# **Northern Territory** NATURAL RESOURCE MANACEMENT PLAN 016-2020 TABLELANDS REGION



66 Territorians working together to manage our environment's natural, cultural and economic values for the benefit of all.99

#### FOR MORE INFORMATION

VISION

This publication is available on request through contacting info@territorynrm.org.au

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#### Welcome to the Natural Resource Plan 2016-2020

This plan is a comprehensive strategy for all Territorians. It is a plan for maintaining the health of our land, water, biodiversity and coastal resources for the next five years and because that health is a responsibility we all share, the TNRM team has consulted widely across the Territory in putting it together.

The plan builds upon our previous NRM plans through establishing a strong adaptive approach to natural resource management. This approach is one where we all learn by doing; it utilises science and traditional knowledge; it draws on the experiences of the many people and organisations that will be involved in delivering its strategies.

TNRM will again be active participants over the years of the plan. We will be encouraging collaboration and partnerships and shared and complimentary approaches from all involved in natural resource management - from governments to scientists, from business to community organisations and everybody in between. We'll also have an ongoing role in reviewing the progress of the plan.

Finally, with the renewed focus of the Australian Government on developing northern Australia, this NRM plan clearly demonstrates the links between a healthy and sustainable environment and the Territory's economic and social future.

As Chair, I look forward to being part of the effort in bringing to reality the many objectives outlined throughout the plan.

#### **Clare Martin**

Chair, Territory Natural Resource Management



## ABOUT THIS PLAN TABLELANDS NRM PLAN



The development of the Tablelands Regional Action Plan was facilitated by Territory Natural Resource Management (TNRM) in collaboration with key stakeholders, including landholders, Traditional Owners, pastoralists, government, industry groups, Aboriginal organisations and community groups. The plan provides an integrated and collaborative approach to ensure sustainable management of our water, land, soils and biodiversity in the Tablelands region built on strong partnerships between all stakeholders.

The purpose of the plan is to encourage investment from a diverse range of sources, build community capacity to engage in NRM through knowledge sharing, skills and partnerships and to identify strategies and priority actions that will help us better look after the Tablelands. By involving multiple sectors, the plan aims to promote a shared vision for the management of the unique cultural and natural resources in the Tablelands.

The plan draws on the Northern Territory Natural Resource Management Plan (NRM Plan) and Tablelands Regional Action Plan 2010-2015. It is one of four Regional Action Plans for the NT. As part of the planning process, we have undertaken a review of the previous plan to reflect on the progress we have achieved and to improve the way we undertake and prioritise natural and cultural resource management activities in the Tablelands. This plan aims to support and build upon the good work that our stakeholders have conducted over many years.

#### **Our Vision**

The vision of the plan is for

66 Territorians working together to manage our environment's natural, cultural and economic values for the benefit of all. 99

#### **Our Assets**

Assets have been classified and identified by the stakeholders in the Tablelands region as the attributes that they want to protect and maintain. These include physical attributes such as intact grasslands, water holes and healthy populations of birds, reptiles and mammals and Aboriginal cultural sites and landscapes. They also include social assets such as knowledge, NRM networks, organisational capacity and people being in the landscape to manage it. Assets provide people in the Tableands region with resources essential for day to day living, supporting primary industries such as pastoralism, tourism and other significant economic initiatives in the region. They also support an important and often unrecognised customary economy for Aboriginal people as well as providing their cultural and spiritual well-being. We identified eight key assets in conjunction with our stakeholders for the Tablelands region:



#### Pressures on our Assets

Our assets are increasingly under pressure from the predicted impacts of climate change, wildfire, feral animals, weeds and more intensive resource use form development. Nine broad categories of key pressures and uses for our assets were identified during planning workshops relevant to this plan:



Production

35

Mining and Energy

**Inappropriate Fire** Regimes Recreation and



**Invasive Plants** 





Climate Change and Severe Weather

#### **Our Programs to Look After Country**

Programs are split into nine themes each containing strategies, priority actions and milestones for looking after our assets and minimising the adverse impacts of the key pressures and uses.



#### **Monitoring our Success**

This plan is designed to be a living document used to promote stakeholder engagement around NRM programs. It is intended to promote continual improvement and ongoing review of the approach to complex NRM issues over the life of the plan. It is also a useful tool to assist NRM stakeholders to adopt a 'collective impact' framework improving how many projects and partners align towards having a greater impact at the landscape scale.

# TABLELANDS REGIONAL PROFILE

The Tablelands region (otherwise known as the Barkly region) is the most sparsely populated NRM region in the NT. It covers 15% of the Territory's land area but contains only around 3% of the population (est. 6600 people). Most of these people live in the main town of Tennant Creek. The region has a diverse economy including mining, pastoralism and regional service delivery. However, pastoralism is the dominant land-use with nearly threeguarters of the area under pastoral lease. It includes most of the Mitchell Grass Downs and Davenport Murchison Ranges bioregions, all of the NT section of the Mount Isa Inlier and parts of Tanami, Gulf Fall and Uplands and Sturt Plateau bioregions.

Average rainfall in this inland area is low (approx. 400mm) pa) and subject to extreme seasonal fluctuations with rains occurring mostly from November to March during the hot summer.

Black soil plains cover much of the Tablelands and supports some of the best cattle grazing country in Australia. Some of the vast cattle stations located in the Tablelands include Alexandria Station, Brunette Downs, Newcastle Waters and Lake Nash Station. Australia's largest pastoral companies dominate ownership of the cattle stations in the area with The Australian Agricultural Company (AACo), the northern Australian Pastoral Company (NAPCo) and S.Kidman and Co. Ltd managing many of the pastoral stations in the region.

The natural resources of the region support people, jobs, economies, as well as internationally significant biodiversity. It is an area of iconic semi-arid savanna of Mitchell Grass and internationally important wetlands and lake systems. The Tablelands has seven Sites

of Conservation Significance with four of these being recognised as nationally significant under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act). They are Lake Woods, Tarrabool Lake, Lake Sylvester and Eva Downs Swamp. Many of these areas are important refuge and breeding sites for waterbird colonies. The Davenport and Murchison Ranges site is also an important conservation area with a network of sheltered gorges and rare and endemic fauna.

There is also a richness of Aboriginal communities in the Tablelands region demonstrated by the diversity of Traditional Owners living in the region including Warumungu, Walpiri, Kaiditch and Alyawarr people. Approximately 17% of the Tablelands region is Aboriginal freehold land and there are numerous sacred sites listed under the Northern Territory Aboriginal Sacred Sites Act, as well as culturally significant places in the landscape. Indigenous languages are the main language of many Aboriginal people and a vast body of in-depth traditional ecological and cultural knowledge drives ceremonial and cultural practices that continue today.

The natural and cultural values that underpin the livelihoods of pastoralists and Aboriginal people are coming under increasing pressure from some threats including introduced plants such as Rubber Bush and Parkinsonia, climate change and potentially more intensive land use and mining activity. There are 14 nationally listed threatened species and 24 species listed as threatened in the NT. It has five Weeds of National Significance and 24 NT declared weeds. Ten listed exotic mammal species, one exotic reptile, two exotic birds and the Cane Toad, have established feral animal populations in the region.





Spangled perch. Photo: Michael Hammer

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TABLELANDS REGIONAL PROFILE

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# SOCIAL AND ECONOMIC ASSETS IN NRM

#### Socio-economic Status

The Tablelands region has unique social, economic and environmental characteristics that raise particular challenges regarding creating sustainable livelihoods and delivering NRM activities. There is a clear link between social and ecological resilience, particularly for social groups or communities in the Tablelands that are dependent on ecological and environmental resources for their livelihoods.

The economy of the region is sustained by pastoralism and mining underpinned by government funding for service delivery. The Tablelands contributes an estimated 2% (\$400 million) of the NT Gross State Product. With climate change and other pressures on local livelihoods it is important to build the resilience of people and industry of the area. Resilience is the ability of social and ecological systems (such as cattle producers and rangelands that are mutually dependent on each other) to cope and adapt to change.

The Tablelands has one of the lowest population densities within Australia at just 1 for every three square kilometres. The whole region is classified as "very remote" according to the Australian Bureau of Statistics (ABS) because of the vast distances needed to travel to access essential services and infrastructure. These factors have significant implications for the costs of extension services needed to deliver NRM activities, as well as the social resilience of Aboriginal people to cope with the impacts of disadvantage, which impacts on their ability to undertake NRM. Also, the social resilience of pastoralists requires investment in developing the capacity of local landholders so that they can cope and adapt to climate change impacts and sustain the land upon which they live. The resilience of landholders is supported through NRM programs that help landholders recognise environmental degradation through supporting the monitoring of resource condition and contributing to the enhancement of networks around resource condition.

#### Social Indicators

During the planning process, it was often stressed that human social and cultural aspects of NRM were vital in the NT. Two key asset categories identified in regional planning workshops related to the social sphere were Community Knowledge and People on Country. It is important to develop indicators that allow us to measure progress against social capacity in NRM activity. NRM activities often have a substantial and sustained impact on working relationships, social networks, organisations and individuals beyond the primary activity. It is important that this is captured and measured through the NRM plan. Therefore, throughout this NRM plan social indicators are embedded throughout the programs and capture aspects such as:

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- Effective working relationships and social networks in NRM
- Engagement of regional stakeholders and partnerships developed and strengthened in the delivery of NRM
- Organisational capacity
- Stakeholder satisfaction with regional NRM planning and implementation
- Participation, skill development and employment of Aboriginal people in NRM
- Knowledge of sustainable practices
- Participation in environmental and cultural resource management programs

Dr Michael Hammer (MAGNT) and members of Corella Creek community at a Barkly fish survey on Brunette Downs



### LAND TENURE



The Tablelands region is dominated by two main types of land tenure: Aboriginal land and pastoral lease with a few small protected areas.

### Aboriginal Land

In the Tablelands region, 17% of the area is under Aboriginal freehold title, held by Aboriginal Land Trusts and administered by the Central Land Council and the Northern Land Council. Exclusive native title is also recognised over sections of Aboriginal freehold title under the Native Title Act 1993. In some areas where freehold title does not exist, Aboriginal people have been granted non-exclusive native title rights or have come to agreements with pastoralists under Indigenous Land Use Agreements.

#### **Pastoral Lease**

The Tablelands region contains around 28 pastoral leases that make up approximately 75% of the area. The average size of cattle stations in the Tablelands is around 5400km<sup>2</sup>. Australia's largest pastoral companies dominate ownership of the cattle stations in the area with the Australian Agricultural Company (AACo), the North Australian Pastoral Company (NAPCo) and S.Kidman and Co. Ltd managing many of the pastoral stations in the region.

#### **Protected Areas**

Only 1.3% of the Tablelands region is classified as a protected area. The main protected areas are Longreach Waterhole where there is a conservation covenant, Connells Lagoon Conservation Reserve, Ganalanga Mindibirrina Indigenous Protected Area and parts of the jointly managed (Traditional Owners and Parks and Wildlife) lytwelepenty/Davenport Ranges National Park and the Karlu Karlu Conservation Reserve.



SCIERCENCENCENCEN

# HOW DOES THIS PLAN RELATE TO YOU?

The Tablelands Regional Action Plan is one of the four Regional Action Plans for the NT that supports the broader NT NRM Management Plan 2016-2020. It is a nonstatutory plan which takes into account broader policy frameworks, regional and local planning initiatives and local knowledge. Implementation of the plan involves many stakeholders and effective partnerships are critical to the delivery of investment in NRM.

This plan provides an integrated approach which aims to strengthen and develop strong partnerships and shared goals which are vital to ensure a collaborative approach to sustainable management of our water, land, soils and biodiversity in the Tablelands. This plan takes into account the wide range of perspectives and local knowledge from many local stakeholders who are involved in NRM. Importantly, it recognises that a strategic and integrated approach involving everyone with an interest in natural and cultural resource management at all levels is vital in caring for and managing the Tablelands.

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Fencing to exclude feral herbivores from important sites

# HOW DID WE DEVELOP THE PLAN?



TNRM facilitated a planning process to review the NRM priorities in the region. Given the broad nature of NRM and the variety of stakeholders involved it was important to be participatory in our approach to planning. To do this, TNRM utilised the Open Standards for the Practice of Conservation (henceforth, Open Standards) planning framework as it utilises participatory methods that are useful for planning with multi-stakeholder and diverse groups. This planning framework is increasingly being used by a number of organisations in Australia and around the world and is sometimes also referred to as

"Healthy Country Planning" or "Conservation Action Planning". It provides a systematic framework for developing, implementing, monitoring and improving NRM activities.

The development of this plan included face to face interviews, meetings, submissions, review of other relevant plans from a variety of stakeholders including the Barkly Landcare and Conservation Association (BLCA), pastoralists, Aboriginal organisations and rangers, government technical officers, industry and key experts from research institutions.

#### **Review of 2010-2015 NRM Plan**

Workshops, meetings and interviews were conducted with community groups, experts and organisational representatives to review the 2010-2015 NRM plan. The plan had a number of measures of achievement linked to the agreed targets. These were assessed and summarised in a Plan Review that was published in November

2014.

#### **Meetings with** Local/Regional **Experts**

A number of meetings were held with local and regional experts to further assist in the development of draft strategies and priority actions, including station managers on the Barkly.

**Expert** and **Sector Input** Industry groups and key government agencies were consulted about the plan and provided input and feedback.

#### **NT-wide Prioritisation** Workshop

A two-day workshop was held in Darwin with local and regional experts from all regions of the NT was held, including stakeholders from the Tablelands to further review the plan and to prioritise which strategies and actions were the most feasible and likely to have the greatest impact on looking after our assets.

#### **Public Comment** for Plans

The Tablelands Regional NRM Plan was released for public comment and feedback.

Publication of the

2016-2020 NT-wide and Tablelands NRM Plan.



Tablelands Highway, Barkly

## CLIMATE CHANGE IN THE RANGELANDS

Climate change has the potential to intensify the NRM challenges facing people in the Tablelands. In 2012, the Australian Government established the regional NRM Planning for Climate Change Fund, with the aim of improving the capacity of regional NRM organisations and their stakeholders to plan for climate change. Updated climate change projections based on regional clusters around Australia were produced by the CSIRO and Bureau of Meteorology. The Tablelands region falls within the Northern Rangelands regional projections for climate change. A detailed RANGELANDS analysis of climate change projections for Australia's NRM regions is provided at the Climate Change in Australia website:

### **RANGELANDS CLIMATE PREDICTIONS**



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Increased intensity

of extreme rainfall

events is projected,

with high confidence.

More hot days and warm spells are projected with very high confidence. Fewer frosts are projected with high confidence.



On an annual and decadal basis, natural variability in the climate system can act to either mask or enhance any long-term human induced trend, particularly for rainfall in the next 20 years.

#### AdaptNRM **Climate Change Adaptation Tools and Resources for NRM**

www.climatechangeinaustralia.gov.au

AdaptNRM is a national initiative that aims to support NRM groups in updating their NRM plans to include climate adaptation planning. CSIRO and the National Climate Change Adaptation Research Facility (NCCARF) have provided NRM groups with materials and data products about key individual topics that are regionally and nationally relevant. This plan utilises this information to improve the capacity and resilience of our stakeholders to deal with the impacts of climate change. More information relevant to adaptation and NRM is available through the AdaptNRM website: http://adaptnrm.csiro.au



## CLIMATE CHANGE ADAPTATION



Climate change adaptation is about the ways in which our planning and management approaches need to be continually adjusted to better cope with the challenges imposed by a changing climate. The Australian Government's Regional Planning for Climate Change Fund supported researchers and NRM regional bodies to collaborate on developing adaptation priorities for NRM plans. Priorities for research were identified for the Rangelands region against a number of relevant NRM issues and key adaptation strategies that have been included in this plan, which are specific to the Tablelands, are summarised in the table. Whilst the climate change research has been incorporated into this plan it is also recognised that our knowledge, experience and approach to adaptation are rapidly evolving. It is recommended that through ongoing review of this plan and related strategic plans that stakeholder groups work through adaptation planning at the local and regional scale. It will be necessary to increasingly integrate adaptation strategies into NRM planning and management activities in the Tablelands.

Planning for climate change in the Tablelands encompasses many unique challenges including small declining populations, poor institutional and governance capacity, large distances, different seasonal cycles from temperate Australia and limited investment in and access to regionally specific information and expertise. Climate change risks exacerbate many of the existing pressures on the region's natural and cultural assets. This will impact upon the natural resources and the livelihoods of people in the region creating the need for innovative solutions to NRM issues and increased resilience of stakeholders to adapt to changes over the life of this plan.

The full reports from the Rangelands Climate Change cluster research can be found at: <u>www.nintione.com.au/</u> <u>resource/AustralianRangelandsAndClimateChange</u>.

### PRIORITY KEY ADAPTATION STRATEGY

Fire Risk	Fire regimes will be modified as warmer temperatures will both increase the duration of the fire season and the fire intensity. The predicted increase in grass fuel loads will also exacerbate the risk of fire and the potential damage that fire poses to infrastructure, ecosystems and human lives.
Freshwater Systems	Climate change will increase pressure on our scarce water resources which are environmentally, culturally and economically significant. The management and restoration of aquatic refugia is a critical adaptation strategy.
Grasslands	Increased temperatures and variable rainfall will have an effect on the grasslands and soils which will require a ongoing cautious approach to stocking levels and strict controls of total grazing pressure.
Biodiversity	Climate change will increase pressure on native plants and animals. Options require increased knowledge and careful consideration of the relevant species.
People	Increased temperatures and more frequent heatwaves will impact on the people of the region, especially those living remotely. Development and social programs must consider adaptation responses.
Drought	Increased need for developing and implementing drought management strategies through utilising climate forecasting services and linking to decision making for grazing and other land use.
Pastoral Production	Projected climate change will require a gradual process of adaptation that may require practice change, structural change and supporting legislation to achieve the best long-term results for the pastoral industry and the natural resources on which grazing is based.
Soil	Land managers should endeavour to maintain critical levels of ground cover so as to minimise soil and nutrient loss via dust resulting from wind erosion in dry times.

Source: This is based on research undertaken for the Rangelands NRM cluster.





#### **People on Country**

Includes remote livelihoods of Aboriginal people, pastoralists and others living throughout the region

#### **Community Knowledge**

Includes land management knowledge and skills, including traditional, scientific and practical skills and knowledge



#### **Grasslands/Rangelands**

Includes Mitchell Grass plains, spinifex grasslands and open woodland rangeland areas

#### **Cultural Landscapes** and Sites

Includes Aboriginal sacred sites, heritage places and cultural landscapes



#### **Freshwater Systems**

Includes important wetlands areas, drainage channels, groundwater, waterholes, rock holes and small permanent spring-fed streams and aquifers



Includes threatened species, Sites of Conservation Significance, key conservation sites and healthy habitat



#### **Healthy Soils**

Includes soil fertility, structure, health and productivity

#### Ranges

Includes Wollogorang and China Wall sandstone ranges and the Davenport and Murchinson Ranges



# THREATS AND ASSETS

During regional planning workshops participants were asked to identify the main threats and then rank these according to the scope, severity and irreversibility as per the criteria used in the Open Standards planning framework. The highest ranking threats to assets were then identified and strategies and objectives formed to minimise this threat or pressure on an asset. Strategies were also prioritised in terms of likely impact and feasibility. For example, whilst a threat may have scored very high in some instances a feasible strategy was not identified to minimise that threat. This table is intended to be a useful tool for NRM plan review community meetings where there is a diversity of interests. This process formed the basis of the development of the Regional NRM plan.



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### **PEOPLE ON COUNTRY**

**GOAL:** By 2030, the number of people living in the Tablelands region has been maintained or increased with well-established remote communities gaining livelihoods through the sustainable use of natural resources.

People on country refers to the livelihoods of Aboriginal land owners, pastoralists and others in the broader NRM support network. The Tablelands has a population of around 6,700 people spread around regional centres, Aboriginal communities and pastoral properties. These people are integral to the viability and success of NRM programs and many of our actions target improvements to this asset. This goal is broad and encompasses strategies throughout the NRM plan aiming to strengthen local and regional support networks, national and territory government policies and community engagement to support a healthy, thriving, remote population that is well supported by and engaged in economic activities in the Tablelands.



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#### Pressure/Uses

#### Loss of Knowledge/Lack of Access

Rangelands economics and policies put pressure on people's livelihoods living in the remote Tablelands region. Policies that support remote area infrastructure such as roads and communications support remote pastoralists in the region. Aboriginal people have also expressed concerns about the decline in service delivery for outstations which facilitates Aboriginal people being able to live on and regularly visit their ancestral country to undertake cultural obligations including land management practices.

#### Climate Change and Severe Weather

Extreme weather and increased climate variability will increase pressure on remote livelihoods in the Tablelands region.



#### Indicators

- Resources put into supportive infrastructure for the pastoral industry in the region
- Economic status of pastoral industry in the region (number of people employed, etc.)
- Number of Aboriginal people engaged in cultural and natural resource management
- Funding and capacity of pastoral Landcare activities
- Level of funding for Aboriginal ranger programs
- Population statistics
- The number of NRM enterprises developed in the region



Dawson of Corella Creek community in Barkly fish survey on Corella Creek

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### **COMMUNITY KNOWLEDGE**

GOAL: By 2030, Aboriginal knowledge of country and pastoral knowledge is maintained and passed on to younger generations and access to, sharing of and use of TEK, local landholder knowledge, data and scientific information has improved to make informed NRM decisions.

Pastoralism in the Tablelands region is subjected to high climate variability and climate extremes. People who have a long connection to and knowledge of the region, such as researchers, technical staff and other support people, hold a wealth of knowledge critical to carrying out NRM work here. NRM relies upon people and many donate their time and effort willingly to conservation work, particularly through the BLCA. BLCA, established in 1995, is made up of a community of pastoralists who are dedicated to improving land and environmental management practices in the region.

The body of traditional ecological knowledge (TEK) and associated management practices held by Traditional Owners have shaped the Territory's environments for thousands of years and are of high value to younger generations as well as western science. The diminishment of this knowledge has led to a degradation of other assets described in this NRM plan.

It is imperative that this knowledge is captured, valued and shared, so practices and decisions are informed by these knowledge systems. Also, innovation and improved practices are supported by improved sharing and utilisation of information across all NRM stakeholders.

#### **Pressure/Uses**

#### Loss of Knowledge/Lack of Access

A loss of knowledge can occur through a loss of technical staff in support organisations, researchers and NRM innovators where there are inadequate systems to share, record and utilise this knowledge. Lack of systems can lead to duplication of effort or repeatedly making similar mistakes in our NRM activities.

Some Traditional Owners cannot access and manage country due to a lack of resources or because the land is not accessible because it is under different ownership. Strengthening community knowledge of NRM is dependent on a broad range of factors including access to and support for training opportunities and knowledge sharing forums such as workshops and exchanges as well as supportive government policies on all levels.



- Technology and engagement of people in knowledge transfer activities
- Number of trips to country (Aboriginal knowledge sharing)
- Review of training and courses undertaken
- Number of collaborative ventures





### **FRESHWATER SYSTEMS**

**GOAL:** By 2030, the health of the wetland systems in the Tablelands is in good condition with natural values maintained or improved based on current conditions.

There are six catchment areas within the Tablelands region. The combined Barkly Lakes (Eva Downs Swamp, Lake Woods, Lake Sylvester and Tarabool Lake) are listed as Nationally Important Wetlands under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act). They provide important bird refugia - particularly for migratory species. Frew River swamp is listed as a Site of Conservation Significance by the NT Government. All these wetlands are on pastoral leases, and are a valuable asset, providing water and green feed. These wetlands and associated drainage channels provide key habitat for migratory shorebirds and waterbirds as well as refugia for a range of species in dry periods. At its full extent, Tarabool Lake is potentially the largest basinform freshwater wetland and largest wooded swamp in tropical Australia. During periods of extensive inundation, it is known to support over 200,000 waterbirds including globally significant numbers of at least three species. Also, groundwater is a valuable asset that supports the pastoral industry of the region. Much of the region is within the Georgina basin which has moderate to high yields of groundwater potential and is highly significant for the possible future expansion of the pastoral industry.

#### Pressure/Uses

#### Invasive Plants

Control of Parkinsonia is the most significant issue for freshwater systems in the Tablelands.

#### Primary Industries

Although well managed pastoral activities are sustainable in the region, unrestricted cattle access to waterholes can degrade riparian vegetation and habitats, cause erosion, degrade water quality and spread weeds.

#### Mining and Energy Production

An increase in mining activity in the region including exploration and potential commencement of hydraulic fracturing is a pressure on this asset in this region.

#### Recreation and Other Activities

Boating activities at Longreach and other easily accessible waterholes and rock holes are a potential threat to migratory birds on the wetlands.

#### Inappropriate Fire

Wetlands often have fire-sensitive vegetation communities which can be severely impacted on by intense hot wildfires.



- Density and diversity of birds using wetlands for nesting and breeding
- Water extraction, use and recharge
- Water quality
- Presence/absence and extent of weed species



Fish survey on the Barkly Lakes





### **HEALTHY SOILS**

**GOAL:** By 2030, soil erosion issues are decreased and soil fertility maintained through use of improved practices.

Healthy soils refers to the fertility, structure, health and productivity of soils for maintaining biodiversity, key habitats and ecosystems, and for commercial uses such as horticulture and pastoralism.

The Barkly Tablelands is the most productive area for pastoral production in the NT, with high quality, largely treeless native pastures dominated by Mitchell Grass species. The region contains mostly vertisols - clay soils exhibiting strong cracking tendencies when dry and which are common on alluvial plains. These types of soils support rich grazing lands.

The Barkly

#### Pressure/Uses

#### Primary Industries

Erosion caused by cattle through overstocking of cattle and lack of adequate rotational grazing leading to loss of ground cover. Also, roads and fence lines are a potential source of soil erosion – improved practices can minimise this pressure.

#### 🔨 Feral Animals

While not as significant as in other regions, donkeys and horses impact on parts of the Tablelands region.

#### Recreation and Other Activities

Trail bike riding and 4WDs can cause significant soil erosion issues in some areas.

#### Mining and Energy Production

Mining and exploration activities are major causes of erosion if not rehabilitated properly.



- Productivity and health of soils in pastoral areas
- Sediment load in watercourses
- % ground cover soil stability





### **GRASSLANDS/RANGELANDS**

**GOAL:** By 2030, the production values of the grasslands for both pastoral production and biodiversity are maintained.

The dominant habitat in the Tablelands region is semiarid savanna of Mitchell Grass while vegetation is mostly open woodland and grassland with smaller areas of spinifex grassland. The Tablelands are known for their rolling native Mitchell Grass plains that cover about 15% of the territory and make up some of the most important cattle grazing areas in the NT. These grazing lands are known as 'rangelands'. The region also contains Coolibah, Gidgee woodlands and Bluebush swamps. Importantly, the grasslands of Barkly Tablelands contain distinctive biota which are generally subject to less pressure than Mitchell Grasslands in other parts of Australia.

#### **Pressure/Uses**

#### ()) Climate Change and Severe Weather

Unreliable rainfall events and drought can impact on the quality of pastoral land and stocking capacity of the rangelands. Increased climate variability due to climate change is a threat to this resource.

#### 🔨 Feral Animals

Feral herbivores also compete with both domestic stock and native animals for available pasture. Large feral animals can damage pastoral fence lines and can impact on rotational grazing programs aimed at managing native pasture resources.

#### Invasive Plants

Parkinsoinia, Prickly Acacia, Rubber Bush and Mesquite are considered the main weed threats and can displace valuable native pasture species and contribute to land degradation.



#### Indicators

- Condition of native pastures
- Presence/absence of weed species
- Biodiversity of grasslands/rangelands



The Barkly





### **CULTURAL LANDSCAPES AND SITES**

**GOAL:** By 2030, culturally significant sites are being managed cooperatively based on knowledge of values, threats and best management options.

The region is incredibly significant to the Aboriginal people who have strong cultural connections to the Tablelands region and sites within it including: sacred sites, rock art sites, areas that are important for food resources and traditional medicines, burial sites and other sites of historical significance. Aboriginal sacred sites are places within the landscape that have a special meaning or significance under Aboriginal tradition. They link cultural values and spiritual and kin-based relationships in the land. Custodians of sacred sites have responsibilities to protect and maintain them. Sacred sites are recognised and protected as part of NT's and Australia's cultural heritage through the Northern Territory Aboriginal Sacred Sites Act.

There are a wide variety of Aboriginal languages actively used in the region. Many Aboriginal people speak several Indigenous languages with English frequently being a third or even fourth language. Some of the language groups in the Barkly region include Warumungu, Warlmanpa, Warlpiri, Jingili, Garawa, Mudburra, Kaytetye, Alyawarr, Anmatyerre and Wambaya.

#### Pressure/Uses

#### Mining and Energy Production

Development including the destruction of sacred sites from current mining operations is of great concern to Aboriginal people.

#### Loss of Knowledge/Lack of Access

Loss of knowledge and access is considered one of the main pressures on cultural landscapes and cultural sites. Traditional Owners cannot access and manage country due to a lack of resources or because the land is not accessible because it is under different ownership.

#### 🥋 Feral Animals

Feral predators (cats) and large feral herbivores (donkeys and horses) can damage cultural sites. Active management is an important role for site custodians and Traditional Owners.

#### Recreation and Other Activities

Some cultural sites are threatened by human disturbance and need to be managed for visitor impact.



- Statutory protection and management of sacred sites
- Number of cultural sites being visited annually
- Knowledge of cultural sites
- Programs supporting intergenerational transfer of knowledge
- Condition of Aboriginal languages



Cultural information sign – Karlu Karlu/Devils Marbles Conservation Reserve



### **BIODIVERSITY AND CONSERVATION SITES**

**GOAL:** By 2030, diverse populations of threatened species are maintained and environmentally significant sites are being managed cooperatively based on knowledge of values, threats and best management options.

The biodiversity of the Tablelands is a broad reaching asset class that focuses mainly on vegetation condition, threatened and susceptible species and landscape function.

The Tablelands has eight Sites of Conservation Significance. Two vegetation communities in the Tablelands region are recognised as sensitive and in need of protection by the NT Government. The Tablelands has 14 nationally listed threatened species and 23 species listed as threatened in the Territory.

Of the four NT regions, the Tablelands has the smallest area of protected land with just the Ganalanga-Mindibirrina Indigenous Protected Area, Connells Lagoon, Karlu Karlu, Longreach Waterhole and part of the Itywelepenty/Davenport Ranges as the main protected areas in the region.

#### **Pressure/Uses**

#### Invasive Plants

Parkinsonia, Prickly Acacia, Rubber Bush and Mesquite are considered the main weed threats and can displace valuable native pasture species and contribute to land degradation. Rubber Vine also occurs in neighbouring areas and is considered a significant threat.

#### Inappropriate Fire

While not a major issue for much of the Tablelands there are areas in the north and the west of the region where inappropriate fire regimes are an issue for biodiversity from late season high-intensity burns.

#### **Feral Animals**

Feral predators (cats) prey upon small mammals.

#### Climate Change and Severe Weather

Climate change is likely to cause ecosystem changes and potentially threaten biodiversity in the region.

Condition	Trend
VERY GOOD	
GOOD	
FAIR	STEADY
POOR	

#### Indicators

- Conservation status of threatened species
- Number of different native flora and fauna species

INNE INTERNET

· Presence of key indicator species



Yellow-spotted goanna



### RANGES

**GOAL:** By 2030 the condition of the high-value Ranges in the region is stabilised with no further decline of small mammals and birds.

The Tablelands NRM region includes the Davenport and Murchison Ranges areas that are recognised as being of national significance. Five of the seven threatened species in this region are mammals, including Black-footed Rock-wallaby and Bilby. Long-lasting waterholes within the ranges support diverse terrestrial and aquatic fauna species, including a relatively high diversity of fish. Sheltered gorges provide refuges for at least 11 plant species endemic to the NT. The predominant land use of the ranges site is pastoral operations. The next dominant land use is Aboriginal Land Trust and there are also significant conservation reserves through the jointly managed lytwelepenty/Davenport Ranges National Park and Karlu Karlu/Devil's Marbles National Park that receive a number of visitors to the area.

#### Pressure/Uses

#### Inappropriate Fire

Changed fire regimes in the ranges from small mosaic fires to more frequent and widespread wildfires can alter the age distribution and composition of species and kill fire-sensitive species.

#### Feral Animals

Feral animals may affect native species through degradation of habitat, predation and fouling of waterholes.

#### Recreation and Other Activities

Campsites in national parks in the ranges are subject to high visitation which can introduce weeds, cause soil erosion and increase disturbance.

#### Invasive Plants

Buffel Grass encroaching into the ranges from high visitation areas has the potential to seriously impact on the biodiversity values of the ranges.

#### Loss of Knowledge/Lack of Access

Many important sites in the ranges are difficult to access, making the protection of culturally significant sites challenging.



#### Indicators

- Presence/absence of threatened species
- Fire history

#### Davenport Ranges



## HOW TO READ THE PLAN

#### Background

The background provides a brief summary of the purpose of the program including the overall issues and challenges in delivering it. It also refers to how the program relates to other programs in the plan.

#### 

Strategies are related management activities or approaches intended to achieve an objective in the plan. A number of strategies are combined in a program to achieve the program objectives.

#### **Priority Activities -**

Within each strategy there is a series of priority activities that need to be completed to implement the strategy and achieve the objective. Only the main activities are listed here.

#### **Milestones**

Milestones are outcomes that we would expect to achieve if the strategy and activities were being delivered. Milestones are 'signposts' that we are moving towards achieving an overall objective. They tell us whether the assumptions made in developing the strategy are correct and whether the activities are being delivered and achieving the intended results.

### PROGRAM 5 WATER RESOURCES AND SOIL MANAGEMEN

#### Background

Water resources are essential

to the people and ecosystems

of the Tablelands region. Plans

to expand pastoral productivity

in the region are likely to

increase pressure on water

resources, however this could

be offset by minimising waste

#### Strategies

information

Water resource planning

undertaken in consultation

with multiple stakeholders

and underpinned by the

best available scientific

and management is

**Priority Activities** 

- Involve multiple stakeholders and users representing a range of interests, in water allocation planning in the region
- Support water stewardship through involving the community in monitoring and in implementing new water monitoring technology and communication materials targeted at behaviour change

#### Milestones

- By 2018, water stewardship programs are implemented where community is involved in monitoring water health are implemented
- By 2018, water resources planning is informed from input and ongoing adaptive management processes involving a range of diverse stakeholders

### 20



#### **Objectives**

An objective is a statement that details a desired outcome of a project, such as reducing a critical threat. If the project is well thought out and designed, achieving the objectives should help improve asset condition (make them better).

#### Assets Improved

Assets are the priority things we want to see in good condition to achieve our vision. Different strategies are targeted towards different assets. Only the main relevant assets are listed against each strategy. Each asset has a goal and if the plan is achieved it should lead to achieving the asset goals.

NEW CONTRACTOR CONTRACTOR



#### Key Measures of Achievement

Key measures of achievement are the things we actually measure that indicate whether the key strategies are being implemented in this program. They indicate activity and actions as well as impact and outcome.

#### **Key Collaborators**

The key collaborators are the main groups that are considered responsible for the delivery of the strategies in the plan. In most cases, the full list of stakeholders is very long, however those listed are considered the primary stakeholders to implement and review the program.

TABLELANDS

#### Objectives Assets Improved

By 2020, water stewardship programs are well established and ongoing planning and management processes involving diverse stakeholders are established



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#### **Key Measures of Achievement**

- Survey of contractors and land managers of awareness and adoption of soil management practices
- Number of people/groups involved in

#### **Key Collaborators**

NT Government (Land Resource Management, primary industries, Mines), pastoral industry, horticulture industry, landholders, Central Land Council, Aust Govt.

### PROGRAM 1 MANACING FIRI

#### Background

As much of the Tablelands region is managed for grazing and on black soil country, fire is not as prevalent as in other areas of the NT. However, wildfires can still pose problems at certain periods on the Mitchell Grass plains and in the northern and south-western parts of the region. Fire can enter the Tablelands from outside the region and lead to production losses, so efforts to minimise production losses from fires entering from savanna areas are important. The objective of this program is for fire to be managed for biodiversity, cultural and pastoral productivity values recognising that most of the region is managed for grazing. Responses to wildfires should be rapid, coordinated and effective.

#### Strategies

Improve coordination

of cross tenure

fire management

approaches that

promote pastoral

and biodiversity

values

production, cultural

#### **Priority Activities**

#### Milestones

 Immediately establish multi stakeholder fire management working groups to manage cross tenure fire management and planning

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- Establish closer working relationships between land managers on the boundaries of the Tablelands to prevent wildfires entering the region and facilitate rapid response to prevent spread across the Tablelands
- Increase application of North Australia Fire Information remote sensing to develop fire management plans in the Tablelands
- Improve understanding and collaboration between adjacent landholders with different approaches to fire management by 2018
- Preventative burning and firebreaks around the high risk margins of the Tablelands
- Response to wildfire is improved by 2018



Spinifex fire

#### **Objectives**

#### **Assets Improved**

By 2020, the impact of wildfires is reduced in the Barkly Tablelands



#### Key Measures of Achievement

- Number of wildfires entering the Tablelands area
- Trends in fire extent and severity monitored and reported
- Number of people and organisations involved in collaborative fire management programs

#### Fire History for the Tablelands 2010-2015

#### **Key Collaborators**

Central Land Council, NTG (Bushfires NT), BLCA, Northern Land Council, researchers

When there are wildfires around the Barkly we have to work together and get onto it quickly to minimise the loss to pasture



### PROGRAM 2 PREVENTING AND MANAGING WEEDS

Background	Strategies	Potential Activities	Milestones
The overall objective is to manage weeds strategically across the Tablelands region and ensure that limited resources are prioritised using a risk management approach. The priority	HIGH PRIORITY Adopt collaborative approaches to weed management in the Tablelands region	<ul> <li>Target isolated outbreaks of Mesquite and Prickly Acacia and work on high density areas</li> <li>Implement Parkinsonia treatment program targeting key infestations</li> <li>Develop and implement long-term strategically aligned property weed management plans and foster a 'working together' approach</li> </ul>	<ul> <li>Outlier prickle bushes have not formed dense thickets by 2018</li> <li>Populations are mapped and weed management effort is prioritised in the upper catchment by 2017</li> <li>Each year increased coordination of effort occurs across properties and tenures</li> <li>Parkinsonia densities are reduced by 2018</li> </ul>
weed species in the Tablelands region are Mesquite, Parkinsonia, Prickly Acacia, Bellyache Bush, Rubber Bush and Athel Pine. The 'Alert Weeds' are species that are not naturalised in the	VERY HIGH PRIORITY Prevent the introduction and spread of the Tablelands priority weeds	<ul> <li>Support implementation of strategic approaches to weed spread prevention detailed in NTG Plan 'Preventing Weed Spread is Everybody's Business'</li> <li>Maintain surveillance for Rubber Vine along the QLD border and rapidly eradicate any infestations</li> <li>Prioritise rapid response to detected outbreaks of 'Alert Weeds'</li> </ul>	<ul> <li>Strengthened collaborative arrangements with Queensland regarding weed spread by 2018</li> <li>Increased coordination of land managers about early detection of Rubber Vine and other 'Alert Weeds' by 2018</li> </ul>
Tablelands region but have high likelihood of spreading and having a high impact. They are Fountain Grass, Parthenium, Rubber Vine, Hyptis, Sickelpod, Spinyhead Sida and	HIGH PRIORITY Improve adaptive weed management through monitoring, research, utilising data, training and capacity building	<ul> <li>Improve data collection (trialling new methods), utilisation and management</li> <li>Identify knowledge gaps and prioritise future research and link to improving the capacity of weed management stakeholders</li> <li>Trial new weed control methods and communicate results with land managers</li> <li>Increase the effort and resources put into measuring management effectiveness of weed control and utilise information to continually improve weed management practices</li> </ul>	<ul> <li>Research partnerships are strengthened and continue to inform best practice weed management by 2018</li> <li>Each year an increasing amount of data is captured, shared, analysed and utilised to inform weed management across different stakeholders</li> </ul>
Mission Grass. Over the border in Queensland there are numerous weeds not yet naturalised in the Tablelands, therefore managing this pathway of spread is considered a high priority.	MEDIUM PRIORITY Increase the region's awareness of weed priorities and capacity to manage the impacts of weeds	<ul> <li>Conduct field days and produce communication products for Rubber Bush as a significant threat to pastoral production and conservation assets</li> <li>Implement education and awareness programs on weed ID and control for land managers, contractors and community members in the region</li> <li>Communicate weed management success stories to the wider community to encourage support and further activity</li> <li>Raise awareness of 'Alert Weeds', as potential high impact weeds should they become established</li> <li>Provide training of land managers in effective control methods and strategic weed management approaches</li> </ul>	<ul> <li>Gain a better understanding of Rubber Bush ecology and treatment methods by 2017</li> <li>Implementation of Rubber Bush management plan by 2018</li> <li>Land manager willingness to control Rubber Bush on pastoral properties is increased by 2018</li> </ul>



#### **Objectives**

#### **Assets Improved**

By 2020, no new outbreaks of Mesquite and Prickly Acacia have formed and densities are reduced in infested areas

By 2020, reduce the current infestation of Parkinsonia in the Tablelands

By 2020, no new weeds (including Rubber Vine) have established in the Tablelands

By 2020, weed management knowledge and access to information has improved

By 2020, reduce densities of Rubber Bush in the Tablelands and reduce its impact on native grasslands





#### Key Measures of Achievement

- Number of priority weeds being strategically managed at the catchment scale
- Number of groups/individuals
   involved in weed spread prevention
- Availability of communication materials for stakeholders
- Extent of utilisation of weed distribution data by natural resource managers

#### Weeds

Distributions of Class A Weeds in Tablelands



- Bellyache Bush
- Mesquite
- Parkinsonia
- Prickly Acacia
- Rubber Bush
- Source: NT Government Weeds Branch

Parkinsonia is a priority weed of the Tablelands

#### **Key Collaborators**

BLCA, NTG (Weeds Branch), pastoralists, Central Land Council, Traditional Owners, landholders, Barkly Shire, researchers.

Weeds are probably our greatest threat to our environment. We've had some small wins but need to remain vigilant to stay on top of them



### PROGRAM 3 REDUCING THE IMPACTS OF FERAL ANIMALS

<ul> <li>Feral animals are not considered as serious a threat to asset condition as in other regions of the NT as the area is predominantly</li> <li>HIGH PRIORITY Strengthen regional feral animal management programs through</li> <li>Develop a feral animal control strategic plan for the NT involving multiple stakeholders and regionally specific agreed priorities</li> <li>Establish a 'backbone' group to support implementation of landscape feral animal advisory committees are functioning across the NT</li> </ul>	Background	Strategies	Priority Activities	Milestones
used for cattle grazing. However, there are some areas, particularly on Aboriginal land that have	Feral animals are not considered as serious a threat to asset condition as in other regions of the NT as the area is predominantly used for cattle grazing. However, there are some areas, particularly on Aboriginal land that have	As ntly HIGH PRIORITY Strengthen regional feral animal management programs through coordinated and collaborative action	<ul> <li>Develop a feral animal control strategic plan for the NT involving multiple stakeholders and regionally specific agreed priorities</li> <li>Establish a 'backbone' group to support implementation of landscape feral animal management approaches</li> </ul>	<ul> <li>By 2017, a feral animal strategy for the NT has been developed and is guiding strategic action</li> <li>By 2018, regional feral animal advisory committees are functioning across the NT</li> </ul>
<ul> <li>Neorginal natural data the more than the orthoring tables of horses and donkeys. In the northern Tables area feral pigs inhabit areas when seasonal conditions are favourable. Cane Toads are encroaching on this region from the north. Cats are an issue in terms of predation on small mammals throughout the region.</li> <li>MEDIUM PRIORITY Build community understanding of the impacts of feral animals and support for their control through engagement.</li> <li>Establish demonstration sites excluding feral animals near aquatic (including claypans) areas to demonstrate the impacts. Landholder consultation and creation of communication materials.</li> <li>Landholder consultation and creation of communication materials.</li> <li>Effectiveness of management approaches of feral animals is improved by 2018.</li> </ul>	Aboriginal land that have high densities of horses and donkeys. In the northern Tablelands area feral pigs inhabit areas when seasonal conditions are favourable. Cane Toads are encroaching on this region from the north. Cats are an issue in terms of predation on small mammals throughout the region.	And MEDIUM PRIORITY Build community understanding of the impacts of feral animals and support for their control through engagement 3322	<ul> <li>Establish demonstration sites excluding feral animals near aquatic (including claypans) areas to demonstrate the impacts</li> <li>Landholder consultation and creation of communication materials</li> </ul>	<ul> <li>Land managers prioritise feral animal exclusion from key aquatic areas by 2018</li> <li>Effectiveness of management approaches of feral animals is improved by 2018</li> </ul>



#### **Objectives**

#### **Assets Improved**

By 2020, feral animal control programs are prioritised and targeted through an NT-wide feral animal strategy that establishes an agreed understanding of the problem, shared measurement and review of actions

By 2020, feral animals are managed around key aquatic and conservation areas in the Tablelands





#### Key Measures of Achievement

Naplesleptentententententententen

- Trends in feral animal distribution as a result of management programs
- Number of groups/individuals involved in feral animal management programs
- Availability and utilisation of feral animal distribution data to NRM stakeholders
- Survey of pastoralists regarding wild dog management
- Development of strategic feral animal plan and level of implementation

#### **Key Collaborators**

- NT Govt. Dept Land Resource Management, Aust Govt (Agriculture and Environment), BLCA, pastoralists, Central Land Council, researchers
  - The feral cat has had a devastating impact on Australian wildlife. It may never be removed from Australia, but will hopefully someday be controlled.



### PROGRAM 4 INDUSTRY ADOPTION OF SUSTAINABLE PRACTICES

#### Background

#### Strategies

#### **Priority Activities**

	E
area is under pastoral lease	Engage with
therefore this program	sustainable
focuses predominantly on	'Developing
supporting the adoption	programs
of improved grazing	
management practices	
within the pasteral industry	
Detentially with expending	HIGH PRIORI
Potentially, with expanding	Ensure reso
markets for agricultural	for biosecuri
products to Asia, the	line with agr
pastoral industry within	in the north
the Tablelands could	
expand and intensify. It is	VERY HIGH P
important that increases	Support bes
in pastoral productivity	managemer
are accompanied by	of regional n
innovation in sustainable	and promoti
practices for the industry	encourage b
Also, climate change is	ecological o
likely to impact on the	
nastoral industry and most	-
industry representatives	
helieve thet improving	
believe that improving	
practices both in terms of	
productivity and NRM will	
make the industry more	
resilient and able to adapt	Support and
to future climate variability.	between the
In terms of productivity,	the mining in
mining is considered the	rehabilitation
largest industry sector	
in the Tablelands. Whilst	
the mining industry has	
limited involvement in	MEDIUM PRI
NRM, it makes valuable	Reconcile co
contributions to regional	objectives fo
and remote economies	
by providing jobs and	
purchasing goods and	
participas Wild dogs and	
services. Wild dogs are	
considered a threat to	
pastoral production and are	MEDIUM PRI
baited annually by most	Carry out ada
pastoralists in the region.	likely impacts

HIGH PRIORITY Engage with industry to encourage sustainable approaches to Developing the North' policies and programs	•	Strengthen linkages between NRM managers and researchers and the government agencies and industry bodies responsible for future strategic economic development in the Tablelands Raise awareness of development projects and policies for the Tablelands and their potential impacts on environmental and cultural values
TIGH PRIORITY Ensure resources are increased or biosecurity support services in ine with agricultural development n the north	•	Implementation of the NT Biosecurity Strategy 2015-2025 particularly increasing the NRM community's involvement in biosecurity Develop enhanced surveillance and effective capability to detect and respond to biosecurity emergencies
VERY HIGH PRIORITY Support best practice grazing nanagement through delivery of regional monitoring programs and promoting practices that encourage both productivity and ecological outcomes	•	Develop case studies and demonstration sites showcasing best practice grazing management for biodiversity conservation and production Facilitate the adoption of new technology in rangelands management and sustainable grazing and encourage pastoralists to conduct their own monitoring to inform grazing practices Use existing frameworks for developing a unified national rangeland condition assessment tool and implement annual monitoring program
4.3	•	Develop local management plans and landholder stewardship programs for high value conservation assets Develop more information on best practices in more intensive cattle production relevant to the NT Encourage diversification of income streams on pastoral land through alternative activities that support sustainable stocking rates
HIGH PRIORITY Support and promote partnerships between the NRM community and he mining industry regarding mine ehabilitation and offset programs	•	Establish a working group or advisory committee that includes DME, NT EPA and DLRM, Land Councils and key NGOs such as TNRM to engage with the mining industry to strengthen links and involvement in NRM activity Encourage the use of the environmental levy from mining companies to engage NRM stakeholders in legacy mine rehabilitation Conduct research to improve our knowledge of aquifers and ground water systems and the potential impact on these from mining
AEDIUM PRIORITY Reconcile conflicting management objectives for wild dogs and dingoes 455	S	Consolidate existing research on the impacts of wild dogs and dingoes on pastoral productivity and biodiversity Engage stakeholders in evidence-based management programs seeking to address both pastoral productivity and conservation values Prioritise areas where wild dog predation is a priority issue and coordinate efforts in these areas Identify properties on which dingo populations are being maintained and establish demonstration sites to help quantify the impacts on values
AEDIUM PRIORITY Carry out adaptation planning on the ikely impacts of climate change with addressus people and pactoralists	•	Consult community to develop strategies for industry and communities to adapt to likely impacts of climate change Encourage government and other stakeholders to develop strategies to adapt to climate change especially in 'Developing the North' considerations



timber and international	participation to participation	- A A A A A A A A A A A A A A A A A A A
Milestones	Objectives	Assets Improved
<ul> <li>NRM stakeholders have an increased understanding of future strategic development policies by 2018</li> <li>Partnerships are increasingly developed between key NRM stakeholders/research institutions and industry and government to ensure best practice in future development in the Tablelands.</li> </ul>	By 2020, policies and programs for development in Tablelands are informed by best available science and knowledge to ensure the protection of cultural and natural assets	<ul> <li>Key Measures of Achievement</li> <li>Number of industry driven programs for improving sustainability and profitability developed and implemented</li> </ul>
<ul> <li>By 2018, partnerships strengthened between agencies, ranger groups, communities and industry on biosecurity related activities</li> </ul>	By 2020, our biosecurity system is integrated and risk-based with strong community involvement that minimises the establishment of exotic pests and diseases	<ul> <li>Response to survey of pastoralists indicating knowledge and adoption of management options</li> <li>Systems in place to involve NRM community in pest and disease detection and eradication in place</li> </ul>
<ul> <li>Promotion and uptake of sustainable and efficient grazing management tools by 2018</li> <li>Rangelands monitoring and research programs document the biodiversity benefits of sustainable grazing by 2018</li> <li>Each year, more property management plans are developed based on sustainable grazing and NRM principles and these are implemented on pastoral properties</li> <li>More intensive pastoral production practices such as hay production and feed lotting are accompanied by improved NRM practices.</li> </ul>	By 2020, best practice sustainable grazing practices are increasingly taken up by the pastoral industry	<ul> <li>Level of input from environmental research into 'Developing the North' policies</li> <li>Amount of resources dedicated to NRM from industry partnerships</li> <li>Level of consideration of climate change in industry development plans</li> <li>Key Collaborators</li> <li>Pastoral industry, BLCA, NTG (DPIF), NTG (DME), NTG</li> </ul>
<ul> <li>Each year mining offsets are increasingly utilised for NRM programs and activities</li> <li>Mine sites are increasingly rehabilitated to best NRM practices and standards by 2018.</li> </ul>	By 2020, increase the involvement of the mining industry in natural resource management	(DLRM), Aust. Govt. (Environment, Agriculture and Mining), Central Land Council
<ul> <li>By 2018, wild dog/dingo management program is developed for the Tablelands region that engenders community ownership and includes a range of options, including incentives to maintain dingoes, ongoing monitoring plots, coordinated baiting in high impact areas and communication products</li> <li>Understanding and awareness of the role of dingoes in the ecosystem and pastoral system is much clearer by 2018</li> </ul>	By 2020, dingoes/wild dogs are strategically managed based on understanding of their impact on both pastoral and biodiversity productivity	Land Use Land use map shows the predominant industry in the Grazing
<ul> <li>By 2018, partnerships strengthened between agencies, ranger groups, communities and industry on biosecurity related activities</li> </ul>	By 2020, a Barkly Tablelands climate adaptation plan has been completed with strategies for land managers to cope with increased	Tablelands is cattle Intensive agriculture Mining grazing Source: TNRM

climate variability and extremes

### PROGRAM 5 WATER RESOURCES AND SOIL MANAGEMENT

**Priority Activities** 

#### Background

Water resources are essential

to the people and ecosystems

of the Tablelands region. Plans

to expand pastoral productivity

in the region are likely to

increase pressure on water

resources, however this could be offset by minimising waste and increasing water efficiency. Consideration of climate

change is important in the likely

development of industry as

increased rainfall variability

are likely to occur in the future.

There is concern that fracking

could pollute the aquifers and

threaten the pastoral industry.

Land managers are seeking

more information on the risks

of developing the oil and gas

industry in this region. There

have been improvements in the

region to following best practice

for road and fence development

to minimise soil erosion. Also,

grazing management aims to

minimise soil erosion through

through stock rotation systems.

maintaining grass cover

rangelands monitoring and

increased temperatures and

#### Strategies

Water resource planning and management is undertaken in consultation with multiple stakeholders and underpinned by the best available scientific information

HIGH PRIORITY Increase our knowledge and resources available to understand and manage the impacts on ecosystems and groundwater from mining, pastoral, agricultural and domestic use, to ensure the best available science underpins water resource planning and management

#### MEDIUM PRIORITY

Support training and extension services on sustainable soil management



•	Involve multiple stakeholders and users representing a range of interests, i
	water allocation planning in the region

- Support water stewardship through involving the community in monitoring and in implementing new water monitoring technology and communication materials targeted at behaviour change
- Continue to research and increase understanding of the impacts of water extraction (by the mining, oil and gas, pastoral and agricultural industries) on water resources
- Research the impacts of domestic use and pastoral and agricultural industries on water resources
- Implement more broad water use monitoring on both surface and groundwater (including bore meters) to more accurately assess water us
- Research and trial water efficiency techniques for pastoral and agricultural industries
- Monitor water quality and aquatic ecosystem health to maximise early detection of pollution
- Raise the awareness of the importance of soil erosion, soil fertility, soil health and soil moisture for primary industries productivity
- Collate existing soil information and develop communications materials particularly targeting contractors on soil conservation promoting improved soil management practices for roadworks, fence-lines, mining exploration activities and other developments in the landscape
- Utilise rangelands remote sensing tools to encourage improved grazing management and enhance production efficiency to minimise soil erosion issues
- Continue the requirement for erosion and sediment control plans and adherence for all developments
- Land clearing guidelines continue to be reviewed and updated with new information to deal with potential increased development

#### Milestones

ting a range of interests, in community in monitoring logy and communication	•	By 2018, water stewardship programs are implemented where community is involved in monitoring water health are implemented By 2018, water resources planning is informed from input and ongoing adaptive management processes involving a range of diverse stakeholders.
of the impacts of water d agricultural industries) on ral and agricultural oth surface and urately assess water use pastoral and agricultural th to maximise early	•	By 2018, our knowledge of the impacts of water use has increased and is informing water resource management decisions
ision, soil fertility, soil health ty munications materials tion promoting improved ines, mining exploration e age improved grazing o minimise soil erosion	•	By 2018, awareness and enforcement of legislation for developing roads and other infrastructure is strengthened By 2018, land managers, industry and contractors conduct improved soil management practices leading to less erosion By 2018, remote sensing is informing grazing management

and minimising soil erosion



Fish survev

#### **Objectives**

#### Assets Improved

By 2020, water stewardship programs are well established and ongoing planning and management processes involving diverse stakeholders are established

By 2020, our knowledge of the impacts of water use from key industrial and domestic uses of water resources has increased and a regulatory framework exists to minimise pollution of groundwater



#### Key Measures of Achievement

- Survey of contractors and land managers of awareness and adoption of soil management practices
- Number of people/groups involved in water stewardship
- Water allocation plans involve a diverse range of stakeholders
- Water resources have a moderate to high level of development relative to the water available for development (in consideration of non-consumptive uses)

#### **Key Collaborators**

NT Government (Land Resource Management, primary industries, Mines), pastoral industry, horticulture industry, landholders, Central Land Council, Aust Govt.

Farmers are natural resource managers. We manage natural resources for economic ends rather than conservation ends but one is no more or less important than the other – preservation is a critical NRM strategy but equally critical is the ongoing learning process around sustainable development.

By 2020, soil loss, soil function and land degradation are being prevented and, where necessary, addressed





#### Water Resources Water courses in the Tablelands

### PROGRAM G NRM BASED ECONOMIC OPPORTUNITIES

Background	Strategies	Priority Activities
NRM based economic opportunities aims to increase the contribution of the conservation economy to the	MEDIUM PRIORITY Develop NRM based economic enterprises based on the harvest of native species	<ul> <li>Continue to identify markets and opportunities</li> <li>Provide institutional and business support for the development of NRM based economic activities</li> <li>Simplify systems for permits, monitoring and accreditation</li> <li>Strengthen ongoing support arrangements for groups/individuals involved in NRM based economic activities.</li> </ul>
livelihoods and well- being of the people that inhabit the Tablelands region. Opportunities that are particularly relevant to the Tablelands are: participating in emerging carbon markets,	Develop capacity for fee for service opportunities of Landcare groups, Aboriginal rangers and other NRM groups	<ul> <li>Develop and incorporate business skills into NRM activities</li> <li>Develop linkages between local groups to business opportunities through websites and other networks</li> <li>Provide training and business support and mentoring to help establish and manage land and sea management contract businesses</li> <li>Support Aboriginal enterprises and land managers to tender for potential contract and fee for service opportunities</li> <li>Enable policies and utilise the mining environmental levy to encourage Indigenous enterprises to tender for mine rehabilitation activities</li> <li>Support successful Indigenous enterprises to share their stories and to provide mentoring for new enterprises.</li> </ul>
rehabilitation of mine sites and other degraded lands, carrying out environmental offsets, traditional wildlife harvest and the diversification of activities	MEDIUM PRIORITY Support projects and research to develop and participate in national, NT and regional initiatives to develop carbon market programs	<ul> <li>Continued communication of information on carbon market developments to NRM community</li> <li>Clarify ownership and governance arrangements around carbon stocks</li> <li>Support the development of methodologies for fire, soil and grazing carbon abatement suitable for rangeland areas</li> <li>Establish a pilot carbon farming project and replicate successful models throughout the region.</li> </ul>
on pastoral lands. This program is mostly about continuing to identify opportunities in the region but must also consider governance, policy and marketing of products	HIGH PRIORITY Investigate, progress and communicate emerging primary industry and diversification economic opportunities on Aboriginal and pastoral lands including horticulture, aquaculture and tourism	<ul> <li>Support the research and development of horticultural projects that enable commercial opportunities on Aboriginal and pastoral land</li> <li>Support projects that increase participation of Aboriginal land owners in remote horticultural and tourism projects</li> <li>Support emerging and innovative sustainable primary industry activities on pastoral land allowed by the pastoral diversification legislation.</li> </ul>
to take advantage of emerging opportunities.	MEDIUM PRIORITY Link new and emerging opportunities with NRM stakeholders in the NT	<ul> <li>Create new links between industry, corporate bodies and NRM stakeholders particularly looking to deliver new and innovative approaches to NRM</li> <li>Facilitate opportunities between government and industry and link to the delivery of priorities in this NRM plan</li> <li>Seek alternative sources of funding for NRM activities through new partnerships with philanthropic organisations and offset arrangements</li> </ul>



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Milestones	Objectives	Assets Improved
<ul> <li>Most promising products are identified and pursued and markets are developed by 2018</li> <li>The development of business plans, governance arrangements, product marketing for priority ventures by 2018</li> </ul>	By 2020, new employment and business opportunities are created based on sustainable harvest of native species	Key Measures of Achievement <ul> <li>Number of and social and cultural benefit from wild harvesting businesses</li> </ul>
<ul> <li>New environmental levy is utilised by local NRM groups to rehabilitate legacy mines in the Tablelands region by 2018</li> <li>Business mentoring and other support is ongoing to develop emerging Aboriginal land management enterprises</li> </ul>	By 2020, ranger groups and other local NRM enterprises are strong and economically viable and supported by a diversity of funding sources and locally based commercial opportunities	<ul> <li>Amount of fee for service contracts carried out by local businesses</li> <li>Number of new enterprises on Indigenous and pastoral land in primary industries</li> <li>Number of people employed in landscape rehabilitation projects</li> <li>Number of people employed in primary industries</li> </ul>
<ul> <li>Progress opportunities for land managers to gain financial benefit from the developing carbon economy by 2018</li> </ul>	By 2020, carbon abatement opportunities are beginning to be taken up in the Tablelands region	<ul> <li>Financial benefit gained from carbon market opportunities</li> <li>Number of new industry/corporate partnerships in the NRM sector</li> </ul>
<ul> <li>By 2018, increased local employment from primary industries</li> <li>By 2018, there is an increase in other primary industry opportunities on pastoral land in the Tablelands</li> </ul>	By 2020, new employment opportunities are created through diverse primary industries and on different tenures in the Tablelands	Key Collaborators Business enterprises, researchers, pastoralists, Central Land Council, NT Govt. (DME), Aust. Govt (Environment), Aboriginal ranger groups, Aboriginal enterprises, Central Land Council, CentreFarm.
<ul> <li>By 2018, there are new partnerships and funding opportunities for NRM stakeholders in the Tablelands region</li> </ul>	By 2020, new opportunities and new partnerships between private sector and NRM stakeholders have been developed	It's very important to look after this country, cause you know we look after country and country look after us. If that country healthy then we know we are healthy. We wanna live on country cause it's our country, it's our home, our people, our great great grandfather live here for a long time.

Maxie Priest of Corella Creek community and Dr Michael Hammer, fish survey

### PROGRAM 7 MINIMISING ECOLOGICAL FOOTPRINTS OF DEVELOPMEN

effective for NRM in the

**Tablelands** 

Background	Strategies	Priority Activities	Milestones
The objective of this program is to implement measures that increase water and energy efficiency, reduce the impact on natural values from residential and industrial development and reduce the entry of pollutants to the environment. This program also supports environmental planning and management to minimise the impact of the main population centres on the broader environment and to build the capacity of local	MEDIUM PRIORITY Minimise the environmental footprint of main population centres in the Tablelands	<ul> <li>Support sustainability initiatives that promote water and energy efficiency</li> <li>Investigate improved waste management in remote towns and communities of the region</li> </ul>	<ul> <li>Behaviour change with more people adopting sustainable practices in towns and communities by 2018</li> <li>Increase in uptake of renewable energy sources (solar) in the Tablelands region by 2018</li> </ul>
people to undertake environmental management in their own communities. Offset schemes ensure that where a development cannot avoid causing environmental degradation, this degradation is offset by an investment in priority areas to improve environmental conditions elsewhere.	HIGH PRIORITY Strengthen and consolidate environmental offset arrangements to direct offsets where they are likely to be most	<ul> <li>Develop a clear direction to offsets and 'voluntary' offset activities that encourages more investment into NRM</li> <li>Develop partnerships between the private sector, government and NRM stakeholders to enable the use of offsets to support NRM activities</li> </ul>	<ul> <li>Increased alliances between industry and government that promote offsets from development activities to support NRM activities by 2018</li> <li>Increased stewardship in NRM and conservation activities from well directed offset funds by 2018</li> </ul>



Rubber Bush

#### **Objectives**

#### **Assets Improved**

By 2020, Tennant Creek and other living areas in the region display improved environmental planning and management







#### Amount of funds from offsets invested into NRM activities identified in the NRM plan

consumption

 Percentage of energy coming from renewable sources

**Key Measures of Achievement** 

Trends in per capita water and power

Public information programs and their uptake

#### Key Collaborators

NTG (Land Resource Management), Aust Govt. (Environment), researchers, TNRM, local government.

• The demand for agriculture and beef has never been brighter with the Asian middle-class projected to go to 3.2 billion people by 2030 pushing demand for our exported food on a rising trajectory for many years to come. The Develop the North endeavour has failed before, however this demand means it is more achievable now than ever before.

THE FEAR

### PROGRAM 8 MANAGING AND PROTECTING KEY NATURAL AND CULTURAL ASSETS

Background	Strategies	Potential Activities	Milestones
The Tablelands has only a fraction of its area (<1%) set aside in protected areas. However, many landholders have an interest in and responsibility for maintaining the Territory's good environmental condition, whether they are	HIGH PRIORITY Protect conservation values of significant wetlands on the Barkly Tablelands through collaborative management and monitoring programs	<ul> <li>Establish a biodiversity and land condition monitoring program</li> <li>Identify priority areas/species for protection</li> <li>Develop local management plans and landholder stewardship programs</li> <li>Partner with land managers in priority areas and negotiate voluntary conservation agreements (eg. Territory Conservation Agreements)</li> <li>Share good news stories and maintain ongoing partnership with land managers</li> </ul>	<ul> <li>Values and threats and management strategies with land owners and other stakeholders are identified for key wetland areas by 2018</li> <li>Developed at least three management plans for key conservation areas by 2018</li> <li>Ongoing adaptive management of significant wetlands in the region is implemented</li> </ul>
Indigenous people managing land to maintain natural and cultural values or pastoralists wanting to turn off cattle or protect key areas. In this program, an increasing number of landholders are supported to manage their country	HIGH PRIORITY Implement the Action Plan for Priority Threatened Species in the NT (2015-2025) linking on-ground action to the latest knowledge	<ul> <li>Communicate the Action Plan for Priority Threatened Species in the NT (2015-2025) and supports its implementation</li> <li>Link threatened species action in the NT to the National Threatened Species Strategy and support its implement key priorities relevant to the NT</li> </ul>	<ul> <li>Threatened species action is guided by science, practical action and working in partnership by 2018</li> </ul>
for wildlife conservation. Territory Conservation Agreements on pastoral land, Aboriginal Land Management Programs and linking pastoral productivity with conservation are all important components of managing and protecting key natural and cultural	MEDIUM PRIORITY Develop adaptation plans to address the impacts of climate change for vulnerable ecosystems in the region	<ul> <li>Undertake research on the likely impacts of climate change on threatened habitats and species in the Tablelands</li> <li>Develop management strategies and prioritise actions for vulnerable environmental assets that will be affected by climate change</li> </ul>	<ul> <li>Adaptation plans for predicted climate change impacts on vulnerable ecosystems have been developed by 2018</li> <li>Awareness of climate change impacts amongst NRM stakeholders and the broader community is increased by 2018</li> </ul>
assets. Supporting Traditional Owners' cultural knowledge systems and resourcing to monitor and manage cultural sites is also integral to the longevity of maintaining the	HIGH PRIORITY Support ongoing mapping and monitoring of rangeland condition using remote sensing together with field based surveys	<ul> <li>Develop case studies and demonstration sites showcasing best practice grazing management for biodiversity conservation and production</li> <li>Support development of national rangeland condition assessment tools and implement landholder training courses on its utilisation</li> </ul>	<ul> <li>Rangeland condition assessment tools are developed and utilised by stakeholders by 2018</li> <li>Increased landscape and biodiversity data collection and exchange by 2018</li> </ul>
knowledge of cultural sites across the Tablelands region. Also, obtaining good information through research and utilising and sharing this information will assist in protecting significant sites and recovering or managing species and key habitats.	HIGH PRIORITY Support best practice management of Indigenous culturally significant sites and landscapes	<ul> <li>Support the mapping, documentation and management of culturally significant sites by Traditional Owners</li> <li>Negotiate access to cultural sites on non-Aboriginal land tenure</li> <li>Increase awareness of industry and government agencies about Aboriginal sacred sites and the processes and mechanisms for their protection in proposed development activities</li> </ul>	<ul> <li>Culturally significant sites are increasingly mapped and recorded and managed by the appropriate Traditional Owners by 2018</li> <li>Aboriginal ranger groups and Traditional Owners are increasingly supported to visit and carry out cultural site management on all land tenures by 2018</li> <li>Increased adoption and awareness of the process for the protection of sacred sites in proposed developments by 2018.</li> </ul>



#### **Objectives**

By 2020, increase the area of high value aquatic ecosystems under active management (stewardship) for conservation (i.e. weeds, stock and feral animals are managed) and increase the involvement of pastoralists in stewardship arrangements

By 2020, the approach to threatened species management is more integrated with strong links between research, monitoring and on-ground action showing progress against key indicators in the threatened species action plan

By 2020, our understanding of the impacts of climate change on ecosystem function are informing our management decisions

By 2020, rangeland condition is regularly being monitored and informing grazing management decisions

By 2020, increase the involvement of Indigenous land managers and Traditional Owners in land management activities across the Tablelands

#### Assets Improved















- Survey of NRM stakeholders on understanding of likely impacts of climate change
- Number of cultural sites actively being managed on all land tenures
- Number of people involved in collecting biodiversity data
- Number of people working on and area under active conservation management
- Progress against the threatened species action plan
- Level of utilisation of rangeland grazing management tools

#### **Key Collaborators**

NTG (DLRM), Central Land Council, Aust. Govt. (Environment), TNRM, BLCA, researchers, pastoralists, Traditional Owners.

6 The Beetaloo project will gather scientific evidence of pastures (native grasses) and biodiversity condition, and any changes witnessed over that time. The aim is to measure the potential for sustainably and profitably intensifying production through grazing practices that give greater control of livestock distribution, grazing pressure and pasture utilisation.



Source:https://nt.gov.au/environment/environm ent-data-maps/important-biodiversity-conservat ion-sites/map-sites-conservation-significance

Rockhole on Mungkarta ALT

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#### Sites of Conservation Significance

Sites of Conservation Significance were identified as the most important sites for biodiversity conservation in the NT.

### **PROGRAM 9** KNOWLEDGE, CAPACITY AND ENGAG Ĩ.

Background	Strategies	Priority Activities	Milestones
Natural resource management will not be effective without a strong, capable and knowledgeable workforce. This program aims to increase knowledge about NRM issues	HIGH PRIORITY Strengthen Landcare and NRM networks promoting community and industry responsibility of NRM issues	<ul> <li>Continue to support BLCA to empower community based action in sustainable land management</li> <li>Build capacity of Landcare coordinators and volunteer members and provide opportunities for networking in the region</li> <li>Develop more fee for service opportunities and a diversified funding base to ensure the long-term survival of Landcare groups</li> <li>Support collaboration between key technical agencies to provide assistance to local Landcare and other NRM stakeholder groups</li> </ul>	<ul> <li>Local, regional and national networks and partnerships are developed that support the strengthening of NRM objectives in the Tablelands by 2018</li> <li>A diversified funding base is established for Landcare groups in the Tablelands by 2018</li> </ul>
across a broad range of NRM stakeholders in the Tablelands through both formal and informal training programs and to support strong networks between these stakeholders. It aims to foster a funding	MEDIUM PRIORITY Support land managers to record, utilise and share TEK, scientific research and pastoral knowledge in NRM planning and activities	<ul> <li>Develop programs that facilitate community monitoring (adding to NT species database) of key environmental assets in the Tablelands</li> <li>Identify knowledge gaps and research priorities</li> <li>Disseminate knowledge collected through the appropriate networks and in appropriate ways for different stakeholders</li> <li>Establish knowledge capture, storage and sharing projects by Traditional Owners and Aboriginal ranger groups</li> </ul>	<ul> <li>Communities are engaged in monitoring the condition of key environmental assets in the Tablelands by 2018</li> <li>Analysis of biodiversity data better informs status of ecosystem functions and directs management decisions by 2018</li> <li>Knowledge systems (Science, TEK and NRM) are utilised in NRM activities and local planning</li> </ul>
environment and policy framework that supports a viable NRM community in the Tablelands where community groups, volunteers and other land managers are increasingly supported to carry out NRM work utilising the latest scientific knowledge.	<ul> <li>Assess training needs (non-accredited and accredited) for NRM stakeholders and support the delivery of appropriate training where needed particularly supporting skills linked to employment</li> <li>Assess the efficiency of training and improve where necessary</li> <li>Support governance and leadership training of locally based NRM groups and establish clearer career pathways in NRM</li> <li>Facilitate multi-stakeholder annual reviews of progress against the NRM plan</li> </ul>	<ul> <li>Increased training and capacity building of NRM stakeholders in the Tablelands by 2018</li> <li>Capacity building and training activities are evaluated to further improved and target future training and capacity building programs by 2018</li> <li>An annual NRM "report card" document is published by TNRM based on review</li> </ul>	
	<ul> <li>Support a multi-stakeholder approach to adaptive management to help prioritise funding, resources and effort in areas of highest need</li> </ul>	<ul> <li>Increased numbers of partners join and support the NRM community and resource key strategies identified in the NRM plan</li> </ul>	



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#### **Objectives**

#### **Assets Improved**

By 2020, increased resources and long-term approaches to NRM issues for land managers



#### Key Measures of Achievement

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- Number of accredited and nonaccredited training sessions delivered
- Number of graduates of NRM courses
- Participation in Indigenous ranger and pastoral Landcare groups
- Amount of funding provided for NRM
   in the region
- Number and quality of landscape scale multi-stakeholder workshops in region
- Number and quality of NRM plan review and adaptive management processes

#### **Key Collaborators**

TNRM, BLCA, pastoralists, NTG (DLRM, DPIF), Aust Govt. (Environment and Agriculture), research institutions, training providers, Central Land Council, Aboriginal organisations, landholders.

For the survival of this new generation of farmers, the future lies in taking the old farm and the old operating procedures and implementing new technology and innovations to make farms more profitable.

By 2020, TNRM managers are incorporating the best available knowledge, information and data into their management including TEK and community knowledge

By 2020, there is increased and more targeted training in relevant natural resource management skills



By 2020, multi-stakeholder review processes are strengthened in the Tablelands leading to adaptive management and improved practices and stakeholder cooperation



## THREATENED SPECIES OF THE TABLELANDS

Threatened Species listings are currently under review and likely to change over the life of this plan. Refer to updated threatened species list at <u>http://www.lrm.nt.gov.au/plants-and-animals/threatened-species/specieslist</u>.

Birds	Nat / NT Status
Australian Painted Snipe	EN / VU
Bar-tailed Godwit	- / VU
Carpentarian Grasswren	- / EN
Curlew Sandpiper	CE / VU
Gouldian Finch	EN / VU
Grey Falcon	- / VU
Masked Owl (northern mainland)	VU / VU
Painted Honeyeater	- / VU
Partridge Pigeon	VU / VU
Princess Parrot	VU / VU
Flowering Plants	Nat / NT Status
Austrobryonia argillicola	- / VU
Sporobolus latzii	- / VU
Mammals	Nat / NT Status
Black-footed Rock-wallaby	VU / -
Brush-tailed Mulgara	VU / VU
Carpentarian Antechinus	VU / -
Common Brushtail Possum (southern)	- / EN
Crest-tailed Mulgara	EN / VU
Golden Bandicoot	VU / EN
Greater Bilby	VU / VU
Northern Quoll	EN / CE
Pale Field-rat	- / VU

Reptiles	Nat / NT Status
Gulf Snapping Turtle	EN / -
Mertens` Water Monitor	- / VU
Mitchell`s Water Monitor	- / VU
Plains Death Adder	VU / VU
Yellow-spotted Monitor	- / VU
Snails	Nat / NT Status
Spencer's Land Snail	- / VU

- CR Critically endangered (PE) Possibly Extinct
- EN Endangered
- VU Vulnerable
- DD Data Deficient

#### Gouldian Finches



## SITES OF CONSERVATION SIGNIFICANCE OF THE TABLELANDS TABLELANDS NRM PLAN

Waterhole on the Barkly

Site name	Significance	World heritage area	Ramsar	% Protected
Davenport and Murchison Ranges	National			11.9
Eva Downs Swamp	International			-
Frew River floodout swamps	National			-
Lake Sylvester system	International			-
Lake Woods	International			85.3
Tarrabool Lake	International			-
Wollogorang and China Wall sandstone ranges	National			-

## WEEDS OF THE TAB

Weed lists published are agreed at time of publication but are likely to change over the life of this plan.

#### **Priority Weeds**

Species that require priority management attention within the region were determined using rigorous weed risk assessment processes.			
Species Name	Common Name	Declared	WONS/KTP
Calotropis procera	Rubber Bush	B/-	-
Jatropha gossypiifolia	Bellyache Bush	A/B	WONS
Parkinsonia aculeata	Parkinsonia	В	WONS
Prosopis pallida	Mesquite	А	WONS
Tamarix aphylla	Athel Pine	A/B	WONS
Vachellia nilotica	Prickly acacia	А	WONS

<b>'Alert Weeds'</b> Species not yet fully naturalised in the should it become established, and the perceived to be high.	region, that have the potential to likelihood of the species naturali	have a high le sing and sprea	evel of impact ading is
Species Name	Common Name	Declared	WONS/KTP
Cryptostegia grandiflora	Rubber Vine	А	-
Parthenium hysterophorus	Parthenium	A	-
Cenchrus setaceus	Fountain grass	В	-

**Other Weeds Species Name Common Name** Declared WONS/KTP Acanthospermum hispidum Burr - Star В Alternanthera pungens Khaki weed В Argemone ochroleuca Mexican poppy В В Azadirachta indica Neem Mossman river grass В Cenchrus echinatus Thornapple - Longspine Datura ferox А Echium plantagineum Pattersons curse А Hyptis suaveolens Hyptis В В/-*Opuntia* sp Prickly pears sp WONS Senna obtusifolia Senna - Sicklepod В -Senna - Coffee Senna occidentalis В Sida spp В Sida spp Striga spp Witchweed spp С Themeda quadrivalvis Grader grass В Caltrop - terrestris Tribulus terrestris В Burr - Noogoora В Xanthium strumarium



WONS - Weed of National Significance

**KTP** - Key Threatening Process

Declared weeds - schedule of classees:

A - To be eradicated

B - Growth and spread to be controlled

C - Not to be introduced to the Territory

All Class A and Class B weeds are also considered to be Class C weeds.

## FERAL ANIMALS OF THE TABLELANDS

Feral donkey



Feral animal name	
Birds	House Sparrow
	Rock Dove
Amphibians	Cane Toad
Mammals	Black Rat
	Camel
	Cat
	Cattle
	Donkey
	Fox
	Horse
	House Mouse
	Pig
	Rabbit
Reptiles	Asian House Gecko

