

Arnhem Land Fire Abatement

ALFA (NT) Limited
Annual Report 2021



Arnhem Land Fire Abatement

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Front cover: Students perform burning under the guidance and instruction of ASRAC rangers at ASRAC's Djilpin Fire Camp. Photo by Chrystal Burgher.

Right: Aerial imagery illustrates the difference between burnt and unburnt country, on the right showing a cool early dry season burn that has gone out overnight. Photo © Matthew Abbott.

Back cover: Firefighting essentials including backpack blowers and fuel are loaded into a sling, ready to be dropped into a wildfire. Photo courtesy of Warddeken Land Management.

1 — Jon Altman, Jennifer Ansell and Dean Yibarbuk (2020) No ordinary company: Arnhem Land Fire Abatement (Northern Territory) Limited, Postcolonial Studies, 23:4, 552-574



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Arnhem Land Fire Abatement – ALFA (NT) Limited – is an entirely Aboriginal-owned, not-for-profit carbon farming business.

Established in 2015 by Aboriginal Traditional Owners from Arnhem Land to support their engagement with the carbon industry, ALFA currently supports Traditional Owners and their affiliate ranger programs to deliver five registered fire projects across an area of over 80,000 km².

At the onset of the dry season, Traditional Owners and rangers responsible for the remote tropical savannas of Arnhem Land apply customary fire knowledge and skills to strategically burn their country. These highly sophisticated landscape scale fire management practices have been performed since time immemorial.



Today, ALFA's partner groups use customary knowledge in tandem with modern technologies to deliver fire management programs that address critical environmental solutions at local, national and global levels.

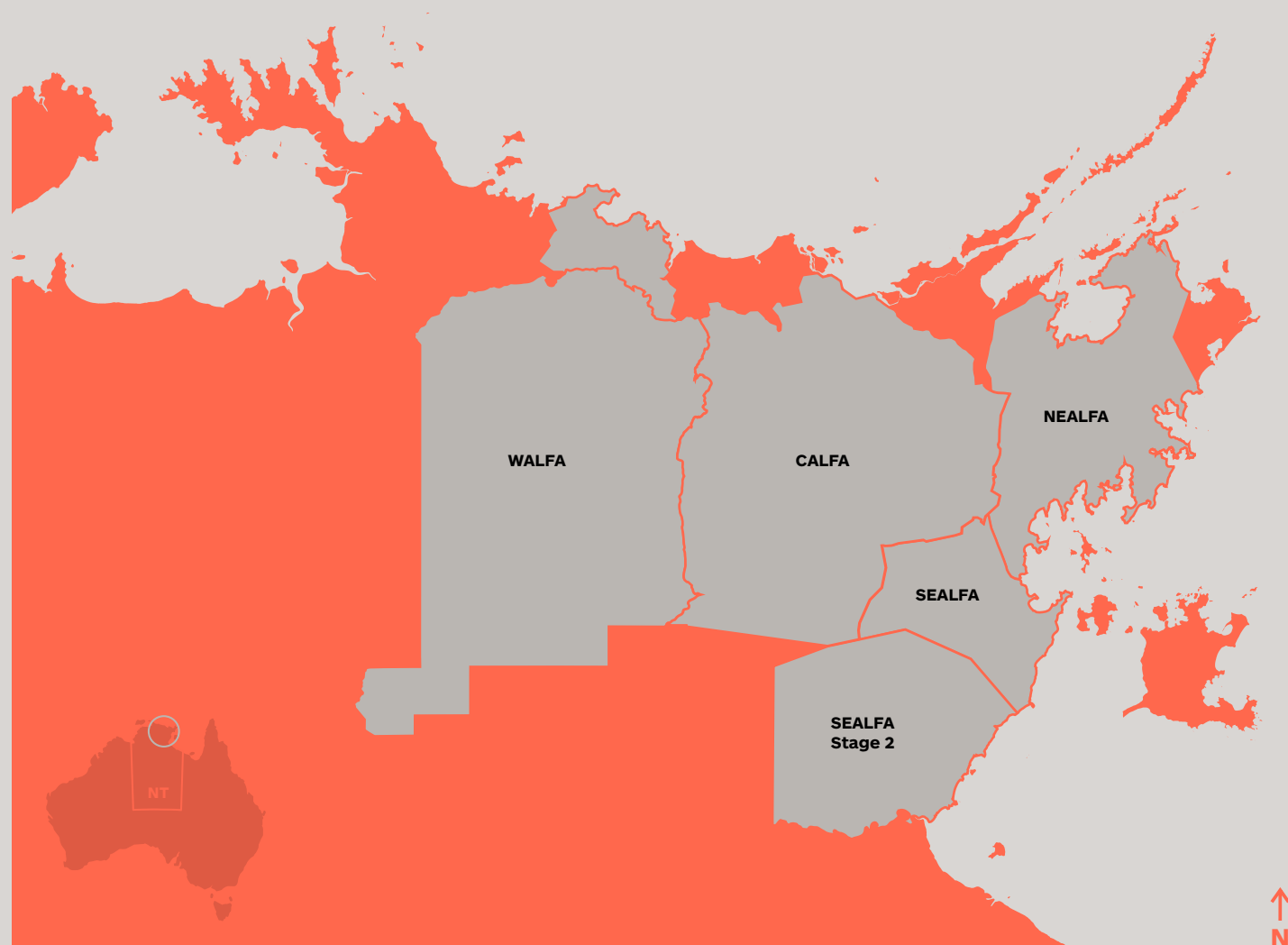
In a landscape that has evolved through the deliberate and nuanced use of fire, the vital work performed annually by rangers across Arnhem Land is resourced through their participation in the carbon economy.

ALFA facilitates this engagement with the carbon industry, supporting Traditional Owners and rangers to deliver best-practice fire management projects that generate environmental, cultural and social benefits, producing carbon credits of the highest integrity.

Drip torches are used to efficiently ignite dried grass and vegetation as rangers traverse country. Photo © Renae Saxby.

Nine Aboriginal ranger groups consisting of Traditional Owners and their families operate a total of five ALFA fire projects, which generate Australian Carbon Credit Units (ACCUs) through the Savanna Burning Methodology.

Map of project areas



- **West Arnhem Land Fire Abatement (WALFA) project**
- **Central Arnhem Land Fire Abatement (CALFA) project**
- **South East Arnhem Land Fire Abatement (SEALFA) project**
- **South East Arnhem Land Fire Abatement 2 (SEALFA2) project**
- **North East Arnhem Land Fire Abatement (NEALFA) project**

Collectively, these groups manage an area of over 80,000 km² encompassing rugged sandstone escarpments, monsoon rainforest, intact riparian ecosystems, floodplains, remote coastal regions and vast expanses of savanna.

Values

*The following values represent the objectives for which ALFA was established.
All income generated through the sale of carbon is spent in line with these objectives.*

To protect, preserve and care for the environment through abatement of the level of global greenhouse gas emissions by utilising bushfire management activities.



To preserve and conserve native Australian fauna and flora through bushfire management activities that accord with Aboriginal traditional rights and obligations and Australian law.



To collaboratively pursue the investigation, development and implementation of other activities which will protect, preserve and care for the environment and which are consistent with Aboriginal traditional rights and obligations and Australian law.



In relation to Aboriginal persons who have a traditional Aboriginal connection with any part of the project area, to provide for the relief of poverty, sickness, suffering, distress, misfortune, destitution, helplessness or the aged.



To provide for the advancement of education of Aboriginal persons who have a traditional Aboriginal connection with any part of the project area.



Children from communities across ALFA project areas are introduced to fire at a young age, and taught to responsibly harness fire as a landscape management tool.

Tyson Maralngurra has grown up immersed in customary fire practice at his homeland in western Arnhem Land. He has also grown up participating alongside his family in land and cultural management activities facilitated by the local Warddeken rangers, such as bushwalks, culture camps, rock art and biodiversity monitoring surveys and Anbinik (*Allosyncarpia ternata*) protection. Photo © Matthew Abbott.

ALFA (NT) Limited has eight membership classes, representing the operational areas of the ranger groups and organisations that operate each of the five fire projects.

“The specific Indigenous form of participatory governance that guides ALFA’s operations, always cognisant of Landowner authority, is fundamental to ALFA’s ability to support forms of Aboriginal-led development focused on conservation.”¹



Fire ecologist, ALFA board member and cultural leader Dr Otto Campion speaks at the 2021 pre-season meeting. Photo © David Hancock.

Membership of the ALFA is open to Aboriginal people with customary responsibilities for those parts of Arnhem Land under active bushfire management as one of the five registered projects.

ALFA is governed by 16 Aboriginal Directors. Two Directors are elected from each of the eight membership classes.

The Company also employs a Chief Executive Officer, a Chief Financial Officer, a Capacity Development and Training Manager, a Bushfire Project Officer, and a Seasonal Bushfire Officer (as required).

Board of Directors and Staff as at 30th November 2021

Adjumarllarl — Shaun Namarnyilk, Anderson Nalorlman
ASRAC — Gladys Malibirr, Otto Campion
Bawinanga — Victor Rostron, Felina Campion
Jawoyn — Tony Walla, Steven Andrews
Mimal — Alfred Rickson, Leon Lawrence
SEAL — Clarry Rogers, Clive Nungarrgalu
Warddeken — Conrad Maralngurra, Terrah Guymala
Yirralka — Lirrpiya Mununggurr, Shane Wuthara
Wunungmurra

CEO — Jennifer Ansell
CFO — John O’Brien
Capacity Development and Training Manager — Mark Desailly
Bushfire Project Officer — Stephanie Rouse
Governance Facilitators — Paul Josif, Sally Clifford



ALFA Membership is made up of Traditional Landowners from the nine partner ranger groups

Partners



Bawinanga



Warddeken



Adjumarllarl



Mimal



Jawoyn



ASRAC



SEAL



Yirralka

Directors



Victor Rostron



Conrad Maralngurra



Shaun Namarnyilk



Alfred Rickson



Tony Walla



Gladys Malibirr



Clarry Rogers



Lirripiya Mununggurr



Felina Campion



Terrah Guymala



Anderson Nalorlman



Leon Lawrence



Steven Andrews



Otto Campion



Clive Nunggarrgalu



Shane Wuthara Wunungmurra



Traditional Owners from Mamadawerre in the Warddeken IPA light up the edges of the community's airstrip as the sun sets. Asset protection burns are often performed collaboratively between Traditional Owners and rangers. Photo © Matthew Abbott.

ALFA staff



Contract Governance Facilitators



Top left to right: Jennifer Ansell (CEO), John O'Brien (CFO),
(Capacity Development and Training Manager),
Stephanie Rouse (Bushfire Project Officer), Paul Josif (Governance Facilitator),
Sally Clifford (Governance Facilitator).

2021 has been an exceptional year for ALFA on many fronts.

Every year, ALFA's partner Aboriginal ranger groups across Arnhem Land coordinate highly sophisticated projects that support and enhance the fire management rights and obligations of Traditional Owners. This model of Traditional Owner-led project ownership and delivery, the founding principle for which ALFA was created, continues to deliver incredible results for people, for country and, through the production of significant greenhouse gas abatements, for climate change mitigation. In 2021, the five ALFA projects abated just under 700,000 tonnes of greenhouse gas emissions generating almost 700,000 ACCUs.

In 2021, the operationalisation of new projects has seen ALFA build capacity to further support the growing needs of our partner Aboriginal organisations.

The first of these is the addition of accredited fire management training capability within ALFA. This will enable rangers to continue to build their capacity whilst creating a framework to recognise existing skills

and knowledge – realising this long-held aspiration of Aboriginal rangers in Arnhem Land. Over the next three years, ALFA will work with our partners to develop and deliver a model of accredited fire management training that combines on-the-job training and mentoring and is specific to the needs and cultural environment in which Aboriginal rangers in Arnhem Land operate.

In 2021, ALFA and project partners worked with the Northern Land Council (NLC) to undertake planning and consultation for a new fire abatement project in north-west Arnhem Land. Many years in the making, the formalisation of the consultation process was an important milestone for Traditional Owners. ALFA looks forward to supporting the three project partners – the Garngi, Mardbalk and Adjumarllarl rangers, who will coordinate the project with Traditional Owners – with their first year of fire operations to begin in 2022.

The Savanna Fire Management Methods have been an important contributor to emissions reduction in Australia since the inception of the *Carbon Farming*



Jennifer Ansell
CEO

Initiative Act in 2011. Over the years the savanna methods have been updated many times to incorporate advances in carbon accounting science. In 2021, we welcomed the announcement by the Clean Energy Regulator that the savanna methods would be prioritised for an update in 2022 to include further carbon pools. The continued development of these methods represents a significant opportunity for the ALFA projects to significantly increase not only the economic returns generated from the fire projects but also the environmental, cultural and social returns from investment in the fire project areas.

The global focus on international climate policies in the lead-up to the 26th Conference of the Parties in November 2021 saw the Australian carbon price strengthen significantly, rising to record prices. As we go to press with this Annual Report in 2022, I am excited about what the future holds for our project partners, the Aboriginal ranger groups and their host organisations who coordinate and undertake all of the fire management operations with Traditional

Landowners. These incredible organisations are each cornerstones of their communities and work tirelessly to improve the health of their country and the lives of their people.

Finally, once again, I wish to acknowledge and thank ALFA's small team of staff members who work with dedication and enthusiasm to support the operation of the fire projects and the continued capacity development of project partners.

On behalf of ALFA's Board of Directors, I am very proud to present the ALFA Annual Report and celebrate the many achievements from Arnhem Land in 2021.

A handwritten signature of Jennifer Ansell in black ink.

Core strategic actions of ALFA customary fire management

Left to right: Bawinanga rangers and Landowners discuss early dry season (EDS) burning plans for the Djelk IPA; An ASRAC ranger uses a drip torch to perform on ground burning; SEALFA rangers prepare to take to the skies for aerial prescribed burning (APB); Warddeken rangers maintain a firebreak around fire sensitive Anbinik (*Allosyncarpia ternata*) forests; Warddeken rangers back burn from a rock art site after clearing detritus from the floor of the shelter; Emerging generations of Traditional Owners are taught to respect and harness fire as a tool for managing country.



1.

Engage the right people for country in the planning and delivery of all fire management activities.



2.

Burn early in the dry season at times of heavy dew and little wind, so that fires burn slow and cool, and go out overnight.



3.

Burn strategically, using natural breaks such as moist ground along creeks, cliff lines and tracks to leave patches of unburned country surrounded by burned breaks.



4.

Protect fire sensitive ecological communities, flora and fauna by utilising cool burning and creating early-burned breaks.



5.

Protect sacred sites, rock art galleries, burial sites and other sites of cultural significance by creating early-burned breaks.



6.

Teach the next generation of Traditional Owners to master customary fire management skills and knowledge, preparing them to take over the project in the future.



Above: Warddeken Chairperson and ranger Conrad Maralngurra conducts burning in the early evening with children from the community. Photo © Matthew Abbott.

Opposite right: Attendees at one of the first meetings to bring together Landowners from across west and central Arnhem Land to discuss fire management, held at Weemol in 2005. Many of the leaders in this image are now deceased, though their legacy lives on. Image courtesy of Peter Cooke.

A homegrown success story

The history of fire projects in west Arnhem Land



The story of ALFA begins with the ground-breaking West Arnhem Land Fire Abatement (WALFA) project, the first savanna burning abatement project anywhere in the world.

In the mid-1990s, senior Aboriginal Landowners from western Arnhem Land and a small group of non-Aboriginal scientists began a conversation about the importance of fire in the landscape. Elders and leaders explained that before the depopulation of the Arnhem plateau and surrounding areas, fire was the key tool used to care for their estates. They spoke of “orphaned country”, whose Landowners had been drawn to missions and settlements, and were concerned that without customary management, especially of fire, the physical and spiritual Indigenous estate was sick.

Satellite fire histories corroborated Traditional Owner’s concerns, showing fire regimes across the region dominated by late dry season wildfire, often burning intensely over thousands of square kilometres and only extinguished with the coming of the annual wet season rains.

These discussions led to the development of a vision of people again living on healthy country, and of fire management as a key contributor to this vision.

Over the next decade, Indigenous ranger groups in Arnhem Land used the limited resources available to them to refine their ability to manage fire at a landscape scale, developing ways of emulating customary fire management using modern tools.

Meanwhile, scientists developed methods to measure the extent of fires, and calculate the seasonal differences in greenhouse gas (GHG) emissions between early

and late dry season fires for a range of vegetation communities. A group of Indigenous fire experts and non-Indigenous scientists continued working together to explore and define the relationship between customary burning and emission reductions; this early research went on to become the foundation of the current Savanna Burning Methodology.

Despite these exciting developments, for the Traditional Owners and rangers of west Arnhem Land, managing fire at the scale necessary remained beyond their financial capability. In 2006, after years of negotiation, a trailblazing solution was reached when ConocoPhillips entered into the West Arnhem Fire Management Agreement (WAFMA) with the Northern Territory Government. This first-of-a-kind agreement saw ConocoPhillips support Landowners to restore fire management over more than 28,000 km² of west Arnhem Land (the WALFA project area) to offset GHG emissions from their newly established Darwin Liquefied Natural Gas (DLNG) plant.

The WALFA project proved to be an innovative and effective solution to securing long-term funding to support fire management and immediately allowed Traditional Landowners and Aboriginal rangers to get back out on country, initiating fire management programs that reconnected people to country and brought back strategic, cool early dry season burning at a landscape scale.

It is difficult to overstate the impact of the WALFA project on today’s carbon market. As the landscape scale model upon which the government-approved Savanna Burning Methodology was based, WALFA has provided a template for every current and future savanna burning fire management project across northern Australia.

The origin of ALFA

“From a Western ecological perspective, fire management in Arnhem Land resourced through ALFA’s engagement with the carbon industry, has successfully addressed the prevalence of hot, widespread and destructive wildfires in the landscape – a threat to the environmental assets of northern Australia recognised in both Aboriginal and Western science knowledge systems.”¹

Following the introduction of carbon legislation in Australia in 2011, the five ranger groups partnered in the WALFA project decided they wanted to transition the then voluntary WALFA project to an eligible offsets project, which would allow them to earn and sell ACCUs. Extensive Landowner consultations ensued, focusing on how to create an Aboriginal-owned company to represent them collectively in their engagement with the carbon market.

In 2013, WALFA Limited was established for this purpose, and in 2015 the name of the company was changed to ALFA (NT) Limited, to reflect its growth throughout Arnhem Land. ALFA registered WALFA as an eligible offsets project in late 2014, and since then the company has grown to support Traditional Owners to register and operationalise projects in central, south-east and north-east Arnhem Land. Together, these projects cover a significant and contiguous area of almost 80,000 km² of Arnhem Land.

Currently, nine Aboriginal ranger groups consisting of Traditional Owners and their families, undertake all operational aspects of the landscape scale fire management that occurs across the five ALFA project areas. Membership of ALFA is open to any Traditional Owner of land where an ALFA project operates – as such, ALFA is at once an alliance and a collaboration between Traditional Owners and their affiliated ranger groups.

In developing ALFA, Traditional Owners were clear in their directive that the company should be not-for-profit, and that all revenue from the sale of ACCUs must be reinvested back into the Aboriginal ranger groups to provide local employment while preserving culture and the environment. ALFA continues to operate under this directive, operating with minimal overheads such that 95 per cent of all income generated is paid to the ranger groups for the purpose of supporting and improving fire management activities across the project areas.



Yugul Mangi ranger Winston Thompson surveys an early burn creeping through savanna woodland. Photo courtesy of Northern Land Council.

Savanna Burning Methodology

“95 per cent of all income generated is paid to the ranger groups for the purpose of supporting and improving fire management activities across the project areas.”¹



A chopper ferries rangers from the fire line. Photo © Matthew Abbott.



Josephine Austral of Mimal rangers blows out a flaming drip torch. Photo © Renae Saxby.

All savanna fires emit greenhouse gases, in particular methane and nitrous oxide. The Savanna Burning Methodology uses strategic fire management to reduce the emission of methane and nitrous oxide from the burning of savannas, compared to the emissions from a baseline period.

Each carbon credit unit generated under the Savanna Burning Methodology represents one tonne of carbon dioxide equivalent net abatement achieved by undertaking planned fire management within the project area.

Net abatement is determined by measuring the difference between methane and nitrous oxide emissions from a project's baseline period against each subsequent project year. The difference between baseline and annual project emissions reflects the change resulting from a change in fire management practices, and in Arnhem Land, the reintroduction of customary burning. Importantly, projects only generate carbon credits if they are successful in avoiding emissions of methane and nitrous oxide compared to their baseline period.

Australian Carbon Credit Units (ACCUs) Generation

How does it work?

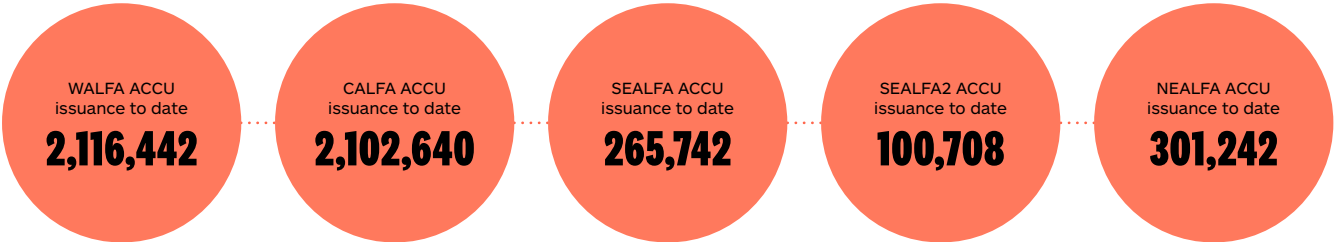


Warddeken ranger Zacharia Namarnyilk watches a cool fire trickle through savanna woodland on mother's country at Makkalarl. Photo © Matthew Abbott.

The Clean Energy Regulator issues Australian Carbon Credit Units (ACCUs) for greenhouse gas abatement activities undertaken as part of the Emissions Reduction Fund, a federal scheme that provides financial incentives to organisations and individuals to reduce their greenhouse gas emissions and improve their energy efficiency.

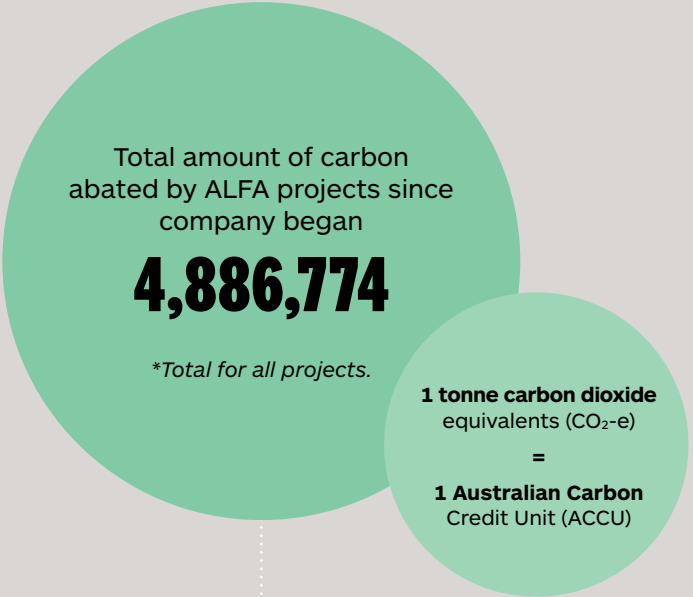
ALFA's five offsets projects generate carbon credits through Federal Government legislation focused on carbon farming. The issuance of ACCUs is governed by the *Carbon Farming Initiative Act (CFI) 2011*, the *Carbon Credits (Carbon Farming Initiative) Regulations 2011 (CFI Regulations 2011)* and the *Carbon Credits (Carbon Farming Initiative) Rule 2015 (CFI Rule 2015)*.

ACCU issuance to date



Producing ACCUs

How is success measured?



The production of Australian Carbon Credit Units is highly regulated to ensure that emissions reductions are genuine, additional to business-as-usual, can be counted towards Australia's emissions reduction targets, are measurable and verifiable, evidence-based, account for project emissions and are conservative – these are the principles of the Offsets Integrity Standard.

There are several requirements that must be satisfied before a project can be formally declared an 'eligible offsets project', and there are ongoing, annual requirements in undertaking an eligible offsets project.

These requirements include:

- There must be an approved methodology for the type of project.
- The project must deliver abatement that is additional to what would occur in the absence of the project.
- The project must be undertaken in accordance with the methodology and comply with other scheme eligibility requirements.
- The project proponent must report to the Regulator about the conduct of the project and the abatement achieved. Certain reports must be accompanied by a report prepared by a registered greenhouse gas and energy auditor.

All five ALFA fire projects operate under the approved Savanna Fire Management method. This method was one of the first to be approved and is considered to be one of the highest integrity methods.

An important feature of this method is that the eligible activity – landscape scale fire management – is never able to become "business as usual". The application of planned, fire management at a landscape scale, which needs to occur every year for the project to remain eligible, is incredibly resource intensive. The funds derived from the sale of ACCUs are required to finance the eligible activity – fire management.

This is verified through examination of satellite fire scar mapping which demonstrates that the adoption of the savanna fire management method has been the direct cause of recent positive changes in fire management across much of northern Australia.

The savanna fire management method is built upon millennia of Indigenous Traditional knowledge and decades of peer-reviewed scientific research. The combination of these provides an ecologically appropriate, robust, measurable and verifiable method that delivers a permanent greenhouse gas reduction annually with no risk of reversal as well as other environmental, cultural, social and economic outcomes.

Every year ALFA generates ACCUs from the five registered savanna burning project areas. A public record of these ACCUs is available online in the Emissions Reduction Fund Project Register cleanenergyregulator.gov.au

Many carbon markets operate in Australia for producers of carbon to sell their ACCUs. These include selling ACCUs to the Australian Government through the Emissions Reduction Fund, selling ACCUs to companies with carbon compliance obligations under the safeguard mechanism and the voluntary market, where companies and organisations choose to voluntarily purchase ACCUs to offset their carbon footprint.

ALFA ACCUs are highly sought after on the voluntary market, which comprises a significant proportion of ALFA's ACCUs sales annually. Voluntary buyers are aware of the cultural, social and environmental benefits that are achieved through the operation of the fire projects, as well as the reinvestment of carbon income to other projects that support local communities.

ALFA's partner groups have been abating GHG emissions through fire projects for up to 15 years, making them some of the most experienced savanna burners in the world. Each group documents their work activities in detail, with a thorough and independent audit conducted annually.

Producing high integrity ACCUs



Mimal rangers Josephine Austral and Kaitlyn John. The number of women involved in fire management across ALFA's project areas has increased significantly over the previous five years, with many ranger groups achieving gender equity within their respective workforces. This is one of many factors defining the ACCUs produced by ALFA as high integrity. Photo © Renae Saxby.

Equally as important as environmental compliance is the flow-on positive impacts of fire projects for Traditional Owners in Arnhem Land, which are abundantly evident across a range of environmental, cultural and social co-benefits.

Environmental co-benefits

- Reinstating customary burning patterns across landscapes has improved the overall ecological and cultural health of country.
- Protection of fire sensitive ecological communities such as Anbinik (*Allosyncarpia ternata*) rainforest isolates, jungle patches and the federally declared Arnhem Plateau.
- Many endemic, culturally important and/or threatened flora and fauna species require cool burning regimes to thrive.
- ALFA has inspired others to replicate our model of business, leading to increased overall global GHG avoidance.
- Biodiversity monitoring data suggests that where critically endangered small mammal populations persist, there is a correlation with good fire management.

Cultural co-benefits

- Traditional Owners are supported to live and work on country, with ranger programs offering a genuine future for people on country.
- Participation in fire programs enhances cultural identity through connecting Traditional Owners with 'orphaned' clan estates.
- Traditional Owners are supported to make decisions about and participate in the active management of their country.

- Fire projects have inspired the transmission of knowledge and skills including making and carrying fire using bush tools, kangaroo fire drives and the language of fire behaviour.
- People are spending more quality time out bush, where they are able to access and harvest bush tucker not available in bigger towns.
- Ranger groups now have the resources to run bushwalks, cultural camps and other events focused on intergenerational knowledge transfer.
- Ranger groups are working closely with schools to teach young people the intricacies of customary fire knowledge and practice.

Social co-benefits

- Millions of dollars are reinvested annually in remote communities through ranger wages.
- Ranger programs offer meaningful, highly sought-after roles in economically disadvantaged regions.
- More women rangers are involved in fire operations every year.
- Regular income provides food security for families.
- Ranger work is physically active.
- Ranger programs support staff to access training and education.

Additional to the benefits derived directly from the delivery of the fire projects, income created from ALFA's sale of ACCUs allows ranger groups to deliver other community-driven projects.

Organisations and companies can contact ALFA directly if they are interested in purchasing high integrity ACCUs that support these outcomes.

ALFA's custom training program

After working closely with our partner groups over many years, ALFA identified the need to devote more effort to developing capacity and recognising the existing skills of Aboriginal rangers undertaking fire management within Arnhem Land.

In 2020, funding was secured for a three-year project to develop a model of training delivery that adapts Nationally Accredited Units of Competency to an Arnhem Land context. The aim is to increase the capacity of rangers to deliver best practice fire management across Arnhem Land. Funding was obtained from the Indigenous Land and Sea Corporation (ILSC) and the Karrkad Kanjdji Trust (KKT) and in 2021, ALFA entered into a third-party delivery agreement with a local NT-based Registered Training Organisation (RTO), Train Safe NT.

ALFA's training project commenced this year and will run until 2023. It is being managed by Mark Desailly, who brings to the role four years' experience with ALFA as well as extensive experience delivering informal training to ALFA's partner ranger groups over many years.

Initial consultations with partner ranger groups highlighted that the clear priority for all groups was to undertake accredited training in helicopter-based fire management operations.

The delivery and method of assessment for the work safely around helicopters and the aerial incendiary course was trialled with six different ranger groups.

Training involves hands-on instruction in the use, maintenance and safety features of the Raindance incendiary machine; theory of the principles of operation

and an operational flight under instruction which includes an in-flight emergency fire drill (students must also complete a further two operational flights of at least one hour to gain competency).

Oversight of the project will be undertaken by a Training Reference Group. This small expert group is made up of Traditional Owners, Aboriginal rangers and supported by an expert in cross-cultural adult education from Charles Darwin University.

By the end of 2021, ALFA has four units of competency on scope with Train Safe NT.

These are:

- Work safely around aircraft course PUAFIR017.
- Operate aerial ignition equipment in an aircraft PUAFIR008.
- Prevent injury PUAFIR210.
- Respond to wildfire PUAFIR204.

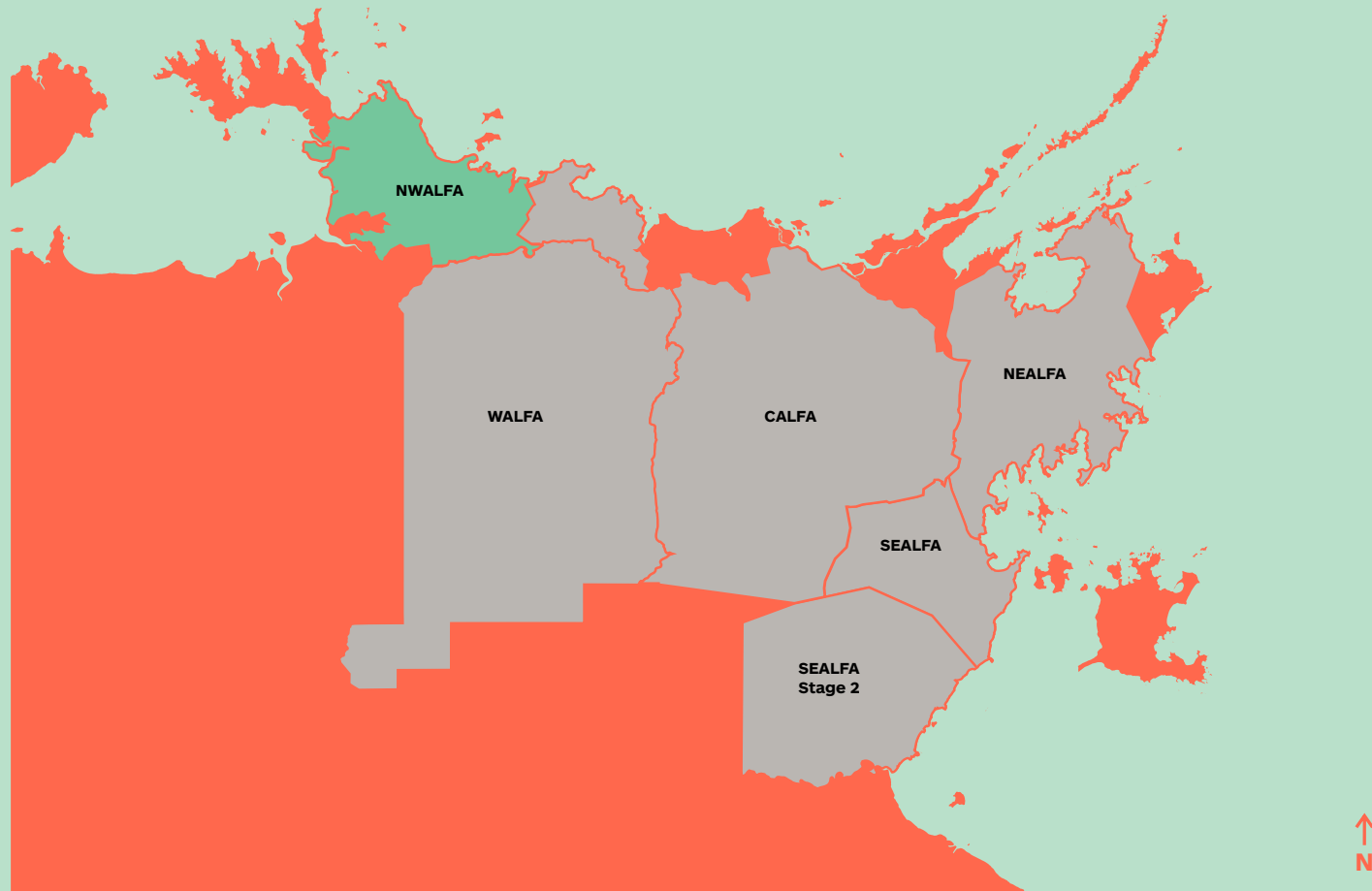
These units of competency relate directly to skills and knowledge rangers require in their prescribed burning and firefighting activities. ALFA will provide training in the above units as early dry season burning commences in 2022.

We are fortunate in that through the funding of this project, we have the flexibility to mesh accredited training with normal ranger work activities and the time to ensure a focus on quality.



ALFA's Training Manager Mark Desailly works one-on-one with young Warddeken ranger Recain Nabarlambari to equip her with the skills and confidence to operate a Raindance incendiary machine, as well as with more experienced rangers in a refresher on helicopter safety. Photos courtesy of Warddeken Land Management.

North West Arnhem Land (NWALFA) – A New Fire Project to commence in 2022



Consultant Jake Weigl speaks with Traditional Owners of the NWALFA project area about what a fire project will mean for them and their affiliate ranger groups. Photos courtesy of ALFA (NT) Limited.

In 2021, ALFA undertook pre-consultation work with individual Traditional Owners, using a large pictorial information booklet to support conversations about the following:

- Explain the project in detail.
- Explain the setup of ALFA and its involvement in the support of fire projects.
- Talk through fire history maps to look at current fire management regimes.
- Gather information related to Traditional Owners' aspirations for fire management on their country.
- Determine whether there is interest in their clan estates being included within a new fire project area and if so, take initial instructions from Traditional Owners on how they would like to be involved with the project.

For many years, Traditional Owners from north-western Arnhem Land have watched the emergence of fire projects in neighbouring regions, and expressed their interest in establishing and registering a fire project across 25 clan estates in the region north of Gunbalanya all the way to the coast.

During this time, several Traditional Owners from the project area were supported by ALFA to attend pre- and post-season fire meetings, allowing them to listen to ranger groups present, observe planning processes, and discuss the fire project with Aboriginal family members from other groups.

In 2020, a request was formally made to ALFA from the Northern Land Council (NLC) and Demed Aboriginal Corporation to undertake information sharing, and pre-consultations about formally establishing a North West Arnhem Land (NWALFA) Fire Project.

The project area includes country managed alongside and on behalf of Traditional Owners by the Adjumarllarl, Garngi and Mardbalk ranger groups.

Pre-consultation indicated that overwhelmingly, Traditional Owners were in favour of registering and operating the NWALFA (North West Arnhem Land Fire Abatement) project in time for the 2022 fire season. Traditional Owners also worked through maps of country and gave initial instructions in regards to how they would like to be involved in the fire management project in 2022.

Following the favourable pre-consultation results, the NLC completed the consultations required to enter into a Land Use Agreement with Traditional Owners.

ALFA looks forward to the finalisation of the NWALFA Land Use Agreement in 2022 and the subsequent registration of the new project with the Clean Energy Regulator. Preparations are already underway for fire management to commence in the early dry season in 2022.



Summary of ALFA project areas – overall key statistics

“From a Western ecological perspective, fire management in Arnhem Land resourced through ALFA’s engagement with the carbon industry, has successfully addressed the prevalence of hot, widespread and destructive wildfires in the landscape – a threat to the environmental assets of northern Australia recognised in both Aboriginal and Western science knowledge systems.”¹

¹ 1 tonne carbon dioxide equivalents (CO₂-e) = 1 Australian Carbon Credit Unit (ACCU)

WALFA

Ranger groups involved

- Bawinanga Rangers
- Mimal Rangers
- Jawoyn Rangers
- Warddeken Rangers
- Adjumarllarl Rangers

Project area
28,000 km²

Running for:

11 years

ACCU issuance to date
2,116,442

CALFA

Ranger groups involved

- Bawinanga Rangers
- Mimal Rangers
- ASRAC Rangers

Project area
26,000 km²

Running for:

11 years

ACCU issuance to date
2,102,640

SEALFA

(>1000mm)

Ranger groups involved

- Yugul Mangi Rangers
- Numbulwar Rangers

Project area
5,000 km²

Running for:

11 years

ACCU issuance to date
265,742

SEALFA2

(600–1000mm)

Ranger groups involved

- Yugul Mangi Rangers
- Numbulwar Rangers

Project area
10,000 km²

Running for:

7 years

ACCU issuance to date
100,708

NEALFA

Ranger groups involved

- Yirralka Rangers

Project area
11,000 km²

Running for:

6 years

ACCU issuance to date
301,242

Summary of ALFA project areas – 2021 management statistics

*ALFA partner groups combined totals.

Flight line kilometres represent the total distance flown by each project during aerial prescribed burning operations.

EDS % is the per cent of the project area burnt in the early dry season (January to July). LDS % is the per cent burnt in the late dry season (August to December).

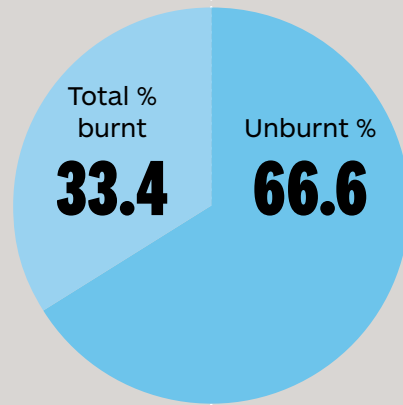
Unburnt % represents the total area of each project unburnt by early or late fire. Research suggests maintaining long unburnt areas of country is a key requirement to protect threatened fauna, and so undertaking planned burning early in the EDS and active wildfire prevention in the LDS to maintain large tracts of unburnt country is critically important.

1 tonne carbon dioxide equivalents (CO₂-e) = 1 Australian Carbon Credit Unit (ACCU)

WALFA

Flight line km
29,900

EDS % burnt
30.1
LDS % burnt
3.3

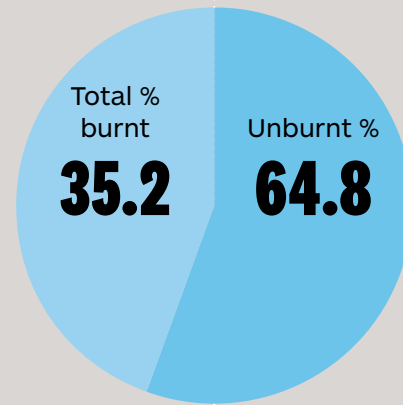


ACCU issuance
281,055

CALFA

Flight line km
27,000

EDS % burnt
31.2
LDS % burnt
4

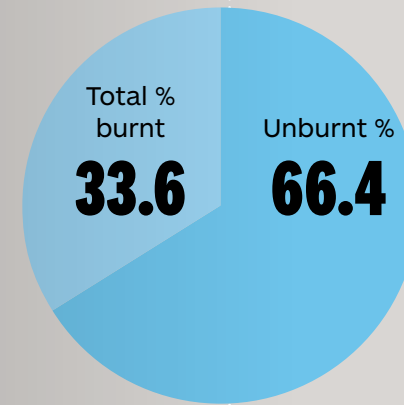


ACCU issuance
340,952

SEALFA (>1000mm)

Flight line km
3,200

EDS % burnt
18.6
LDS % burnt
15

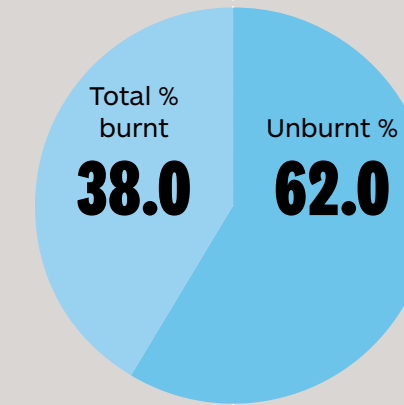


ACCU issuance
30,217

SEALFA2 (600–1000mm)

Flight line km
6,500

EDS % burnt
22.3
LDS % burnt
15.7

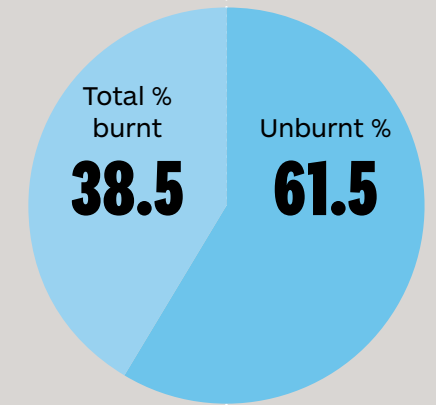


ACCU issuance
-130

NEALFA

Flight line km
6,140

EDS % burnt
13.4
LDS % burnt
25.1



ACCU issuance
45,122

Fire Management Activities Summary 2021

Planning and Consultation
On ground burning
Aerial burning
Wildfire suppression

Mimal ranger Ross Tukumba.
Photo © Renae Saxby.



Before the fire season begins, rangers talk with Traditional Owners of clan estates within their respective project areas about *where* and *how* they want early burning to happen on their country and how they might like to be involved. These consultations set the framework of each ranger group's annual burning plan.

ALFA (NT) held a pre-fire season meeting at Maningrida on the 7th and 8th of April 2021. There were over 70 participants in the meeting, consisting of representatives from all ranger groups involved in ALFA (NT) fire projects as well as other stakeholders. The rangers discussed their management plan with neighbouring ranger groups and presented their proposed burning activities for the year.

Rangers workshopped best practice engagement of Traditional Landowners in fire management focusing on:

- Why is Traditional Owner involvement and oversight important?
- What are ranger groups already doing to engage Traditional Owners?
- How can we improve Traditional Landowner involvement and oversight?

Additionally, rangers workshopped their collective needs and aspirations around training, to assist ALFA in further developing and customising the training program.

Each ranger group also undertakes internal Landowner consultations, ensuring that the right people for each clan estate within their respective operational areas give consent for burning work to occur, are able to nominate who they would like to undertake aerial prescribed burning (APB), and advises whether they would like to be involved in any of the upcoming fire season activities. COVID-19 restrictions also hindered Landowner consultations for most groups, however, in all cases ranger groups used innovative and creative approaches to ensure sufficient approval and permission was obtained prior to prescribed burning commencing.

PLANNING AND CONSULTATION

372

TRADITIONAL OWNERS CONSULTED



Above: Bawinanga rangers discuss fire management plans for the year. Photo © David Hancock.

Below: The first opportunity for project partners to come together in person in 2021 at the ALFA pre-season meeting in Maningrida. Photo courtesy of ALFA (NT) Limited.





**EARLY DRY SEASON
BURNING — ON GROUND**

13,390

KILOMETRES ON GROUND BURNING

228

RANGERS INVOLVED



Historically, landscape scale burning was achieved as people moved across country, burning as they went. On ground burning remains a core component of the fire management activities undertaken by ranger groups, who work throughout the early dry season to establish fine scale and targeted firebreaks. On ground burning is often performed to protect cultural, environmental and infrastructure assets.

Opposite top left: Homeland residents play an integral role in early burning due to their constant presence on country.

Opposite below left: Warddeken rangers protect environmental and cultural assets through installing and back burning from firebreaks. Photos courtesy of Warddeken Land Management.

Below right: Adjumarllarl rangers perform asset protection burns around solar arrays and other infrastructure at homelands across their project area. Photo courtesy of ALFA (NT) Limited.

On ground burning is undertaken by rangers and Traditional Owners across the project areas, particularly along roadsides and hunting tracks, infrastructure and around important cultural and environmental sites. Rangers perform ground burning from a vehicle (4WD or quad bike) or by foot, using a drip torch or matches as the ignition source.

Before aerial burning operations begin, rangers first secure infrastructure and assets across their respective management areas. This involves installing firebreaks and implementing protective burns at cultural sites including rock art galleries and sacred sites, as well as securing infrastructure including houses, buildings and water and energy assets at homeland communities.

Many ranger groups run events such as cultural camps and bushwalks, involving young people and elders, which allows groups of Landowners to conduct fine scale burning across large tracts of country that may not otherwise be visited. For many ALFA partners, these activities are of great importance, as they allow a new generation of Traditional Owners to burn country as the old people did.

Data for ground burning activities are recorded by ranger groups using GPS, CyberTracker and work diaries.



Each year, rangers take to the skies to deliver incendiary burning across vast tracts of remote country – a synthesis of customary and contemporary ecological management practices.

Aerial prescribed burning (APB), delivered from Robinson 44 helicopters and utilising incendiary delivery machines, allows rangers to access remote regions of their project areas and cover vast tracts of otherwise inaccessible country. APB creates a mosaic of burnt country throughout project areas and also secures the boundaries between neighbouring groups.

APB flight routes are determined by many factors, including topography, previous years' fire scars, sacred sites, local knowledge and experience, real-time observation of grass and conditions, and type of soil and vegetation. Rangers utilise the existing features of the landscape, such as rivers and roads, to create landscape scale firebreaks comprised of burned and natural breaks.

APB by its very nature is a thoroughly modern fire management tool, however, rangers and Traditional Owners are readily able to translate knowledge of country and fire behaviour to an aerial approach. Importantly, through adjustments to the delivery rate of incendiaries, APB can be tailored to deliver very specific burning results taking into account weather and fuel conditions for different environments in the landscape. Rangers from all partner groups are now highly experienced in APB operations. As a result of this, APB operations across ALFA project areas are increasingly being undertaken solely by senior rangers and Traditional Owners. ALFA's custom training will further support this trend.

Ranger groups record aerial burning activities using either a combination of GPS and work diaries or CyberTracker to document flight lines.

Mimal female rangers prepare to deliver strategic aerial burning. Photo © Renae Saxby.



**EARLY DRY
SEASON BURNING
— AERIAL**

72,740

KILOMETRES FLOWN

175

**TRADITIONAL
OWNERS INVOLVED**

Warddeken Rangers and Landowners take off in an R44 helicopter to perform strategic APB across the Warddeken IPA. Photo © Matthew Abbott.

In the late dry season, rangers' focus shifts to the prevention of wildfires, which burn hot and uncontrolled as weather conditions become warmer and drier. This involves promoting awareness of dangerous fire conditions amongst community members, as well as intensive wildfire suppression campaigns to protect priority areas of country.

"We define success of the firefighting based on the plan and outcome of the plan. For example, sometimes we can put out the entire wildfire and that is a success. Sometimes, we stitch up gaps and backburn and leave the fire and that is a success."
 — Jawoyn Rangers



Rangers prepare to be dropped into a fire front by a helicopter. Photo © Matthew Abbott.

WILDFIRE SUPPRESSION

120

RANGERS

6,550

PERSONNEL HOURS



A team of Warddeken rangers works a fire line with backpack leaf blowers, pushing the flames and embers back in on themselves in an attempt to control the blaze. Photo courtesy of Warddeken Land Management.

Increasingly, wildfire suppression has become a major component of annual fire management programs. Most firefighting is undertaken 'dry', meaning rangers use techniques of controlling fires that do not involve water, such as installing mineral earth breaks that act as a barrier to pull up fires by removing combustible fuel.

Helicopters are often required to ferry teams of firefighters in to access remote fire lines. Rangers

often fight fires that threaten important cultural or environmental sites, and on many occasions have preserved significant cultural and environmental assets by extinguishing wildfires.

One of the most unique aspects of firefighting in Arnhem Land is rangers' use of backpack leaf blowers in containing wildfires – by blowing out flames and blowing embers and combustible fuels such as grass and leaf litter back into the active fire.

The United Nations (UN) Sustainable Development Goals are a global call to action to protect the planet, end poverty and improve the lives and prospects of everyone, everywhere. The 17 Goals were adopted by all UN Member States in 2015, as part of the 2030 Agenda for Sustainable Development, which sets out a 15-year plan to achieve the Goals.

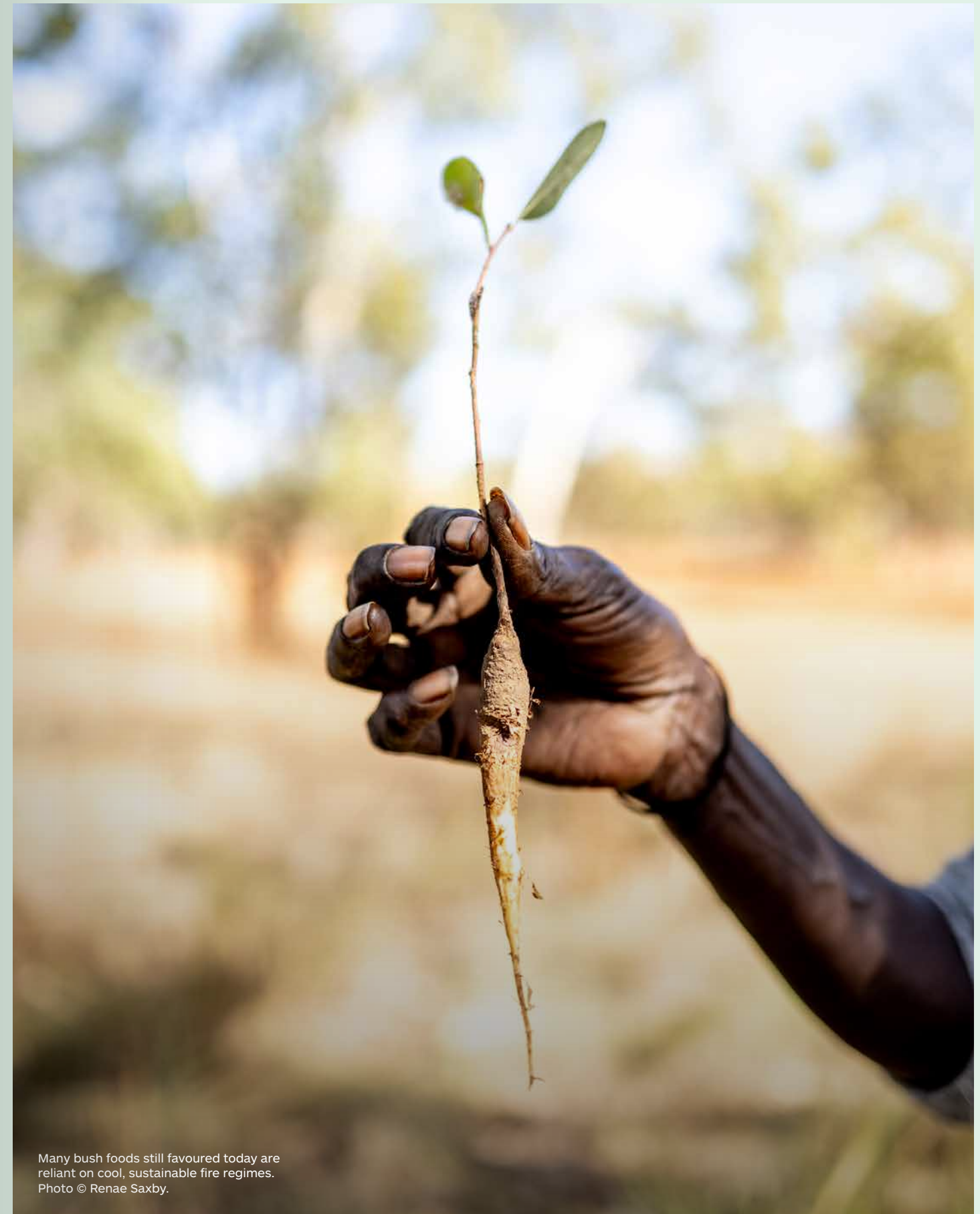
sdgs.un.org/goals



ALFA's partners are proactively addressing a number of the UN Sustainable Development Goals through the delivery of their land and cultural heritage management programs. With income created from the sale of ACCUs, ranger groups are able to deliver their respective fire management programs, as well as other community-led projects leading to positive environmental outcomes through reduced carbon

emissions and improved ecological health of country. However, equally importantly, ranger programs also generate a host of cultural, economic and social co-benefits for Traditional Owners and their families.

ALFA's partners are addressing the following Sustainable Development Goals through the annual delivery of their fire management programs.



Many bush foods still favoured today are reliant on cool, sustainable fire regimes.
Photo © Renae Saxby.



Goal 1. No Poverty

Millions of dollars annually are reinvested in communities through wages.

Ranger programs provide employment opportunities in remote communities.



Goal 3. Good Health and Wellbeing

Ranger work is active and promotes physical activity.

People are able to harvest and access bush tucker through ranger programs.

Supported to live and work on their country.

Connection to cultural identity.



Goal 2. Zero Hunger

Ranger groups operate food security programs such as tucker runs.

Regular income allows families to buy food.

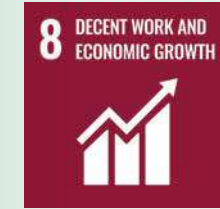
Support people living on country and accessing bush foods.



Goal 5. Gender Equality

All of ALFA's partners have women's ranger programs.

More women rangers are getting involved in fire operations every year.



Goal 8. Decent Work and Economic Growth

Ranger programs offer meaningful, highly sought-after roles in economically disadvantaged regions.

Ranger programs support staff to access training and education.



Goal 11. Sustainable Cities and Communities

Ranger groups provide essential services in remote communities.

Ranger groups offer the only employment in many homeland communities.



Goal 13. Climate Action

The work of ALFA partners leads to significant GHG emission reduction every year.

ALFA has led others to replicate our model of business, leading to more GHG avoidance.



Goal 15. Life on Land

Ranger work respects the choice of Traditional Owners to remain on country.

Ranger groups are providing a future for people on country.

ALFA is partnered with nine community and homeland-based Aboriginal ranger groups, supporting them to collectively deliver five fire management projects across 80,000 km² of Arnhem Land.

The fire project areas include ranger groups managing four declared Indigenous Protected Areas (IPAs) – the Djelk, Warddeken, South East Arnhem Land and Laynhapuy IPAs, as well as two IPAs currently under consultation – the Mimal and ASRAC IPAs.

The following section of the report is an opportunity for each of our partner groups to share highlights from their 2021 burning season, and demonstrate the exceptionally high quality at which they deliver their work.



Rangers from each of ALFA's partner groups maintains a network of tracks and roads across their management areas, allowing them to access country for both early and late season fire management activities. Photo © Matthew Abbott.

Adjumarllarl Rangers

— Meaningful collaboration



The Adjumarllarl rangers were one of the Northern Territory's first Aboriginal ranger programs, and have been working out of Gunbalanya in western Arnhem Land for over 30 years. Adjumarllarl rangers manage approximately 10,000 km² including floodplains, savanna woodland and sandstone escarpment.

Operating at the gateway to Arnhem Land, Adjumarllarl is on the frontline of managing invasive weed species and has worked determinedly over the years to ensure that highly flammable gamba grass – which burns three times as hot as native grasses and can render savanna burning projects ineligible – does not take hold in Arnhem Land.

Throughout 2021, the Adjumarllarl ranger team consisted of four full-time rangers and a pool of casual employees, representing Traditional Owners from across the operational area. The team dedicated more than 2,000 hours to executing an overall fire management plan.

Adjumarllarl commenced the dry season by consulting Traditional Owners and representatives from the homelands within the prescribed fire management area, allowing Landowners to contribute invaluable knowledge of their country and the current climate, as well as providing their informed consent for all fire plans and activities on their land. During the consultation process, Traditional Owners also identified sacred sites with restricted access. Adjumarllarl acknowledges and respects the directions received, and works with Traditional

Owners to share knowledge of fire management to preserve and protect these sacred areas.

This year Adjumarllarl commenced a Community Development Program (CDP) through a sub-contractor agreement with the Arnhem Land Progress Aboriginal Corporation (ALPA). This resulted in job seekers carrying out fire breaking activities safely. Rangers provided Traditional Owners and job seekers with matches and training on how to burn safely in areas where rangers were unable to gain access. This collaboration enabled the ongoing protection of sacred sites, and empowered Traditional Owners to continue caring for their land.

In addition to installing firebreaks on homelands, rangers also completed back burning around the following assets within the project area:

- Access tracks and roads.
- Creeks and rivers.
- Cultural/heritage sites (where access is allowed by Traditional Owners).
- Escarpment edges.

With extreme weather conditions and COVID-19 restrictions in place during the year, the timeframe for safe fire management burning was significantly reduced, however, rangers were still able to dig deep and complete the project for another successful year.

The Adjumarllarl rangers look forward to another year of active fire management in 2022 and to continuing the close collaboration with Traditional Owners, ALFA and neighbouring ranger groups.



Rangers conduct asset protection burning at homeland communities, ensuring houses, power and water facilities and other infrastructure is protected. Photo courtesy of ALFA (NT) Limited.

Arafura Swamp Rangers

— Culturally-driven burning



The Arafura Swamp Rangers Aboriginal Corporation (ASRAC) comprises seven ranger groups that work with Traditional Owners to keep Indigenous knowledge strong and to make sure it is being used to look after country. Together these ranger groups look after the Gurruwiling (Arafura Swamp), its catchment and adjacent sea country: Dhupuwamirri rangers, Donydji rangers, Mirrngandja rangers, Malnyanganark Bukgurl-na rangers, Balmawirrey Dhipirri rangers, Gupulul Marayuwu rangers, Gurruwiling rangers and Wanga Djakamirr rangers. The Arafura Swamp rangers are currently consulting on a proposed new IPA covering 14,000 km² which includes the Gurruwiling (Arafura Swamp) – a vast wetland surrounded by a catchment extending from Castlereagh Bay to the upper reaches of the Goyder and Glyde Rivers.

Prior to prescribed burning, ASRAC rangers carry out asset protection burning at 21 outstations around local power and water infrastructure, transport infrastructure and at sacred sites. During outstation firebreaks, Landowners, Djungayi (mother's country relationship) and family are engaged to help.

Ranger groups carried out 6,210 kilometres of on ground burning, mostly on foot. Ground burning was also conducted with Landowners and family groups during camps in Malnyanganark, Djilpin and Donydji areas. The location of APB runs was decided in consultation with Landowners and Djungayi by going through proposed lines on computer maps, and then jointly adjusting. ASRAC's focus on right way fire, and one of the key aspects

of that, is the engagement of Traditional Owners in APB activities either as a navigator or as a Raindance machine operator.

An important part of ASRAC's annual right way fire management is to create opportunities for the transfer of customary knowledge of fire and fire practices. In 2021, the rangers delivered a number of such activities. Ramingining School students were involved in on ground burning through the Learning on Country (LoC) program. ASRAC rangers talked to students about the importance of right way fire and the theory behind culturally-driven burning. Students then had the opportunity to partake in burning in the Dhabla area and put what they learned into practice.

ASRAC supported a Balparra Camp at Malnyanganark outstation and at Djilpin, where family gathered to share knowledge on fire. Another Balparra Camp was held at Dhipirri outstation over a week in October. Traditional Owners, elders and the community got together on country to discuss the effect of bushfires on their land. The discussion focused on whether people felt fire management was improving or not, and if controlled burning was leading to the desired objectives of plentiful bush tucker, habitat for animals, knowledge sharing and cultural obligation.

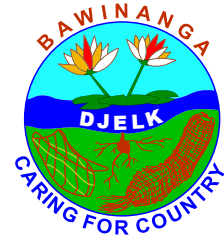
The outcome of these important conversations led to the development of a 'Right Way Fire' poster, which visually represents the elements of culturally correct fire management practice.

Above: The poster created by ASRAC rangers and Landowners to visually represent elements of a culturally-driven fire program.
Below: ASRAC rangers completed more than six thousand kilometres of on ground burning, traversing long distances in vehicles and on foot, emulating the way old people burned.
Photos courtesy of ASRAC.



Bawinanga Rangers

— Strong relationships



When firefighting in rugged terrain rangers must carry supplies with them, including chainsaws and fuel, which allows them to fell trees threatening to breach hard-won firebreaks. Photo courtesy of ALFA (NT) Limited.



Left: Rangers inspect a rock art gallery they have protected through their firefighting efforts. Right: As in previous years, Bawinanga and Warddeken rangers stepped in to assist one another, working collaboratively on a number of occasions to suppress wildfires in both project areas. Photos courtesy of ALFA (NT) Limited.

Bawinanga rangers are pioneers of Australia's Indigenous land management movement. Formed by Traditional Owners in the early 1990s in response to growing environmental concerns such as feral animals, invasive weeds and wildfire, for 30 years Bawinanga rangers have worked to keep their land and sea country in western Arnhem Land healthy. Rangers are based in the community of Maningrida and service an area of over 10,000 km², which includes more than 30 family-based outstation communities.

Bawinanga rangers worked in small groups to engage and consult key Traditional Owners and Djungkay – people who speak for each outstation in Bawinanga's area of operations. Rangers utilised a Traditional Owner Delegation List to guide these consultations.

In preparation for the 2021 fire season, rangers commenced asset protection burning, including creating firebreaks at over 36 outstations and other third-party infrastructure such as Telstra communication towers and the Arnhem Land Barra Lodge. When ground burning started in late April, rangers provided wind and waterproof match packages to Traditional Owners to burn and protect their sacred areas.

Aerial prescribed burning was informed by the feedback and wishes of Traditional Owners and Djungkay, who

requested collaborative plans be made to ensure rangers involved the right people in burning operations. Many Traditional Owners and Djungkay, took advantage of the opportunity to use a helicopter to inspect and burn country in ways that are not possible from the ground.

In the late fire season, Bawinanga rangers responded to 40 wildfires within the project area, as well as assisted Warddeken rangers in putting out fires in the shared boundary of the Warddeken and Djelk IPAs. ALFA fire officer Steph Rouse also provided valued support in wildfire responses. Working collaboratively with partners is an opportunity to strengthen both groups' fire response capacity.

In continuing Bawinanga's commitment to supporting the development of emerging generations as fire managers, rangers worked closely with Maningrida Community College's Learning on Country program and Bawinanga interns to build skills and knowledge and undertake practical fire management activities.

In 2022, Bawinanga rangers look forward to working with Landowners and Djungkay from across the Djelk IPA to build on the success of this year's fire management, as well as strengthening existing relationships with partners and neighbours.



A smoky sunset on the west Arnhem plateau. Photo © Matthew Abbott.

Jawoyn Rangers

— New opportunities



Jawoyn rangers have been caring for country by incorporating customary values and culture with the latest in scientific practice since the late 1990s. Operating out of Jawoyn Association headquarters in Katherine, Jawoyn rangers manage 16,000 km² of country including part of the west Arnhem Land plateau – stone and gorge country that contains one of the world's largest and most significant bodies of rock art.

All the money generated through Jawoyn's fire management program is reinvested in activities that support important social, cultural and environmental outcomes, for example managing country, offering increased jobs and training for Landowners and custodians, and connecting people back to country. The reduction in late dry season wildfire also helps protect significant fire sensitive ecosystems and the many threatened plants and animal species in the Jawoyn region. Rangers and Landowners report seeing important birds, mammals and reptiles returning to country since the inception of the fire management program.

This year, Jawoyn rangers were able to utilise their skill and experience as fire managers to take on a contract to deliver prescribed burning on Vacant Crown Lands (VCL) from March through to August. The VCL contract saw rangers travel across the NT to Mataranka, Borroloola, Timber Creek, Pine Creek and Katherine township, where they worked alongside Waanyi Garawa, Timber

Creek, Mangarrayi and Wagiman rangers. Jawoyn completed all but two of the prescribed blocks in the contract, and this new program of work provided both an additional funding source as well as an opportunity for Jawoyn rangers to hone their fire management skills in different country and contexts.

As part of the VCL burning project, certified training was also incorporated into real-world applied work activities. Further training was provided by Mark Desailly in operating Raindance machines, as well as fire response training at Nitmiluk National Park as part of ALFA's new training program. Mark Desailly of ALFA and Jay Evans of the Darwin Centre for Bushfire Research also delivered training focused on using GIS and the North Australian Fire Information (NAFI) website to enhance fire management.

Jawoyn rangers worked with neighbours including Nitmiluk National Park rangers to perform on ground burning around the Biddlecomb Tourist Camp along the Jatbula Trail, around Jodetluk (Gorge Camp) with Bushfires NT, around Safari Camp (Waterhouse) and at Nipbarnjarn Waterfalls Camp.

Aerial burning with stakeholders and neighbours included Nitmiluk National Park, Sleisbeck and Snowdrop in Kakadu National Park, the border along Conways Station, the top of Eva Valley (Manyallaluk), and around Edith Falls (Leliyn).

Mimal Rangers

— A greater role for women



The Mimal Land Management operational area sits at the geographic centre of Arnhem Land. Mimal country is made up of many different ecosystems – from grassy plains, rock country, woodlands and forest to freshwater country. The main communities and homelands in the area include Bulman, Weemol and Barrapunta (Emu Springs). Mimal is currently being supported by the Federal Government to establish a new IPA that will cover over 18,000 km² in south-central Arnhem Land.

Mimal was administered by the Northern Land Council (NLC) for many years, however, Traditional Owners expressed a desire to create their own company, operated under local Indigenous management. Mimal's journey to independence is inherently linked to their involvement in the WALFA project, as it allowed Traditional Owners to use income generated through the fire project to fund a separate incorporation and autonomy. In October 2017, Mimal Land Management celebrated a new chapter as a group with control over its own land, working toward a clear vision for Mimal people, country and culture.

The weather conditions in the 2021 fire season were not as intense as in previous years, with increased moisture

in the soil and plants keeping early burns small and cool, and less windy conditions in the late dry season keeping wildfires more manageable. The more favourable conditions were enhanced by concentrated strategic planning efforts and responding quickly to wildfires with a dedicated crew of rangers.

Women rangers took on a greater role in planning and consultations this year and were able to talk with 32 senior Landowners from Bulman, Weemol, Beswick, Barunga and Katherine. In addition, Mimal's ongoing IPA development meant that there were far more opportunities to engage with Landowners and share stories about ranger work.

Mimal had a busy year with fire suppression, responding to 20 wildfires using a helicopter, and a further five wildfires using only vehicles. Fires from mid-October through to December were mostly caused by lightning strikes. A helicopter and pilot were based at the Mimal office during the late dry season, which allowed rangers to respond very quickly to fires. Although Mimal responded to more fires than usual this year, the combination of responding early and light winds allowed the rangers to get them under control relatively quickly.



Above: Mimal rangers don backpack leaf blowers, ready to tackle a wildfire. Photo © Renae Saxby.
Below: Mimal rangers use drip torches to conduct roadside burning. Photo courtesy of Mimal Land Management.

Yugul Mangi Rangers and Numbulwar Numburindi Rangers (SEALFA)

— Strategic early burning



Above: Rangers and coordinators discuss helicopter safety in preparation for aerial burning.
Opposite left: Yugul Mangi ranger Jana Daniels uses a backpack leaf blower during an asset protection burn at an outstation.
Photos courtesy of Northern Land Council.

The South East Arnhem Land (SEAL) IPA is jointly managed by the Yugul Mangi and Numbulwar Numburindi rangers who are based at Ngukurr and Numbulwar respectively and administered by the Northern Land Council (NLC). The rangers work on behalf of Traditional Owners of the Ritharrngu, Rembarrnga, Ngandi, Ngalakgan, Warndarrang, Yugul and Nunggubuyu peoples whose country is situated in south-east Arnhem Land.

The SEAL IPA covers an area of 18,199 km² on the western edge of the Gulf of Carpentaria in the Northern Territory. With a history of strong local leadership within both groups, the rangers have thrived, remaining focused on the vision of their elders and founders. Fire management is a major focus of the Yugul Mangi and Numbulwar Numburindi rangers' work.

Rangers implemented an extensive early dry season burning program from April to August. This included on ground burning by foot and roadside, track burning by vehicle and aerial prescribed burning. Twenty-three staff were employed to undertake fire-related work activities in 2021. This included full-time, part-time and casual staff.

A huge effort was put into securing assets prior to the commencement of aerial burning. Rangers ensured firebreaks were installed and protective burning was undertaken around 22 outstation communities to protect infrastructure. Back burning around these outstations was undertaken prior to aerial burning to

protect infrastructure from fire damage. On ground burning was undertaken on foot as well as from vehicles along roads by the rangers.

The 2020/2021 wet season was above average, which meant that APB began a little later than in previous years, and pushed the end of burning into August. APB was used to create a mosaic of burnt country throughout the project area and to secure the boundaries of the SEALFA and SEALFA2 project areas. Aerial prescribed burning was undertaken by both ranger groups over 16 days from April through to August, using an R44 (Robinson) helicopter and R2 Raindance Machine. Burning commenced along the western SEAL IPA boundary over the Urapunga Aboriginal Land Trust and then progressed towards the east into Arnhem Land.

The rangers used a handheld GPS to record their tracks for the flight lines. Approximately 73 hours of flying time was used to undertake aerial prescribed burning, covering over 9,518 kilometres of flying tracks.

There were numerous wildfires in the SEAL IPA in the late dry season, however, due to operational restrictions, the rangers did not undertake any firefighting in 2021. Fires were monitored using the North Australia and Rangelands Fire Information website.

Students from Ngukurr and Numbulwar Schools participated in early dry season burning activities with the rangers as part of the Learning on Country program.

Warddeken Rangers

—Protecting ancient ecosystems



"Anbinik is the tree from the very beginning."
— Mary Naborlhborlh, Warddeken Professor (1932 – 2012)

Warddeken Land Management was formed in 2007 to assist Nawarddeken Traditional Owners in the protection and management of their country in western Arnhem Land. The Warddeken IPA was declared in 2009 and covers approximately 14,000 km², including seven outstation communities and a range of important habitats supporting numerous species of flora and fauna, many of which are rare and endemic to the Arnhem Land escarpment region.

Rangers work from bases at Mamadawerre, Manmoyi and Kabulwarnamyo homelands, offering the only ongoing employment in these extremely remote communities. Warddeken consistently delivers an ambitious annual fire management program, generating positive ecological, social and cultural outcomes for Landowners and their communities. This includes widespread asset protection burning for important rock art complexes, as well as for ancient, endemic Anbinik (*Allosyncarpia ternata*) rainforests.

Anbinik are important to Warddeken Landowners for their contemporary ecological status as well as their cultural significance. Old people actively managed Anbinik using fire, and valued the shade, amenity and shelter they offered. Anbinik are fire sensitive and

now survive only in gorges and relictual forests across the kuwarddewardde (Arnhem plateau). Warddeken rangers utilise customary fire management techniques to protect these culturally and ecologically important trees and ecosystems.

Work involves the maintenance of firebreaks around entire stands of rainforest, and conducting cool burns in the late afternoon or evening. Warddeken's Anbinik Program has been running for a decade now – the only such program in Australia dedicated to protecting these ancient, fire sensitive trees and ecosystems.

Old people maintained these patches through careful and deliberate burning – a practice now reinstated by rangers at fifteen of the most at-risk Anbinik isolate forests. After ten years of delivering the Anbinik Protection Program, Warddeken is seeing positive ecological outcomes in terms of forest regeneration and canopy cover. Just as importantly, the program has generated strong cultural learning outcomes, with senior rangers, cultural leaders and elders reporting that younger generations are becoming knowledgeable about Anbinik and how to manage it using customary techniques.



Above: Warddeken rangers use leaf blowers to reinforce a mineral earth firebreak surrounding the entire Anbinik rainforest. Photo © Matthew Abbott.
Below: An aerial image shows the lengths to which Warddeken rangers have gone to protect entire stands of Anbinik rainforest. Photo © Matthew Abbott.

Yirralka Rangers

—Reconnecting with the country



Yirralka rangers during on ground early burning operations. Photo courtesy of Yirralka.



Left: A smoky sunset in open savanna woodland in the Yirralka IPA.
Right: A major component of Yirralka's on ground burning is installing breaks along the roads and bush tracks that criss-cross their management area. Photos courtesy of Yirralka.

The Yirralka rangers represent the Yolngu Traditional Owners of north-east Arnhem Land and were established in 2003. Yirralka rangers manage the land and sea in the Laynhapuy Indigenous Protected Area, which extends from the Gove Peninsula to Blue Mud Bay and covers over 11,000 km² of land and 480 kilometres of coastline. For residents of the 14 homeland communities within the Laynhapuy IPA, Yirralka rangers provide sustained opportunities for meaningful employment, and ranger positions are highly sought after. The Yirralka rangers currently employ 50 permanent Yolngu staff who are based across all 14 homelands.

Over the previous year, Yirralka has continued to focus on developing the capacity of rangers to deliver across all elements of the fire management program. Funding from the sale of ACCUs has allowed Yirralka to better resource the ranger program to implement the annual suite of fire management activities. New vehicles in the fleet allow more rangers to travel out on country and access more areas to burn, improving the scope of fine scale ground burning efforts throughout the Laynhapuy IPA.

The miyalk (women) rangers took part in a women's fire camp at Nimirrli (Blythe River Crossing) in July. Hosted by the Mimal rangers, it was a great opportunity to get together and share and exchange valuable knowledge

and stories, including talks about the joint development of a seasonal fire calendar. During the week, miyalk rangers participated in training focused on using and operating drip torches and leaf blowers and completed collaborative burns around camp the river to put new skills into practice.

A highlight of this year's burning program was facilitating a trip for four rangers to Woodah Island in Blue Mud Bay to conduct APB, inspect for feral animals, and take time to visit and reconnect with the country. Some of the rangers had not visited the Island for many years, and this work provided a rare and meaningful experience for all involved.

In the 2021 late dry season, rangers and students joined together for a Learning on Country excursion to Nyinyikay Homeland, to perform a work cultural burning activity. This involved burning the cured grass on a section of dry floodplain, before walking across the newly burned country to check holes for bush foods. The activity involved 30 students, along with rangers, local elders and school staff. Intergeneration transfer of knowledge is a primary goal of the Learning on Country Program, and Yirralka Rangers is committed to supporting this transfer by leading camps and activities through a formalised Learning on Country Memoranda of Understanding with Laynhapuy Homelands School, Gapuwiyak School and Baniyala Garranjali School.

Financial Statements

For the Year Ended 30 June 2021

Statement of Profit or Loss and Other Comprehensive Income

	2021 \$	2020 \$
Revenue	10,091,532	5,001,834
Other income	32,868	35,687
Grant Funding	(6,627,367)	(463,563)
Subcontracting costs	(1,436,649)	(4,883,611)
Other expenses	(321,603)	(257,190)
Employee benefits expense	(298,383)	(279,927)
Hire fees	(42,658)	(29,811)
Depreciation and amortisation expense	(16,616)	(20,770)
(Loss) before income tax	1,381,124	(897,351)
Income tax expense	-	-
(Loss) / profit from continuing operations	1,381,124	(897,351)
Other comprehensive income, net of income tax	-	-
Total comprehensive (loss) for the year	1,381,124	(897,351)

Statement of Financial Position

	2021 \$	2020 \$
Assets		
<i>Current assets</i>		
Cash and cash equivalents	5,295,147	1,395,019
Trade and other receivables	1,399,615	207,831
Total current assets	6,694,762	1,602,850
<i>Non-current assets</i>		
Plant and equipment	66,466	83,082
Total non-current assets	66,466	83,082
Total assets	6,761,228	1,685,932
Liabilities		
<i>Current liabilities</i>		
Trade and other payables	916,978	132,063
Employee benefits	39,874	29,769
Other liabilities	5,106,073	2,206,921
Total current liabilities	6,062,925	2,368,753
Total liabilities	6,062,925	2,368,753
Net (liabilities) / assets	698,303	(682,821)
Equity		
Retained earnings / (accumulated losses)	698,303	(682,821)
Total equity	698,303	(682,821)

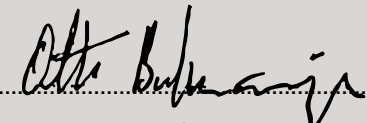
Directors' Declaration

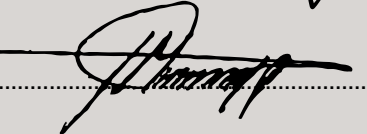
The directors of the registered entity have determined that the Company is not a reporting entity and that these special purpose financial statements should be prepared in accordance with the accounting policies described in Note 2 of the financial statements.

The directors of the registered entity declare that:

1. The financial statements and notes, as set out on pages 5 to 16, are in accordance with the *Australian Charities and Not-for-profits Commission Act 2012* and:
 - (a) comply with Australian Accounting Standards; and
 - (b) give a true and fair view of the financial position as at 30 June 2021 and of the performance for the year ended on that date of is in accordance with the accounting policies described in Note 2 to the financial statements.
2. In the directors' opinion, there are reasonable grounds to believe that the Company will be able to pay its debts as and when they become due and payable.

This declaration is made in accordance with subs 60.15(2) of the *Australian Charities and Not-for-profits Commission Regulation 2013*.

Director 

Director 

Dated this 21st day of October 2021

Independent Audit Report to the members of ALFA (NT) Limited

Report on the Financial Report

Opinion

We have audited the accompanying financial report, being a special purpose financial report of ALFA (NT) Limited (the "Company"), which comprises the statement of financial position as at 30 June 2021, the statement of profit or loss and other comprehensive income, statement of changes in equity and statement of cash flows for the year then ended, notes comprising a summary of significant accounting policies and other explanatory information, and the directors' declaration.

In our opinion the financial report of ALFA (NT) Limited has been prepared in accordance with Div 60 of the *Australian Charities and Not-for-profits Commission Act 2012*, including:

- (a) giving a true and fair view of the Company's financial position as at 30 June 2021 and of its performance for the year ended on that date; and
- (b) complying with Australian Accounting Standards to the extent described in Note 1, and Div 60 of the *Australian Charities and Not-for-profits Commission Regulations 2013*.

Basis for Opinion

We conducted our audit in accordance with Australian Auditing Standards. Our responsibilities under those

standards are further described in the *Auditor's Responsibilities for the Audit of the Financial Report* section of our report. We are independent of the Company in accordance with the auditor independence requirements of the *Corporations Act 2001* and the ethical requirements of the Accounting Professional and Ethical Standards Board's APES 110: Code of Ethics for Professional Accountants (the Code) that are relevant to our audit of the financial report in Australia. We have also fulfilled our other ethical responsibilities in accordance with the Code.

We confirm that the independence declaration required by the *Australian Charities and Not-for-profits Commission Act 2012*, which has been given to the directors of the Company, would be in the same terms if given to the directors at the same time of the auditor's report.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Emphasis of Matter – Basis of Accounting

We draw attention to Note 1 to the financial report, which describes the basis of accounting. The financial report is prepared to assist ALFA (NT) Limited to comply with the

financial reporting provisions of the *Australian Charities and Not-for-profits Commission Act 2012*. As a result, the financial report may not be suitable for another purpose. Our audit opinion is not modified in respect of this matter.

Other Information

The directors are responsible for the other information. The other information obtained at the date of this auditor's report is included in the Directors' Report, but does not include the financial report and our auditor's report thereon.

Our opinion on the financial report does not cover the other information and accordingly we do not express any form of assurance conclusion thereon.

In connection with our audit of the financial report, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial report or our knowledge obtained in the audit or otherwise appears to be materially misstated.

If, based on the work we have performed on the other information obtained prior to the date of this auditor's report, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Responsibilities of the Directors for the Financial Report

The directors of the registered entity are responsible for the preparation and fair presentation of the financial report that gives a true and fair view and have determined that the basis of preparation described in Note 1 to the financial report is appropriate to meet the requirements of the *Australian Charities and Not-for-profits Commission Act 2012* and is appropriate to meet the needs of the members. The directors' responsibility also includes such internal control as the directors determine is necessary to enable the preparation of a financial report that gives a true and fair view and is free from material misstatement, whether due to fraud or error.

In preparing the financial report, the directors are responsible for assessing the Company's entity's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the registered entity or to cease operations, or have no realistic alternative but to do so.

Auditor's Responsibility for the Audit of the Financial Report

Our objectives are to obtain reasonable assurance about whether the financial report as a whole is free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Australian Accounting Standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably

be expected to influence the economic decisions of users taken on the basis of this financial report.

As part of an audit in accordance with the Australian Auditing Standards, we exercise professional judgement and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial report, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis of opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion of the effectiveness of the Company's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the directors.
- Conclude on the appropriateness of the director's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial report or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Company to cease or continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial report, including the disclosures, and whether the financial report represents the underlying transactions and events in a manner that achieves fair presentation.

We communicate with the directors regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we may identify during our audit.



PERKS AUDIT PTY LTD
84 Smith Street
Darwin, NT 0800



PETER J HILL
Director
Registered Company
Auditor

Dated this 21st day of October 2021



Vernon Garnarradj and his young daughter Veneesha on a Warddeken bushwalk. This walk allowed Veneesha to visit her country for the first time, and was an opportunity for rangers and their families to connect with country and conduct fine scale burning across clan estates in the north of the Warddeken IPA. Photo © Matthew Abbott.

“We use fire for many reasons: not only for conservation and management, but also as a healing process for land, for people, for native plants and animals. Fire is a tool that we have used from the beginning, from the deep past until today.”

— Dean Yibarbuk, Traditional Owner

