ALFA (NT) Limited Annual Report 2019

(A)



Arnhem Land Fire Abatement

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Front and back cover image: A cool afternoon burn creeps through the savanna woodlands of Arnhem Land. Image © David Hancock

Right: Numbulwar Numburindi rangers from south-east Arnhem Land perform ground burning along the roadside. Image courtesy of the Northern Land Council



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ALFA (NT) Limited, Arnhem Land Fire Abatement, is an entirely Aboriginal-owned, not-for-profit carbon farming business created by Aboriginal Traditional Owners in Arnhem Land to support their engagement with the carbon industry. ALFA currently supports Traditional Owners to manage five fire projects across an area of over 80,000 km².

Map of project areas





Across Arnhem Land, in the remote tropical savannas of northern Australia, Aboriginal Traditional Owners and rangers utilise customary fire knowledge to accomplish highly sophisticated landscape scale fire management.

This work is resourced through their engagement with the carbon market and the Savanna Burning Methodology.

ALFA is the entirely Aboriginal-owned and not-for-profit carbon farming business created by Aboriginal Traditional Owners in Arnhem Land to support their engagement with the carbon industry.

Clockwise from top left: 1. Rangers traverse thousands of kilometres of Arnhem Land's remote bush roads and tracks conducting roadside burning; 2. Warddeken ranger Zacharia Namarnyilk conducts protective cool burning around an important rock art gallery; 3. Late dry season wildfire in the stone country; 4. The ASRAC ranger team; 5. ASRAC ranger Dale Djanbadi operates the Raindance incendiary machine during aerial burning; 6. Vehicles cross the Mann River during on ground burning operations in the Warddeken IPA. All images © David Hancock













Core strategic actions of ALFA customary fire management



Engage the right people for country in planning and delivery. Burn early in the dry season and at times of heavy dew and little wind so that fires go out overnight.

Left to right: 1. Senior Landowners speak for country during consultations. Image © Rowand Taylor; 2. On ground burning with a drip torch. Image courtesy of Northern Land Council; 3. Tahnee Nabulwad conducts incendiary burning from a helicopter, in the Warddeken IPA. Image courtesy of Warddeken; 4. Alyurr (Leichardt's grasshopper) is culturally significant and endemic to the Stone Country. Eating only one species of plant, Alyurr relies on good fire management to conserve its habitat. Image © David Hancock



Burn strategically, adding to natural breaks such as moist ground along creeks, cliff lines and tracks to create unburned 'compartments' surrounded by burned breaks. Protect jungles, heaths and fire sensitive communities with early-burned breaks.

Membership of ALFA is open to Aboriginal people who have customary responsibilities for those parts of Arnhem Land under active bushfire management.



Attendees at the 2019 ALFA meeting at Barrapunta (Emu Springs). Annual meetings bring partner groups and stakeholders together to plan and collaborate for the upcoming fire season. Image courtesy of ALFA

The Company currently has eight membership classes representing the operational areas of the eight Aboriginal ranger groups who operate the fire projects. ALFA is governed by 16 Aboriginal Directors – with two Directors elected from each of the eight membership classes. The Company also employs a part time Chief Executive Officer, a Chief Financial Officer and a Bushfire Project Officer.

Board of Directors and Staff

Adjumarllarl — Shaun Namarnyilk, Anderson Nalorlman ASRAC — Neville Gulaygulay, Otto Campion Djelk — Darryl Redford, Matthew Ryan Jawoyn — Mike Allengale, Tony Walla Mimal — Norrie Martin, Robert Redford SEAL — Clarry Rogers, Henry Nunggumajbarr Warddeken — Dean Yibarbuk, Stuart Guymala Yirralka — Lirrpiya Mununggurr, Shane Wuthara Wunungmurra CEO — Jennifer Ansell CFO — John O'Brien Bushfire Project Officer — Mark Desailly Governance Facilitator — Paul Josif Seasonal Bushfire Project Officer — Jack Nugent

Adjumarllarl

ASRAC

Djelk

SEAL



Shaun Namarnyilk



Anderson Nalorlman



Neville Gulaygulay



Otto Campion





Matthew Ryan

Jawoyn



Mike Allengale

Tony Walla





Norrie Martin



Robert Redford



Clarry Rogers



Henry Nunggumajbarr

Warddeken



Dean Yibarbuk



Stuart Guymala



Yirralka

Lirrpiya Mununggurr

CFO

John O'Brien



Shane Wuthara Wunungmurra

CEO



Jennifer Ansell





Mark Desailly

Governance Facilitator



Paul Josif

Seasonal Bushfire Project Officer



Jack Nugent

ampion Darryl Redford

It is with great pleasure that I present ALFA's first Annual Report on behalf of the ALFA Board of Directors.

As CEO, I am privileged to work for such a knowledgeable and dynamic board of Traditional Owners from across Arnhem Land. Each director brings to the table their knowledge of their country, culture and family along with experience gained through their work within community-based organisations. Their ongoing commitment to the wellbeing of the people of Arnhem Land and the management of country is inspiring.

ALFA has a unique governance structure, designed to recognise and reflect the collaborative partnership of Aboriginal ranger groups and Traditional Owners in Arnhem Land. To this end, ALFA operates without a permanent chair, instead flexibly electing a chair for each board meeting.

ALFA could not operate without its project partners, the Aboriginal ranger groups and their host organisations who coordinate and undertake all of the on-ground fire management operations – the Adjumarllarl rangers (Demed Aboriginal Corporation), Arafura Swamp rangers (Arafura Swamp Rangers Aboriginal Corporation), Bawinanga (Djelk) rangers (Bawinanga Aboriginal Corporation), Jawoyn rangers (Jawoyn Association Aboriginal Corporation), Mimal rangers (Mimal Land Management Aboriginal Corporation), Numbulwar Numburindi rangers (Northern Land Council), Warddeken

rangers (Warddeken Land Management Aboriginal Corporation), Yirralka rangers (Laynhapuy Homelands Aboriginal Corporation) and Yugul Mangi rangers (Northern Land Council). Many of these groups have both websites and a dynamic and active online social media presence which I encourage readers of this report to follow to keep up with the incredible work happening on country in Arnhem Land.

2019 is a landmark year for ALFA, marking five years of operations in support of fire management in Arnhem Land. ALFA and our project partners are immensely proud that in this time, the Company has grown to become one of the leading producers of carbon credits in Australia. To date, the ALFA projects have prevented more than 3.5 million tonnes of greenhouse gas from entering the earth's atmosphere. Importantly, in this time ALFA has reinvested earnings of over \$28 million dollars to project partners in Arnhem Land. Aside from funding the extensive and culturally appropriate fire management programs which deliver a suite of environmental, social and cultural benefits, revenue from ALFA has also enabled our project partners to invest in community identified priorities and projects. This has included the establishment of Aboriginal land management organisations, funding contributions to ecological monitoring research, an



Jennifer Ansell CEO

independent remote outstation school, culture camps, as well as infrastructure and capital items to increase the capacity of Aboriginal ranger groups to support Traditional Owners to manage the land and sea country of Arnhem Land.

Operationally, the 2019 fire season was always going to be challenging. The 2018–2019 wet season was unusually light and like other areas in northern Australia, Arnhem Land received well below its average annual rainfall. Given the prevailing conditions, it was more important than ever that Aboriginal rangers and Traditional Owners implemented the intricate network of planned burns early in the year to mitigate against destructive wildfires later in the calendar year.

Like the previous year, 2019 was marked by a restricted window of opportunity for planned burning operations. While the preceding wet season was one of the driest on record, sporadic rain leading into the dry season hindered planned burns while a subsequent rapid onset of hot, dry and windy conditions caused some planned burning to become too extensive. By late July, fire management work had switched completely towards managing wildfires. The late dry season in 2019 was both hotter and drier than average and the extreme fire weather conditions saw an increase in the number of uncontrolled anthropogenic and non-anthropogenic ignited wildfires in Arnhem Land. This was further exacerbated by a long period of lightning activity leading up to a very late onset of the wet season. Wildfire suppression activities occurred continuously from 1st August through to the 27th December. The commitment and dedication of all ranger and ALFA staff during this trying period was exceptional. However, of special note is the Warddeken, Jawoyn and ALFA staff who gave up their Christmas to continue to fight wildfires in Arnhem Land.

2019 stands out as an exceptionally challenging year to demonstrate excellence in fire management in Arnhem Land. Despite the extreme fire conditions, project partners delivered a highly successful fire management program which prevented the prevalence of extensive and destructive wildfires and resulted in above average carbon abatements.

Finally, I wish to acknowledge and thank ALFA's small team of dedicated staff members as well as ALFA's partner Aboriginal ranger groups and their host organisations, all of whom worked tirelessly to support ALFA and the Arnhem Land fire projects in 2019. Nine Aboriginal ranger groups consisting of Traditional Owners and their families operate a total of five ALFA fire projects.

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.

Smoke from aerial burn lines across the floodplains of the Djelk IPA. Image courtesy of Jake Weigl The fire project areas include 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.



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

History of fire projects in west Arnhem Land

'There is growing recognition that the fire management practices of Aboriginal people were not only important in the deep past – they are urgently needed to meet the challenges of today. The WALFA story is our success story; of how Aboriginal people across Arnhem Land harnessed customary knowledge to create new opportunities and solutions for the modern world.' – Dean Yibarbuk, ALFA Director

The story of ALFA begins well before the groundbreaking West Arnhem Land Fire Abatement (WALFA) project, the first savanna burning abatement project anywhere in the world came to be.

In the mid 1990s, Aboriginal Landowners from western and central Arnhem Land and a small group of non-Aboriginal scientists began a dialogue about the importance of fire in the landscape. Aboriginal elders and leaders spoke of "orphaned country"; Aboriginal estates whose Landowners had been drawn to missions and settlements. They were concerned that without customary management, especially of fire, the physical and spiritual Aboriginal 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 km² and only extinguished with the coming of the annual wet season. 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, Aboriginal ranger groups in western Arnhem Land refined 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 emissions between early and late dry season fires for a range of vegetation communities.

However, managing fire at the scale required was beyond the financial capability of Landowners. After years of negotiation, a solution was reached when ConocoPhillips entered into the West Arnhem Fire Management Agreement (WAFMA) with the Northern Territory Government. This trailblazing agreement saw ConocoPhillips support Landowners restore fire management over more than 28,000 km² of western Arnhem Land – the WALFA project area – to offset greenhouse gas (GHG) emissions from their newly established Darwin Liquified Natural Gas (DLNG) plant.

The WALFA project was an innovative solution to securing long term funding to support fire management, and immediately allowed Traditional Owners and Aboriginal rangers to get back out on country, lighting fires in the early dry season.

The WALFA project became the landscape scale model upon which the government-approved Savanna Burning Methodology was based, and provided a template for every future savanna burning fire management project across northern Australia.

The tropical savannas of Arnhem Land vary from sparsely treed grasslands to denser Eucalypt woodlands. Tropical savannas cover ~17% of Australia and, although largely intact, good fire management is essential to their ongoing health. Image © David Hancock with

Savanna Burning Methodology

Australia's vast and ecologically intact northern tropical savannas are extremely flammable, and fire is arguably the most important tool that Aboriginal people have for looking after country.

Customary Aboriginal land management produces finescale mosaic fires. However, in the absence of such management fires occur predominantly in the late dry season as high intensity wildfires. Greenhouse gas emissions are much greater from late dry season fires than from early dry season fires.

Research conducted as part of the WALFA project demonstrated that the reintroduction of customary burning practices by Aboriginal ranger groups was highly effective in reducing late dry season fires, and therefore was also effective in reducing GHG emissions. The result of this research was the Savanna Burning Methodology, enabling registered eligible offsets projects to earn Australian Carbon Credit Units (ACCUs) through the management of fire.

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.

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.

Projects registered under the Savanna Burning Method must undertake annual planned burning as well as follow the rules for monitoring, record-keeping and reporting.



Employment, cultural preservation and environmental protection.



ALFA meetings provide an opportunity for members to come together on country, as families and ranger groups, to discuss fire management at an individual management area and regional scale. Image © Jett Street

Following the introduction of carbon legislation in Australia in 2011 (the *Carbon Farming Initiative Act 2011*), the five WALFA ranger groups decided they wanted to transition the then voluntary WALFA project to become an eligible offsets project to earn and sell Australian Carbon Credit Units (ACCUs). Extensive Landowner consultations ensued, focusing on how to create a company that could represent them collectively in their engagement with the carbon market.

In 2013 they established WALFA Limited for this purpose, and in 2015 changed the name of the company to ALFA (NT) Limited, to reflect its growth throughout the Arnhem Land region.

ALFA registered the WALFA project as an eligible offsets project in late 2014, and since then has expanded to register and support 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.

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 providing local employment while preserving culture and the environment.

Thus, ALFA operates with minimal overheads, with 95 per cent of all income generated paid to the ranger groups for the purpose of supporting and improving fire management activities across the project areas.

Currently, ALFA is the registered project proponent for five Eligible Offsets Projects that create ACCUs through the Savanna Burning Methodology:

- 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

1990s

Aboriginal elders and leaders begin a conversation with scientists about wildfire management on the Arnhem Plateau

2006

WALFA project begins operation in a groundbreaking partnership between Traditional Owners, the Northern Territory Government and international gas company ConocoPhillips

2012

Savanna burning first approved as a method under the CFI Act – legislative acknowledgement of the benefit of customary burning in reducing carbon emissions

2014

WALFA and CALFA projects registered as eligible offsets projects, allowing WALFA Ltd to generate and sell ACCUs on the carbon market

> 2016 NEALFA project registered as eligible offsets project

Early 2000s

Ranger groups in western Arnhem Land use their program's limited resources to trial reinstating customary burning practices under the guidance of knowledgeable elders

2011 CFI (Carbon Credits) Act 2011

2013

WALFA Ltd established in recognition of the ongoing success of WALFA project outcomes in abating greenhouse gas, and preparation for partner groups to engage in the carbon economy

2015

Name change from WALFA Ltd to ALFA (NT) Ltd in recognition of the increased scope of ALFA's projects right across Arnhem Land. SEALFA projects registered as eligible offsets project



Total amount of carbon abated by ALFA projects since the company began

Arnhem Land Fire Project Summary

Fire project	Date registered	Project area (km²)	Ranger groups involved	ACCU issuance to date
WALFA	24/12/2014	28,000 km²	Bawinanga (Djelk) Rangers	1,554,988
			Mimal Rangers	
			Jawoyn Rangers	
			Warddeken Rangers	
			Adjumarllarl Rangers	
CALFA	23/12/2014	26,000 km²	Bawinanga (Djelk) Rangers	1,468,507
(WALFA2)			Mimal Rangers	
			ASRAC Rangers	
SEALFA	18/08/2015	5,000 km²	Yugul Mangi Rangers	196,022
(>1000 mm)			Numbulwar Rangers	
SEALFA Stage 2	28/01/2016	10,000 km²	Yugul Mangi Rangers	77,650
(600–1000 mm)			Numbulwar Rangers	
NEALFA	11/09/2016	11,000 km²	Yirralka Rangers	207,737



1 tonne carbon dioxide equivalents (CO_2 -e)

1 Australian Carbon Credit Unit (ACCU)

1 ACCU



1 tonne CO₂-e is roughly equal to the emissions of a standard 5-seat passenger vehicle driving around 5,400 km.





It is estimated that the average Australian has a carbon footprint of about 26 tonnes of CO_2 -e per year.



Outcomes Summary 2019

(all ALFA partner groups combined)

Total tonnes greenhouse gas abated



Numbers can provide a big picture story of our activity, our on the ground impact, show what we've achieved through the year and inform our plans for the future.

500

Traditional Owners involved



Aboriginal rangers employed

Before burning begins, rangers speak with Traditional Owners about where and how they want fire management to happen on their country. These consultations inform annual burning plans.

Each year ALFA brings together Traditional Owners from the nine partner ranger groups for a preseason and postseason meeting, facilitating discussions about how groups can best work together during the upcoming fire season.

Other regional stakeholders are also invited to participate, with attendees of the 2019 meetings including representatives from the pastoral industry, national parks and environmental not-for-profits.

Each ranger group undertakes their own Landowner consultations annually, ensuring that the right people for each clan estate within a project area give their consent for burning work to occur, are able to nominate who they would like to undertake APB, and advise whether they would like to involved in any of the upcoming fire season activities.



Above: Senior cultural advisor Samuel Gulwa speaks with his wife – also a senior Landowner – to ascertain how she wants Bawinanga (Djelk) to conduct burning operations on her country. Image courtesy of Jake Weigl

Top left: The Mimal ranger team plans burning activities for the 2019 season. Image courtesy of ALFA

Bottom right: ALFA director Otto Campion works with his fellow ASRAC rangers to plot aerial prescribed burning lines. Image © Jett Street



PLANNING AND CONSULTATION





ASRAC's Dale Djanbadi in front of a fire that's burning slow and cool – a perfect example of a well-planned, carefully executed, dry season burn. Image © David Hancock On ground burning creates fine-scale and targeted firebreaks, and is often performed for the purpose of protecting cultural, environmental and infrastructure assets.

<u>EARLY DRY SEASON</u> BURNING — ON GROUND







Rangers and Traditional Owners use on ground burning throughout project areas, particularly along roadsides and hunting tracks, around important cultural and environmental sites (e.g. rock art or rainforest patches) and to protect infrastructure (e.g. outstation communities). Rangers undertake ground burning from a vehicle (4WD or quad bike) or by foot, and use either matches or a drip torch as the ignition source.

Many ranger groups run annual bushwalks involving young people and elders, which allow groups of Landowners to conduct significant fine-scale burning across large tracts of country. For many ALFA partners, these walks are of great importance, as they allow a new generation of Traditional Owners to burn country as the old people did.

Ranger groups record their ground burning activities using either CyberTracker or a combination of GPS 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.

An ASRAC ranger refills the glycol tank of a Raindance machine. Incendiary machines inject glycol into individual capsules filled with potassium manganate, where a chemical reaction takes approximately thirty seconds to ignite. Capsules are dropped from a chute underneath a helicopter before combustion, hitting the ground and creating burn lines in remote areas of country. Image courtesy of ASRAC



Aerial prescribed burning, utilising helicopters and incendiary delivery machines, allows rangers to access remote regions of their project areas, and cover vast tracts of 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, realtime 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 firebreaks.

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



TRADITIONAL OWNERS INVOLVED Bawinanga (Djelk) ranger Jonah Ryan guides aerial burning operations on his grandmother's country in the Djelk IPA. Image courtesy of Jake Weigl In the late dry season, the focus is on preventing wildfires, which burn hot and uncontrolled as conditions become warmer and drier.



Leaf blowers are used to blow embers and leaf litter, twigs, grass and all flammable material back in on the fire. This creates mineral earth breaks that pull up wildfires by removing fuel. Rangers then patrol these lines to make sure they hold. Here, a Jawoyn ranger uses rocks and boulders as a natural fire break. Image © David Hancock



Helicopters are essential to mount wildfire suppression campaigns in remote Arnhem Land. Choppers are used to ferry teams of rangers and equipment to and from fire fronts, as well as to conduct aerial assessments of fires. Often, rangers are required to construct bush landing pads, allowing the machines to set down and take off in safe, clear areas. Image © David Hancock

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

Helicopters are often required for teams of firefighters 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 through extinguishing wildfire. One of the most unique aspects of firefighting in Arnhem Land is rangers' use of backpack leaf blowers in containing wildfires. Initially suggested by Michael Carter of Bushfires NT in 2007, and trialled by Warddeken rangers, leaf blowers have since become an essential tool in fighting fire by blowing out flames and blowing embers and combustible fuels such as grass and leaf litter back into the active fire. ALFA has developed custom training in response to the unique conditions in which partner groups fight wildfires.

In 2019, for the first time, ALFA offered partner groups the opportunity to participate in custom training modules, designed specifically around the unique conditions under which rangers in Arnhem Land fight fires. Image courtesy of ALFA



TRAINING







ALFA Fire Officer Mark Desailly facilitated purpose designed training for five of the nine partner groups. The training is practically focused, tailored to conditions specific to Arnhem Land and designed for delivery in a cross-cultural context.

Key elements of the training program included: Planning an initial wildfire response, best practice fireground procedures, Firefighting strategies and tactics, Helicopter safety, Installing and burning off leaf blower fire breaks, defending breaks from oncoming fire and building remote helicopter pads.

Partner groups who did not participate in ALFA training completed training with other accredited institutions.

ALFA supports nine communitybased Aboriginal ranger groups, who collectively deliver fire management projects across 80,000 km² of Arnhem Land. Their work not only reduces greenhouse gas emissions and improves the environmental health of country — it generates a host of cultural, economic and social co-benefits.

On the following pages ALFA's partners share highlights from their 2019 fire projects, demonstrating the many and varied ways the projects are improving environmental, cultural, social and economic outcomes for Traditional Owners across Arnhem Land.
ASRAC rangers stop their vehicles to throw matches into cured vegetation during roadside burning operations. Image © David Hancock

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Adjumarllarl Rangers —Asset Protection





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

Operating at the gateway to Arnhem Land, Adjumarllarl are on the frontline of managing invasive weed species and have 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.

In 2019, Adjumarllarl rangers undertook an extensive program of early dry season on ground burning, complemented by APB. With more than 2000 manhours going into early dry season fire management in 2019, Adjumarllarl delivered a comprehensive program of

backburning and firebreaks that incorporated: all accessible tracks and roads, including the network of hunting and fishing tracks that criss-cross the outskirts of Gunbalanya; along natural barriers such as creeks and rivers; at and around cultural heritage sites and along the stone country escarpment edges.

Adjumarllarl's operating area includes a number of homeland communities, and rangers ensured these communities were fireproofed by carefully installing mineral earth fire breaks and backburning around houses, schools, solar bores, water tanks and solar panels.

The impact of intense late dry season fires in the Adjumarllarl area was lessened thanks to Adjumarllarl ranger's strategic network of firebreaks, which served to halt the spread of many wildfires. Across all homeland communities within their area, houses and assets remained safe thanks to the preventative burning they performed.



Arafura Swamp Rangers —Protecting Sacred Sites



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 Arafura Swamp, its catchment and adjacent sea country. The ranger groups are: Donydji rangers, Mirrngandja rangers, Wurrungguyana rangers, Balmawirrey Dhipirri rangers, Gurruwiling rangers, Wanga Djakamirr rangers and Dhupuwamirri rangers. The Arafura Swamp rangers are currently consulting on a proposed new IPA covering 14,000 km² which includes the Arafura Swamp – a vast wetland surrounded by a catchment extending from Castlereagh Bay to the upper reaches of the Goyder and Glyde Rivers.

In 2019, ASRAC rangers faced challenging weather conditions that dramatically reduced the amount of time available to undertake early burning activities. Country took a long time to dry out and the fire season commenced in June, allowing just nine weeks to complete asset protection, ground and aerial burning activities. However, due to the experience and expertise

of senior rangers such as Otto Campion, and the preparedness of the ranger teams, ASRAC was able to face this challenge and complete their burning before the weather conditions changed.

Protecting sacred sites is an important element of ASRAC's asset protection burning. Sites visited by rangers and protected by fine-scale burning in 2019 include: Kubarku (King Brown Dreaming), Dhuburrdjarrk (Turtle Dreaming), Lorrkun (ceremonial burial log site), Miwal (Fish Dreaming), Gattji creek (Sickness site), Ngangalala (Mosquito Dreaming), and Gupulul (Sun Dreaming).

ASRAC rangers evaluated their fire season at the end of 2019, and reported that they were happy with way the fire project had brought the community together, with rangers, Traditional Owners, families and school students working together to care for country using fire. Rangers were also proud of the way in which they have improved and increased their capacity to fight fires, noting that firefighting has offered casual employment and skill development opportunities to many young people.



Top: Fire scar maps from previous years allow identification of priority areas to burn and protect in the upcoming year. Image © David Hancock

Bottom: Mineral earth firebreaks are used during wildfire suppression operations. The absence of flammable fuel allows rangers to pull up fires and prevent them from jumping the breaks. Image courtesy of ASRAC



Bawinanga (Djelk) Rangers —Traditional Owner Engagement



Rangers compare fire scar maps with proposed flight lines for aerial burning Image courtesy of Jake Weigl





Left to right: 1. Roadside burning; 2. Female Bawinanga (Djelk) rangers during the Bamdibu Fire Camp; 3. Senior Landowners speak for country during pre-season consultations. All images courtesy of Bawinanga (Djelk) rangers

Bawinanga (Djelk) rangers are early leaders 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 nearly 30 years Bawinanga (Djelk) 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 that includes more than 30 family-based outstation communities.

At the end of the 2018 fire season, Bawinanga (Djelk) rangers set a goal of increasing Traditional Owner participation in fire management. During 2019 pre-season planning, 73 Traditional Owners and customary land managers were consulted about how they wished to see fire management occur on their clan estate. These consultations facilitated the establishment of collaborative plans to ensure rangers involved the right people in burning operations for both ground and aerial works. In 2019, a total of 24 traditional owners were involved in Bawinanga's APB operations. Traditional Owners guided the helicopter pilot and incendiary machine operator across their country, making decisions about where and how much to burn. Rangers and Traditional Owners completed 8,651 km of aerial burning, undertaken over a total of 100 hours flight time in May, June and July.

Directing aerial burning allows Traditional Owners to connect deeply with their country, and, for Landowners of more remote clan estates, offers them an opportunity to visit parts of their country that they would otherwise not be able to access. Direct involvement in aerial burning also allows Traditional Owners to make important managerial decisions about fire, and is one of the elements that makes Djelk's fire management best practice.

Djelk have a long history of Landowner engagement and were proud to have involved so many Traditional Owners in this year's early dry season burning program.

Jawoyn Rangers —Fire and Culture



Top: Jawoyn rangers present their burning plans for the year to other ALFA partner groups at the pre-season meeting. Image © Jett Street

Bottom: Rangers prepare to take to the skies to perform aerial prescribed burning across the Jawoyn management area. Image courtesy of Jawoyn

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 the world's largest and most significant bodies of rock art.

Jawoyn rangers see their work protecting rock art sites as an integral component of their overall fire management strategy. As part of Jawoyn's early burning program in 2019, rangers undertook fine-scale burning around significant places including rock art galleries and occupation sites. Sites were cleared of dead branches, debris and grass fire fuel load. Sites were documented using cameras and CyberTrackers, and very deliberate fine-scale burning was undertaken. Simultaneously, APB was completed with traditional owners for that particular country navigating and assessing the work from the air. Jawoyn also conduct annual bushwalks and canoe trips in the cool early dry season, when the nights are dewy and it's the right time to burn. These cross-country events involve rangers and family groups moving through country as the old people did, burning as they go. This allows the rangers to undertake fine-scale burning and protect cultural sites and small patches of sensitive vegetation communities. Bushwalks have become an annual feature of Jawoyn's fire management program, and are eagerly anticipated by rangers and their families.

Integrating fire management with cultural activities such delivers positive co-benefits for Jawoyn people. Participating in early dry season burning enables Jawoyn people young and old to be meaningfully involved in the management of their customary estates, and conducting cultural maintenance activities in tandem with other fire management activities, brings greater cultural and social benefits to the community.



Mimal Rangers —Women's Engagement







During the Bamdibu Fire Camp, women prepared the campsite using fine-scale, micro burns that 'cleaned' the area, and were small enough to be able to be extinguished using fresh branches and leaves. This is how old people would clear a campsite, rendering it safe and inhabitable by family groups. Images courtesy of Mimal Land Management

The Mimal Land Management 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 are currently being supported by the Federal Government to establish a new IPA which will cover over 18,000 km² in south-central Arnhem Land.

Mimal was administered by the Northern Land Council (NLC) for many years, however Landowners 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 Landowners 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.

Mimal has taken a leading role across the region in advocating for the increased involvement of women in fire projects, and have actively worked to achieve parity within their own workforce. In 2019, Mimal hosted the inaugural Strong Women for Healthy Country Forum, collaborating with local women and other Indigenous organisations from across the Northern Territory to help strengthen the voice, role and support structures for women working for healthy country and all it benefits for the environment and local communities.

Mimal, ASRAC and Djelk women rangers also came together for a dedicated Women's Fire Camp, held over three days at Bamdibu. The camp was an opportunity for women rangers from the three groups to share knowledge about, as well as work together to conduct fine-scale on ground burning and clear fire tracks. Collaborative camps strengthen the relationship between partner groups, and are a great way to celebrate the kinship connections which run right across fire project areas and beyond.

Mimal will continue to facilitate the Strong Women for Healthy Country Network as well as collaborate with partners to facilitate women-specific fire workshops, providing ongoing opportunities for women to support each other in fire projects and other land and cultural management activities.

Yugul Mangi Rangers and Numbulwar Numburindi Rangers —Fire Preparedness





Top: A team of SEALFA rangers kitted out in new PPE and ready to fight fires.

Bottom: Installing fire breaks around housing infrastructure at outstation communities is an important component of annual fire management plans. Images courtesy of the Northern Land Council

The South East Arnhem Land IPA is jointly managed by the Yugul Mangi and Numbulwar Numburindi rangers with the Northern Land Council, based at Ngukurr and Numbulwar respectively and administered by the 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.

In 2019, the Yugul Mangi and Numbulwar Numburindi ranger groups increased their skills and preparedness for firefighting. In the lead up to the late dry season, 20 rangers completed accredited training in Ngukurr with SA Bushfire Solutions.

The two ranger groups also greatly increased their capacity to fight fires with the purchase of new firefighting equipment including leaf blowers, personal protective equipment and five new vehicles. This equipment has enhanced the ability of rangers to be ready to respond to fires as necessary, with the appropriate gear to ensure the job is done safely and well.

There were a number of wildfires in the SEAL IPA in 2019, although less than in the previous few years. Most fires did not spread far and did not require rangers to attend, due to the fire breaks created from the early dry season burning, as well as due to fire scars from large areas of country having been burnt in 2018.

Yugul Mangi and Numbulwar Numburindi rangers undertook 12 days of firefighting from August to December, focusing on the fires which posed the greatest risk to burning out of control or into neighbouring properties.



Warddeken Rangers —Wildfire Suppression



Warddeken Land Management assist Nawarddeken Traditional Owners in the protection and management of their country, combining customary ecological knowledge with contemporary science. The Warddeken IPA covers approximately 14,000 km², includes 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 Mamardawerre, Manmoyi and Kabulwarnamyo homelands, offering the only ongoing employment in these extremely remote communities.

Warddeken rangers were pioneers of wildfire suppression in Arnhem Land as a mechanism to prevent mega fires and protect fire sensitive cultural sites and vegetation communities. Facing initial scepticism about the feasibility of firefighting in the stone country, Warddeken rangers continued to extinguish late dry season wildfires in challenging and remote terrain, and in doing so convinced land management practitioners that wildfire suppression was a critical component of contemporary fire management programs.

The hot, dry and windy conditions of the 2019 late dry season impacted the severity and frequency of wildfires across the IPA. A record 53 wildfires were fought by Warddeken, with rangers and coordinators working tirelessly to ensure fires were extinguished, under trying weather conditions and in very rugged terrain.

There was a great sense of comradery, commitment and drive by rangers and coordinators to help each other out, make sure all firefighters remained safe and extinguish fires as efficiently as possible.

Throughout November and December 2019, a series of lightning strikes tested fire crews to their limits, with over a month of continuous fire. Between 1–31 December, 21 individual wildfires were suppressed, most originating from lightning strikes.

The Warddeken team was finally able to stand down at the end of December after the final lightning fires were extinguished, rounding off an extraordinary year that saw Warddeken staff put in a total of 4469 manhours fighting fires.









Clockwise from top left: 1. A ranger's best friend on the fire line – the Stihl backpack leaf blower. The rugged terrain in Arnhem Land has rendered traditional tools such as the rake hoe all but useless, with leaf blowers proving incredibly effective at installing and holding fire lines. Image © David Hancock; 2. Strath Barton and Senior ranger Stuart Guymala atop the escarpment assessing wildfire suppression efforts; 3. Choppers drop teams of rangers close to the fire front; 4. Stuart Guymala pushes flames back as he patrols a fire line that incorporates natural elements (rocks) and a mineral earth break. Images 2,3 and 4 courtesy of Warddeken Land Management

Yirralka Rangers —Employment on Homelands



The Yirralka ranger team undertakes maintenance of chainsaws and other small machinery in preparation for managing wildfires across homeland communities. Image courtesy of Yirralka







Left: A new fence is installed at one of the many homelands Yirralka rangers maintain and care for.

Right: Rangers conduct and manage early dry season burns across the Yirralka IPA. Images 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 Gove Peninsula to Blue Mud Bay and covers over 11,000 km² of land and 480km 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.

Having rangers based at homelands throughout the IPA allows Yirralka to achieve widespread and comprehensive on ground burning. Living on country, Traditional Owners are able to light fires throughout the early dry season, burning when conditions are optimal, as vegetation types cure and when the weather is right. The permanent presence of Traditional Owners and rangers throughout the IPA is a key strength for Yirralka in ensuring their country is managed using slow, cool, early dry season fires. Participation in the NEALFA project is one way in which Yirralka rangers have been able to secure a future for Traditional Owners on their ancestral homelands. Homelands residents face constant uncertainty about the future, and ongoing employment in fire management through the ranger program delivers economic and social benefits that strengthen these extremely remote communities.

As ALFA's newest project partners, in 2019 Yirralka rangers continued to finesse their fire management program and, despite facing incredibly challenging weather conditions in 2019, delivered a net abatement of over 15,000 tonnes carbon equivalents.

Financial Statements For the Year Ended 30 June 2019

Statement of Profit or Loss and Other Comprehensive Income

	Note	2019 \$	2018 \$
Revenue		5,440,690	10,683,612
Other income		97,441	79,792
Grant Funding		(3,170,847)	(6,259,123)
Subcontracting costs		(2,656,849)	(3,764,841)
Other expenses		(217,346)	(266,467)
Employee benefits expense		(229,310)	(203,800)
Hire fees		(41,256)	(53,860)
Depreciation and amortisation expense	4	(22,009)	(8,582)
(Loss) / profit before income tax		(799,486)	206,731
Income tax expense	2 (a)	-	-
(Loss) / profit from continuing operations		(799,486)	206,731
Other comprehensive income, net of income tax		-	_
Total comprehensive profit / (loss) for the year		(799,486)	206,731

Statement of Financial Position

	Note	2019 \$	2018 \$
Assets			
Current assets			
Cash and cash equivalents	5	1,460,849	6,080,397
Trade and other receivables	6	259,123	514,009
Total current assets		1,719,972	6,594,406
Non-current assets			
Plant and equipment	7	103,852	34,781
Total non-current assets		103,852	34,781
Total assets		1,823,824	6,629,187
Liabilities			
Current liabilities			
Trade and other payables	8	477,683	2,868,560
Borrowings	9	-	4,950
Employee benefits	10	19,418	3,699
Other liabilities	11	1,112,193	2,737,962
Total current liabilities		1,609,294	5,615,171
Total liabilities		1,609,294	5,615,171
Net assets		214,530	1,014,016
Equity			
Retained earnings		214,530	1,014,016
Total equity		214,530	1,014,016

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 17, 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 2019 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.

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 2019, 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 2019 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

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

Director	Hamil
Director	

Dated this 2nd day of December 2019

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.

Perles Audit

PERKS AUDIT PTY LTD 84 Smith Street Darwin, NT 0800

MALL

PETER J HILL Director Registered Company Auditor

Dated this 2nd day of December 2019

Bordomo is an increase ritual performed to ensure plentiful sugarbag (native honey) and to protect honey hives from hot and destructive late dry season wildfires.

Bordomo was brought back from the brink of extinction by ALFA Director Otto Campion and elder Jack Nawilil, who led the first ceremony in 2017.

Holding hands, children from the outstation community of Kabulwarnamyo circle a large fire whilst chanting the ritual word "bordomo". There's much laughing and the children are in a state of high excitement, because in the shadows just outside the firelight lurks a masked adult wearing a paperbark 'hat', who unexpectedly rushes out from their hiding spot towards the group, catching one child at a time and eliminating them from the game. The ritual game continues in this way until only one child aremains. Since it was first performed at Kabulwarnamyo in 2017 under the guidance of elder Mary Kolkiwarra Nadjamerrek – who remembers the game from her youth – the Bordomo ritual has been performed a number of times. Image courtesy of Steven Bird Here, children from the community of Kabulwarnamyo perform the ceremony under the guidance of community elders.

'Fire is the answer, and fire is the tool. This is our landscape; this is where we live, this is what we want to protect. This is where we belong — here.' — Dean Yibarbuk, ALFA Director

