

East Arnhem Landowner Prospectus

Fact base – for sharing

November 2020



DEVELOPING
EAST ARNHEM



Contents

Contents	1
Executive Summary.....	3
Context: understanding the opportunities in this Fact Base	8
Forestry and forest products	16
Tourism.....	25
Agriculture and native products	34
Land Management.....	45
Fisheries and Aquaculture	51
Supporting information	61
Evidence library	68





Executive Summary

Executive summary

About the East Arnhem Landowner Prospectus

East Arnhem stakeholders are seeking to develop a prospectus, or blueprint, describing the industries and business opportunities where Yolŋu are looking for support.

The East Arnhem Landowner Prospectus aims to provide a foundation for Yolŋu, the traditional owners of East Arnhem, to realise their development aspirations and participate in new opportunities.

All land in East Arnhem is recognised by law as Aboriginal Land, and more than 75% of the region's residents are Yolŋu. There are Yolŋu landowners across the region who want to use their lands and seas to create economic opportunities, in connection with social and cultural benefits.

The Prospectus is led by Developing East Arnhem Limited (DEAL), together with a working group of organisations that share a goal of empowering Yolŋu to be leaders and partners in economic life.

The Prospectus will be based on consultations with Yolŋu across East Arnhem. The goal of these consultations is to exchange knowledge – including evidence about specific opportunities that are relevant to particular communities and homelands – and to explore Yolŋu aspirations for development.

The focus of the Prospectus (and this Fact Base) is on land and sea-based opportunities, especially those where Yolŋu may be interested in leveraging external partnerships. The Prospectus is intended to provide a foundation for Yolŋu to negotiate agreements with partners through statutory processes under the *Aboriginal Land Rights (Northern Territory) Act 1976*. Improved dialogue between landowners and external partners, facilitated by this Prospectus, can help potential partners to understand Yolŋu aspirations for development and to bring forward proposals that advance these aspirations.

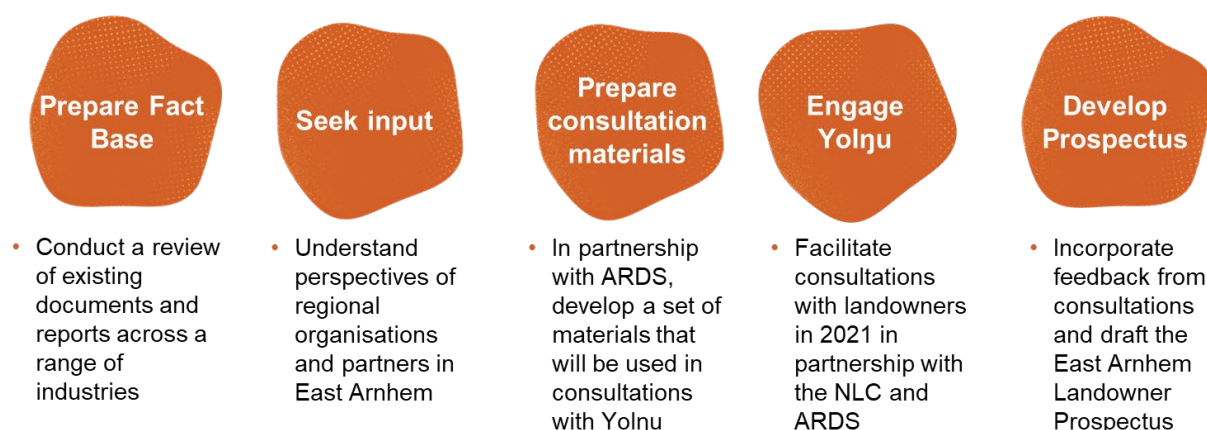
About this fact base

The purpose of this Fact Base is to bring together existing evidence on economic opportunities in the region. It seeks to consolidate many different reports, and input from key industry stakeholders, into a more manageable synthesis.

This Fact Base is not intended to be a tool for consultations. The ideas and examples in this document will need to be adapted prior to consultations.

Project partners will work with ARDS Aboriginal Corporation to develop materials and discussion points that can be used to support consultations. Figure 1 describes the process of developing this Prospectus, including the subsequent phases of work that will follow the preparation of this Fact Base.

Figure 1: Process of developing the Prospectus



The approach to identifying evidence and data was iterative, informed by input from Prospectus Working Group members as well as desktop research, stakeholder interviews and workshops.

Key sources are described in the Evidence Library (section 9), which will be made available for online access. The evidence base was incomplete in many places – for example, there are industries for which analysis of market demand were available, but an absence of region-specific mapping of assets; and visa-versa.

Land and sea-based opportunities were identified with regard to factors including:

- **Aspirations identified by Yolŋu landowners.** This includes aspirations identified in corporate and business plans, IPA plans of management, local master plans, and in advice to members of the Working Group.
- **Size of opportunity:** How likely is it that this opportunity can produce scalable benefits?
- **Maturity:** How far off is this opportunity in East Arnhem, based on current supply in the region?
- **Viability:** How strong is the opportunity based on commercial factors – including anticipated demand, and costs of operating?
- **Sustainability:** Will this opportunity last? Will it produce unsustainable impacts on culture and country?

Note that mining and extractives industries were not considered as part of this Prospectus because they are generally subject to existing statutory consultation processes through the NLC.

For each opportunity (or industry area), the Fact Base addresses three key questions:

1. What kinds of existing activities are happening in East Arnhem?
2. Why are there potential opportunities for growth in this area?
3. What kinds of activities might Yolŋu be interested in participating in?

Seeking input from regional stakeholders on the opportunities in this Fact Base

DEAL is interested in receiving feedback from regional stakeholders about the opportunities in this Fact Base, and guidance on other land and sea-based opportunities that could be explored with Yolju as part of consultations.

In particular, DEAL would value your feedback on:

- Any other existing activities in the region relevant to each opportunity that are not mentioned in this synthesis
- The selection and descriptions of opportunities in this Prospectus, and whether these resonate based on your organisations' views of which industries are prospective in the East Arnhem economy
- The specific locations in which these opportunities may be most relevant, building on the analysis in the Fact Base.

Note regarding COVID-19

This Fact Base relies on pre-COVID-19 data.

COVID-19 has caused significant change and disruption to our lives and to the global economy. For many industries – including tourism and hospitality – the future remains uncertain.

Consultations on opportunities in this Fact Base were originally scheduled for mid-2020 but have been postponed to 2021 due to COVID-19.

Opportunities identified in this Fact Base: in summary

This Fact Base provides a synthesis of evidence across five key areas of opportunity:



East Arnhem has existing expertise and supply chains to sustainably grow the forestry industry.

There may be opportunities for Yolŋu in:

- Selective harvest
- Plantation harvest
- Producing timber and other forest products
- Construction and maintenance services
- Land management services



East Arnhem is an unspoiled tropical paradise and tourism is a growing industry in the region.

There may be opportunities for Yolŋu in:

- Recreational areas and facilities
- Licensing or operating mid- to high-end accommodation
- Offering cultural tours and recreational experience



East Arnhem has unique native products which Yolŋu can sell both locally, Australia-wide, and internationally.

There may be opportunities for Yolŋu in:

- Planting and harvesting of fruits, vegetables, and other crops
- Wild harvest of native products
- Production, transport, and retail of value-added products



Yolŋu are leaders in Indigenous land management and there is potential to expand existing services and innovate.

There may be opportunities for Yolŋu in:

- Leasing land for animal mustering or pest control
- Visitor management, community programs, cultural heritage protection
- Expansion of existing land management services including carbon abatement programs
- Research and development in biodiversity monitoring, biosecurity, and related areas



Fishing and aquaculture have always been part of the East Arnhem economy and there are untapped opportunities available.

There may be opportunities for Yolŋu in:

- Lease of land for on shore facilities
- Entry-level commercial fisheries
- Aquaculture projects and partnerships
- Local retail and supply and logistics
- Recreational fishing and fishing tourism



Context: understanding the opportunities in this Fact Base

Context: understanding the opportunities in this Fact Base

Recognising the rights of Yolŋu landowners and the proud history of Yolŋu enterprise

Yolŋu land and sea rights

Yolŋu are the traditional owners of East Arnhem. They will be the decision-makers in relation to the opportunities identified in this Fact Base: they can choose what to do (and not to do) on their country. The 33,000km² East Arnhem region is entirely Aboriginal land held under the Aboriginal Land Rights (Northern Territory) Act 1976 (ALRA) by the Arnhem Aboriginal Land Trust for the benefit of relevant traditional owners. In addition, much of East Arnhem Land is covered by Indigenous Protected Areas which are areas of land and sea country, dedicated by traditional owners and custodians for the protection and management of natural and associated cultural values.

A key purpose of the Prospectus is to support conversations with Yolŋu organisations and landowners about their aspirations, which may provide the foundation for further engagement around specific opportunities, including through statutory processes. The Northern Land Council (NLC) is the statutory authority with the responsibility for administering this land including undertaking statutory land agreement processes and obtaining consent from traditional owners on investment and business proposals on these lands.

Building on a proud history of Yolŋu enterprise and cultural exchange

Yolŋu have maintained diverse trade and business relationships throughout their long history. In addition to the local trade between clans, the ancient supply chains stretched throughout the continent for commodities such as ceremonial clay and quality items of stone and wood. For many centuries before European arrival Macassan traders brought steel and tobacco from Sulawesi making Arnhem Land one of the more distant trading posts of the silk road. The Macassan trade also involved exchange of knowledge and people with some Yolŋu traveling to Sulawesi and it was through these relationships that Yolŋu became aware of the operations of the Dutch East India Company from 1600.

The term 'Balanda', meaning 'non-Indigenous', is derived from the word Hollander. It is one of hundreds of words with Macassan origins in contemporary Yolŋu languages. Yolŋu continue to systematically integrate the conceptions of other cultures through their trade and business relations in modern times and these are the foundations upon which business partnerships between Yolŋu and Balanda can be built.

Today, there are successful Yolŋu-led businesses operating across the East Arnhem region, and established businesses and workforce. Many of these businesses are community-led Aboriginal Corporations, established by local clan groups. Some are well-established with diverse operations. Homelands corporations and ranger groups also play a key role across the region, in servicing remote homelands and supporting land management activities. The case studies in this Fact Base highlight some of these businesses and organisations.

Supporting Yolŋu economic participation through meaningful partnerships

Partnerships that maximise benefits for Yolŋu

One of the purposes of the East Arnhem Landowner Prospectus is to understand whether Yolŋu landowners are interested in partnering with Balanda (non-Indigenous people), as well as with other Yolŋu groups, to take forward opportunities. The consultation phase will reveal areas where Yolŋu want to access external know-how and resources, and the types of conditions or principles that should guide partnerships with Yolŋu.

Yolŋu often take a more holistic view of development than Balanda. For Yolŋu, economic outcomes are to be pursued alongside social, cultural and environmental outcomes (see Figure 2). Development enables Yolŋu to be leaders in their own lives and communities, and to determine their own future.

Figure 2: Yolŋu perspectives on economic development – for testing and discussion through consultation phase



There are many existing examples – from East Arnhem and across other parts of Australia – of approaches to partnership that can maximise benefits for Yolŋu while also supporting returns for investors. The case studies included in this Fact Base highlight the different ways that Yolŋu and other Indigenous people have worked with partners. They demonstrate that there is no single model for success – recognising that Indigenous aspirations for involvement in business vary across different industries and locations. Meaningful partnerships may involve, for example:

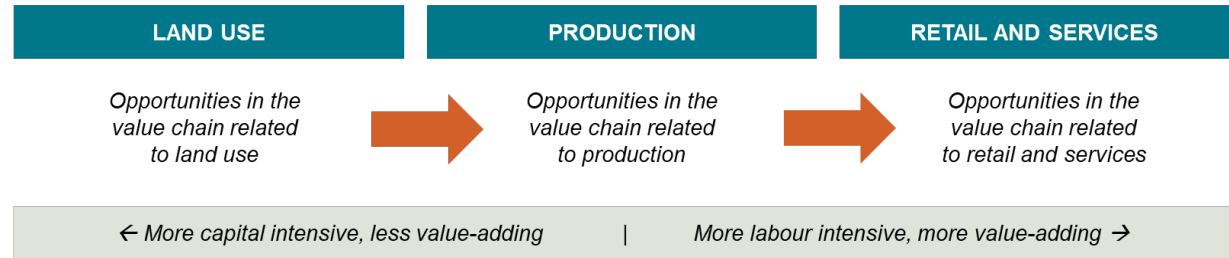
- Leasing and licensing arrangements;
- Joint ventures and collaborations where Yolŋu businesses are actively involved in the development of opportunities; and
- Procurement of goods and services from Yolŋu businesses.

Considering opportunities for Yolŋu leadership and participation along the whole value-chain

Yolŋu and their prospective partners should consider opportunities along the whole value-chain. Passive opportunities such as leasing land for rental income are unlikely to facilitate social, cultural, and environmental outcomes alongside economic outcomes. **The opportunities described in this Fact Base highlight additional value-adding activities – in production, retail, and services – that Yolŋu may be interested in.** These activities are more labour intensive and therefore present more opportunity for Yolŋu employment and training.

To support Yolŋu to participate in value-adding activities, partners may require strategies for workforce development and capability strengthening.

Outline of a Value Chain



Supporting Yolŋu to take next steps in progressing opportunities

There are many ways that partners can work with Yolŋu to progress opportunities on their land. In consultations, there will be an opportunity for Yolŋu to choose from a 'Menu of Actions' (see Figure 3 below). These actions involve a range of different actors: local Aboriginal Corporations and service providers, private businesses and investors, researchers, not-for-profits, and development intermediaries (such as DEAL), and government.

The opportunities identified in this Fact Base have varying levels of maturity in the region, and some will require investments in research, infrastructure, and workforce development, and in some cases, policy change, in order to progress. Funding from government agencies and patient or concessional capital from impact investors may be required, balancing commercial returns alongside other social, cultural, and environmental outcomes.

Many of these actions align with the support identified in the *East Arnhem Business Support Pathway*, developed by DEAL. See Section 8.3 for a summary of these supports and relevant stakeholders, which include DEAL and other members of the Prospectus Working Group.

Figure 3: Draft Menu of Actions (to be adapted for consultations)

Type of action	Details – specific actions that DEAL and Working Group partners may be able to help facilitate or advise on
LOCAL PARTNERSHIPS	<ul style="list-style-type: none"> • Sharing aspirations with local Aboriginal Corporations and service providers • Incorporating new activities through existing community development programs, including the Community Development Program, Ranger programs or the NLC Community Planning & Development Program
INFORMATION AND RESEARCH	<ul style="list-style-type: none"> • Accessing further information – including visits from industry experts to communities / homelands • Joining an existing research program • Beginning new research – e.g. local resource mapping
BUSINESS DEVELOPMENT SUPPORT & FUNDING	<ul style="list-style-type: none"> • Support in establishing or incubating a new enterprise • Business mentoring • Business or project funding
EXTERNAL PARTNERSHIPS AND INVESTMENT	<ul style="list-style-type: none"> • Introductions to external partners or investors interested in partnering with Yolngu • Joining a new or existing alliance or cooperative • Promoting local opportunities through external networks and platforms
WORKFORCE DEVELOPMENT	<ul style="list-style-type: none"> • Participation in training and workforce development programs
INFRASTRUCTURE	<ul style="list-style-type: none"> • Targeted investments in local infrastructure • Feedback to government and regional stakeholders on regional infrastructure needs

ENABLING ENVIRONMENT

- Feedback to government and regional stakeholders on policy and regulatory changes - e.g. procurement policies; licensing conditions; procurement commitments

Thinking about 'two-way' partnerships

Yolju talk about knowledge being exchanged 'both-ways'. For partners working with Yolju to take forward opportunities under the Prospectus, there is an opportunity to learn from Yolju-led businesses, whose business models and approaches have proven successful. The following case study of Knowledge Water describes the development of a 'two-way' business partnership between Yolju and non-Yolju, in a small regional homeland:

Case Study 1: Knowledge Water¹

Knowledge Water, Mandjawuy

Knowledge Water is a for-purpose business based in Mandjawuy that provides spring water from the sacred spring in a carton, available from October 2020.

The vision of the business is *Dhukarr'warryun yudawu djamarrkuliwu djalkiridalkuma ga djalkirinhirranmi* (Creating a path for future generations to stand independently and walk strong). Profits from the business are reinvested into Yolŋu education through the Munyuku Trust.

The business has been carefully developed as a partnership between the Munyuku clan (Ngurruwutthan family) and their Ngapaki or non-Yolŋu partners (Rod Baker) over many years. Knowledge Water also has a strategic advisory board with experts from a range of professional fields.

Development of concept

Legal tenure for the site and water progressed through Northern Land Council consultations and a lease was granted in 2018. NT Government supported the assessment of water quality and capacity.

The Knowledge Water business has secured funding through Miwatj Employment and Participation (MEP) to commence production and sales.

The workforce strategy identifies education and training pathways for Yolŋu to eventually achieve their aspiration of full operational capacity for the business and it maps individual career paths.

The Munyuku Education Trust was created to support education at Mandjawuy and enable a pathway for Yolŋu from any community or clan group to become fully qualified teachers.



Structure of partnership

Throughout the development of the business there has been a mixing of Yolŋu and Ngapaki (non-Yolŋu) concepts. The basic economic conceptions like production, consumption, labour, and capital have been brought together with Yolŋu conceptions of trade from centuries of exchanges with the Maccasans.

Nalwarri from the Ngurruwutthan family ensured that the business structure reflected the economic unit in Yolŋu society which included the extended family. The metaphor of the Lipa Lipa (canoe) was used which offered lessons for working together and navigating towards one destination.

The Lipa Lipa became a legal entity when Rurrangala Bush Produce (RBP) Pty Ltd was formed as a 100% local family-owned company that has control over the means of production. RBP has developed a joint venture with Rod Baker's company to produce Knowledge Water.

An integrated East Arnhem economy

Integration across diverse industries

The different land- and sea-based opportunities identified in this Fact Base can be closely linked together. Tourism operations may leverage native food production, which may in turn be connected

¹ Baker, R., 'Knowledge Water Case Study', [provided as part of consultations] (2020)

with forestry supply chains, which employ rangers, who also offer cultural tours to visitors. In this example, the relationship between industries is mutually reinforcing.

In describing the different opportunities, the Fact Base acknowledges and discusses these relationships between industries. In consultation with Yolŋu landowners, the industry opportunities will need to be discussed holistically. Partners should seek to explore adjacent industries with Yolŋu, where they are already engaged in production, retail, and services.

Integration across the region

While the opportunities in this Fact Base can be pursued locally – by particular groups of Yolŋu landowners, based on their local assets and aspirations – the Prospectus will help to support alignment and collaboration across the whole region.

DEAL and other members of the Prospectus Working Group are among the actors engaged in whole-of-region planning for East Arnhem, to drive diversification of the economy. There are major infrastructure investments underway to support increased regional connectivity including a \$225 million investment in the Central Arnhem Road, and \$8 million upgrades to the Gove Port.

There is an opportunity for Yolŋu to work with partners to develop regional networks and supply chains to maximise returns and extend economic participation across the whole of East Arnhem.



Forestry and forest products

Forestry and forest products



East Arnhem has existing expertise and supply chains to sustainably grow the forestry industry

There may be opportunities for Yolŋu in:

- Selective harvest
- Plantation harvest
- Producing timber and other forest products
- Construction and maintenance services

What kinds of existing forestry activities are happening in East Arnhem?

Commercial forestry has a long history in East Arnhem. Many Yolŋu were engaged in the industry during missionary days, and local timber was used for construction of local meeting halls, churches and homes. For example, Cypress pine, a native white-ant resistant species was harvested in Galiwin'ku.

Today, forestry is a small but growing industry, focused on selective harvest of native trees. Gumatj Corporation, on the Gove Peninsula, is the primary operator. Gumatj Corporation's business involves salvaging high-value native trees from the Rio Tinto mine site, prior to land clearing for mining operations, and processing of timber in a small processing factory near Gunyajarara.

The Gumatj operation employs approximately 15 Yolŋu, with further downstream jobs in construction as well as land rehabilitation.

East Arnhem forest and wood products have been used across multiple markets, including:

- Construction of housing and infrastructure in East Arnhem, including new Gumatj-built housing at Gunyajarara, the Knowledge Centre on Dhupuma Plateau, the Gulkula Training Centre, and a bunkhouse at Garrathiya
- Construction of NT Government-funded projects, including a \$200,000 contract to supply timber for the Cavenagh St canopy in Darwin, and a further large project with the Darwin Botanic Gardens.
- Furniture manufacturing, both locally and outside East Arnhem. For example, some timber (primarily Darwin stringybark) is supplied to Manapan Furniture, an ALPA-run furniture business in Milingimbi, and Winya Indigenous Furniture, a Supply Nation certified office furniture supplier.

East Arnhem does not currently have any plantation forests, but there are examples of this industry in other parts of the Northern Territory. For example, there are 31,200 hectares of Acacia hardwood plantations on the Tiwi Islands, which reached maturity in 2015 and are sold on the international woodchip market. In the Douglas-Daly and Katherine regions, African mahogany and Indian sandalwood plantations are in their mid- and early- rotation phases.²

Major research projects are currently underway to investigate and pilot opportunities for forestry in East Arnhem:

² Stephens, M., Woods, T., Brandt, C., Bristow, M., Annandale, M., Cooperative Research Centre for Developing Northern Australia, 'Northern Forestry & Forest Products Industry Situation Analysis', Project: A.1.1718122, (2020)

- DEAL has convened a research partnership of University of the Sunshine Coast and Forest and Wood Products Australia to lead the *Indigenous Commercial Forestry Opportunities: East Arnhem, northern Australia project*.³ The project is being carried out in partnership with NT Government, NIAA and Gumatj Corporation. It aims to provide the insights necessary to underpin the long-term commercial viability of forestry in the region, and support Yolŋu communities who wish to sustainably use their land for employment and economic benefit alongside cultural purposes.
- The Cooperative Research Centre for Developing Northern Australia (CRCNA) has developed an *Industry Situational Analysis* which describes key strategic directions for the industry.

Why are there potential opportunities for growth in forestry?

There are opportunities to expand the existing forestry industry in East Arnhem, especially through selective harvest models.

Yolŋu landowners have access to large native forest assets

The Northern Territory has the second largest forest stock across Australia's states and territories. The Territory has a total of 23.7 million hectares of native forest stocks, approximately 17.2 million hectares of which has been assessed as having potential for sustainable long-term harvesting.⁴

Some of these forests are within the East Arnhem region. The *Australian State of the Forests Report 2018* identifies native forest stocks across the region. The majority is Darwin Stringybark – which have high durability and multiple potential uses.

While there is no region-specific forest inventory available for East Arnhem, it is estimated that the region contains large areas (approximately 3.3 million hectares) of Indigenous-owned native forests with commercial potential.⁵

Some of these forests are found in areas that will be cleared for bauxite mining and on other Indigenous freehold lands suited to long-term, selective, and sustainable low-impact harvesting.

There is evidence that selective harvest forestry is environmentally sustainable and compatible with other land uses

Selective harvest involves identifying and removing larger, high-value trees from native forests while leaving surrounding trees in place. In East Arnhem, it is estimated that there are approximately 400 large trees (greater than 30cm in diameter) per hectare. A sustainable selective harvest approach would involve harvesting only a small number of these trees – between 3-10 trees per hectare, every 30 years – over a large landscape.⁶

Figure 4: Native eucalypt forest – Shaded green areas indicate native eucalyptus open forest coverage in East Arnhem (for detailed map, see *State of the Forests, 2018*)



³ Developing East Arnhem Limited (DEAL), 'Indigenous Commercial Forestry Opportunities: East Arnhem, northern Australia: Project Summary and Governance', (2020)

⁴ Montreal Process Implementation Group for Australia and National Forest Inventory Steering Committee, Department of Agriculture and Water Resources, ABARES, 'Australia's State of the Forests Report', (2018)

⁵ University of Sunshine Coast, Forest Research Institute, Tropical Forests & People Research Centre (TFAP), 'Indigenous Commercial Forestry Opportunities: East Arnhem, Northern Australia: Project Summary June', (2020)

⁶ University of Sunshine Coast, Forest Research Institute, Tropical Forests & People Research Centre (TFAP), 'Indigenous Commercial Forestry Opportunities: East Arnhem, Northern Australia: Project Summary June', (2020)

Selective harvest is considered to be largely compatible with other land use, including monitoring and land management operations being undertaken by ranger groups. It may represent an opportunity to engage multiple landowners and enterprises across the East Arnhem region in small-scale operations.

There is an opportunity to leverage existing local infrastructure, supply chains and capabilities

There is an opportunity to leverage the expertise, reputation and supply-chain developed by Gumatj Corporation to support other groups across the region, through a partnership approach. There is also existing ALPA sawmill infrastructure in Ramingining that could be leveraged to produce building and other wood products.

The Gove Port supports access to markets outside the East Arnhem Region. Timber for export is delivered by barge from the Gove Port at Nhulunbuy to Darwin. Local stakeholders have indicated that infrastructure is not a substantial barrier to commercial forestry.⁷ While shipping costs are high, existing operators are exploring strategies to reduce these costs (and other wastage) by producing higher value-add products, such as cut logs.

Upgrades to the Central Arnhem Road will reduce the difficulties associated with regional freight. This may support expansion of forestry activities beyond the Gove Peninsula.

Export demand is expected to grow

The Cooperative Research Centre for Northern Australia suggests there is good underlying demand for forest products, and that this demand is projected to grow.⁸

There is a specific opportunity for East Arnhem to produce 'branded products' for export markets, including internationally, given the region's unique native timbers and properties.⁹

To unlock this demand, it will be important for East Arnhem suppliers to improve the market perception of Northern Territory timber and identify specific products – building on the research programs described above. It will also be important to minimise freight costs out of the region, and to overcome competition from illegal suppliers operating across Northern Australia.

There is a significant opportunity for supply of local building materials

Local timber can be a substitute for imported materials used in housing and other construction. Native wood products represent a higher quality and more cost-effective option in East Arnhem, where an estimated 25-50% of the costs of new housing construction reflects the costs of freight from outside the region, and given that metal products can be less durable in hot and wet local conditions.

Transition from mining on the Gove Peninsula presents an immediate opportunity

On sites that have already been converted from native forest to support mining, there is an opportunity for Traditional Owners to negotiate rehabilitation arrangements that support new land

⁷ Stephens, M., Woods, T., Brandt, C., Bristow, M., Annandale, M., Cooperative Research Centre for Developing Northern Australia, 'Northern Forestry & Forest Products Industry Situation Analysis', Project: A.1.1718122, (2020)

⁸ Stephens, M., Woods, T., Brandt, C., Bristow, M., Annandale, M., Cooperative Research Centre for Developing Northern Australia, 'Northern Forestry & Forest Products Industry Situation Analysis', Project: A.1.1718122, (2020)

⁹ Stephens, M., Woods, T., Brandt, C., Bristow, M., Annandale, M., Cooperative Research Centre for Developing Northern Australia, 'Northern Forestry & Forest Products Industry Situation Analysis', Project: A.1.1718122, (2020)

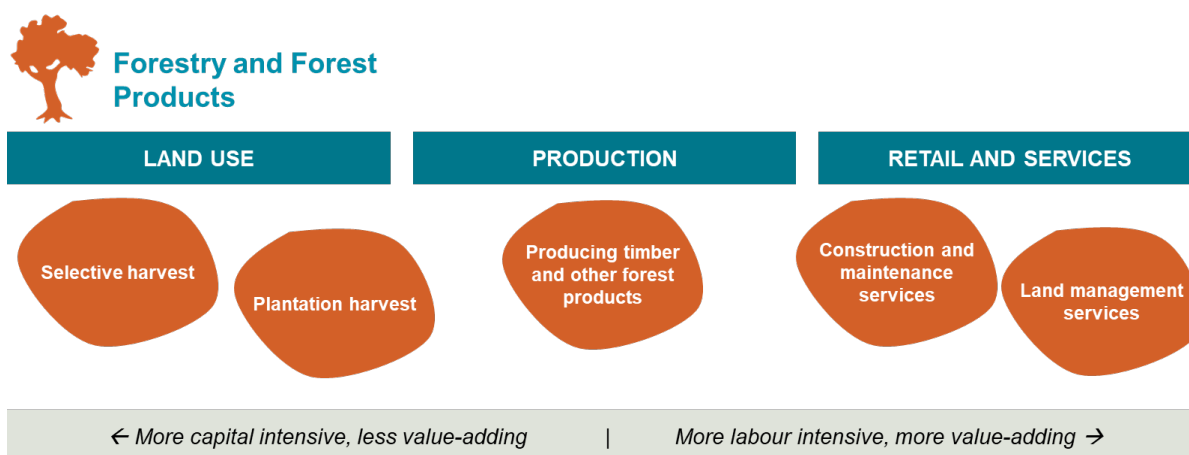
uses, including plantation forests. There may also be opportunities to repurpose existing Rio Tinto infrastructure to support timber processing.

The evidence base is improving

To date, the forestry industry in East Arnhem has faced two information gaps. First, there has been a gap in the inventory, or mapping, of forest assets. Secondly, there has been a gap in economic analysis on the value of forest products and paths to market. In turn, landowners have not been in a position to approve use of their land for forestry.

The research projects identified above – including the *Indigenous Commercial Forestry Opportunities: East Arnhem, northern Australia project*¹⁰ which commenced in 2020 – will help to address these gaps. This in turn will support landowners to make informed decisions about forestry opportunities.

What kinds of activities might Yolŋu be interested in participating in?



Selective harvest

The primary land use opportunity across East Arnhem involves management and sustainable selective harvest of native forests.

Selective harvest could potentially provide passive income for landowners with native forests on their land, as well as employment for a series of small enterprises across the region (possibly linked to existing ranger groups).



A selective harvest approach is similar to the existing Gumatj Corporation operations in that it uses native forests and focuses on larger, high-value trees, but differs in method of harvest. Gumatj Corporation operations involve pre-mining salvage of timber from mine sites, using existing access roads. A selective harvest approach involves only a small number of trees per hectare and so is less dependent on access.

According to Forestry industry experts consulted to develop the Fact Base, selective harvest would involve around 3-10 trees per hectare which would grow over 30 years. Initial estimates suggest that

¹⁰ [Developing East Arnhem Limited \(DEAL\)](#), 'Indigenous Commercial Forestry Opportunities: East Arnhem, northern Australia: Project Summary and Governance', (2020)

timber would be worth approximately \$40 per tree and therefore each hectare could produce around \$400, once-off.

Opportunities in sustainable harvest require the presence of native forest assets. Detailed forest inventories and silvicultural information for native forests are required (and currently being developed). Higher-level mapping indicates that the opportunity will be relevant to most landowners across East Arnhem but may be less prospective in some central-northern parts of the region.

Regions with forest assets are most likely to be prospective for investment in forestry where they are connected to supply chains – including the Gove Port and Central Arnhem Road. Given cost challenges associated with freight, it is important that opportunities have access to transport.

A sustainable selective harvest approach is currently being piloted at a trial site in Birany Birany, in partnership with Gumatj Corporation (see case study), as part of the *Indigenous Commercial Forestry Opportunities: East Arnhem, northern Australia*¹¹. Yolŋu landowners interested in selective harvest forestry can express interest in partnering with researchers through this project to access further information, identify potential pilot sites and discuss workforce development needs.

Plantation harvest



Planting and harvesting of plantation forests to support production of quality non-native timber products (e.g. hardwood species) is a secondary opportunity, which is relevant to areas of mine rehabilitation.

This opportunity is most relevant to the Gove Peninsula, where areas held by Rio Tinto under their mining leases will revert to Yolŋu control in the coming years, and there is an opportunity to rehabilitate the land and adopt new land uses.

Plantation forests require high rainfall, as irrigated tree crops incur much higher establishment costs. Plantation investments are more likely to require third party involvement in design and management. Close collaboration with Rio Tinto will also be necessary during rehabilitation planning to support plantation development on mining lease areas and transition of existing infrastructure.

Some regulatory barriers exist to plantation forest activities. Due to limited forestry activity in the Territory, limited pressure for related land clearing, and the desire to treat plantation forestry as an agricultural activity, the Territory Government has not developed regulations specifically for plantation forestry.¹² However, a range of peak bodies exist which can provide endorsements to organisations for being sustainable foresters.

¹¹ [Developing East Arnhem Limited \(DEAL\)](#), 'Indigenous Commercial Forestry Opportunities: East Arnhem, northern Australia: Project Summary and Governance', (2020)

¹² Stephens, M., Woods, T., Brandt, C., Bristow, M., Annandale, M., Cooperative Research Centre for Developing Northern Australia, 'Northern Forestry & Forest Products Industry Situation Analysis', Project: A.1.1718122, (2020)

Case Study 2: Tiwi Plantation Corporation¹³

Tiwi Plantation Corporation

20 years ago, Tiwi leaders determined to establish a number of commercial businesses and enterprises in order to create jobs and income for their people. One of these independent business enterprises is Tiwi Plantations Corporation.

The eight Tiwi landowning groups are shareholders in this enterprise, managed by a Board comprising all Tiwi members. The plantations began to reach maturity in 2015, and as of 2017-18 had exported a gross value of USD 26.8m. In late 2018, Midway Limited – a woodchip exporter – made an investment of \$17m to increase the volume of production, anticipating increased global demand in coming years.



Producing timber and forest products

Harvested timber can be processed at sawmill and manufacturing facilities into value-added timber products that can produce higher returns. There are various degrees of production value-add:¹⁴

- Low value-add products include cut logs and wood chips
- Intermediate-value building products such as structural timber
- Higher-value building products include engineered wood products and veneers, and consumer products, such as furniture.



Gumatj Corporation currently produce cut and dressed timber and building products, for example roof trusses, posts, and decking. They have used these materials to construct housing, substituting for imported steel and aluminium trusses. In terms of value-adding activity, building products represent a key opportunity given the potential scale of their application.

Furniture is an example of a more bespoke product. Manapan Furniture provides an example of high-end furniture manufacturing in the East Arnhem region.

¹³ [Tiwi Plantation Corporation](#), 'About', (2020)

¹⁴ Sinclair, R., Forest & Wood Products Australia, 'National primary industries research, development, and extension (RD&E) framework: RD&E strategy for the forest and wood products sector', (2010)

Manapan Furniture, Milingimbi

Manapan Furniture produces high-end furniture from Stringybark in Milingimbi.

Manapan has developed a workshop with ALPA to train Yolŋu in joinery and high-end furniture design. The timber used to create the unique furniture is locally sourced from Gumatj and blended with sustainably harvested, specialty Australian timbers.

Yolŋu work with top Australian furniture designers in the design of the furniture.

Proceeds from the business are reinvested in equipment and in the business with the aim of employing and training more local people.



In connection with harvest of timber and production of timber products, Yolŋu may also seek to produce other non-timber forest products, such as bush foods and honey. Further information is required to understand and test market demand for new native forest products. The existing research projects described above will provide some of this information, to support Yolŋu to take forward initial exploratory conversations about forestry.

Construction and maintenance services



Producing native wood products to use in housing construction may support roles for Yolŋu in construction and maintenance roles. Gumatj Corporation, through the *Indigenous Commercial Forestry Opportunities: East Arnhem, northern Australia project*¹⁶, has identified an aspiration to replace all expensive imported timber with high-quality natural forest and plantation timber.

The opportunity to supply the local construction industry will require commitments by governments to new housing construction and procurement of local building materials. Suppliers will also need to be competitive in pricing and quality. There may be entry-level opportunities, including using products as part of repairs and maintenance (e.g. replacement posts and decking for verandas).

Land management services

Forestry can support further downstream opportunities in forest monitoring and management – which may include fee-for-service opportunities delivered by ranger groups and could align with opportunities in carbon markets.

For plantation forests, there are additional opportunities associated with rehabilitation of mine sites – such as landscaping and revegetation services, similar to those currently delivered by Gulkula Mining Corporation and YBE. Wood-related wastes can be used to produce mulch and potentially biofuels. Land management services are explored in further detail in Section 6.

¹⁵ Manapan Furniture, 'Our Story', (2020)

¹⁶ Developing East Arnhem Limited (DEAL), 'Indigenous Commercial Forestry Opportunities: East Arnhem, northern Australia: Project Summary and Governance', (2020)

Indigenous Commercial Forestry Opportunities: East Arnhem, northern Australia

Collaborative funding from Developing East Arnhem Limited, the Northern Territory Government, National Indigenous Australians Agency, University of the Sunshine Coast (USC), and Gumatj Corporation has supported the development of a new research project that will investigate the potential for commercial Indigenous forestry in East Arnhem.

This regional and USC funding unlocked matched funding from the Australian Government, as part of its voluntary matching agreement with Forest and Woods Products Australia (FWPA).

The project will map and report on forests of East Arnhem and their commercial potential, including the development of forest assessment tools. The market needs of the various products will be tested. All available technical and market information will be shared with traditional owners and communities to inform decisions and build a deeper understanding of their interest in forestry opportunities across East Arnhem.



¹⁷ [Developing East Arnhem Limited \(DEAL\)](#), 'Indigenous Commercial Forestry Opportunities: East Arnhem, northern Australia: Project Summary and Governance', (2020)



Tourism

Tourism



East Arnhem is one of Australia's last unspoiled tropical paradises and tourism is a growing industry in the region

There may be opportunities for Yolŋu in:

- Recreational areas and facilities
- Licensing or operating mid- to high-end accommodation
- Offering cultural tours and recreational experiences

NOTE REGARDING COVID-19:

COVID-19 has caused a significant disruption to a range of industries both domestically and around the world, particularly the tourism sector. In this context, the future for some industries remains uncertain, and there may be significant changes in the market.

COVID-19 presents a higher risk for remote and very remote Aboriginal communities. As such, opportunities in East Arnhem must be managed carefully to prevent transmission.

What kinds of tourism activities are happening in East Arnhem?

Tourism is an emerging industry in East Arnhem. The Gove Peninsula is the main base for current tourism activities, which are primarily focused on fishing and adventure tourism, with a growing offering in cultural tourism. There is limited data on the size of the current tourism industry in the region, but it is estimated that the region receives approximately 10,500 overnight visitors per year. The leisure market may account for approximately 3,500 to 4,000 of these visitors.¹⁸

Since mid-2020, East Arnhem tourism offerings have been promoted at

www.eastarnhemland.com.au. DEAL currently manages the region's digital presence through easteastarnhemland.com.au, Instagram (@EastArnhemLand) and Facebook (@VisitEastArnhemLand). DEAL is also currently finalising a Destination Management Plan for East Arnhem as part of the NT Tourism Industry Strategy 2030.

There are established tourism operators and high-quality experiences in the region, but there is also a need for a greater number and diversity of accommodation and experiences. Much of the existing demand has been driven by resource sector employees and visiting friends and relatives, and the region offers several game fishing, 4WD and hunting experiences. The Garma Festival of Traditional Cultures welcomes approximately 2,000 attendees each year, and the region has high quality Aboriginal art galleries. Other cultural tourism offerings are growing – including on-country and homelands tours operated by Lirrwi Aboriginal Tourism and other providers.

¹⁸ Simon McArthur and Associates, 'Gap Analysis and Action Plan for East Arnhem Land: Tourism Development Project', (2017)

Why are there potential opportunities for growth in tourism?

East Arnhem offers spectacular landscapes and rich and diverse culture.

East Arnhem has natural strengths as a tourism destination. By improving the quality of tourist experiences in the region, there is an opportunity to drive increased tourist demand. Supply-side factors such as the quality and types of accommodation available, the amenities, experiences and accessibility are key drivers of tourism.¹⁹

The Yolŋu culture is amongst the oldest living cultures on earth. Visiting East Arnhem provides an opportunity to learn about Yolŋu culture and knowledge. Tourists are able to engage with Yolŋu culture through art, music, dance, food and cultural experiences. East Arnhem is also home to the Macassan trade in the 1700s, the defence of Northern Australia during WW II, the land-rights movement in the 1960s and so offers an opportunity for domestic and international travellers to learn about Australia's Indigenous and post-colonial history.

East Arnhem offers a pristine landscape. The landscape includes islands and bays with stunning white sands, blue waters and rugged coastlines, magnificent billabongs and river systems, and eucalyptus forests. The region is unknown to many, and rich with biodiversity. The landscape also supports activities such as off-road experiences, fishing activities, hunting, and camping.

There is unmet demand for 'deeper' tourism experiences – including cultural experiences

A gap analysis by Simon McArthur and Associates suggests there is an opportunity to expand tourism in East Arnhem by offering 'deeper', more immersive visitor experiences, which involve greater engagement with Yolŋu culture. Currently there are very few immersive experiences in the region despite culture being a key strength of East Arnhem. The tours also do not cater to all visitor markets and occur irregularly. There are additional visitor types – including young travellers, adventurous and socially aware visitors – who would seek out these experiences. There is also evidence that suggests there is unmet market demand for Aboriginal tourism experiences in the Northern Territory more broadly. Research by Tourism NT indicates that more than 80% of visitors to the Territory would like to engage in an Aboriginal tourism experience.²⁰

Cultural experiences play to the strengths of the region and can also drive higher tourist spends. This is important as the region is not accessible to tourists all year round due to weather and tour operator schedules.

Increased regional connectivity will create new opportunities

The Central Arnhem Road is the only road that provides access into Nhulunbuy for residents, tourists and tourism operators, however, is in poor condition and is accessible only to high clearance vehicles such as 4WDs. Difficulty in accessing, or inability to access the region via road has limited the growth in tourism and has meant that road tourism is highly seasonal.²¹

Upgrades to the Central Arnhem Road are expected to increase visitation to the region. GHD analysis on planned \$225 million road infrastructure upgrades to the Central Arnhem Road shows the upgrades will significantly reduce travel times and result in a projected increase in open days. Currently the road is not accessible on average 9 days per year due to periodic flooding and the quality of roads. The upgrades will also improve access to essential services (such as fuel and

¹⁹ Simon McArthur and Associates, 'Gap Analysis and Action Plan for East Arnhem Land: Tourism Development Project', (2017)

²⁰ Northern Territory Aboriginal Tourism Advisory Council, 'Northern Territory Aboriginal Tourism Strategy 2020 - 2030 Summary', (2020)

²¹ GHD, NT Department of Transport & Regional Development Australia, 'NT Feasibility Assessment Central Arnhem Road Upgrade', (2015)

accommodation) as well as road accessibility to different attractions. GHD estimates that the upgrade could give East Arnhem the potential to share in approximately 5% of the current visitor market between Kakadu and Arnhem Land and the Katherine-Daly region.²²

Plans to develop a Tourism Precinct at Inverell Bay, adjacent to the Gove Port will also support increased visitor access by sea. Analysis by Ecotone suggests there is an opportunity to increase the number of yachts and cruise vessels visiting the region, and to link tourism with recreational fishing experiences.²³

Improving access to quality tourist accommodation – including along the Central Arnhem Road – would increase visitor numbers

A lack of quality tourism accommodation represents a key gap in the region's existing offering. The majority of accommodation is worker accommodation – rather than quality tourist accommodation – and accommodation is located mostly in Nhulunbuy. There are a range of unpowered campsites in the region, 12 powered sites available at the Walkabout Lodge and accommodation available at the Gove Boat Club.

In particular, current accommodation along the Central Arnhem Road is limited in its quality and quantity. Along the Central Arnhem Road, only the Mainoru Store currently offers camping along the road with room for approximately 70 spaces as well as non-camping accommodation.²⁴ There is existing accommodation offered at Beswick, Bulman and Mainoru outstation, however these accommodation facilities are outside of East Arnhem and is limited to donga-style lodging and camping facilities. The lack of accommodation means that the road has limited capacity to accommodate group tours.

There are opportunities to increase accommodation offerings along this road and provide public and quality amenities to attract more visitors. With the planned upgrades, and improved accommodation along the road, the Central Arnhem Road has the potential to become an iconic tourism drive, benefiting communities and homelands along the road and from Nhulunbuy as a key hub.

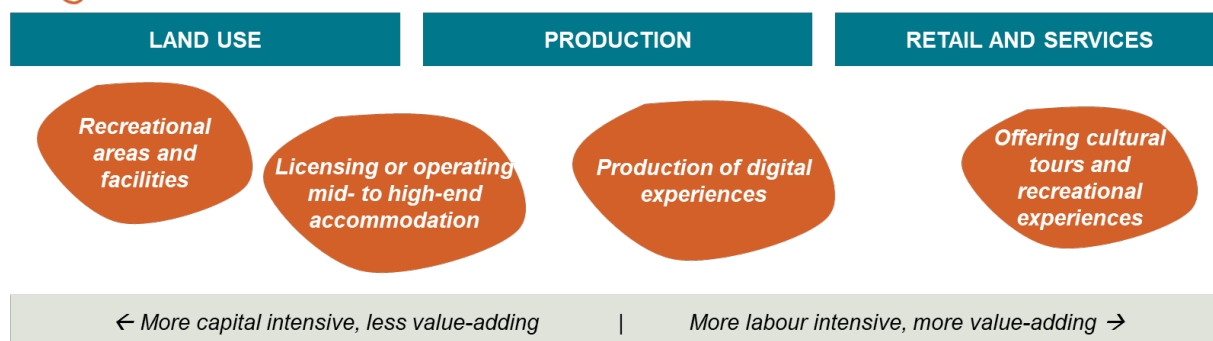
What kinds of activities might Yolŋu be interested in participating in?

The potential opportunities in the tourism value chain are described below. These options are mutually reinforcing and can also support further downstream services and retail opportunities for Yolŋu – for example, by driving additional business at community stores and art galleries or creating demand for new transport services.

²² GHD, and NT Department of Transport & Regional Development, 'Feasibility Assessment Central Arnhem Road Upgrade', (2015)

²³ Ecotone Tourism Developments, 'Ecotone Central Arnhem Road (CAR) Visitor Experience Review Update', (2020)

²⁴ Ecotone Tourism Developments, 'Ecotone Central Arnhem Road (CAR) Visitor Experience Review Update', (2020)



Recreational areas and facilities



Landowners can provide permission for tourists to access recreation areas on their land. Given significant demand for self-drive (including 4WD and campervan) tourism,²⁵ there is an opportunity for Yolŋu landowners to designate access routes and facilities as recreational areas – such as rest bays and camping areas along trails and beaches.

Rest bays along the Central Arnhem Road may be a good location for recreation areas. The Ecotone analysis of tourism opportunities along the Central Arnhem Road suggests at least three more stops will be required along the road (in addition to the communities of Beswick, Bulman and Gapuwiyak).

Access and camping permits provide a source of income for Yolŋu, and support employment by local rangers. A permit is a written permission from Yolŋu landowners to enter their private land. Permits can be issued by the Northern Land Council's online system, or for recreational areas within the Dhimurru Indigenous Protected Area, by Dhimurru Aboriginal Corporation. Permits can be a good first step to get tourists on the right track and begin the process of managing and growing tourism.

Recreation areas may include campgrounds and basic amenities – such as parking bays, picnic tables, powered campsites, and composting toilets. Where amenities are offered (such as campsite facilities) Yolŋu may charge additional fees for the use and maintenance of these facilities. The Dholuwuy Campground, on the shores of Blue Mud Bay near Baniyala homeland, provides an example of a recreational area with basic camping amenities (see case study below). Adding amenities to existing recreation areas also represents an opportunity for growth – for example, adding power to existing unpowered campsites.

In considering making land accessible for tourist recreation, Yolŋu should take into account possible impacts on cultural sites and practices, and risk of environmental damage to natural locations. These risks can be mitigated by the involvement of ranger groups in monitoring recreational areas.

²⁵ Ecotone Tourism Developments, 'Ecotone Central Arnhem Road (CAR) Visitor Experience Review Update', (2020)

Dholuwuy Campground, Blue Mud Bay

The Dholuwuy Campground is located on the shores of Blue Mud Bay near Bäniyala homeland and is operated by the Bäniyala Garrangali Aboriginal Corporation.

The campsites offer direct beach access, fresh water, picnic tables, fire pit, a composting toilet, and a boat launching area. The site accommodates 6 guests. The price of each site starts at \$50 per night. Guests also require an access permit from the Northern Land Council for transit to the campground.



Licensing or operating mid- to high-end accommodation

There is an opportunity for Yolŋu landowners to establish mid-range to high-end tourist accommodation, operated independently or in partnership with a tourism provider. More diverse accommodation options would help to attract higher-end tourist segments to East Arnhem, including as part of tour groups.

Quality stopover accommodation has been identified as a key gap, especially accommodation that is large enough to accommodate groups and families. Analysis by Ecotone²⁷ and Simon McArthur & Associates²⁸ suggests:

- There is a need for larger accommodation facilities that can cater for groups of at least 20 passengers (10-12 twin rooms, and some larger cabin-style options for families of four or more)
- Accommodation may involve either permanent and semi-permanent structures (such as maintained cabins or 'glamping' tents)
- Higher end markets often have a preference for en-suited or private bathroom facilities.

Prospective sites for mid-range and 'glamping' style accommodation include stopover locations along the Central Arnhem Road (as mentioned above), and existing tourist sites on the Gove Peninsula.

On the Gove Peninsula is an internationally recognised art centre, the Yolŋu community-controlled, Buku-Larrŋgay Mulka Centre. It consists of two divisions: the Yirrkala Art Centre which represents Yolŋu artists exhibiting and selling contemporary art, and The Mulka Project which acts as a digital production studio and archiving centre incorporating a museum. The Centre boasts guest accommodation in 8 self-contained, self-catered units.²⁹



²⁶ Developing East Arnhem Limited (DEAL), 'East Arnhem Land Website: Dholuwuy Campground', (2020)

²⁷ Ecotone Tourism Developments, 'Ecotone Central Arnhem Road (CAR) Visitor Experience Review Update', (2020)

²⁸ Simon McArthur and Associates, 'Gap Analysis and Action Plan for East Arnhem Land: Tourism Development Project', (2017)

²⁹ Simon McArthur and Associates, 'Gap Analysis and Action Plan for East Arnhem Land: Tourism Development Project', (2017)

At Inverell Bay, near Gunyarrara, the Gove Boat Club has developed new campgrounds (under a lease agreement with Gumatj Traditional Owners), and traditional owners have expressed a vision for a tourism precinct in this location.³⁰

Self-contained accommodation is popular, and can be easier to manage as it does not require ongoing staffing and catering, which can minimise set-up and running costs.³¹ At Blue Mud Bay, Bäniyala Garrangali Aboriginal Corporation has developed serviced donga-style twin rooms which have air conditioning, shared bathrooms, kitchens, laundry facilities and outdoor seating areas.

There may be opportunities for Yolŋu to operate higher-end and luxury accommodation in partnership with group tour operators. Yolŋu can negotiate agreements with businesses that want to set up accommodation and other infrastructure on their land. For example, the Murwangi Safari Camp in Ramingining is operated by Outback Spirit Tours, who have entered an agreement with local Traditional Owners (see case study below).

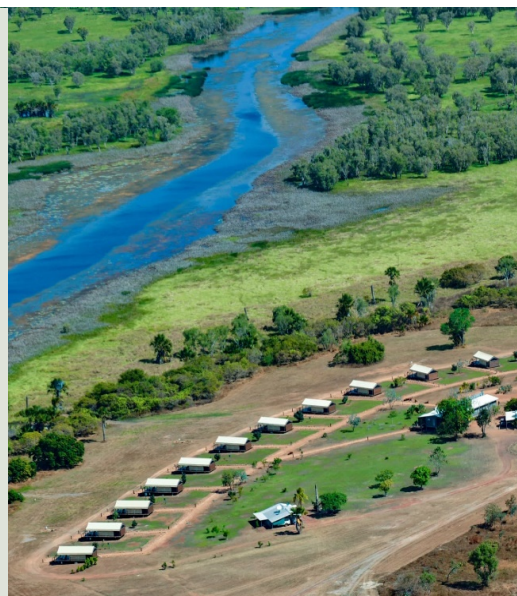
*Case Study 6: Murwangi Safari Camp*³²

Murwangi Safari Camp, Arafura Swamp

Murwangi Safari Camp is a luxurious safari camp for tourists run by Outback Spirit, a tourism operator in the Northern Territory.

Guests stay in high-end tent-style cabins with ensuite bathrooms and air conditioning. The camp includes a licenced restaurant and in-house chef.

The camp is used as part of Outback Spirit's Arnhem Land Wilderness Adventure, a 13 day fully accommodated tour which attracts high-end travellers (priced at more than \$12,000 per person twin share). Yolŋu receive income through their lease agreement with Outback Spirit, and some Yolŋu are employed as cultural guides.



In some locations, there may be opportunities for boutique resort-style accommodation, run in partnership with established resort operators. Banu Banu Beach Retreat on Bremer Island is a small, high-end eco-resort offering five beachfront bungalows and a penthouse. Rooms are priced from \$900 per night, including permit fees. Yolŋu from Bremer Island communities work with the resort. The resort sells their arts and crafts – including hand-painted shells and woven baskets – and local bush foods are included on the restaurant menu.³³ The resort, owned by an Indigenous entrepreneur from Central Australia, has received financial support and advice from Indigenous Business Australia. It operates under a 25-year land use agreement granted by Yolŋu Traditional Owners.³⁴

High-end boutique accommodation is a viable option for East Arnhem as it harnesses the region's remoteness as an advantage, attracts tourists who are less price-sensitive, and limits environmental impact. This accommodation involves a 'low volume, high value' strategy advocated by industry

³⁰ Narrariyal Aboriginal Corporation, 'Gunyarrara Master Plan', (2019)

³¹ Ecotone Tourism Developments, 'Ecotone Central Arnhem Road (CAR) Visitor Experience Review Update', (2020)

³² Murwangi Safari Camp, [Outback Spirit](#), (2020)

³³ Fulloon, S., [SBS News](#), 'The Indigenous-owned resort offering visitors a taste of Aboriginal Australia', (2020)

³⁴ Fulloon, S., [SBS News](#), 'The Indigenous-owned resort offering visitors a taste of Aboriginal Australia', (2020)

specialists.³⁵ It requires less footprint – for example, accommodation may be off-grid, or accessible by charter flights to remote airstrips. There are similar high-end tourist lodges in other parts of remote Australia, such as Berkeley River Lodge on the Kimberley Coast in Western Australia, which also offers a number of private tours and fishing experiences.

In addition to generating income, accommodation can support jobs for Yolŋu in hospitality (including cleaning and catering), services (such as cultural tours), and management – depending on the roles that Yolŋu are interested in playing. There are advantages in partnering with established providers who can support training and workforce development for Yolŋu and share in the risk of operating accommodation (noting the seasonality and variability of tourism). Groote Eylandt Lodge is an example of such an arrangement.

Production of digital experiences

Digitisation in the tourism industry has allowed tourism operators to not only enhance the experience of tourists but also to attract new tourist cohorts. Yolŋu can partner with tourism distributors or media agencies to produce and offer digital experiences to a wider audience. For instance, throughout the Covid-19 travel restrictions in Australia, Yolŋu Radio, Rirratjingu Aboriginal Corporation and DEAL facilitated *East Arnhem Live*, a free online concert series, showcasing the natural landscape and musical talent of the East Arnhem region.³⁶ There is an opportunity to work with local artists and producers to create cultural, video or interactive experiences. For instance, online weaving classes are offered by Tjanpi Desert Weavers Aboriginal Corporation and Anindilyakwa Arts. Buku-Larrnggay Mulka Centre is also interested in developing an immersive virtual reality experience.

Yolŋu can also showcase the natural environment online, as Tourism Australia has done through a range of virtual tours, including a 360-degree view of Uluru-Kata Tjuta National Park.³⁷ This opportunity relies on a strong and connected telecommunications network.

Offering cultural tours and recreational experiences

Yolŋu landowners may be interested in offering new services to tourists to meet demand for cultural experiences and attract new visitor types. In particular, there is an opportunity for more immersive experiences (layers three, four and five of immersion identified by Simon McArthur & Associates), which include:

- **Layer 3:** Scenic tours of homelands by air; painting and weaving workshops; guided art gallery tours; guided town tours; bush foods collection tours and workshops
- **Layer 4:** Overnight outback and 4WD tours; visits to homelands
- **Layer 5:** Multi-night stays in homelands; joining Yolŋu in hunting and collecting food and preparing traditional meals.

For Yolŋu landowners, immersive experiences have a number of advantages. These opportunities provide an opportunity for Yolŋu to share their culture with Balanda visitors. Offering immersive experiences such as pre-booked cultural tours also enables Yolŋu to manage the number of tourists visiting country and to determine which areas tourists can access.

³⁵ Simon McArthur and Associates, 'Gap Analysis and Action Plan for East Arnhem Land: Tourism Development Project', (2017)

³⁶ [Developing East Arnhem Limited \(DEAL\)](#), 'East Arnhem Live, (2020)

³⁷ [Tourism Australia](#), 'Virtual Tours of Top Australian Cultural Experiences', (2020)



are also popular.

Alongside cultural experiences, there are opportunities for other immersive recreational experiences and nature tours. For instance, Outback Spirit has established a bird watching tour at Ramingining, seeking to capitalise on an affluent market of tourists interested in bird watching, and taking advantage of the region's biodiversity. Fishing and game hunting tours (for example, feral buffalo hunting safaris operated by Tropical Hunting Safaris in Central Arnhem)

Immersive tours and experiences can produce commercial income for Yolŋu, and to support jobs for Yolŋu linked to culture. These include roles as on-country guides, and in teaching art, music, dance, food, and language.

Development of cultural experiences is a good choice for landowners who have a strong commitment to tourism and want to use tourism to build economic opportunity. Development costs can be high, and long-term commitments are required. Landowners can partner with tourism intermediaries such as Welcome to Country to promote new experiences.

Case Study 7: Bawaka Tours³⁸

Bawaka Tours, Bawaka

Bawaka Tours is a Yolŋu-led cultural tour operator

The tour offers traditional spear fishing and crab hunting experiences. Tourists learn about Moiety – Yirratja and Dhuwa (Kinship) and how this connects Yolŋu to the land and to each other, one big Earth balanced.

The half-day tour departs from Nhulunbuy or Yirrkala and is conducted on a 4WD.



³⁸ [Lirrwi Tourism](#), 'Bawaka Day Tour', (2020)



Agriculture and native products

Agriculture and native products



AGRICULTURE AND
NATIVE PRODUCTS

East Arnhem has unique native products which Yolŋu can sell both locally, Australia-wide, and internationally

There may be opportunities for Yolŋu in:

- Planting and harvesting of fruits, vegetables, and other crops
- Wild harvest of native products
- Production, transport, and retail of value-added products

What kinds of activities involving agriculture and native products are currently happening in East Arnhem?

The agriculture and native products sectors incorporate a wide range of enterprises including propagation and harvest of vegetables, fruit and herbs, as well as harvest and production of native bush food, botanical and animal products.³⁹ These industries are grouped because they involve similar activities, and a combination of local and export markets.

Across the NT, there is significant production of crops such as mangoes, melons, bananas, citrus and pineapples. Despite a history of agriculture during mission days especially growing mangoes in Galiwin'ku, the existing industry in East Arnhem is smaller in scale and focused on community-led nurseries and greenhouses such as Food Ladder in Ramingining.

The traditional owner led native product industry is growing across the Northern Territory,⁴⁰ however the market in East Arnhem is in its infancy. For example, some Maningrida homelands are currently harvesting Kakadu Plum and bush apples for restaurants in Darwin. There is also a research project underway by the University of Queensland into the commercial viability of the green plum as well as exploration of Gulban tea by Enterprise Learning Project.

The native product market faces challenges such as matching supply with demand, development of production capacity, established routes to market and education and awareness, each of which currently impedes the industry's growth in East Arnhem. Furthermore, existing players tend to be small-to medium-sized, and as such unable to make large investments in research and development of new products. As a result, some existing producers of native products prefer cooperative approaches to overcome these challenges.⁴¹

Cattle production and live export are key sectors for the Territory economy but have not been highlighted in this fact base based on available evidence and stakeholder input. There has been limited growth in live cattle trade over the past ten years and returns on investment across the Territory are static or declining.⁴² Gumatj Corporation operates a cattle station and abattoir at Garrathiya but does not have plans for expansion, citing significant competition from established Darwin-region cattle stations.

³⁹ Maclean, K., Woodward, E., Jarvis, D., Rowland, D., Rist, P., Turpin, G., Martin, P. and Glover, R., CSIRO, 'A Strategic Sector Development and Research Priority Framework for the Traditional Owner led Bush Products Sector in northern Australia', Project AT.2.1718054, (2019)

⁴⁰ Maclean, K., Woodward, E., Jarvis, D., Rowland, D., Rist, P., Turpin, G., Martin, P. and Glover, R., CSIRO, 'A Strategic Sector Development and Research Priority Framework for the Traditional Owner led Bush Products Sector in northern Australia', Project AT.2.1718054, (2019)

⁴¹ Maclean, K., Woodward, E., Jarvis, D., Rowland, D., Rist, P., Turpin, G., Martin, P. and Glover, R., CSIRO, 'A Strategic Sector Development and Research Priority Framework for the Traditional Owner led Bush Products Sector in northern Australia', Project AT.2.1718054, (2019)

⁴² NT Government, 'Industry Outlook May 2019', (2019)

Why are there potential opportunities for growth in agriculture and native products?

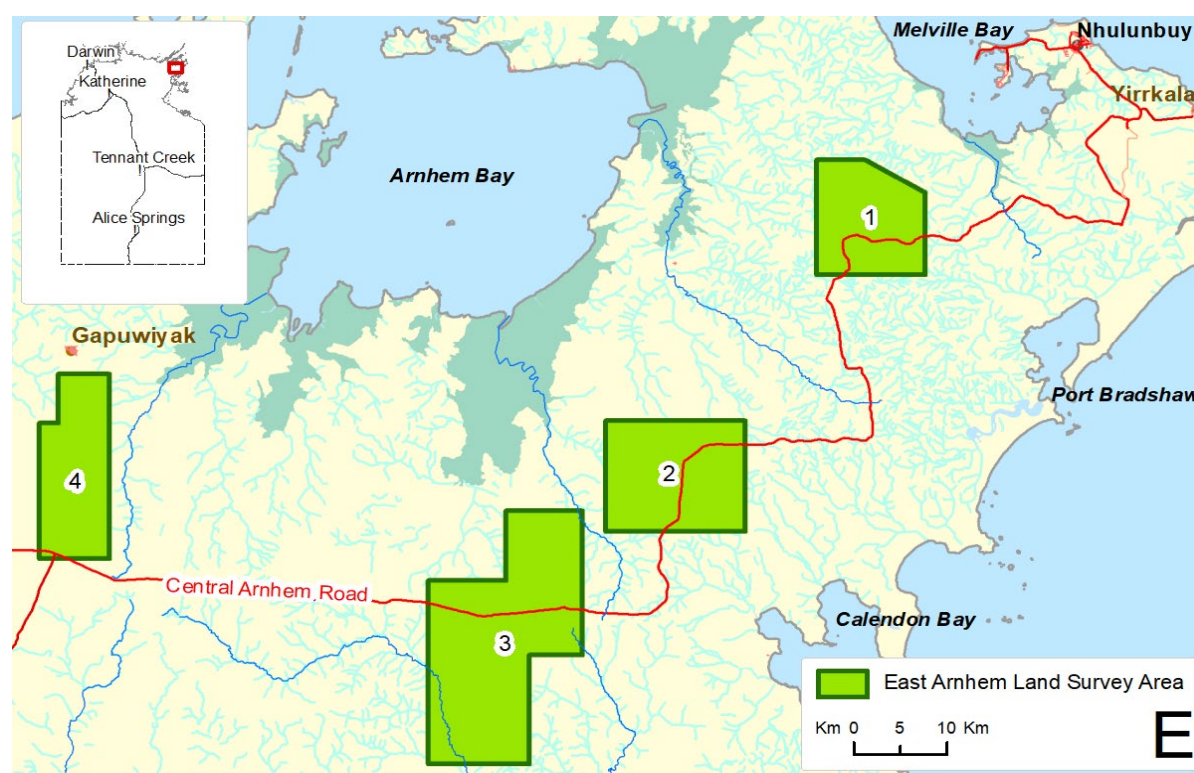
Studies show quality soils and groundwater reserves across the region

The Department of Environment and Natural Resources has recently finalised soil and land mapping on lands south-west of Nhulunbuy, which show potential for local food production. This work is currently undergoing a consultation phase with the Northern Land Council, East Arnhem region.

The study examined four separate survey areas (see Figure 5) located within a radius of 130 km of Nhulunbuy, covering a total area of approximately 80,000 hectares. These same areas have previously been identified in studies as having potentially the most suitable soil landscapes for irrigated agricultural development.⁴³ Consideration was also given to potential surface water and groundwater supply which would impact on potential future development.

Potentially suitable land for irrigated agriculture was identified in each of the study areas. These areas have agricultural soil landscapes mainly consisting of deep, well drained, sandy, or loamy textured red earths on level to gently undulating plains. Given a water resource could be identified, there could be opportunities for local food production in the region.

Figure 5: Locality map showing the four survey areas and regional context (supplied by NT Department of Environment and Natural Resources)



Water maps of the region show a large aquifer that covers a significant proportion of North East Arnhem land and another smaller, deeper aquifer closer to Nhulunbuy.⁴⁴ Experts have indicated that

⁴³ Lynch, B.T. and Wilson, P.L., Natural Resources Division, Department of Lands, Planning and Environment 'Land Systems of Arnhem Land', Report Number R97/1', (1998)

⁴⁴ NT Department of Lands, Planning and Environment, 'Water resources of East Arnhem Land Map', [includes multiple sub-regional maps attached separately] (1999)

bores in these aquifers are likely to yield 10 to 50 litres per second. Large aquifers have high quality water as it is young water from seasonal monsoons trapped on depressions and filtered down through sediments into the aquifer (noting that further detailed assessment of these aquifers is required).

East Arnhem's seasonal cycle differs from Darwin, which may provide opportunities for supply to markets outside the region.

The climate of East Arnhem differs from the rest of the top end, largely due to the fact it is a Peninsula between the Gulf of Carpentaria and the Arafura Sea. Significant wet season rains generally start one month later than in Darwin and then last a month longer. This results in a longer growing season and different fruit harvest times for various plant species.

The different timing in the seasonal cycle results in different fruiting times for native products and commercial crops such as fruit and vegetables. This can provide East Arnhem growers a competitive advantage as they may be able to produce fresh fruit for market in Darwin at unique times. While the costs of freight remain a key challenge, the Gove Port has capacity to support access to Darwin markets.

East Arnhem offers many unique native and exotic species, for which there is growing consumer demand

East Arnhem is home to a range of native plant species which can be used in the food, health, and beauty industries. Some native species such as Munydjutj (bush mango) have been shown to yield significantly higher in this region. The remote location and lack of existing commercial production of most domesticated species also provides an opportunity for seed stock production of species that need isolation from potential cross pollination.

Native Australian bush foods are becoming increasingly popular as ingredients and condiments for everyday meals. The past decade has seen increased demand for exotic products such as Kakadu Plum, Bush Tomato, Lemon Aspen, Quandong, Lemon Myrtle, Native Mint, Native Thyme and Pepper Berries. Demand for Australian native foods is estimated to exceed supply⁴⁵. Some native foods (including the Kakadu plum and quandong) have revealed to be healthier than existing varieties of the fruit. Many restaurants and chefs around the country are embracing native ingredients in their cooking and large-scale partnerships with supermarket chains (for example, Coles has established a partnership with Outback Spirit Foundation to support the bush food supply chain).

The popularity of native and exotic ingredients is also expected to rise internationally, especially in Asia.⁴⁶ Product-specific market analysis is available for some native and exotic species.⁴⁷

There is growing support for Indigenous participation in native food industries

Indigenous people have unique cultural knowledge about native species, but are underrepresented in the existing industry. It is estimated that only 1% of bush foods are produced by Indigenous people.⁴⁸ This is an issue for the growth of the sector and as a result, there is increased activity in workforce development and research to encourage more Indigenous participation. For example, Dr

⁴⁵ Honan, K., McCarthy, M., [ABC News](#), 'Native bush food demand outstripping supply says industry as more growers encouraged', (2017)

⁴⁶ Baczowski, H., [ABC News](#), 'Native green plums from Arnhem Land found to have significant health benefits, commercial appeal', (2020)

⁴⁷ Coriolis, 'New Opportunities in New & Emerging Agricultural Industries in Australia: Final Report', (2017)

⁴⁸ Mitchell, R. and Becker, J., [ABC News](#), 'Bush food industry booms, but only 1 per cent is produced by Indigenous people', (2019)

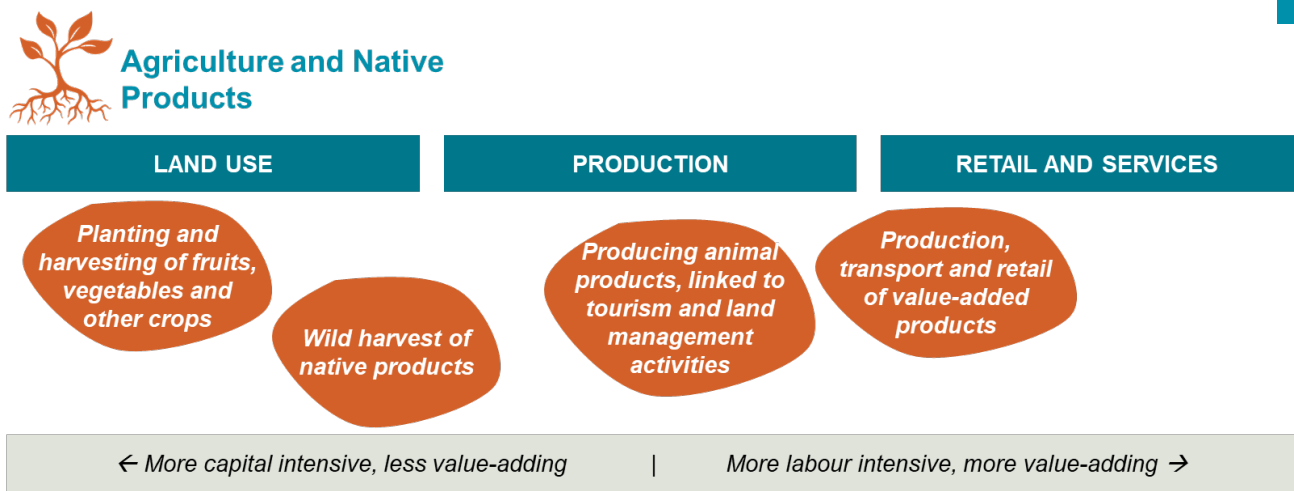
Yasmina Sultanbawa from University of Queensland is currently researching the commercial viability of the Green Plum which is found in Yirrkala.⁴⁹

There are a range of government and non-government initiatives to support Indigenous participation in these industries. This includes investment in community storage facilities, government grants for native food businesses, and investment in workforce development – including new native food courses offered by TAFEs. For instance, TAFE NSW is offering a course: *Establish, Control and Grow Native Food Crops for the Bush Food Industry* for organisations interested in studying the growth of native food crops. The Cooperative Research Centre for Developing Northern Australia (CRCNA) is participating in a \$2.7 million research project to review the supply chain of the Kakadu plum industry over three years, which is expected to increase the value of the industry by \$10 million and increase participation by Aboriginal communities.

There are opportunities to leverage new technology

New innovative ways of growing plants in arid conditions are being developed and piloted due to the change in climate being experienced across the globe. In East Arnhem there are opportunities to use technology in the collection of data of native products, development of infrastructure for storage of native foods in remote communities or access new markets through online stores. An example of this is the community packing and storage shed which was established by the Orana Foundation with the Nyul Nyul People and can withstand extreme weather conditions. Another example is the automated Food Ladder greenhouse in Ramingining. As such, there are opportunities to leverage new technology to address supply chain issues.

What kinds of activities might Yolŋu be interested in participating in?



While the path for taking forward opportunities in agriculture and native foods differs depending on the specific product, the value chain for these opportunities will generally involve harvest or collection, processing activities including sorting, storage, transport, production of value-added goods, and wholesale or retail trade. While there are opportunities in the earlier stages of the value chain of existing and new products, the profit margins often sit with the entities responsible for value-added activities that transform the raw goods into products for wholesale and retail consumers. These activities require investment in infrastructure, technology, and capacity building.

⁴⁹ Baczkowski, H., [ABC News](#), 'Native green plums from Arnhem Land found to have significant health benefits, commercial appeal', (2020)

Planting and harvesting of fruits, vegetables, and other crops

An opportunity exists to grow fresh fruit and vegetables for regional consumption, and in some cases for export. East Arnhem faces high prices for fresh fruit and vegetables due to the remote location and the lack of local production of fresh produce to satisfy the local market. Market gardens and small horticulture operations could supply grocery stores and reduce the reliance on food delivery by barge to the region.

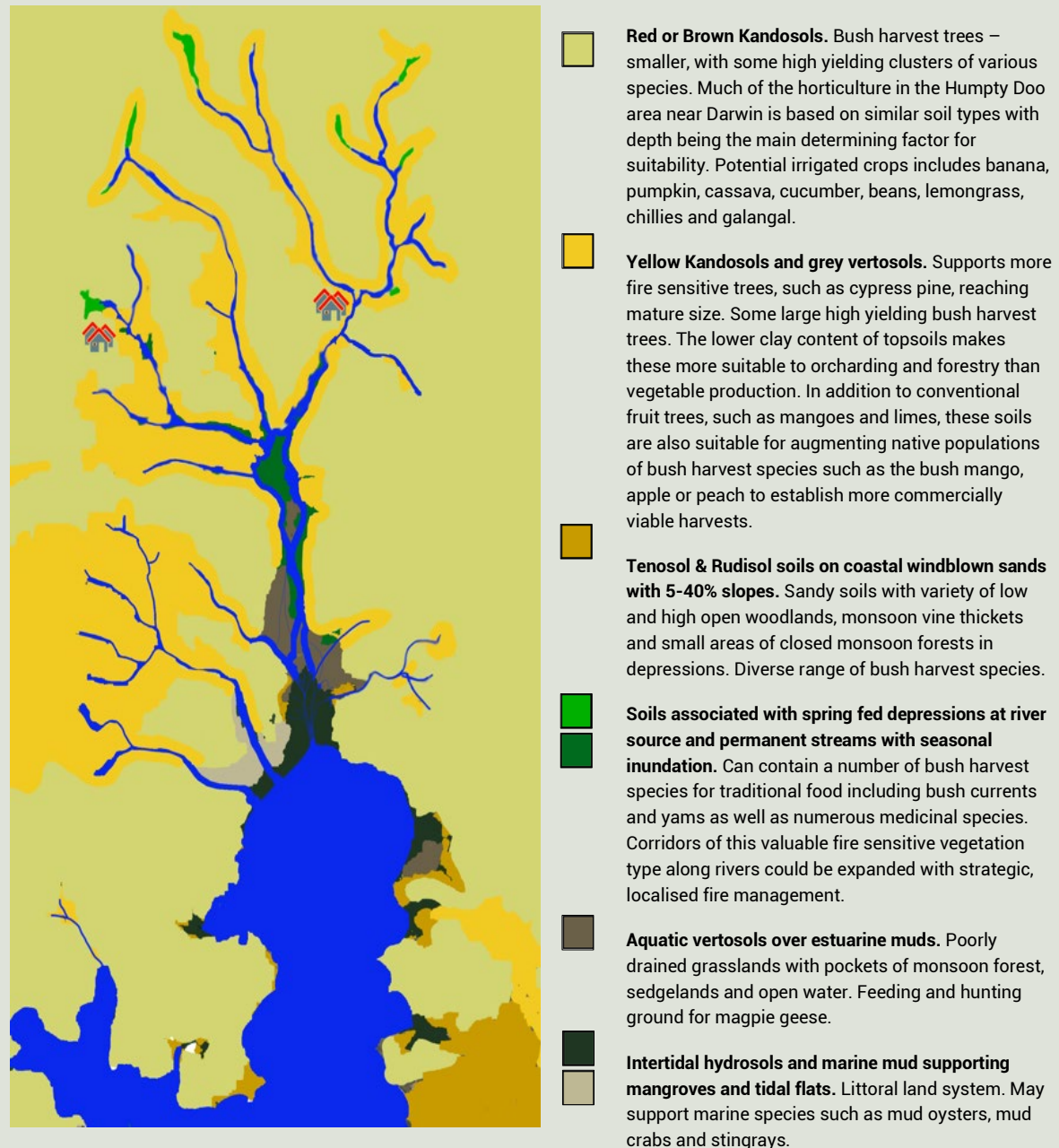


The types of crops that can be grown depends on the specific type of soil in those areas (see Figure 6 below). The crops can range from native fruits such as bush mango, apple or peach to irrigated crops such as banana, pumpkin, cassava, cucumber, beans, lemongrass, chillies, and galangal.

Figure 6: Soil Map of Mandjawuy supplied by Knowledge Water⁵⁰

Soil conditions in Mandjawuy homeland – as a typical description of soil type and utility

A profile of soil conditions in Mandjawuy, a homeland three hours from Yirrkala, demonstrates that different crop species may be viable along East Arnhem's river systems.



Greenhouses offer an alternative model for growing food and vegetables – including in areas without appropriate soil and irrigation. Food Ladder, a social enterprise, has begun to test this concept in Ramingining, with greenhouse crops used to supply ALPA stores (see case study below).

⁵⁰ Baker, R., 'Soil Conditions in Mandjawuy', [provided as part of Consultations], (2020)

Food Ladder, Ramingining

Food Ladder is a not-for-profit organisation that uses hydroponics and environmentally sustainable technologies to grow local food.

The Ramingining Food Ladder provides employment through ALPA's CDP program, and also works with local schools. Produce is sold through local stores, with a notable increase in the purchase of fresh fruit and vegetables since Food Ladder began.

Most of the technology is automated, reducing the need for ongoing monitoring and protecting crops against weather changes. Solar panels with battery storage power, coupled with water treatment technologies, means Food Ladder systems can operate in isolated and arid locations.



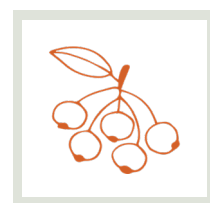
Yolŋu may need to partner to scale smaller community-based gardens into larger commercial operations. This may include accessing advice and know-how from fruit and vegetable suppliers operating in the Darwin / Humpty Doo regions and accessing seed funding from organisations such as the Indigenous Land and Sea Corporation (ILSC). ILSC has indicated an interest in supporting agribusiness activities such as production of vegetables, fruits and nuts.⁵²

In addition to fruits, vegetables and nuts, hemp is an emerging product for horticulture in Northern Australia. Industrial Hemp has recently been approved in the Northern Territory for consumption.⁵³ The Territory has a competitive advantage in Australia, as the state has the potential to produce viable seed via a dry season crop and supply it to the rest of Australia for summer planting. The ability to plant two crops for Territory farms each dry season increases the potential return to farmers, with hemp grain currently trading at a farm-gate price of around \$3,000 per tonne. To realise this opportunity, Yolŋu may require partnerships with existing hemp companies for pathways to market around Australia.

Wild harvest of native products

The opportunity for small-scale harvest of native products in East Arnhem is limited in its commercial viability but produces cultural benefits and builds local capability.

A study of small-scale harvest in East Arnhem found that rates of return for many native products is lower than CDP wages. There were significant challenges in entering the market economy given the challenge in scaling up local harvest activities (due to the small size of individual group, variation in resource availability, and short periods of seasonal supply).⁵⁴



⁵¹ Food Ladder, 'Our Projects: Ramingining NT', (2020)

⁵² Indigenous Land and Sea Corporation, 'Agribusiness Investment Program Prospectus', (2019)

⁵³ NT Government Media Release, 'Hemp – versatile, sustainable and profitable', (2020)

⁵⁴ P. J. Whitehead, J. Gorman, A. D. Griffiths, G. Wightman, H. Massarella and J. Altman, 'Feasibility of Small Scale Commercial Native Plant Harvests by Indigenous Communities: A report for the RIRDC/Land & Water Australia/FWPRDC/MDBC Joint Venture Agroforestry Program', RIRDC Publication No 04/149, (2006)

Small-scale local harvest may involve local families harvesting wild fruit and bringing it to a collection point for quality control, weighing and payment. This generates seasonal income for harvesters and seasonal employment for local people at the collection point. Annual harvests also support people's connection to country and transfer of knowledge to younger generations.

Small-scale local harvest can be a more viable option when linked to other industries, especially tourism – for example, by supplying products to local restaurants (for example, as described in the Banu Banu Resort case study above).

The best opportunity for Yolŋu to create a commercially viable business in native harvest involves forming cooperatives across different groups and homelands. A 2016 study identified products that exist across multiple homelands in the region, which may support cooperative arrangements focused on particular foods or groups of foods.⁵⁵ For example:

- A variety of plum, apple and currant species may be available in Bäniyala, Dhuruputjpi, Gurumuru, GanGan, Wandawuy, Yirrkala / Gunyanara including Billygoat plum (Mamanbu), Black plum (Wanapu), Green Plum (Dhurupinda) Red apple (Larrani), White apple (Larrani), White currant (Gumbu). Cheeky yam (Djitama) and Long yam (Manmuna) also exist in some of these areas. Native grape (Lingarr) is available in Bäniyala, and native fig in Gan Gan.
- Other nut and tree products including native nutmeg (Ganmurru) in Wandawuy; Indian almond (Matpana) was identified in Bäniyala, Dhuruputjpi, Gurumuru, GanGan and Wandawuy; the nut tree (Gutu) in Dhuruputjpi, Gurumuru, GanGan, and Cycad (Nathu) are found in Dhuruputjpi, Gurumuru, Wandawuy.

With support from intermediaries, landowners may be interested in forming a network of suppliers, to reduce costs associated with taking the product to market and the likelihood of oversupply.

This study identified a set of principles that describe the terms on which Yolŋu wish to participate in this industry. These included ensuring that planning for developments are carried out on-country and involve traditional landowners; that benefits are shared equitably among traditional owners and those working directly on enterprises; that projects respect plants, sites and culture – with cultural and operational guidance from community leaders; that young people are involved in the process to support intergenerational learning, and that training and accreditation should be run in conjunction with business development.⁵⁶

Products that link closely to existing markets should be prioritised as they present less risk, and there is an opportunity for Yolŋu to join existing alliances and supply chains. Alliances help local groups to overcome risks of over-harvesting and inconsistent supply throughout the year. The most established Indigenous-run bush food alliance is the Northern Australia Kakadu Plum Alliance (see case study). It supports Aboriginal groups to develop and share knowledge, access markets and protect their intellectual property (which is a key barrier for native plant enterprises).⁵⁷

⁵⁵ P. J. Whitehead, J. Gorman, A. D. Griffiths, G. Wightman, H. Massarella and J. Altman, 'Feasibility of Small Scale Commercial Native Plant Harvests by Indigenous Communities: A report for the RIRDC/Land & Water Australia/FWPRDC/MDBC Joint Venture Agroforestry Program', RIRDC Publication No 04/149, (2006)

⁵⁶ P. J. Whitehead, J. Gorman, A. D. Griffiths, G. Wightman, H. Massarella and J. Altman, 'Feasibility of Small Scale Commercial Native Plant Harvests by Indigenous Communities: A report for the RIRDC/Land & Water Australia/FWPRDC/MDBC Joint Venture Agroforestry Program', RIRDC Publication No 04/149, (2006)

⁵⁷ [Northern Australia Aboriginal Kakadu Plum Alliance](#), 'The NAAKPA Enterprise Model', (2020)

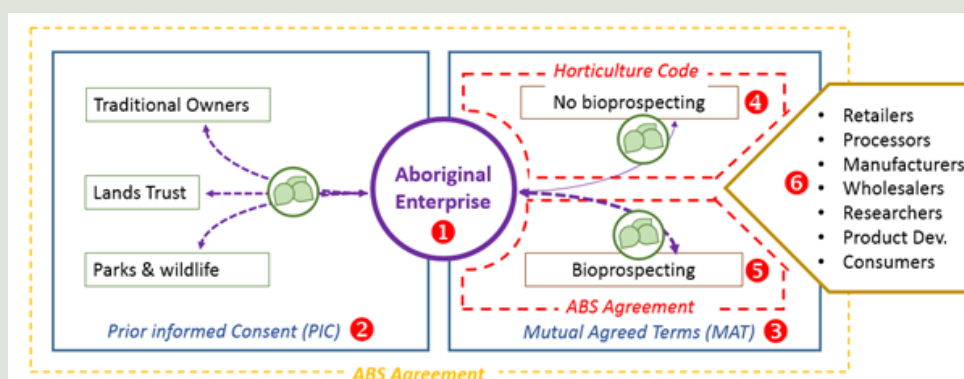
Figure 7: NAAKPA Enterprise Model

Northern Australia Aboriginal Kakadu Plum Alliance

The Northern Australia Aboriginal Kakadu Plum Alliance (NAAKPA) is a collection of nine Aboriginal Corporations who have come together to consolidate the supply chain for Kakadu plum.

It includes nine Aboriginal Corporations from across Western Australia and the Northern Territory, including Gundjeihmi Aboriginal Corporation and Bawinanga Aboriginal Corporation in Arnhem Land. The Alliance is supported by the Indigenous Land and Sea Corporation.

As part of this process, NAAKPA have developed a business model which will make it easier for consumers and business to access Kakadu plum, in an ethical manner consistent with statutory requirements. This includes meeting the requirements of prior informed consent with Traditional Owners and access to land with responsible authorities and protecting Indigenous intellectual property. In the NAAKPA model the Aboriginal enterprise harvesting/growing, and processing Kakadu Plum is at the centre of the processes and the relationships.



Production, transport, and retail of value-added products



Yolŋu will benefit more from engaging in agricultural and native foods industries by converting raw materials into consumer products. Value-added products

include nursery seedlings, new plant varieties, gourmet sauces and jams⁵⁸ as well as spices mixes, health supplements and cosmetic products. Health and cosmetic products from native ingredients may produce higher margins (and require less volume) but can also involve significant research and development costs. Value-added products can be sold locally (linked to tourism activities) or exported.

Export will be most viable for higher-value products – including exotic and regionally-specific cultural products. For example, Bush Medijina, a social enterprise in Angurugu, Groote Eylandt, produces health and beauty products that are made from native plants, which are sold through retailers and directly through an online store (see case study).

⁵⁸ Maclean, K., Woodward, E., Jarvis, D., Rowland, D., Rist, P., Turpin, G., Martin, P. and Glover, R., CSIRO, 'A Strategic Sector Development and Research Priority Framework for the Traditional Owner led Bush Products Sector in northern Australia', Project AT.2.1718054, (2019)

Case Study 9: Bush Medijina⁵⁹

Bush Medijina, Angurugu

Bush Medijina is a Anindilyakwa-led native nutraceutical brand based on Groote Eylandt that produces a range of health and beauty products. The organisation was also a winner of the 2019 Telstra Business Awards a NT Social Change Maker.

Bush Medijina was born from the desire of Warningakalina elders to address the need to build culture and capability across the archipelago to positively impact the livelihoods of women, children, and families.

The organisation is governed by an all-female board. Bush Medijina employs only women and 80% of the workforce is Indigenous. Bush Medijina upskills Anindilyakwa in business and marketing as well as the use of technology in the day-to-day operations of the business.

The business is raising awareness of Indigenous expertise in native plants and the strengths of using native products for health and beauty.



Export may also be viable for crops that have different growing times compared to Darwin, such as bush mangoes, and for goods that do not require costly refrigerated transport (for example, dried goods). In connection with regional supply chains for food and other goods, there are also opportunities for Yolŋu to be employed in transport activities.

Within East Arnhem, food and native products can be sold at local supermarkets, restaurants, and galleries. Bawinanga Aboriginal Corporation in Maningrida (see case study) demonstrates the potential for a mix of local supply.

Case Study 10: Bawinanga Aboriginal Corporation⁶⁰

Bawinanga Aboriginal Corporation, Maningrida

Bawinanga Aboriginal Corporation purchases native food from local community members and on sells them to Darwin restaurants and in the Bawinanga supermarket (Barlmarrk).

Bawinanga acts as a wholesaler whereby local families are the suppliers of different native products. Bawinanga then sells the fresh product to restaurants in Darwin, Melbourne, Sydney and Brisbane.

The scale of the operation is relatively small and ad-hoc as it relies on the level of stock each family brings to Bawinanga. Bawinanga also makes value-added products from the native fruits (e.g. Kakadu Plum) including a spice mix which is stocked in the local supermarket in Maningrida run by the Aboriginal Corporation.



⁵⁹ Bush Medijina, 'Our Story', (2020)

⁶⁰ Consultations with representative from Bawinanga Aboriginal Corporation



Land Management

Land Management



Yolŋu are leaders in Indigenous land management and have the potential to expand existing services and innovate

There may be opportunities for Yolŋu in:

- Animal mustering and pest control
- Visitor management, community programs, cultural heritage protection
- Expansion of existing land management services including carbon abatement programs
- Research and development in biodiversity monitoring, biosecurity, and related areas

What kinds of land management activities are currently happening in East Arnhem?

The land management sector is well established in the region with strong governance and capabilities. Aboriginal ranger groups are responsible for the maintenance of the Indigenous Protected Areas (IPAs) and the East Arnhem region contains the Marthakal, Laynhapuy and Dhimurru IPAs.

The sector is generally dependent on government funding and grants however in recent times, there has been an increase in fee-for-service commercial activity. Rangers carry out a range of core land management work that includes marine debris clean ups, weed and fire management, pest animal control and quarantine, cultural site management, sea country patrols and surveillance operations, Indigenous knowledge transfer, community education and biodiversity surveys. Ranger groups are also increasingly involved in community development programs.

Each ranger group in East Arnhem, has strategic priorities for their IPAs related to conservation and social outcomes. For instance, the Dhimurru Ranger's IPA goals are the "Conservation of the interdependent heritage values (cultural and natural) of the Dhimurru IPA" and "Sustainable Indigenous, commercial, and recreational use of the Dhimurru IPA". The vision for the Laynhapuy IPA is "to maintain land and sea country, the culture and the wäŋa (homeland) for future generations of mala, and to assist with the achievement of self-sufficiency in the management and determination of our future". Similarly, Gumurr Marthakal Rangers' IPA goals are for a "healthy country that sustainably provides good food, water and livelihoods for Yolŋu people and a foundation for our culture, future and children". These strategic goals guide the projects that the ranger groups support and deliver in communities.

Why are there potential opportunities for growth in land management?

Established capabilities and ranger workforce across the region

East Arnhem's ranger groups hold a wealth of knowledge in the conservation of country and management of biosecurity. The region has three main ranger groups: Yirralka Rangers, Dhimurru Rangers, and Gumurr Marthakal Rangers. The Crocodile Island Rangers and Arafura Swamp Rangers also operate in some parts of the East Arnhem region near Milingimbi and Ramingining. The reputation and knowledge of these ranger groups are key assets for the region.

The role of ranger groups is continuing to expand beyond core land management services

Rangers are increasingly becoming involved in community development and education. For instance, Dhimurru Aboriginal Corporation conducts a Learning on Country program⁶¹ funded by the Cotton on Foundation which uses environmental and cultural activities to support classroom learning. Laynhapuy Aboriginal Corporation (Yirrkalā Rangers) also facilitates a Learning on Country program with Yirrkalā Homelands School.

With the increased popularity of native products and tours of remote Australia, rangers are becoming involved in bush product development and the provision of tours. For example, Yirrkalā rangers have developed a range of health and beauty products from native ingredients including lip balm, bush soap or *Butjirinaning*, and body scrub.⁶²

Rangers are also involved in the regulation of industries that affect the natural environment such as regulation of fishing, forestry, and monitoring of licences for tourists as well as mine rehabilitation. For example, the Gumurr Marthakal Sea Rangers are one of eight other ranger groups that monitor illegal activities in the seas around the region.⁶³

Climate change and its effects have increased the need for land management services especially in relation to fire and carbon management

There has been an increased focus on fire management and carbon mitigation in response to climate change. After the West Arnhem Land Fire Abatement project (WALFA) a range of fire abatement projects commenced around the region: Central Arnhem Land Fire Abatement project (CALFA), South East Arnhem Land Fire Abatement Project (SEALFA), and North East Arnhem Land Fire Abatement project (NEALFA). Recently, Arnhem Land Fire Abatement (NT) Limited has been established as an entirely Aboriginal-owned, NFP carbon farming business to support this industry further. This company is made up of the Aboriginal Corporations that have been involved in the carbon abatement programs in the region. For example, NEALFA which involved the Yirrkalā Rangers is represented on the ALFA Board. There may be scope to expand the carbon abatement programs further into the East Arnhem region.

What kinds of activities might Yolŋu be interested in participating in?

A range of core services are provided in the land management sector by ranger groups and each of them would have a different value-chain. These core services include:

- cultural heritage site protection
- feral animal control
- weed management
- visitor management
- biodiversity monitoring
- biosecurity and quarantine activities.

⁶¹ [Cotton On Foundation](#), 'Introducing our Latest Project Partner: Dhimurru Aboriginal Corporation', (2016)

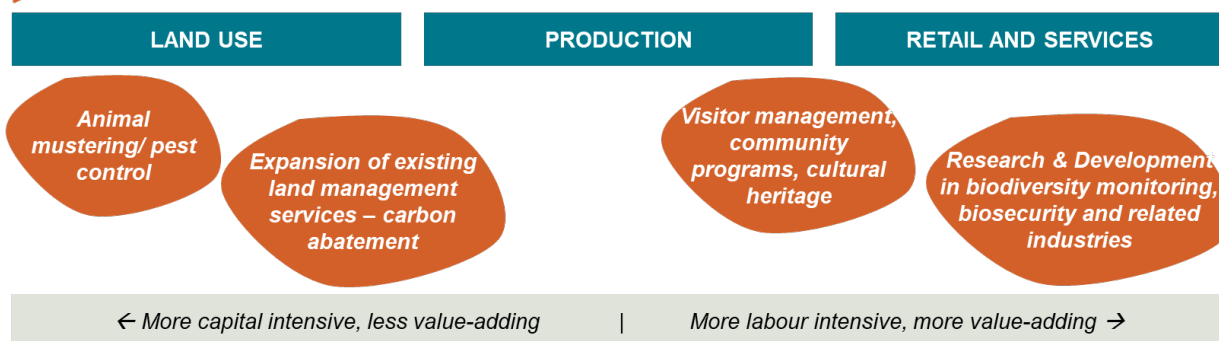
⁶² [Starwin](#), 'Starwin Online Shop', (2020)

⁶³ [Department of Primary Industry and Fisheries](#), Indigenous Community Marine Ranger Program, (2013)

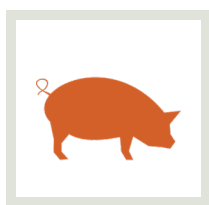
As a result of these activities, a range of health, wellbeing, cultural, social, economic, and even governance, and leadership benefits are created in local Indigenous communities.⁶⁴



Land Management



Animal mustering and/ or pest control



Rangers in East Arnhem could explore commercial opportunities with research partners for pest control. Feral pigs are some of the most disruptive for native plants, soil, and vegetation and the number of pests is continuing to grow rapidly in East Arnhem. The CSIRO conducted a project on the Cape York Peninsula, later tested in Maningrida too, on how communities can sustainably control the feral pig population using GPS trackers.⁶⁵

There may also be opportunities for Yolŋu to increase their participation in wild buffalo mustering, linked with land management work or game hunting tourism. Buffalos are an introduced pest in the Northern Territory and threaten the native landscape with their heavy hooves. Many ranger groups in Arnhem Land cull buffalo to prevent damage to the native landscape. It is estimated that 100,000 buffalo exist across Arnhem Land.⁶⁶ Farming buffalo requires a permit or licence in all states and territories except the Northern Territory.

There are a range of traditional owners outside of East Arnhem that have agreements with external parties for mustering and safaris in locations such as Bulman, Snowdrop and the Mann River). Yolŋu may be interested in negotiating similar agreements in East Arnhem. Yolŋu landowners could lease their lands to buffalo mustering companies, create their own enterprises to muster buffalo, or enter licence agreements with safari operators. For example, Yolŋu landowners near Ramingining negotiated a buffalo mustering agreement in 2015/16, which has since produced financial and ecological benefits to a number of traditional land-owning groups across the greater Arfura Wetlands region. Donydji, Mirnatja and Ramingining have been identified as areas in East Arnhem with a heavy population of buffalo and could consider the opportunities identified.

There are several different markets for buffalo products. The opportunity for live export in the region is limited given distance to markets and costs of freight via Darwin. Local meat production may be viable with improved abattoir facilities.⁶⁷ Buffalo milk is also a high-end product that has unmet Australian and international demand.⁶⁸ Some non-Indigenous farmers have had success

⁶⁴ Barber, M., 'Rangers in place: The wider Indigenous community benefits of Yirrkala Rangers in Blue Mud Bay, Northeast Arnhem Land', (2015)

⁶⁵ Kennedy, S., CSIRO, 'Hot on the tracks of feral animals in the Top End', (2018)

⁶⁶ Oaten, J., ABCnews, 'Looking down the barrel: Arnhem Land rangers say they are being overrun by rampant numbers of buffalo', (2015)

⁶⁷ Agrifutures, 'Buffalo industry overview', (2017)

⁶⁸ Agrifutures, 'Buffalo industry overview', (2017)

establishing cheese making ventures¹⁸ and there may be opportunities for buffalo milk products for domestic consumption.

Visitor management, community programs, cultural heritage protection



Land management involves interaction between people and country⁶⁹ and as such overlaps with other industries such as tourism, cultural education, bush food and agriculture, arts and crafts, forestry, fishing, and mining. Rangers play a critical role in the regions ecosystem and they have the opportunity to expand their services into adjacent industries.

Opportunities exist in the development of native food products as Yirralka Rangers have done by making health and beauty products from natural ingredients for sale online.⁷⁰ Other opportunities include working with philanthropic organisations on community development or cultural heritage programs on a fee-for-service basis or the management of tourists on country. Rangers can also upskill to expand their services. For example, Malak Malak Rangers have completed a Certificate III in Fisheries Compliance with the Australian Maritime Fisheries Academy in 2019 in order to assist water police on the Daly River and eventually become Fisheries Compliance Officers.⁷¹

Expansion of existing land management services including carbon abatement programs



There is an opportunity for East Arnhem ranger groups to participate in carbon abatement markets. Research demonstrates significant opportunities for 'ecosystem services' in the conservation economy including savanna burning emissions abatement.⁷² The strategic plans of local ranger groups demonstrate interest and capability in the carbon abatement market. However, short-term demand is limited to Government funding, with Social Ventures Australia

Consulting's analysis suggesting limited opportunities to grow these fee-for-service offerings.

There is a natural cap on the growth of the carbon abatement market in the East Arnhem region due to the existing neighbouring projects and the size of the remaining region (estimated at around \$4m annually). The ALFA fire project areas include four declared Indigenous Protected Areas (IPAs) – the Djelk, Warddeken, South East Arnhem Land and Laynhapuy IPAs as well as the Mimal and ASRAC IPAs. The existing abatement projects can be grown to include the Marthakal IPA region.

Research and development in biodiversity monitoring, biosecurity, and related areas

Ranger groups can leverage relationships with research partners and philanthropic organisations to find new innovative ways to deliver land management services or solve complex environmental issues. Partnerships with universities and environmental philanthropic organisations could transform existing practice in recycling marine debris. **For example, Anindilyakwa Land Council land and sea rangers worked with researchers to understand the nature and likelihood of marine debris washing up on their shores.⁷³**



⁶⁹ Hill, R., Pert, P.L., Davies, J., Robinson, C.J., Walsh, F., and Falco-Mammone, F., 'Indigenous Land Management in Australia: Extent, scope, diversity, barriers and success factors', DOI 104225/08/584, (2013)

⁷⁰ Starwin, 'Starwin Online Shop', (2020)

⁷¹ Northern Land Council, Annual Report 2018-2019, (2019)

⁷² Russell-Smith, J., and K. Sangha, K., 'Emerging opportunities for developing a diversified land sector economy in Australia's northern savannas report', DOI 10.1071/RJ18005, (2019)

⁷³ Anindilyakwa Land Council, 'Model shows marine waste likely to land on Groote'. (2018)

Many ranger groups across the top end have engaged in projects to clean up the coast and reduce rubbish in community. For example, the Thamarrurr Development Corporation's female rangers partnered with Tangaroa Blue, a not-for-profit organisation that works to remove marine debris, to develop a "No Rubbish on Country" project. As a result, in 2016, Thamarrurr Rangers became a collection point for CDS materials generating income for those collecting waste materials. A similar initiative can be set up in the East Arnhem region and further research can be conducted to see if the plastic can be repurposed into commercial products such as art, clothing, or shoes. For example, Anindilyakwa Arts on Groote Eylandt has utilised marine debris or discarded fishing "ghost" nets to craft baskets for sale. They have also produced virtual workshops on how to weave the baskets from marine debris,⁷⁴ Rangers can also on-sell the plastic to companies such as Country Road that repurpose plastic waste in their products⁷⁵.

⁷⁴ [Charles Darwin University](#), 'Marine debris turned into stunning woven baskets', (2020)

⁷⁵ [Country Road](#), 'Reducing Our Impact with Recycled Ocean Plastics', (2020)



Fisheries and Aquaculture

Fisheries and Aquaculture



Fishing and aquaculture have always been part of the East Arnhem economy and there may be untapped opportunities for growth

There may be opportunities for Yolŋu in:

- Lease of land for on shore facilities
- Entry-level commercial fisheries
- Aquaculture projects and partnerships
- Local retail
- Supply and logistics
- Recreational fishing and fishing tourism

What kinds of fisheries and aquaculture activities are currently happening in East Arnhem?

In 2017/18, the Northern Territory's fishing, aquaculture and associated processing industries contributed \$136 million dollars to the Northern Territory economy and 941 FTE jobs.⁷⁶ Fisheries industries include wild catch (using a range of fishing methods including line fishing), commercial aquaculture (fish farming), and recreational fishing.⁷⁷ There are a range of commercial fisheries that operate in the NT including the Barramundi Fishery, Mud Crab Fishery, Spanish Mackerel Fishery, Coastal Line Fishery, Off-shore Net and Line Fishery and the Northern Prawn Fishery. The East Arnhem region (three nautical miles seaward from the coast) currently includes two of those commercial fisheries: NT Barramundi and NT Mud Crab.

According to the **Fishing & Aquaculture Market Assessment and Action Plan for the East Arnhem Region** prepared by Econsearch,⁷⁸ a significant component of the Northern Territory's catch of Barramundi and Mud Crab occurs in the East Arnhem fishing region. For example, the Western Gulf of Carpentaria (WGOC) stock accounts for over 70% of the commercial Giant Mud Crab harvest in the Northern Territory. However, the quality of East Arnhem fish stocks data is low and the WGOC zone includes areas outside the scope of the region as defined in this fact base.

The majority of fishing activity occurs offshore, with operators transporting catch directly to Darwin without docking in the East Arnhem region.

While traditional owners in East Arnhem have been engaged in cultural harvest and trade of marine species such as trepang (sea cucumber) for thousands of years, commercial aquaculture in the region is a very immature industry. Some exploration has occurred, including trepang ranching trials on Groote Eylandt, and giant clam aquaculture trials in Nhulunbuy and on the Groote Archipelago. At Blue Mud Bay, Bäniyala Garrangali Aboriginal Corporation has been in negotiations with the Tasmanian Seafoods Company over the last two years to fish for trepang.

The fishing and aquaculture industries in East Arnhem are small in comparison to others around the country and this is primarily due to two factors: complexity of access, regulation and licensing; and an underdeveloped supply chain including access to appropriate facilities and equipment. As a

⁷⁶ Fisheries Research and Development Corporation and the Institute for Marine and Antarctic Studies and BDO EconSearch, 'Northern Territory Fisheries and Aquaculture Industry 2017/18: Economic Contributions Summary, ISBN978-1-925646-93-1, (2019)

⁷⁷ Industry Skills Advisory Council NT, 2019 Fishing and Aquaculture, (2019)

⁷⁸ Fisheries Research and Development Corporation and the Institute for Marine and Antarctic Studies and BDO EconSearch, 'Northern Territory Fisheries and Aquaculture Industry 2017/18: Economic Contributions Summary, ISBN978-1-925646-93-1, (2019)

result, it can be difficult to source commercially caught local fish and fresh seafood for consumption in the region. However, there are a range of opportunities that can be capitalised on to build the industry further and address these barriers.

Why are there potential opportunities for growth in fisheries and aquaculture?

There is demand for East Arnhem's fisheries and aquaculture assets

Fishing and aquaculture have been part of the East Arnhem economy and culture for many years, leveraging the region's natural assets. From trade of trepang with the Maccasans to the recreational, tourism and commercial fishing operations today, fishing is associated with the identity of East Arnhem. The region has a range of valuable natural fish stock and resources including mullet, barramundi, mud crabs, mackerel, oysters and trepang, among others,⁷⁹ (noting that further work is required to understand the extent of the resource in the region).

Global demand for seafood is increasing, led by exports to Asian markets. In particular there is anticipated demand for sustainably farmed seafood. Investor confidence in aquaculture markets is demonstrated by the USD 1.5 billion Project Sea Dragon initiative in Northern Australia, which aims to supply over 150,000 tonnes of black tiger prawn each year.⁸⁰

Improvements to the Gove Port and Central Arnhem Road infrastructure will support expanded onshore activity

These improvements are not only likely to boost commercial fishing activity but also attract recreational fishing and fishing tourism businesses. The Gove Wharf is currently difficult to access for tourism operators and their customers. Currently there is very little if any transport of fishing stock by road across the region, and limited access to appropriate storage facilities.

The Northern Territory Government has investigated opportunities to expand the Gove Port to improve the efficiency of the existing freight services, and to support new industries such as forestry, regional services, and commercial fishing, as well as marine tourism. These industries could also potentially support several downstream activities such as fish processing, marine maintenance services.

The Northern Territory Government scoped the opportunity for a new wharf and commercial port facilities, as well as onshore processing and distribution facilities, as part of its 10 Year Infrastructure Plan 2017-2026. Fisheries enterprises operating in the vicinity have expressed their interest in using the Gove Wharf and indicated they would increase their activities if local facilities were available. The proposed infrastructure improvements in East Arnhem could act as an impetus for more supply and logistics activities.

There is an opportunity to increase the uptake in Aboriginal Coastal Licences as a cost-effective and simpler first step to commercial fishing

Aboriginal Coastal Licences have been developed under NT Fisheries Legislations as an inexpensive entry-level opportunity for Aboriginal people to enter the commercial seafood industry. Currently, there is very little representation of Yolŋu in the industry. There is an opportunity to encourage the increased uptake of these licenses to support Yolŋu to understand the demands of owning a fishing

⁷⁹ Fisheries Research and Development Corporation and the Institute for Marine and Antarctic Studies and BDO EconSearch, 'Northern Territory Fisheries and Aquaculture Industry 2017/18: Economic Contributions Summary, ISBN978-1-925646-93-1, (2019)

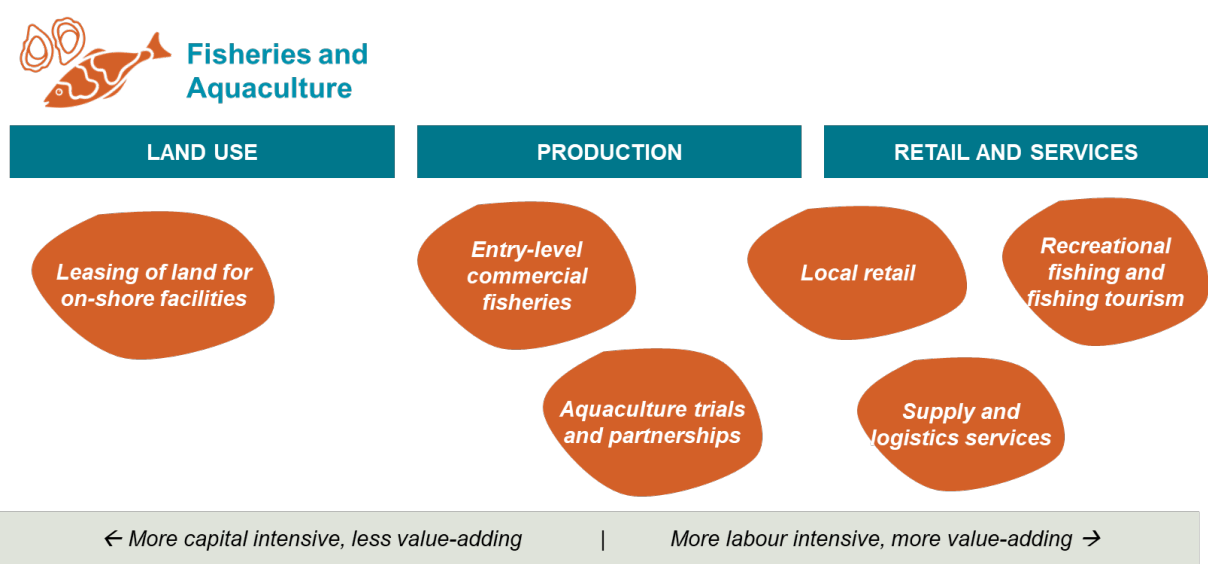
⁸⁰ NT Government, 'Industry Outlook May 2019', (2019)

business by starting at a smaller scale and supplying fish for local and regional wholesale or retail of fish.

East Arnhem has a developing tourism market with the potential for increased fishing tourism activity

The recreational fishing industry is established and generates considerable tourist revenue in the Northern Territory.⁸¹ A significant portion of the existing fishing activity in East Arnhem is for recreational purposes including line fishing, diving and tourist fishing charters and cruises. East Arnhem has untapped tourism potential and investment in developing differentiated tourism products could attract more tourists to the region. There is very little Yolŋu involvement in the fishing tourism business across East Arnhem currently and so there is an opportunity for East Arnhem land owners to offer cultural tourism products that could be complementary to existing fishing tourism businesses such as tours or cultural performances.

What kinds of activities might Yolŋu be interested in participating in?



Lease of land for onshore facilities



In some locations, there may be opportunities for Yolŋu to generate income by **leasing land for onshore facilities**. This can be a passive income generating investment for traditional owners. It is most relevant to the Gove Peninsula, including land around the Boat Club at Inverell Bay, where there is demand for additional onshore facilities such as a retail store or fuel facility, or at the Gove Port where proposed onshore facilities include a processing centre, cold storage facilities, a distribution hub and export facilities. Yolŋu may also be interested in more active participation in onshore processing activities, described further below.

⁸¹ Industry Skills Advisory Council NT, '2019 Fishing and Aquaculture', (2019)

Entry-level commercial fisheries

There is an opportunity to engage in smaller scale commercial fishing to meet the local demand. Aboriginal Coastal Fishing licences provide a strong entry-level opportunity for Yolŋu.

Establishment of Indigenous fishing enterprises often involves substantial loan or grant funding, reflecting the current high value of commercial fishing licences or aquaculture set up costs. Aboriginal people living in remote communities are eligible to apply (with community support) for low-cost (\$50 per application) Aboriginal Coastal Fishing licences.



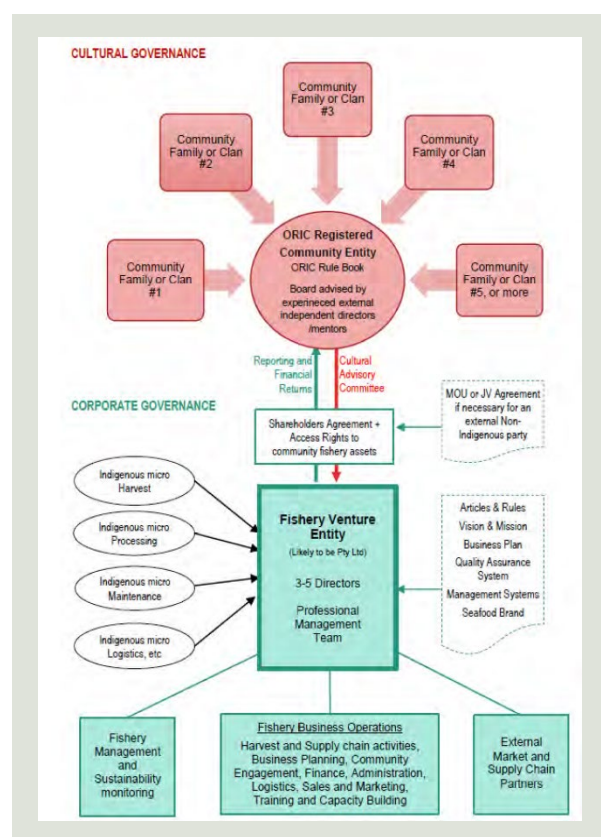
These licences provide a low-cost way for Yolŋu to enter the market and gain skills required for commercial fishing. Holders of this licence can catch and sell fish to other community members, visitors, community shops and fish wholesalers. There are restrictions on the fishing gear that can be used. Licence holders may use 100m of net with mesh size up to 65mm; hand spears; scoop nets; vertical line (as handline) or rod and reel; or traditional fish traps.⁸²

Key species for entry-level fishing in East Arnhem include mullet fish, black jewfish, and snapper species, which can be caught using an Aboriginal Coastal Licence or an A1 Coastal Line Fishery Licence.

As fishing businesses mature and experience is developed, communities can consider establishing local enterprises and taking on additional licences (see case study of Bawinanga Aboriginal Corporation below). In particular, there is scope to increase the catch through A1 Coastal Line Fishery licenses and other commercial licences.

Yolŋu communities and homelands that have more established fisheries activities may also seek support in establishing community-run enterprises to operate fishing ventures. A review of the development of Indigenous community fisheries identified governance as a key enabler of success, and recommended a business structure that combines strong cultural governance and professional management (see Figure 8).⁸³

Figure 8: Recommended governance model for Indigenous community fishery development



⁸² NT Government, Aboriginal Coastal Fishing Licences, (2020)

⁸³ Ridge Partners and Consultants, Colquhoun, E., 'Building the Capacity and Performance of Indigenous Fisheries, FRDC Project 2013/218' (2018)

Access to training and workforce development networks can also enable Yolŋu to expand small-scale ventures. Regionally specific training programs have been developed in recent years, including the *East Arnhem Fisheries Network Training Framework*, produced through collaborative research by the Fisheries Research and Development Corporation in 2016.⁸⁴ The framework, which is available online,⁸⁵ maps potential work in fisheries to vocational training units, with examples from across the Northern Territory.

Changes in regulation, and recognition of Yolŋu sea-country rights, present an opportunity to fast-track Yolŋu participation in commercial fisheries. As part of the Blue Mud Bay Implementation Plan, which is finalising rights determined in the Blue Mud Bay Case about sea country rights over intertidal zones, Yolŋu have negotiated permit-free access to Indigenous waters with the Northern Land Council. Under the Plan, the NT Government has committed to:

- provide \$10 million to fund the establishment and support of an Aboriginal fishing body
- work on drafting and introducing a new Fisheries Act Amendment Bill
- expand Aboriginal Coastal Licences to increase catches across all managed fisheries
- maintain Aboriginal capacity building programs such as ranger fisheries compliance training.

Case Study 11: Bawinanga Aboriginal Corporation⁸⁶

Bawinanga Aboriginal Corporation (BAC), Maningrida

BAC entered the fishing industry using Aboriginal Coastal Licences and have now leased and purchased additional licences to grow their operations.

BAC runs a community-owned fishing business. The business leverages the fishing skills in the community and the organisation's experience in enterprise. The program is subsidised by CDP and approximately 15 local Aboriginal people are involved in the process. The initiative also supports social outcomes as the community is able to fish together and has access to fresh seafood.

Through the Aboriginal Coastal Licence, BAC have developed their expertise and have now activated a commercial fishing licence for mud crab and leased a commercial barramundi licence to catch higher quantities of barramundi.

The initiative involves catching and selling fish to the local market in Maningrida as well as Ramingining (90% of the catch from the Aboriginal Coastal Licence is sold locally). BAC also supplies mud crab and Barramundi to a wholesaler in Melbourne and to a few restaurants in Darwin.



⁸⁴ Fisheries Research Development Corporation, 'Indigenous Fisheries Training Framework', (2016)

⁸⁵ Fisheries Research Development Corporation, 'Indigenous Fisheries Training Framework', (2016)

⁸⁶ Consultations with representative from Bawinanga Aboriginal Corporation

Aquaculture projects and partnerships

There is an opportunity for Yolŋu to participate in aquaculture ventures, including in partnerships with other communities as part of a regional supply chain encompassing East Arnhem and Groote Eylandt.

The feasibility of aquaculture varies by species: some species can be harvested at small scale with little risk and small capital investment, whereas others involve significant costs and other barriers.

A feasibility study commissioned by the Anindilyakwa Land Council identified potential species available in the Groote Archipelago region, which is also instructive for Yolŋu landowners. In selecting species, there is a balance between different criteria – including social values (such as local food supply), capital risks, and potentially profitability. Candidate species identified by the study include:



- **Freshwater aquarium species and red claw crayfish** – less economic value, but high value for local food and with low entry costs (including options for simple hobby operations, to be scaled up over time to commercial production)
- **Oysters** – attractive across most criteria and supported by Darwin Aquaculture Centre research projects (including trials on Groote Eylandt with the Anindilyakwa Land Council and on South Goulburn Island with Yagbani Aboriginal Corporation, see case study below). With moderate market value, limited capital risk, high opportunities for employment and valuable to food supply, oyster farming is identified as possibly the most attractive entry-level aquaculture proposition.
- **Barramundi** – more technically challenging, but strong across each of these criteria
- **Trepan, and rock lobsters** – with high economic value, and most likely to be candidates for investment.

Other species explored in the study include cherabin, coral, finfish, giant clams, lobster, mud crab, prawns, seaweed, and sponge. The Anindilyakwa Land Council continues to push ahead with aquaculture planning and discussions with local clan groups and the Northern Territory Government. It is intended that other communities in the region would be given opportunity to provide seafood products to the Groote Seafood company for collective processing and marketing and mutual benefit from this initiative. Aquaculture is seen as a viable post mining industry for the Groote Archipelago and significant effort is being made by the Land Council to ensure its success.

Across most of East Arnhem, where the aquaculture industry is immature, the primary opportunity in aquaculture for Yolŋu landowners is to operate land or sea-based grow out farms, to harvest juvenile species hatched in other locations. These farms require identification of potential species and assessment of biosecurity and translocation risks.

There may be longer-term opportunities for local hatcheries, however these are more capital intensive and require careful scientific management. Technical difficulty of hatchery options varies between species. It is likely that juveniles for stocking would be purchased from third parties, including outside the East Arnhem region.

Infrastructure requirements for aquaculture vary by species. Some species can grow in baskets (for example, small plastic baskets are used for oysters) and sea cages attached to long-lines, and

others require ponds. All potential aquaculture activities, including those with sea cages, require access to roads, and basic processing facilities.⁸⁷

The CRCNA Situation Analysis for aquaculture in Northern Australia identifies an important next step as being to identify communities interested in aquaculture and to support community planning to develop realistic business concepts, alongside technical advice and capacity building programs. The case study of Yagbani Aboriginal Corporation (see below) demonstrates a model for how Aboriginal people can work with partners to establish and grow aquaculture enterprises.

In investigating the opportunity in aquaculture, Yolŋu landowners can learn from recent research programs – including research led by the Darwin Aquaculture Centre,⁸⁸ a key partner in development of Indigenous aquaculture enterprises. The Centre has supported research to improve hatchery and nursery production of tropical oysters as part of the Cooperative Research Council for Northern Australia (CRCNA) initiative.⁸⁹ It has also managed research programs to develop giant clam and tropical oyster farming methods suitable for remote Indigenous communities. This includes developing hatchery techniques to produce oysters and clams and addressing constraints facing grow out of these species in remote NT regions. Reef fish aquaculture opportunities have also previously been explored.

Case Study 12: Yagbani Aboriginal Corporation⁹⁰

Yagbani Aboriginal Corporation (YAC), in partnership with and the Darwin Aquaculture Centre.

YAC was established by the Waruwi community in 2011 as a community not-for-profit business. The Waruwi community has been involved in different aquaculture activities since 2000, along with the harvest of sea ranched trepang (sea cucumber).

From 2000, prior to YAC's establishment, aquaculture RD&E investigated sponges, trepang, black-lip rock oysters and giant clams. Research was supported by the Darwin Aquaculture Centre focusing on sea ranching trials.

Recently the DAC commenced a three-year tropical rock oyster trial with CRCNA in partnership with YAC and ALC, which has the goal of reliable production of commercial quantities of oyster spat and development of a sustainable industry.



In some parts of the East Arnhem, aquaculture activities may be linked to tourism and other enterprises. Crocodile farming provides an example of an aquaculture activity that can double as a tourist attraction and also produce retail products. The Arafura Swamp Rangers Aboriginal Corporation (ASRAC) recently established a crocodile farm near Ramingining. Following a pilot project with two grow pens, the farm expanded to 20 grow pens. The farm collects crocodile eggs, grows crocodiles to a relatively manageable length and then sell them to crocodile farms in Darwin where they are grown out fully.⁹¹

⁸⁷ Sea Sense Australia Pty Ltd and Anindilyakwa Land Council, 'Aquaculture Feasibility Study: Identifying Options for Aquaculture Development in the Groote Eylandt Archipelago', (2019)

⁸⁸ Department of Primary Industry and Resources, 'Aquaculture research and development', (2019)

⁸⁹ Cobcroft, J., Bell, R., Fitzgerald, J., Diedric, A., Jerry, D., Cooperative Research Centre for Developing Northern Australia, 'Northern Australia Aquaculture Situational Analysis', Project: A.1.1718119, (2020)

⁹⁰ Yagbani Aboriginal Corporation, 'Waruwi Fisheries & Aquaculture Knowledge Partnership Project', (2014)

⁹¹ Arafura Swamp Rangers Aboriginal Corporation, 'Arafura Swamp region home to first Indigenous Crocodile Farm in Australia', (2018)

There is growing demand for first-grade crocodile skins in the global market.⁹² Australia accounted for 60% of the global trade in saltwater crocodile skins in 2015, with about two thirds being grown and exported by the NT.⁹³ The Crocodile Farmers Association of the Northern Territory has a strategy to increase the value of the Territory's crocodile industry to almost \$50 million per year with support from the Territory Government. There may be opportunities to expand production by ASRAC, to market the farm for tourism, and for landowners to re-establish crocodile farms in other parts of East Arnhem (for example, in Gunyanjara where a previous farm has closed).

Local retail



There is an opportunity for Yolŋu to engage in local retail by selling locally caught fish in stores and restaurants. Currently, the majority of food sold in community stores and takeaways in East Arnhem, including fish, is transported from Darwin.

The reason stock is often taken directly to Darwin or Cairns is the high transport and storage costs and limited access to the Gove Wharf. There is an opportunity to encourage and work with existing fisheries to offload fish stock (main catch or by-products) in Nhulunbuy for local shops. Consultations revealed that there may be a number of commercial operators that would be interested in offloading some catch at a low-cost to meet their corporate social responsibilities and to develop relationships in the region.

This opportunity could take the form of a full-cycle model (whereby community members are employed to fish, process, store, transport, and distribute to local stores), or through establishing retail seafood shops for sale of stock from wholesale commercial fisheries operating offshore. An example of the full cycle model is the Bawinanga Aboriginal Corporation, which facilitates those with ACLs to sell directly to community and operates a commercial fishing licence for the retail of fish (see case study).

Supply and logistics



There is an opportunity for businesses to provide supply and logistics services across the region and/ or investment in communities to manage these services. A significant barrier for all opportunities identified in the industry is the high cost of supply and logistics. This is because transport via barge is expensive and can be a significant barrier to the sale of lower value stock and domestic supply.⁹⁴ Integrated with other activities described in this section, there is an

opportunity to transport fish stocks to retail shops across the region via road or boat instead and this is likely to save wholesale businesses / fisheries some transport costs.

Equipment such as chillers, freezers, processing, and storage facilities are needed at reasonable cost for any financially sustainable fishing business. There is an opportunity for businesses to provide appropriate storage facilities for communities to keep the stocks they fish, fresh. The upgrade to the Gove Port infrastructure will include a processing centre, cold storage facilities and a distribution hub which will address this gap in the market on the Gove Peninsula. This will ensure the regional economy has increased interaction with the existing commercial fishing fleet and tourism fishing organisations in and around Nhulunbuy. There may also be an opportunity to have cold

⁹² EY, 'Economic Value of the Crocodile Farming Industry to the Northern Territory', (2017)

⁹³ Crocodile Farmers Association of the Northern Territory, 'Northern Territory Crocodile Farming Industry: Strategic Plan 2015-2021', (2015)

⁹⁴ Econsearch and DEAL, 'Fishing and Aquaculture Market Assessment and Action Plan for the East Arnhem Region', (2018)

storage and processing facilities in other coastal communities so that catch from those areas can be appropriately stored for local retail.

Recreational fishing and fishing tourism

Fishing tourism is a high value product and there are opportunities to develop new fishing tourism experiences and encourage increased Yolŋu participation in the industry.

There are currently no existing Yolŋu led businesses that offer luxury fishing experiences or fishing adventures in the region. Yolŋu can engage with the fishing tourism industry by working for an existing business to gain experience in fishing tourism; share traditional fishing knowledge in a partnership with existing recreational fishing businesses or by developing their own fishing tourism business. Yolŋu may be interested in establishing independent recreational fishing businesses by investing in charter vessels and taking part in coxswain training (see case study below).



The recreational fishing sector has flow on benefits for businesses in the region including visitor spending on hospitality, accommodation, retail and other tourism experiences. As such, this opportunity is closely linked to the opportunities identified in the Tourism section of this Fact Base.

For a transfer of knowledge, respectful partnerships that recognise Yolŋu as true partners in the business are required. For example, the Torres Strait Regional Authority (TSRA) has developed a program that trains youth in maritime and fishing skills so as to create a pipeline of work-ready candidates. A similar program could be beneficial to develop the workforce capacity and representation of Yolŋu in fishing tourism in East Arnhem.

Case Study 13: Torres Strait Maritime Pathway⁹⁵

Torres Strait Maritime Pathway Project (TSMPP), Torres Strait

The Torres Strait Maritime Pathway Project is fully funded by the TSRA and was delivered in 2017-18 in partnership with My Pathway - Training Connections Australia.

The primary aim of the TSMPP is to enhance the skills and capability of Torres Strait Islander and Aboriginal people, residing within the Torres Strait region, to operate commercial vessels and create maritime career pathways in related industries such as fishing, tourism, coastal trading and the offshore maritime shipping industry.

Since 2013, over 200 Torres Strait Islander and Aboriginal people have undertaken TSMPP. 95% of students have successfully completed the courses with over 80% of students transitioning into maritime related employment including the defence force, coastal trading, tourism, environmental management, education, mining and fishing industries.



⁹⁵ [Torres Strait Regional Authority](#), 'Employment & Training', (2020)



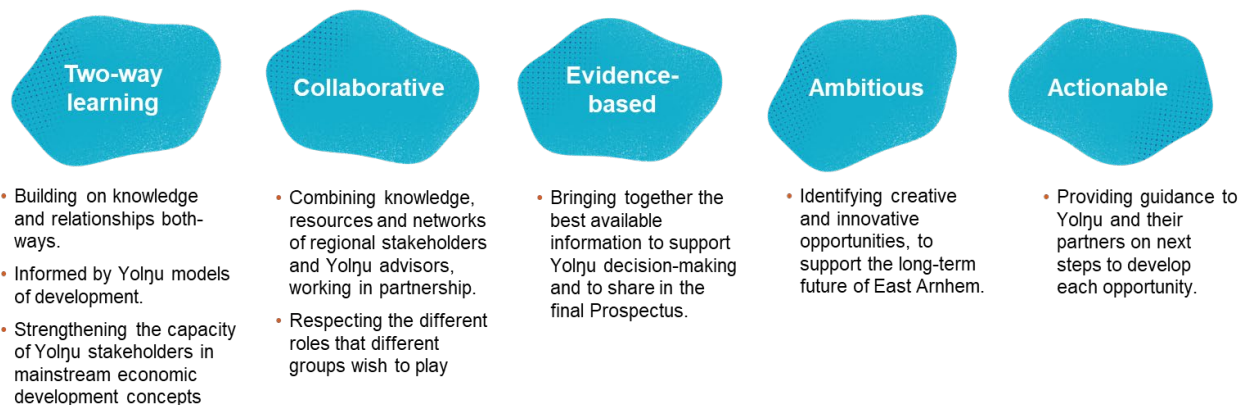
Supporting information

Supporting information

Key principles for the Prospectus

The East Arnhem Landowner Prospectus is a project led by DEAL, in partnership with a Working Group which includes the Northern Land Council, Dhimurru Aboriginal Corporation, The Arnhem Land Progress Aboriginal Corporation (ALPA), Northern Territory Government - Department of Trade Business and Innovation and the Department of the Chief Minister, National Indigenous Australians Agency and ARDS Aboriginal Corporation.

The Prospectus Working Group identified five key principles underpinning the project:



Planned format of consultations

Given disruption due to COVID-19, consultations with Yolŋu landowners originally scheduled for 2020 will now take place in 2021. As a result of this, in 2020 DEAL staff have been meeting with Yolŋu organisations and business across the East Arnhem region, conducting preliminary discussions about the Prospectus project and this Fact Base. DEAL is now in a position to undertake the following actions:

- Share the Fact Base and supporting evidence that has been developed over the last six months;
- Understand interest from existing Yolŋu organisations and businesses in opportunities identified in the Fact Base;
- Discuss how DEAL may be able to support these opportunities, or other activities of these organisations and businesses.

Following engagement with Yolŋu organisations and business, in partnership with the Northern Land Council and ARDS, **consultations will be held across the region in 2021** to exchange knowledge – including evidence about specific opportunities that are relevant to particular country – and explore Yolŋu aspirations for potential development. The **purpose of these consultations is to capture aspirations of those landowners**, Yolŋu organisations and businesses who may not have been engaged to date through existing discussions, but also to **further develop conversations we have had** and will continue to have in 2020.

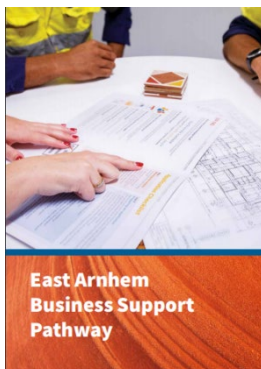
It is proposed that consultations take place across five 'consultation zones'. Within each zone, we propose to hold consultations across a few different communities and homelands. Communities and homelands will be identified with regard to:

- Size
- Coverage across the region
- Interest in having conversations about economic development
- Input from Yolŋu organisations and businesses who may work in these communities and homelands.

Each conversation is likely to focus on:

- Confirming and building our understanding of existing economic and business activity in the surrounding region
- Understanding the benefits that Yolŋu are seeking through engagement in the economy, and the strategies they are interested in using (including different business and partnership models)
- Exchanging information on potential economic opportunities in the region, and exploring Yolŋu interest in these opportunities
- Discussing next steps to progress these opportunities, including a list of actions for government, other system actors and Yolŋu to take forward.

Existing business support programs and funding



DEAL has developed an East Arnhem Business Support Pathway, available at <https://www.developingeastarnhem.com.au/business-support/>. The Pathways will help to inform discussions with Yolŋu landowners about next steps, and maps closely to the 'Menu of Actions' identified in Part 2 of this Fact Base.

The list of supports includes DEAL and other members of the Prospectus Working Group. The following extract describes different types of support, sorted by provider.

Business Development

DEAL

Business Concept Support (pre-condition to Economic Development Fund)

Support for business concept development and funding application advice.

Economic Development Fund

DEAL's EDF aims to stimulate sustainable local economic activity and support the economic diversification of the region in East Arnhem by creating jobs and increasing revenue for local businesses.

East Arnhem Business Support Pathway

The East Arnhem Business Support Pathway is a one stop shop that helps emerging and existing businesses in the region to identify business support and funding opportunities to start, establish, and grow.

Indigenous Business Australia (IBA)	<p>Start Up Finance Package</p> <p>IBA's Start-Up Finance Package supports new businesses to get off the ground with up to 30% of a new business loan awarded as a grant.</p> <p>Procurement Loan</p> <p>IBA's Procurement Loan is available for businesses awarded a contract through the Indigenous Procurement Policy (IPP) or another government program (including sub-contracting to a tier one entity) to help meet up front contract costs.</p> <p>Business Loan Package</p> <p>The IBA Business Loan Package supports Indigenous small businesses to start, grow or restructure.</p>
Many Rivers Microfinance Ltd	<p>Business Incubator</p> <p>Mentoring in basic business concepts and operations, developing and utilising marketing material, record keeping skills and tools, digital skills for business growth and access to capital.</p> <p>Many River Microfinance Loan</p> <p>Microfinance options with a specific focus on supporting Indigenous businesses.</p>
Business Mentoring	
IBA	<p>Business Support</p> <p>IBA helps new business ventures to understand their business goals, develop their ideas and identify what type of support the business may need in the future to remain successful.</p>
Arnhem Land Progress Association (ALPA)	<p>Business Incubator Program</p> <p>ALPA's Business Incubator program supports the development of Yolŋu business through an ongoing process, facilitated by Business Development Officers (BDOs) and the provision of grants.</p>
Northern Territory Government (NTG), Department of Trade Business and Innovation (DTBI)	<p>The Aboriginal Business Development Program</p> <p>This program provides funding for Aboriginal Business establishment.</p> <p>Small Business Champion</p> <p>The regional Small Business Champion can assist with identifying the types of support the business can access and as well as help businesses develop market and industry networks, contacts, information, tools, and useful resources.</p> <p>NTG Economic Development Officer</p> <p>Dedicated NTG staff responsible for economic development in the Department of Trade, Business, and Innovation.</p> <p>Business Upskills Workshops</p> <p>NT business owners can attend free business workshops hosted by industry experts in marketing, finance, human resources, and business management.</p>
Workforce Development	
ALPA	<p>Community Development Programme (CDP)</p>

	ALPA provides support to eligible people who want to explore starting a small business. The viability of the potential business can be tested through piloting in a low risk environment such as Activity Generating Income within CDP followed by referral to other support solutions once your business concept is viable and ready to be registered.
NTG, DTBI	<p>Aboriginal Workforce Grants</p> <p>The Aboriginal Workforce Grants are a package of grants available to eligible organisations to develop the skills of Indigenous employee through accredited and non-accredited training and mentoring support.</p> <p>Governance Solutions</p> <p>The program assists with corporate governance, financial and commercial literacy, and management practices of NFP organisations.</p> <p>Employment Solutions</p> <p>The program supports developing sustainable employment policies and practices with a focus on, identifying and addressing legislative and regulatory obligations, developing a better understanding of the importance of your workforce productivity, staff development, engagement, retention and training requirements.</p> <p>Tender Solutions</p> <p>Through this program applicants can learn how to prepare tender submissions and address tender criteria, develop a tender response library and other resources to help improve efficiency and use the NT Government's quotation and tender website.</p> <p>NTG Workforce Training Coordinator</p> <p>Dedicated NTG staff responsible for and workforce development in the Department of Trade, Business, and Innovation.</p>
Infrastructure	
Indigenous Land and Sea Corporation (ILSC)	<p>Through the Our Country Our Future (OCOF) grant funding stream, ILSC offer support to projects linked to one of five focus areas including conservation/healthy country, urban investment, tourism, niche Indigenous products, and agribusiness. Proposals are assessed against criteria including opportunities and outcomes, project viability, financial health, and capability. ILSC offer grant funding to:</p> <p>Purchase and hand back land or water-related interests</p> <p>Projects must demonstrate capacity to deliver clearly-defined and sustainable benefits to a broad base of Indigenous people, beyond ILSC funding. Examples include land or water asset purchases to: protect culturally important sites or significant environmental values; develop commercial enterprises; support organisations to deliver critical social services.</p> <p>Manage or develop land or water assets already Indigenous owned</p> <p>Projects must demonstrate capacity to deliver clearly-defined and sustainable outcomes to a broad base of Indigenous people. Examples include funds for plant and equipment to conduct revegetation, remove pests, protect cultural heritage or manage water-related assets; infrastructure to develop commercial enterprises in the five focus areas or support improved delivery of critical social services. Funding is also available for feasibility assessment – if a proposal demonstrates real merit but needs analysis or business planning.</p>

NTG, DTBI	<p>Smarter Business Solutions</p> <p>Help for businesses to reduce day to day energy, water and waste material costs.</p> <p>Biz Secure</p> <p>Biz Secure provides support for eligible businesses to make a range of permanent security improvements to better protect businesses against break-ins.</p>
Research and Development	
ILSC	<p>Other investment opportunities and partnerships</p> <p>The ILSC is also able to assist groups they are working with to identify and develop investment opportunities and other funding partnerships as part of their project. The ILSC has working relationships with mainstream banks, impact investors and other sources of finance and can play a role in working with groups to explore whether their project has the potential for finance in addition to grant funding.</p>
NTG, DTBI	<p>Business Advice</p> <p>Delivering small business advisory services, the Business Enterprise Centre (BEC) NT provides existing and proposed small businesses in the NT with business advice and interactive workshops to help them build and develop sustainable businesses.</p> <p>Business Support Services</p> <p>Territory Business Centres provide businesses across the NT with information about starting a business, licensing requirements, and government assistance programs.</p> <p>Business Growth</p> <p>The program will review the business practices in the areas of finance, operations, marketing, and human resources and provide funding and up to 50% of the cost of consulting services.</p> <p>Integrated Management Systems</p> <p>The Integrated Management Systems program will review the business' practices, policies, processes and documents relating to risk, work health and safety, quality management and environmental management and provide funding and up to 50% of the cost of consulting services.</p> <p>Mentor Support</p> <p>The Mentor Support program helps mature businesses, not-for-profit organisations and Aboriginal enterprises that are operating successfully and following a business plan but would like mentored help to mentor on specific issues to help improve performance and achieve business goals.</p>
Digital Innovation	
NTG, DTBI	<p>Digital Solutions</p> <p>The Digital Solutions Program offers support with website design and architecture, functionality, integration and ongoing maintenance. This includes digital marketing and social media plans, digital coaching, up-skilling, mentoring and e-enablement.</p> <p>Information Technology Solutions</p> <p>The Information Technology Solutions Program offers assistance to businesses by analysing technology use and availability, identifying processes that can be improved by</p>

	technology, providing gap analysis comparing current technologies of the business against future needs and the identification, costing and comparison of relevant new technologies.
Other	
NIAA	<p>Aboriginal Benefits Account (ABA) grants</p> <p>Programs and projects that directly benefit Indigenous Australians in one or more of the following areas: education, employment, economic development, social participation, and healthy and safe homes and communities.</p> <p>Indigenous Advancement Strategy (IAS) funding</p> <p>Programs and projects that directly benefit Indigenous Australians in supporting the positive impact that education has on the future success of individuals, families and communities, improves the lives of families and communities through employment, economic development and social participation, encouraging healthy and safe home and community environments, particular in the area of domestic and community violence impacting women and children.</p>
NTG, DTBI	<p>Regional Economic Development Fund</p> <p>The Regional Economic Development Fund supports projects and initiatives that contribute to business growth, investment attraction and job creation in the NT.</p> <p>Business Solutions</p> <p>The Business Solutions program helps businesses, not-for-profit organisations and Aboriginal enterprises tackle an identified area of need by providing access to a suitably qualified consultant who will deliver immediate assistance to address your business needs.</p>



Evidence library

The following evidence library contains the documents that were reviewed in developing this fact base, sorted by opportunity.

Forestry & Forest Products

East Arnhem specific:

1. Annandale, M. and Meadows, J., University of Sunshine Coast, 'North Eastern Arnhem Land Forestry Development Strategy: Gumatj Corporation', (2020)
2. Annandale, M., 'Northern Australia Forestry Opportunities: Infographic', [unpublished material provided by author] (2020)
3. Nhulunbuy Indigenous Coordination Centre, 'National Indigenous Forestry Strategy', (2006)
4. A. L. Pearson, C. and Helms, K., 'A Chronicle of the Timber Industry in East Arnhem Land, Australia', DOI. 10.5772/34118, (2012)
5. University of Sunshine Coast, Forest Research Institute, Tropical Forests & People Research Centre (TFAP). 'Indigenous Commercial Forestry Opportunities: East Arnhem, Northern Australia: Project Summary June', (2020)
6. Developing East Arnhem Limited (DEAL), 'Indigenous Commercial Forestry Opportunities: East Arnhem, northern Australia: Project Summary and Governance', (2020)
7. [Manapan Furniture](#), 'Our Story', (2020)

Other:

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