October 2023

Private Forestry Guidance Materials

Indigenous owned and managed forests

Forest & Wood Products Australia

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Important information

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This project is funded by the Australian Government through the National Forest Industry Plan.

Introduction

Background

To meet Australia's – and the world's increasing demand for wood fibre requires a policy approach that maximises the role of small-scale, privately owned forests in fibre supply.

There are barriers to private landholders and Indigenous groups participating in commercial forestry. One of the most significant obstacles is limited knowledge about how plantations and native forests can be managed as a legitimate and profitable land use that contributes meaningfully to Australia's future wood fibre needs.

Forest & Wood Products Australia (FWPA), with funding from the Australian Department of Agriculture, Fisheries and Forestry (DAFF), engaged Greenwood Strategy Solutions Pty Ltd to collect, collate, analyse and make available the large volume of historic trials and publications related to the topic and to prepare detailed Guidance Materials that will help break down these knowledge barriers.

This document focuses on Indigenous owned and managed forests. It can be read as a standalone reference for Indigenous owners and managers of commercial forests, or together with the other Guidance Materials documents, including reports and information sheets. It covers specific topics related to forestry on Indigenous owned and managed lands.

Purpose

The purpose of this document is to assist people and organisations interested in developing enterprises related to Indigenous owned and managed forests. This guidance material is not intended to provide operational instructions on how to grow and manage forests as a business. It is an introduction to the range of factors that Indigenous owners and managers of commercial forests need to consider when managing forests for commercial outcomes.

Who should use the Indigenous Forestry Guidance Materials?

This document is specifically targeted at Indigenous businesses, groups and individuals that own and/or manage forests for timber production and other benefits. A broader range of audiences will benefit from the use of these guidance materials.

Structure of the guidance materials

There are four guidance documents in this series, covering the following topics:

1. An introduction to the business of small-scale farm forestry, private native forestry and Indigenous managed forest lands
2. Farm forestry
3. Indigenous owned and managed forests
4. Private Native Forestry

References to relevant publications are provided within the documents and can be accessed via the FWPA online database of relevant publications. The database includes actual publications and links to a vast catalogue of material that has been produced by government departments, programs and regional plantation groups over many years.

The Guidance Materials also include a series of information sheets and case studies that provide more detail on specific topics of interest.

Professional advice

Forestry is a specialist discipline and wood products markets are different to markets for other commodities. However, just as many land owners seek the advice of professional agronomists when looking to get the most out of their cropping or grazing activities, it is strongly recommended that Indigenous forest owners and managers seek the advice of professional forestry service providers to understand how commercial forestry can best be integrated into their specific enterprise and obtain detailed site-specific guidance on how to go about this.

Indigenous forest management in context

As the original stewards of the land, Indigenous people have managed their forest Country and other resources for thousands of years to provide all their material, spiritual and cultural resources and maintain the health of the forests.

Vast areas of forests were cleared or broken up for agriculture and other developments with European colonisation. Some of the remaining forests became degraded when traditional forest management practices were stopped or disrupted, or forests were invaded by weeds or feral animals.

Plantation forestry has increasingly been established across Australia over the past 100 years. In more recent years, plantation forestry in various forms has provided a wide range of benefits including growing trees for timber in single species plantations, supporting agriculture with windbreaks or shelter belts, providing habitat for other plants and animals, fixing up damaged Country, such as mine rehabilitation; and producing non-timber forestry products.

Some areas of forest have been returned to the Indigenous people through Native Title determinations and other state and territory-based land act decisions. In some jurisdictions, traditional fire management has been acknowledged as the best management tool to bring back some of the forest values, maintain productivity and protect the forests from wildfires. Government-controlled forests are increasingly being managed by Indigenous people through traditional fire management.

There is currently a broad lack of awareness about what forestry is and isn't, and what the potential benefits of sustainable forestry are for the community. Until very recently, there has been a lack of understanding by non-Indigenous forest managers about the benefits of Traditional Owners' management of Country. In addition, there has historically been a lack of government support (at both state and federal levels) for the active management of forests.

Due to Australia's history of forestry for timber production being controlled by government or non-Indigenous private industry, there is a reluctance to let people develop forestry on Country where the rights of Indigenous people have only been relatively recently 'returned' to them. Indigenous people don't want to get their Country back and then start giving the resources away. This already happens with other industries, such as mining, where Indigenous people have some input but no control.

For forestry development to be embraced by Indigenous people on their forest Country, these histories and traditional forest management practices need to be acknowledged, and the ability of forests to provide all the resources for Indigenous people's needs – material, spiritual and cultural - – maintained.

One way to achieve this is to support these multiple use forests, both natural and plantation, that, in turn, support a diversity of resources underpinning Indigenous people's livelihoods. This will include areas set aside for cultural values, sacred places, initiation places, story places and the like, as well as areas set aside for their biodiversity values and for the protection of certain species, some of which may have specific cultural value for Indigenous people from that Country. These areas and values are defined as 'ecosystem services', along with recreational uses, watershed protection and carbon sequestration or carbon abatement.

In summary, context and history must be taken into account when discussing the potential of forestry within forests owned or managed by Indigenous people, as well as plantation forests established on their Country. This needs to include an increase in Indigenous engagement more broadly in the management of Australia's forests and the forest and wood products sector, and the use of different business models to that in other forestry development areas.

What is forestry

Forestry is about sustainable harvesting of forest products from managed natural forest Country or from plantations established to supply timber and non-timber forest products for use by local communities or for sale. The forestry industry supports employment and business by paying people to: manage forest Country; make something from the forest product (e.g. timber supply for buildings in the community or in homelands); support ranger programs with toilet blocks, fencing and other similar activities; and supply non-timber forest products, such as food and medicinal plants and the diversity of ecosystem services.

Forestry can include management of natural forests for harvest of natural products but also for ecosystem services, which is looking after forest Country to protect cultural values (e.g. story places, sacred places and camping areas), biodiversity, soil protection, protecting rivers or wetlands, carbon or for providing things like bush tucker or traditional medicine plants.

Plantation forestry is about growing trees for timber and this can be done in many different ways. Plantations can grow trees for timber, for fixing up damaged Country such as mine rehabilitation, and to produce non-timber forestry products.

There are many Indigenous forestry businesses around Australia. Examples include:

- Support for ranger programs and environmental management (e.g. traditional fire management on Indigenous Protected Areas).
- Seed collection in western Cape York Peninsula for sale to mining companies for mine rehabilitation.
- Gumatj Corporation in Arnhem Land harvesting trees from areas before mining and then sawmilling for local construction and timber for sale.
- Wik Timber's large-scale sustainable harvest of timber from mining leases and other areas, mainly for construction.
- Dutjahn Sandalwood Oils in Western Australia wild harvesting of sandalwood trees to extract oil for sale.
- Plant nurseries such as the Gulkula plant nursery in Arnhem Land growing plants for sale to mining industry and other buyers.
- Tiwi Islands timber plantations for woodchip to make paper and timber for construction.

Case Study 1[1] – AQIP developing Indigenous commercial forestry in northern Australia[2]

Overview

Researchers at the University of the Sunshine Coast talked to Indigenous communities across northern Australia to understand the growth potential for Indigenous commercial forestry. The work was funded through the Cooperative Research Centre for Northern Australia and the University of the Sunshine Coast with support from state and federal departments, Timber Queensland and Indigenous forestry practitioners.

Background

Indigenous communities in northern Australia own, manage or have special rights to about 46 million hectares of forest (see Table 1, Figure 1). Some of these forests support a small but important Indigenous commercial forestry and forest products industry. There is a lot of opportunity for further sustainable forestry development to support Indigenous jobs, and cultural and livelihood benefits for remote northern Australian Indigenous communities.

[1] Advance Queensland Innovation Partnerships

[2] Meadows, J., M. Annandale, M. Bristow, R. Jacobsen, L. Ota & S. Read (Undated) *Developing Indigenous commercial forestry in northern Australia*, Project Flyer, University of the Sunshine Coast.

Category	Northern Territory	Northern Queensland	Northern Western Australia	Total Area
Indigenous owned & managed	11,490	4,747	1,226	17,464
Indigenous managed	1,726	2,528	317	4,571
Indigenous co-managed	55	740	57	852
Other Special Rights	5,421	16,224	1,590	23,235
Total Indigenous Forest Estate	18,693	24,238	3,191	46,122
Total Forest in Jurisdiction	23,735	35,783	3,662	63,180
Proportion of total forest that is forest on the Indigenous estate (%)	79	68	87	73

Table 1: *Area of forest in the northern Australian Indigenous estate ('000 hectares).*
Source: ABARES (2019), data provided for this project, derived from the National Forest Inventory Australia's Indigenous forest estate (2018) spatial dataset as at 2016: agriculture.gov.au/abares/forestsaustralia/forest-data-maps-and-tools/spatial-data/indigenous-forest

Approach

The research team looked at the available forestry information and talked to as many people as they could across the north to better understand the growth potential of Indigenous commercial forestry in northern Australia. This included regional meetings and visits to three Indigenous commercial forestry businesses to prepare case studies – Wik Timber in western Cape York Peninsula (Queensland), Gumatj Sawmill in east Arnhem Land (Northern Territory) and Tiwi Plantations Corporation (Northern Territory).

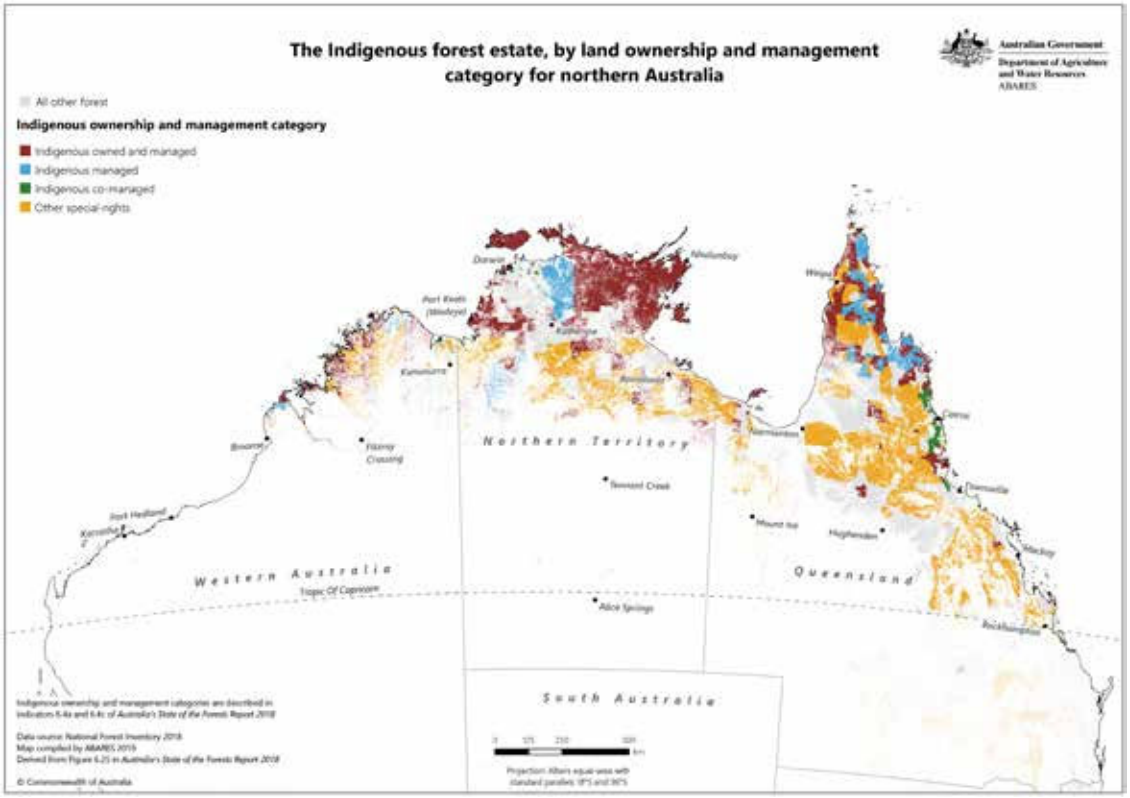

Figure 1: *The Indigenous forest in northern Australia, by jurisdiction and region.*
(Source: ABARES (2019) data provided for the project)

Findings

Key opportunities, challenges and needs for further development of Indigenous commercial forestry in northern Australia were identified around four major themes: commercial native forests, plantation forestry, mine rehabilitation and capacity building.

Figure 2: *Wik timber logs sent to market in 2018.*

Figure 3: *Gumatj sawmill in operation.*

Outcomes

The study found that policy, investment and other priority research for development needs include:

- Commercial native forests: native forest inventory, forest management trials and long-term monitoring; community sawmills processing local timbers for local applications.
- Plantation forestry: new plantation forestry trials.
- Mine rehabilitation: pre-mining forest salvage harvesting and integrated product utilisation; and multiple-use community forestry in mine rehabilitation.
- Capacity building: locally designed, field-based 'forest ranger' training programs; technical and tertiary professional forestry education pathways for Indigenous people; business development support including mentoring.

Figure 4: *Tiwi Islander forestry employees on Melville Island.*

Case Study 2 – AQIP Assessing forestry values of Cape York's savanna woodlands

Overview

Researchers from the University of the Sunshine Coast looked at how woodlands in Cape York's savanna Country could be managed for sustainable forestry.[3]

Background

Significant areas of forest country in Cape York Peninsula are owned by Indigenous people. In the western Cape, these forests are mostly savanna woodlands (see Figure 5) that are some of the healthiest and largest areas of continuous savanna woodland left in the world. Some of these woodlands could be sustainably managed for commercial timber production (see Figure 5). The woodlands also have high biodiversity, cultural and ecosystem service values, including storing carbon.

But large areas are being cleared and burnt to make way for mining. Not enough forestry data has been collected from these woodlands. We need to build on Traditional Knowledge, to know more about the timber and carbon values of Cape York's savanna woodlands because these values could then be better managed by Indigenous communities to support local businesses and livelihoods.

Figure 5: *Vast tracts of savanna woodlands in Western Cape York Peninsula (left) with some areas having commercial timber values (right).*

Approach

The research team used local knowledge and science to assess about 20,000 hectares of commercially viable Indigenous-owned forest between Aurukun and Weipa in western Cape York. They used strip lines and plots to measure all trees bigger than 10 cm diameter at breast height to work out average values for each hectare for total volume, volume by timber product, above ground biomass (how much all the trees weigh) and carbon stocks for the region's savanna woodlands.

Permanent growth plots were established that can be remeasured in the future to determine long-term forest growth and responses to management such as thinning. The researchers also used destructive sampling in 10 plots (in forests to be cleared for mining to determine average per hectare values for above-ground biomass and carbon stocks of the understorey). The understorey included all trees bigger than 10 cm diameter, shrubs, ground covers (grasses, herbs and vines) and woody debris.

Figure 6: *Measuring trees and establishing plots.*

[3] Meadows, J., M. Annandale, S. Ryan & N. Ufer (Undated) Indigenous Employment, Forestry Livelihoods, Mining – Assessing Forestry Values of Cape York's Savanna Woodlands – Project Flyer, University of the Sunshine Coast

Figure 7: *Measuring above-ground biomass.*

Figure 8: *Preliminary forest productivity mapping (as part of training program) of a mining lease on Wik traditional lands.*

Findings

Results are summarised in Table 2. Darwin stringybark, Melville-Island bloodwood and Cooktown ironwood are the region's main commercial species. There is high variability in forest quality, with a general trend of reducing productivity from east to west. Sawlogs are the main commercial product and typically there are not many higher-value pole or peeler (veneer) logs, except in some high-quality regrowth areas. Most of the volume is chip logs that are small or have poor form or other defects. Mature forest stores about 90 tonnes of carbon on every hectare. This includes about 12 tonnes on each hectare in the understorey, but this amount can change each year due to regular dry season fires.

Next steps

This is the most detailed field-based assessment of forest productivity undertaken in western Cape York. It shows that many areas are more productive than current government mapping suggests. There is a need for more assessments (including in younger regrowth forests), establishing more permanent growth plots and teaching Traditional Owners how to measure them. There is also a need to support Traditional Owners to do more good forest management, such as thinning and traditional fire, because this will help the forests grow more high-value products. Work needs to be done to determine the best uses for the lower-value chip logs, which may include bioenergy or biochar and mulch for use in mine rehabilitation. How the above-ground and below-ground carbon stocks change with harvesting and other management needs investigating, as forest carbon trading can be an important sustainable income stream for local Traditional Owners.

Stems/ha	Basal area (m^2/ha)	Total volume (m^3/ha)	Sawlog volume (m^3/ha)	Pole & veneer volume (m^3/ha)	Chip log (m^3/ha)	Above ground biomass (t/ha)	Carbon (t/ha)
217 +/- 13	13 +/- 1	52 +/- 4	16 +/- 2	4 +/- 0.5	32 +/- 3	186 +/- 13	87 +/- 6

Table 2: *Summary of the forest assessment results (average per hectare values for Indigenous-owned commercially viable forests in Western Cape York). Notes: Timber volumes are under bark volumes; +/- values are standard errors; in areas to be cleared for mining a 1 metre stump must be retained that would reduce the timber volumes from harvest.*

Current legislation

The Australian Government has committed to supporting the forestry sector and addressing the current timber shortage, including growing forest plantations and supporting the sustainable management of the native forest timber industry. In addition, the Australian Government has committed to supporting planting of one billion trees to meet Australia's future timber needs with forestry plantation establishment, and the removal of the 'water rule' that stopped plantations being rewarded for carbon capture. All these commitments provide additional certainty for investors, landowners and land managers in relation to the forestry sector.

History

Historically, there has been significant involvement of Indigenous people in the development of forestry operations throughout Australia since colonisation. A few examples are outlined here.

The cedar getters began exploiting red cedar (Toona ciliata) immediately after colonisation in the rainforests at what is now Parramatta. Indigenous people were enlisted to help locate red cedar in the rainforests of New South Wales, which were exploited for red cedar and other high-value timber species and then much of this forest was cleared for agriculture. This exploitation progressed up the east coast of NSW and then north throughout Queensland.

The Northern Territory has a long history of Indigenous people's participation in forestry, dating back to the early trade with Makassan peoples from the region of Sulawesi, Indonesia, trading in forest products. Some examples are:

- Tiwi Islands – forestry plantations of Caribbean Pine have been trialled since the 1950s. Plantations are now a significant forestry enterprise for woodchip for international markets, with a current focus on Acacia mangium species.
- Elcho Island established cypress pine plantations during the missionary period to supply timber to its sawmill for local construction.
- Groote Eylandt – more contemporary forestry development included sawmills established during the missionary period. Groote Eylandt sawmills were operated by Indigenous men and included processing of Darwin stringybark and northern cypress for construction of local housing, administrative buildings and churches, some of which still stand today.
- More recently, the Gumatj people of East Arnhem operate their sawmill and woodwork shop processing timber salvaged from the nearby bauxite mining leases for local construction and other value-adding business.
- Wadeye Indigenous community has also had sawmilling operations during its various stages of development.

Indigenous people's participation in forestry included the first export from Queensland of sandalwood collected by Indigenous peoples in Cape York Peninsula. All of Queensland's 13 Indigenous communities have had at least one sawmill since those communities were established. Several of these communities have also had forestry plantations established under various short term government-funded programs, including:

- Aurukun – Wik Timber was established in 2007 for the benefit of the Wik and Wik-Waya Traditional Owners of the Weipa-Aurukun region of western Cape York Peninsula. Since 2018, Wik Timber has been operating on bauxite mining leases between Weipa and Aurukun, harvesting commercial hardwood timbers in the eucalypt forests, primarily Eucalyptus tetrodonta, Erythrophleum chlorostachys and Corymbia nesophila ahead of mine clearing operations. The business currently sells whole logs and processes small volumes of sawn timber at its Mahoe sawmill to sell into domestic markets as part of an Indigenous training and capacity building program.
- Indigenous people have been heavily involved in the labour of timber-getting and the sawmill in the Cherbourg region of Queensland since the mid-1800s.

In NSW the timber industry commenced at the Wooleybah Sawmill and Settlement with Aboriginal people playing a significant role in the workforce dating back to at least the 1820s. The Pilliga Forest Reserve was the first declared in NSW, in 1876.

In Victoria, VicForests has entered a formal agreement with the Dja Dja Warrung to manage salvage logging after severe storms damaged the Wombat State Forest in 2021.

There has been a sandalwood industry in Western Australia since the mid-1800s, with it becoming WA's second largest export by the late 1800s. Today, the sandalwood industry in WA manages native sandalwood, producing more than 50% of world sandalwood. In addition, there are more than 6,000 ha of plantations managed in Western Australia with more than 2,500 tonnes harvested. In 2017, the Indigenous desert nomads joined with the founders of Australia's largest Santalum spicatum sandalwood plantations growers, to form a business – Dutjahn Sandalwood Oils (DSO). DSO is a sandalwood (Santalum spicatum) oil distillation company backed by Dutjahn Custodians, Kutkabbuba Aboriginal Corporation and the founders of WA Sandalwood Plantations. Dutjahn homelands include an area of more than 19 million hectares.

Wanilla Forest Reserve was one of many forest reserves planted by the South Australian Woods and Forest Department as part of a broader initiative that started in the late 19th century, with the objective of trialling many species for their suitability for establishment of a plantation forestry industry. The Woods and Forest Department managed the nearly 800 ha Wanilla Forest Reserve until the 1980s. The reserve title is now held by the South Australia Aboriginal Lands Trust, as part of its portfolio of 65 properties covering more than 500,000 ha. Wanilla Forest Reserve is leased out to the Port Lincoln Aboriginal Community Corporation.

Case Study 3 – Tiwi Islands

History of forestry in the Tiwi Islands

The Tiwi Islands, and in particular Melville Island, have a long history of forestry. A timber sawmill on Melville Island was established to assist in the rebuilding of Darwin after the cyclone of 1897, and forestry plantations of Caribbean Pine were trialled since the 1950s. Currently, there is a significant forestry enterprise for woodchip to international markets. Tiwi Leaders have determined to use 10% of their land for economic benefit, with the remainder being traditionally managed.

Forestry today

Tiwi Plantations Corporation currently operates the timber plantations and produced its first shipment in 2015. Tiwi woodchip is sold to international buyers who then sell it to customers in Japan and China, where it is used to produce high-quality paper products and biomass/biofuel.

Today, the main plantation species for woodchip is Acacia mangium. The Tiwi people have jobs driving trucks; operating harvest, roading and processing machinery; undertaking fire management; and working in the workshop, and in plantation and environmental management.

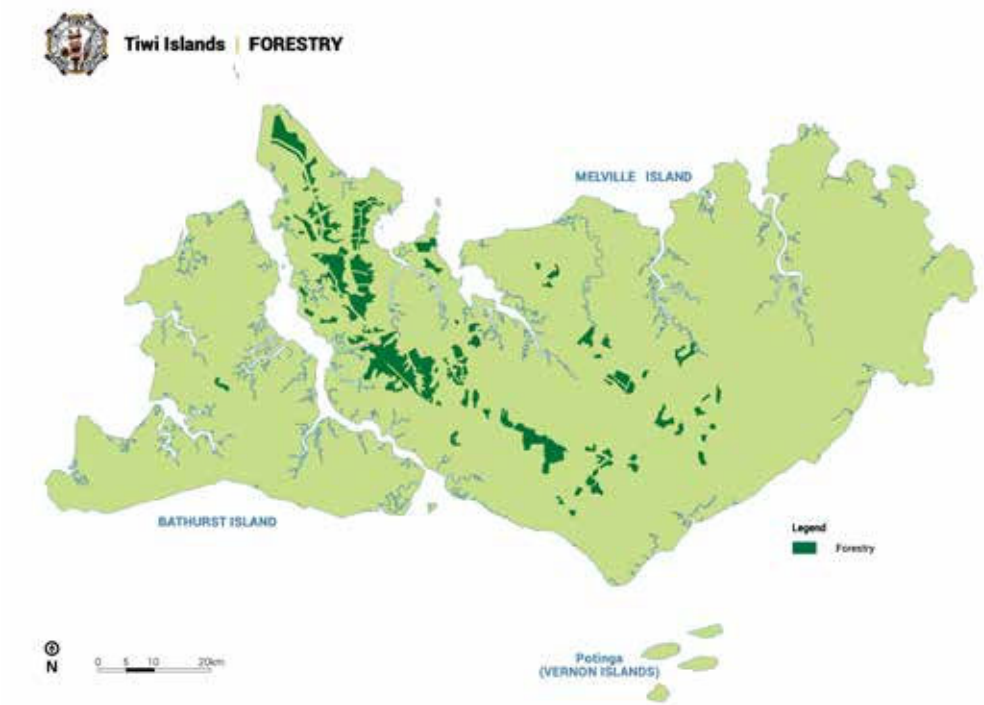

Figure 9: *Location of plantation forestry on Melville Island.*

Figure 10: *The first shipment of woodchips from Melville Island (*https:/www.tiwiplantations.com.au/first-shipment-gallery#&gid=129561&pid=20*).*

Figure 11: *Acacia mangium plantation on Melville Island (Source:* https://www.tiwiplantations.com.au/harvest-day-gallery#gid=129561301&pid=11*)*

Figure 12: *Tiwi Islands forestry employees ready for first harvest (Source:* https//www.tiwiplantations.com.au/harvest-day-gallery#&gid=129561301&pid=1*)*

The Tiwi Land Council assists in the management of the plantation forests, with forestry investment supporting the establishment and ongoing running of the Tiwi Land Ranger Program. In addition, the plantation management provides for environmental benefits, including fire and weeds management, feral animal control and threatened species protection.

Tiwi Plantations Corporation is planning to establish the Tiwi Industry Training Centre of Excellence at Yapilika Forestry Centre to provide training in forestry.

Acknowledgements

Tiwi Land Council – https://tiwilandcouncil.com/

Tiwi Plantations Corporation – https://www.tiwiplantations.com.au/

Location and Extent

There are substantial areas of land owned or managed by Indigenous people throughout Australia, with a higher concentration of area in the north (see Figure 13).

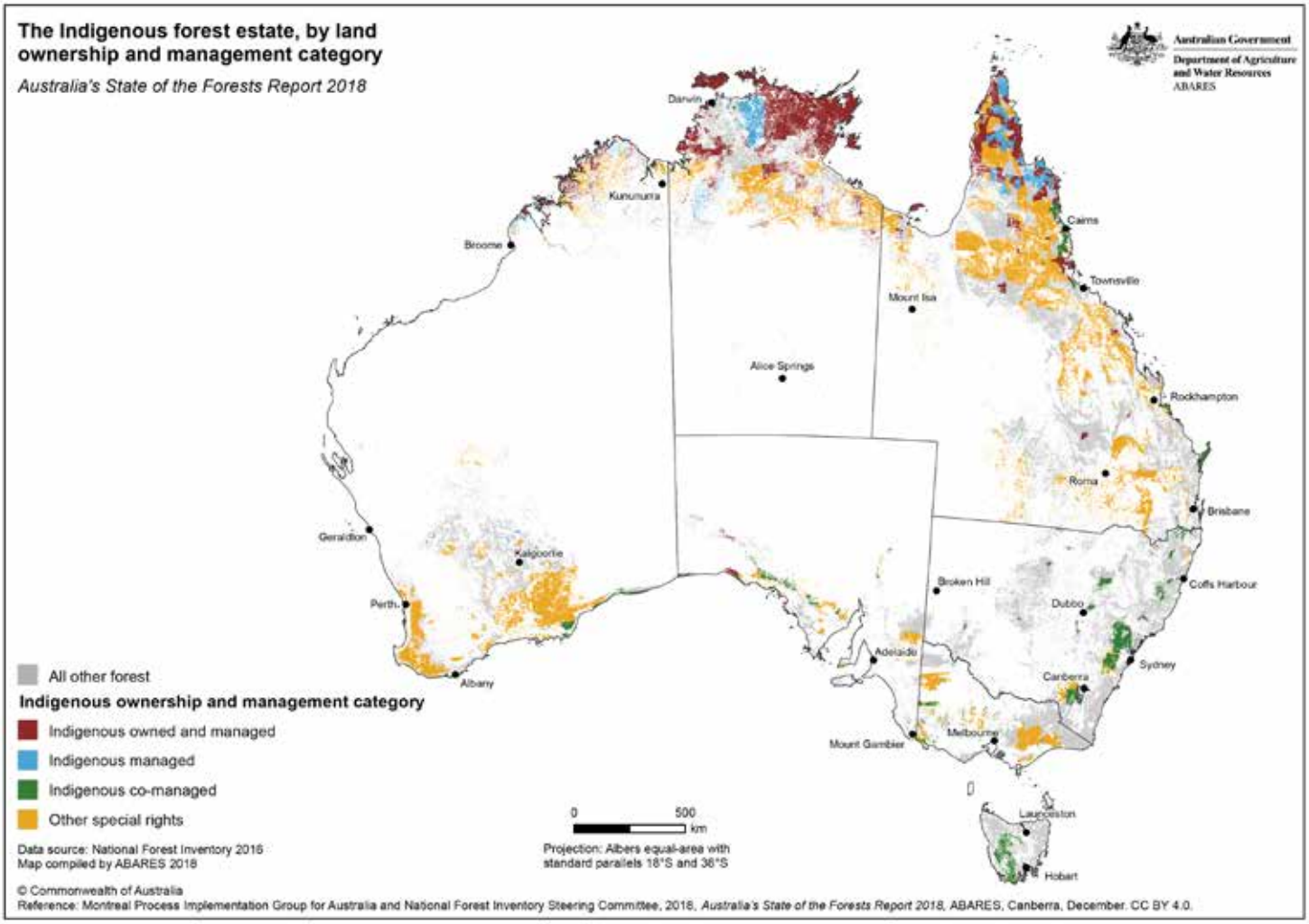

Figure 13: *Australia's Indigenous forest estate.*

Free, Prior and Informed Consent

Australia endorsed the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) in 2009 that includes a commitment to take actions to implement UNDRIP. Free, Prior and Informed Consent (FPIC) is a specific right that pertains to Indigenous Peoples. FPIC allows Indigenous Peoples to give or withhold consent to a project that may affect them or their territories. FPIC establishes a framework for Indigenous Peoples' decision-making regarding activities that affect their rights. The four elements of FPIC are interdependence, with free, prior and informed setting the conditions for a consent-based decision-making process.

The process provides equal opportunity for discussion and allows adequate time for due consideration before commencement of activities, taking into account Indigenous people's own decision-making processes and cultural traditions.

Case Study 4 – Illegal logging

What is illegal logging?

The forest products industry in Australia is governed by a range of federal, state and territory government legislation, guidelines and policies. These are overseen by their respective forest agencies and relevant Departments.

Illegal logging consists of activities that are simply unlawful in terms of their non-compliance with all applicable laws and regulations. These laws and regulations vary by jurisdiction but are all designed to ensure sustainable forest management and the protection of environmental and cultural values. Illegal logging is not tolerated by the forestry industry nor by governments. Illegal logging is detrimental to the interests of the forest industry and landowners. It has long-term adverse economic, social and environmental impacts.

What controls are in place to reduce illegal logging?

Australia's illegal logging laws focus on the import of regulated timber products (wood, pulp or paper products), as well as local domestic (raw log) processing activities, under the Commonwealth Illegal Logging Prohibition Regulation 2012. These laws place the onus on the importer or processor (e.g. the sawmiller) to undertake their own due diligence regarding the legality of the logs they source. Under Australian law, illegal logging means 'the harvesting of timber in contravention of the laws of the country where the timber is harvested'. This includes a wide range of illegal activities, such as:

- logging of protected species
- logging in protected areas
- logging with fake or illegal permits
- using illegal harvest methods.

Exporters of unprocessed logs from Australia are required to comply with all relevant state and territory laws and regulations under the Wood Export Licensing arrangements, and log exports may also be subject to other countries' illegal logging laws.

Further information on log export permit requirements can be found at: https://www.agriculture.gov.au/agriculture-land/forestry/industries/export

In addition, certification with accredited third-party forest sustainability standards can be used as a means for importers and local processors to demonstrate adequate due diligence. The two main standards recognised in Australia are Responsible Wood and the Forest Stewardship Council (FSC). Both schemes have been established to ensure high forest sustainability standards through rigorous third-party assessment and certification.

Unlawful logging in Far North Queensland

In 2022, a man was fined $15,000 by the Cooktown Magistrates Court over the felling of 113 old-growth Cooktown ironwood *(Erythrophleum chlorostachys)* trees in the Rinyirru National Park (Cape York Peninsula Aboriginal Land) in Far North Queensland. The man was hired by the timber export company to conduct harvesting activities and he hired other people to conduct the logging.

The man was charged with an offence of taking a natural resource off a protected area without authority, in contravention of section 62(1) of the Queensland Nature Conservation Act 1992.

Timber Queensland, the peak state industry body, condemned these actions, supporting the court ruling for the unlawful activity. In addition:

- The Chair of the Timber Queensland Hardwood Division, Curly Tatnell, said that this sort of rogue activity did not represent the responsible behaviour of the broader hardwood industry who work under strict forestry and environmental management regulations.
- The CEO of Timber Queensland, Mick Stephens, spoke with ABC Radio on the illegal logging case and said that such "fly by night" operators are not representative of Queensland's broader hardwood industry, who abide by the most stringent codes of practice, and have the long-term interests of industry, landowners and sustainable forest management in mind.

This case study demonstrates the range of federal and state laws applicable to illegal logging activities, which in this case directly contravened applicable state law. However, it also identifies a gap in the regulation, where native hardwood log exporters are not subject to the federal illegal logging regulation the same way that domestic processors of logs are.

In this context, Timber Queensland has:

- prepared a detailed fact sheet on illegal logging in Queensland amid concerns regarding federal and state compliance enforcement for native log exporters
- taken the unprecedented step of calling for a regulatory prohibition on native log exports until a robust compliance regime can be established
- recommended a number of key actions to combat non-compliant exports.

Timber Queensland's recommended actions include:

- native hardwood log exports be included in the federal illegal logging regulation, to ensure greater due diligence and additional regulatory power for federal enforcement
- adequate resourcing for compliance monitoring and coordination across jurisdictions with agencies responsible for forestry and environmental regulation
- undertaking regular compliance audits of export operators and export permits rather than simply relying on 'whistleblower' information for any suspect activity.

Acknowledgements

Timber Queensland illegal logging fact sheet (April 2021) – http://www.timberqueensland.com.au/Docs/News%20and%20Events/LogSuspension/Log-Suspension-Fact-Sheet_Final.pdf

Queensland Government Department of Environment and Science Media Release (March 2022) – https://www.des.qld.gov.au/our-department/news-media/mediareleases/man-fined-for-felling-113-trees-in-national-park?msclkid=3cecc5fbb17911eca22e957ee70c6d8d

Timber Queensland Media Release (April 2022) – http://www.timberqueensland.com.au//Docs/News%20and%20Events/Media%20Releases%202022/8-April-22-Qld-industry-condemns-rogue-exporter-and-calls-for-compliance-action_final.pdf

Indigenous ecosystem services and non-timber products

For Indigenous People in particular, forest areas also include ecosystem services, other timber products and non-timber products. A brief explanation of each is provided below.

Ecosystem Services

Ecosystem Services are described as the benefits that we get from nature. They include cultural services, biodiversity, soil, recreational services, water and carbon. Ecosystem Services currently managed by Indigenous people include the Emissions Reduction Fund Savanna Fire Management Projects (carbon sequestration and abatement programs funded by the Australian Government).

Ecosystem Services can be identified, measured, and quantified (a western science construct). When integrated with traditional ecological knowledge there is scope to generate income and livelihoods for Indigenous people.

Forest Country managed with traditional management practices that protect Ecosystem Services can then be certified (e.g. through Forest Stewardship Council or Responsible Wood certification). To provide support for management of the Ecosystem Services in forest Country the initial monetary value of the Ecosystem Services can easily be valued by confirming the cost of that management. Once the management of the Ecosystem Services and the positive impacts have been further assessed, other monetary values may be identified and additional payments made by stakeholders for protection of the identified Ecosystem Services.

Using timber for local needs

As part of the process for applying traditional knowledge in Ecosystem Services systems, there is a requirement for additional infrastructure to be built. Timber can be sourced and cut from local forests to meet these needs. This may include camping areas, shelters, picnic huts, toilet facilities and protective bollards. This can provide added value in the community. In addition, this timber can be used for the construction of housing in local communities, with many of these infrastructure needs already funded by government and other programs. There are significant cost savings from utilising these local timber products rather than buying timber products from elsewhere and transporting them to often remote and regional areas. It will provide community employment and business opportunities that would otherwise not be present.

In many cases, timber products that are brought in from outside areas are not as resistant to local pests (e.g. termites) and are treated with chemicals. Local hardwoods or plantations such as cypress pine are more resilient to environmental impacts of the local area and do not pose these environmental risks from chemical treatments, whether through end-of-life recycling or destruction through bushfire.

Non-timber forestry products

Non-timber forestry products are other products associated with forest areas that provide opportunities for Indigenous business development and Indigenous employment options to provide significant cultural and monetary values. These include bushfood and medicinal plants, native bee honey production and pollination services and sandalwood products.

Case Study 5 – AQIP Assessing ecosystem services and the benefits from Country

Overview

Researchers at the University of the Sunshine Coast looked at how Indigenous communities can talk about caring for Country to benefit from healthy forests.[4]

Background

Caring for Country and making sure it is healthy can lead to benefits for Indigenous communities. These benefits from healthy Country are often called ‘ecosystem services’. Examples of ecosystem services include healthy mangroves, bush tucker, soils and healthy water and cultural practices on Country.

We all value the land in different ways, and it is important to understand connections to Country and how these connections support wellbeing. Understanding these connections is important when planning the rehabilitation of Country that has been degraded or disturbed. For example, when Country is mined, many ecosystem services will be lost. We need to know what is special about Country, both culturally and physically, to understand how to return these values after mining.

[4] Bodly, R., L. Sonter, M. Annandale, P. Erskine (T. Santini (undated) Indigenous employment, forestry livelihoods, mining – Assessing ecosystem services and the benefits from Country, project flyer, University of the Sunshine Coast

Figure 14: *Regulating services such as mangrove areas that regulate water and protect coastlines.*

Figure 15: *Provisioning services – those that provide physical benefits such as bush tucker from plants such as sandpaper fig.*

Figure 16: *Supporting services such as soil formation and nutrient cycling provided by intact ecosystems such as Eucalyptus forests.*

Figure 17: *Cultural services including benefits from activities such as camping, fishing, ceremonial, spiritual and cultural practices on Country.*

Approach

The researchers developed a method to talk about ecosystem services with Traditional Owners. We used ecosystem services 'cards' to discuss what ecosystem services are and understand what is most valuable to Traditional Owners.

We held group discussions on Country to talk about how Country makes people feel and what contributes most to overall wellbeing.

Figure 18: *Example of ecosystem services cards used in discussions.*

Findings

While all ecosystem services are important, the researchers found that the things most important to the wellbeing of people were:

Culturally, sharing of knowledge on Country and recreation/fun outdoors, and

Physically, having fresh water and food (hunting for food and bush tucker).

This is what Traditional Owners said they would like to be able to do and see on Country.

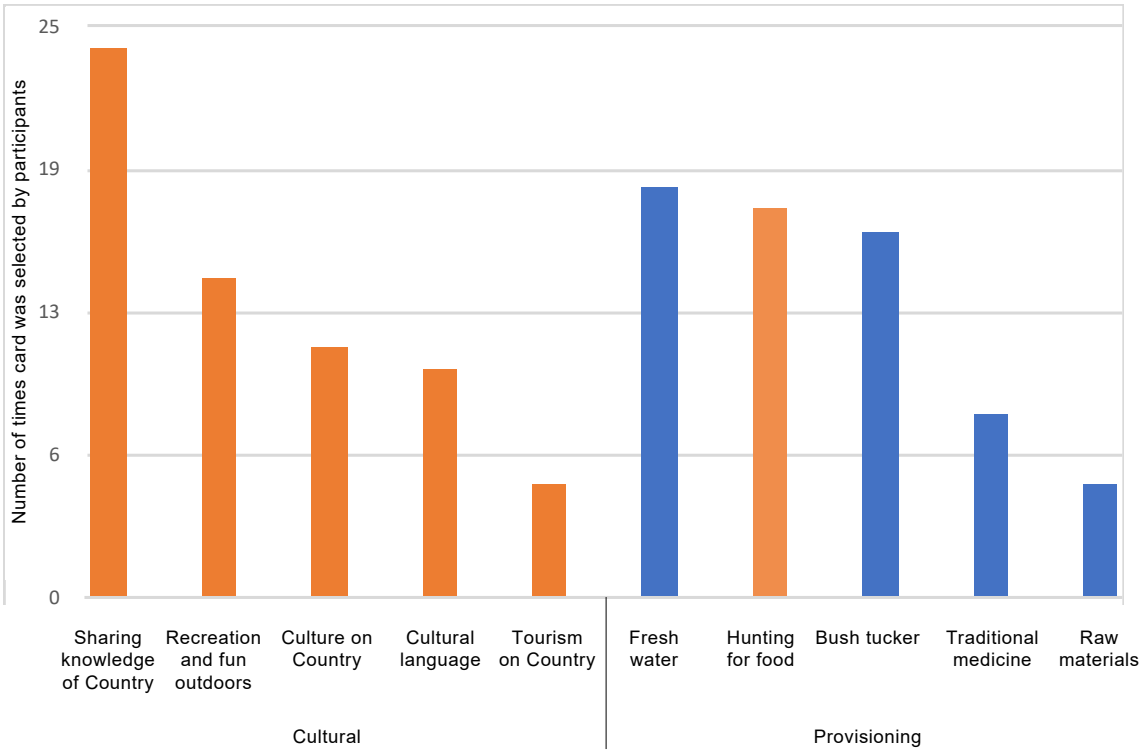

Figure 19: *Results from discussions.*

Where to from here?

The information from this study can be used to plan the rehabilitation of mine sites and what the landscape could look like after mining. Figure 20 shows how the land changes with mining, with an example of a post-mining mix of land uses that includes the cultural and physical ecosystem services that are important to Traditional Owners.

Figure 20: *When mining occurs, the landscape changes from open woodland forests to a bare open landscape. The last image in this timeline is an example of how Traditional Owners want to see important values and ecosystems returned to Country after mining.*

Integration of traditional ecological knowledge forest management with contemporary forestry science

Indigenous people have a special connection and relationship with Australia's forests and other natural environments. The management of the natural environment, caring for Country, includes in-depth traditional ecological knowledge.

The traditional forest management practices maintained a balance and supported a resilient forest with high biodiversity, high productivity and all of the traditional and cultural needs of the communities that lived in these forest areas.

Fire management

In some areas, traditional fire management has been acknowledged as the best tool for management of forest areas. There has been increased awareness and understanding by non-Indigenous forest managers about the benefits of Traditional Owners' input into the management of Country in relation to fire management. Indigenous companies such as Firesticks Alliance are providing training and on-ground traditional fire management services across the country.

Certification

Certification is a way that forest owners and managers can show that the way they do forestry business looks after Country and the people who use that Country and its cultural values in traditional ways. It also means making sure that rivers, creeks and lakes are protected and that areas and trees where important animals live are cared for.

Certification is important for Indigenous forestry and businesses because it helps to sell wood products in markets that want demonstrated sustainability. It is also important that non-Indigenous forest managers can show that they are talking to Indigenous communities about the way they manage forests that aren't owned by Indigenous people. The two forestry certification standards recognised in Australia are Responsible Wood and the Forest Stewardship Council.

Indigenous business development and Indigenous job opportunities

Indigenous communities in northern Australia own and manage about 46 million hectares of forest. A number of these forests support economically important commercial enterprises in the forestry and forest products industry.

There is a lot of unrealised potential to further develop this industry in a culturally appropriate manner for remote northern Australian Indigenous communities. In particular, Cape York Peninsula (Queensland), East Arnhem Land (Northern Territory) and the Tiwi Islands (Northern Territory) have substantial commercial forestry growth potential. These include:

- native forestry inventory
- silviculture
- plantation forestry
- pre-mining forest salvage harvesting and integrated product utilisation
- processing of local timbers in community sawmills
- multiple use community forestry in mine rehabilitation
- locally designed, field-based 'forest ranger' training programs
- technical and tertiary professional forestry education pathways
- business development support, including mentoring.

Forestry can include Indigenous business development and a diversity of Indigenous job opportunities for forestry operations and support industries such as:

- Forest management integrating traditional ecological knowledge and contemporary forestry management practices.
- Sawmilling.
- Support for ranger programs and environmental management programs such as feral animal controls, fire management, Ecosystem Services management
- Indigenous Protected Areas (IPA) management – there are 78 IPAs in Australia, covering more than 74.6 million hectares (April 2022), with Australian Government funding for ranger and other management programs.
- Supply of timber for Indigenous housing construction and other infrastructure and, in remote communities, an emphasis on construction timber import replacement.
- Housing – construction of new houses with timber sourced from Country. For example, the Australian Government provided $100 million of funding in the 2020-21 budget for Indigenous housing in Queensland.
- Businesses that use non-timber products such as traditionally used plants, bush foods, bark and specialty timbers for art supply.
- Seed collection for supply to industry, including the mining sector for rehabilitation.
- Plant nurseries for supply of high value plants for forestry plantation establishment, rehabilitation.

Case Study 6 – Gumatj Corporation Ltd

About the Corporation

The Gumatj Corporation Ltd is an Indigenous community development organisation established by the Gumatj people of East Arnhem Land in the Northern Territory. It was established to support long-term employment, business and sustainable development opportunities on Gumatj homelands. Gumatj people invest their own money and, with some government support in plant and equipment, look at different ways to use their timber to support jobs for their people.

Figure 21: *Gumatj log processing.*

Figure 22: *Gumatj timber ready for delivery.*

Timber production

The Gumatj sawmill supplies local timbers for their own housing and to sell to other communities for housing or other projects. As the Gumatj sawmill has grown, they have made more products, including roof trusses, decking and other specialty products. Gumatj has also sold some timber for Northern Territory government projects in Darwin (e.g. shade structures for Cavanagh Street and the new visitor centre at the Botanic Gardens). Timber has also been sold to another Indigenous business, Manapan Furniture at Maningrida, which makes top-quality furniture and sells all over the country. Gumatj has also supplied roof trus ses and decking for about 100 houses in East Arnhem and Elcho Island.

Forestry as a business for Indigenous communities

At the local level, forestry can support sustainable small-scale Indigenous owned and operated businesses. That supports other businesses and local jobs. A local forestry industry can sustainably use locally grown timbers and look after their Country to value-add by making houses for the local community, which benefits everyone in East Arnhem Land.

Figure 23: *Gumatj timber packaged for delivery.*

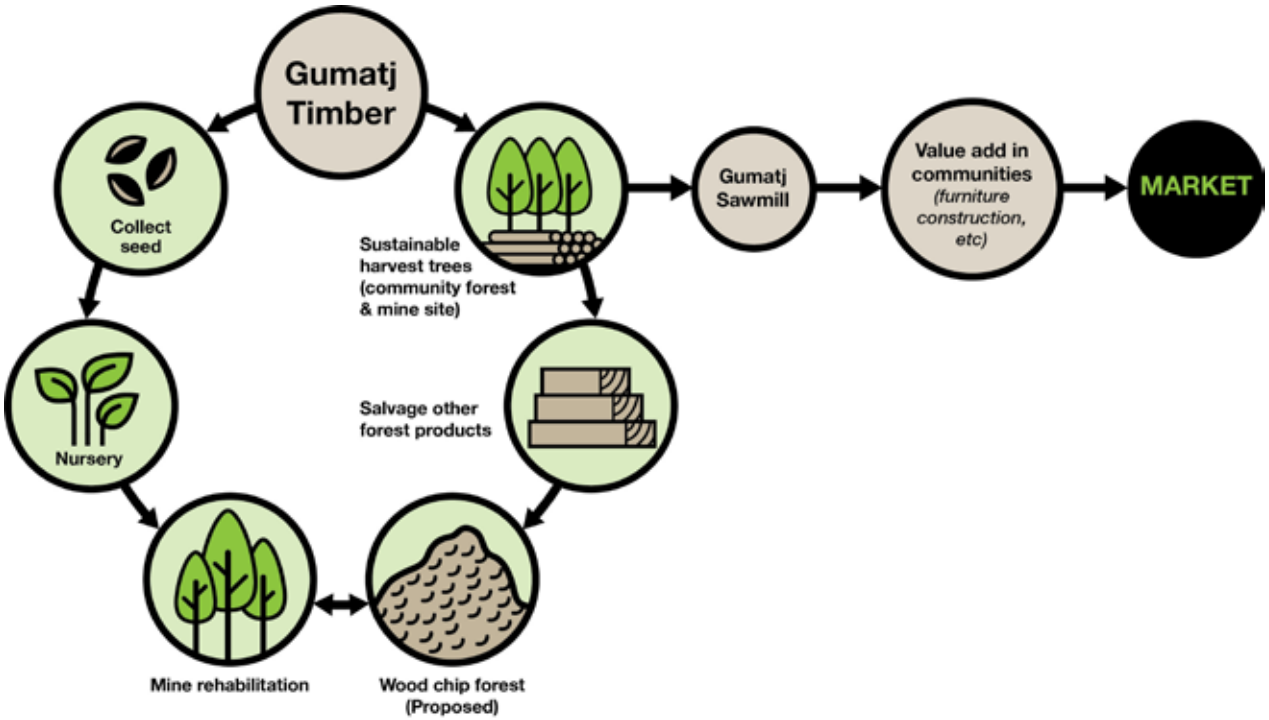

Figure 24: *Gumatj forest and timber business cycle.*

Research and collaboration

Gumatj is partnering with universities and government to support research and development. That helps to find better ways to do things, and builds on traditional knowledge to help look after Country.

Intra Indigenous organisation collaboration Case Study – Gumatj and Manapan

Manapan is a self-sufficient and self-funded enterprise owned and operated by the Yolngu people, the traditional custodians of East Arnhem Land, Northern Territory. The enterprise is supported by the Arnhem Land Progress Aboriginal Corporation (ALPAC), the largest employer of Aboriginal people in Australia.

Manapan was created to empower local Indigenous people by providing a pathway to full-time employment, whilst recognising and celebrating traditional talents and contemporary skills. Through the Manapan Academy, training is provided in carpentry and joinery skills in the workshop, while also providing work experience programs for the students at the local school, building on the students' skills, talents and interests.

Manapan works at its Milingimbi workshop, as well as joint projects and partnerships with other workshops and designers across the country including Ramvek and Foolscap Studio.

The timber used to create furniture is locally sourced from Gumatj, an Aboriginal Corporation in Nhulunbuy, and blended with sustainably harvested, specialty Australian timbers.

Manapan has created furniture pieces for Melbourne Airport, the Darwin office of the Royal Flying Doctor Service, ANZ's Melbourne office and the Monash University boardroom table, among others.

Figure 25*: Gumatj timber processing.*

Acknowledgements

Manapan – https://manapan.com.au/
Gumatj – https://gumatj.com.au/

Case Study 7 – Western Australian sandalwood

The sandalwood industry

Sandalwood has been one of the most valued woods globally for centuries, particularly in Asia. Indigenous people within Australia have used sandalwood for thousands of years, and have a holistic connection to sandalwood in culture, healing and sustenance.

A number of sandalwood species, both native and non-native, are used for oils and oil products in Australia. Western Australian sandalwood (Santalum spicatum) is a slow-growing hemi-parasitic, long-lived small tree that occurs naturally in the southern two-thirds of WA.

There has been a sandalwood industry in WA since the mid-1800s, becoming its second largest export by the late 1800s. Today, the WA sandalwood industry is thriving, using native sandalwood and providing a globally significant guarantee of product each year. Each year, 20,000 ha of plantations are managed and 2,500 tonnes harvested in a sustainable manner.

Dutjahn Sandalwood Oils

In 2017, the Indigenous desert nomads joined with the founders of Australia's largest spicatum sandalwood plantation grower to form a business based on mutual respect and knowledge – Dutjahn Sandalwood Oils (DSO).

DSO is a sandalwood (Santalum spicatum) oil distillation company backed by Dutjahn Custodians, Kutkabbuba Aboriginal Corporation and the founders of WA Sandalwood Plantations. This is underpinned by shared values of respect and sustainable business, and a common vision to support the future of Australian sandalwood.

Dutjahn is the only company specialising in Australian sandalwood distillation, with secured long-term wood supply. DSO's environmental approach is supported by Indigenous Certification allowing Indigenous people to cultivate sustainably and ethically sourced sandalwood, while phasing in Responsible Wood and Forest Stewardship Council certified plantations for supply of products.

DSO fuses a sustainable mix of Indigenous-harvested wood, government-managed wood and cultivated wood to create its essential oils. Benefits are shared with Indigenous people through profit share, wood sales and royalties that fund community projects to support culture and care for Country.

DSO verifies its work through independent certifications including HACCP (Quality), Organic-Certification and Ecovadis Gold (placing it in the top 3% of companies in its industry). More recently DSO was granted full membership of the Union of Ethical Biotrade and is currently undergoing an audit process to verify the ethics of its supply chain. The cultivated wood used by DSO is Responsible Wood certified.

These efforts have been recognised through a number of awards including the UN Equator Prize for nature-based sustainable development, Sedex Best Collaborative Effort and multiple Australian Export Awards.

Figure 26*: DSO has entered into business partnerships based on mutual respect and knowledge that blends product from both regenerative cultivation (including a long-term supply agreement with government) and plantations for supply of sandalwood oil. Currently, DSO has a contract securing long-term supply from these plantations that are managed by WA Sandalwood Plantations.*

Environmental and cultural co-benefits

The sandalwood trees are grown in the wheatbelt and play an important role in regenerating salinity-stricken farmlands – reducing soil erosion, lowering the water table, enriching soils and creating habitats for native fauna. As a hemi-parasite, the tree grows with endemic host trees, creating mixed species woodlands and does not require irrigation.

For Indigenous groups, sandalwood harvesting forms part of a broader program of heritage and caring for Country, with intensive replanting complemented by ecological stewardship such as the restoration of waterholes and the management of pests and fire. The K Farmer Dutjahn Foundation (KFDF) – a not for profit established by DSO to support Indigenous people and biodiversity on sandalwood lands – receives royalties from DSO. They support a broad range of initiatives to empower Indigenous communities to manage and sustainably utilise their lands. Initiatives include resource assessments and sustainable sandalwood management plans, Indigenous Ranger programs for youth and adults and infrastructure and support for digital literacy.

'Dutjahn (Australian sandalwood) is more than a sacred plant to the Martu and Wongi Nations, it is part of our soul and a key link to our spiritual identity' – Darren Farmer, Chairman of Dutjahn Custodians (https://www.dutjahn.com/).

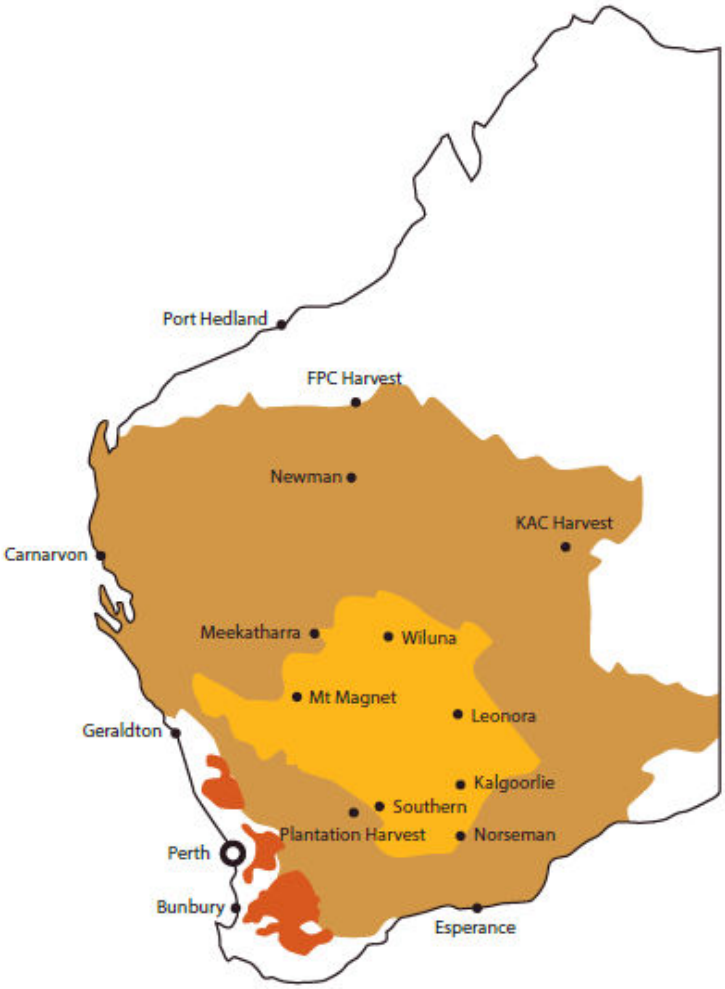

Figure 27*: Western Australian sandalwood distribution.*