copy_of_collaborative_science_on_kimberley_saltwater_country.pdf.

¹¹ Screen Australia, *Pathways & Protocols: a filmmaker's guide to working with Indigenous people, culture and concepts* (2009) <https://www.screenaustralia.gov.au/about-us/doing-business-with-us/indigenous-content/indigenous-protocols>.

¹² *Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the 1992 Convention on Biological Diversity*, opened for signature 29 October 2010.

¹³ *Convention on Biological Diversity*, opened for signature 5 June 1992, 1760 UNTS 79, (entered into force 29 December 1993).

¹⁴ Secretariat of the Convention on Biological Diversity, *Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Sharing of the Benefits Arising out of their Utilization*, (Secretariat of the Convention on Biological Diversity, 2002).

guidelines do not specifically raise Indigenous Knowledge protection, but provide standards for dealing with Indigenous communities, resources and knowledge.

Environment Protection and Biodiversity Conservation Act 1999 (Cth): The EPBC Act and Regulation (2006) regulate access to biological resources in Commonwealth areas via permit. Where access is for commercial or potential commercial purposes, the applicant must enter into a benefit sharing agreement with the relevant access provider, including protection for and recognition of 'indigenous people's knowledge'.

Biodiscovery Act 2004 (Qld): Amended in 2020, the Queensland Biodiscovery Act is the only legislation in Australia that is fully compliant with the Nagoya Protocol. It establishes an access and benefit-sharing framework for biodiscovery, including a traditional knowledge obligation, requiring that biodiscovery entities (e.g. universities, pharmaceutical and research organisations) take measures to use traditional knowledge only under an agreement with knowledge holders. The legislation is accompanied by an explanatory Code of Practice, Traditional Knowledge Guidelines and a Capacity Strengthening Toolkit.¹⁵

See also the *Biological Resources Act 2006* (NT) and the *Nature Conservation Act 2014* (ACT).

1.3 Integrating Indigenous knowledge

1.3.1 Indigenous Data Sovereignty

Indigenous people have conventionally not been involved in setting the agenda for what data is collected, by whom, and for what purpose. Conventional data collection has resulted in the surveillance and control of Indigenous peoples and policies against their interests.¹⁶

The concept of Indigenous Data Sovereignty (**IDS**) arose in response to the treatment of Indigenous people and communities by conventional and colonial data collection and management practices.

IDS requires that Indigenous people have **governance of data** that is generated by state infrastructure, to shift the agenda to give equal weight to Indigenous aspirations rather than just deficits. It also requires access and control of **data for governance**: information that adequately reflects Indigenous cultural diversity, worldviews and priorities.¹⁷

¹⁵ 'Traditional knowledge and biodiscovery', *Queensland Government* (Web Page, 2020)

<https://environment.des.qld.gov.au/licences-permits/plants-animals/biodiscovery/traditional-knowledge>

¹⁶ Lovett, Raymond et al. (2019) 'Good data practices for indigenous data sovereignty and governance'. In A. Daly, S. K. Devitt, & M. Mann (Eds.), *Good Data* (pp. 26–36). Amsterdam: Institute of Network Cultures.

¹⁷ Walter, M. and S. R. Carroll, (2021) 'Indigenous Data Sovereignty, governance and the link to Indigenous policy'. In Walter, M. et al, (eds) *Indigenous data sovereignty and policy* (pp. 1-20) (New York: Routledge, 2021) 10; Smith, D.E. (2016) 'Governing data and data for governance: the everyday practice of indigenous sovereignty'. In Kukutai, Tahu and John Taylor (eds), *Indigenous Data Sovereignty: Towards an Agenda*, CAEPR Research Monograph, 2016/34. Canberra: ANU Press, pp. 117–138.

Maiaam nayri Wingara Indigenous Data Sovereignty Collective and the Australian Indigenous Governance Institute convened the National Indigenous Data Sovereignty Summit in 2018, with more than 40 Indigenous delegates and representatives from Aotearoa New Zealand. The Summit delegates asserted that in Australia, Indigenous peoples have the right to:

- Exercise **control of the data ecosystem** including creation, development, stewardship, analysis, dissemination and infrastructure.
- Data that is **contextual and disaggregated** (available and accessible at individual, community and First Nations levels).
- Data that is relevant and **empowers sustainable self-determination** and effective self-governance.
- Data structures that are **accountable** to Indigenous peoples and First Nations.
- Data that is **protective** and respects our **individual and collective interests**.

18

2 FIRST NATIONS INNOVATION AND RDEA&C

2.1 What is RDEA&C?

The Department has identified the key action areas for increasing drought resilience as research, development, extension, adoption and commercialisation (**RDEA&C**).

Research and development, or R&D, is a strategic necessity for innovation, and successful outcomes from R&D should be communicated widely. In the drought resilience sector, extension and adoption include communicating the benefits of R&D products and assisting the uptake of tools and practices that will help to adapt to drought.

The Department has indicated that due to the wealth of stakeholder organisations already operating in the drought resilience research and development space, including CSIRO, BoM, research institutes and federal and state and territory government agencies, their focus will be on extending already existing tools and strategies to the farm gate and rural, regional, and remote communities.

For First Nations communities, these action areas may have significantly different meaning and applications than for agricultural organisations and government agencies.

2.2 How do rural and remote First Nations communities currently use RDEA&C?

There are some inspiring examples of commercialisation opportunities being advanced by First Nations communities and businesses. Some of these examples are described in this

¹⁸ Maiaam nayri Wingara Indigenous Data Sovereignty Collective and Australian Indigenous Governance Institute (2018), *Indigenous Data Sovereignty Communique*, Canberra, <https://static1.squarespace.com/static/5b3043afb40b9d20411f3512/t/5b6c0f9a0e2e725e9cabf4a6/1533808545167/Communique%2B-%2BIndigenous%2BData%2BSovereignty%2BSummit.pdf>.

section, with case studies extracted, though there may be many more. These examples are not without their challenges, which will be considered in a later section.

2.2.1 Cultural fire in environmental management

Land management through fire and burning presents a unique opportunity for First Nations communities. Being a country prone to bushfires necessarily requires environmental practices and techniques that may reduce the negative impacts of fire. As Aboriginal and Torres Strait Islander peoples have been managing these lands and waters for 60,000 years, their expertise is invaluable.

Cultural burning is an environmental practice based on this wealth of Indigenous ecological knowledge (IEK). Cultural burns consider biodiversity, times of day, seasons and weather patterns, are generally managed on foot and without accelerants, and reduce both needs for large scale hazard reduction burns and risks of uncontrolled bushfires. This results in lower greenhouse gas emissions, better outcomes for local communities, less harm to wildlife and prime conditions for native flora and fauna.¹⁹

CASE STUDY: Wilinggin Aboriginal Corporation, in the North Kimberley region of WA, combines traditional fire management practices with contemporary science to achieve both caring for Country outcomes and commercial benefit. The corporation trains and employs Traditional Owners as fire specialists and rangers who conduct regular savanna burns in return for carbon credits under the federal Emissions Reduction Fund.

The corporation can access commercial benefit from their work by selling carbon credits. The profits are reinvested into fire management operations and programs that support elders to train young rangers, as well as innovations for learning on Country, like incorporating drone technology and engaging pilots for surveying.

Source: ORIC, 'Credit for mitigating climate change' (October 2021)

<https://www.oric.gov.au/publications/spotlight/credit-mitigating-climate-change>

In Australia in 2021, there were at least 29 Indigenous-owned fire management projects and organisations.²⁰ Other similar examples include the Firesticks Alliance, the West Arnhem Land Fire Abatement Project and the Indigenous Carbon Industry Network, all of which use networks of relationships between traditional owners, Indigenous Ranger groups, government, research institutes and private companies to implement IEK in land management.

2.2.2 Bushfoods: blending old knowledge with new technology

IEK of native plants creates considerable opportunity for RDEA&C. Many First Nations people and businesses are engaged in the bushfoods and bush medicine industry, in growing or wild harvesting, farm management, product development, and sales.

¹⁹ Terri Janke, Clara Klemski and Laura Melrose, 'Bushfires, climate change and Indigenous Ecological Knowledge: healing country through holistic environmental management' (2021) *Australian Environment Review*, Vol 36(4), p. 94.

²⁰ Fleur Kingham, "The impact of environmental law on Indigenous women in Australia" (Speech, International Association of Women Judges Biennial Conference, Auckland New Zealand, 8 May 2021) <http://classic.austlii.edu.au/au/journals/QldJSchol/2021/10.html>.

The Kakadu plum is an example of a native food with high commercial value. It has commercial potential both as a food and as a cosmetic ingredient, for having the highest recorded levels of vitamin C, antioxidants, and preservative and antimicrobial properties. First Nations peoples in Australia's top end have been using the Kakadu plum as food and medicine for thousands of years.

The Northern Australia Aboriginal Kakadu Plum Alliance (**NAAKPA**) is an alliance of Aboriginal-owned enterprises supplying Kakadu plum fruit and extracts for the Australian market. NAAKPA currently represents 40%-45% of total Kakadu Plum produced in Australia (2019) with a retail market value of AU\$1.7 million.²¹

CASE STUDY: NAAKPA member organisation Mamabulanjin Aboriginal Corporation is working to expand the Kakadu plum industry. Rather than harvesting wild trees like other member organisations, Mamabulanjin AC is planting orchards and engaging in R&D to increase yields and cultivate tasty harvests.

Mamabulanjin AC is also partnering with the Australian Nuclear Science and Technology Organisation (**ANSTO**) and IP Australia to develop technological methods of communicating information about the provenance of the plums. This involves isotopic and elemental 'fingerprinting' technology and soil analysis for geolocation, and a chain of custody ledger via blockchain to authenticate transactions in a Kakadu Plum app.

These projects have been supported by funding from the Department of Agriculture, Water and Environment (**DAWE**) and the Indigenous Land and Sea Corporation (**ILSC**).

Sources:

- ORIC, 'Bush food, meet tech' (Article, September 2021) <https://www.oric.gov.au/publications/spotlight/bush-food-meet-tech>
- 'ANSTO helps verify the origin of traditional Aboriginal products to benefit consumer confidence and Aboriginal enterprises', ANSTO (13 August 2021)

A discussion of some of the challenges of the bushfoods industry is included in Chapter 4 below.

2.2.3 Nurseries and horticulture

Given that Indigenous people have knowledge of plants, the development of Indigenous nurseries is another way that Indigenous peoples and communities are contributing to drought resilient objectives.

Zena Cumpston's guide to uses of Indigenous plants lists 7 species that are drought tolerant including Weeping Grass, Native Flax and Wallaby Grass.²²

²¹ Australian Nuclear Science and Technology Organisation, 'ANSTO helps verify the origin of traditional Aboriginal products to benefit consumer confidence and Aboriginal enterprises' (Article, 13 August 2021) <https://www.ansto.gov.au/news/ansto-helps-verify-origin-of-traditional-aboriginal-products-to-benefit-consumer-confidence>.

²² Cumpston, Zena (2020) *Indigenous plant use: A booklet on the medicinal, nutritional and technological use of indigenous plants*, Clean Air and Urban Landscapes Hub, The University of Melbourne, Victoria, Australia, <https://nespurban.edu.au/wp-content/uploads/2020/08/Indigenous-plant-use.pdf>.

Since the release of *Dark Emu*, Bruce Pascoe says that both Indigenous and non-Indigenous farmers have become more interested in growing native species such as murrnong, native millet and kangaroo grass.²³ The hard part of this interest and new industry is ensuring that Indigenous peoples benefit from the sharing of their knowledge.

CASE STUDY: The Victorian based First People of the Millewa-Mallee Aboriginal Corporation are working in research and production of drought resilient native crops.

The project (funded by a DAWE FDF Drought Resilience Innovation grant) conducts research in wattles, grasses and yams that can be grown under minimal supervision in the Sunraysia Horticultural Area for use as gluten free flour and foods. The Belar Nursey and Biocultural Resource Centre in Irymple is Indigenous run and provides education and employment to the local Indigenous community.

The rivers and floodplains in Mallee country have been scarred and destroyed by farming. The First People of the Millewa-Mallee Aboriginal Corporation have a Country and Water Plan which aims to repair the natural environment by caring for Country which includes establishing rangers and establishing a native seed bank and nursery. They are working with the Federation of Victorian Traditional Owner Corporations to develop this plan.

Sources:

- Department of Agriculture, Water and the Environment, 'Drought Resilience Innovation Grants (Web Page, accessed 25 April 2022) <https://www.awe.gov.au/agriculture-land/farm-food-drought/drought/future-drought-fund/research-adoption-program/drought-resilience-innovation-grants>
- Tamara Clark, 'Irymple nursery run solely by indigenous community keen to grow', *Sunraysia Daily* (online, 20 April 2021) <https://www.sunrasyiadaily.com.au/farming/4145540/irymple-nursery-run-solely-by-indigenous-community-keen-to-grow>
- First People of the Millewa-Mallee Aboriginal Corporation, *Action Plan 2020*, <https://static1.squarespace.com/static/59c30286e3df28fd2295efbb/t/5ef58fcff22174273c616d73/1593151597366/Low+res+Action+Plan.pdf>

Other nurseries and horticulture projects include:

- **Black Duck Foods, co-founded by Bruce and Jack Pascoe.** In March 2022, Black Duck Foods entered into a partnership with the University of Melbourne-led project, 'Whole-system Redesign of Broadacre Farming of SE Australia'. "This project will demonstrate how pulses can be used as an integral part of crop rotations in grains and graze, and grain farming systems where farm resilience is further enhanced by incorporating native crops and grasses."²⁴ This project has also received grant funding from DAWE.
- **Western QLD traditional custodians, JCU and UQ** – Iningai, Mbarbaram (Atherton Tablelands) and Batavia (Cape York) custodians are working on two parallel projects.

²³ Chan, Gabrielle, "All about the land": drought shakes farming to its Indigenous roots', *The Guardian* (online, 6 October 2018) <https://www.theguardian.com/environment/2018/oct/06/all-about-the-land-drought-shakes-farming-to-its-indigenous-roots>.

²⁴ Southern Farming Solutions, 'University of Melbourne led projects receive \$2.1m through Drought Resilience Innovation Grants' (Article, 21 March 2022) <https://sfs.org.au/article/university-of-melbourne-led-projects-receive-2-1m-through-drought-resilience-innovation-grants>.

They have partnered with James Cook University to turn plants with medicinal properties into saleable remedies, and with the University of Queensland to bring bush fruits and plants to the market, including a nursery and grow-house on Turraburra.²⁵

- **Pundi Produce** – Dominic Smith is an Indigenous farmer growing native foods and botanicals including wattle, river mint, lemon myrtle, quandongs and muntries in the Riverland in South Australia. He also studies nursing and is using knowledge sharing about sustainable farming practices and native foods to support troubled Indigenous youth and people with mental health issues by connecting with country.²⁶
- **Pathways Together Aboriginal Corporation** operates a native nursery in Dubbo and specialises in Aboriginal programs focused on education, employment, mental health and well-being.²⁷
- **Noongar Land Enterprise** were the first Aboriginal grower group in Australia. The group currently represents six Noongar landholding groups, aimed at creating commercial profit from Indigenous-held land including a tree nursery, honey, bush foods, and native revegetation.²⁸

2.2.4 Regenerative land and water practices

The connection with country that is experienced by First Nations people has driven some Indigenous businesses to work toward outcomes of sustainable farming and regeneration of land and waters.

²⁵ Willis, Carli, 'Indigenous custodians work with universities to bring bush foods and remedies to market', ABC News (online, 19 March 2022) <https://www.abc.net.au/news/2022-03-19/bush-foods-remedies-longreach-indigenous-university-project/100921012>.

²⁶ Schremmer, Jessica, 'Aboriginal farmer sees native bush food as pathway to connect with troubled youth', ABC News (online, 1 March 2021) <https://www.abc.net.au/news/2021-03-01/aboriginal-farmer-creates-reconnection-through-native-bush-foods/13194092>; Smith, Dominic, 'Empowering people through education reconnection', *Pundi Produce* (Blog, 30 Aug 2021) <https://pundiproduce.com.au/empowering-people-through-education/>.

²⁷ 'Crown land unlocking 'pathways' for Aboriginal cultural heritage and health', *Mirage News* (online, 25 March 2022) <https://www.miragenews.com/crown-land-unlocking-pathways-for-aboriginal-750892/>.

²⁸ Noongar Land Enterprise, <https://www.noongarlandenterprise.com.au/>; Cornell, Anna, 'Improving On-Farm Biodiversity and Drought Resilience Day at Gunnado', *Northern Agricultural Catchments Council* (Blog, 30 March 2022) <https://www.nacc.com.au/improving-on-farm-biodiversity-and-drought-resilience-day-at-gunnado/>.

CASE STUDY: Beemurra Aboriginal Corporation is the only Aboriginal-run backgrounding business in Western Australia. When first taking ownership of the 1200-hectare property in Yallalie Downs, the original plan was to breed goats, then lease for crops and run sheep, but the returns were low.

Beemurra AC took governance training offered by ORIC and were funded by the then-Indigenous Land Corporation (now the ILSC) to switch to cattle backgrounding. Cattle backgrounding is a gradual transition process to prepare cattle for entering a feedlot and minimising their distress, resulting in them achieving goal weights without delays.

The corporation use rotational grazing to ensure the pastures recover. Now that Beemurra has established a solid commercial basis, it is looking forward to driving regenerative agriculture projects, and supporting young people's cultural connections with country.

Sources:

- ORIC, 'Backgrounding cattle, foregrounding community' (Article, June 2021) <https://www.oric.gov.au/publications/spotlight/backgrounding-cattle-foregrounding-community>

Other opportunities for Indigenous people to be involved in innovation in this sector may include desalination plants, such as those being implemented by the South Australian government to provide potable water to remote Aboriginal communities.²⁹

Traditional custodians are also being called on to guide projects funded by non-Indigenous organisations. Telstra is conducting technology trials to plant and manage the reforestation of 240 hectares of land at Yarrowyck in northern NSW, to store greenhouse gas emissions and improve environmental resilience of the land with the guidance of the Anaiwan and Kamilaroi/Gomeroi peoples.³⁰

2.2.5 Land and sea management

Land and sea management is one of the largest sectors in which Aboriginal and Torres Strait Islander businesses are involved.

Organisations like the Indigenous Desert Alliance offer support for Indigenous rangers by facilitating connections and networking, coordinating projects, holding events and advocating for important issues like fees for service.³¹

Further, research has suggested that funding and support of Indigenous land and sea management programs in remote communities will have 'spill over' contributions to other sectors in the region via several pathways. These include improved skills and experience increasing human capital, trickle-down spending by funded Indigenous initiatives to other

²⁹ Harris, Cecilia, 'Remote SA town's new desalination plant' *Australian Water Association* (online, 24 June 2021) <https://www.awa.asn.au/resources/latest-news/business/assets-and-operations/remote-sa-towns-new-desalination-plant>.

³⁰ Parry, Danita, 'Telstra trials technologies to grow the Australian carbon market', *Telstra* (Media Release, 24 March 2022) <https://www.telstra.com.au/aboutus/media/media-releases/carbon-farm-trial>.

³¹ See for example Commonwealth of Australia, National Indigenous Australians Agency, *Fee for Service in Indigenous Land and Sea Management: Impact Assessment and Analysis* (2018) <https://www.niaa.gov.au/sites/default/files/publications/fee-for-service-accessibility.pdf>

Indigenous-owned goods and service providers in the region, and increasing the productive capacity of the region in general, which influences the productivity of other businesses.³²

2.2.6 Education

Some initiatives by First Nations people include the integration of traditional knowledge in western education.

CASE STUDY: Nyungar elder Clint Hansen is teaching Indigenous land conservation methods at Geraldton TAFE, including rehydrating creeks and rivers, controlled burning in a holistic way, and regenerative agriculture using de-stress stock methods. The course includes practical work on a farm east of Geraldton, where students work alongside the owners to help regenerate the property.

Source:

- Barndon, Glenn, 'Indigenous regenerative land management included in agricultural program at TAFE', ABC News (online, 21 July 2020) <https://www.abc.net.au/news/2020-07-21/indigenous-regenerative-land-education-course-at-tafe/12268326>

2.2.7 Technology

New technologies present great opportunity to First Nations businesses and entrepreneurs, when they have access to them.

CASE STUDY: Cherbourg Aboriginal Shire Council is using artificial intelligence technology to monitor waste and improve recycling.

The Council has partnered with the Peregrine Digital Hub, Cherbourg and Noosa Councils, Advance Queensland and the Indigenous Land and Sea Corporation to create and apply the software for waste management.

"The data analysts segment objects in the images and assign them with the correct category. Over time the software gradually learns to differentiate between objects like aluminium cans and steel tins that can be in various states of disrepair."

Cherbourg is home to about 1,200 people, of whom 98% are Indigenous (ABS, 2016 Census). In addition to the positive environmental outcomes from more efficient waste management, the project has created funding and revenue opportunities as well as employment and upskilling opportunities in an emerging industry for the residents of Cherbourg.

Source:

- 'AI helps Indigenous Council recycle', Local Government Focus (1 November 2021) <https://lgfocus.com.au/news/2021/11/01/ai-helps-indigenous-council-recycle/>
- Cormack, Holly, 'AI tech to put town ahead of the pack', The Chronicle (online, 30 March 2021) <https://www.pressreader.com/australia/the-chronicle-8992/20210330/281797106784797>

³² Jarvis, Diane et al, 'Are Indigenous land and sea management programs a pathway to Indigenous economic independence?' (2018) *The Rangeland Journal*, vol. 40, pp. 423-424.

CASE STUDY: Indigenous digital agency INDIGI LAB collaborated with the NSW National Parks and Wildlife Service to create 360-degree, virtual reality videos aimed at inspiring kids to learn more about Aboriginal culture in the NSW region.

The partnership trained five Indigenous rangers to use the technology and then produced seven videos that explored Sydney Harbour, Katoomba, Kosciuszko National Park, Lake Mungo, Dorrigo National Park and the Coffs Harbour region. The videos comprise language, Dreaming stories, information about plants and animals as well as Aboriginal history that stretches back for thousands of years.

Sources:

- 'Watch: Indigenous Reality adds new dimensions to Virtual Reality', Welcome to Country (16 October 2017) <https://www.welcometocountry.org/indigenous-reality-virtual-reality/>
- 'Aboriginal rangers get hands on with the latest technologies', NITV (14 October 2017) <https://www.sbs.com.au/nitv/culture/article/2017/10/12/aboriginal-rangers-get-hands-latest-technologies>

33

2.2.8 Languages

First Nations languages carry deep spiritual significance and connections to ancestors, Country and values. They may be owned communally and shared by communities or may be subject to specific cultural protocols and restrictions as to their meanings and uses.

Language has been used by Indigenous organisations to empower connection to Country and taking care of species and biodiversity, by linking traditional names of flora, fauna, seasons and other things to western science.

CASE STUDY: Yugul Mangi Rangers and Ngukurr Language Centre have partnered with Macquarie University to enter Western and Indigenous scientific knowledge from South East Arnhem Land into the Atlas of Living Australia (ALA). It provides two-way Indigenous engagement to encourage more Indigenous content, and importantly it creates feedback loops to make the ALA more relevant and useful for Indigenous people.

The Yugul Mangi Rangers, along with Emilie Ens (Macquarie University), the Ngukurr Language Centre, and the community have collected and documented language and knowledge about plants and animals over 6 years. In 2020 they published this knowledge as the *Cross-cultural guide to some animals and plants of South East Arnhem Land*, which is available for purchase.

Source:

- 'Indigenous Ecological Knowledge', Atlas of Living Australia <https://www.ala.org.au/indigenous-ecological-knowledge/>

³³ Case studies provided by Michael Davis, Agribusiness division, Indigenous Land and Sea Corporation, consultation on 26 April 2022.

2.2.9 Arts and culture

First Nations arts and culture is a large industry. Creation and sale of artistic goods like paintings, weavings, photographs, artefacts and tools are an area in which many Indigenous people are engaged in commercial enterprise.

Often, these works carry significant meaning or messages.

CASE STUDY: Pormpuraaw Art & Culture Centre Incorporated has become known worldwide for its artists' creations utilising recycled materials and ghost nets. Ghost nets are plastic fishing nets illegally dumped by commercial fishers at sea, killing fish, birds and other ocean life. Many of these animals, such as crocodiles, sea turtles and barramundi, have significant cultural importance to the people of Pormpuraaw. The artists collect the washed-up ghost nets along the beach and create sculptures representing their totems.

As Pormpuraaw's only export industry the Art Centre provides an opportunity for local artists to earn an income from their art practices. The Centre supports artists through showcasing and selling their works and it acts as a community 'Keeping Place' of local artefacts, photographs, language, stories, art, and other items that need to be preserved and available for future generations.

Sources:

- Pormpuraaw Art & Culture Centre, <https://pormpuraawartculture.com/>
- Australian Museum, 'Ghost net art' (Web Page, 26 May 2020) <https://australian.museum/learn/cultures/atsi-collection/ghost-net-art/>

2.2.10 Health and wellbeing

Indigenous communities are spearheading programs to address food and water security.

CASE STUDY: The Yuwaya Ngarra-li partnership between the Dharriwaa Elders Group, an Association of Aboriginal Elders in Walgett, NSW, and the University of New South Wales are coordinating a community-led program, the 'Walgett Food and Water for Life Program' (WFW4L).

The aim of WFW4L is to improve nutrition and wellbeing outcomes of the local Aboriginal community through sustainable solutions to food and water insecurity, and develop and evaluate a model for improving outcomes in Aboriginal and Torres Strait Islander communities across Australia.

Sources:

- Hart, Ashleigh Chanel et al, 'Indigenous Community-Led Programs to Address Food and Water Security: Protocol for a Systematic Review' (2021) vol. 18(12) *International Journal of Environmental Research and Public Health* 6366 <http://dx.doi.org/10.3390/ijerph18126366>
- A community in action: How Walgett is redefining food systems' (Blog, October 2021) <https://www.dharriwaaeldersgroup.org.au/index.php/yuwayangarrali/38-yn-publications/215-un-food-summit-2021-walgett-case-study>

2.2.11 Renewable energy

Indigenous organisations all over the country are getting involved in funded projects and joint ventures invested in renewable energies. These projects often involve constructing renewable energy facilities such as wind farms on Indigenous owned or managed land.

CASE STUDY: The Northern Territory Indigenous Business Network (**NTIBN**) has partnered with the Octopus Group to create majority Indigenous-owned JV Desert Springs Octopus (**DSO**) and provide low-cost renewable energy to support infrastructure investments in Northern Australia.

DSO will build both an energy grid for the NT as well as support remote off-grid Indigenous communities to shift from diesel power to renewable energies.

Source:

- Brendan How, 'NT's \$50 billion Indigenous renewable energy partnership', *Innovation Aus* (online, 25 February 2022) <https://www.innovationaus.com/nts-50-billion-indigenous-renewable-energy-partnership/>.

In this sector, First Nations groups, unions, industry bodies and academics have collaborated to establish the First Nations Clean Energy Network. They aim to forge partnerships between communities and industry to develop renewable energy projects on Indigenous land to provide reliable power and end energy insecurity.³⁴

2.3 Integrating and expanding Indigenous knowledge

Combining Indigenous knowledge and western science presents a great many benefits for both Indigenous and non-Indigenous people. First Nations groups have the opportunity to explore, revive and share their culture and knowledge base where past colonial practices may have resulted in significant knowledge loss and dispossession. In addition, non-Indigenous organisations such as governments, researchers and other entities can learn and gain from the expertise of the oldest living culture on this planet, who have cared for the land and waters of this country for 60,000 years. In other countries, this knowledge has proven invaluable. In South Africa, a research survey into implementation of Indigenous knowledge in drought risk reduction found that two thirds of respondents relied on Indigenous knowledge in their farming practices and drought risk reduction.³⁵

Having noted this opportunity, it is vital that use and application of Indigenous knowledge is done with the consent and co-design of First Nations communities. Partnering organisations and research bodies should approach First Nations groups with an understanding of ICIP and Indigenous Data Sovereignty, and be prepared to learn and respect any particular cultural protocols that apply to that group.

3 INDIGENOUS BUSINESS IN REMOTE AUSTRALIA

3.1 Background

First Nations peoples are concentrated in rural and remote regions of Australia. According to the OECD territorial definition, 48% of First Nations people live in predominantly rural regions compared to 17% of the non-Indigenous population.³⁶ Data from the Australian

³⁴ Lannin, Sue, 'First Nations clean energy network set up to deliver cheap and reliable power to Indigenous communities', *ABC News* (online, 17 Nov 2021) <https://www.abc.net.au/news/2021-11-17/first-nations-clean-energy-network-bringing-renewable-power/100623596>.

³⁵ Muyambo, Fummi, Yonas T Bahta and Andries J Jordaan, 'The role of indigenous knowledge in drought risk reduction: A case of communal farmers in South Africa' (2017) *Jamba – Journal of Disaster Risk Studies*, vol. 9(1), p. 410.

³⁶ OECD (2020), *Linking Indigenous Communities with Regional Development in Australia*, OECD Rural Studies, OECD Publishing, Paris, <https://doi.org/10.1787/ab4d8d52-en>, ch 2.

Bureau of Statistics gives a similar picture, with 38.9% of Indigenous people living in Outer Regional, Remote or Very Remote areas of Australia, as opposed to Inner Regional or Major Cities. This compares to 9.5% of the non-Indigenous population.³⁷

On the commercial front, the Indigenous business sector is growing, though it has a long way to go before reaching equity with non-Indigenous businesses. Indigenous people are involved in business in remote Australia in various capacities, both as employees and as business owners. These enterprises operate in a variety of sectors, including mining, agriculture, environmental management and tourism.

3.2 Demographics

3.2.1 Indigenous business sector

The National Indigenous Australians Agency (**NIAA**) estimates that of the 2.1 million businesses in Australia, around 12,000-16,000 are Indigenous-owned.³⁸ Indigenous businesses and involvement of Aboriginal and Torres Strait Islander people in commercial enterprises are difficult to measure.

Other sources of data come from non-government organisations and networks like Supply Nation. Supply Nation is a national database of Indigenous businesses. With approximately 2335 registered supplier members, each of which needs a minimum of 50% Indigenous ownership to be registered, Supply Nation has estimated that it represents about 20% of all business in the Indigenous business sector. These total approximately 11,660 Indigenous-owned businesses. This statistic is based on Census data on the number of Indigenous owner-managers, though Supply Nation have noted this is not a perfect measure of Indigenous businesses due to challenges with reporting. Further, as the businesses registered with Supply Nation are generally larger than the rest of the sector, their representations of total Indigenous revenue and employment are estimated to be higher, 44% and 51% respectively.³⁹

There is no one dataset that comprehensively totals all Indigenous businesses in Australia. Indigenous businesses are often registered under the *Corporations (Aboriginal and Torres Strait Islander) Act 2006* (**CATSI Act**) but may also be registered under the Australian Securities and Investment Commission (**ASIC**), the *Corporations Act 2001*, or any state or territory legislation (e.g. associations). There are also numerous Indigenous charities and not-for-profit organisations registered under the Australian Charities and Not-for-profits Commission (**ACNC**), who may still undertake commercial activities as long as they are within the scope of advancing their charitable purpose, and who may also be joint registered with the Office of the Registrar of Indigenous Corporations (**ORIC**) as a corporation.

The distinction between Indigenous businesses and Indigenous corporations and organisations is often blurred. Indigenous businesses may be sole traders or companies incorporated under the Corporations Law, state associations laws, or the CATSI Act. Indigenous businesses that are incorporated under the Corporations Law are often run by

³⁷ Australian Bureau of Statistics, *Estimates of Aboriginal and Torres Strait Islander Australians*, June 2016 Census (online, released 31 August 2018) <https://www.abs.gov.au/statistics/people/aboriginal-and-torres-strait-islander-peoples/estimates-aboriginal-and-torres-strait-islander-australians/jun-2016>.

³⁸ NIAA, *Indigenous Business Sector Strategy 2018-2028*, ('**NIAA IBSS**') p. 4 https://www.niaa.gov.au/sites/default/files/publications/ibss_strategy.pdf.

³⁹ Supply Nation, *State of Indigenous Business: Driving growth across the Indigenous business sector* (Research Report No. 1, December 2020) <https://supplynation.org.au/research-paper/state-of-indigenous-business-driving-growth/>, p. 6.

Indigenous entrepreneurs, with the shares being majority owned by individual Indigenous people. Indigenous corporations incorporated under the CATSI Act are registered with ORIC, and instead of shareholders they have members. Their distribution of profits is decided by the collective and they operate in accordance with agreed objects for the benefit of the group. 'Indigenous organisations' is a wider term which includes corporations as well as Indigenous companies limited by guarantee or registered under state associations law. These Indigenous organisations are not primarily focused on profit returns to the business owners but provide community services such as native title representative bodies or other community membership-based organisations.

In one specific class, there are approximately 3400 Aboriginal and Torres Strait Islander corporations registered with ORIC under the CATSI Act. In this chapter, unless expressed otherwise, statistics and information about '**Indigenous corporations**' in Australia refer to Aboriginal and Torres Strait Islander corporations registered with ORIC under the CATSI Act.

3.2.2 Business types

Aboriginal and Torres Strait Islander businesses cover a range of products and services. They include registered native title bodies corporate (**RNTBCs**), health and community services, housing, hospitality, construction, education and training, art centres, community stores, tourism ventures, and land management, among others.⁴⁰

There are also numerous Indigenous alliances and networks that operate in commercial and socio-economic sectors, such as the Indigenous Carbon Industry Network or the First Nations Bushfood and Botanical Alliance Australia. These entities are registered as companies in their own right, but their work involves bringing together smaller organisations, businesses and sole traders in their respective industries, often from diverse and remote areas.

Approximately two thirds of Indigenous corporations have joint registration as charities.⁴¹ The majority of Indigenous corporations are community run, membership based and not for profit. There are also many Indigenous organisations registered solely under the ACNC.

Some corporations are landholding entities. These include organisations holding land under legislation like the *Aboriginal Land Rights (Northern Territory) Act 1976* or the Queensland Indigenous Land Acts, or other forms of tenure including pastoral leases, land trusts or freehold title.

Some corporations have registered subsidiary companies to manage their commercial interests. These are often proprietary limited entities. The Indigenous corporation manages members and community services, while the subsidiary may be registered under ASIC or the *Corporations Act* and manages associated commercial functions, such as civil engineering, providing services to mining operations, or others.⁴²

⁴⁰ Australian Government, 'ORIC dataset: Aboriginal and Torres Strait Islander corporations' (updated 21 March 2022) [https://data.gov.au/dataset/ds-dga-2c072eed-d6d3-4f3a-a6d2-8929b0c78682/details?q= \('ORIC dataset'\)](https://data.gov.au/dataset/ds-dga-2c072eed-d6d3-4f3a-a6d2-8929b0c78682/details?q= ('ORIC dataset')).

⁴¹ Consultation with Gerrit Wanganeen, Deputy Registrar, ORIC, 21 April 2022.

⁴² Ibid.

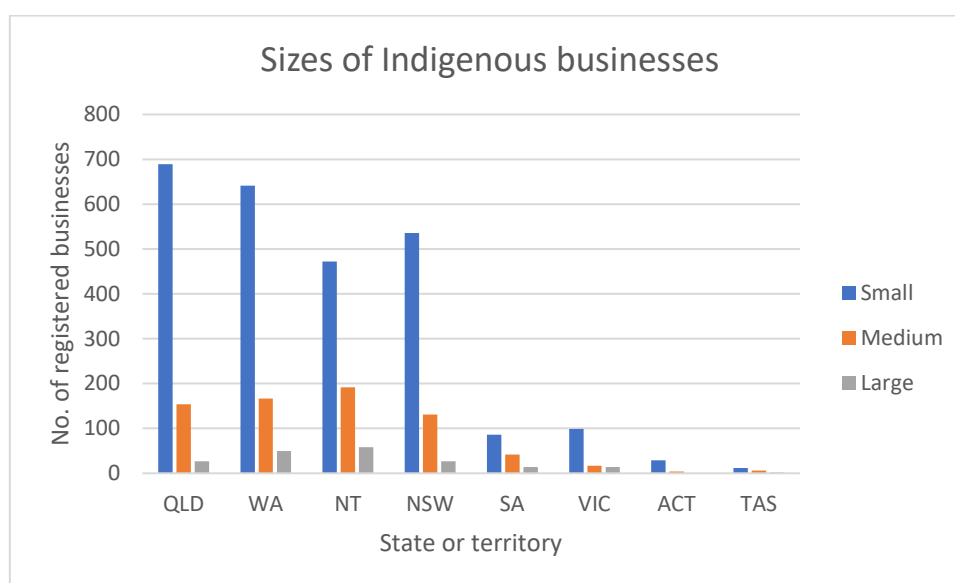
3.2.3 Geographic location

Aboriginal and Torres Strait Islander corporations are spread all across Australia, from Tasmania to the Torres Strait, though are largely concentrated in Western Australia, north Queensland and the Northern Territory.

A majority of Aboriginal and Torres Strait Islander corporations are based in rural and regional Australia. Information about the breakdown of these geographic locations by postcode is available in public datasets provided by ORIC.⁴³

3.2.4 Business size

Under the CATSI Act, corporations are classed as either small, medium or large based on their gross operating income, gross assets, and number of employees.⁴⁴



The vast majority are small corporations – more than 2500. Just over 700 are medium corporations, while large corporations number less than 200.

In 2020-2021, close to 1200 corporations reported having zero employees. Corporations with 1-4 employees and 5-24 employees numbered very similarly, with approximately 270 each, and 174 corporations reported more than 24 employees.⁴⁵

3.2.5 Boards of Indigenous companies

Indigenous corporations display a much higher percentage of women in board seats than ASIC corporations.⁴⁶ In fact, at time of writing, across all registered Indigenous corporations, female board members outnumber male board members.⁴⁷

Youth are not as highly represented on Indigenous boards, largely due to the value placed on eldership and cultural authority. This may contribute to challenges faced by some

⁴³ ORIC dataset (21 March 2022).

⁴⁴ ORIC, 'Corporation size and reporting' (Web Page) <https://www.oric.gov.au/publications/catsi-fact-sheet/corporation-size-and-reporting>.

⁴⁵ ORIC dataset (21 March 2022).

⁴⁶ Consultation with Gerrit Wanganeen, Deputy Registrar, ORIC, 21 April 2022.

⁴⁷ Total women: 9628; total men: 9029. Source: ORIC dataset (21 March 2022).

corporations, as younger people may be better informed about methods of western law and process.⁴⁸

3.3 Indigenous entrepreneurship

The Indigenous business sector has grown substantially over the past decade since the establishment of Indigenous Procurement Policies (IPP) within Commonwealth and State governments. Aboriginal and Torres Strait Islander men are more than twice as likely to be self-employed as Aboriginal and Torres Strait Islander women.⁴⁹

Supply Nation has supported greater engagement by corporations and government members to engage Indigenous business in their supply chains. In 2020, businesses registered with Supply Nation had an estimated annual revenue of \$3.9 billion and more than 30,000 total employees.⁵⁰

The Indigenous business sector is growing at great speed. Between 2015 and 2019, procurement spending on Supply Nations suppliers grew from \$31 million to \$952 million.⁵¹

The IPP has enabled the growth of Indigenous joint ventures (IJVs) that have been able to partner with the energy and mining sector. These opportunities appear to be growing, according to media reports. For example:

- Perth-based renewable energy company Infinite Blue Energy has signed an agreement with Aboriginal-owned business Boya Energy to build and develop a planned 10MW green hydrogen plant in Northam, WA.⁵²

Green hydrogen requires large quantities of water throughout the process, though it can vary depending on techniques and technologies. When compared to the extractive industry however, if Australia became a major supplier of a large-scale global hydrogen industry by 2050, water consumption may be the equivalent of about one-third of the water used now by the Australian mining industry.⁵³

- In the Northern Territory, the NT Indigenous Business Network (NTIBN) has partnered with the Australian subsidiary of Octopus Group to create majority Indigenous-owned JV Desert Springs Octopus (DSO) and provide low-cost renewable energy to support infrastructure investments in Northern Australia.⁵⁴ DSO will build both an energy grid for the NT as well as support remote off-grid Indigenous communities to shift from diesel power to renewable energies.

A concern in the industry is black-cladding, where a non-Indigenous organisation uses an Indigenous organisation as a front or pass through. Black-clad JV arrangements often

⁴⁸ Consultation with Gerrit Wanganeen, Deputy Registrar, ORIC, 21 April 2022.

⁴⁹ NIAA IBSS, p. 4.

⁵⁰ Supply Nation (2020) p. 1.

⁵¹ Supply Nation (2020) p. 9.

⁵² Joshua S Hill, 'Infinite Blue signs deal with indigenous energy group for solar hydrogen plant', Renew Economy, <https://reneweconomy.com.au/infinite-blue-signs-deal-with-indigenous-energy-group-for-solar-hydrogen-plant/>. See Boya Water Solutions - <https://www.boyaenergy.com.au/watersolutions>

⁵³ Department of Industry, Innovation and Science (Cth), *Australia's National Hydrogen Strategy* (COAG Energy Council, 2019) <https://www.industry.gov.au/sites/default/files/2019-11/australias-national-hydrogen-strategy.pdf> p. 12.

⁵⁴ How, Brendan, 'NT's \$50 billion Indigenous renewable energy partnership', *Innovation Aus* (online, 25 February 2022) <https://www.innovationaus.com/nts-50-billion-indigenous-renewable-energy-partnership/>.

feature the bulk of the benefits going to the non-Indigenous partner and disadvantage or detriment to the Indigenous business, and/or do not represent a genuine demonstrated level of equitable partnership and benefit.⁵⁵

3.4 Existing entities in remote Australia

There are also a number of existing successful Aboriginal and Torres Strait Islander organisations and peak bodies active in rural and remote Australia. These include:

- **Ninti One** facilitates partnerships and projects to create economic opportunity and empowerment, improve service delivery and boost the livelihoods of Aboriginal and Torres Strait Islander people. <https://www.nintione.com.au/>
- **Desert Knowledge Australia (DKA)** is a not-for-profit statutory corporation of the NT, committed to developing opportunities for a stronger and more connected desert and remote Australia. It supports learning, socioeconomic development, research and environmental sustainability in Central Australia. <https://www.dka.com.au/>
- **Centre for Appropriate Technology Limited (CfAT)** works to research, design, develop and teach appropriate technologies and deliver technical training to Indigenous people living in remote communities. It supports sustainable and enterprising communities by delivering appropriate fit-for-purpose technology, including practical project design, technical innovation, infrastructure, and training services. <https://cfat.org.au/>
- **Indigenous Desert Alliance (IDA)** is an Indigenous controlled, member-based organisation that plays a vital role in 'Keeping the Desert Connected' and building resilience for desert ranger programs. <https://www.indigenousdesertalliance.com>

3.5 Factors for success in First Nations business

Understanding the features and reasons for success in First Nations business is important to an analysis of their capacity, and to apply lessons to other projects and endeavours. There are several factors, some unique to First Nations businesses and others more universally applicable.

Effective Aboriginal and Torres Strait Islander-managed businesses often display the following characteristics:

- Facilitating community ownership and control
- Embedding culture in business practices and operations
- Employing local Aboriginal and Torres Strait Islander staff
- Harnessing existing community capacity and its leaders
- Implementing good governance
- Establishing trusting partnerships
- Keeping the implementation timelines flexible
- Using community development approaches⁵⁶

Of course, without cash flow and commercial opportunities, no business can succeed. Other factors which may impact an Indigenous business's ability to grow include access to

⁵⁵ Supply Nation, 'Black cladding' (Web Page) <https://supplynation.org.au/about-us/black-cladding/>.

⁵⁶ Morley, Sam, 'What works in effective Indigenous community-managed programs and organisations', CFCA Paper no. 32, *Australian Institute of Family Studies* (2015) p. 4.

capital/finance and grants, and support from government programs such as IPP, which enable opportunities for procurement.

4 BARRIERS TO INNOVATION IN REMOTE AUSTRALIA

Chapter 2 of this report outlined some notable examples of innovation in the First Nations business sector, but the fact remains that Aboriginal and Torres Strait Islander corporations face considerable adversity when compared to their non-Indigenous counterparts. Ordinary business challenges such as product development, market analysis and building a consumer base are compounded by circumstances of historic disadvantage and societal marginalisation.

Aboriginal and Torres Strait Islander people in the business sector contend with a variety of challenges. These include impacts of past economic marginalisation and policies to restrict Indigenous wealth, home ownership, business ownership and economic growth opportunities, low intergenerational wealth transfer, the ongoing impact of poor education, employment and health outcomes, and higher rates of incarceration. In many cases, First Nations people have been denied the opportunity to enter the market, even where they may arguably have the best right to be there. For example, in 2019, the Australian bushfoods industry was estimated to be valued at \$21.5 million, but less than 15% of Aboriginal businesses are engaged in this multimillion-dollar industry.⁵⁷ Further, survey-based research suggests that overall Indigenous representation in the supply chain, from growers to farm managers to exporters, was less than 1% in 2019.⁵⁸

These circumstances of disadvantage have consequences for First Nations people's ability to acquire land or assets that can be leveraged to grow wealth or start businesses. In addition, businesses in remote or rural Australia have to contend with these same circumstances, as well as lower access to essential infrastructure, skilled labour, technology, business networks and business advice.⁵⁹

An analysis of the barriers to innovation faced by businesses in rural and remote First Nations communities can be flipped to highlight the opportunities for improvement. It is noted that some of the barriers identified in this report are outside of the scope of the Future Drought Fund to rectify, however they are still included for completeness of analysis. If the department is to meet its aim of increased participation of Indigenous communities in drought resilience RDEA&C, these barriers must be mitigated as far as possible.

4.1 Education

4.1.1 Skills and training

Education is a core barrier to economic success for First Nations people. Effective operation in business and commercial sectors is hampered by deficits in understanding how to do

⁵⁷ Department of Primary Industries and Regional Development (WA), 'Setting up for Success: Bushfoods' (2021), p. 3,

https://www.agric.wa.gov.au/sites/gateway/files/Setting%20up%20for%20Success%20-%20Bushfoods%20web_0.pdf.

⁵⁸ Mitchell, Ruby and Joshua Becker, 'Bush food industry booms, but only 1 per cent is produced by Indigenous people' ABC News (19 January 2019) <https://www.abc.net.au/news/rural/2019-01-19/low-indigenous-representation-in-bush-food-industry/10701986>.

⁵⁹ NIAA IBSS, p. 4.

business in a general sense, contracting, laws around native title, land ownership frameworks, and other complexities.⁶⁰

Statistically, people with at least an upper secondary education are more likely to be economically active, have higher income and have better health than individuals with lower or no education. In predominantly rural regions, the share of Indigenous peoples with at least upper secondary education is only 34%, which is less than half that of non-Indigenous people.⁶¹

“There are many challenges in creating economy on country.”⁶²

Many of the skill sets needed to drive potential Indigenous-led industries (e.g. bushfoods) don't exist in rural and remote communities. Innovation and commercial growth require people with knowledge of all different aspects of the business, including IP, packaging, health, research, product development, etc. This extends further to technical expertise in industries like fisheries and aquaculture, where even mainstream Australia struggles to find experts in some cases.⁶³ The catch of this challenge is that often, people need to move to more urban areas to gain these skills, which then takes them away from the area that needs them.

A further complicating issue for the future is how vulnerable certain jobs and industries are to automation. Jobs that perform non-routine tasks that are high skilled (professionals and managers) and low skilled (personal and community services) are growing and have lower risk from automation and digitalisation. Mid and lower skilled jobs where Indigenous peoples have a greater share of employment (machinery operators, drivers and labourers) have higher risk of automation. These risks are compounded by regions experiencing socioeconomic factors like lower education levels, a more rural economy that relies on a smaller number of industries and employers, and a larger tradable sector where Indigenous people are statistically less likely to be employed (i.e. professional, scientific, technical or financial services). This generates potential future risks for the Indigenous workforce because a higher proportion are in rural areas, and they generally have lower skills than the non-Indigenous population.⁶⁴

OPPORTUNITY: Funding education and training programs where First Nations people can learn within their communities and on their Country will help to grow skills and expertise in remote communities.

4.1.2 Language and cultural protocols

Some Indigenous people in rural and remote First Nations communities speak their own languages and may need assistance with translation for communications in English. For many Indigenous groups, it is best to communicate in plain English and to consider using Indigenous concepts of communication, such as using more visuals or Indigenous points of view.

⁶⁰ Consultation with Amanda Garner, General Manager, First Nations Bushfoods and Botanicals Alliance Australia, 20 April 2022.

⁶¹ OECD (2020).

⁶² Consultation with Amanda Garner, General Manager, First Nations Bushfoods and Botanicals Alliance Australia, 20 April 2022.

⁶³ Consultation with Michael Davis, Indigenous Land and Sea Corporation – Agribusiness division, 26 April 2022.

⁶⁴ OECD (2020).

Cultural protocols can also be a factor. First Nations communities often have specific rules and protocols around decision-making processes. These may impact deadlines set by external parties or be a barrier to communication between Indigenous and non-Indigenous organisations.

OPPORTUNITY: Agencies and organisations seeking to engage with Indigenous peoples and support growth in remote communities need an understanding of cultural protocols and translators or cultural interpreters if necessary.⁶⁵ This can be achieved by engaging Indigenous expert advisors, employing cultural liaisons and building relationships with communities.

4.1.3 Understanding of ICIP rights

First Nations communities in rural and remote areas often have low knowledge or understanding of what is meant by Indigenous Cultural and Intellectual Property, or what their rights are in relation to ICIP.

Some sectors are more protective or concerned about sharing of Indigenous knowledge than others. For many areas, including arts and culture, there is a sense that the information is already out there, and it is too late to protect it. For bushfoods and native flora, however, much still remains unknown to western science, and there is great concern amid First Nations communities about protecting that knowledge.⁶⁶ First Nations people also may have low trust in organisations seeking to use and share their knowledge due to past instances of information being stolen without attribution or benefit sharing. Recording information, using traditional knowledge and traditional cultural expression will require free, prior informed consent. The observance of cultural protocols for use of ICIP is key to effective engagement and to share knowledge given that Indigenous information has been exploited in the past.

OPPORTUNITY: Facilitating the extension of the work of First Nations advocates to remote communities relating to ICIP, negotiating contracts, respect and protection of traditional knowledge and other complexities.⁶⁷

4.2 Trust

4.2.1 Protecting traditional knowledge

Western legal systems are often insufficient to protect traditional knowledge. Patents have been approved for non-Indigenous ownership of traditional medicine practices, without credit or profit to the Indigenous sources of that information.⁶⁸ Indigenous words are trade marked without consent, and art styles are mimicked without recourse.⁶⁹

⁶⁵ Consultation with Amanda Garner, General Manager, First Nations Bushfoods and Botanicals Alliance Australia, 20 April 2022.

⁶⁶ Consultation with Michael Davis, Indigenous Land and Sea Corporation – Agribusiness division, 26 April 2022.

⁶⁷ See, for example, the workshops designed and delivered by Terri Janke and Company: <https://www.terrijanke.com.au/workshop>.

⁶⁸ See for example the Gumby Gumby patent. <https://www.smh.com.au/business/the-economy/a-native-plant-is-exposing-the-clash-between-traditional-knowledge-and-western-conventions-20190925-p52upf.html>

⁶⁹ See for example the Fake Art Harms Culture campaign. <https://visualarts.net.au/advocacy/campaigns/fake-art/>

Past practices such as this can have significant impact on the trust that First Nations people and organisations feel when engaging with non-Indigenous organisations and governments and in industries.

OPPORTUNITY: Implement and observe Indigenous Cultural and Intellectual Property Protocols and Indigenous Data Sovereignty and Indigenous Data Governance policies to guide engagement and support First Nations groups to build trust in engaging with non-Indigenous people and markets.

4.3 Land and waters

4.3.1 Access to land

Aboriginal and Torres Strait Islander people have a complicated legal relationship to land in Australia, as although they are the First Peoples of this country and have been the traditional owners of the land and waters for 60,000 years, the law offers only limited recognition of that connection.

Land underpins public and private investment in Australia (including access to resources, business creation and home ownership). Our financial system is based on land ownership, which presents challenges to Indigenous peoples who either don't have land or don't want to use it. First Nations communities hold the freehold title to approximately 17% of the country, mainly in the Northern Territory and South Australia.⁷⁰ Often, First Nations organisations will have had to fight hard to get their country back, which may limit their willingness to use it as security.⁷¹

Noting that Indigenous ownership and access to land is outside the scope of the Future Drought Fund, it is still included here for completeness in an analysis of the barriers to innovation in rural and remote communities.

4.3.2 Water rights

Lack of access to water deprives Aboriginal people of opportunities to exercise self-determination, care for Country, and generate wealth from agricultural production. Aboriginal people currently own less than 1% of water rights in the Murray-Darling Basin.⁷²

Aboriginal people have been calling for recognition of cultural flows in policy and practice. Cultural flows are "water entitlements that are legally and beneficially owned by the Indigenous Nations of a sufficient and adequate quantity and quality to improve the spiritual, cultural, environmental, social and economic conditions of those Indigenous Nations".⁷³

The ILSC is doing a lot of work presently in supporting Indigenous water rights.

⁷⁰ Nicholas, Josh, Calla Wahlquist, Andy Ball and Nick Evershed, 'Who owns Australia?' *The Guardian* (online, 17 May 2021) <https://www.theguardian.com/australia-news/ng-interactive/2021/may/17/who-owns-australia>.

⁷¹ Consultation with Michael Davis, Indigenous Land and Sea Corporation – Agribusiness division, 26 April 2022.

⁷² O'Donnell, Erin et al, 'Returning water rights to Aboriginal people' *Pursuit* (online, 6 April 2021) <https://pursuit.unimelb.edu.au/articles/returning-water-rights-to-aboriginal-people>.

⁷³ Murray-Lower Darling Rivers Indigenous Nations (MLDRIN), *Echuca Declaration* (19 May 2010) <https://www.mdba.gov.au/sites/default/files/pubs/sa-mldrin-echuca-declaration-2009.PDF>.

As above, it is noted that Aboriginal water rights are not within the work areas of the Future Drought Fund. Nevertheless, it is included here for completeness and for awareness of the issue.

4.3.3 Restrictions from funding frameworks

Many sources of funding and land grants for First Nations peoples carry conditions and restrictions on permitted uses.

Freehold land owners can do what they want with their land. Native title and funding framework, by contrast, are too restrictive for commercial agricultural practices for Aboriginal people. Grants from the ILSC can take years to yield funding and are often subject to strict conditions.

Current systems for facilitating Indigenous access and management of land are business responsive and paternalistic, and present a challenge to remote and rural communities who may not have the knowledge or resources to manage compliance.⁷⁴

OPPORTUNITY: Reduce 'red tape' around grant funding and land use structures and make funding sources more accessible for First Nations peoples.

4.4 Resourcing

4.4.1 Visibility

First Nations businesses operating in low-visibility industries face unique challenges. This is particularly evident in the bushfoods and bush medicine sector.

Despite the fact that bushfoods and bush medicine are inherently innovative (in the sense of their 'newness' to the western market – native flora have of course been in use by First Nations people for thousands of years), Indigenous businesses often struggle to profit from this innovation. Bushfoods and bush medicines are perceived as microbusinesses, often gimmicky markets,⁷⁵ rather than the impressive industry that they could be. There are some notable exceptions, such as the *Melaleuca alternifolia* or tea tree, though this native botanical has been extensively marketed by both Indigenous and non-Indigenous businesses.

Emerging industries don't have the same existing supply chains and pathways to market as conventional farming and agriculture. Indigenous businesses have to work harder to set up their own facilities and marketplaces. This comprises product development, patenting, trade marking and marketing, and many other aspects.⁷⁶ Add to this the demands of the food safety process and commercial production, and it begins to explain why there are approximately 6,400 known native foods and botanicals, but only 18 are in commercial production.⁷⁷

⁷⁴ Consultation with Amanda Garner, General Manager, First Nations Bushfoods and Botanicals Alliance Australia, 20 April 2022; Consultation with Michael Davis, Indigenous Land and Sea Corporation – Agribusiness division, 26 April 2022.

⁷⁵ Mitchell and Becker (2019).

⁷⁶ Consultation with Amanda Garner, General Manager, First Nations Bushfoods and Botanicals Alliance Australia, 20 April 2022.

⁷⁷ Riga, Rachel, 'Australian bush tucker industry push to transform native foods for international consumption', *ABC News* (online, 17 Nov 2019) <https://www.abc.net.au/news/2019-11-17/native-bush-foods-australian-bush-tucker-going-global/11658008>.

Low visibility can mean there is often a lack of research in the sector. To continue with the bushfoods example, there are exceptions like the Kakadu plum, but many native floras are under-researched. For instance, there are approximately 150 edible species of wattle seed in Australia, yet only one has a significant scientific backing.⁷⁸ In many circumstances, First Nations groups have been willing to partner with universities or research organisations in collaborative partnerships to investigate the properties and develop products using native flora. These partnerships can be highly successful and mutually beneficial where they are conducted with respect for best practice standards and applicable cultural protocols around uses of Indigenous ecological knowledge. It is important that any research that is conducted in these fields has respect for the cultural frameworks, restrictions and ICIP of Indigenous peoples.

OPPORTUNITIES:

Support a vision and picture of a First Nations-led native food and pharmaceuticals industry.

Deliver funding for First Nations-led research projects to investigate and develop other native Australian plants and resources, on their terms and with respect and protection for Indigenous Cultural and Intellectual Property, and benefit sharing arrangements.

Provide support and resourcing to build supply chains and pathways to market to help transition from isolated microbusinesses to a broad First Nations-led industry.

4.4.2 Funding

Low visibility of industries and businesses can result in low availability of funding, further limiting the capacity of small First Nations businesses to grow and innovate.

Funding processes can also be complicated and restrictive, making it challenging for First Nations organisations without staff experienced in grant writing and acquittal to get access to funding.

Common reasons for funding applications by First Nations organisations being unsuccessful include:

- Viability of the project proposal
- Governance of organisation applying and their perceived capability to deliver the project
- Lack of technical expertise⁷⁹

Indigenous businesses are creative. They have no lack of imagination and are big on aspiration, but the practical side is difficult. Community leaders in remote places are stretched thin with responsibilities.

OPPORTUNITY: Support First Nations businesses to apply for funding grants by developing viable project plans, building strong organisational governance structures and preparing sufficient proposals.

⁷⁸ Consultation with Amanda Garner, General Manager, First Nations Bushfoods and Botanicals Alliance Australia, 20 April 2022.

⁷⁹ Consultation with Michael Davis, Indigenous Land and Sea Corporation – Agribusiness division, 26 April 2022.

4.4.3 Access to services

Remote communities often have limited access to services. This doesn't only mean healthcare, schools and infrastructure, but extends further to specialised services relevant to particular industries. Farmers and agriculturalists in remote communities or regions have to be highly self-reliant, with only limited access to the consultants or agronomists that may be more readily available in populated areas.⁸⁰ This exacerbates the impact of problems in many cases, as consultants are only called in to deal with problems, rather than to proactively assist with growth and expansion.

In addition, costs of living in remote communities may be much higher for necessities like groceries and petrol. For example, average food prices in the Kimberley are 14.5 per cent higher than in Perth.⁸¹

OPPORTUNITY: Incentivise or facilitate industry-specific goods and services being available to rural and remote communities.

4.4.4 Technology

Rural and remote communities often don't have the same access to developing technologies as urban centres.

The power of technology in Indigenous business is evident, in examples like the Mamabulanjin Aboriginal Corporation case study above, and in many more contexts. Conversely, the impacts of not having access to industry-specific technology can be severe. In consultation, stakeholders referred to an example where 400 cows died on a remote cattle station because it didn't have the technology to monitor the water and didn't know the bore was out.⁸² Technology can assist with remote communities and businesses becoming proactive, rather than reactive.

OPPORTUNITY: Extension of existing technologies to rural and remote Indigenous communities and businesses will assist their growth and competitiveness in the market.

Models like NAILSMA⁸³ and others where Indigenous people are collecting data about the changes in the environment will be an important opportunity. Indigenous data and knowledge of cultural practices, what is happening on Country, seasonal changes, etc., will be important for managing drought resilience. These data sets will enable First Nations people and organisations to plan and manage the environment and help the wider Australian community. Indigenous data sovereignty will need to be considered in managing these projects.

4.5 Governance and structure

4.5.1 Unincorporated groups

Many First Nations organisations are unincorporated. There is a degree of difficulty in moving from a group of people sitting around and talking to building the commercial structure

⁸⁰ Consultation with Amanda Garner, General Manager, First Nations Bushfoods and Botanicals Alliance Australia, 20 April 2022.

⁸¹ Office of Northern Australia, *Green Paper* (2014) p. 31.

⁸² Consultation with Amanda Garner, General Manager, First Nations Bushfoods and Botanicals Alliance Australia, 20 April 2022.

⁸³ North Australian Indigenous Land and Sea Management Alliance Ltd, <https://nailsma.org.au/>

and productivity of an Aboriginal Corporation under the CATSI Act, or any other kind of registered corporation or organisation. Incorporating carries additional costs and legal and financial requirements which may be challenging for First Nations organisations.

Unincorporated organisations carry additional risks for members, as they can be individually and personally responsible for any debts, liabilities, or insurance claims. Unincorporated organisations are also unable to hold assets and may have difficulty accessing grants as funding programs will often require funding recipients to be incorporated.

4.5.2 Directorship and management

Research has found that the majority of failed Indigenous corporations resulted from the poor performance of their directors and staff, either intentionally or negligently.⁸⁴ This is consistent with trends of corporate failure for non-Indigenous businesses.

Analysis conducted by ORIC of 93 failed Indigenous corporations between 1996 and 2008 revealed seven classes of Indigenous corporate failure. Anecdotally, many of the issues described in this report are still the reasons for Indigenous corporate failure to date, though with some differences in frequency.⁸⁵

A significant risk to Indigenous corporations comes from the performance of the people in charge of the organisation. 42% of failed corporations experienced a lack of diligence in their directors, including not meeting obligations, holding meetings or registering members, while 25% reported mismanagement in accounting or record keeping. Notably, the corporations that failed due to governance issues were largely revived following a period of special administration, which suggests that corporate governance support services and training would improve outcomes both before and after corporate failure.⁸⁶

OPPORTUNITY: Increased access to corporate governance training and funding sources to allow businesses and corporations to hire staff with the skills to manage accounting, reporting, compliance and other affairs. Once these basic necessities for operating a corporation are met, Indigenous businesses will be freer to consider opportunities for expansion and innovation in their respective product or service areas.

4.5.3 Competing business models

First Nations businesses are often social enterprises. They operate with the dual purpose of improving social welfare and community connectedness, as well as having a commercial mission of profit and economic success.

Many of these businesses represent an innovation in and of themselves, of being a “cultural business”. ‘Cultural business activities are customary activities in which goods and services are produced for the market using culturally derived knowledge and skills and communally owned resources, and include the manufacture of arts and crafts’.⁸⁷ Businesses of this model, such as Indigenous art centres, bushfoods industries or cultural tourism ventures, innovatively apply their ICIP and traditional knowledge in a commercial context. There is

⁸⁴ ORIC, *Analysing key characteristics in Indigenous corporate failure* (Research paper, March 2010).

⁸⁵ Consultation with Gerrit Wanganeen, Deputy Registrar, ORIC, 21 April 2022.

⁸⁶ ORIC (2010) pp. 47-48, 70.

⁸⁷ Jones, Janice et al., ‘Barriers to grassroots innovation: The phenomenon of social-commercial-cultural trilemmas in remote indigenous art centres’ (2021) *Technological Forecasting & Social Change*, vol. 164, p. 2.

growth in new sectors including energy, mining and facilities management and also JVs with larger companies who provide infrastructure.

Businesses operating with these dual missions face what has been referred to as the ‘social-commercial-cultural trilemma’. Though enterprises of this type offer considerable benefit to remote communities such as employment, economic development and sharing of Indigenous culture with Australia and the world, the different values and needs of each purpose create tensions. These tensions include:

- Employment models and expectations – Western ideas of schedules and performance measures, as compared to Indigenous conceptions of work hours which might be contingent on the season, weather or tide;
- Productivity – in the context of art centres, for example, where First Nations artists may be driven to create work for cultural or spiritual reasons, rather than in response to commissions or profit. Researchers have also pointed out that customary activities such as hunting, fishing and spending time on country constitute a productive use of time for First Nations people;
- Skilled management – while boards of directors usually comprise elders and cultural authorities, low levels of commercial experience among remote First Nations communities mean management positions are often filled by non-Indigenous people. This causes upset for communities who would rather upskill local people rather than bringing in external talent.⁸⁸

OPPORTUNITY: Recognising and harnessing the value and importance that Indigenous people place on relationships, culture, Country and community may help to solve issues. Connecting with key First Nations organisations, families, cultural authority figures and elders, and cultivating relationships built on trust, can help to advance organisational goals as well as social and cultural ones.⁸⁹

4.6 Community wellbeing

4.6.1 Mental health

Insufficient access to health and support systems can have significant impacts on rural and remote communities. Farmers and agriculture-reliant communities can face severe mental health impacts from drought and other environmental circumstances.

4.6.2 Context of disadvantage

The poverty and violence that exists in some remote communities presents challenges to businesses in some cases. Research notes that these are rarer than the commercial tensions described above at 4.5, though they are still worth noting. Challenges resulting from this context include lack of work-life balance, minimal support systems, and conflicts over money.⁹⁰

OPPORTUNITY: Investing in community wellbeing and healing programs and community inclusion systems to recognise the significant impact that remote living, drought, social disadvantage and other factors can have on community health.

⁸⁸ Jones et al (2021), pp. 6-10.

⁸⁹ Jones et al (2021), p. 10.

⁹⁰ Jones et al (2021), p. 10.

5 SUMMARY OF OPPORTUNITIES AND RECOMMENDATIONS

1. Education

1.1 Funding education and training programs where First Nations people can learn within their communities and on their Country will help to grow skills and expertise in remote communities.

1.2 Agencies and organisations seeking to engage with Indigenous peoples and support growth in remote communities need an understanding of cultural protocols and translators or cultural interpreters if necessary.⁹¹ This can be achieved by engaging Indigenous expert advisors, employing cultural liaisons and building relationships with communities.

1.3 Facilitating the extension of the work of First Nations advocates to remote communities relating to Indigenous Cultural and Intellectual Property, negotiating contracts, respect and protection of traditional knowledge and other complexities.⁹²

2. Trust

2.1 Develop Indigenous Cultural and Intellectual Property Protocols and Indigenous Data Sovereignty and Indigenous Data Governance policies to guide engagement and support First Nations groups to build trust in engaging with non-Indigenous people and markets.

3 Land and water

3.1 Reduce 'red tape' around grant funding and land use structures and make funding sources more accessible for First Nations peoples.

4. Resourcing

4.1 Supporting a vision and picture of a First Nations-led native food and medicine industry. Deliver funding for First Nations-led research projects to investigate and develop native Australian plants and resources, on their terms and with respect and protection for Indigenous Cultural and Intellectual Property, and benefit sharing arrangements. Provide support and resourcing to build supply chains and pathways to market to help transition from isolated microbusinesses to a broad First Nations-led industry.

4.2 Support First Nations businesses to apply for funding grants by developing viable project plans, building strong organisational governance structures and preparing sufficient proposals.

4.3 Incentivise or facilitate industry-specific goods and services being available to rural and remote communities.

4.4 Extension of existing technologies to rural and remote Indigenous communities and businesses to assist their growth and competitiveness in the market.

5. Governance and structure

5.1 Increased access to corporate governance training and funding sources to allow businesses and corporations to hire staff with the skills to manage accounting, reporting, compliance and other affairs. Once these basic necessities for operating a corporation are

⁹¹ Consultation with Amanda Garner, General Manager, First Nations Bushfoods and Botanicals Alliance Australia, 20 April 2022.

⁹² See, for example, the workshops designed and delivered by Terri Janke and Company: <https://www.terrijanke.com.au/workshop>.

met, Indigenous businesses will be freer to consider opportunities for expansion and innovation in their respective product or service areas.

5.2 Recognising and harnessing the value and importance that Indigenous people place on relationships, culture, Country and community may help to solve issues. Connecting with key families, cultural authority figures and elders and cultivating relationships built on trust can help to advance organisational goals as well as social and cultural ones.⁹³

6. Community wellbeing

6.1 Investing in community wellbeing and healing programs and community inclusion systems to recognise the significant impact that remote living, drought, social disadvantage and other factors can have on community health.

⁹³ Jones et al (2021), p. 10.

6 APPENDICES

6.1 Methodology

This report is informed by desktop research and consultation sessions. A complete list of all sources reviewed is included in the literature review at the end of this report.

Consultation was conducted with Office of the Registrar of Indigenous Corporations (**ORIC**) to understand and characterise the demographics and features of Indigenous corporations in rural and remote communities. Also consulted was the National Indigenous Australians Agency (**NIAA**), to discuss their current work areas and build an understanding of how rural and remote Indigenous communities use RDEA&C.

Additional consultation was conducted with the First Nations Bushfoods and Botanicals Alliance Australia (**FNBBAA**) and the Agribusiness division of the Indigenous Land and Sea Corporation (**ILSC**).

We note that a comprehensive understanding of the gaps, barriers and opportunities for Indigenous businesses in remote and rural communities requires meaningful, extensive and direct on the ground engagement with those businesses and communities. This report should be considered as a starting point, to provide an overview of issues in the literature relevant to Indigenous drought resilience and a guide to further consultation, research and investigation in this sector.

6.2 Literature Review

Articles/Books/Research

Australian Bureau of Statistics, *Estimates of Aboriginal and Torres Strait Islander Australians*, June 2016 Census (online, released 31 August 2018)

<https://www.abs.gov.au/statistics/people/aboriginal-and-torres-strait-islander-peoples/estimates-aboriginal-and-torres-strait-islander-australians/jun-2016>

Australian Government, 'ORIC dataset: Aboriginal and Torres Strait Islander corporations' (updated 21 March 2022) <https://data.gov.au/dataset/ds-dga-2c072eed-d6d3-4f3a-a6d2-8929b0c78682/details?q=>

Commonwealth of Australia, National Indigenous Australians Agency, *Fee for Service in Indigenous Land and Sea Management: Impact Assessment and Analysis* (2018) <https://www.niaa.gov.au/sites/default/files/publications/fee-for-service-accessibility.pdf>

Cumpston, Zena (2020) *Indigenous plant use: A booklet on the medicinal, nutritional and technological use of indigenous plants*, Clean Air and Urban Landscapes Hub, The University of Melbourne, Victoria, Australia, <https://nespurban.edu.au/wp-content/uploads/2020/08/Indigenous-plant-use.pdf>

Department of Primary Industries and Regional Development (WA), 'Setting up for Success: Bushfoods' (2021), https://www.agric.wa.gov.au/sites/gateway/files/Setting%20up%20for%20Success%20-%20Bushfoods%20web_0.pdf

Department of Industry, Innovation and Science (Cth), *Australia's National Hydrogen Strategy* (COAG Energy Council, 2019) <https://www.industry.gov.au/sites/default/files/2019-11/australias-national-hydrogen-strategy.pdf>

Janke, Terri, *Our Culture: Our Future – Report on Australian Indigenous Cultural and Intellectual Property Rights* (Report prepared for Aboriginal and Torres Strait Islander Commission and the Australian Institute of Aboriginal and Torres Strait Islander Studies, 1998).

Janke, Terri, *True Tracks: Respecting Indigenous knowledge and culture* (2021) NewSouth Publishing, Sydney.

Janke, Terri, Clara Klemski and Laura Melrose, 'Bushfires, climate change and Indigenous Ecological Knowledge: healing country through holistic environmental management' (2021) *Australian Environment Review*, Vol 36(4).

Jarvis, Diane et al, 'Are Indigenous land and sea management programs a pathway to Indigenous economic independence?' (2018) *The Rangeland Journal*, vol. 40, pp. 423-424

Jones, Janice et al., 'Barriers to grassroots innovation: The phenomenon of social-commercial-cultural trilemmas in remote indigenous art centres' (2021) *Technological Forecasting & Social Change*, vol. 164.

Kingham, Fleur, "The impact of environmental law on Indigenous women in Australia" (Speech, International Association of Women Judges Biennial Conference, Auckland New Zealand, 8 May 2021) <http://classic.austlii.edu.au/au/journals/QldJSchol/2021/10.html>.

Lovett, Raymond et al. (2019) '[Good data practices for indigenous data sovereignty and governance](#)'. In A. Daly, S. K. Devitt, & M. Mann (Eds.), *Good Data* (pp. 26–36). Amsterdam: Institute of Network Cultures

Morley, Sam, 'What works in effective Indigenous community-managed programs and organisations', CFCA Paper no. 32, *Australian Institute of Family Studies* (2015)

Muyambo, Fummi, Yonas T Bahta and Andries J Jordaan, 'The role of indigenous knowledge in drought risk reduction: A case of communal farmers in South Africa' (2017) *Jamba – Journal of Disaster Risk Studies*, vol. 9(1), p. 410

NIAA, *Indigenous Business Sector Strategy 2018-2028*, https://www.niaa.gov.au/sites/default/files/publications/ibss_strategy.pdf

O'Donnell, Erin et al, 'Returning water rights to Aboriginal people' *Pursuit* (online, 6 April 2021) <https://pursuit.unimelb.edu.au/articles/returning-water-rights-to-aboriginal-people>

OECD, *Linking Indigenous Communities with Regional Development in Australia* (2020) OECD Rural Studies, OECD Publishing, Paris, <https://doi.org/10.1787/ab4d8d52-en>

ORIC, *Analysing key characteristics in Indigenous corporate failure* (Research paper, March 2010).

Smith, D.E. (2016) '[Governing data and data for governance: the everyday practice of indigenous sovereignty](#)'. In Kukutai, Tahu and John Taylor (eds), *Indigenous Data Sovereignty: Towards an Agenda*, CAEPR Research Monograph, 2016/34. Canberra: ANU Press, pp. 117–138

Supply Nation, *State of Indigenous Business: Driving growth across the Indigenous business sector* (Research Report No. 1, December 2020) <https://supplynation.org.au/research-paper/state-of-indigenous-business-driving-growth/>

Walter, M. and S. R. Carroll, (2021) 'Indigenous Data Sovereignty, governance and the link to Indigenous policy'. In Walter, M. et al, (eds) *Indigenous data sovereignty and policy* (pp. 1-20) (New York: Routledge, 2021)

News/Media

'A community in action: How Walgett is redefining food systems', *Dharriwaa Elders Group* (Blog, October 2021) <https://www.dharriwaaeldersgroup.org.au/index.php/yuwayangarrali/38-yn-publications/215-un-food-summit-2021-walgett-case-study>

'Aboriginal rangers get hands on with the latest technologies', *NITV* (online, 14 October 2017) <https://www.sbs.com.au/nitv/culture/article/2017/10/12/aboriginal-rangers-get-hands-latest-technologies>

'AI helps Indigenous Council recycle', *Local Government Focus* (online, 1 November 2021) <https://lgfocus.com.au/news/2021/11/01/ai-helps-indigenous-council-recycle/>

Australian Nuclear Science and Technology Organisation, 'ANSTO helps verify the origin of traditional Aboriginal products to benefit consumer confidence and Aboriginal enterprises' (Article, 13 August 2021) <https://www.ansto.gov.au/news/ansto-helps-verify-origin-of-traditional-aboriginal-products-to-benefit-consumer-confidence>

Barndon, Glenn, 'Indigenous regenerative land management included in agricultural program at TAFE', *ABC News* (online, 21 July 2020) <https://www.abc.net.au/news/2020-07-21/indigenous-regenerative-land-education-course-at-tafe/12268326>

Chan, Gabrielle, "All about the land": drought shakes farming to its Indigenous roots', *The Guardian* (online, 6 October 2018) <https://www.theguardian.com/environment/2018/oct/06/all-about-the-land-drought-shakes-farming-to-its-indigenous-roots>

Cormack, Holly, 'AI tech to put town ahead of the pack', *The Chronicle* (online, 30 March 2021) <https://www.pressreader.com/australia/the-chronicle-8992/20210330/281797106784797>

Cornell, Anna, 'Improving On-Farm Biodiversity and Drought Resilience Day at Gunnado', *Northern Agricultural Catchments Council* (Blog, 30 March 2022) <https://www.nacc.com.au/improving-on-farm-biodiversity-and-drought-resilience-day-at-gunnado/>

'Crown land unlocking 'pathways' for Aboriginal cultural heritage and health', *Mirage News* (online, 25 March 2022) <https://www.miragenews.com/crown-land-unlocking-pathways-for-aboriginal-750892/>

Harris, Cecilia, 'Remote SA town's new desalination plant' *Australian Water Association* (online, 24 June 2021) <https://www.awa.asn.au/resources/latest-news/business/assets-and-operations/remote-sa-towns-new-desalination-plant>

Hart, Ashleigh Chanel et al, 'Indigenous Community-Led Programs to Address Food and Water Security: Protocol for a Systematic Review' (2021) vol. 18(12) *International Journal of Environmental Research and Public Health* 6366 <http://dx.doi.org/10.3390/ijerph18126366>

Hill, Joshua S., 'Infinite Blue signs deal with indigenous energy group for solar hydrogen plant', *Renew Economy*, <https://reneweconomy.com.au/infinite-blue-signs-deal-with-indigenous-energy-group-for-solar-hydrogen-plant/>

How, Brendan, 'NT's \$50 billion Indigenous renewable energy partnership', *Innovation Aus* (online, 25 February 2022) <https://www.innovationaus.com/nts-50-billion-indigenous-renewable-energy-partnership/>

Lannin, Sue, 'First Nations clean energy network set up to deliver cheap and reliable power to Indigenous communities', *ABC News* (online, 17 Nov 2021) <https://www.abc.net.au/news/2021-11-17/first-nations-clean-energy-network-bringing-renewable-power/100623596>

Mitchell, Ruby and Joshua Becker, 'Bush food industry booms, but only 1 per cent is produced by Indigenous people' *ABC News* (19 January 2019) <https://www.abc.net.au/news/rural/2019-01-19/low-indigenous-representation-in-bush-food-industry/10701986>

Nicholas, Josh, Calla Wahlquist, Andy Ball and Nick Evershed, 'Who owns Australia?' *The Guardian* (online, 17 May 2021) <https://www.theguardian.com/australia-news/ng-interactive/2021/may/17/who-owns-australia>

O'Donnell, Erin et al, 'Returning water rights to Aboriginal people' *Pursuit* (online, 6 April 2021) <https://pursuit.unimelb.edu.au/articles/returning-water-rights-to-aboriginal-people>

ORIC, 'Backgrounding cattle, foregrounding community' (Article, June 2021) <https://www.oric.gov.au/publications/spotlight/backgrounding-cattle-foregrounding-community>

ORIC, 'Bush food, meet tech' (Article, September 2021) <https://www.oric.gov.au/publications/spotlight/bush-food-meet-tech>

ORIC, 'Credit for mitigating climate change' (Article, October 2021) <https://www.oric.gov.au/publications/spotlight/credit-mitigating-climate-change>

Parry, Danita, 'Telstra trials technologies to grow the Australian carbon market', *Telstra* (Media Release, 24 March 2022) <https://www.telstra.com.au/aboutus/media/media-releases/carbon-farm-trial>

Riga, Rachel, 'Australian bush tucker industry push to transform native foods for international consumption', *ABC News* (online, 17 Nov 2019) <https://www.abc.net.au/news/2019-11-17/native-bush-foods-australian-bush-tucker-going-global/11658008>

Schremmer, Jessica, 'Aboriginal farmer sees native bush food as pathway to connect with troubled youth', *ABC News* (online, 1 March 2021) <https://www.abc.net.au/news/2021-03-01/aboriginal-farmer-creates-reconnection-through-native-bush-foods/13194092>

Smith, Dominic, 'Empowering people through education reconnection', *Pundi Produce* (Blog, 30 Aug 2021) <https://pundiproduce.com.au/empowering-people-through-education/>

Southern Farming Solutions, 'University of Melbourne led projects receive \$2.1m through Drought Resilience Innovation Grants' (Article, 21 March 2022) <https://sfs.org.au/article/university-of-melbourne-led-projects-receive-2-1m-through-drought-resilience-innovation-grants>

'Watch: Indigenous Reality adds new dimensions to Virtual Reality', *Welcome to Country* (online, 16 October 2017) <https://www.welcometocountry.org/indigenous-reality-virtual-reality/>

Willis, Carli, 'Indigenous custodians work with universities to bring bush foods and remedies to market', *ABC News* (online, 19 March 2022) <https://www.abc.net.au/news/2022-03-19/bush-foods-remedies-longreach-indigenous-university-project/100921012>

Policies/Protocols

AIATSIS, *Code of Ethics for Aboriginal and Torres Strait Islander Research* (2020) <https://aiatsis.gov.au/research/ethical-research/code-ethics>.

Australia Council for the Arts, *Protocols for using First Nations Cultural and Intellectual Property in the Arts* (2019) <https://australiacouncil.gov.au/investment-and-development/protocols-and-resources/protocols-for-using-first-nations-cultural-and-intellectual-property-in-the-arts/>.

Kimberley Land Council et al, *Collaborative Science on Kimberley Saltwater Country – A Guide for Researchers* (2017) https://www.ipaustralia.gov.au/sites/default/files/kimberley_indigenous_saltwater_science_project_-_copy_of_collaborative_science_on_kimberley_saltwater_country.pdf

Maia nanyi Wingara Indigenous Data Sovereignty Collective and Australian Indigenous Governance Institute (2018), *Indigenous Data Sovereignty Communique*, Canberra, <https://static1.squarespace.com/static/5b3043afb40b9d20411f3512/t/5b6c0f9a0e2e725e9cabf4a6/1533808545167/Communique%2B-%2BIndigenous%2BData%2BSovereignty%2BSummit.pdf>

Murray-Lower Darling Rivers Indigenous Nations (**MLDRIN**), *Echuca Declaration* (19 May 2010) <https://www.mdba.gov.au/sites/default/files/pubs/sa-mldrin-echuca-declaration-2009.PDF>

NAILSMA and CSIRO, 'Our Knowledge, Our Way guidelines' (2020) <https://www.csiro.au/en/research/indigenous-science/indigenous-knowledge/our-knowledge-our-way>.

Office of Northern Australia, *Green Paper* (2014) p. 31.

Screen Australia, *Pathways & Protocols: a filmmaker's guide to working with Indigenous people, culture and concepts* (2009) <https://www.screenaustralia.gov.au/about-us/doing-business-with-us/indigenous-content/indigenous-protocols>

'Traditional knowledge and biodiscovery', *Queensland Government* (Web Page, 2020) <https://environment.des.qld.gov.au/licences-permits/plants-animals/biodiscovery/traditional-knowledge>

Websites

Australian Museum, 'Ghost net art' (Web Page, 26 May 2020) <https://australian.museum/learn/cultures/atsi-collection/ghost-net-art/>

'Indigenous Ecological Knowledge', *Atlas of Living Australia* (Web Page, accessed 28 April 2022) <https://www.ala.org.au/indigenous-ecological-knowledge/>

Noongar Land Enterprise, <https://www.noongarlandenterprise.com.au/>

North Australian Indigenous Land and Sea Management Alliance Ltd, <https://nailsma.org.au/>

ORIC, 'Corporation size and reporting' (Web Page)

<https://www.oric.gov.au/publications/catsi-fact-sheet/corporation-size-and-reporting>

Pormpuraaw Art & Culture Centre, 'Our Story' (Web Page)

<https://pormpuraawartculture.com/>

Supply Nation, 'Black cladding' (Web Page) <https://supplynation.org.au/about-us/black-cladding/>

International instruments

Convention on Biological Diversity, opened for signature 5 June 1992, 1760 UNTS 79, (entered into force 29 December 1993).

Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the 1992 Convention on Biological Diversity, opened for signature 29 October 2010.

United Nations Declaration on the Rights of Indigenous Peoples, GA Res 61/295, UN Doc A/RES/61/295 (2 October 2007, adopted 13 September 2007) ('*UNDRIP*')

Secretariat of the Convention on Biological Diversity, *Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Sharing of the Benefits Arising out of their Utilization*, (Secretariat of the Convention on Biological Diversity, 2002)

6.3 Acronyms and initials

ABS	Australian Bureau of Statistics
AC	Aboriginal Corporation
ACNC	Australian Charities and Not-for-profits Commission
AIATSIS	Australian Institute of Aboriginal and Torres Strait Islander Studies
ALA	Atlas of Living Australia
ANSTO	Australian Nuclear Science and Technology Organisation
ASIC	Australian Securities and Investment Commission
BoM	Bureau of Meteorology
CATSI Act	<i>Corporations (Aboriginal and Torres Strait Islander) Act 2006</i> (Cth)
CfAT	Centre for Appropriate Technology Limited
CSIRO	Commonwealth Scientific and Industrial Research Organisation
DAWE	Department of Agriculture, Water and Environment
DKA	Desert Knowledge Australia
DSO	Desert Springs Octopus
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i> (Cth)
FDF	Future Drought Fund

FNBBAA	First Nations Bushfoods and Botanicals Alliance Australia
IBSS	Indigenous Business Sector Strategy
ICIP	Indigenous Cultural and Intellectual Property
IDA	Indigenous Desert Alliance
IDS	Indigenous Data Sovereignty
IEK	Indigenous ecological knowledge
IJVs	Indigenous joint ventures
ILSC	Indigenous Land and Sea Corporation
IP	intellectual property
IPP	Indigenous Procurement Policies
JV	joint venture
MLDRIN	Murray-Lower Darling Rivers Indigenous Nations
NAAKPA	Northern Australia Aboriginal Kakadu Plum Alliance
NAISMA	North Australian Indigenous Land and Sea Management Alliance
NIAA	National Indigenous Australians Agency
NTIBN	Northern Territory Indigenous Business Network
OECD	Organisation for Economic Co-operation and Development
ORIC	Office of the Registrar of Indigenous Corporations
R&D	research and development
RDEA&C	research, development, extension, adoption, and commercialisation
RNTBCs	registered native title bodies corporate
TAFE	Technical and Further Education
TCEs	Traditional cultural expressions
TJC	Terri Janke and Company
TK	Traditional knowledge
UNDRIP	United Nations <i>Declaration on the Rights of Indigenous Peoples</i>
UNTS	United Nations Treaty Series
WFW4L	Walgett Food and Water for Life Program