

# ARABANA

## Wadlhu Ngurrku-Ku (For Healthy Country) Plan



**RNTBC ARABANA  
ABORIGINAL  
CORPORATION**



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ICN 7729

**Warning to Aboriginal and Torres Strait Islander Readers:**

This report may contain culturally sensitive information and images of people who have passed away. We sincerely regret any distress that may be caused.

# Arabana Wadlhu Ngurrku-Ku (For Healthy Country) Plan

2014-2019

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Cover Picture: Road to Finniss Springs Homestead



Australian dingo (madla) An Arabana emblem [photo by Paul Tanner]

## ACKNOWLEDGEMENTS

I'm pleased to present the Arabana Wadlhu Ngurrku-Ku (For Healthy Country) Plan. I thank all Arabana involved in the planning workshops, their input adds value and ownership for them of the plan. I'd also like to thank those AAC Directors involved in the process, together I believe we have produced a Plan that is workable, achievable and as the name states: Wadlhu Ngurrku-Ku (For Healthy Country).

I also Acknowledge funding Bodies and others below for their input.

Paul Tanner (Acting Chairman)

- The Arabana Aboriginal Corporation RNTBC (AAC) board of directors supported by partner organisations:
- The South Australian Department of Environment, Water and Natural Resources (DEWNR)
- The South Australian Arid Lands Board
- The Nature Conservancy Australia Program
- Conservation Management (Stuart Cowell, Sarah Eccles, Al Dermer, Daniel Sprod, Stephen Mallick)
- Graphic Design Susan Dodd. Photography Susan Dodd except where otherwise stated.

## THE STORY OF THE PLAN *(from Sam Stuart)*

On the 22nd May 2012 more than 14 years after the claim was lodged, the Federal court determined Aboriginal Native title exists over 68,823 square kilometres of land in northern South Australia by the Arabana people. The arid area under claim includes Lake Eyre, Marree town, and Anna Creek Station - the largest working cattle station in the world.

The coming of European people to Arabana Country had marked impacts and continuing effects on Aboriginal people from the late 19th century through the 20th century. Past and present Arabana elders fought for recognition through the long hard times, and yet they retained connections to Country against great odds, and now we are



Sturt Pea (arabana) An Arabana emblem [photo by Joanne Warren]

building new foundations for caring for Country into the future. The Arabana People remain committed to caring for Country, staying on Country and making sure that Country is respected. Strongly-held values for Country were consistently expressed during consultations. People were keen to talk about projects and identified their priorities for the region and shared similar ideas about the best strategies to care for Country. Arabana People emphasised that projects must include opportunities for the use and transmission of language, for old people to pass on cultural knowledge to younger generations, and for greater opportunity to get access to Country.



"For Aboriginal people, health does not just entail the freedom of the individual from sickness but requires support for healthy independent relationships between families, communities, land, water and spirit. The focus must be on spiritual, cultural, emotional and social well-being, as well as physical health" Dean Stuart

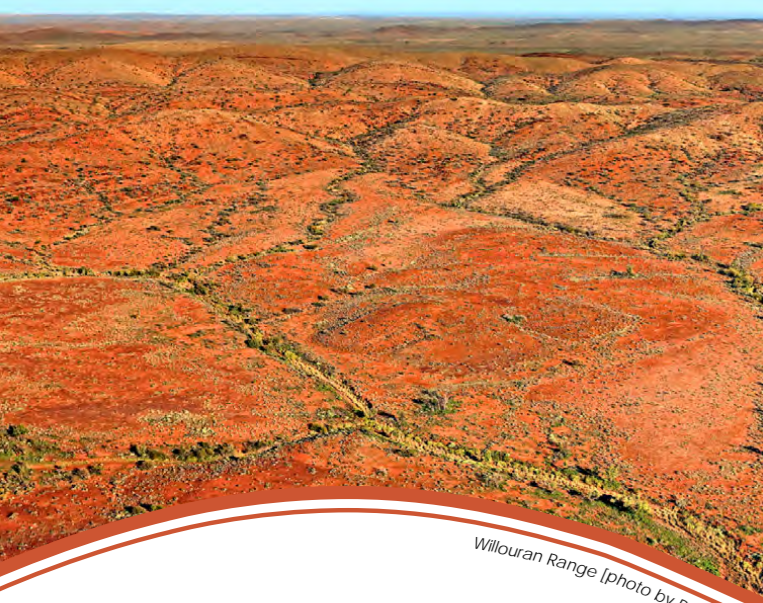
Sands at Canegrass

In this way, the protection and management of cultural and natural resources would be better understood and undertaken in the right way. People recognised the need for a partnership approach in caring for Country and, to speak with 'one strong voice' to governments and investors.

The need for developing the Arabana Wadlhu Ngurrku-Ku

(For Healthy Country) Plan was guided by community consultation and directed by the Arabana Aboriginal Corporation (AAC) board of directors and supported by partner organisations which include, The South Australian Department of Water and Natural Resources (DEWNR), representatives of the South Australian Arid Lands board and the Nature Conservancy Australia Program. We began with a big workshop at our Arabana AGM in 2013 and then had a series of workshops with the board of directors, during 2013-14, where we decided what should go in the plan. We used the Healthy Country Planning approach in

the development of the Arabana Wadlhu Ngurrku-Ku (For Healthy Country) Plan as this approach is being used by Aboriginal groups around Australia. These steps include, deciding what the plan is about, making the plan, doing and monitoring the work, deciding if the plan is working and telling ourselves and others. The agreed aims of the Arabana Wadlhu Ngurrku-Ku (For Healthy Country) Plan are Culture and Language, Ularaka (knowledge), Kutha (water), Kati Thanda (Lake Eyre), Bush Tucker, Health, Living Ecosystems and Sustainable Income and Development. It also provides some basic tools to get people started and take us to where we want to be tomorrow. With a vision of emphasising the responsibility of our "knowledge keepers and our protectors of country, language, culture and story working together and with new beginnings connect our children and grandchildren to our sands."



Willouran Range [photo by Peter Elfes]



Paul Tanner and Syd Stransways - naming Kathi Thanda (Lake Eyre)



Leonie Warren and family near Marree

## OUR COUNTRY, OUR PEOPLE

Arabana Country, covering 6.8 million hectares, is in the central north of South Australia, approximately 600 kilometres from Adelaide between Leigh Creek, Cooper Pedy and Oodnadatta. Our country covers Finnis Springs Station, the townships of Marree and William Creek, Wabma Kadarbu Mound Springs Conservation Park, Elliot Price Conservation Park and a portion of Kati Thanda (Lake Eyre) National Park (Figure 1)

We Arabana are one of the peoples of Kati Thanda (Lake Eyre) salt lake country people, and kutha (water) is central to who we are. Our Arabana culture was set in place by our ancestral creators the mura mura who gave shape, story, lore and actions to our country. Our country is diverse with its mound springs, gibber plains, sand dunes, and gidjee trees, salt bush and grasslands.

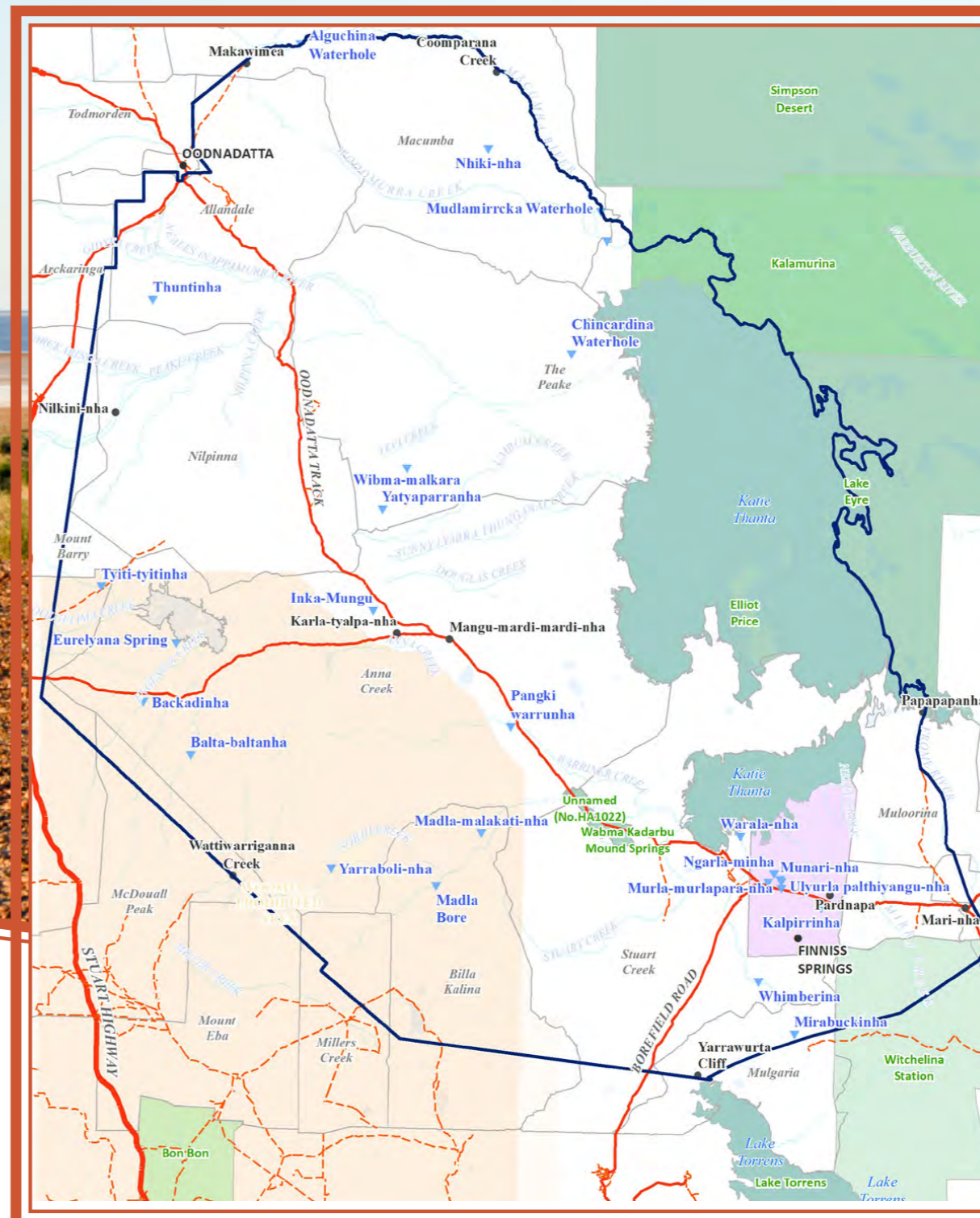
Due to colonisation, relocation, mission station and

the old Ghan Railway, we are now living in Alice Springs, Oodnadatta, Marree, Adelaide, Cooper Pedy and Port Augusta. Some of us still work on country in the pastoral stations of Macumba, Peake, and Anna Creek. We have withstood the pressures of colonisation and remained culturally strong with a resilient sense of identity, no matter where we live.

For many years we fought for recognition of our rights to country. In 1998 we lodged our Native Title Determination Application (SAD 6025/98). It was a day of celebration for us all when on 22 May 2012, we got our consent determination, recognising our rights (to access, hunt, fish, live, camp, gather and use the natural resources, to undertake cultural activities and protect places of cultural significance).

We have entered into an Indigenous Land Use Agreement

(ILUA) for the Whole of Claim Settlement and an ILUA and co-management agreement with the state, for the three parks -Wabma Kadarbu Mound Springs Conservation Park, Elliot Price Conservation Park, and a portion of Kati Thanda (Lake Eyre) National Park. These parks are managed through an advisory committee of three Arabana representatives, two DEWNR representatives and one Ministerial appointment. The Arabana Aboriginal Corporation (ICN 7729) is the Registered Native Title Body Corporate that administers lands and waters on behalf of the Arabana people.



## ARABANA COUNTRY

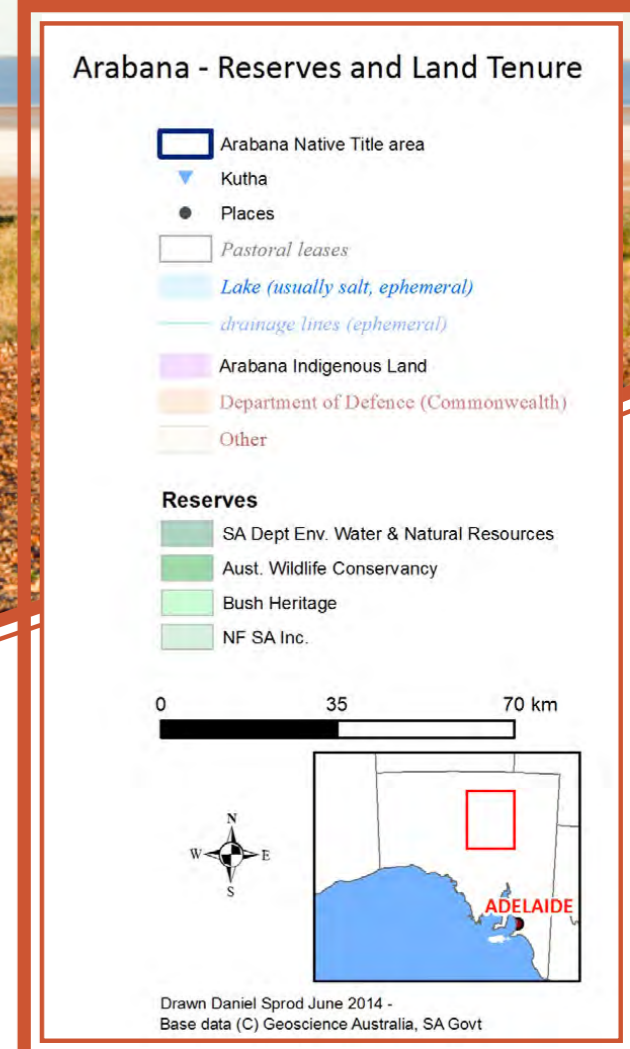


Figure 1: Arabana Country (Arabana Native Title Determination Area)



## USING THE PLAN

The Arabana Wadluh Ngurku-ku (For Healthy Country) Plan will help achieve Arabana peoples' vision and goals for how Arabana Country might be managed into the future.

Making a plan is important for a number of reasons:

- Maintaining culture and the interest of future generations
- Ensuring sustainability and healthy country and
- Leading and coordinating the efforts of multiple people and interests.

This Plan sets out who Arabana are, the things we value about our country, and talks about some of the ways we want to care for our country and keep it healthy, so it can keep us healthy.

This plan talks about our 'whole of country', all the Arabana native title determination area shown in Figure 1. Linked to our Plan is a more detailed Finnis Springs Station operational plan. Finnis Springs Station is where we have chosen to begin our healthy country activities.

## How does it work?

The Plan talks about the important things that we want to look after on Arabana Country, including Finnis Springs—our "Building Blocks" (Targets). For each target, we give a



rating that describes how healthy we think it is. This helps us to see whether our Healthy Country Plan is working.

The Plan then lists the "Problems" (Challenges) facing our country. For each problem, we give a rating that describes how bad the problem is, and this helps us to see if our Plan is helping to reduce the problems.

The Plan then lists the projects we want to set up to help care for and improve the targets and to get rid of or reduce the challenges. For each project we talk about the targets and challenges that the project is trying to help. Each project also has a clear objective that tells us exactly what we want the project to achieve.

An important part of our Plan is that it helps us to monitor how the Plan is implemented, how effective each project is, and the status of each of the targets and challenges. This tells us whether the Plan is being put into practice and whether it is working for us and our country.

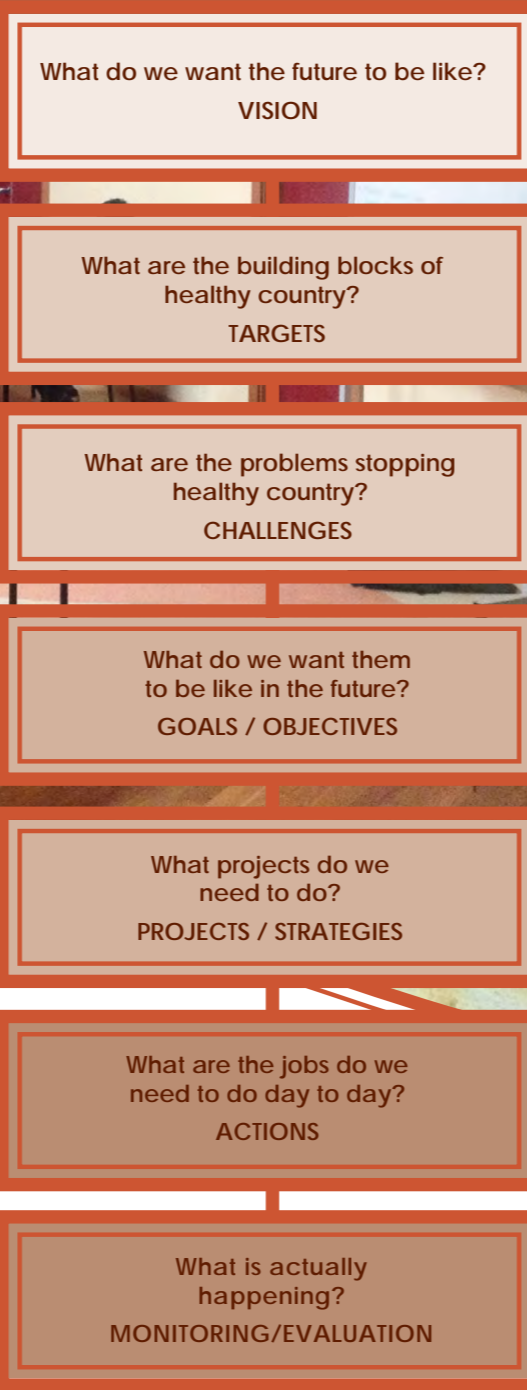
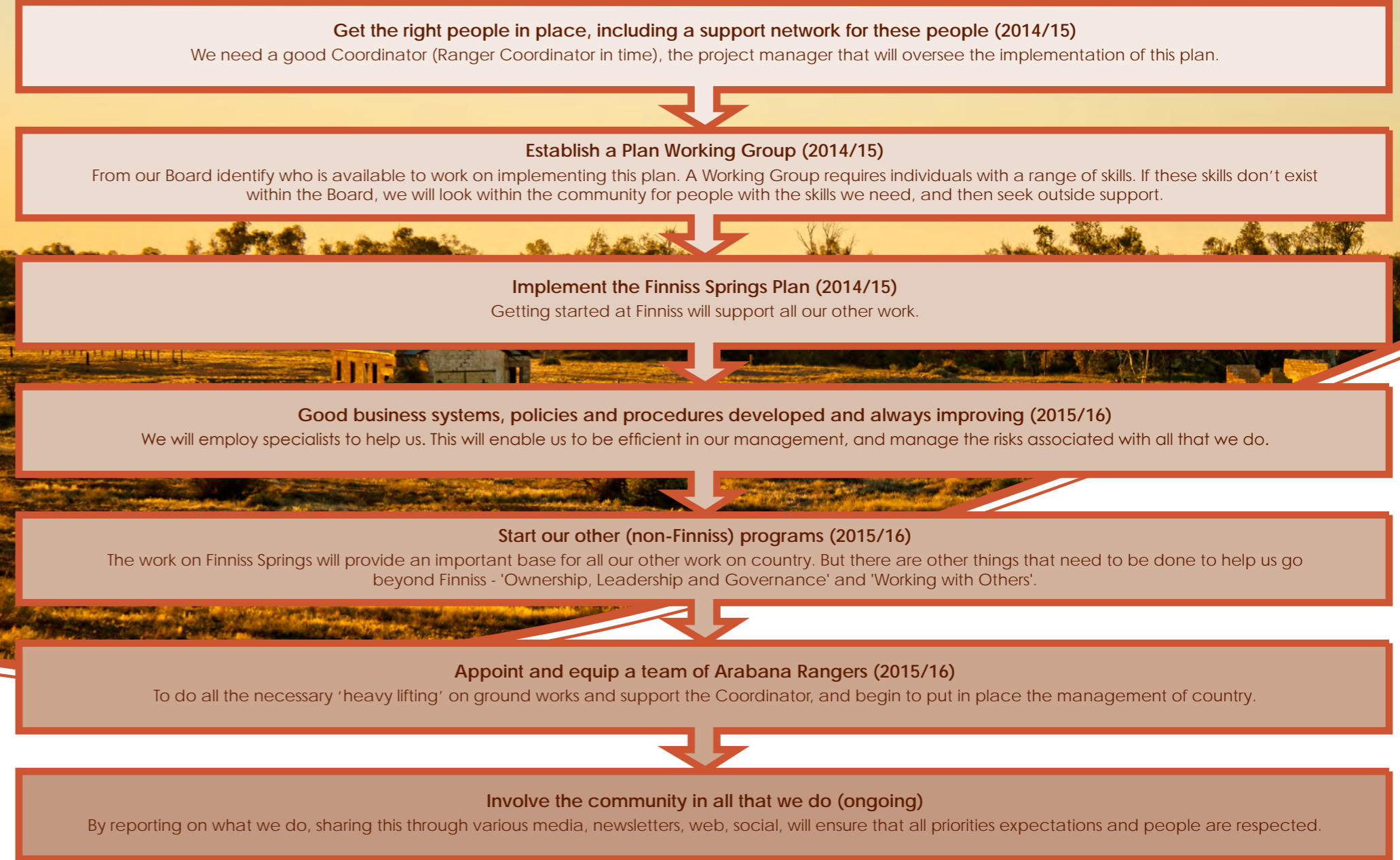


Figure 2: How the plan fits together

## What do we do first?

This plan is all about achieving our vision on all our country, but we need to set out what we need to do first. This Plan will be put in place through nine Projects, detailed in this plan, starting on-ground with Finnis Springs, and building our capacity to work across all of Arabana country. To guide those projects, we need to start with the following:



# VISION FOR OUR COUNTRY AND PEOPLE

Sands - "Heat Waves"

## VISION FOR OUR COUNTRY AND PEOPLE

Our Vision guides us to where we want to go with this plan and all our work. If this plan is successful it will move us closer to achieving our vision.

We are the Arabana knowledge keepers and protectors of country, language, culture and story working together.

Children are the future with care and control, loved by the parents, grannies and old. Their true potential is in our land, the excitement of new beginnings connect them to our sands.

Learning and acquiring respect by acknowledging the knowledge of our ancestors and their teachings, their understanding of our rich culture as explained to us by our Elders and striving to keep that culture strong.

This also means to keep our land healthy and language strong. All Arabana have the right to realise their full potential through country to achieve personal development where greatness can follow.

[photo by Melissa Nursey-Bray]

Anna Creek Arabana Country

Very Good	As healthy as it can be
Good	Might need a bit of support
Fair	Needs a lot of support
Poor	Needs urgent attention

## BUILDING BLOCKS (TARGETS)

To Arabana, all of their country is important and there are lots of things about our country that we value, the animals and plants, the landscape, the springs,

### Target Health - table

Table 1: Summary of the health of our Targets. In time we want to make sure they are all 'Good'

Target	Rating
Culture and Language	Fair
Ularaka (Knowledge)	Fair
Kutha (Water)	Poor
Kati Thanda (Lake Eyre)	Good
Bush Tucker (plants and animals)	Fair
Health of Arabana people	Fair
Living Ecosystems	Fair
Sustainable Income and Development	Fair

and our connection and culture. All these things have great cultural and spiritual importance for us, and we have stories about many of these things that help us to understand them and keep them healthy. In order to create a plan that will enable Arabana to focus their resources on key issues, eight targets have been identified. In order for Arabana country to be healthy, these eight targets need to be healthy. The targets are listed here and described in detail below. We will work on all our targets, but focus our work in the following order of priority:

- PRIORITY 1**
  - Culture and Language
  - Ularaka (Knowledge)
  - Kutha (Water)
- PRIORITY 2**
  - Kati Thanda (Lake Eyre)
  - Bush Tucker (plants and animals)
- PRIORITY 3**
  - Health of Arabana people
  - Living Ecosystems
  - Sustainable Income and Development

To help think about prioritising our work and measure our progress we identified indicators of health for the Targets and gave a health rank for each of our targets. The focus of our work is to change the Fair ranking of Targets to Good. These are all shown in Table 1 above.



Teaching the youth



Arabana crafts men displaying their artifacts

## Culture and Language

Arabana people are part of the central salt lakes and springs country, Kati Thanda( Lake Eyre), region in South Australia. Our culture was set in place by our ancestral creators, the mura mura, who gave shape, story, lore and actions to our country. We believe that our ancestors and our old people still live in country, they are in the features, the rocks, trees and springs and by keeping our culture and language strong we are looking after them. We shared parts of this central lakes culture with our neighbours Anangu Pitjantjatjara Yankunytjatjara (APY) to the east, the Kokotha in the west and Arrente in the north. Traditionally Arabana have intermarried with our neighbours and Aboriginal groups further afar reaching up into Queensland, over into NSW and down into the Eyre Peninsula. These relationships mean we are interconnected and for 45 000 years have lived on and continued to looked after our country, through ceremony and relationships together.

Arabana language is central to our cultural identity, it forms the basis of how we think and understand Arabana culture and world view. In the past our Elders were restricted from practicing ceremonies and speaking language, which has made it difficult for passing on our culture and language through the generations. By

the 80s, there were only 8 speakers in the Arabana People remaining (<http://www.endangeredlanguages.com/lang/ard>). Because it is so important we have been working on reviving our language. By collecting all recordings of our old people speaking language, by having our remaining Elders, our knowledge holders teach our children and community members. Following the arrival of Europeans, and the subsequent years of colonisation, relocation and mission station our social organisation, culture and language have undergone many changes. Arabana are resilient! We are a vibrant people who have adapted to the intense challenges that the invasion of our country and colonisation of our lives have brought. Continuing what cultural practices we could over time. Now, having access to country we want to go back out on country, to continue practicing and revive teaching our culture and language.

Through all the changes, some fundamental features of Arabana life have remained relatively constant, like our

social and family structures. Communication has always been and continues to be a dynamic and enduringly sustaining Arabana social practice. (Nursey-Bray2013).



*"For health if we have our own traditional healers- access to Wadma, the healing story." Uncle Sid*



Teaching Arabana children animal tracks (photo by Colleen Raven-Strangways)

## Ularaka (Knowledge)

Ularaka is our knowledge it includes where we come from, our identity, the dreaming, stories, songs and ceremonies that underlie our culture. Ularaka came through our fathers, our patrilineal line from our father and his father back through to our founding Ancestral Figure, the mura mura who gave shape, story and actions to their country. Ularaka connects people in the 'here and now' to each other and

Ularaka is the main channel through which Arabana receive rights and responsibilities in country and through which we are positioned in ceremony about human reproduction and the endurance and vitality of their mura mura (Nursey-Bray et al. 2013). The connection to the Ularaka estate of their mother and mother's-brother was called abalga in Arabana. Understanding both your Ularaka and Abalga as

complementary knowledge is needed for continuing our cultural business and for sustaining our country, our ancestors, our culture. They teach us knowledge, where we come from, our identity, knowing the dreaming, stories, songs and ceremonies and where they come from. Over time Arabana have developed a complex culture interwoven with our desert and salt lake country. Legends, stories and song lines are anchored in our landscape and guide our system of natural resource management which has been proven sustainable for millennia. Arabana people want to have a close association with their country, and take their cultural heritage forward. Being out on country, learning and teaching stories, knowledge and practices, both old and new, is essential. Building reconnection and culture and keeping Ularaka alive will mean recording and preserving culture and language, building knowledge of language and culture in young people and returning to country.



Claypan after rains

"Water is life for everyone and must be preserved, we all have a responsibility for land and water management" Dean Stuart

## Kutha (Water)

Kutha (water) is of deep cultural importance to Arabana, many of our dreaming stories are associated with the Great Artesian Basin (GAB), with Kati Thanda (Lake Eyre), with our lakes, wetlands, springs, soaks and in more recent times dams and bores like Mudlu Mudlu, Strangways and Bubbler spring. Knowledge of where these water sources were traditionally meant survival as we travelled through country. The springs have been major living sites for Arabana for millennia (Nursey-Bray 2013).

Our Kutha used to be clean and flowing, many birds lived around them and Arabana and animals could drink this Kutha. White people came and with them the pastoral, mining, petroleum and tourism industries, as well as outback towns all began using our water and springs, they have become polluted, weed infested and dried up. Many bores, built around our old springs have been inappropriately capped reducing the water pressure and flow.

The main source of reliable water on Arabana country comes from the GAB. The GAB is an iconic aquifer system of both national and international significance. One of the largest groundwater basins in the world, it underlies 22% of the Australian continent, it is made up of large parts of South Australia, Northern Territory and Queensland, along with a small slice of western New South Wales Recharge water enters from the eastern edge of the basin (in Queensland and New

South Wales) and very gradually flows toward the south and west. A much smaller amount enters along the western margin in arid central Australia, flowing to the south and east.

Arabana Country and Kati Thanda (Lake Eyre) are underlain by the GAB in the most westerly arid area of the basin. Our country is where the majority of the GAB waters well up to the surface and flow out (discharge) through mound springs. They include bubbling ponds, prominent mounds and small, ecologically important wetlands.

These springs occur in groups in a variety of sizes (Fensham et al. 2007). There are more than 170 spring groups in South Australia with approximately 5000-6000 vents. Of these the Kati Thanda (Lake Eyre) mound springs is the largest group of springs. The most active springs form an arc 400 km long between Marree and Oddnadatta (Ponder 1986). Our spring wetlands mostly occur in the low points of country, such as valley and lake floors, creek channels, flood plains and clay pans (Commonwealth DoE 2014) (Figure 3).

Plants and plant communities around the springs

include tall grasslands, mixed sedge land or reed lands with Common Reed, Bulrush, Spiny Flat-sedge and Cutting grass often dominating. Seven of the plant species associated with the springs are threatened nationally and/or in other states. The Salt Piperwort (*Eriocaulon carsonii*) is listed as Endangered in South Australia (Commonwealth DoE 2014). Several springs containing salt pipewort populations occur on the Finnis Springs property, which we are and will continue to actively manage.

Our springs and wetlands are home to a wide variety of aquatic and semi-aquatic animals, including species of fish, frogs and aquatic invertebrates such as snails,



Water left from the river flooding [photo by Paul Tanner]

"Like blood in your body it keeps you alive, you need water in your country to keep it alive." Uncle Sid



Pirdall-nha (Bubbler) and overflow

"My childhood memory of the bubbler and the springs around that area, was always flowing, and now there is just a trickle, and maybe we can make this come back?" Veronica

flatworms, insects and their larvae, and amphipod, isopod and ostracod crustaceans that are endemic and relict species dependent on the moisture in the springs for survival. Species of birds, mammals, spiders, mole crickets and occasionally reptiles also use the wetlands



Overflow from Thirka (Blanch Cup) Wabma Kadarbu Mound Springs Conservation Park

or are associated with them.

The springs have decreased in flow by an estimated 30% since the development of the basin, with some drying out completely. Reductions in water flow pressure of even 1-2 m are significant enough to cause extinction of many of the low-flow springs in South Australia (National Water Commission 2013a).

The importance of water use is the most consistent issue of concern for all Arabana when considering how to manage environmental change and in terms of thinking about how to go back to country and how to adapt



Thirka-(Blanch Cup)

to those changes. Water access, availability and the health of the mound springs with their linking cultural stories

## Kati Thanda (Lake Eyre)

Lake Eyre has always been Kati Thanda to Arabana, and after our Native Title rights were recognized we negotiated for the official name of the lake to be changed back into Kati Thanda-Lake Eyre. This is important to us as special Arabana places were given European names early on in the 1900's when explorers pushed into our country (Hercus, L.). It is a part of the reclamation of our stories and reconnection activities. Arabana have been connected with Kati Thanda for tens of thousands of years. One of our stories of Kati Thanda's creation which can be told tells of Wilkunda, a young male hunter who hunted a kangaroo. Wilkuda was told to take the skin back to the east and, east of



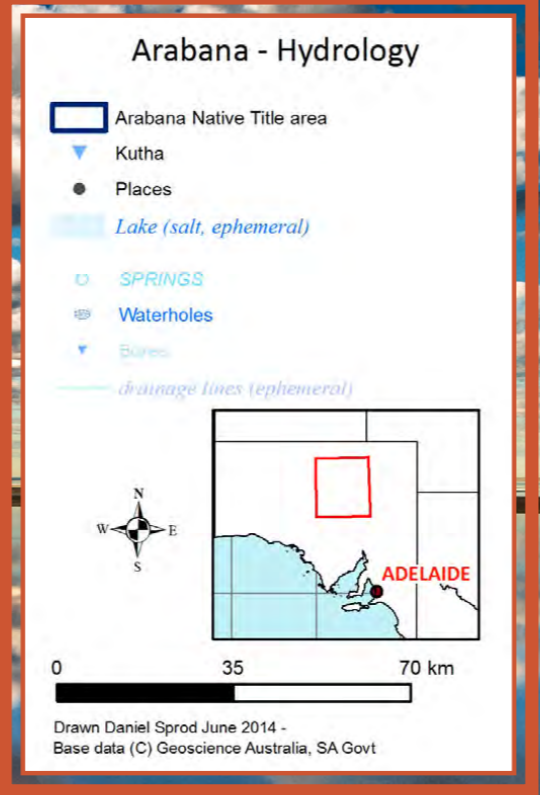


Figure 3: Kutha (water) on Arabana Country

Anna Creek, he threw the skin down. The skin then changed, becoming Kati Thanda. Wilkuda can still be seen as a boulder on the shore of the lake he made. The Kati Thanda (Lake Eyre) Basin covers one sixth of the Australian continent and is one of the largest internally draining systems in the world, it is a surface water catchment that overlies the GAB. The main rivers draining into the Lake Eyre Basin include the Georgina and Diamantina Rivers and Cooper Creek, which usually terminates at the Coongie lakes wetlands. Western tributaries of Lake Eyre are the Neales and Macumba rivers. Many springs and lakes within the Lake Eyre Basin are

also supported by upward flow from GAB groundwater. This interconnection of groundwater and surface water in the Kati Thanda (Lake Eyre) Basin is largely unexplored and unknown, though is very likely to be of environmental significance (National Water Commission 2013c). Kati Thanda (Lake Eyre) is made up of 2 parts, Lake Eyre North and Lake Eyre South, the smaller of the 2, joined by the Goyder Channel, usually a channel of salt. About 1/3 of the lake, mostly in the southern part, is covered



Kulipi Hot Spring (photo by Peter Elfes)

above: Kati Thanda (Lake Eyre) [photo by Peter Elfes]



To keep Kati Thanda healthy, you need water. Arabana can keep Kati Thanda healthy culturally around it, but can't control the water use up stream. Aboriginal memory, it never go dry, and now go to today, need the rivers flowing, the water coming in. (Arabana Working Group)

"Kati Thanda contains a rich Aboriginal culture which must be preserved. Important opportunity for others to connect and develop ways to look after the lake" Dean Stuart



Attributes Kati Thanda (Lake Eyre)

waterbirds. When floodwaters cover the lake surface, masses of waterbirds flock to the area to breed.

## Bush Tucker (plants and animals)

by a hard salt crust. To the north of this crust is the slush zone, where a thin layer of salt covers an area of mud that never dries. Kati Thanda fills completely only an average of twice in a century, but partial fillings happen much more often. When completely filled (as in 1950, 1974, and 1984), the lake takes about two years to dry up again. Kati Thanda contains areas of high conservation significance including representative ecosystems, habitats for rare and threatened fauna and flora, and areas of high biodiversity like wetlands, lakes, and mound springs. Kati Thanda and its wetlands are especially significant as breeding grounds for many of Australia's

The Arabana traditionally used many plants and animals as a source of bush tucker and medicine and for our traditions and culture. Some examples are Thungka – Bush Tomato, Yalka – Wild Onion and Ardikula Mulga apple. Arabana people have relied on plants and animals for food, medicine and for their traditions and culture. The Arabana people have described many changes to their land, the plants and the animals, and there is a strong desire to increase and manage the abundance of plants and animals, and continue the cultural traditions and stories that relate to them.



Ardikula (Mulga Apple)

Arabana hunted a range of animals for meat on our country. Some examples of these include Warrukathi – Emu, Cadney- frilled neck lizard, Kungarra – Kangaroo, Kapiirri – Goanna and kalta - sleepy lizards.

There have been many changes to our country which means there is less bushtucker and now days we don't see the plants and animals where we used to. The abundance of goannas, bearded dragons, shingleback lizards, and sleepy lizards were once present in large numbers but are now relatively scarce (Arabana Association 2013). This has been particularly notable for the Perentie monitor an important totem animal associated with Arabana dreaming stories.

Arabana have not been able to access our country to get our bush tucker and we believe not having bushtucker is affecting our health badly.

Native desert mammals provided an important source of bush tucker for many Aboriginal people, including the Arabana. Populations of native desert mammals have suffered declines in many areas of central Australia, with a number of species having become extinct over the last 200 years. Arid areas are among the worst effected by the impacts of cats, domestic stock, rabbits and foxes since European settlement. However, few conservation projects have targeted arid areas in the past.

There are a few published records of native mammals remaining on Arabana land. However, there is substantial information derived from the Arid Recovery reserve to



"Little berries Walta Yangubara, near the area when there is water around...Little yellow flowers after rain but no more now." Auntie Milly

Thunka – Bush Tomato



Little berries

## Health of Arabana People

Of overriding importance as a source of wellbeing for the Arabana is our connection to country, is knowing and using our culture and language (Ganesharajah 2009, cited in Nurse-Brady et al. 2013). Arabana connections to country remain even though we may not have lived on our country for more than ten to thirty years. The need to understand family connections with and responsibilities to country to look after sites, the stories, the plants, animals and features of these areas shapes our identities, our spiritual connection; if country is healthy we are healthy.

(Mulga Beans)



"When we used to go to creek and get spring onions out – yalka used to eat all those berries- thungka – wild tomato – you see them sometime now but used to be thick eh, and those poppers we used to step on them eh. No more. And the trees are not really shady now eh, they are starting to die off, mulla – mulgas going, used to be thick but now these here now you can look straight through them" (from Climate Change Adaption Strategy)

Cadney (Bearded Dragon)



Warrukathi (Emu)



above: Kungarra (Kangaroo) [photo by Paul Tanner]



"Bushtucker when you eat it again your strenght will come back to you." "Missed that tucker like kangaroo when we've been living away in the city." Robbie



[photo by Colleen Raven-Strangways]

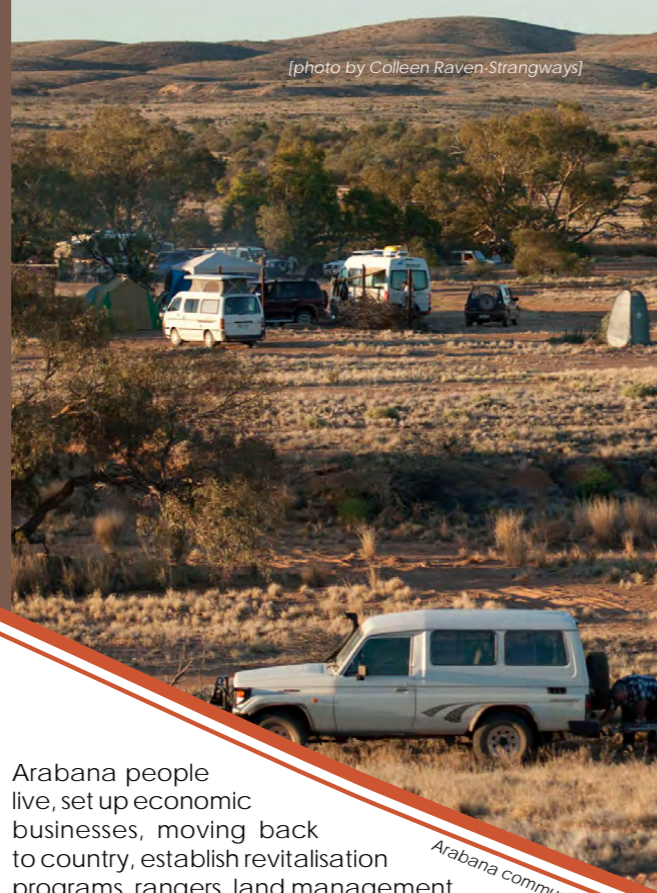
Coming together for family

Arabana's Nharla family structure and history, our interconnections and respectful relationships with each other supports, (as well as challenges) our wellbeing. We foster these relationships through working together on local collaborations, coming together for family and community gatherings. Many Arabana have grown up away from country and while our connection is still strong our close knowledge of country, our ability to maintain our culture and fulfil our cultural responsibilities to look after our country has been disrupted. It has affected our health and wellbeing, our youth struggle with knowing where they belong. Our old people can no longer gather and hunt their favourite bush tucker.

Recognition and acknowledgement from the broader society that Arabana are the Traditional custodians of their country contributes to our health, our pride of who we are. With our Native Title rights to access and look after country we will return to country together, to revitalise, share knowledge and promote our language and culture.

Health is a key dimension of wellness and resilience for the Arabana people in which an individual has to take care of oneself to be responsible. To be healthy is considered a personal matter although family and structural support are sometimes necessary to maintaining good health (Nursey-Bray 2013). Respectful, strong communication between generations and towards our old people is a part of this health.

To support the health of Arabana people we want to establish cultural centres in every place and city where



[photo by Colleen Raven-Strangways]

Arabana community gatherings

Arabana people live, set up economic businesses, moving back to country, establish revitalisation programs, rangers, land management, monitoring and research programs.

## Living Ecosystems

Our living ecosystems include all parts of Arabana country together, the plants and animals, the mound springs where the cooper catfish live, the mulga which provides food and boomerangs, the islands in Kati Thanda where the banded stilts go when water comes, it is all of country working together.

Arabana country is the driest or most arid part of Australia and goes through big swings of wet and dry times, the desert 'boom-bust' cycles of rain and drought. Our plants and animals, like us, have learnt to adapt and live with these unpredictable seasonal rains. Arabana country is dramatically hotter than most parts of Australia. Rain is typically uneven and is delivered in scattered showers and thunderstorms (Nursey-Bray 2013).

In dry times the mound springs and wetland areas

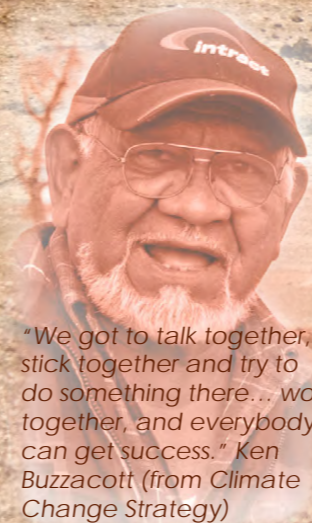


Bush Medicine

around them are the only water left and are a safe home or refuge for many endemic and threatened plants and animals. These groundwater dependent ecosystems have persisted as a wetland ecosystem within the arid landscape for more than one million years, their isolated nature resulting in the preservation of many endemic, endangered and relict species of great ecological and evolutionary significance. They are islands within a sea of desert, where these plants and animals can survive until the rains, the food comes again and they can spread out (re-colonise). GAB springs are listed as endangered ecological communities under the EPBC Act (National Water Commission 2013a).



Finniss Springs



"We got to talk together, stick together and try to do something there... work together, and everybody can get success." Ken Buzzacott (from Climate Change Strategy)

Compared to other parts of Australia our country hasn't had the amount of changes that others have had so most of the ecosystems are in very good condition. There are not many plants that are endangered and very few plant extinctions have occurred. But this has been changing. Concerns about the ecological condition of Australia's rangelands and about the social and economic

sustainability of its industries have been building for some time. Parts of the rangelands are suffering from increased rates of land degradation caused by accelerated soil erosion, increased numbers and distribution of weeds and feral animals, reduced water quality, soil salinity, and the decline of and changes to native plant and animal communities. (Environment Australia 1999). Arabana country is located within the central core of the Arid Lands NatureLink corridor and the north-western-most tip of the Flinders-Olary NatureLink corridor. The Arid Lands NatureLink corridor runs north-west from the southern boundary of Strzelecki Regional Reserve

Ranges and interlinking plains country. NatureLinks is a South Australian Government initiative to connect people and projects to restore the State's natural environment (GSA 2013).

## Sustainable Income and Development

An important part of our ongoing cultural vitality and health is the creation of jobs and building ongoing income which will provide some level of economic autonomy and an economic base for the long term management of our country. Arabana people want to establish viable and sustainable programs on country that provide a livelihood, that generates income and employment opportunities and helps us to be able to live on and return to country, and engage and inspire our youth to look after country.

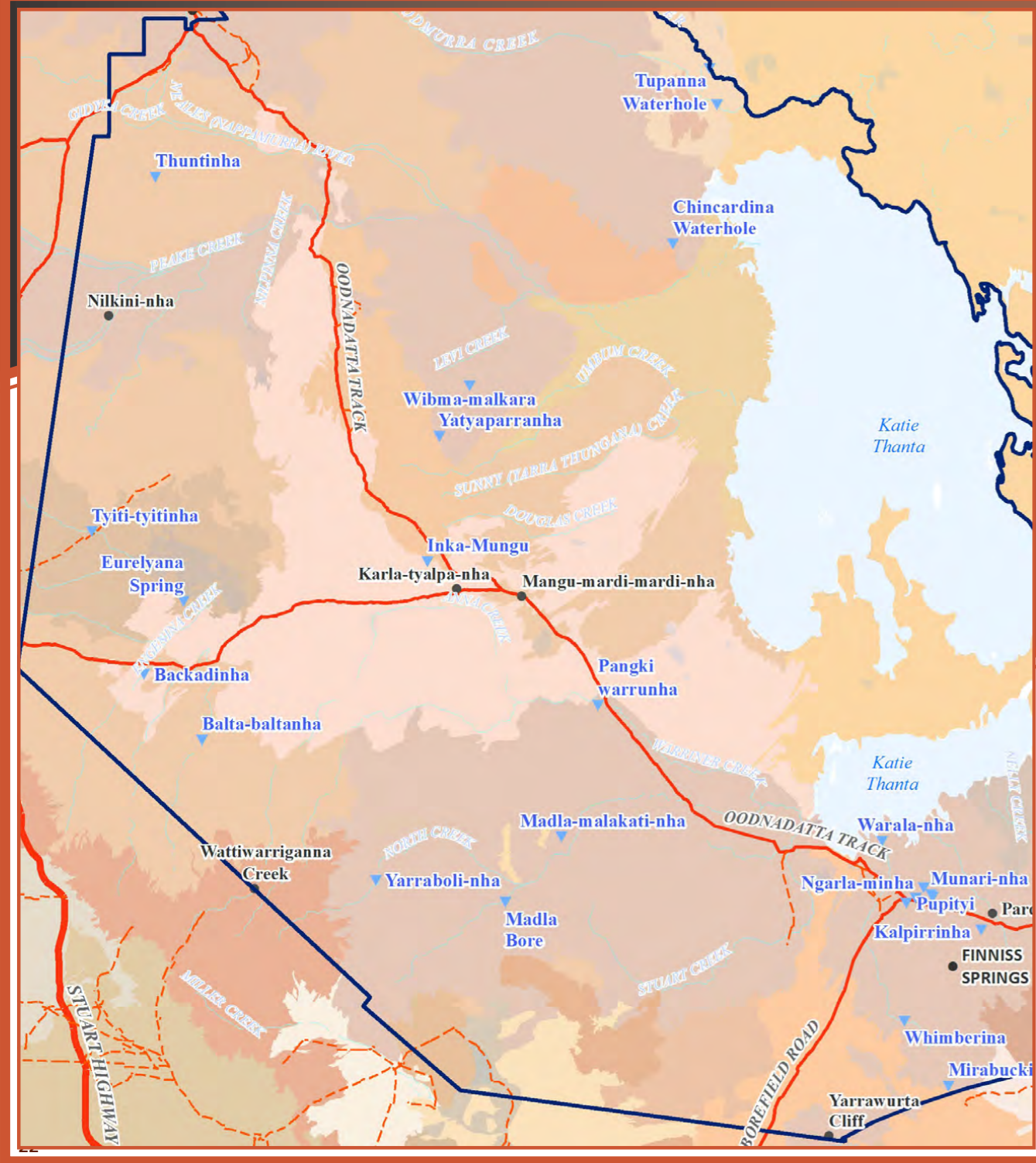


Figure 4: Land systems on Arabana country showing the diversity of landscapes)



One way of doing this is to develop approaches that combine market (jobs and businesses), state (government), philanthropic (gifts) and customary (traditional use) sectors that overlap and interlink (Nursey-Bray et al. 2013). This could include businesses and partnerships covering cultural tourism, natural and cultural management services at Finnis Springs, language and cultural camps amongst many other things. Developing

community based enterprises is challenging but is one way to help manage global problems (such as climate change) as they impact locally (Berkes and Davidson-Hunt 2008, Berkes 2007, cited in Nursey-Bray 2013). There are many opportunities for businesses and partnership in their country as there are a diverse range of business and economic interests already using Arabana country- mining (including petroleum); tourism; and meat and wool production. Working in partnership with tourism operators, pastoralist, the mining industry, National Parks and conservation and others can provide us opportunities to build the

necessary infrastructure for being back on country and developing sustainable income streams. Generating employment opportunities for Arabana people is critical for us to be able to return to country, to engage and inspire our youth to look after country. If Arabana people are to be able to return to country, there has to be sustainable ways of living and earning a living via some form of livelihood (Arabana Association 2013). Arabana know these are big challenges for us as livelihood security, welfare dependency and the disadvantages of race in contemporary Australia remains a point of vulnerability for a significant number of Arabana (Nursey-Bray 2013). Arabana also see that working in partnership with tourism operators, pastoralist, the mining industry and the National Parks service and others can provide opportunities in building the necessary infrastructure for being back on country and developing sustainable income streams.



A Dry Dam during an extreme dry period [photo by Patricia Dodd]



A Dam after some good rains [photo by Paul Tanner]

## CHALLENGES

Challenges on our country are things which damage our targets. They include things which might damage or offend our traditional cultural beliefs and sacred sites. Many of the issues on our country come from things that were done in the past, like creating bores for water or introducing feral animals. Other issues are things that might happen in the future, like climate change or too many careless visitors.

Thinking carefully about the things that threaten our country helps us to decide which problems are the most serious and which ones are not so important. Giving a rating to each challenge helps us to focus our activities so that the things we do can have the greatest benefit on the ground. We have thought a lot about which things are damaging our country. The problems we will focus on are:

- Loss of Arabana Traditional knowledge
- Climate change
- Mining – exploration and water extraction
- Feral carnivores – cats and foxes
- Lack of funding
- Government policy ('Sovereign risk')
- Tourism
- Loss of identity
- Distance / isolation
- Weeds – bullrushes / Bamboo outgrowing springs
- Lack of communication with key stakeholders
- Communication breakdown - Lack of respect
- Pastoral impacts on kutha
- Feral herbivores – horses, camels, rabbits
- Fire – Too hot / wrong place

We have rated the seriousness of each issue for each of the targets and have given a colour to each rating (Very High: *Dark Brown*, High: *Brown*, Medium: *beige*, Low: *cream*). One of the aims of our Healthy Country Plan is to convert as many of the brown boxes (High challenge) to beige and cream (Medium and Low challenge) as we can.

Challenges / Targets	Living Ecosystems	Culture and Language	Health of Arabana People	Sustainable Income and Development	Ularaka (Knowledge)	Kutha (Water)	Kati Thanda (Lake Eyre)	Bush Tucker (plants and animals)	Summary Rating
Loss Of Arabana Traditional Knowledge	High	High	Medium	Medium	Very High	High	Medium	High	Very High
Climate Change	High	Low	Low	High	Low	High	High	High	High
Mining – Exploration And Water Extraction	Medium	High	High	Low	Medium	Very High	Medium	Medium	High
Feral Carnivores – Cats And Foxes	High							Very High	High
Lack Of Funding		Medium	Medium	Very High					High
Loss Of Identity	Low	High	High		High		Medium	Medium	High
Government Policy ('Sovereign Risk')	Medium	Medium	Medium	Medium	Low	High	High	High	High
Distance / Isolation		High	Medium	High	Medium			Medium	High
Communication Breakdown		High	Low	Low	High				High
Lack Of Communication With Key Stakeholders	Medium	Medium		Medium		High			Medium
Weeds – Bullrushes / Bamboo Outgrowing Springs	Low	Medium	High		Low	High		Medium	Medium
Pastoral Impacts On Kutha	Medium	Medium	Low		Medium	Medium	Medium	Medium	Medium
Feral Herbivores – Horses, Camels, Rabbits	Medium			Medium		Medium		Medium	Medium
Tourism	Medium	Medium			Medium	Low			Medium
Fire – Too Hot / Wrong Place	Low							Low	Low

Table 2: Table of the Challenges and how we see them. In time we want to reduce them as much as possible.



Views of the ruins of the Finnis Springs Mission School



above: [photo by Paul Tanner]

below: [photo by Peter Elfes]

## Loss of Arabana Traditional Knowledge

With the arrival of Europeans in the late 1800s and the catastrophic and rapid changes in Arabana society, there was inevitably substantial loss of traditional knowledge with the fragmentation of the Arabana people (Nursey-Brady et al. 2013). For example, by the 80s, there were only 8 Arabana language speakers (<http://www.endangeredlanguages.com/lang/ard>).

As a lot of our traditional knowledge has been lost and this chain of passing it on through the generations has been broke it is really important for Arabana to look after the traditional knowledge we have and build on this where we can. We need to develop ways for the Arabana to build their own cultural centres and keeping places, and to look after our own ways of storing, and sharing, what we know.

For the Arabana people, the importance of respecting each other and being respectful of older people is critically important and a central part of our Arabana community. It is grandparents along with parents who have the responsibility to ensure the younger generation have knowledge, with a good understanding of that knowledge, and the respect it demands of each individual.

## Climate Change

The effect of climate change on Arabana will be in the form of adding extremes to the extremes we already face. Hot summers will get hotter, evaporation at springs and other significant water sites will increase. Bird numbers and species diversity will change in response to the changes in water availability and to the changes in availability of food (vegetation, flowers, fruiting/seeding plants). All animals will be affected, they will move to areas that support the conditions they are adapted to, and if they can't, they will struggle and in parts die.

With these changes to the environment, there will also be changes to the culture. Arabana people will adapt to the changes in the climate, they will remember their connection, they will tell the stories of the places as they used to be, and from this they will become more resilient in the face of future changes.

Already, Arabana have identified a number of changes to the flora and fauna on the land. For example, how many trees were dying, how the landscape had changed and in some cases where groups of trees represented

dreaming stories or sites have died off (Nursey-Bray et al. 2013).

Water is of central importance to Arabana people. Over the historical past there has been a decline in the availability of water, whether from mining, pastoralism or climate change. Climate change is likely to exacerbate the problem of less water, as well as more intense storms and flooding (Arabana Association 2013). Climate change has the potential to damage and in some cases erode many of the Arabana sacred and cultural sites altogether (Arabana Association 2013).

Arabana have a Climate Change strategy that outlines what the key issues are and what the actions are to be taken to adapt to these changes.



Reliable water source, now dry

## Mining – exploration and water extraction

As Arabana Country sits over the Great Artesian basin (GAB), which is environmentally and culturally significant due to the springs connected to the GAB, any form of mining

will have an impact on Arabana people. There are currently 688 mineral production licences active across the region, 6 of which are within the Arabana native title area (GSA 2013).

The biggest issue that Arabana have experienced to date with the mining industry on or within the GAB, is that of water extraction. Arabana springs are culturally significant, many of these springs have already dried up in response to the excessive quantities of water used by adjoining mines for processing minerals.

Other challenges from mining include access on and through Arabana country, both with water infrastructure, and with plant and equipment including trucks and heavy machinery. Pollution, both noise and physical in the form of contamination of the GAB is yet to be quantified but is a real and identified risk for Arabana and the quality of the GAB as a whole.

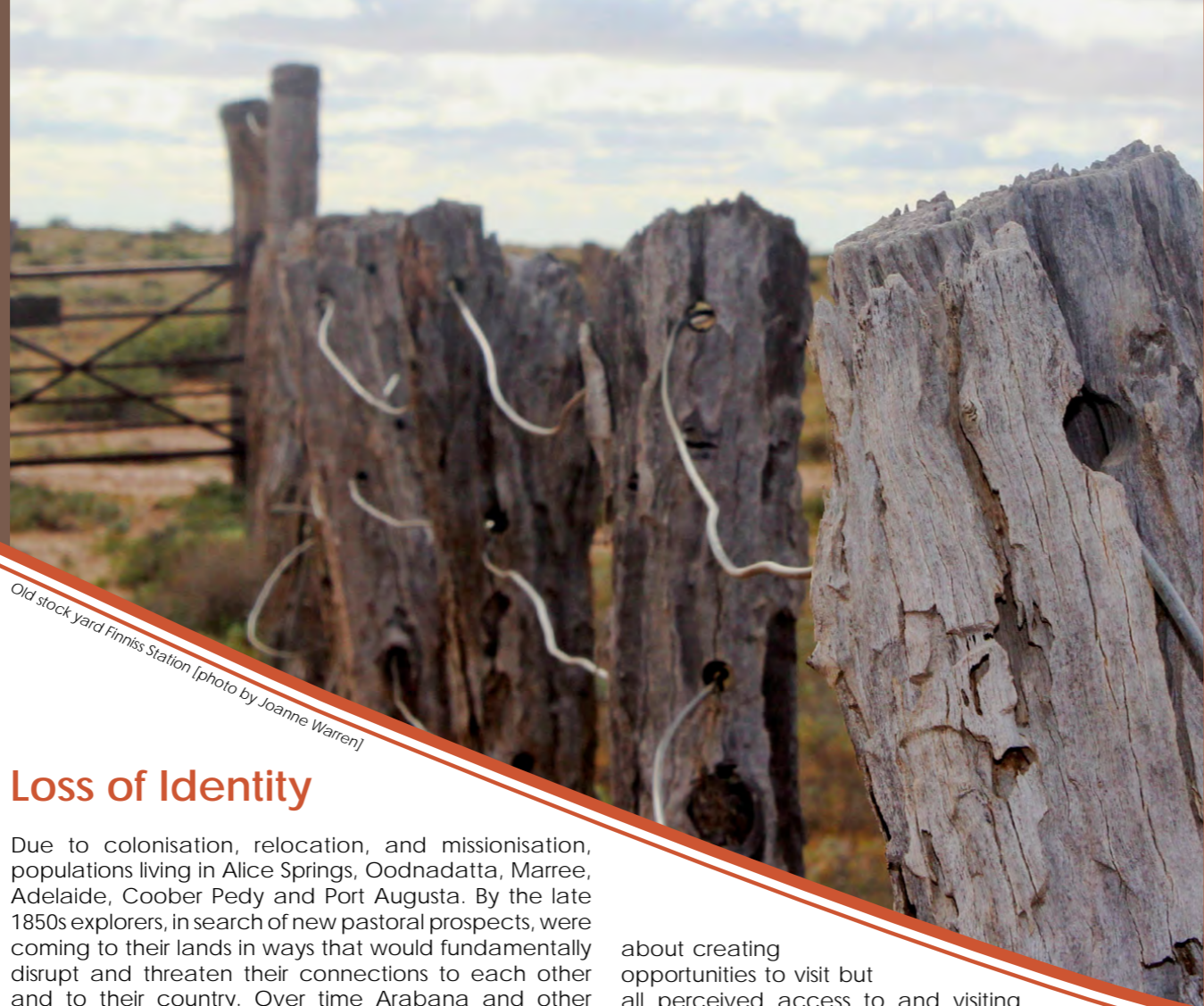
The potential impacts of water extraction for mining can extend well beyond the actual site of the mine. There is potential for impacts on water catchments and underground water supplies which need to be carefully monitored and managed (National principles and guidelines for rangeland management 1999). For example, substantial uranium, copper and gold mine at Olympic Dam extracts water from bore fields on Arabana country (Nursey-Bray et al. 2013). Coal seam gas (CSG) ventures have become a recent and ongoing concern in terms of extraction of groundwater resources.



Feral cats hung from a tree after a night's shoot [photo by Don Powley]

## Feral Carnivores

To Arabana, cats and foxes have done big damage, with native mice and rats, frogs nearly all gone. There "used to have the native cats around, none know, because of the cats and foxes. All the animals are now gone, they have done the damage" (Arabana Working Group). Of at least 27 species of native mammal once inhabited the Roxby Downs region 60% have become locally or completely extinct since European settlement. Medium-sized desert mammals have been most affected with many now globally extinct or have disappeared from mainland Australia and survive only on off-shore islands (Arid Recovery 2014). Although feral cats have not caused all of these extinctions they have contributed to most of the small to medium mammal extinctions and to the reduction in bird numbers, especially ground dwelling birds, as well as a possible reduction in the numbers of small-sized reptiles. In the arid areas of Australia, cats shelter during the day to escape the heat. They mainly use rabbit warrens but are also found under large shady bushes. Shooting and trapping feral cats as well as using 1080 poison baits have been found to be effective on the Arid Recovery reserve when used together (Arid Recovery 2014). Some bird species have also declined and many plant species are now rare in the region. The main reasons for the decline of the local native fauna and flora are overgrazing by rabbits and domestic stock, and predation from introduced animals like the feral cat and fox.



Old stock yard Finnis Station [photo by Joanne Warren]

## Loss of Identity

Due to colonisation, relocation, and missionisation, populations living in Alice Springs, Oodnadatta, Marree, Adelaide, Coober Pedy and Port Augusta. By the late 1850s explorers, in search of new pastoral prospects, were coming to their lands in ways that would fundamentally disrupt and threaten their connections to each other and to their country. Over time Arabana and other Lakes people moved to ration stations on pastoral runs, in towns and to the Lutheran Mission in Dieri country on the east side of Lake Eyre, while many Arabana worked on pastoral stations (Nurse-Bray 2013). While our connection is still strong our close knowledge of country, our ability to maintain our culture and fulfil our cultural responsibilities to look after our country has been disrupted. It has affected our health and well-being, our youth struggle with knowing where they belong. Getting back to country is seen by Arabana people as a crucial step in maintaining identity and culture. Many Arabana talked about living on country, others

about creating opportunities to visit but all perceived access to and visiting and seeing country as crucial (Nurse-Bray 2013).

## Changes in Government Policy

Arabana people have had a long struggle to achieve recognition of our traditional ownership of our country. Now that we have achieved that recognition we want to make the most of the opportunities that are available to us to look after our country and to generate benefits



Arabana Elders displaying the newly signed pastoral lease [photo by Joanne Warren]

to our people from it. To achieve this will mean working with government and other stakeholders to pursue ownership and economic rights from the use and management of the resources that occur on Arabana country. As we develop our capacity and build our understanding of the opportunities that exist, and invest in those opportunities, there is a risk that business and or operations start up and government changes enabling or other policy that



Distribution of Arabana People

removes the opportunity. This risk can occur at both the State or Commonwealth level, and includes Future Acts.

## Distance / Isolation

The issue of isolation for Arabana includes both the remoteness and relative inaccessibility of their traditional land, and the fact that since arrival of Europeans, the Arabana people have become highly dispersed and now live with considerable distances from their homeland. Of overriding importance as a source of wellbeing for the

Arabana is the connection to country, which is reaffirmed by being on country (Ganesharajah 2009, cited in Nurse-Brady et al. 2013). Arabana people have identified that country remained important even though they may not have resided within country for more than ten, twenty or thirty years. The need to know country is tied within these relationship and responsibilities requiring one to visit their country regularly (Nurse-Bray et al. 2013). Connectivity to each other, particularly within family groups, is a particularly strong aspect of Arabana life and people. For Arabana the need to communicate over considerable spatial distances is of paramount importance in maintaining a sense of cultural identity. Despite the hindrance of the dispersed population and separation from country, one important and emerging resource for Arabana is the use of Information and Communication Technology (ICT) and they use of social media as a means of communication in overcoming isolation and fragmentation.



Bulrush around Coward Springs [photo by Paul Tanner]

## Communication Breakdown

This challenge is related to both the Loss of Identity and the Loss of Arabana Traditional knowledge and is both a cause and result of each of these.

Communication breakdown has been one of the results of the arrival of Europeans and the resulting fragmentation and dispersal of the Arabana people. That dispersal has seen the loss of some of the family structures so important to the maintenance of Arabana culture.

## Weeds And Pest Plants

Weeds on Arabana country are chocking and soaking up the springs. For some, they are seen as sapping the remaining life out of Arabana Country.

There are a number of weeds that occur extensively throughout Arabana Country - Bamboo, Bulrush, Phragmites (reed), and date Palms are all found within or around many of the springs.

Management of weeds needs to be planned and implemented carefully to ensure no further impacts happen as a result of removing the weeds. As these weeds are likely to have been present at springs for many decades, it is likely that endemic fauna species within the springs have become accustomed to them and

could even have adapted their feeding and refuge to the specific weeds within the springs. Calculated and considered weed management is necessary to ensure undesirable water uptake by weeds, contamination (indirect and direct) from the presence of weeds, and over-crowding or chocking of springs is managed within an overall and ongoing springs management regime. Key impacts are:

- Bamboo - nothing grows under bamboo and it crowds out native and desirable species
- Introduced bulrushes and common reed – where significantly present in wetlands, loss of water may be sufficient to significantly reduce free water
- Date Palms – removal from the springs can return significant environmental flow and habitat availability to GAB springs Researchers have found that Common Reed has existed at GAB springs for many thousands of years and should be viewed as a native species that can become out of balance due to changes in land management (National Water Commission 2013d)



Cattle deposits round Finnis Springs

## Pastoral Impacts On Kutha

Since grazing began in the 19th Century in the arid rangelands on Arabana country, there have been large changes to the kutha and vegetation. Many parts were badly over-grazed by sheep and cattle, as well as rabbits.

The springs of Arabana country are important cultural



Cattle tracks on and around Coward Springs run off [photo by Paul Tanner]

sites and connected with our creation story sites, initiation and other law. They are also unique for their endemic fauna. Grazing, stamping and drinking at springs over decades have changed and damaged the springs and country. Spring water has become muddy or dried up and the plants are trampled, allowing weeds to take over.

Some plants and animals have adapted to this in parts, and in other ways they have not. The National Water Commission (2013d) found that grazing and spring management are not necessarily mutually exclusive, however grazing must be carefully managed to reduce its impacts— especially in GAB springs where there is a lot of endemic plants and animals. Whilst current pastoral practices are much more



Grazing bull



Horses and camels, and we do have horses, and they eat the vegetation, its low on the vegetation, in the modern context it doesn't affect things as things have changed. (Arabana Working Group)

conservative there are still many areas degraded by pastoralism (Arid Recovery 2014). The way that pastoralism is managed, particularly in terms of rotation associated with seasonal variability, exclusion from springs and other significant sites, the lack of regulation of extraction of water from the GAB for troughs and other water points, and general access and modification of the

landscape have significant impacts on the culture and way of the Arabana people. The effect of removal or reduction in grazing is not always consistent at all springs, for example removing heavy grazing allows highly palatable, robust, often tall (e.g. to 4 m), species like Common Reed and Bulrush to take over the vegetation and crowd out highly palatable and/or smaller plants, thus reducing overall floristic diversity (Commonwealth Government 2014).





Camels are now found on parts of Arabana Country

Horses and camels, and do have horses, and the eat the vegetation, its low on the vegetation, in the modern context it doesn't affect things as things have changed. (Arabana Working Group)



Tracks left on Kati Thanda will now remain until the next large flood

## Feral Herbivores – horses, camels, rabbits

Feral horses and feral donkeys are patchily distributed within the Australian. The most reliable population estimates are from the Northern Territory where recent aerial surveys suggest that there are approximately 265 000 feral horses and 165 000 feral donkeys. Although the environmental impacts of feral horses are not well documented on Arabana country, it is believed that they contribute to erosion, fouling of water holes, damaging vegetation and dispersal of weeds. Trapping, mustering and aerial shooting are the best methods for humanely controlling feral horses and donkeys over large areas (Edwards et al. 2004).

**Rabbits**  
There is little information available on rabbit populations and impacts on Arabana country. However, there is substantial information from the Arid Recovery reserve located to the South of Arabana, which is likely to be applicable to Arabana country. In late 1996, the Rabbit Calicivirus Disease - developed and released by the CSIRO for the purpose of controlling rabbits in Australia - reached the Roxby Downs region. Rabbit numbers, which had been recorded at levels as high as 600 per square kilometre in previous years, plunged to less than ten in a very short time (Arid Recovery 2014). When RCD went through the Roxby Downs region, rabbit numbers dropped from more than 200 per square km

to less than 10. Low rabbit numbers enabled researchers at Arid Recovery to build a 14km<sup>2</sup> feral proof area and eradicate the last of the rabbits. This was the beginning of Arid Recovery. The area became a haven for native animals. Since then the fenced area has grown to 86km<sup>2</sup> and seedlings of many native plants such as mulga and senna are now starting to re-establish (Arid Recovery Fact Sheet No 8 2014)

## Tourism

Tourism can be a double edged sword for Arabana country. The development of sustainable tourism ventures has the potential for being an important source of financial autonomy for the Arabana. However, careful management of tourism operations is necessary to prevent impacts of tourists on the environment, in accessing our special cultural places and site and misinterpreting cultural stories. Arabana need to ensure that the presence of tourists does not interrupt, or in any

You go with tourist; they have a fire, camp fire, paper rubbish all over the place. With tourist, carvings, fossils there was an old hill, was covered with fossils and now it's all gone. Them just being on country, not knowing things, camping on sensitive things, spots. (Arabana Working Group)

way undermine traditional cultural practices of Arabana. For developing industries such as tourism, environmental impacts of new tracks, weeds and waste, as well as over-fishing and firewood collection and infrastructure developments need to be kept at a minimum and carefully managed. However, there is considerable potential for tourism to provide benefits to the environment through ecotourism, which can add to visitors connection to the place and value in protecting and looking after country. (National Principles and Guidelines for Rangeland Management 1999).



Many Tourist enjoy viewing Kati Thanda



Arabana Country from the air

## Fire

A number of Arabana suggested that fire burning, such as is undertaken across the Territory, was a potential adaption tool for managing vegetation and land in Arabana country in response to the challenges of climate change (Nurse-Bray et al. 2013). A study National Water Commission 2013d) determined

the fire history at Warburton Spring from analysis of charcoal in sediment cores, which indicates the occurrence of regular burning throughout the 37 000-year history of this spring. It is difficult to correlate this record with Aboriginal occupation of the area, as archaeological investigations are not conclusive about when occupation commenced. It is unclear therefore whether the regular burning was due to natural or anthropogenic causes. In either case, the new data gained from this study suggest that burning and Common Reed have coexisted for many thousands of years. This new information is



A vulnerable plover nest among the gibber stone (photo by Dean Stuart)

useful when considering the effectiveness of prescribed burning as a strategy for the control of Common Reed at GAB spring sites (National Water Commission 2013d).



Rail Bridge, abandoned in the 1980's, along with it many jobs on country [photo by Paul Tanner]

## WHAT WE WANT TO ACHIEVE (GOALS and OBJECTIVES)

Goals, Objectives and Projects set out the way we will reduce the challenges and improve targets:

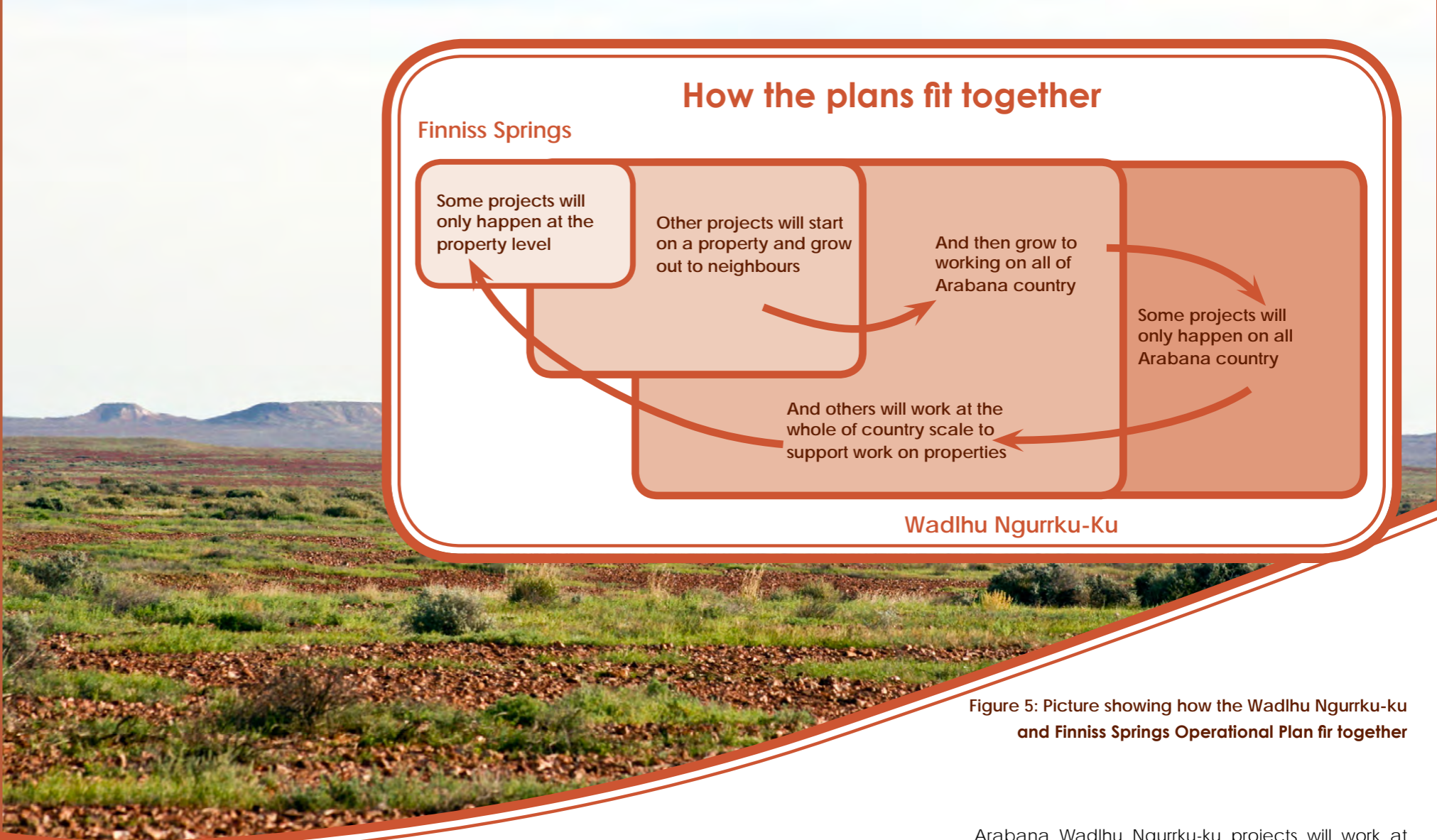
1. A Goal is how we want our Targets to be, and is a statement of what should change in order to see a change in the health of the target (ie a shift from brown to beige and cream in the health table)
2. An Objective is what we want to do about our challenges, as part of reaching our Goal and is a statement of what should change in order to see a change in the challenge ranking (ie a shift from brown to beige and cream in the challenge table)
3. A Project is made up of Strategies and Actions we will do to help us reach our Objectives and Goals.

There are 9 goals for the Arabana Plan. That is, there are 9 areas we would like to improve our Targets, mainly focusing on the Targets with only Fair health, but some with Good are also to be improved. We should measure progress toward the Goal by measuring the health of the Target, and revisiting the health table above. There are then 7 Objectives across all the Challenges, and these mostly focus on the high-ranked challenges. Achieving the Objectives should see the challenges reduce, and we should measure this by revisiting the challenge table, after we measure how many and where the challenges are.

opposite page: looking out over country [photo by Paul Tanner]

GOALS for Targets	TARGETS supported
Capture as much and as soon as possible, our animistic beliefs based on knowledge, culture, story lines and grown by the astronomical, geographical features and the plants and animals they contain	Culture and Language Kati Thanda (Lake Eyre) Ularaka (Knowledge)
Each year take as many young and old people as we can back to country to key sites to build a good knowledge of language.	Culture and Language Health of Arabana people Kati Thanda (Lake Eyre) Ularaka (Knowledge)
By 2019 Arabana have a permanent presence on their country at Finniss Springs	All Targets
Bushtucker always to be there when Arabana expect it to be there	Bush Tucker (plants and animals) Kati Thanda (Lake Eyre)
We want our children, grandchildren and their children to be able to speak and learn the language.	Culture and Language Ularaka (Knowledge)
Generate sustainable income from a range of sources to pay for all the things we want to do including employment of rangers, community health and wellbeing	Sustainable Income and Development
Living Ecosystems are resilient to climate change with healthy vegetation, bush tucker, and the animals that depend on them	Living Ecosystems
Produce employment for 100 FTE Arabana People through enterprises over the next 15 to 20 years	Sustainable Income and Development
Work in partnership with others to the right to management of our water resources affecting Arabana country.	Kutha (Water)

OBJECTIVES for CHALLENGES	CHALLENGES Reduced
In 5 years Arabana are part of the decision making process about water use on and adjacent to their country	Changes in government policy Pastoral Impacts on Kutha Mining – exploration and water extraction
In 5 years Arabana negotiate balanced benefits of mining for people / country while upholding their cultural responsibilities. Minimise the impact by maximising the benefits on country	Mining – exploration and water extraction Loss of funds Changes in government policy
By 2020, Arabana have sufficient and sustainable income from government, for profit and not for profit sources to implement all high priority activities	Loss of funds Changes in government policy
By 2025 Arabana knowledge about their country, language and culture is accessible to all Arabana wherever they live	Loss of Identity Loss of Arabana traditional Knowledge Communication breakdown Distance / isolation
Existing Arabana traditional knowledge is preserved for existing and future generationse	Loss of Identity Loss of Arabana traditional Knowledge Communication breakdown
Reduce challenge of over grazing on Arabana Country	Pastoral impacts on Kutha
	Feral carnivores
Springs and ‘Bubbler’ on and around Finnis are restored as soon as possible	Weeds and pest plants Pastoral impacts on Kutha



Finnis [photo by Paul Tanner]

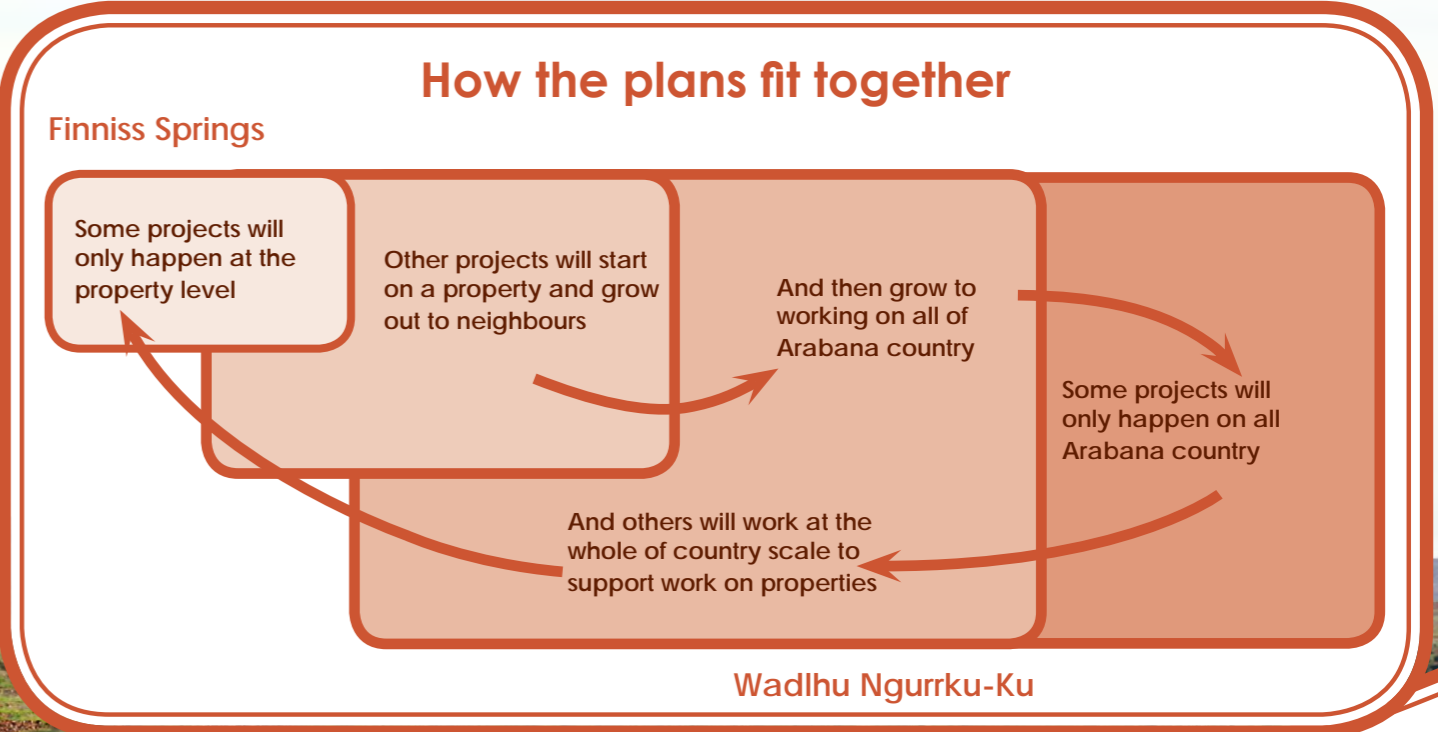


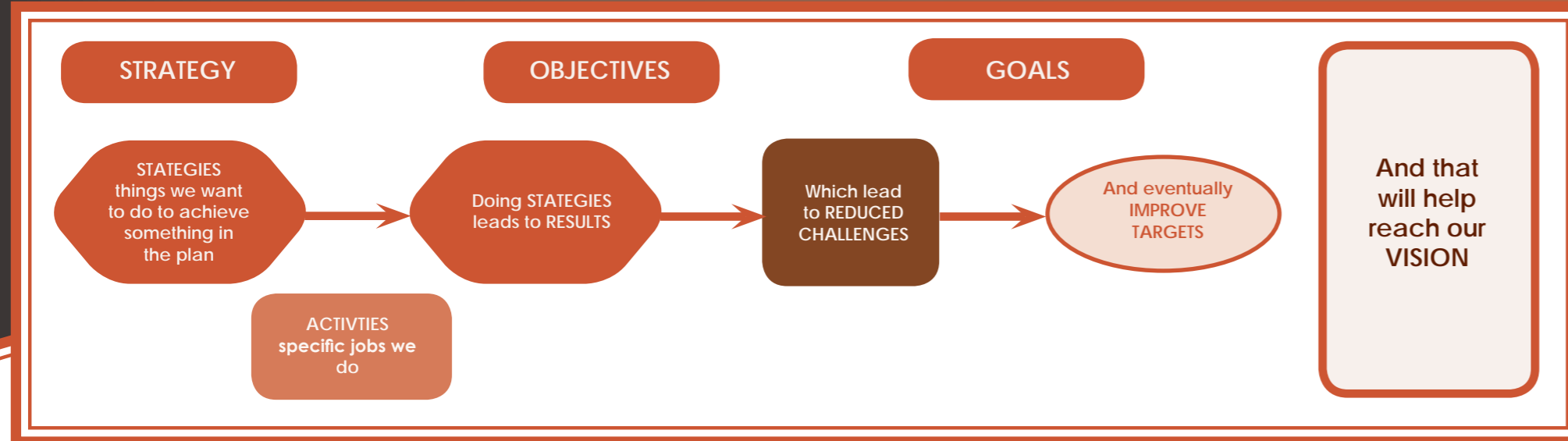
Figure 5: Picture showing how the Wadlhu Ngurrku-ku and Finnis Springs Operational Plan fir together

## JOBS TO DO (PROJECTS and STRATEGIES)

The Arabana Wadhlu Ngurrku-ku will be implemented through nine Projects that strengthen our targets and weaken the challenges, moving us toward our vision.

Arabana Wadlhu Ngurrku-ku projects will work at two levels:

1. through the implementation of ‘on ground’ projects that will, with few exceptions, begin on Finnis Springs Station, and over time grow to include places throughout Arabana country.
2. through ‘whole of country’ projects, which will focus mostly on partnerships, relationships, and helping to create the ‘enabling conditions’ that will support Arabana



The Finnis Springs Operational Plan will focus on the first of these, and is presented in that plan.

The Arabana Wadlhu Ngurrku-ku will focus on the second of these, supporting the development of Arabana capacity over the next 5 years. These activities are represented in this plan.

There are many things we would like to do to help our country and to keep it healthy. But because of limitations in the number of people to do the work and constraints in funding we have to prioritise our work.

There are 22 Strategies to help achieve the Goals and Objectives. These are the jobs we all have to do. Strategies are ranked according to their Potential Impact and Feasibility to give a Priority.

The Strategies, Objectives and Goals have been arranged into operational Projects which help the things we value most (the targets) and address the most serious issues (the challenges). We also want to carry out projects which have the most chance of making a real difference to the health of our country.

Each project focuses on supporting a number of targets and their goals, an objective, and on a strategy to achieve that objective. In the projects that follow, we also list the main targets that each project focuses on and the main issues that each project is trying to reduce.

Figure 6: Project diagram - what they mean

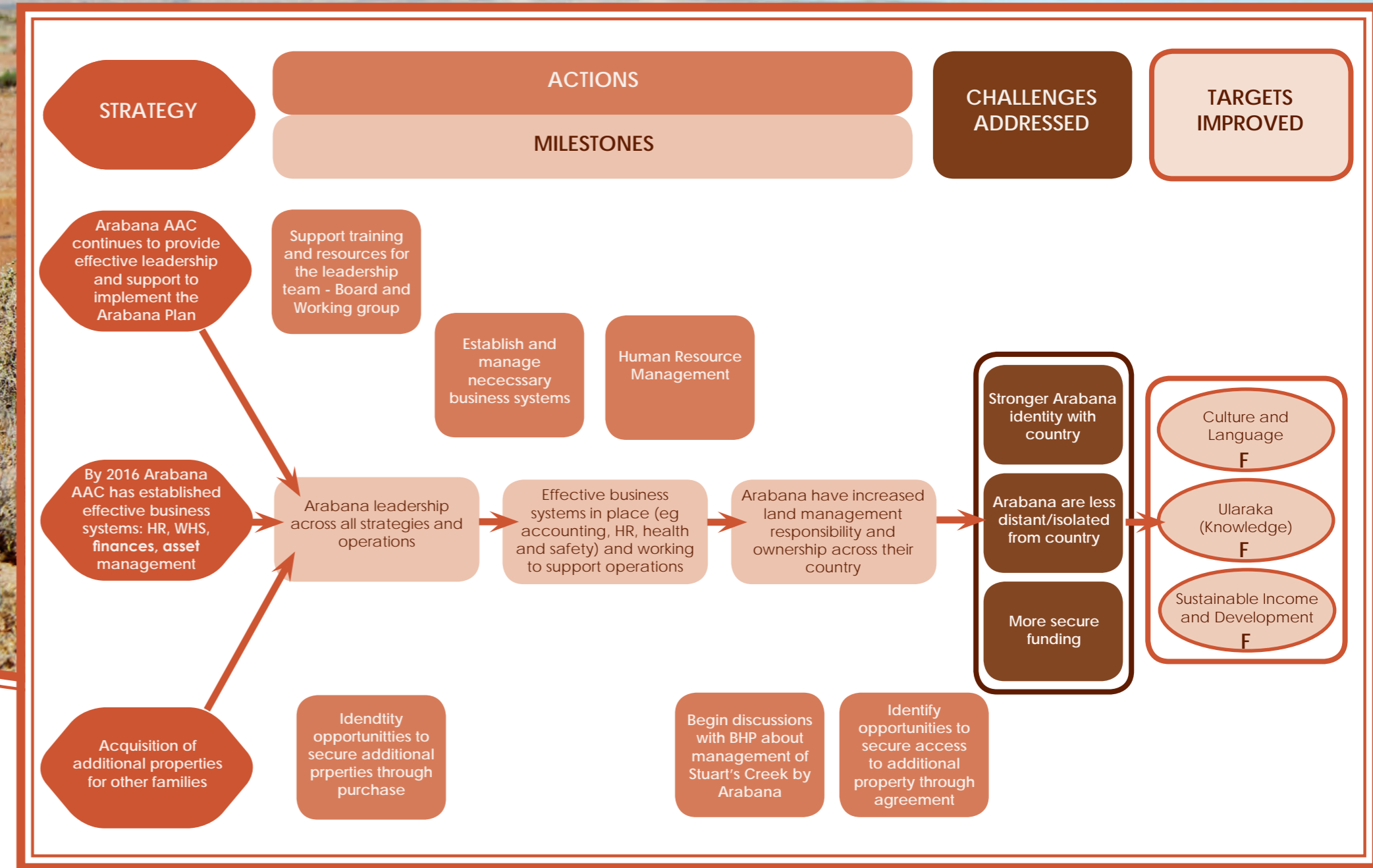
There are 9 Projects:

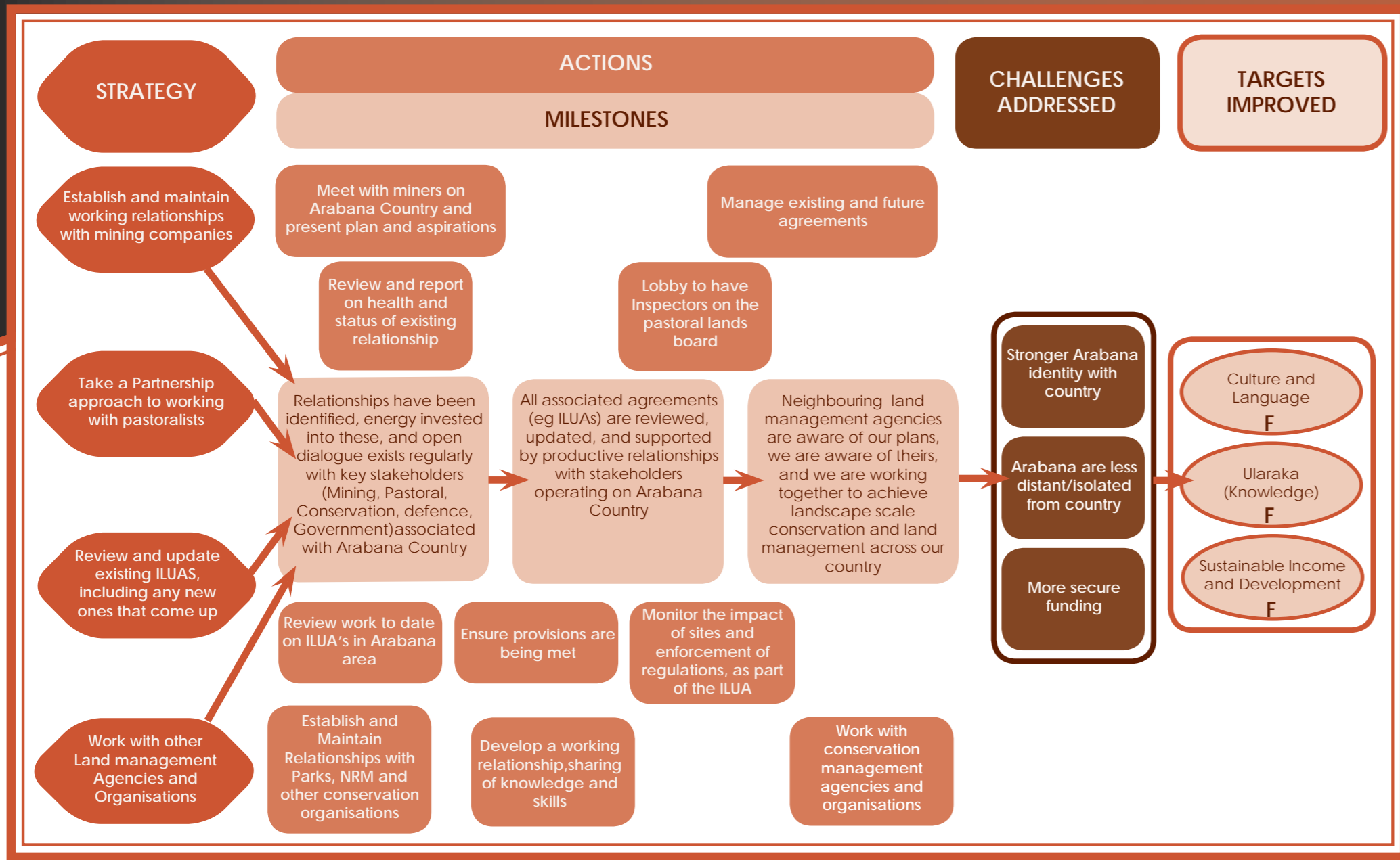
- Ownership, Leadership and Governance
- Working with Others
- Adapting to Climate Change
- Operations and Ranger Program
- Re-establish Finnis Springs
- Building reconnection and culture
- Kutha (Water) Management
- Healthy Country - Including Arabana Nature Sanctuary
- Creating a Local Arabana Economy

Each project is described below along with a diagram to show how we think it will help us achieve our Goals and Objectives

## Ownership, Leadership and Governance

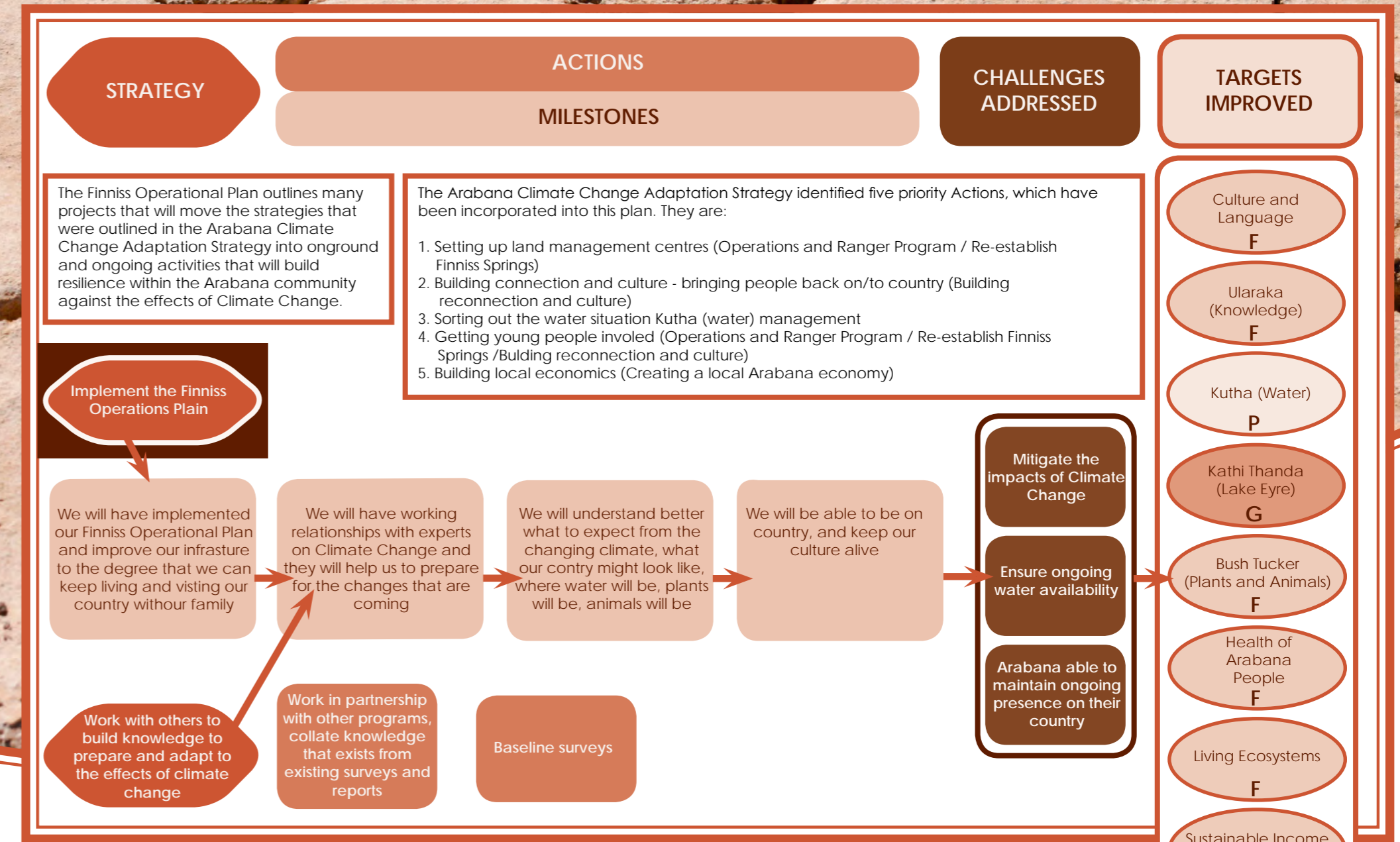
This Project focuses on building the capacity of Arabana operations and business systems to successfully implement and grow our business, and the business of managing our country. Investment in this area will allow long - term growth and development, and support Arabana as good partners for funders and investors.





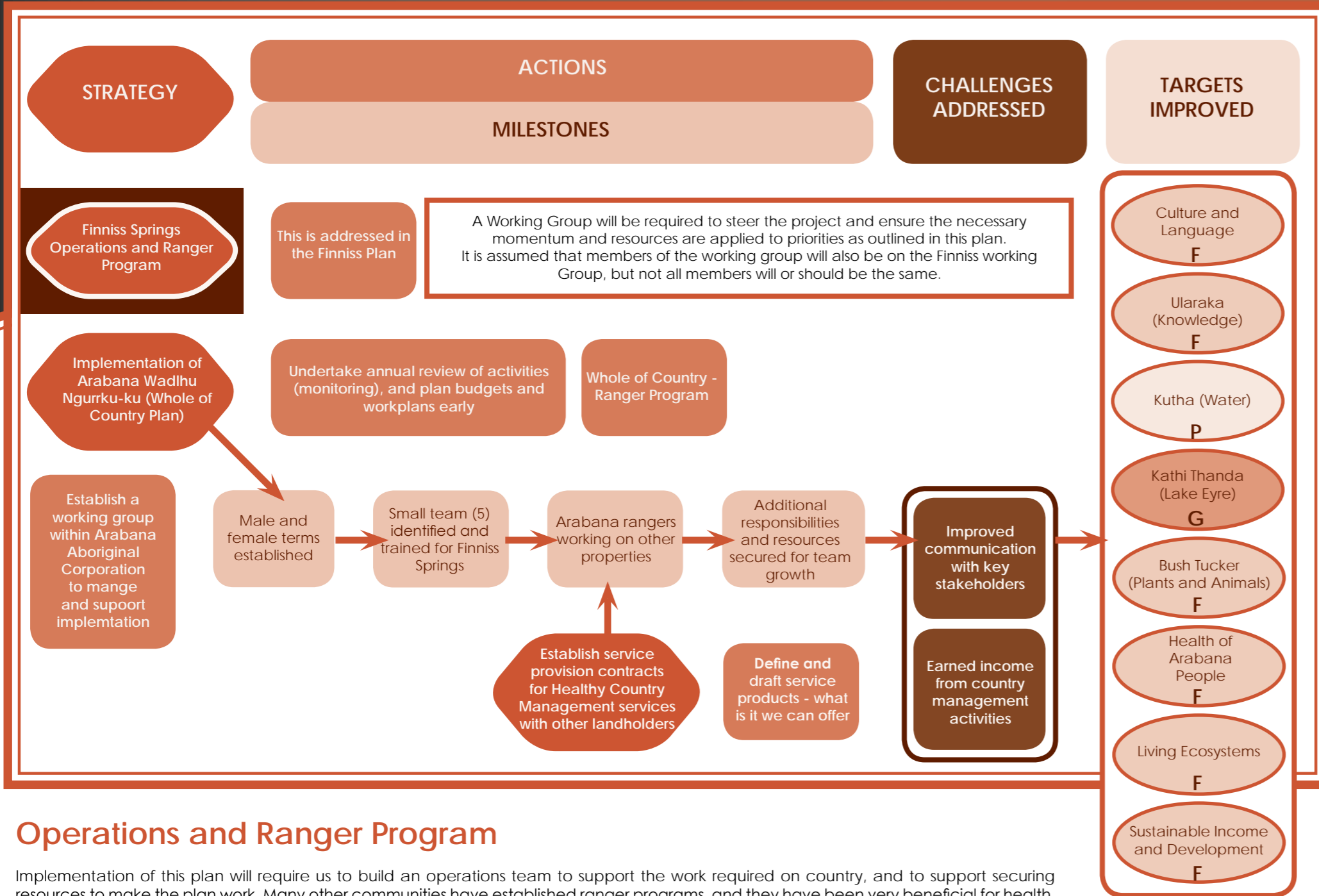
### Working with Others

Much of Arabana country is currently managed by others, and their activities directly and indirectly impact our capacity to strengthen our targets and manage our challenges. Establishing good working relationships with those land managers is one path to increasing our influence, and securing the resources and support needed to achieve our vision.



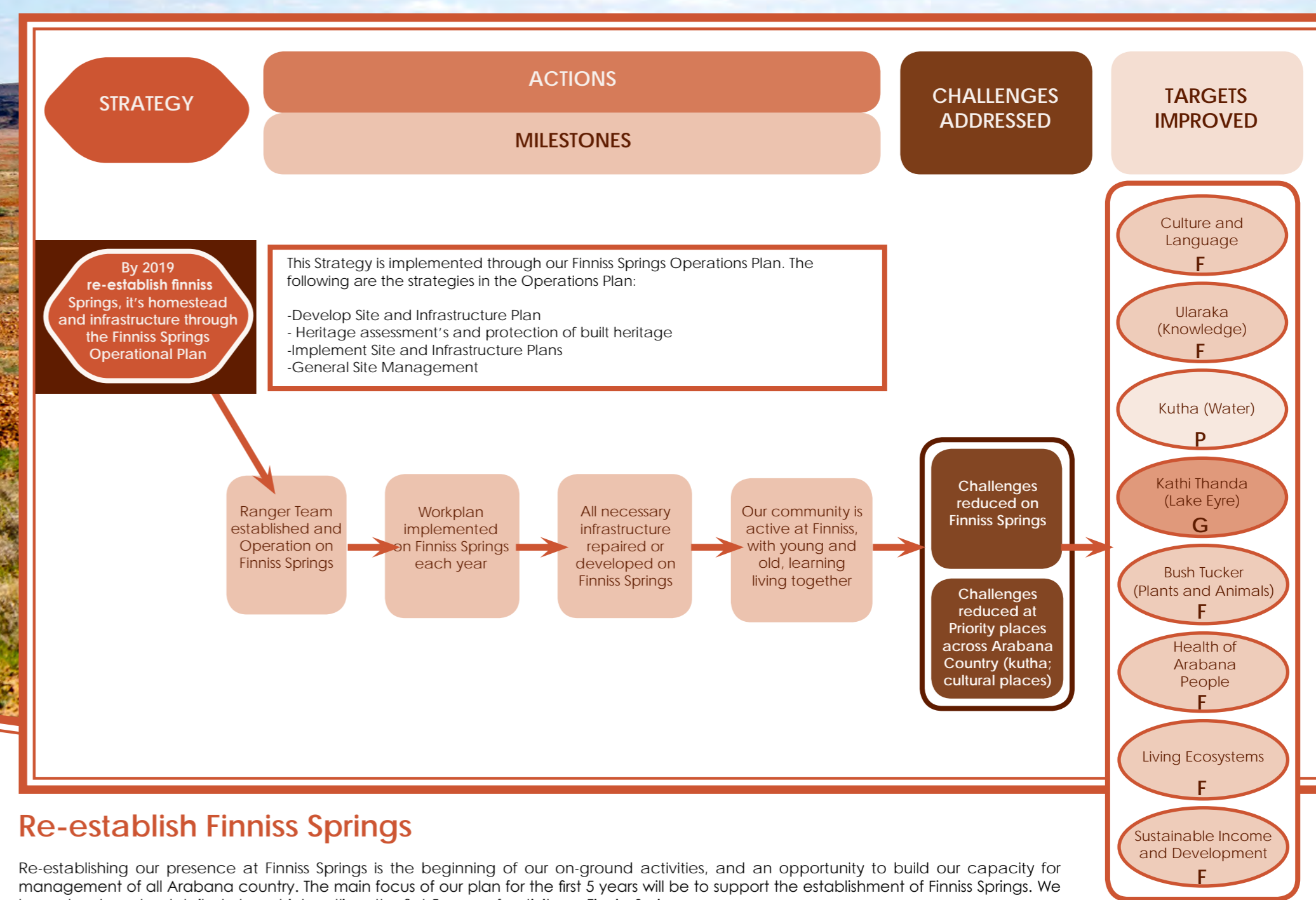
### Adapting to Climate Change

Through our work with the University of Adelaide, Arabana are leading thinking of community responses to climate change. The priorities identified in our Climate Change Adaptation Strategy have informed and been incorporated into this plan. Implementation of this plan will build our resilience to the impacts of climate change.



## Operations and Ranger Program

Implementation of this plan will require us to build an operations team to support the work required on country, and to support securing resources to make the plan work. Many other communities have established ranger programs, and they have been very beneficial for health, employment, and strengthening culture, as well as direct healthy country works. We will follow this model.



## Re-establish Finniss Springs

Re-establishing our presence at Finniss Springs is the beginning of our on-ground activities, and an opportunity to build our capacity for management of all Arabana country. The main focus of our plan for the first 5 years will be to support the establishment of Finniss Springs. We have developed a detailed plan which outlines the first 5 years of activity on Finniss Springs.

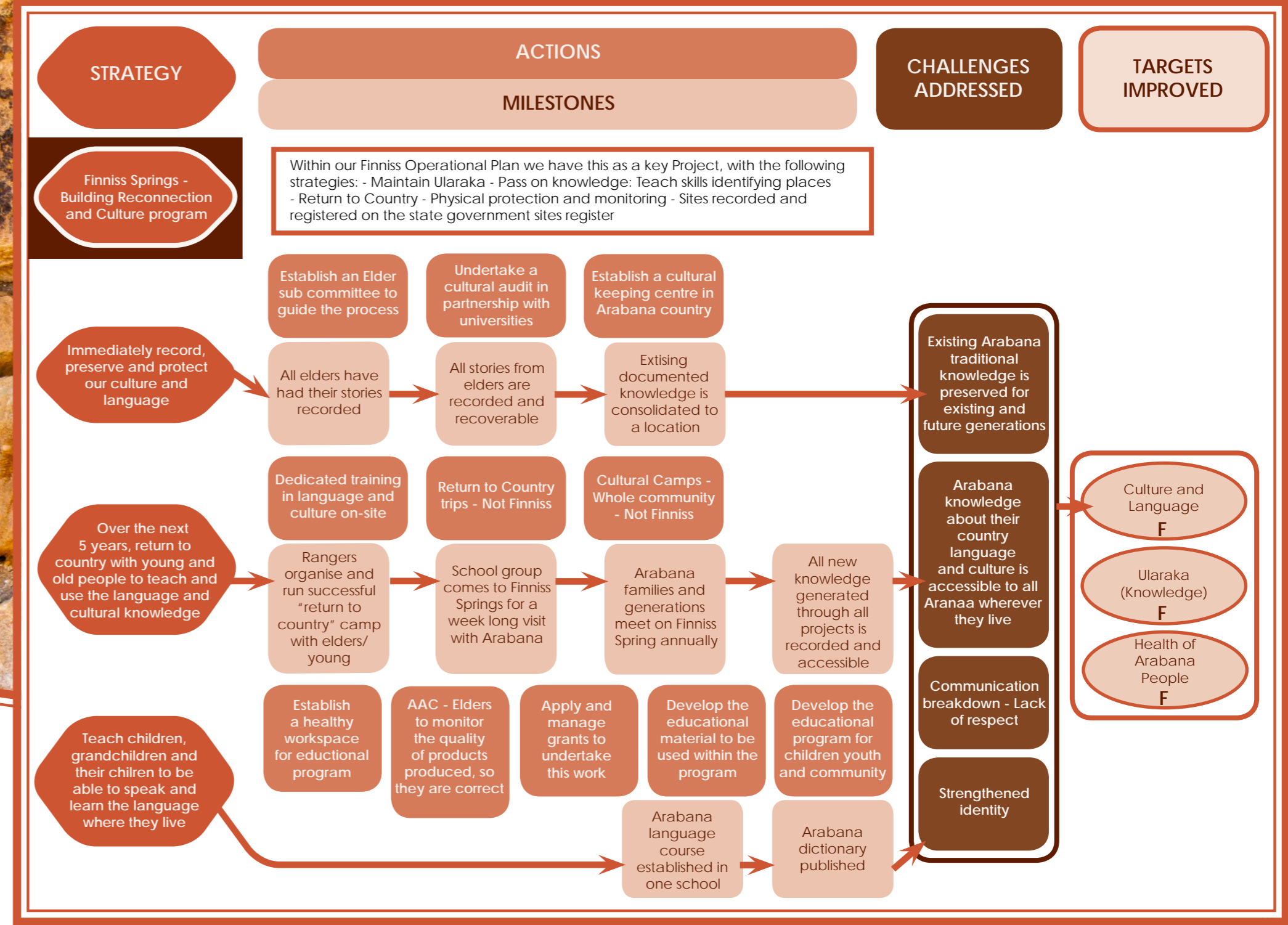


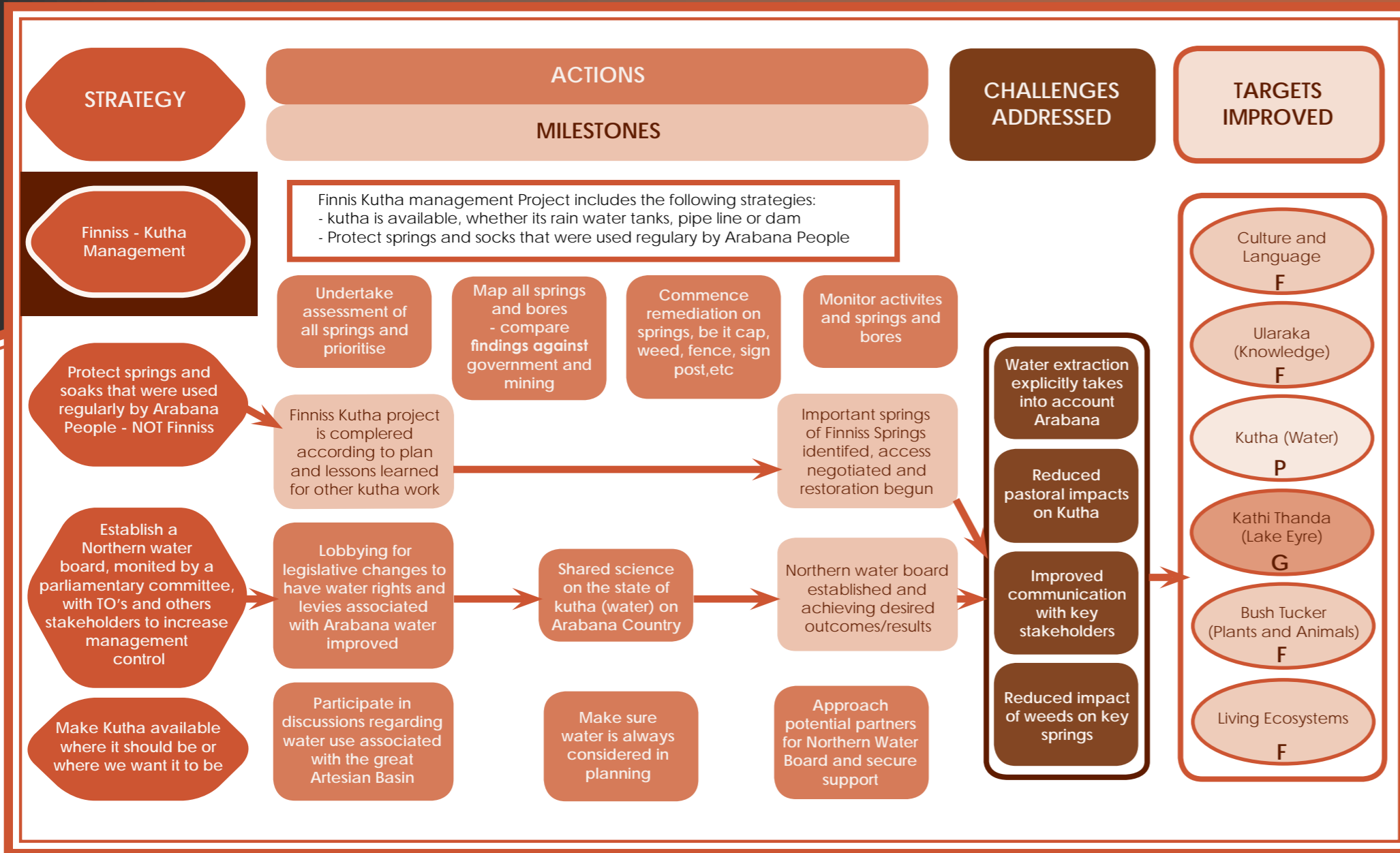
Visiting country

## Building Reconnection and Culture

The most critical activities, beyond building our capacity for management, are those that will reconnect our people to their country. We must protect that knowledge that remains in our elders first, and then bring people back to country to begin their reconnection. It is important that we use the knowledge we have from the elders, and share that knowledge appropriately to keep it alive.

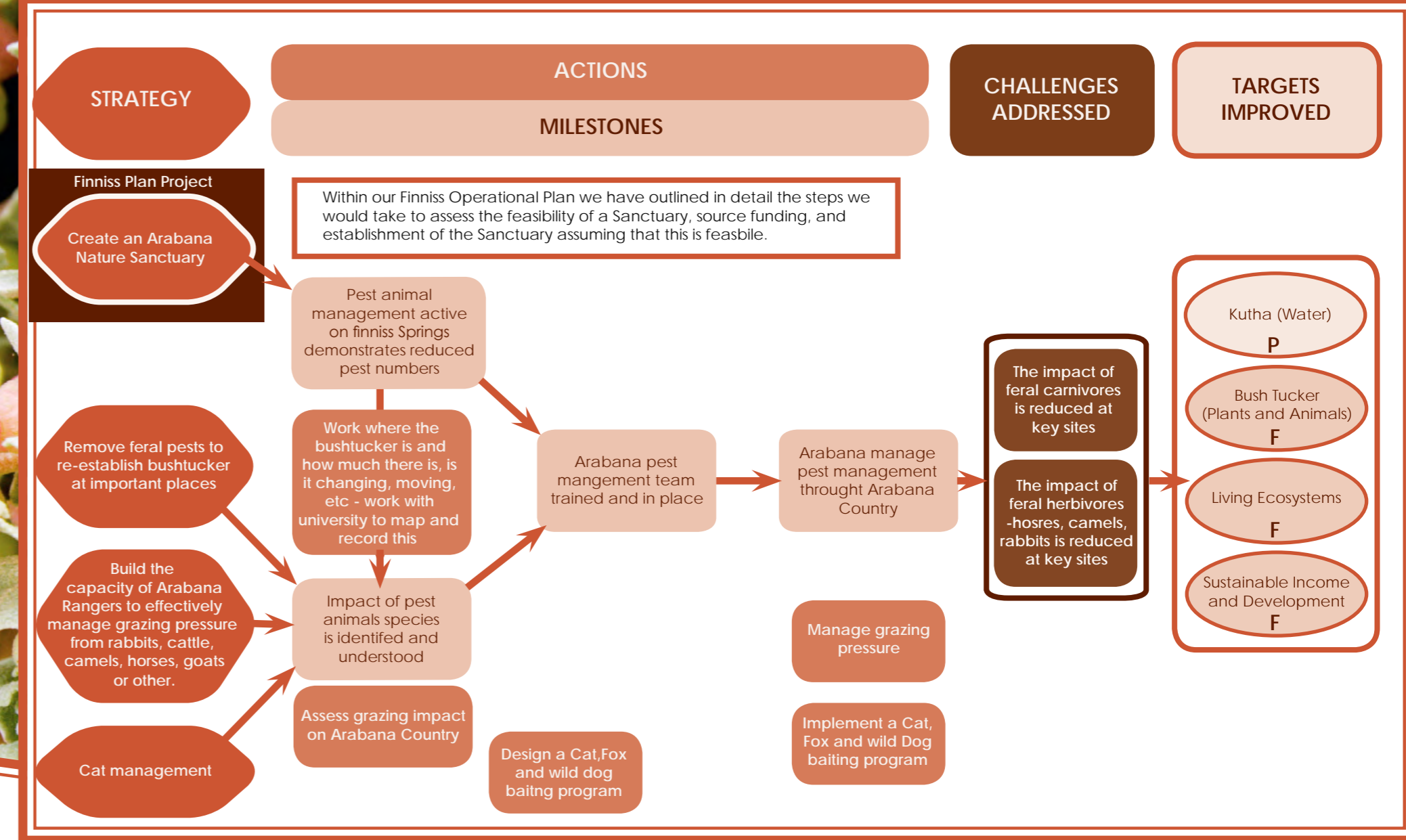
Visiting country [photo by Paul Tanner]





## Kutha (Water) Management

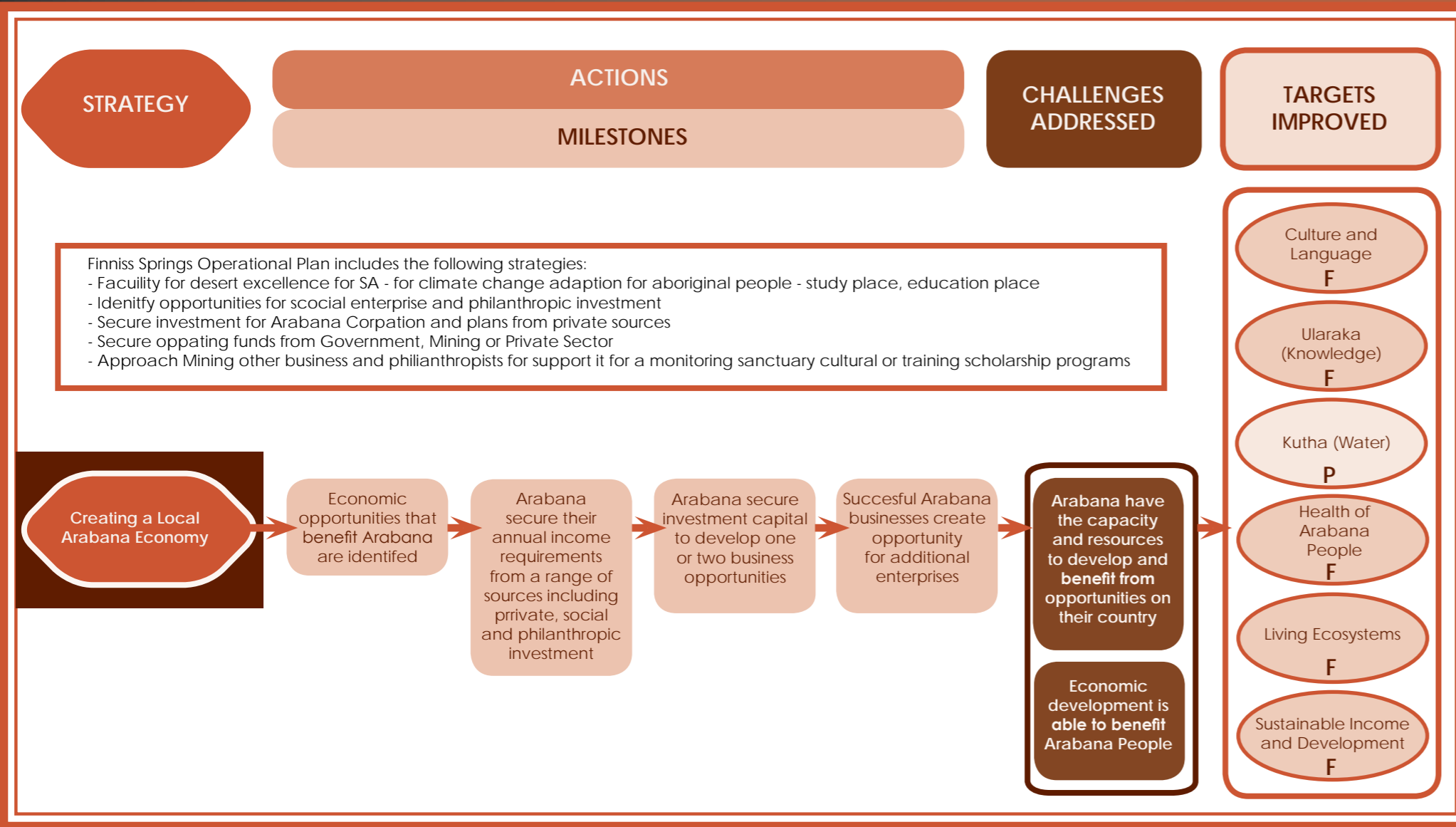
We will focus our on-ground management of Kutha on Finniss Springs for the first few years. As we build our capacity we will seek to expand beyond Finniss and engage with other landholders. To support that engagement, while the on-ground work occurs, we will work with stakeholders to establish the basis for our broader participation in kutha management.



## Healthy Country - Including Arabana Nature Sanctuary

In addition to kutha, strengthening our country through the removal of pests is the most important healthy country activity we can do. We will trial intensive local management on Finniss Springs, and then expand that work if it is successful. We will work with our neighbours at Wichelina and Arid Recovery to learn what we can about managing pests effectively.





## Creating a Local Arabana Economy

It is essential that we are able to build some independence through creation of economic opportunities on Arabana Country. As with our other strategies we will start this at Finiss Springs, and grow from there. As new opportunities emerge we will explore them also.



Figure 7: Annual work planning and review cycle

## IMPLEMENTATION (ACTIONS)

This Plan will be implemented by Arabana using a detailed Operational Plan specifying what we will do, when we will do it, and how we will accomplish it. Finalisation of the Operational Plan will be commenced upon confirmation of the strategies contained within this plan.

## Governance

The Wadlhu Ngurrku-Ku covers a period of 5 years, and overall responsibility for its implementation rests with the AAC Directors supported by a growing Operational team of employed staff (Coordinator and Rangers), as well as the

broader Arabana community. To make the Plan work will need coordination of annual work programs and reporting on what has been done and what has been achieved. A Plan Coordinator (to be appointed), in conjunction with the AAC Directors will complete an annual Project Work Plan that implements the Projects set out in the Wadlhu Ngurrku-Ku Plan. Once established a Ranger Team will produce Monthly Work Plans that reflect, on a month by month basis, the aims and objectives of the years' Annual Work Plan. To make sure that the actions and achievements of the Wadlhu Ngurrku-Ku Plan are properly documented and to help the Operations team monitor progress, they will also complete Monthly, Annual, and mid-term reports.

Arabana Country after good rains (photo by Paul Tanner)

## KNOWING WHAT IS WORKING (MONITORING and EVALUATION)

The key to long-term success in implementing a plan is knowing if the plan is achieving what the community wants, and if not how things might need to change. To do this, we need to make sure that the Plan is implemented and that we measure the results of what we do. When we talk about Reporting, we are looking at reporting on 3 things (See Figure 8):

- **Implementation** – are we using the plan?
- **Effectiveness** – Are the strategies working?
- **Status** – Are our targets improving?

### MONITORING Implementation

Implementation monitoring simply answers the question “Are we using the plan?” It is a regular review of the proposed Actions set out in the workplan to see if they are being implemented and to check their progress. For Arabana it is recommended that the Operations team meet **quarterly** and work through the proposed Work Plan, assigning to each proposed activity one of the following categories and recording any relevant factors that explain the rating:

<b>Scheduled for Future Implementation:</b> Activity is not yet started
<b>Major Issues:</b> Ongoing but has major issues that need attention
<b>Minor Issues:</b> Ongoing but has minor issues that need attention
<b>On Track:</b> Ongoing generally on track
<b>Completed:</b> Successfully accomplished
<b>Abandoned:</b> No longer relevant or useful

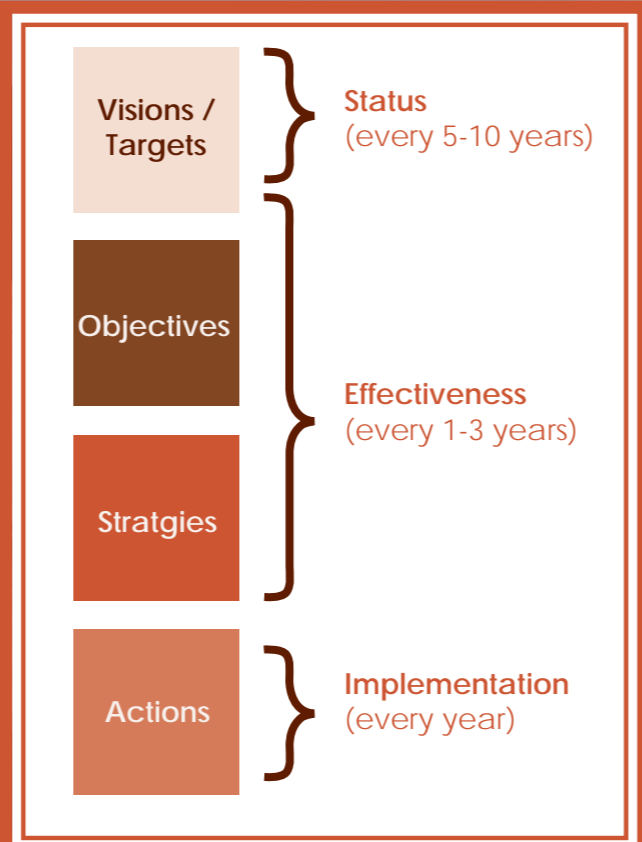
Implementation monitoring should be lead by the Plan coordinator, ideally with the Operations team. The results should be collated and provided as a progress report to the AAC Directors.

### MONITORING Effectiveness

Effectiveness monitoring focuses on the Goals and Objectives, and whether we are seeing progress in our results that indicates we are being successful. Effectiveness monitoring builds on implementation

Figure 8: Link between monitoring and the plan

monitoring, but in addition to simply recording activity, it also includes some discussion of progress. Goals and Objectives should be reviewed annually, and results of Strategies looked at to report on progress toward Goals / Objectives. On Arabana Country this will primarily involve the Plan Coordinator liaising with management agencies and seeking data from them that can be used to show progress toward Objectives. The results should be collated and provided as a progress report to the ACC Directors and community in the ACC Annual Report.



### MONITORING Status

Status monitoring focuses on the Targets and, as the name suggests, their ongoing status or health. It tells us whether, despite all our activities and successes in our strategies, we are actually detecting an improvement in the targets we are working to make healthy. Status monitoring is typically the most difficult of the three levels of monitoring, and requires the greatest investment in

time and resources, both for data capture as well as for analysis. Status monitoring will often require specialist skills, particularly for analysis. Baseline conditions will need to be established to confirm the health of Targets (a “baseline” is the condition of something as it is now; to see if what you’re doing is helping, you compare the condition of something after you have worked to improve it with the way it was to start with, i.e at the baseline). Specific monitoring approaches will need to be determined based on each Target, and which agencies are able to provide the

data to Arabana. Status monitoring will be carried out by ranger teams supported by other organisations / agencies. The results should be collated and provided as a progress report to all stakeholders.

### MONITORING Indicators and Methods

Monitoring and reporting will happen throughout the Project. Implementation monitoring should be a routine part of quarterly work planning and should be the initial focus in order to build the culture of monitoring. Effectiveness monitoring, checking to see if our Strategies are achieving the Objectives, will take more resources and time. Table 3 proposes the indicators and methods that might be used to monitor the effectiveness of the work. Many of the techniques will also provide important information for monitoring changes in the health of the Targets.

Item	Methods	Who	When
Adapting to Climate Change			
Implementation of key strategies to mitigate climate change impacts	Progress report on strategy implementation	Operations team	Annual
Building connection and culture			
Elders to younger groups on country together and sharing knowledge	Track participation in return to country trips (trip / patrol report)	Operations team	When trips occur
Knowledge Language of passed and used in looking after country	Ask key people about the use of language in activities through annual survey	Operations team	Annual
More people understanding and using Arabana language			
People are pronouncing the language properly	Use of language at Arabana events		
Kids talking language and knowing culture	Count language classes in schools and people talking / understanding	Dean	Annual
Published language books	Yes / no - How many?	Dean	Annual
Stories / sites recorded or documented	Database records (trip / patrol report)	Taryn / Aaron / Melissa	Annual
Young people on country as rangers and teachers	Numbers of young people employed	Operations team	Annual
Building Local Economies - Income and Sustainable			
Development			
Effective infrastructure on Finniss Springs.	Progress of infrastructure development plan	Operations Team	Annual
<b>Strengthen and building capacity and skills (Universal qualifications, education, diplomas and degrees related to country)</b>	Number of Arabana people employed in different roles on / off Arabana country	Operations Team	Annual
Strong leadership with leaders taking action	Number of projects in the plan implemented – ask directors / members	Directors	Annual

Table 3: Effectiveness Indicators

Item	Methods	Who	When
Finniss Springs			
Effective infrastructure on Finniss Springs	Progress of infrastructure development plan	Operations Team	Annual
Healthy Country Management			
Lots of bush tucker , Recording information, Wild peach exists Wild onion exists	Seasonal abundance at key sites (kutha)	Operations team and knowledgeable elders	Ad hoc
Lots of it – Fauna & Flora growing in certain areas	<b>Ease of finding at key sites (trip / patrol report)</b>		
Lots of birds & animals especially Finch (red breast)	Locations recorded (trip / patrol report)		
Re-growth of natives vegetation, balanced eco-systems	Explore remote sensing options	TND	TBD
Scenery healthy, animals healthy			
Sorting out Kutha			
Knowledge of where it is	Trip / patrol report from 'run'	Operations team	Seasonal
Re-growth of natives vegetation, balanced eco-systems	around key springs /		
Re-growth of natives vegetation, balanced eco-systems	waterholes		
<b>Significant water (areas)</b>	Photo points		
Working with Other People on Arabana Country			
Arabana recognised as caretaker and knowledge keepers of our own country	Number of agreements Number of people coming to AAC	Directors	Annual
If there is good communication	Number of regular meetings with ley stakeholders each year	Directors	Annual
Strong leadership with leaders taking action	Director self assessment Member survey	Directors	Annual

## LEARNING AS WE GO (REPORTING and IMPROVEMENT)

Adapting the plan is an ongoing process of regular review, and is not left to the end of the proposed plan time. Creating a 'culture' of review is important to ensure that work being done in the plan is as effective as possible, and requires the following key elements:

1. Regular (quarterly) review of implementation by the Operational team
2. Regular (annual) review of effectiveness by Directors and the Operational team
3. Effective learning also depends on being able to review previous work, outcomes and results. It is essential that a simple approach to information be established to keep track of all records relating to implementing the plan. A simple 'folder' approach is cheap and easy to implement, storing any materials (reports, photographs, Cyber tracker logs etc) in folders under project or target names.

Supported by simple record keeping the small regular reviews will feed up into larger mid-term and full plan reviews as shown in Figure 9.

It may be helpful to establish an Advisory Committee of experts in various aspects of implementing and monitoring management plans, to help the Directors and the Operations team put the plan in place. An Advisory Committee can have a number of benefits:

- Access to additional skills
- Builds plan credibility to a wider audience
- Keeps the plan and process moving

An Advisory Committee may need to meet no more than twice per year, and possibly eventually only once per year.



Figure 9: Link between different levels of reporting

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Pirdall-nha (The Bubbler) [photo by Paul Tanner]

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## APPENDIX 1: NESTED TARGETS from WORKSHOPS

'Nested' targets are those things that are important for country that are considered to be looked after by managing the overall Target. These lists were used to develop the targets and are from the large community workshop in late 2013.

### Culture and Language

Knowledge of country right way, kinship, stories, language, sites, Nharla- family history/ trees, bushfoods, hunting skills, seasons, respect for Elders, cultural camps, mentoring by Elders for passing on knowledge to each generation etc, Teaching back in country, more of our children practicing and speaking Arabana, documenting Arabana histories/ stories, language names and Arabana language books etc

### Ularaka (Knowledge)

Emerged from subsequent discussions with the working group

### Kutha (Water)

Cowards Springs, Mudlu Mudlu, Kati, Strangways Spring etc

### Kati Thanda (Lake Eyre)

Emerged from subsequent discussions with the working group

### Bush Tucker (plants and animals)

Warrukathi – Emu, Cadney – frilled neck lizard, Thungka – Bush Tomato, Kungarra – Kangaroo, Kapiirri – Goanna, Kalta – Sleepy Lizard, Yalka – Wild Onion etc)

### Health of Arabana People

(Healthy Arabana people, spiritual healing, medical access on country, good communication, respect, love for each other, Arabana recognition etc)

### Living Ecosystems

Trees, plants, flora, animals, wildlife protection

### Sustainable Income and Development

On the land and in administration, Arabana park rangers, stockmen (horse riding), co-ordinator – Arabana manager (workers), restoring old sites, maintenance of infrastructure i.e plumbing, certified training OHS, First Aid etc, Housing, accommodation, camping sites, rain water tanks, transport, solar power, fencing, roads, toilets, memorial recognition, Tourism & own tour guides, solar farm business, more access to funding



Little Corella  
[photo by Paul Tanner]



A brolga pair



Wedge-tailed Eagle chick  
[photo by Aaron Stuart]

## APPENDIX 2: INDICATORS from WORKSHOPS

### Culture and Language

- Arabana connecting and travelling to country
- Arabana recognised as caretaker of our own country
- Elders to younger groups sharing knowledge
- Knowledge of country is increasing
- Stories / sites recorded or documented
- Strong leadership with leaders taking action
- Right people to teach the cultural information
- More people speaking Arabana – Larger Arabana vocabulary / plus cultural identity – Language training delivered
- Knowledge – understanding, use, ongoing, Young people speaking & learning language. Published language books

### Ularaka (Knowledge)

Emerged from subsequent discussions with the working group

### Kutha (Water)

- Scenery healthy, Animals healthy
- Live off land Taste good, the Smell
- It's there
- Significant water (areas)
- Lots of it – Fauna & Flora growing in certain areas

### Kati Thanda (Lake Eyre)

Emerged from subsequent discussions with the working group

### Bush Tucker (plants and animals)

- Lots of bush tucker ,
- Recording information,
- Knowledge Language of passed and used

### Health of Arabana People

- Medical access on the land / first aid
- Developing our own culturally appropriate services
- Culture, emotional wellbeing / social emotion

### Living Ecosystems

- Many flowers at right time – eg Sturt Pea, Lots of birds & animals especially Finch (red breast).
- Re-growth of natives vegetation, balanced eco-systemson

### Sustainable Income and Development

- Arabana back on land
- Number of jobs, businesses and rangers
- Land surveying
- Identifying strength building certain skills / experience, quality knowledge (put to good use) eg utilising Arabana tradesmen
- Welding, Bricklaying etc.
- Universal quality education, qualifications, diplomas and degrees Community development eg housing , water, roads, electricity
- Services are mapped to identified campsites
- Camp grounds with facilities
- Amount from National Parks etc negotiated split
- Own Coward Springs Tourism operator, Healing Centre
- Wealth, Number of tourism operators paying for business

## APPENDIX 3: CHALLENGES from WORKSHOPS

- Climate change
- Mining
- Pastoralists – overgrazing
- Lack of funding
- Complacency and lack of commitment
- Loss of identity
- Lack of on the job training on Arabana country
- Lack of education
- Water availability
- Distance/isolation
- Weeds – outgrowing springs
- Lack of communication with key stakeholders
- Time and small number of people left to do the work
- Small number of Elders – cultural experts
- Communication breakdown - Lack of respect
- Tourists
- Horses, camels
- Fire – too hot / wrong place
- Weeds – outgrowing springs

Storm over Marree [photo by Patricia Dodd]

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