



Cape York Peninsula

Natural Resource Management Plan

FINAL DRAFT

11 February 2005

Foreword
Jim Petrich
Chair, Cape York Interim Advisory Group



This is the ***Cape York Peninsula Natural Resource Management Plan***. The aim of the Plan is to ensure that natural resources are well managed, and protected where required, for the benefit of us all and future generations.

Cape York Peninsula is one of the natural resource management regions of Queensland (others in the Northern Region include the Wet Tropics, Burdekin Dry Tropics, Southern Gulf Catchments, Northern Gulf Catchments and Torres Strait). Cape York Peninsula is an extremely diverse region, characterised by a broad range of environmental, social and economic values and community aspirations. In order to strategically manage the sometimes-conflicting demands on the Peninsula's natural resources, a large number of assessments and planning studies have been undertaken in the past with varying levels of success in terms of community acceptance and measurable outcomes.

During the consultation stage in developing this Plan the people of Cape York Peninsula made it clear that they are tired of planning and want to see more action.

Even so, they are patiently putting this document forward as a way of explaining, again, the good ideas already put forward in the host of regional and sub-regional plans that are listed in Section 4. Chief among these is the Cape York Peninsula Land Use Strategy (CYPLUS).

This time the ideas are being put forward in ways that will make it easy for both the Queensland and Australian Governments to 'accredit' them as a Natural Resource Management Plan. Once it is accredited, funding should be freed-up for the on-ground work that everyone on Cape York Peninsula is anxious to see.

One thing about the accreditation process is that it calls for clear targets. These targets are set out for each of our natural resource assets in Section 7. In some ways, that is the most important part of this document.

Targets will give the people responsible for doing the work more incentive to finish things on time and on budget. People will be more accountable for achieving what they said they would do.

Despite their frustration, people throughout Cape York Peninsula have, through the consultation process required for accreditation, shown remarkable goodwill in helping once again to contribute ideas about what needs doing. Their strong words and their constructive ideas have made a difference.

It is important to note that there is no guarantee that everything in this plan will be funded by NHT2 (The Natural Heritage Trust). Instead, the plan will inform a Regional Investment Strategy, that many different bodies may invest in, into the future through negotiated partnerships.

What can be guaranteed is that Cape York Peninsula will continue to be recognised nationally and internationally for its vibrant cultures, its vast intact landscapes and its diverse environmental values. These combine to create an area of singularly outstanding natural and cultural significance within which the sensitive development of resources has been achieved.

This special mix of social, environmental and economic features underlies Cape York Peninsula's distinctive regional identity.

Yours sincerely



Jim Petrich



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Acronyms

Acronym	Title
CAMBA	China Australia Migratory Birds Agreement
COAG	Council of Australian Governments
CYPPAC	Cape York Peninsula Pest Advisory Committee
CYPLUS	Cape York Peninsula Land Use Study
CYRAG	Cape York Regional Advisory Group
CYRAP	Cape York Regional Advisory Panel
CYP 2010	A Natural Heritage Trust funded plan intended to implement the objectives of CYPLUS
CYPIAG	Cape York Peninsula Interim Advisory Group
CYWAFAP	Cape York Weeds & Feral Animals Program
DOGIT	Deed of Grant in Trust
DPI&F	Queensland Department of Primary Industries and Fisheries
EPA	Queensland Environmental Protection Agency
GBRMPA	Great Barrier Reef Marine Park Authority
HOA	Heads of Agreement
HOAIG	Heads of Agreement Implementation Group
MAT	Management Action Target
JAMBA	Japan Australia Migratory Birds Agreement
NR&M	Queensland Department of Natural Resources and Mines
NRM	Natural Resource Management
NHT 1	Natural Heritage Trust program stage 1
NHT 2	Natural Heritage Trust program stage 2
ILUA	Indigenous Land Use Agreement
M&E	Monitoring and Evaluation
NOO	National Oceans Office
RAMSAR	International agreement for the protection of Wetlands
RCT	Resource Condition Target
TUMRA	Traditional Use of Marine Resource Agreement
WONS	Weeds of National Significance

Glossary

best practice/ best practice management (BMP)	Best practice management recognises that it is rarely possible to undertake any activity perfectly. In the case of NRM, activities can be undertaken in accordance with best practice which aims to minimise environmental impact but recognises that some environmental impacts will still occur. Best practice manages those impacts.
biodiversity	The totality of genes, species, and ecosystems in a region or the world.
Communities	In this document the term “communities” is used to describe settlements, as well as various groupings of people. It is used for all the people of Cape York Peninsula – Indigenous and non-Indigenous.
geoevolution	The world’s or a region’s geological evolutionary history including the geological processes that have contributed to the development of landforms and geological and physical features.
geodiversity	The range (or diversity) of geological (bedrock), geomorphological (landform) and soil features, assemblages, systems and processes.
protocol	A code of correct conduct.
Wilderness	<p>Wilderness area is an area which is, or can be restored to be:</p> <ul style="list-style-type: none"> ▪ of sufficient size to enable the long term protection of its natural ecosystems and biodiversity ▪ substantially undisturbed by colonial and modern technological society and ▪ remote at its core from points of mechanised access and other evidence of colonial or modern technological society. <p>Wilderness areas are generally determined on the basis of remoteness and naturalness. This does not mean that the land is without human history. In Cape York Peninsula, Aboriginal custodianship and customary practices have been, and in many places continue to be, significant factors in maintaining what non-indigenous people describe as “wilderness”.</p>

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Development of the Plan

The Development of the NRM Plan

The development of the Cape York NRM Plan is a joint initiative of the Queensland State government and the Natural Heritage Trust. The Australian Government's \$2.7 billion Natural Heritage Trust is Australia's largest ever environmental rescue package.



Natural Heritage Trust

Helping Communities Helping Australia

An Australian Government Initiative

Natural resources management consultancy firm Earth Tech on behalf of the Cape York Interim Advisory Group has prepared this Natural Resources Management Plan. The Cape York Interim Advisory Group acknowledges the support of the Natural Heritage Trust and the Queensland Government in preparing this Plan.

Acknowledgements

A wide range of people has provided assistance in the development and review of this Plan. Thanks are due to all those people who have taken the time to attend meetings, provide verbal, written and telephone comments, review drafts, check technical details and provide constructive advice, editorial comments and guidance.

All photographs in this Plan are by B Lincoln and K Thomas.

Disclaimer

The information and views contained in this Plan have been provided by many individuals and organisations. The Plan attempts to synthesise a wide range of information and opinions, and the views expressed are not necessarily the views of the Queensland Government or the Australian Government.

In this document any reference to custodial responsibilities, caring for country or traditional ownership in no way confers any additional rights to any party other than the rights they are entitled to under current legislation and common law.

Executive Summary

This is the ***Cape York Peninsula Natural Resource Management Plan***. The aim of the Plan is to ensure that natural resources are well managed, and protected where required, for the benefit of us all and future generations.

Cape York Peninsula is one of the natural resource management regions of Queensland (others in the Northern Region include the Wet Tropics, Burdekin Dry Tropics, Southern Gulf Catchments, Northern Gulf Catchments, and Torres Strait).

Cape York Peninsula covers an area of about 137,000 square kilometres. It is bound by the waters of the Gulf of Carpentaria (west), Torres Strait (north) and the Coral Sea (east) and includes all estuaries, marine areas, reefs and islands within three nautical miles of the coast.

It covers an area roughly equivalent to the State of Victoria, but with fewer than 18,000 people, it has just a tiny fraction of Victoria's population. There are very few people on the ground to do all the work involved in looking after its globally important natural resources.

Although the population is relatively small, Cape York Peninsula is recognised nationally and internationally for its vibrant cultures. The people of Cape York Peninsula, their cultures, and their capacity to care for country, are all assets in their own right.

Ultimately, people are at the heart of natural resource management. Engaging with the people who live and work on Cape York Peninsula is a vital part of dealing successfully with the natural resource challenges facing this special part of the world. Other people including government workers, scientists and conservationists have a keen interest in helping to protect Cape York Peninsula's unique natural assets while also enabling genuinely sustainable development. Collectively, these people and organisations form the 'community' with whom the planning process consulted.

The people of Cape York Peninsula have a long history of working together with the Cape York Heads of Agreement being an excellent example (see Annexe 5). They don't always agree with each other. In fact they often disagree. But they are able to agree to disagree and to continue talking to ensure that the exceptional economic, cultural, environmental and social values of Cape York Peninsula are protected for all time. 'Caring for country' is their unifying theme and ecologically sustainable development is their overall goal.

Cape York Peninsula is of global importance. Australia, alone among all nations with large areas of monsoonal wet and dry tropical environments, has an opportunity to avoid the mistakes of poorly considered development and the consequent loss of biodiversity.

Cape York Peninsula is significant for its bio- evolutionary and geo-evolutionary relationships with New Guinea and Torres Strait and holds the key to our understanding of the interaction between Australia and New Guinea. Cape York Peninsula is the longest standing land connection between ancient Australia and the still emerging landmass of New Guinea. But the present day high sea level has isolated formerly connected ecosystems on both sides of Torres Strait.

Although many species that are found on Cape York also occur in other bioregions of Australia, a substantial proportion are limited to Cape York Peninsula in their distribution within Australia. Nationally and globally, Cape York provides the most important relatively undisturbed habitat for very many species, for example, the tropical savannas.

Rainforest, *Melaleuca* dominated savannas and heath ecosystems on Cape York Peninsula have counterparts in the Western District of Papua New Guinea. And eucalypt dominated savannas much further to the east in the dry zone around Port Moresby have parallels on Cape York Peninsula.

Quite apart from the separation imposed by Torres Strait, the present climatic regimes, although broadly similar, are different enough to have produced a re-sorting of biotic components. While many species remain in common, others have been sifted out to be replaced by yet others from the surrounding pool of continental Australian or insular New Guinea species. Biodiversity is dynamic and continuously adjusting to environmental challenges.

The unifying theme for everyone involved in natural resource management on Cape York Peninsula is the notion of 'caring for country'. For Indigenous people, caring for country is tied-in with spiritual and cultural identity, custodial responsibilities, health, well being and economic viability, in ways that are only partly understood by non-Indigenous people.

Most traditional owners see that to look after country, they must live on or have access to that country. Pastoralists see properly managed cattle properties providing numerous environmental management benefits.

Other industries including fishing, cropping, horticulture and tourism also have a vested interest in caring for country as their future depends upon sustaining the environmental health of the region. The mining industry, whilst not directly reliant upon sustaining the environmental health of the region, also recognises the importance of undertaking their activities to standards of 'best practice' in order to best manage the environmental impacts of the industry and to secure their long-term future for both the environment and for the economic wellbeing of many of the regions residents.

Environmentalists are deeply concerned with helping to care for country. They are acutely aware of Cape York Peninsula's place in the world. And they are conscious that, in world terms, Australia has a unique blend of economic, cultural, environmental and social strengths. Accordingly, Australia is uniquely placed to manage its natural heritage.

The criteria used for listing as World Heritage and on the register of the National Estate were adapted for use in the "The Natural Heritage Significance of Cape York Peninsula"². This publication describes eight natural heritage criteria by which the Peninsula has been assessed. It concluded that the Peninsula has characteristics and features that are locally, regionally, nationally and globally significant in respect of all eight natural heritage criteria (see Annexe 5 for details).

This Plan aims as far as possible to be consistent with other regional strategies. As part of the 'bigger picture' this process is also consistent with the State and National plans and strategies that address the broad issue of ecologically sustainable development. Numerous regional, State and Commonwealth initiatives are relevant to the further integration of natural resource management and economic development opportunities for the region. These are outlined in Chapter 1 and in Annexe 1.

The planning process identified eight categories of natural resource management assets - for Cape York Peninsula these are:

- community capacity
- cultural heritage
- natural heritage
- land country
- water
- sea country
- biodiversity
- ecologically sustainable development*.

(* Whilst ecologically sustainable development (ESD) is not a natural resource 'asset' as such, this Plan recognises that economic development and activities are an essential element of supporting all communities and their ability to undertake natural resource management activities).

This Plan establishes 'achievable resource condition targets' for each of these assets. One thing about the accreditation process is that it calls for clear targets. These targets are set out for each of our natural resource assets in Chapter 7. In some ways, that is the most important part of this document.

Targets will give the people responsible for doing the work more incentive to finish things on time and on budget. People will be more accountable for achieving what they said they would do.

The long-term (50 year) targets for each asset class are summarised below. These targets are meant to be 'SMART'. That is, they are meant to be 'Specific, Measurable, Achievable, Realistic and Time-bound.'

Aspirational Targets for Community Capacity

C1 By 2025 community capacity projects, are adequately funded and resourced, and supported by appropriate institutional arrangements.

C2 By 2025 informed, skilled and confident Cape York Peninsula-based people, in socially cohesive and economically viable communities, are undertaking natural resource management on Cape York Peninsula.

C3 By 2025 establish a competent saltwater and freshwater country management capacity, undertaking research and monitoring at Cape York scale.

Aspirational Targets for Cultural Heritage

H1 In 2025 mutual understanding of the full range of cultural and historical heritage values on Cape York Peninsula is enhanced, recognised, respected and protected.

H2 In 2025 strong and healthy communities and individuals continue to care for country with appropriate levels of support and institutional arrangements (see also capacity building).

H3: In 2025 understanding, respect and support exists for the special relationship people have with country.

H4: In 2025 effective systems are in place which ensure Indigenous access to country and protection of significant cultural sites.

H5: In 2025 traditional knowledge is retained, protected and passed on to ensuing generations.

H6: By 2025 secure, effective mechanisms and agreements are in place to support Traditional Owners in caring for country.

H7: By 2025 mutual understanding and respect exists for the historical connections and heritage of all the Cape York Peninsula communities and mechanisms are in place for balancing the needs and aspirations of different stakeholders.

Aspirational Targets for Natural Heritage

N1 In 2025 the natural heritage values of Cape York Peninsula are recognised, protected and managed in accordance with their significance; and World Heritage listing of identified areas and management arrangements that are supported by and benefiting local people are in place. (The natural heritage values include natural integrity, ongoing natural processes, biodiversity, bio-evolution, geo-diversity, aesthetics and contribution to knowledge).

N2 By 2025 natural integrity has been restored to degraded areas across CYP.

N3 By 2025 sustainable networks of remnant vegetation are retained throughout any areas on CYP where land clearing is permitted under State law.

N4 In 2025, the terrestrial and marine biodiversity of Cape York Peninsula is retained through strategic, coordinated, well resourced and informed management regimes.

Aspirational Targets for Land Country

L1: By 2025 knowledge and information about sustainable land management practices is documented and widely accessible to CYP communities.

L2 By 2025 sustainable land management is supported within a Peninsula-wide conservation strategy backed up by plans for fire, weeds, pest animals, and rivers and coastal zones.

L3 In 2025 there has been no loss of natural heritage values on pastoral leases.

L4 By 2025 most abandoned mines have been adequately rehabilitated.

Aspirational Targets for Water

W1 In 2025 natural hydrological processes remain intact.

W2 In 2025 all known surface springs continue to flow subject to natural seasonal variation.

W3 In 2025 surface water quantity continues to meet community and environmental needs (subject to natural climatic variations).

W4 In 2025 water quality processes are maintained in a manner that supports all of the ecological processes normally expected of such systems.

W5 In 2025 riparian vegetation in all locations throughout the region remains substantially intact and is not significantly impacted by weed species or pest animals.

W6 In 2025 all major aquatic habitats of the region retain or improve upon their 2004 morphological integrity (e.g. control erosion) and support healthy and productive populations of naturally occurring native species.

W7 By 2025 the biodiversity values, natural integrity and ecological processes of all CYP aquatic environments is maintained (See also N3).

Aspirational Targets for Sea Country

S1 In 2025 all CYP fisheries are managed sustainably and with minimal impact on marine fauna.

S2 Through cross-regional cooperation, in 2025 there will be no loss of native species.

S3 By 2025 environmental impacts of shipping industries are minimised.

S4 In 2025, there is no decline in the health of coastal or marine ecosystems.

Aspirational Targets for Biodiversity

B1 In 2025 there is widely accessible, comprehensive knowledge of biodiversity and natural integrity values, and their conservation status, as well as appropriate management principles.

B2 By 2025 there is implementation of an agreed Peninsula-wide conservation strategy to conserve biodiversity, through appropriate land and sea management.

B3 In 2025 biodiversity and natural integrity conservation is adequately resourced and funded and contributes to community capacity.

B4 In 2025 biodiversity and natural integrity are restored/maintained (at or above 2004 levels) through appropriate management.

Aspirational Targets for Ecologically Sustainable Development

D1 In 2025, ecologically sustainable development is supporting cohesive CYP communities and their natural resource management activities.

D2 By 2010 all Aboriginal communities will be economically viable, ecologically sustainable and self-supporting.

D3 In 2025 the human health and environmental impact of unsealed roads have been fully assessed and are being actively managed.

D4 By 2025, bauxite mining interests, Aboriginal communities and other stakeholders have cooperated to achieve the relinquishment of an optimal area of mining lease land, into productive use including cultural and ecological use, managed by Traditional Owners or Aboriginal communities with traditional links to that land, or other CYP stake-holders where appropriate [including QPWS, industry].

1 Scope and Context for this Plan

The objective of this Plan is to develop strategies, mechanisms and actions which will ensure the long-term sustainable use of Cape York Peninsula's natural resources and the protection of the region's natural and cultural heritage. Co-operative partnerships will be sought with a range of partners to achieve the Vision, objectives and goals of the Plan.

The Plan will incorporate existing natural resource management plans and identify gaps in management, based around the four identified assets of Natural Heritage, Cultural Heritage, Ecological Sustainable Development and Community Capacity. The quadruple bottom line will be applied to decision-making to incorporate natural, cultural, economic and social values.

Priority will be given to projects, plans and programs which can deliver integrated outcomes to achieve ecological sustainable natural resource management and the protection of natural and cultural heritage. Funding will be sourced from the Natural Heritage Trust and potentially from other government programs and partnerships with private and philanthropic bodies.

Cape York Peninsula is as large as the State of Victoria, with just a fraction of Victoria's population. There are very few people on the ground to do the work involved in looking after its globally important natural resources.

The Queensland Government has constitutional responsibility for managing land and water on Cape York Peninsula, but the Australian Government has demonstrated its preparedness to co-invest in maintaining this unique landscape and its rich cultural heritage.

The State government made a commitment in 2004 that if re-elected a total of more than \$10 million in new money would be invested to protect Cape York Peninsula's world class natural and cultural heritage over the next three years. That commitment includes:

- \$7.5 million for voluntary acquisitions of land of high conservation value, with a view to gaining matching funding from the Commonwealth. This comprises \$2.5 million from the *Protecting Queensland's Natural Heritage: National Parks* policy, and a further \$5 million.
- \$1.5 million for Indigenous land and sea management centres.
- \$1 million for enhanced visitor facilities at key national parks, under *Protecting Queensland's Natural Heritage: National Parks*.
- Compiling the case towards World Heritage listing of appropriate areas.
- Additional funds for weed and feral animal management, from the \$6 million state wide funding announced under *Protecting Queensland's Natural Heritage: National Parks*.

1.1 Cape York Natural Heritage Trust Plan

This Cape York Peninsula Natural Resource Management Plan was preceded by the Cape York Natural Heritage Trust Plan which has now run its course and will no longer be funded through State and Commonwealth governments. Any future

investment in NRM actions will be based on the final Cape York Peninsula Natural Resource Management Plan (this document).

1.1.1 NHT Plan Goals and Strategies

The NHT Plan was designed to ensure the protection of the natural and cultural values of the region that took into account the recommendations relating to environmental and cultural protection that were proposed through the CYPLUS Stage 2 report. The NHT Plan consisted of 10 Strategies:

1. Managing natural resources including:
 - Cape York Property Plans
 - An enhanced and expanded network of Protected Areas
 - Indigenous peoples' land management
2. Enhancing Cape York Protected areas
3. Controlling feral animals and weeds
4. Heritage site management
5. Land rehabilitation
6. Assessment of natural and cultural values
7. Cooktown Interpretive Centre
8. Cape York Community Grants
9. Rare and threatened species assessment and recovery
10. Making it happen.

1.1.2 Unfinished Business

One of the criticisms of the Cape York NHT Plan has been the lack of progress on the most critical elements of some strategies. It has been suggested that there has been significant progress on only one of the five most critical elements.

The Cape York Natural Heritage Trust Plan (CYNHT Plan) was developed by the Queensland and Commonwealth Governments, with Cape York stakeholders, to support outcomes of, and in response to, key conservation recommendations of the CYPLUS Stage 2 and the Cape York Heads of Agreement (CYHoA).

CYPLUS Stage 2 had as its stated goal "to protect the natural heritage values of Cape York Peninsula through an integrated regional initiative". The Cape York Natural Heritage Trust Plan was designed to ensure the protection of the natural and cultural values of the region [page 3 CYNHT Plan]. The Cape York Natural Heritage Trust Plan (NHT 1) left many management issues and desired outcomes unresolved and unfulfilled. A high priority of this plan is the resolution of the unfinished business from the CYNHT Plan.

These are highlighted in the table over page.

Table 1: Progress on delivering key components of the Cape York NHT Plan

Component	Assessment of Progress
The Indigenous Land Management Program	Success in establishing Land and Sea Management centres, but these urgently need secure funding
Cape York Weeds and Feral Animal Program	Some notable achievements in community education and site-specific weed eradication, but overall slower progress than expected due to funding delays.
Enhanced and Expanded Network of Protected Areas	Failure of the CYNHTP to meet its objective under Strategy 1, Element 2 of the Plan of creating an 'Enhanced and Expanded Network of Protected Areas' through a four year voluntary land purchase scheme. As of March 2003, only \$143 333 out of an available \$8 million has been expended on voluntary land purchases.
Cape York Property Plans	No plans concluded despite 5 years of negotiation and expenditure of more than \$2.4 million
Improved Management of National Parks and Protected Areas	Failure of the CYNHTP to meet its stated objective under Strategy 2 to invest \$4 million to improve management of Cape York Peninsula's National Parks and Protected Areas. As of March 2003, \$0 of the available \$4 million has been allocated from this strategy.
Fire Project	Considered successful in delivering objectives and engendering community support.

A variety of reasons for slow progress on delivering some components include: lack of long-term funding security; differences of opinion creating an inability to resolve conflicting points of view in property planning; insufficient funding to achieve all NHT Plan components.

This unfinished business was taken into account during the priority setting process for this NRM Plan. Key unfinished components of the Cape York NHT Plan have been given a high priority wherever they are directly relevant to the targets in this Plan.

1.2 Scope of this NRM Plan

Natural resources include air, soil, minerals, water, the landscape, and the plants and animals that live in it. Natural Resource Management describes how people use and look after natural resources. Across Australia, the Commonwealth and State Governments are cooperating to support natural resource management in the regions.

This approach aims to make sure that people in regional Australia are able to manage their own natural resources. In Queensland there are 15 regional natural resource management organisations that cover the State. The two natural resource management regions to the south of Cape York Peninsula are the Northern Gulf and the Wet Tropics. To the north is the Torres Strait region. All have formally appointed Natural Resource Management Boards.

The arrangements for Cape York Peninsula are slightly different from other regions. Here an Interim Advisory Group is providing advice to governments on the development of the natural resource management plan pending the establishment of more formal arrangements.

All fifteen natural resource management regions in Queensland are currently developing natural resource management plans and all of those plans have a similar format and planning process. There are three main documents to be produced as part of the Plan development. They are:

Community Information Paper - a document that provides background information about the development of the Plan and information about the region's natural resources.

Integrated Natural Resource Management Plan – **this document**, which identifies the region’s **natural resource assets**, threats to those assets, and a series of targets and management actions to manage those assets and threats.

Regional Investment Strategy - a document that identifies natural resource management funding requirements and sources of funding.

To be able to access funding in the future through the Trust, for those components of the plan that are eligible through the Trust, the plan must be accredited. To be accredited through the Trust process, the plan must meet certain requirements as identified in Table 2.

Table 2: Requirements for Plan development relative to the Planning Pathway Process Steps

Overarching Considerations	
1.	Be underpinned by robust scientific, social, environmental and economic analysis to ensure both value for money and the consideration of potential impacts
2.	Have effective involvement of all key players in Plan scoping, development, implementation, monitoring and review
3.	Demonstrate consistency with other planning processes and legislative requirements applicable to the region
4.	Achieve the principles that are critical to the programs/plan. Including focus on addressing the underlying causes rather than symptoms of problems
5.	Meet various ‘miscellaneous’ requirements.
Regional Overview	
6.	Cover the full range of natural resource management (NRM) issues.
Regional Aspirations	
7.	Reflect State and National Planning and Policy frameworks to implement agreed natural resource management policies to protect the natural resource base of the region.
Regional Targets and Actions	
8.	Set targets at the regional scale, consistent with the National Framework for natural resource management Standards and Targets; and
9.	Identify strategic, prioritised and achievable actions to address the range of natural resource management issues and achieve the regional targets: this includes an evaluation of the wider social, economic and environmental impacts of such actions and of any actions needed to address such impacts. Regional Investment Strategy (RIS) As the RIS is the investment component of the Plan it will therefore be consistent with all the requirements demonstrated in the Plan itself.
Monitoring and Review	
10.	Provide for suitable monitoring, evaluation and review to ensure the continuous improvement of the plan.

1.3 Context

This Section gives a brief overview of other planning activities relevant to Cape York Peninsula. It is essential that the targets and actions identified in this natural resource management plan fit in with or complement these other plans and activities. The main plans and links are explored in more detail in Annexe 1.

Policy Framework for Cape York Peninsula and Land Acquisition

Cape York Peninsula’s global significance is recognised in State government policy which in 2004 includes ***Protecting Queensland’s Natural Heritage: Cape York’s Outstanding Values***: Queensland State Policy 2004:

- \$7.5 million for voluntary acquisitions of land of high conservation value, with a view to gaining matching funding from the Commonwealth. This comprises \$2.5 million from the *Protecting Queensland’s Natural Heritage: National Parks* policy, and a further \$5 Million.

- Additional funds for weed and feral animal management, from the \$6 million in state-wide funding announced under *Protecting Queensland's Natural Heritage: National Parks*.
- Listing of suitable lands on Cape York Peninsula on the Australian National Heritage List.
- \$1.5 million for Indigenous land and sea management centres, which will tap into the wealth of traditional Indigenous knowledge to help us all care for country.
- Land tenure resolution in this term of the government.
- Compiling the Case: World Heritage assessment and nomination for listing of appropriate areas based on the application of criteria as previously advanced through Heads of Agreement Implementation Group (HoAIG).
- \$1 million for enhanced visitor facilities at key national parks, under *Protecting Queensland's Natural Heritage: National Parks*.
- Additional funds for weed and feral animal management, from the \$6 million in State-wide funding announced under *Protecting Queensland's Natural Heritage: National Parks*.
- Maintain the ban on broad scale tree clearing on Cape York consistent with the Premier's intent to stop clearing of remnant bushland by 2006.
- Finalisation of a Coastal Management Plan for Cape York.
- Expanded system of marine parks to ensure maximum protection to the reefs off the Great Barrier Reef.
- The development of a comprehensive and well promoted Eco-cultural tourism strategy within the term.
- Progress – in conjunction with traditional owners – the interim management of land brought for conservation, until final tenure and management arrangements are in place.

This policy framework acknowledges the need for acquisition of high conservation value lands to protect Cape York's outstanding world class natural and cultural heritage values. The Queensland government has recommended that The Natural Heritage Significance of Cape York Peninsula assessment report be used as a tool to guide further planning on Cape York Peninsula and this recognised in this Plan.

Whilst the Commonwealth has a more limited focus in terms of Natural Resource Management planning and development of an Investment Strategy for the Natural Heritage Trust Stage 2, the State government has responsibility across acquisitions, land tenure arrangements, land planning and National Park management. In addition, there is a Commonwealth obligation to support State processes that produce nationally-significant conservation outcomes. Both levels of government acknowledge the need for acquisitions. For example, Queensland government policy, '*Protecting Queensland's Natural Heritage: Cape York's Outstanding Values*': Queensland State Policy 2004, and as a signatory to the Cape York Heads of Agreement and as an element of Strategy 1 in the federally funded initiative, the *Cape York Natural Heritage Trust Plan*.

Voluntary Acquisitions

The Australian Government through the NHT 1 Plan supported a voluntary acquisition program as part of the overall strategy. The policy of the Queensland Government is to acquire lands for conservation purposes through a voluntary process.

Indigenous Land and Sea Management Plans

Indigenous communities on Cape York Peninsula have developed a number of Land and Sea Management Plans. These plans are broad sub-regional community plans that reflect the natural and cultural resource management aspirations of Traditional Owners. While it is not considered desirable or practical on Cape York Peninsula to develop separate regional plans for Indigenous and non-Indigenous interests, the challenge will be to explore the confluence of Indigenous people's concepts, knowledge and approaches to land management and the non-Indigenous approach to land management.

Traditional Owner groups have worked throughout the life of the Cape York NHT plan to secure funding for Land and Sea Management Centres and activities related to Indigenous land and sea management.

The role of Land and Sea Management Centres is to work with Traditional Owners to:

- Facilitate resource management planning
- Coordinate the delivery of on-ground resource management activities
- Promote outcomes to Cape York Peninsula community groups and resource agencies such as government departments, research institutions and philanthropic organisations
- Seek resources that improve the involvement and capacity of Traditional Owner clan groups towards the better management of their traditional country.

Indigenous sub-regional Land and Sea Management programs have been supported or initiated in the Kowanyama, Pormpuraaw, Aurukun, Napranum, Ngulan, Lockhart, Coen, Buru, Injinoo, Mapoon, Hopevale and the Kaurareg sub-regions. Funding has recently been approved to develop a land and sea management process in the Kalpowar/Starke region. Other Indigenous planning initiatives relate to the preservation of Traditional Knowledge and the protection of significant cultural sites

Other independent initiatives by Traditional Owners include the Chula Homeland, which covers important land between Lockhart River and Coen. It is also a base for university research.

Unfortunately many of these plans and many of the Land and Sea Centres are as yet unsupported by a stable funding base. Therefore the sustainability of these organisations will need to be addressed as part of this Plan. These issues are explored in Chapters 6 and 7.

Fire Management Planning

Since 2000, fire management practices on Cape York Peninsula have been assisted by the Natural Heritage Trust funded Cape York Peninsula Sustainable Fire Management Project, based in the Cape York Peninsula Development Association. The project is directed by a steering committee composed of community and government representatives.

The project aims to document existing fire regimes and to establish best practice fire management for sustainable pastoralism, biodiversity conservation, traditional Aboriginal approaches and broad community issues. This is to be achieved through analysis of detailed fire histories, vegetation plots, pastoral studies as well as Aboriginal and community consultation and the development of fire plans.

As well as providing access to up-to-date fire information, this project has engaged over fifty remote land managers of Cape York Peninsula in establishing best practice fire management. Key aspects of the project include raising awareness of fire-related issues, providing land managers access to 'real-time' fire-tracking information, providing computer-based training to assist in accessing and interpreting fire-tracking information, developing co-operative regional fire management arrangements (e.g. through promotion of local fire brigades), and facilitating coordinated aerial incendiary programs.

As a result of this project, hotspot and fire scar information is now provided to land managers of the northern savannas and other interested parties through the Northern Australian Fire Information (NAFI) website. The website is regularly updated to provide up-to-date information on fire occurrence, which can be accessed through an internet based Geographic Information System (GIS) (based on ArcExplorer), or downloaded for a specific area of interest to a stand-alone GIS system (such as ArcView).

This system has proven effective in delivering reliable fire-tracking information for 2001-2003 fire seasons and has been received positively by land managers with regards to determining effectiveness of early season burning and firebreaks, accurately tracking fires, and assessing the fire's proximity to property assets and natural features. Other means of delivering this information include via email, internet, telephone, fax and post. However, recent improvements in regional communication networks have meant that computers are now playing the most significant role in this knowledge dissemination.

The project has had greatest success engaging managers of pastoral properties, and providing information required by the pastoral sector and conservation managers. There has been more limited engagement of Traditional Owners. Future directions will therefore emphasise identifying and providing skills, resources and services that are needed for best practice fire management on Aboriginal and Islander estates.

The Cape York Peninsula fire project has recently been subsumed into the larger FIREPLAN project of the Tropical Savannas Cooperative Research Centre. As well as continuing to provide up-to-date fire tracking information, and facilitate regionally coordinated fire management, this community directed project aims to provide NRM regions across northern Australia, including Cape York Peninsula, with materials required for fire management planning.

The focus of the project is to engage the community in fire management issues and facilitate best practice fire management. The FIREPLAN project has four components: Developing strategic information for fire managers; Developing fire management capacity for key land managers; Developing northern fire management networks; and Developing a north Australia fire management website portal (NAFI website).

At the end of the development phase, it is envisaged that delivering fire information services and skills will once again become the responsibility of individual natural resource management regions, although strong cross regional cooperation will

continue. Hence, continued fire management support on Cape York Peninsula will require the development of a separate, independently funded project to continue the work undertaken in the Cape York Peninsula fire project and FIREPLAN.

This NRM Plan recommends continued support of the Cape York Peninsula Sustainable Fire Management Project.

Property Planning

The Cape York Property Planning process, as described in the Cape York Natural Heritage Trust Plan, was to:

- protect areas of high conservation value on individual properties and certain State lands.
- ensure that the management of properties occurs in accordance with the principles of ecologically sustainable development.
- provide opportunities for access negotiations between leaseholders and Indigenous communities.
- identify opportunities to improve the productivity and viability of properties.

To establish a sound methodology to undertake extensive property planning throughout Cape York Peninsula eleven properties were selected as pilots. Currently a number of these properties have made significant progress towards reaching negotiated agreements and implementation of the outcomes is being considered. Agreements and plans for the other pilot properties are subject to continuing discussions between stakeholders. Discussions of impediments to the success of this initiative should identify opportunities to improve the process.

It is important to note that the NHT 1 property planning process was designed as a pilot project. This pilot project trialled a number of approaches to implementation including a property-by-property approach, a sub-regional approach, and facilitating negotiations through a Ministerially supported working group, known as the Heads of Agreement Implementation Group. It is recognised that some positive outcomes have been achieved to date as part of the property planning process with outcomes including pest management being implemented. Property planning is an example of a planning process that is one possible option for resolving land tenure issues. It has not proved to be a process that can be applied uniformly across the Peninsula. It is highly dependent on the capacity and willingness of parties to negotiate and reach agreement. In this regard it can have quite variable processes and outcomes. Important lessons have been learned from the Property Planning process and there is scope to modify it.

This NRM Plan recommends that the Property Planning process be reviewed as a matter of high priority. It is important that all stakeholders (particularly the pilot properties) be directly involved in the review process including a desktop analysis of similar experiences in other countries and why they fail. The reviews Terms of Reference will be to determine if Property Planning has or can be an effective strategy to achieve the objective of the CYP NRM Plan and address unfinished business of CYNTH Plan.

Draft State Rural Leasehold Land Strategy

The Department of Natural Resources and Mines has been developing a long-term strategy for the management and use of State rural leasehold land. State rural leasehold land is mainly used for grazing and agriculture. The draft State Rural Leasehold Land Strategy aims to provide a policy framework for achieving sustainable management and use of State rural leasehold land by protecting its

environmental, social and economic values, and recognising the various interests held in it.

The approach of the strategy is long-term and linked to natural resource management outcomes. It builds on the provisions of the *Land Act 1994* and, while it does not rely on any substantial changes to existing legislation, it does provide a major shift from the current prescriptive approach to land administration, to a performance-based and outcomes-focused approach.

The potential implication for rural leaseholders could be the benefit of increased tenure certainty through linking the property planning process to the renewal of leases. Further information is available at:

http://www.nrm.qld.gov.au/land/state/managing_lh_land.html.

The Vegetation Management Act and Other Legislation Amendment Bill 2004

The Queensland Government has recently passed legislation to phase out broad-scale clearing of remnant vegetation in Queensland by December 2006. This legislation aims to protect Queensland's biodiversity, address economic and environmental problems like salinity, soil degradation, erosion and declining water quality.

There is a transitional clearing cap of 500,000 hectares on broad-scale clearing of remnant vegetation during the phase out period. The cap includes permits issued since 16 May 2003 when the halt on receiving new clearing applications began.

Further details are available at:

http://www.nrm.qld.gov.au/vegetation/new_legislation.html.

Draft Wild Rivers Policy

The State government is currently developing legislation to protect its pristine rivers as part of honouring its 2004 election commitment. These waterways are known as "wild rivers". The purpose of this election commitment is to preserve the current natural values of declared wild rivers for future generations.

Wild rivers are those with all, or almost all, of their natural values intact. The most important value of a wild river is a high level of biophysical integrity (i.e. naturalness). The main natural values of interest are:

- Hydrologic processes – the natural rainfall, runoff and infiltration processes that transmit water from source to sea (or terminal wetland) via stream and aquifer networks. A wild river is one that contains minimal impediment to flow and limited take of water for consumptive purposes compared with the river's natural flow volume.
- Geomorphic processes – the natural erosion, transport and deposition of sediments by water downstream to coastal landscapes (e.g. estuaries, beaches), floodplains, or terminal wetlands. These processes maintain the physical integrity of the river system and support ecological processes. A wild river is one where the natural geomorphic processes occur essentially unhindered and are not adversely affected by human activities.
- Riparian function – the stabilisation of stream banks, the provision of habitats (both aquatic and terrestrial), the interfacing of aquatic and terrestrial habitats, and the natural filtering of pollutants entering a waterway. A wild river will have a healthy riparian zone along its length.

- Water quality – the natural physical and chemical attributes of water that sustain aquatic and terrestrial flora and fauna within a river system and its receiving waters (i.e. estuary, terminal wetland). A wild river will have natural or near natural water quality.
- Wildlife corridor function – sufficient areas of natural habitat within and along the river that allow native terrestrial and aquatic fauna to safely live and migrate within their natural ranges. A wild river will have large healthy corridor areas (both aquatic and terrestrial) that allow free movement of fauna.

These natural values provide the basis for sustaining healthy ecological processes in a river system. They create and form the biophysical habitat for native flora and fauna as well as provide scenic, recreational and heritage appeal.

Wild rivers will typically have a high level of naturalness with largely unmodified hydrologic, geomorphic and biological processes resulting in good quality water, instream habitat and riverine biodiversity. It is the *degree of naturalness* that is the primary criterion for determining whether or not a stream could be nominated for wild river status.

The aim of the legislation will be to ensure that a declared wild river's environment is maintained and impacts from necessary development minimised.

Queensland State policy lists thirteen rivers in Cape York Peninsula which will be designated as Wild Rivers to be protected (see Chapter 2:2 for details). The government has a policy of no new dams or weirs on Queensland's Wild Rivers.

Key components for catchment management within the Wild Rivers policy

- No new dams or weirs permitted on a wild river or its main tributaries.
- Limited and regulated exploitation of water resources, maintenance of in-stream and floodplain flows.
- Protection of associated wetlands.
- No new in-stream mining activities. Any out-of-stream mining in the region will be subject to Environmental Impact Assessments.
- Allowing limited agricultural, urban and industrial development, e.g. small-scale "eco-friendly" tourism development would be encouraged.
- No stocking of wild rivers with non-endemic species.
- No use of exotic plant species in ponded pastures.

Water Reform Policy

The State's water reform policy includes; active engagement in the National Action Plan on Salinity and Water Quality; a revised and updated legislative framework (the Water Act 2000).

Protecting Queensland's Natural Heritage: National Parks Queensland State Policy 2004.

This Policy includes:

- \$1 million for enhanced visitor facilities at key national parks, under *Protecting Queensland's Natural Heritage: National Parks*.

- Additional funds for weed and feral animal management, from the \$6 million in State-wide funding announced under *Protecting Queensland's Natural Heritage: National Parks*.

Pest Management Planning

The management of weeds and feral animals was consistently highlighted during the consultation process and development of this Plan as being a very high priority. Weeds and feral animals impact on all “assets” of the Plan: biodiversity, land country, sea country, ecologically sustainable development, cultural heritage, natural heritage and water. Weeds and feral animals are primarily addressed in the sections on land and biodiversity but it is emphasised that they impact on all areas of natural resource management and consequently receive a very high priority for management action.

Pest management planning on the Peninsula has a successful solid foundation on which to make further progress. There has been considerable investment and development in relation to pests since CYPLUS (10 years ago). This investment is estimated at over 5 million dollars.

The Cape York Peninsula Pest Management Strategy (CYP PMS) has been developed by the Cape York Peninsula community through public consultation and endorsed by CYPPAC (Cape York Peninsula Pest Advisory Committee). The CYP PMS encompasses all Cape York Peninsula Pest Management Plans that have been and are being developed by Community Councils and Cook Shire Council. The CYP PMS will form an important link to this CYP NRM Plan. Further details of Pest Management Planning on Cape York Peninsula are provided in Annexe 5.

With the finalisation of all the Community Council's Pest Management Plans (currently in progress), the Cape York-wide Pest Management Plan (currently in progress) will be developed. This Plan is the culmination of all the community and local government pest management plans. This NRM Plan does not duplicate the work already done and the Pest Management Plans currently being completed, rather the NRM Plan recommends that the CYP PMS and complementary Community and Shire Pest Management Plans form the core direction of weed and pest animal management for the region and are supported through the NRM Plan and Regional Investment Strategy.

It is also important to recognise that, whilst planning and support are a very important part of weed and pest management, ultimate responsibility for pest management rests with the land managers.

This NRM Plan recommends continued support of pest management planning initiatives as a matter of high priority.

Catchment Management Planning

Catchment Management Strategies have been developed for the Albatross Bay and Bloomfield River catchments with strategies in progress for the Annan-Endeavour and Laura-Normanby Catchments. The Regional natural resource management planning process will consider these plans and implications in the broader context.

Great Barrier Reef Marine Park Management

Representative Areas Program

The Great Barrier Reef Marine Park Authority (GBRMPA) has initiated the Great Barrier Reef Marine Park Representative Areas Program which aims to help protect biodiversity within the Great Barrier Reef World Heritage Area (GBRWHA). This will

be done by protecting 'representative' examples of all the different habitats and communities in the GBRWHA and building upon the existing network of Green Zones (no-take areas).

The GBRWHA has been classified into 70 bioregions. Bioregions are areas of differing marine biodiversity, which have been mapped after consideration of the physical and biological diversity of the entire GBRWHA. Each bioregion contains plant and animal communities, together with physical features, that are significantly different from the surrounding areas and the rest of the GBRWHA. There is, however, a high level of 'connectivity' within the marine environment and each of these habitats plays an important role in the entire Reef ecosystem. Further details are available at:

http://www.gbrmpa.gov.au/corp_site/key_issues/conservation/rep_areas/.

One of the primary tools for protecting and preserving the Great Barrier Reef, as specified by the *Great Barrier Reef Marine Park Act 1975*, is zoning. Zoning separates activities that may conflict with each other, such as commercial fishing and tourism. Zoning also allows areas that need permanent conservation to be protected from potentially threatening processes by being placed 'off limits' to users (except for the purpose of scientific research) for varying lengths of time.

Marine Park zoning plans are not dissimilar to planning schemes prepared for local government areas. For example, zoning plans provide for activities that are *as-of-right*, *with permission* or *prohibited*. Each zone category specifies which activities can or cannot be undertaken and whether or not permission is required to undertake those activities. Maps are available from:

<http://www.reefed.edu.au/explorer/maps/index.html>.

Traditional Use of Marine Resource Agreements (TUMRA)

The Great Barrier Reef Marine Park Authority has an initiative to manage the traditional use of marine resources by Indigenous people in the Great Barrier Reef Marine Park. These activities are currently managed under the Great Barrier Reef Marine Park Act 1975 and the Great Barrier Reef Marine Park Regulations 1983 and can also be undertaken under the Native Title Act 1993.

The GBRMPA is currently working towards Traditional Use of Marine Resource Agreements that describe how individual groups would like to manage marine resources in their sea country. This initiative is expected to complement and enhance the development and implementation of sea country targets and management actions described in this Plan. More information is available from GBRMPA's Indigenous Policy and Liaison Unit on (07) 4750 0700.

Reef Water Quality Protection Plan

The Australian and Queensland Governments have worked together to develop the *Reef Water Quality Protection Plan* (RWQPP also known as the Reef Plan). The focus of actions in the Reef Plan is on relatively low cost measures to encourage good planning and to assist landholders in adopting best management practices that are both profitable and environmentally sustainable.

The Reef Plan focuses on decreasing inputs of pollutants, and on rehabilitating and conserving areas of the reef catchment that have a role in removing water borne pollutants. This initiative acknowledges the work undertaken by landholders cooperatively with government and industry and builds on the strategies and plans already in progress.

There are clear links between the RWQPP and this NRM Plan. Many of the objectives and strategies are similar or the same. The Australian and Queensland Governments developed the Reef Plan in December 2003 to “Halt and reverse the decline in water quality entering the reef within 10 years”. It is recognised that regional NRM bodies will be primarily responsible for the implementation of these strategies along with all levels of government, industry groups and the community. Copies of the Reef Plan are available from:

http://www.gbrmpa.gov.au/corp_site/key_issues/water_quality/index.html

Great Barrier Reef Coastal Wetlands Protection Program

Another key initiative of the Reef Plan is the Great Barrier Reef Coastal Wetlands Protection Program. This program gives effect to Objective Two of the Reef Plan, which is to ‘rehabilitate and conserve areas of the Reef catchment that have a role in removing water-borne pollutants’. Significant funds have been allocated for the identification, prioritisation and protection of significant wetland areas in the Great Barrier Reef (GBR) catchment. The GBR catchment includes all of the eastern flowing rivers of Cape York Peninsula.

Marine Water Quality and Ecosystem Health Monitoring Program

Under the Reef Plan, the GBRMPA is responsible for developing and implementing a water quality and ecosystem health monitoring program for the Marine Park. This program is designed to monitor the outcomes of changing land use practices on the marine environment. A major component of this program will be the opportunity for community involvement in the proposed monitoring activities. Details of this involvement are expected to be finalised in early 2005.

Australia's Oceans Policy – Northern Regional Marine Planning

Australia's Ocean Policy sets in place the framework for integrated and ecosystem based planning and management for Australia's marine jurisdictions. The National Oceans Office is a Federal Government agency responsible for implementing Australia's Oceans Policy through regional marine planning.

Regional Marine Plans will put into action Australia's Oceans Policy's vision of: Healthy oceans: cared for, understood and used wisely for the benefit of all, now and in the future. Building on existing effective sectoral and jurisdictional mechanisms, it promotes ecologically sustainable development of the resources of our oceans and the encouragement of internationally competitive marine industries, while ensuring the protection of marine biological diversity.

Regional marine planning will not fundamentally alter existing sectoral and jurisdictional management responsibilities. Instead the emphasis will be on making better use of existing organisations to address common themes, and enhancing the capacity of existing organisations to work together where such cooperation is required to make progress.

This planning process began in 2002, and a final plan is due for completion at the end of 2005. The Northern Region Marine Planning Area covers the Torres Strait, the Gulf of Carpentaria and eastern Arafura Sea (to a line 133°23' East which coincides with the Goulburn Islands) (including the 5 NHT NRM regions for Torres Strait, Cape York, Northern Gulf, Southern Gulf and the Northern Territory).

The Northern Region Marine Planning process involves industry, conservation, research and community interests and organisations and consideration of their ideas, needs and aspirations are essential parts of regional marine planning.

Cape York communities' and stakeholders' input into the planning process is critical to ensure the Northern Region Marine Plan addresses key issues in the northern planning area. Traditional Owners and other Indigenous interests are important participants in this process as the two-way sharing of ideas and information between Indigenous and other Australians is crucial for achieving a sustainable future for the region. For more information regarding Australia's Ocean Policy, National Oceans Office and Northern Regional Marine Planning visit www.oceans.gov.au

One important aspect of this planning process is the cross-regional NHT project - hosted under the Northern Gulf Natural Resource Management Plan. It sets out to implement the recommendations of the National Oceans Office "Finding Solutions for Marine Debris in the North" report, with regard to a Threat Abatement Plan for marine debris.

Recovery and Conservation Planning

This Plan, through the Regional Investment Strategy, will be the vehicle for resourcing the implementation of relevant Endangered Species Recovery Plans, Threat Abatement Plans and Conservation Plans.

A recovery plan is a document stating the research and management actions necessary to stop the decline, support the recovery and enhance the chance of long-term survival in the wild, of a stated species or community of protected wildlife.

Conservation plans can allow for the ecologically sustainable taking and use of protected wildlife from the wild for commercial and non-commercial purposes.

Completed plans include:

- Recovery Plan for the stream dwelling rainforest frogs of the wet tropics biogeographic region of north-east.
- Recovery Plan for the Golden Shouldered Parrot.
- Recovery Plan for cave dwelling bats.
- Recovery Plan for the Southern Cassowary.
- Recovery Plan for the northern bettong.
- National Recovery Plan for marine turtles.
- Conservation and management of the dugong in Queensland 1999-2004.

Recovery Plans are in preparation for the Spotted Tail Quoll and Red Goshawk.

Community Recovery Plans are being prepared for the Mabi Forest and The Great Artesian Basin springs.

The golden-shouldered parrot recovery plan objectives are to change the conservation status of the golden-shouldered parrot from endangered to vulnerable within 10 years, to demonstrate sustained recolonisation of known former habitat, to develop a pastoral management strategy that balances the needs of the parrot with those of cattle.

The dugong conservation plan outlines strategies required to achieve the protection and recovery of the dugong, *Dugong dugon*, in Queensland. This conservation plan addresses key aspects of dugong conservation, including habitat degradation

(particularly seagrass loss); incidental mortality from fishing; boating traffic; Indigenous hunting; education and information; and research and monitoring.

1.4 Links with Other Policies and Plans

This Plan aims as far as possible to be consistent with other regional strategies. As part of the 'bigger picture' this process is also consistent with the State and National plans and strategies that address the broad issue of ecologically sustainable development. The following initiatives are relevant to the further integration of natural resource management and economic development opportunities for the region:

Regional Linkages

- Cape York Planning and Land Use Strategy (CYPLUS)
- Cape York Peninsula 2010 Action Plan
- Cape York Natural Heritage Trust Plan
- Cape York Natural Heritage Trust Plan – Strategy 4 Heritage Site Management An Action Plan
- Cape York Peninsula Pest Management Strategy
- Cook Shire Council Pest Management Plan
- Cape York Peninsula – Pest Management Strategy
- Cape York Peninsula – Pest Management Plan (under development)
- Community Pest Management Plans (13 CY indigenous plans either completed or under development)
- Queensland Pig Strategy
- DRAFT Threat Abatement Plan – for Predation, Habitat Degradation, Competition and Disease Transmission by Feral Pigs
- FNQROC Pest Management Strategy
- Wet Tropics Regional Coastal Management Plan
- Einasleigh Uplands (Northern) Regional Vegetation Management Plan
- Gulf Plains (Northern) Regional Vegetation Management Plan
- Regional Natural Resource Management Planning
- Mitchell River Water Resources Plan
- Wet Tropics Regional Vegetation Management Plan
- Neighbouring regional plans being developed through Wet Tropics, Northern Gulf and Torres Strait regional arrangements
- Scoping Study Report into Opportunities for Indigenous Aquaculture in North Queensland (2004)
- Cape York Peninsula Beef Industry Strategy
- Wet Tropics Management Plan
- Cape York Peninsula Mining Strategy to the Year 2010
- Cape York Peninsula Cropping and Horticulture Industry Strategy
- Cook Shire Council Strategic Plan
- Sub-regional Land and Sea Management Plans

- Sub-regional Catchment Plans
- ATSIK Five Year Plan
- Strategy for Strengthening Indigenous Peoples Land and Sea Management on Cape York Peninsula
- Cape York Partnerships Initiatives relating to Land and Sea Management
- Meeting Challenges Making Choices.

Local Government and Industry Linkages

Local government plans (including Planning Schemes and Pest Management Plans) and arrangements, especially with the shift from DOGITS to local shire arrangements, is a particular development that has a bearing on this Plan.

A Pest Management Plan for Cook Shire has been developed and aims to “involve all stakeholders in ongoing, coordinated and effective pest management for long-term and sustainable ecological and economic growth in the Shire”. To achieve this goal, the plan outlines strategies for a three-year period. Control strategies and costings for 20 priority pest plants and 13 priority feral animals in the Shire are detailed in the Plan. Further details are available at:

<http://www.cook.qld.gov.au/council/publications.shtml>.

Local government planning schemes must also be considered.

Industry plans, especially cattle, commercial fishing, mining, agriculture, horticulture and tourism – as have arisen from CYPLUS and other initiatives – need to be recognised as having an inter-related role with the natural resource management plan.

State-level Linkages

In addition to links with natural resource management related policies and plans, mention must also be made of links with plans emerging from other sectors, for example:

- infrastructure (main roads, telecommunications).
- economic development.
- the newly established Indigenous Coordinating Council (ICC), which is the regional body emerging post-ATSIK with mandate to coordinate cross-sector services into Indigenous communities on Cape York Peninsula.
- Education – getting natural resource management/caring for country/leadership development, etc, into schools, tertiary and industry training programs, etc.
- Other policies and plans, especially Health, and also AMPs (alcohol management plans) - In the Indigenous context these are especially important for a number of reasons that directly impact on ability to achieve natural resource management outcomes.

State strategies and plans

- State Strategic Plan
- Queensland Indigenous Economic Development and Participation Strategy
- Queensland Weeds Strategy 2002-2006
- Queensland Integrated Catchment Management Strategy
- Queensland Feral Pig Strategy
- State Rural Leasehold Renewal Strategy

- Wet Tropics Management Plan 1998
- State Fisheries Management Plans
- Reef Water Quality Protection Plan
- Caring for Country Together
- Cape York Coastal Plan (yet to commence)
- State Pest Animal Strategy.

State Legislation

- *Water Act 2000*
- *Integrated Planning Act 1997*
- *Coastal Protection and Management Act 1995*
- *Environmental Protection Act 1994*
- *Fisheries Act 1994* (amended Primary Industries and Other Legislation Amendment Act 2003)
- *Aboriginal Cultural Heritage Act 2003*
- *Soil Conservation Act 1986*
- *Land Protection (Pest and Stock Route Management) Act 2002*
- *Land Act 1994*
- *Aboriginal Land Act 1991* (currently under review)
- *Torres Strait Islander Land Act 1991* (currently under review)
- *Local Government Act 1993*
- *Local Government (Aboriginal Lands) Act 1978*
- *Vegetation Management Act 1999*
- *Marine Park Act*
- *Nature Conservation Act 1992*
- *Environmental Protection Act 1994*
- *Queensland Heritage Act 1992*
- *Mineral Resources Act 1989*
- *Forestry Act 1959*
- *Contaminated Land Act 1991*
- *Indigenous Communities Liquor Licences Act 2002.*

There is also a raft of State legislation administered by the Department of Primary Industries and Fisheries that holds sway in the Bio-security arena including *Stock Act 1915*, *Exotic Diseases and Animals Act 1981*, *Plant Protection Act 1989*, *Animal Care and Protection Act 2001*. In addition, the Commonwealth Government administers a range of relevant legislation through the Australian Quarantine and Inspection Service (AQIS) including the *Quarantine Act 1908* and the *Imported Food Control Act 1992*. Further information is available at:

<http://www.affa.gov.au/content/output.cfm?&OBJECTID=3E48F86-AA1A-11A1-B6300060B0AA00014>

Commonwealth Linkages

- Great Artesian Basin Strategic Management Plan
- Department of Australian Fisheries and Forestry Indigenous Fishing and Aquaculture Strategy

- The National Weeds Strategy
- Prickly Acacia National Strategy
- Rubber Vine National Strategy
- National Water Quality Management Strategy
- National Strategy for the Conservation of Australia's Biological Diversity
- National Strategy for Ecologically Sustainable Development
- National Oceans Office - Northern Regional Marine Plan (in progress)
- *Natural Heritage Trust Act 1997*
- *Environmental Protection and Biodiversity Conservation Act 1999*
- *Australian Heritage Council Act 2003.*

DRAFT

2 A Vision for Cape York Peninsula

2.1 The Vision

This plan brings forward the vision from the CYPLUS Project Stage 2 Report, [see Figure 1 for details] and incorporates the outcomes of the Cape York Peninsula Heads of Agreement (see Figure 2) and the Queensland government commissioned report, 'The Natural Heritage Significance of Cape York Peninsula, which was a recommendation of CYPLUS Stage 2, and is the most recent reference document for the region. The results of the report confirmed conclusively the natural heritage significance of Cape York Peninsula at every level; i.e.: 1) global, 2) national, 3) regional and 4) local.

The outcomes of the CYPLUS project, Cape York Peninsula Heads of Agreement and the Natural Heritage Significance report contribute to the Vision for the CYP NRM Plan expressed below as if the future has already happened.

IN THE YEAR 2010:

Natural resource management on Cape York Peninsula has achieved a level of sustainability that has conserved and enhanced the community's natural, cultural, economic and social qualities which makes it a special part of Australia.

Ecological processes have been maintained and the global to local significant natural and cultural heritage of Cape York Peninsula is protected.

All residents have a deeply held respect for each other's values and have confidence in the future of the region. Together we have achieved a high level of economic independence and have access to quality human services.

Co-operative arrangements are in place to protect and enhance environmental and cultural values as well as the quality of life traditionally enjoyed by Peninsula residents.

Nomination of appropriate areas of high conservation and cultural value for World Heritage and National Heritage listing has been achieved with traditional owner support and negotiated management arrangements with all directly affected landholders, through a process which respects Indigenous rights, and ensures social and economic well-being for the people.

2.2 Decision-Making Principles

- This plan also brings forward the decision-making principles set out in CYPLUS. They are driven by two 'over-riding' principles that reflect the priority that is to be given to the concepts of sustainability and self-determination. They also include six other principles reflecting other key themes.

Over-riding CYPLUS Principles

- Use and management of the lands and waters of Cape York Peninsula will follow the principles of 'ecologically sustainable development' recognising, at all levels of decision-making, all dimensions of sustainability (ecological, economic, cultural, spiritual and social well-being) in both the short and long term.
- Real and meaningful opportunities will be provided for all Cape York Peninsula residents for informed participation and to have a say in decision-making which affects their own lives or the future of the region.

Other CYPLUS Principles

- Decision-making processes at the regional level will respect the needs and aspirations of all Cape York Peninsula residents.
- Planning and decision-making processes will be based on identified values and information, will be driven by the need to achieve the agreed vision, and will be oriented towards taking actions.
- Decision-making will take account of ecological integrity, ecological boundaries and processes at work on Cape York Peninsula and surrounding coastal waters, wilderness quality, and the need to maintain and enhance biodiversity.
- The unique cultural and lifestyle values of Cape York Peninsula will be recognised and given significant weight in deciding upon development proposals.
- Management on Cape York Peninsula will seek to overcome unnecessary and overly complex administrative arrangements and any new management structures will be as simple and as community-based as possible.
- The cumulative effects of development throughout Cape York Peninsula will be taken into account when decisions are made about individual projects.

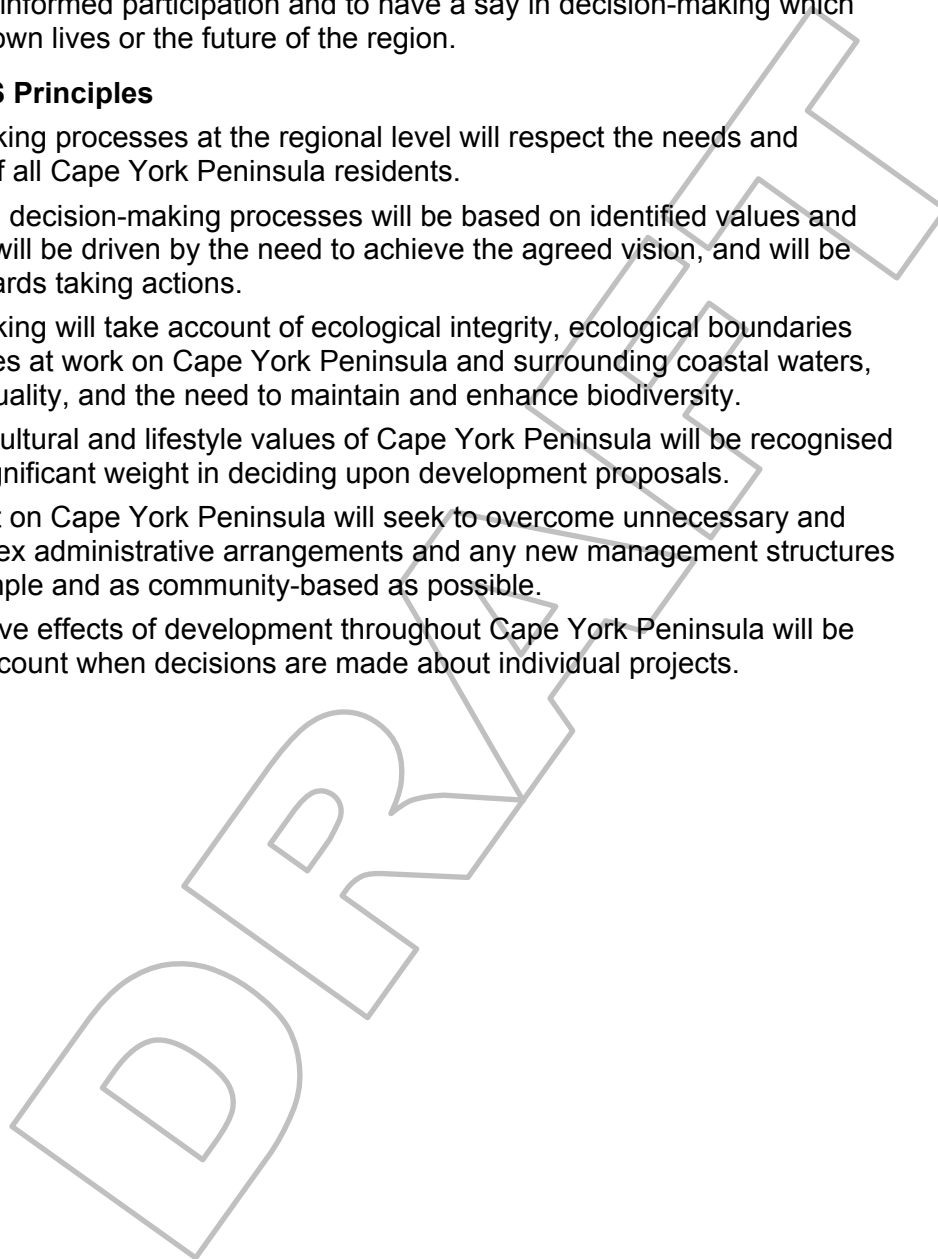


Figure 1: The overall vision for Cape York Peninsula for the year 2010

Cape York Peninsula has retained those qualities which make it a special part of Australia. All residents have a deeply held respect for each other's values and have confidence in the future of the region. Together we have achieved a high level of economic independence and have access to quality human services. Co-operative arrangements are in place to protect and enhance environmental and cultural values as well as the quality of life traditionally enjoyed by Peninsula residents.

Conservation Vision	Cultural Vision	Economic Vision	Lifestyle & Social Issues
<p>Cape York Peninsula is a special part of Australia where:</p> <ul style="list-style-type: none"> ▪ The environmental and cultural values, many of which are of outstanding national and international significance, are recognised and protected in accordance with their significance. ▪ Land use management systems and practices are in place whereby these values are protected across a range of tenures, ownership types, land uses and management regimes. ▪ All people are aware of and cherish the area's environmental and cultural values and support and share in their management. ▪ Spiritual values have been sustained in the relationship between people and their culture and environment 	<p>Multiple cultures are freely practiced and maintained and Cape York Peninsula's unique cultures continue to be vibrant and active. The region is widely recognised and respected as an Aboriginal domain being a place of cultural and spiritual existence, belonging and connection. Places and items of cultural heritage significance to all the people of the region are respected and protected.</p> <p>There is understanding and respect of the diversity of cultural backgrounds and needs of the Cape York Peninsula population. Continuance of the distinctive cultural background and lifestyle of all residents is facilitated and stimulated by provision of suitable amenities, services and cultural events.</p> <p>The people of Cape York Peninsula have every opportunity to make a quality contribution to and determination of their own future. Outstations are established, and adequately resources. Each is involved in the development and management of meaningful sustainable activities compatible with residents' needs and lifestyle. All land tenure issues have been reconciled.</p>	<p>Cape York Peninsula is a reconciled and harmonious community where the residents have achieved a vibrant, broad, sustainable economy that supports the needs and aspirations of residents' lifestyle and is based on:</p> <ul style="list-style-type: none"> ▪ Security of appropriate land tenure. ▪ The management and protection of natural and cultural assets which allows multiple land use where appropriate. ▪ Economic development where the benefits are retained and reinvested in the region. ▪ Locally based and culturally appropriate education and training which provides a suitably skilled workforce. ▪ Necessary transport and service infrastructure which allows access for business and industry, public utilities and service provision. ▪ A united and co-operative approach to economic planning and management, and ▪ A genuine partnership between the people, government, business and industry. 	<p>Quality and accessible health facilities and services contribute significantly to the health and well-being of residents. Health is further enhanced by adequate and suitable housing.</p> <p>Sufficient meaningful and sustainable employment is generated through the region's economic and social development. Relevant and culturally appropriate education and training facilities and resources are located in the region, ensuring that people are sufficiently skilled for the variety of jobs available.</p> <p>The appropriate use of customary law within the legal system has engendered stability and equity across all sections of the Cape York Peninsula community.</p> <p>All communities are serviced by reliable infrastructure that matches their requirements and preferred lifestyle.</p> <p>There are many opportunities for social interaction and maintenance of traditional values between the distant communities within the Peninsula engendering genuine co-operation and networking of its peoples.</p> <p>Government services are co-ordinated and culturally sensitive and departmental staff are active participants in local community life.</p>

Figure 2: Heads of Agreement

Deed of Endorsement Cape York Peninsula Heads of Agreement

AN AGREEMENT made on the 17th day of September 2001

BETWEEN the CAPE YORK LAND COUNCIL (CYLC) and the PENINSULA REGIONAL COUNCIL of the ABORIGINAL AND TORRES STRAIT ISLANDER COMMISSION (ATSIC), and BALKANU CAPE YORK DEVELOPMENT CORPORATION (BALKANU), representing traditional Aboriginal owners on Cape York Peninsula,

AND the PENINSULA CATTLEMEN'S ASSOCIATION (PCA), representing the interests of its members on Cape York Peninsula.

AND the AUSTRALIAN CONSERVATION FOUNDATION (ACF) and THE WILDERNESS SOCIETY (TWS) and THE CAIRNS AND FAR NORTH ENVIRONMENT CENTRE (CAFNEC), representing environmental interests on Cape York Peninsula.

AND the STATE OF QUEENSLAND (The State).

DEED OF ENDORSEMENT

WHEREAS:

- A. The Cape York Land Council (CYLC)
Peninsula Regional Council of the Aboriginal and Torres Strait Islander Commission (ATSIC)
Cattlemen's Union of Australia (CU)
Australian Conservation Foundation (ACF)
The Wilderness Society (TWS)
("the parties")
signed the Cape York Heads of Agreement (HoA) annexed to this agreement
- B. The signatories to this agreement wish to acknowledge, affirm and endorse the HoA dated 5th February 1996.

NOW THIS DEED WITNESSES:

1. By its execution of this deed the State hereby acknowledges, affirms and endorses the HoA and agrees to use all reasonable endeavours to implement the aims and objectives of the HoA.
2. By its execution of this deed the PCA hereby acknowledges, affirms and endorses the HoA and agrees to use all reasonable endeavours to implement the aims and objectives of the HoA.

3. By its execution of this deed Balkanu hereby acknowledges, affirms and endorses the HoA and agrees to use all reasonable endeavours to implement the aims and objectives of the HoA.
4. By its execution of this deed the CYLC hereby acknowledges, affirms and endorses the HoA and agrees to use all reasonable endeavours to implement the aims and objectives of the HoA.
5. By its execution of this deed ATSIC hereby acknowledges, affirms and endorses the HoA and agrees to use all reasonable endeavours to implement the aims and objectives of the HoA.
6. By its execution of this deed CAFNEC hereby acknowledges, affirms and endorses the HoA and agrees to use all reasonable endeavours to implement the aims and objectives of the HoA.
7. By its execution of this deed the TWS hereby acknowledges, affirms and endorses the HoA and agrees to use all reasonable endeavours to implement the aims and objectives of the HoA.
8. By its execution of this deed ACF hereby acknowledges, affirms and endorses the HoA and agrees to use all reasonable endeavours to implement the aims and objectives of the HoA.
9. The parties to this agreement acknowledge and agree that the East Coast Wilderness zone is no longer part of the State of Queensland policy on land management and conservation for Cape York Peninsula.

DRAFT

CAPE YORK LAND USE HEADS OF AGREEMENT

AN AGREEMENT Made On The Fifth Day Of February 1996

BETWEEN the CAPE YORK LAND COUNCIL ("CYLC") and the PENINSULA REGIONAL COUNCIL of the ABORIGINAL AND TORRES STRAIT ISLANDER COMMISSION ("ATSIC"), representing traditional Aboriginal owners on Cape York Peninsula,

AND the CATTLEMEN'S UNION OF AUSTRALIA INC ("INC"), representing pastoralists on Cape York Peninsula,

AND the AUSTRALIAN CONSERVATION FOUNDATION ("ACF") and THE WILDERNESS SOCIETY ("TWS"), representing environmental interests in land use on Cape York Peninsula.

1. The CU, ACF and TWS acknowledge and affirm that the Aboriginal people, represented by the CYLC, and the Peninsula Regional Council of ATSIC, are the original inhabitants of Cape York Peninsula who are entitled by their traditional law to their traditional customs and culture, including access to areas of traditional significance.
2. The Aboriginal people of Cape York Peninsula, the ACF and TWS acknowledge and affirm that pastoralists of Cape York Peninsula (including non-CU members) are significant landholders who have existing legal rights and concerns related to their industry and lifestyle.
3. The parties acknowledge that there exist on Cape York Peninsula areas of significant conservation and heritage value encompassing environmental, historical and cultural features, the protection of which is the responsibility of State and Federal Governments in conjunction with the parties.
4. The parties maintain their respective positions on the East Coast Wilderness Zone but shall encourage negotiations between pastoralists in the Zone and the State Government on its creation. If the negotiations prove unsuccessful, the parties undertake to meet again to discuss the matter.
5. All parties are committed to work together to develop a management regime for ecologically, economically, socially and culturally sustainable land use on Cape York Peninsula, and to develop harmonious relationships amongst all interests in the area.
6. Subject to Clause 5, all parties are committed to the development of a sustainable cattle industry on Cape York Peninsula.
7. The parties are committed to jointly approach the State Government to secure upgraded lease tenure for pastoral properties and restructure lease boundaries under the existing provisions of the Queensland Land Act. As a necessary prerequisite for this process, a property management plan shall be developed for each property consistent with Clause 5, in consultation with existing landholders. The parties agree to encourage leaseholders to make necessary applications to the State Government for these purposes.

8. The CU and CYLC agree to make joint approaches to secure investment for development of the cattle industry through the Indigenous Land Corporation, the Rural Adjustment Scheme, and other sources.
9. The Aboriginal people agree to exercise any native title rights in a way that will not interfere with the rights of pastoralists.
10. Pastoralists agree to continuing rights of access for traditional owners to pastoral properties for traditional purposes. These rights are:
 - rights to hunt, fish and camp;
 - access to sites of significance;
 - access for ceremonies under traditional law;
 - protection and conservation of cultural heritage.
11. These rights shall be attached to the lease title and shall be consistent with a detailed code of conduct to be developed between pastoralists and traditional owners. The code of conduct shall ensure leaseholders are protected from public liability claims arising from the exercise of access rights.
12. The code of conduct for access shall be a minimum to apply to the region, but there shall also be provision for additional features to be negotiated between traditional owners and individual landholders.
13. The parties agree that areas of high conservation and cultural value shall be identified by a regional assessment process according to objective national and international criteria. There shall be an independent review acceptable to all parties in the case of dispute as to whether the values are consistent with the criteria. Where such areas are identified, the landholder shall enter into appropriate agreements to protect the area under State or Commonwealth provisions which may include World Heritage listing. As part of such agreements, funds shall be provided for management of the area, monitoring of agreements and equitable economic and social adjustment.
14. There shall be no compulsory acquisition of private leasehold or freehold land, without prior negotiation with the landowner, and unless all reasonable avenues of negotiation, including the agreements detailed in Clause 13, are exhausted.
15. The purchase of land for the protection and management of cultural and environmental values shall only take place as land becomes available commercially.
16. The parties support the establishment of a fund for the purpose of purchasing land with identified high environmental and cultural values by the Commonwealth Government. The fund also shall contain funds for effective management of land purchase by the fund.
17. Land purchase through the fund shall be assessed for World Heritage values.
18. The management regime to apply to land purchased through the fund shall be negotiated between the Commonwealth and State Governments and traditional owners and shall be based on culturally and ecologically sustainable use of the land's resources to achieve Aboriginal economic viability. Negotiations will involve relevant community organisations and traditional owners on a sub-regional basis, and particularly the following sub-regions:
 - Kowanyama
 - Pormpuraaw

- Aurukun
 - Napranum
 - Old Mapoon
 - Northern Peninsula
 - Lockhart River
 - Coen
 - Laura
 - Cooktown
 - Hope Vale
 - Wujal Wujal
19. The nomination for World Heritage listing of any land on Cape York Peninsula shall proceed only where there is a management arrangement which is negotiated with all landholders who may be affected directly by such listing.
20. The parties shall approach the Commonwealth and the State to become parties to this agreement process.
21. The parties are committed to pursuing agreements with the mining and tourism industries and with other industries with interests in Cape York Peninsula.

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2.3 The Challenge for the Future

Since the conclusion of CYPLUS, and the Natural Heritage Significance of Cape York Peninsula report, it has become increasingly apparent that the vision for the future of Cape York Peninsula must look to the needs and aspirations of current residents, other stakeholders and future generations. Maintaining Cape York Peninsula's high natural integrity is a high priority in both the State and Federal arenas.

There is also recognition that long-term self-determination of Indigenous communities will require a flexible approach to natural resource management beyond that which can be currently conceived.

These changes have led to greater support for capacity building to enable Indigenous and non-Indigenous communities of Cape York Peninsula to undertake natural resource management that affirms both local and national economic, cultural, social and environmental priorities. Hence, while this document reiterates many of the original recommendations of CYPLUS, it is also cognisant of the changing political and social environment, with the belief that if the residents of Cape York Peninsula are adequately resourced and supported, they are the best people to control the future of the region.

A strength of CYPLUS was that it gave a voice to the varied perspectives held by residents of Cape York and other interested parties. Over a period of years, people with diverse backgrounds and interests sat together and listened to each other's views and aspirations, until they could accept and respect different value systems.

Out of this process grew a list of recommendations that aimed to meet these aspirations. One of the shortcomings of the CYPLUS process was the separation of aspirations, and hence framing of recommendations along sectoral lines, with little recognition of the range of views that could be held within a sector, or that values could be shared across sectors. For example, high natural integrity is valued not only by the conservation sector, but also by Indigenous and pastoral communities, even if this may be expressed in different ways.

Partly as a result of the sectoral approach, the Cape York Heads of Agreement was developed to reconcile conflicting aspirations. The challenge for this plan is to build on the Cape York Heads of Agreement principles.

2.4 Implementation of the Plan

Whilst the development of this Plan is being funded through the Natural Heritage Trust, it is not expected that all of the targets and actions will be eligible for potential funding through that source, hence, this Plan should be viewed as a Natural Resource Management Plan and not a Natural Heritage Trust plan.

3 An Overview of Cape York Peninsula

3.1 The Region at a Glance

Area

Cape York Peninsula covers an area of about 137,000 square kilometres. It is bound by the waters of the Gulf of Carpentaria (west), Torres Strait (north) and the Coral Sea (east) and includes all estuaries, marine areas, reefs and islands within three nautical miles of the coast (Figure 3).

Most of Cape York Peninsula is low relief land to 200 metres elevation, although the Iron and McIlwraith Ranges of the central eastern section rise to 400 metres. It has seven geological regions based on age and type of rocks. Associated mineral resources of economic importance include gold, bauxite, kaolin and silica sand. Ten major soil types have been identified. Many of the soils have low levels of phosphorus and nitrogen, are deficient in other nutrients and trace elements, and are weakly structured and prone to erosion when cleared.

Climate

The prevailing climate is tropical and monsoonal with distinct wet (summer) and dry (winter) seasons. Air temperatures generally range between 20 and 30 degrees Celsius throughout the year. Mean summer temperature maxima are highest in the southwest (37 degrees Celsius) decreasing to the north and east (32 degrees Celsius). Evaporation is greatest during the spring months.

Most of the area (60 per cent) receives less than 1,100 millimetres of rainfall annually with one per cent receiving more than 2,100 millimetres annually. Rainfall is generally greatest across northern and eastern areas compared with the southwest and central areas, with most (80 per cent) falling during summer.

Catchments

Sixteen complete river basins and two partial basins (flowing both east towards the Great Barrier Reef and west into the Gulf of Carpentaria) occur across Cape York Peninsula. Riparian vegetation is in good condition along most major water bodies and – with the exception of the Annan River (which has one weir for water supply to Cooktown) – streams are virtually unmodified by dams or other works. Abundant groundwater exists particularly in the sedimentary deposits of the Annan, Carpentaria and Laura Basins.

The high natural integrity of Cape York Peninsula's hydrological systems is of national significance. State government policy, *Protecting Queensland's Heritage: Wild Rivers* recognises that Cape York Peninsula contains the State's greatest number of wild rivers and unimpeded catchments and lists potential rivers for inclusion in the Wild Rivers Policy. The policy commitments reflect the need for Total Catchment Management to protect the land cover and related hydroecological processes.

Rivers include: Archer River system, Coleman River system, Ducie River system, Holroyd River system, Jacky Jacky Creek, Jardine River, Jeannie River, Lockhart River, Olive & Pascoe Rivers, Stewart River, Watson River and Wenlock River.

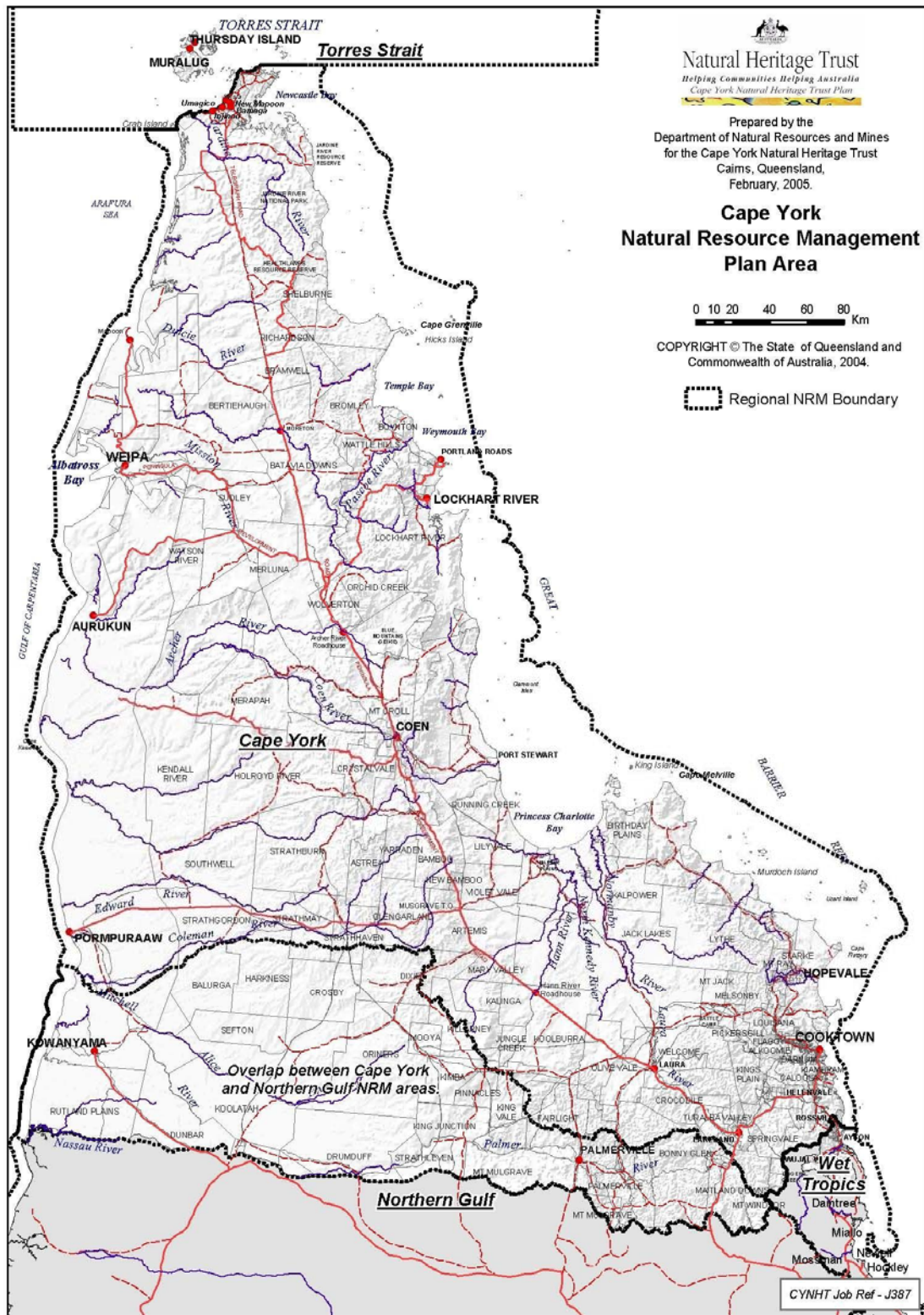


Figure 3: The Cape York Peninsula Natural Resource Management Plan Area

Plants

There are thirty broad vegetation groups identified on Cape York Peninsula. Within these, some 72 different types of rainforest alone have been recognised (Stanton and Fell 2004). Currently 3,338 terrestrial plant species have been identified in the region. Fourteen species of seagrass have been found in the Torres Strait and east coast of Cape York and 36 mangrove species occur along both coasts of the Peninsula.

Animals

Cape York Peninsula's terrestrial fauna includes more than 500 vertebrate species, which include one quarter of Australia's frog species, one quarter of its reptile species, one half of its bird species and one third of its mammal species. Forty of these species only occur on Cape York Peninsula. Eighty-eight species of fish have been recorded from freshwater areas of the Peninsula, 15 of which spend some of their lives in estuarine or ocean waters. Local marine and estuarine areas contain diverse assemblages of fish and crustacea, some of which are commercially valuable. The region's wetlands are recognised through international agreements (China and Australia Migratory Birds Agreement (CAMBA) and Japan and Australia Migratory Birds Agreement (JAMBA) and RAMSAR listed wetlands) for their importance for migratory bird species.

Cultural values

The natural resources of Cape York Peninsula have cultural values that reflect the history of the various communities, their social and spiritual perceptions, and events of importance to their way of life. For Aboriginal and Torres Strait Islander peoples, locally occurring natural resources have provided a sustainable subsistence economy over thousands of years and are part of belief systems which explain the origins of landscapes, plants, animals and people and the kinship connections between them. A map showing the cultural diversity of Aboriginal and Torres Strait Islander peoples is provided as Figure 4.

Population

The Cape York Peninsula regional population was estimated to be 17,687 in June 2001, the period of the most recent population census. This population figure comprises 50.65% Indigenous people and 49.35% non-indigenous people. Unlike many rural areas of Queensland the population of the Cape York Peninsula region grew over the 10 years up to June 2001 with an average growth rate of about 1.8 per cent per annum. The Queensland Government is forecasting that by 2021 the population will be 21,142. Population centres are shown in Figure 3.

Why Cape York is Special - National and Global Natural Heritage Significance

Extracted from 'Natural Heritage Significance of Cape York Peninsula' (Mackey et al, 2001).

Cape York Peninsula contains three well-defined and globally significant bioclimatic domains, which are reflected in their distinctive complement of flora and fauna, which in turn reflect the long-standing biological connections and relationships with both tropical northern Australia and New Guinea. Cape York Peninsula is of national, regional and global significance both as an area of outstanding biodiversity in a largely intact landscape, and as a largely intact bridge retaining valuable evidence of the evolving and on-going fragmentation of the biomes of northern Australia and New Guinea. Landscapes that are relatively unperturbed by modern technology are increasingly rare in the world and have become to be valued as a

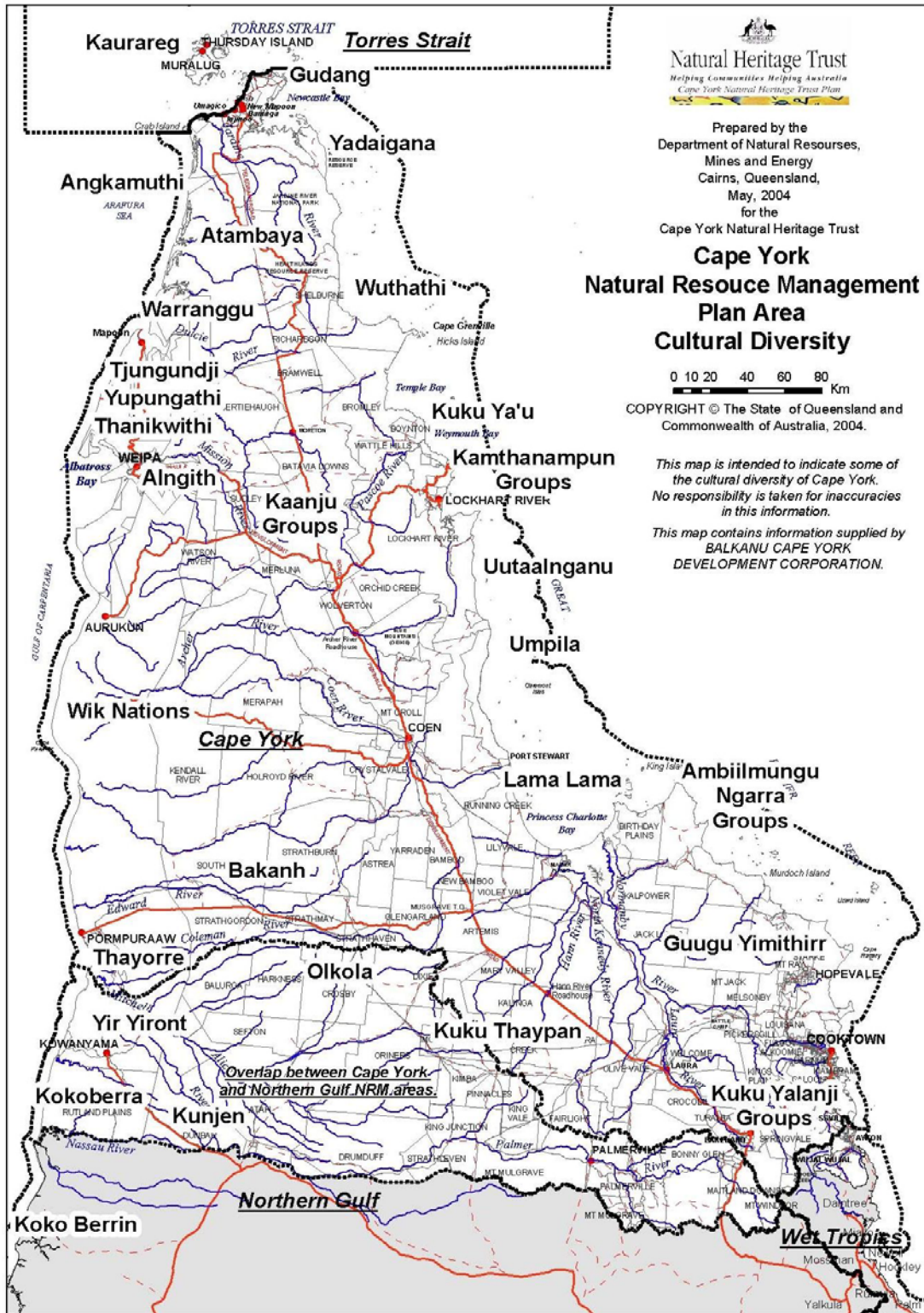


Figure 4: Cape York Cultural Diversity

part of a nation's natural heritage, more or less independent of other natural heritage attributes.

Cape York Peninsula has as a wide range of ecosystems. Rainforests, open forests, woodlands, shrublands, heaths, sedgelands, grasslands, wetlands, mangroves, seagrass, coral reefs and saltmarsh systems are well represented and relatively undisturbed by modern technology. It is this retained integrity of natural systems and processes, over such a vast area across watersheds that gives the region its unique character and global environmental significance. Australia, alone among nations with large areas of monsoonal wet/dry tropical environments, has an opportunity to avoid the mistakes of ill-advised development with attendant land and groundwater degradation, water pollution and biodiversity loss.

Cape York Peninsula is a treasure-trove of biodiversity that illustrates stages in evolution extending far back in time, and encompasses a living mosaic of interlocking habitats that provide a globally outstanding resource for the *in-situ* conservation of biodiversity, both for widespread and common species as well as the more localised, rare and endemic biota. Threatening processes such as grazing, weeds, altered fire regimes and mining have extensively impacted in some areas. A significant proportion of plant and animal species recorded on Cape York Peninsula do not occur anywhere else in Australia (i.e. are endemic to Cape York Peninsula) although a high percentage of species also occur across Torres Strait in New Guinea. However, Australia is in a much better position to provide a safe haven for these *bidomicilic* (i.e. living in two places) taxa.

The fact that Cape York Peninsula with an area of around 13.5 million hectare has, in effect, a continuous cover of tropical, native vegetation ecosystems, is globally significant. This is important for biodiversity conservation given that the greatest threats are from habitat loss, habitat degradation and habitat fragmentation. Every major vegetation group - with only a handful of exceptions - possess a high degree of natural integrity (not withstanding the unsatisfactory state of data regarding the impacts of feral animals such as pigs and weeds). The national and global significance of this lies in the extent to which coastal systems, forests, and savannas have been unsustainably utilised and degraded elsewhere in Australia and the world.

The lands of Cape York Peninsula exhibit outstanding natural integrity in a global, regional or continental context. Indeed, this is one of the key overarching qualities that define the character of the entire region. Relatively small isolated human populations, minimal infrastructure development, and highly localised or extensive land use activities has largely protected the region's natural integrity.

The hydroecology (the interaction between and influence of vegetation ecosystems, catchment hydrological processes and environmental condition) of Cape York Peninsula retains a high degree of natural integrity. Key hydrological processes remain intact, such that entire catchments function unimpeded from watershed ridges through to coastal wetlands. Indeed, the integrity of the region's integrated (groundwater-surface water) hydrological systems is in a condition not shared by most landscapes elsewhere in humid Australia where hydrological life support systems are in peril. Other than the water supply dam on the Annan River, the streams of Cape York have been minimally disturbed by the works of human activity, although the impact of feral animals represent a longer term threat to the natural integrity of many streams.

Both the adjacent section of the Great Barrier Reef World Heritage Area and the Gulf coast waters (although not afforded the same level of protection as the

GBRWHA) exhibit a high order of natural integrity. This natural integrity is very conducive to the long-term maintenance of all the identified extant natural processes, especially the *in situ* processes. The biological bridge between Australia and New Guinea, although partially drowned by the waters of the Torres Strait is still otherwise intact and has not been seriously or significantly truncated or otherwise grossly modified by later human development or destruction of the natural environment, as have all other analogous sites in the tropical regions of the world.

Maintaining the existing natural processes as a package of interconnected systems within the context of Cape York Peninsula's high integrity represents the optimum strategy for protecting the identified globally and regional important values.

The conservation significance of Cape York Peninsula natural heritage values have been recognized for more than twenty-five years and are well documented in numerous reports (e.g. Stanton and Morgan, 1976; Abrahams *et al*, 1995; Mackey *et al* 2001;) and acknowledged in government policy (e.g. Commonwealth of Australia 1998; Cape York Regional Advisory Group 1997; Queensland Government 2004a).

The CYPLUS study concluded that 80% of Cape York Peninsula contained at least one feature of high conservation value. A recommendation was made in CYPLUS Stage 2 for an assessment of significance to be carried out. (The Natural Heritage Significance of Cape York Peninsula report – see below). The assessment report concluded that Cape York Peninsula contains extensive globally significant natural heritage values.

It is important to note that the natural heritage of a place is usually considered separately from its cultural heritage value. The Natural Heritage Significance of Cape York Peninsula study did not assess cultural heritage as it fell outside the terms of reference. The relationship between Indigenous communities and natural heritage values needs to be more closely addressed in subsequent studies and at both policy and management levels. State policy reflects this need, for example in terms of funding for Indigenous Land And Sea Management Centres in recognition of the “wealth of traditional Indigenous knowledge to help us all care for country” **(Queensland Government, 2004a)**.

Just some of the key conservation values identified within the CYPLUS study appear as a summary in the box below.

Key Conservation values of Cape York Peninsula ⁴

- ▲ The Peninsula is unique, at least in Australia, in containing a continuous area of high and very high wilderness quality that encapsulates large areas of open woodland, woodland, tall forest, rainforest, heathlands, and wetlands;
- ▲ The region contains the largest areas in Australia of heathland, riparian vegetation and tropical rainforest of high wilderness quality;
- ▲ The region is unusual in containing whole river systems of high wilderness quality;
- ▲ The wetlands of Cape York Peninsula are amongst the largest, richest and most diverse in Australia;
- ▲ The mangroves and seagrass communities are amongst the richest in the world;
- ▲ The off shore islands provide habitat of international significance for shorebird species;
- ▲ The region is one of Australia's most important for rare and threatened plant species (379 species);
- ▲ The rainforests of the Peninsula comprise 20% of all remaining Australian tropical rainforests;
- ▲ 264 plant species and 41 animal species are only found on Cape York Peninsula;
- ▲ The dunefields of eastern Cape York Peninsula are internationally significant.

Source: Abrahams, H., Mulvaney, M., Glasco, D. and Bugg, A. (1995)

Commonwealth and Queensland government agencies consider Cape York Peninsula to be a key area for the conservation of coastal dunefields, wetlands, tropical woodlands and tall forests, rainforest, heathlands, river systems and wilderness. The current State policy framework for Cape York Peninsula reflects the urgent need for protection of the region's natural and cultural heritage significance.

The Natural Heritage Significance of Cape York Peninsula report, prepared for and released by the Queensland government in 2001, establishes the case for significant natural heritage values when assessed against both Australian National Heritage and World Heritage criteria. The report recommended that a "*substantial proportion of Cape York has the potential to qualify as World Heritage under the World Heritage Convention*", adding that apart from some specific developed localities such as townships, military infrastructure and mines, "*the whole of Cape York Peninsula is likely to contain one or more of the regionally and globally significant values*". Building on the earlier CYPLUS study, the Natural Heritage Significance of Cape York Peninsula authors developed a methodology for assessment of Cape York Peninsula's natural heritage significance.

The hydrological and hydroecological processes that are essential to the biology and ecology of Cape York Peninsula have been largely protected from degrading activities. Twenty-one major wild river systems, that have almost all of their entire catchments and natural values intact, provide refuge for native animals during the dry period. The rivers of the region are rich in Indigenous cultural significance and European heritage, and are a source of scenic beauty and recreational activity. Off shore along the eastern coast of the Peninsula is the most pristine and healthiest section of the Great Barrier Reef World Heritage Area.

Cape York Peninsula is significant for its bio-evolutionary and geo-evolutionary relationships with New Guinea and the Torres Strait. Fossil locations throughout the region hold important evidence for Australia's Gondwanic heritage of plant life and

an array of contemporary biota illustrate stages in biological evolution that extend far back in time. The eastern dunefields, chenier ridges of Princess Charlotte Bay and the karst (cave) systems of the Mitchell-Palmer Limestone Belt are magnificent examples of past and on-going natural processes. Entire landscapes have remained intact to support the world's largest tropical savannah biome and an amalgam of mega diverse Australian and New Guinean biota in a dynamic matrix that is of global significance.

In its entirety, the Cape York Peninsula contains a vast vault of knowledge, some of which is still waiting to be unlocked. Past research studies have already contributed significantly to our understanding of evolutionary processes, providing us with insights into the unique assemblages of fauna and flora that exist in such great numbers on the Cape. These same evolutionary processes are represented in the vast landscapes of the region by ancient, evolving and diverse geological features and ecosystems. Importantly, the area presents an opportunity to better understand the likely impacts and extent of global and regional climate change.

Visually, Cape York Peninsula's vast natural landscapes offer an outstanding natural beauty experience and scenically spectacular places such as an 1800km continuous coastal foreshore, high natural integrity of waters adjacent to the GBR, offshore islands, wild rivers, the west coast wetlands, gallery forests, and the distinctive aesthetic features of Shelburne Bay, the Prince Charlotte Bay chenier plains, Black Mountain and the Grenville and Cape Melville Boulder Ranges, the east coast tropical rainforests at Lockerbie Scrub, the Iron Range and Mcllwraith Range, the dunefields of Shelburne Bay and the Quinkan landscape.

3.2 Natural Heritage Values¹

At the global scale and most general scale, Cape York Peninsula contains three globally significant bioclimatic domains, and a wide range of ecosystems. Rainforests, open forests, woodlands, shrublands, heaths, sedgeland, grasslands, mangroves, seagrass, coral reefs and saltmarsh systems are well represented and relatively undisturbed.

It is this retained integrity of natural systems and processes, over such a vast area across entire watersheds that gives Cape York Peninsula its unique character and global environmental significance. Australia, alone among nations with large areas of monsoonal wet/dry tropical environments, has an opportunity to avoid the mistakes of ill-advised development with attendant land and groundwater degradation, water pollution, and biodiversity loss.

As the CYPLUS process itself has demonstrated, there has been a developing community desire, matched by political support, for a total bioregional approach to the sustainable development of Cape York Peninsula.

The criteria used for listing as World Heritage and on the register of the National Estate were adapted for use in the "The Natural Heritage Significance of Cape York Peninsula"². The report describes eight natural heritage criteria by which the Peninsula has been assessed. It concluded that the Peninsula has characteristics and features that are locally, regionally, nationally and/or globally significant in respect of all eight natural heritage criteria as follows:

Geo-evolution - Outstanding examples representing major stages of the Earth's evolutionary history, including significant geological processes which have contributed to the development of landforms, or significant geomorphic or physiographic features. These are the processes which have worked for millions of

years to produce the landscape we see now on Cape York Peninsula. It is said (**Mackey et al 2001**) that Cape York Peninsula holds the key to our understandings of events at the leading edge of the Australian plate; events in the planet's history including the laying down of sediments in shallow water environment (1500m.y.) that were deformed and metamorphosed by later events, including extensive intrusion by granite rocks (400 m.y.) and later (300-270 m.y.) in the north of the Peninsula. The Peninsula also provided the main land link between Australia and New Guinea which have been separated by water on a number of occasions over millions of years.

Examples of outstanding features representing major stages of Earth's evolutionary history include:

- The eastern dunefields of Cape Bedford – Cape Flattery and Shelburne Bay
- The chenier ridges of Princess Charlotte Bay.

Geodiversity – The most important and significant lands for *in situ* conservation of geodiversity, including those containing rare or threatened features of outstanding (universal/regional/continental/local) value from the point of view of science or conservation. These are the really special examples of landscapes that we see today on Cape York Peninsula. Examples include the eastern dunefields, Mitchell Palmer limestone belt, Black Mountain and Cape Grenville Boulder Landscapes and the Chenier Plains of Princess Charlotte Bay.

Examples of important and significant lands for *in situ* conservation of geodiversity include:

- The Eastern Dunefields of Cape Bedford – Cape Flattery and Shelburne Bay (see above)
- The karst systems of the Mitchell-Palmer Limestone Belt
- The Black Mountain and Cape Grenville Boulder Landscapes
- The Chenier Plains of Princess Charlotte Bay (see above)

Bio-evolution – Outstanding examples representing major stages of Earth's biological evolutionary history, including the record of life. These are the processes which have worked for millions of years to produce the vegetation communities with their associated plants and animals we see today. The Peninsula contains many outstanding examples, representing major stages of Earth's biological evolutionary history, including the record of life with fossil locations throughout the Peninsula with representations from The Carboniferous (300-280 m.y.), Permian (280-255 m.y.), and lower Cretaceous (135-65 m.y.) eras. In addition, so far, 104 Gondwanic plant species have been recorded on the Peninsula.

Outstanding examples representing major stages of Earth's biological evolutionary history, including the record of life include:

Glen Garland Swamps on the relict land surface of the Coleman Plateau.

Biodiversity – The most important and significant natural habitats for *in situ* conservation of biological diversity, including those containing rare or threatened species, communities or ecosystems of outstanding (universal/ regional/ continental/ local) value from the point of view of science or conservation. The mix of all living things we see today on Cape York Peninsula. It is said (Mackey et al 2001) that the Peninsula encompasses a living mosaic of interlocking habitats that provide a

globally outstanding resource for the in situ conservation of biodiversity, both for widespread and common species as well as the more localised, rare and endemic biota. Some examples of this rich biodiversity include some of the world's most species rich mangroves and recorded orchid species whilst the extensive wetlands, tall woodlands, woodlands, tropical heath, seagrass beds, and coral reefs and cays are considered to be of global significance.

Cape York Peninsula has significant percentages of endemic fauna species (i.e. their distribution within Australia is restricted to its boundaries) including:

- 21% of butterflies (60% of all Australian species have been recorded in Cape York Peninsula)
- 5% of non-passerine birds (e.g. Southern Cassowary, hawks and eagles and long distance migrants)
- 14% of passerine birds
- 16% of volant mammals (e.g. fruit bats and microbats)
- 13% of freshwater fish (The Wenlock River is argued to contain the richest known freshwater fish fauna in Australia with the Jardine River not far behind it).
- 23% of frogs
- 25% of reptiles
- 20% of non-volant mammals
- 40 known terrestrial vertebrates including two rock wallaby, bird, skink, frog, gecko, *Melomys*, monitor and *Antechinus* species
- an expected (with further data collection) high invertebrate endimicity.

As well Cape York Peninsula contains:

- 25% of Australia's frogs and reptiles
- 50% of our birds
- a third of the continent's mammals and
- nearly two thirds of the country's known butterflies.
- over 500 species of terrestrial vertebrates.

Natural Integrity – Ecosystems and landscapes which exhibit outstanding ecological and geophysical integrity. Large tracts of the vegetation communities of Cape York are still well intact. Animals can still move freely through the forests, rivers run free and natural systems still function naturally. This natural integrity is considered outstanding at both the regional and global scale. Indeed, this is one of the key overarching qualities that defines the character of the entire region and is due to the relatively small isolated human populations, minimal infrastructure development, and the land use activity in place which is either highly localised or extensive rather than intensive.

The east flowing catchments and associated coast line of Cape York Peninsula are an example of natural integrity. Other examples are the region's hydrological and hydroecological processes, which have a high degree of natural integrity from both a national and global perspective.

On-going natural processes – Geophysical, evolutionary and ecological processes, including local and global-scaled life support systems which are fully functional. The processes on Cape York Peninsula which have led to what we see today are still functioning and changing the landscape with its associated living things. On Cape York Peninsula these continue to function relatively unhindered due substantially to the high natural integrity of the region.

Contribution to knowledge – Examples of geomorphic or physiographic features, ecosystems, plant and animal communities or natural processes or phenomena, the study of which has, or is continuing to, contribute significantly to an understanding of natural history beyond that place. Because Cape York Peninsula is still in such good condition and has so many unique natural features and attributes it allows the study of many things which would not be possible to do elsewhere. The landscape has been so modified by humans in many other places that this work can no longer be done there. Some examples include; the largest continuous tract of core tropical savannah biome remaining with a high degree of natural integrity; ready access to key features for much of the year; most land is under some form of government tenure which provides the base for sound, long-term management necessary for developing research and education programs.

The most important features that support assessment of Cape York Peninsula's global significance for *Contribution to Knowledge* are:

- The largest continuous tract of core tropical savannah biome remaining with a high degree of natural integrity.
- A relative safe environment for visitation.
- Ready access for much of the year.
- Land tenure of much of the land which provides the foundation for sound, long-term management necessary for developing research and education programs.
- A long record of natural history research, including the CYPLUS program, provides a firm base for future research and studies.
- Relative proximity to major research facilities in Cairns.
- The research challenge of extensive and diverse areas of high natural integrity that have been scantily, if at all, researched.
- Global significance as a base-line landscape in tropical environments of future climate.

Aesthetics – Superlative natural phenomena or areas of exceptional natural beauty or aesthetic importance. Places of natural beauty, restfulness, solitude that make you feel good and make people want to come and see them. Examples include; 1800km long coastal foreshore; long sandy beaches; prominent distinct landscape features such as Black Mountain, Cape Melville and Iron Range; Shelburne Bay dunefields and the Jardine and Wenlock River catchments. There are of course many others that readers consider favourites.

Cape York Peninsula contains various superlative natural phenomena and areas of exceptional natural beauty and aesthetic importance, including:

- 1800 km long coastal foreshore, a high proportion of which is exceptional natural visual integrity.
- Long, sandy beaches of exceptional natural beauty particularly on the east coast.
- Visually distinct eastern foreshore headlands.
- The high level natural integrity of the adjacent waters of the Great Barrier Reef World Heritage Area.
- Accessible viewpoints that provide elevated vistas of the extensive natural wooded landscapes, e.g. Grassy Hill at Cooktown.
- Prominent, distinct and unique landscape features, e.g. Black Mountain, Cape Melville, and Iron Range.
- Micro landscape features, especially closed forest, gallery forest, water features, tower karst caves.

- Shelburne Bay and Cape Flattery dunefields.
- Iron Range rainforests.
- Jardine and Wenlock River catchments
- The Quinkan landscapes
- The beach barrier systems and associated Pleistocene Carpentaria foreshore dune
- The Princess Charlotte chenier system.

Cape York Peninsula, *in toto* has been assessed as having a high aesthetic potential.

Some further information is provided in Annexe 6 in the section about Natural Heritage. Readers wishing to know more are recommended to read “The Natural Heritage Significance of Cape York Peninsula” available at: http://www.epa.qld.gov.au/nature_conservation/biodiversity/conserving_biodiversity/cape_york_peninsula/

3.3 History of the People

Aboriginal Historical Perspectives

Ancient Aboriginal history is recorded orally by the stories and ceremonies of the numerous clan groups of the Cape York Peninsula. These tell of hunting, gathering and nurturing the land, sea and resources of the region.

While conflict was certainly part of traditional Aboriginal life, land conquest was not. The oral history also records momentous events, such as rising sea levels, cyclones, droughts, fires and the coming of the Europeans.

Aboriginal history is also recorded in the distribution and populations of contemporary Aboriginal communities. These exist not only as the result of Aboriginal culture, society and traditional tenure, but as a result of European settlement with its attendant resource exploitation and occupation which had a major and lasting effect on Aboriginal people.

Aboriginal culture and spirituality were challenged by Christianity, which was presented in the context of Western cultural attitudes when missions were established from 1867. The most enlightened missionaries encouraged the maintenance of Aboriginal cultural practices, enabling Christian teaching to be inculcated within the religious and social customs. On some missions this cultural challenge was very dominant, and in some cases attempts were made to extinguish Aboriginal cultural expression.

The history of Aboriginal land use involved a period of some 50,000 years of subsistence during which land was managed and used in accordance with a complex set of cultural practices involving some ecological modification (principally by fire) and resource management which included a degree of replenishment. Over this period, climatic and topographic changes had significant influences over the land.

This was followed by a period of almost 400 years since the coming of the first European explorers and later colonists. During this time, the community structure has undergone significant change and the Aboriginal population declined for many reasons including disease, conflict and (often forced) relocation. Over recent years, the population has started to increase.

Aboriginal people also experienced periodic involvement in mainstream European land use, particularly in the pastoral, mining, tourism and service industries.

Torres Strait Islander Historical Perspectives

There is a strong linkage and rapport between the Torres Strait and Cape York Peninsula regions. The history of Torres Strait Islander land use has involved a period of more than one thousand years of subsistence based on the islands and waters of the Torres Strait. Torres Strait Islanders managed and used the resources of the area in accordance with a complex set of cultural practices. Sustainable use of resources included fishing, hunting, food gathering and agriculture.

This was followed by a period of at least 390 years since the first contact with European explorers. From the early nineteenth century passing European ships made sporadic and continuing contact. Crews of these ships traded with Torres Strait Islanders for water and food.

Following World War II, Torres Strait Islander communities were established on northern Cape York Peninsula. Although these settlements are physically located on the traditional country of mainland Aboriginal people, they are administratively regarded as being part of the Torres Strait. The residents of Seisia and Bamaga retain strong links with the people and culture of Saibai Island.

Torres Strait Islanders have had extensive involvement in the mainstream European and maritime industry including commercial fishing, pearl and trochus shelling and the gathering of bêche-de-mer.

Non-Indigenous History

The first recorded contact of Europeans with the Australian continent occurred in Cape York Peninsula when Willem Janszoon in the *Dufken* made contact with the *Wik* people at Cape Keer-weer in 1606.

John Jardine established the first European settlement Somerset in 1864. He also established the first cattle station at Vallack Point, five kilometres south of Somerset.

In 1873, 100 diggers with 300 horses and bullocks developed the Palmer Goldfield. At the same time prospectors came by sea to the estuary of the Endeavour River. The township of Cooktown was established in the same year. The gold rush continued up to Coen five years later.

Rapid population growth created an increased demand for meat. The pastoral industry expanded in the twenty years from 1885 during which surveys set the boundaries of many pastoral leases.

Cooktown's population was 7,000 only a year after gold was discovered in 1873. By 1880, there were 24 hotels, several banks and a population of 30,000 by 1884. By 1939 and the outbreak of World War II, this had dwindled to 400. It survived mainly through small-scale tin and gold mining and the reduced cattle industry.

The war years saw a rapid increase in development on Cape York Peninsula. New aerodromes were established at Cooktown, Coen, Iron Range, Higgsfield (near Bamaga) and Horn Island. The provision of these aerodromes later enabled the establishment of regular public transport, and DC3 aircraft made the remote communities more accessible. By 1996, Cooktown's population was 1,500.

The total population of Cape York Peninsula was just shy of 18,000 during the 2001 census. It is tipped to be more than 21,000 by 2021.

In summary, the history of non-Indigenous land use to date has involved three waves of settlement beginning in the 1860s with pastoralists and miners followed by wartime use by Australian and American personnel and then a third wave of visitors seeking a wilderness experience.

Notably, it has also involved the waxing and waning of resident communities as mining ventures went through periods of prosperity and decline. Moreover, the pastoral industry has fluctuated in accordance with its heavy dependence on world market prices.

Non-Indigenous settlement has also involved short-lived experiments in sugar and rice production in the 1880s. More recently, broad acre legume pastures and other agricultural developments have been explored. Significant cropping and horticultural industries are now flourishing at Lakeland and Cooktown.

3.4 The People of Cape York Peninsula Now

Why the People of Cape York Peninsula love the region

During the consultation process on the Draft NRM Plan the authors heard a wide range of opinions about why the Peninsula is so special to residents in particular, why they are fiercely independent and why they want to have the dominant say in how the region is managed now and in the future. For those people that don't live on the Peninsula here are some of the things that residents said during the preparation of this Plan. It is hoped that the depth of feeling, ideas, actions and aspirations of the people that live on the Peninsula can be made clear to those people that either don't live on the Peninsula or don't have a direct stake in its management:

John Fraser *"I don't live on the Peninsula because it's an easy life, I live here because it's a way of life. Any one that doesn't live here can't understand that."*

Anne Creek *"It is our right, as Cape York People to take responsibility and to show true leadership for the future developments, and in achieving, appropriate outcomes, for all people, living on or with interest on Cape York Peninsula."*

Bob Sullivan *"To me, the Peninsula is special because of the freedom that you get to enjoy the environment, wide open spaces, clean water, exceptional scenery and the friendships that have been made and will endure."*

A Brief Economic and Social Profile of Cape York Peninsula

Cape York Peninsula is very large and sparsely populated. For this reason and given the scope of this plan it was not practical to survey individual economic activities for this report. Rather, to build up an economic profile, a secondary data approach is taken based on utilising published data from government and related surveys of economic activity supplemented by discussions with key informants in government and industry. However, a more detailed survey of individual economic activities may well provide useful data to help inform investigations into ecologically sustainable development opportunities in the future. These are discussed further in Chapter 7.

We recognise that much of these data are already out of date, but the trends are in some ways more important than the absolute numbers. The available data give significant insights into underlying trends.

Government surveys tend to use collection processes that treat all regions of the country in the same manner. A weakness with this approach is that the survey method, which is appropriate to the more densely populated regions, may provide misleading results when applied to relatively undeveloped areas such as the Cape York Peninsula. To avoid perpetuating data inaccuracies we have consulted regional experts to assist in the interpretation of the survey data and have attempted, where possible, to use multiple sources to verify the accuracy of key data.

The primary sources of data on regional economic activity referenced in this study are the Queensland Office of Economic and Statistical Research (OESR) publication - Queensland Regional Bodies Information System (QRBIS). This is a database developed specifically to provide Natural Resource Management bodies with access to regional data compiled by OESR.

QRBIS uses an aggregation of statistical local areas (SLAs) as a proxy for the Cape York Region. The SLAs and the percentage of the Local Authority area assumed to fall with the Cape York Region is as follows (see also Figure 5 which shows all of the Local Authorities of the Cape York Region and the Local Authorities as a percentage of the Region as calculated by the Queensland EPA which differ from the SLA's percentages):

- Aurukun: 100%
- Carpentaria: 43%
- Cook (S) (excl. Weipa): 100%
- Cook (S) - Weipa only: 100%
- Douglas: 5%
- Torres: 59%

The CYP regional population was estimated to be 17,687 in June 2001, the period of the most recent population census. This population figure comprises 50.65% Indigenous people and 49.35% non-Indigenous people. Unlike many rural areas of Queensland the population of the CYP region grew over the 10 years up to June 2001 with an average growth rate of about 1.8 per cent per annum.

Projections for the future population of the region depend on a number of assumptions. These include the level of investment and employment in region, and associated net migration in or out of the region. The Queensland Government's Planning, Information and Forecasting Unit is forecasting that the population, by 2021, will be 21,142.

Strong anecdotal evidence gathered during the development of this Plan suggests that these figures are significantly underestimated.

The age distribution of the population is significant in assessing the future character of the region.

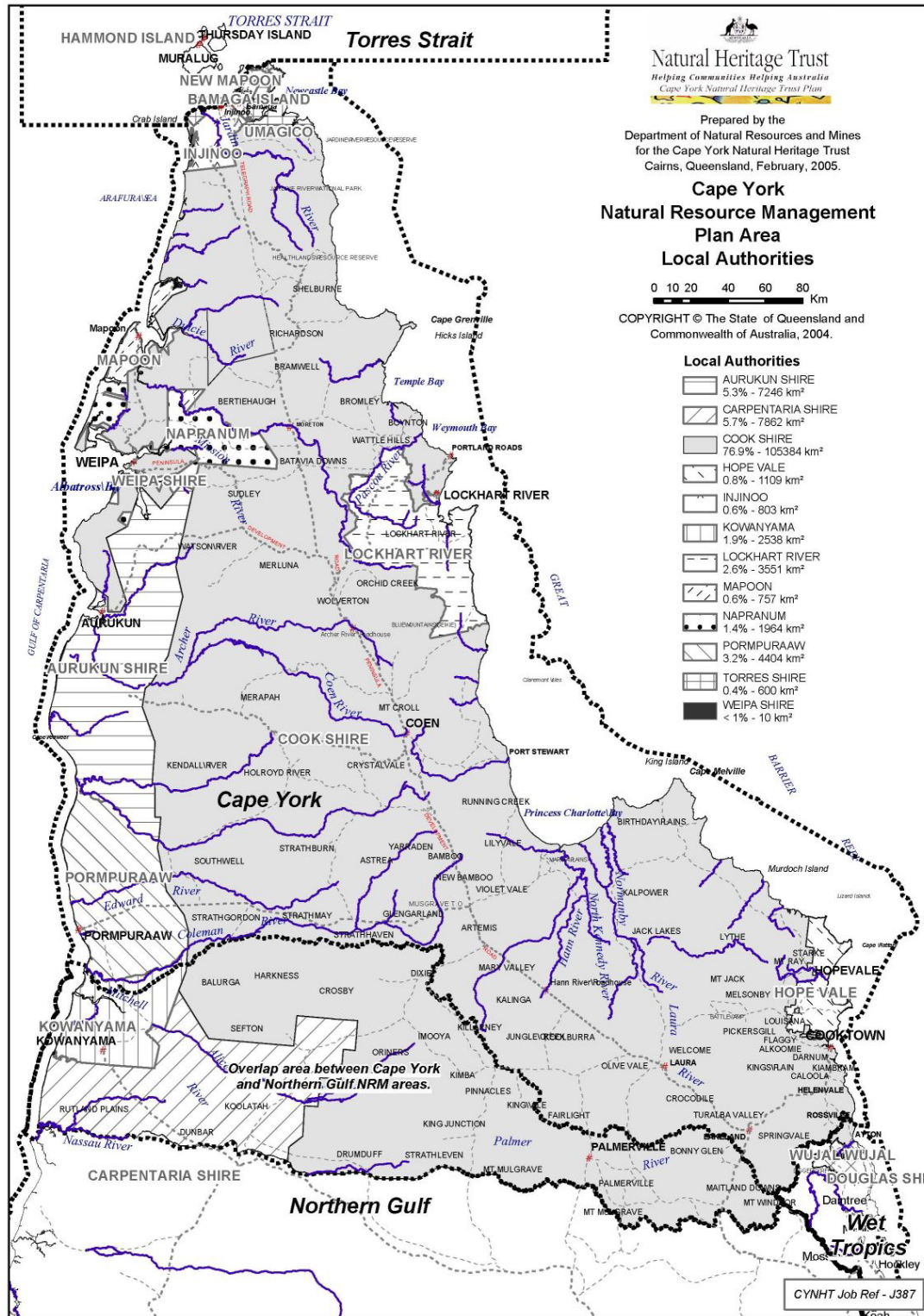


Figure 5: Cape York Peninsula Local Authorities

Key attributes are as follow:

- The region is noteworthy for the relative weighting towards the 25-44 year age bracket and the low figures for retirees above 65 (5 per cent different from all of Queensland data). This reflects the demography of the short-term residential population that works in the bauxite mining industry and the fact that many residents retire to locations outside the region. This lower figure is also likely to be a result of a lower life expectancy for Indigenous people.
- The relative thinness in the 15-24 age bracket may reflect mobility in the form of the short-term or long-term migration of people between local communities and the larger centres outside Cape York Peninsula.
- The relative weighting to the 0-14 age-bracket reflects the number of parents in the prime childbearing range of 25-44 and also the significant Indigenous population.
- Over the next twenty years there will be an anticipated shift in the overall demographic balance from younger to older age-bands.

The labour force provides a measure of the number of persons working or actively seeking work. The full-time labour force in 2001 totalled 4,103 employed full-time persons, 3,381 part-time employed persons (a total labour force of 7,484 persons) and 482 unemployed persons. The number of people in the full-time labour force has declined over the last decade - in 1991 the full-time labour force totalled 4,171, increasing to 4,452 in 1996 but then declining to 4,103 by 2001. However, the number of part-time employed persons increased steadily over the same period adding to the total labour force increase from 6,214 in 1991 to 7,484 in 2001.

Table 3: Labour Force (Indigenous and non-indigenous) 1991-2001

Year	Employed Full-Time, Persons (Number)	Employed Part-Time, Persons (Number)	Total Labour Force	Total Unemployed, Persons (Number)	Total, Persons (Number)
1991	4,171	2,043	6,214	642	11,659
1996	4,452	2,484	6,936	489	12,505
2001	4,103	3,381	7,484	482	13,890

Between 1991 and 1996 the rate of employment of Indigenous people also increased in the part-time work whilst the rate of unemployment apparently fell.

Table 4: Labour Force (Indigenous only) 1991-1996*

Year	Indigenous - Employed full-time, Persons (Number)	Indigenous - Employed part-time, Persons (Number)	Indigenous - Employed total, Persons (Number)	Indigenous - Unemployed, Persons (Number)	Total Person numbers
1991	1,259	1,042	2,475	266	2,741
1996	1,252	1,331	2,717	188	2,905
2001	na	na	na	na	na

* data for 2001 not available

The unemployment rate in the region in 2001 was 10.5 per cent (of the full-time labour force). This is more than the rate of 8.2 per cent for the State as a whole in that year. In previous census years the unemployment rate in the region was 9.9 per cent in 1996 and 13.4 per cent in 1991. It is important to note that these figures mask a high dependency on the welfare economy in the form of employment under

the Community Development Employment Program (CDEP) especially in Indigenous communities is CDEP.

The public sector, including education, health and the Community Development Employment Program, is the largest employer in the region accounting for over 50 per cent of all employment.

Distinctive features of the Peninsula economy (CYPDA & Balkanu 2003) are that:

- It is dominated by the mining industry which contributes more than half of GRP, employs 12% of workforce (10 times the national average) and occupies 4.5% of area.
- The dominant land use, in terms of area, is cattle grazing (57%) which contributes 2.4% of GRP and which, together with commercial fishing, employs 6% of the workforce.
- The public sector is the dominant employer through Public administration and defence (9.7%) and Community services (36%) sectors, with the latter being contributed to largely through the CDEP program in indigenous communities.
- Non-market activities add significantly to the region's formal economic base, with crude calculations suggesting that the economic value of subsistence activities could be \$6 million.
- The regional economy is not very well inter-linked, with inputs and outputs flowing between the region and other parts of the country rather than within the region.

A detailed list of employment by sector is provided as Annexe 3.

3.5 Local Governments' Capacity to Pay for Natural Resource Management

Notwithstanding the increased responsibilities implicit in this plan, local governments are already being asked to bear increasing responsibility for natural resource management. The people of Cape York Peninsula want to make sure that the Queensland and Australian Governments understand that none of the local governments on Cape York Peninsula have a large enough rating base to do justice to these increased responsibilities.

4 Working Together

4.1 A Strong Foundation

Indigenous people, environmentalists, and pastoralists have a long history of working together on Cape York Peninsulaⁱⁱ. They don't always agree with each other. In fact they often disagree. But they are able to agree to disagree and to continue talking to ensure that economic development projects have the highest levels of environmental care and provide maximum benefits to Aboriginal communities.

What they have achieved is the formulation of a set of principles that may have application elsewhere. The first principle is the importance of maintaining regular contact. This involves not acting unilaterally when the latest crisis has arisen, but rather by talking through the issue and resolving to take a path that is beneficial to their respective objectives. To do so requires respect for each other and their sometimes-divergent aspirations.

The second principle has been an acceptance that there will be times when their views about the best way forward will not be the same. On Cape York Peninsula, the groups have been able to walk together through this minefield and have laid the basis for a visionary new future for the region based on ecological and cultural sustainability.

The people of Cape York Peninsula have already done a lot of planning related to natural resource management. Reviewing that hard work and learning from it, has been a big part of preparing this Plan.

The Cape York Peninsula Land Use Strategy (CYPLUS) remains a fountain of information and good ideas. It was a three-stage process.

- Stage 1 concluded in 1995 with the publication of an overview report and three thematic reports detailing the regions resources.
- Stage 2 concluded in 1997 with the publication of "Our Land Our Future" which detailed visions, principles, strategies and actions required in the course of implementation.
- Stage 3 involved the implementation of the strategies and actions set down in Stage 2. One of those recommendations was to prepare a Natural Resource Management Strategy. That recommendation provides the foundation for this Plan.

This Plan does not duplicate the research, investigations and planning undertaken so far. Rather it updates our knowledge of the region by building on CYPLUS and sub-regional plans like catchment plans, industry plans, weed plans and importantly land and sea centre plans. The linkages between all these plans are discussed in Annexe 1.

It is important to note that extensive community consultation was an integral part of both CYPLUS and CYP 2010. Genuine consultation was instrumental in gaining community support for those plans.

4.2 Trying Times

Whilst CYPLUS has delivered some good outcomes, unfortunately the lack of progress in implementing some of the key parts has tested people's goodwill. Many Indigenous people, environmentalists, pastoralists and others are now suffering from consultation fatigue and are frustrated with government planning processes.

Despite their frustration about the past, most Cape York Peninsula people do recognise that politics is the means by which society engages in competition over ideas and values providing it is characterised by truth and respect and if it promotes cooperation rather than competition. While they do want to see investment in *genuine* consultation and planning, they want more than anything else to see investment in action and delivery.

4.3 The Unifying Theme

The unifying theme for everyone involved in natural resource management on Cape York Peninsula is the notion of 'caring for country'.

For Indigenous people, caring for country is tied-in with spiritual and cultural identity, custodial responsibilities, health, well-being and economic viability, in ways that are only partly understood by non-Indigenous people.

'Caring for country' is much more than just looking after the resources associated with a piece of ground or water. The concept of 'country' encompasses the relationship between people and country; it is spelt out in stories, traditions and knowledge about 'country' that are passed from generation to generation.

Most traditional owners see that to look after country, they must live on or have access to that country. Looking after country (land and sea) means being out there seeing what is happening – with tourists, with significant cultural sites, with cattle, with weeds, with feral animals and with fishers. Native title determinations are helping Indigenous people regain access to country so that they can care for country.

For most non-Indigenous and Indigenous pastoralists on Cape York Peninsula, managing cattle has been a way of life for several generations. Pastoralists play an important role in caring for country. Tied to the land for the lifestyle, at least as much as for the economic returns, pastoralists see properly managed cattle properties providing numerous environmental management benefits.

A large part of their everyday cattle management involves weed control, feral animal control and fire management. It also involves them acting as 'watchdogs' for the identification and control of exotic diseases. The nature of their work means that they see themselves as having a duty of care, respect and understanding for the land they work. Their maintenance of productive native pastures, through moderate stocking rates and the prevention of woody thickening, has also helped to maintain the region's ecological integrity. Some pastoralists are directly involved in helping to conserve threatened species such as the Golden Shouldered Parrot.

Other industries including fishing and tourism also have a vested interest in caring for country as their future depends upon sustaining the environmental health of the region. The mining industry, whilst not directly reliant upon sustaining the environmental health of the region, also recognises the importance of undertaking their activities to standards of 'best practice' in order to best manage the

environmental impacts of the industry and to secure their long-term future for both the environment and for the economic wellbeing of many of the region's residents.

Environmentalists are deeply concerned with helping to care for country. They are acutely aware of Cape York Peninsula's place in the world. And they are conscious that, in world terms, Australia has a unique blend of economic, environmental and social strengths. Accordingly, we are uniquely placed to manage our biodiversity.

Environmentally, Cape York Peninsula is a place of unique land and sea ecosystems of worldwide significance. Some see it is one of the last great areas of 'wilderness' in Australia and believe that natural resource managers have a duty of care to continue building our understanding of these systems so that their integrity can be maintained and protected into the future.

Australia has the capability to protect biodiversity because we have a vibrant economy, a well-educated population, and we are committed to the principles of ecologically sustainable development. Environmentalists know how important it is for all Australians to have the opportunity to share in these strengths. CYPLUS and many other processes are testimony to their long history of working with Indigenous people and pastoralists on Cape York Peninsula to identify options for genuinely sustainable development.

Even with the unifying theme of caring for country, there are areas of conflict – and it is important to be open about this. Not all pastoralists are content with low intensity, extensive cattle ranging. Even those who wish to manage their own lands conservatively have an interest in a viable cattle industry, an objective that may not always be conducive to biodiversity conservation or wilderness values.

An intensification of Indigenous land use may also conflict with concepts of wilderness values. Some people, while recognising that the natural integrity of Cape York Peninsula is one of its greatest values, consider the concept of wilderness an insult to the Indigenous people who have lived in and managed this landscape for thousands of years.

It is important to remember that traditional Indigenous management and moderate extensive grazing regimes have coexisted with the biodiversity values of Cape York Peninsula for 150 years. Relative to the rest of Australia, only a small proportion of Cape York Peninsula's species have become threatened. Adaptive conservation management both on and off reserves, often with the cooperation of pastoral and Indigenous land holders, is helping to identify the adjustments necessary to ensure the retention of biodiversity values.

This plan recognises that residents of Cape York Peninsula are in the best position to manage the region. Active management of weeds, fire and feral animals requires a presence of people who understand the land. The region has a good history of active planning and management with the Fire Management Project. The Cape York Peninsula Pest Advisory Committee (CYPPAC) has also been in existence for some years with the first meeting held in Coen in August 1999. Maintaining viable human communities is therefore essential to the ecological management of the peninsula. Some decisions that ensure the economic viabilities of communities and pastoral properties at the expense of environmental integrity may therefore be needed to ensure the long-term ecological viability of the region. However, any future development should/would be undertaken consistent with the principles of Ecologically Sustainable Development.

A case in point is that of mining - the main economic activity, which needs to be managed appropriately to minimise any potential conflict with ecologically

sustainable management of Cape York Peninsula. Mineral deposits provide a source of economic and social benefits that enable Indigenous and non-Indigenous communities to keep living in the area with services that might not otherwise be available. They are a source of key export products for Australia.

Such issues need to be managed sensitively, but decisively, if a Natural Resource Management Plan is to make a real impact on the future of Cape York Peninsula.

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5 The Planning Process

5.1 Community Engagement

Community engagement for this draft plan was difficult. The national guidelines for the preparation of natural resource management plans require community consultation prior to the preparation of a draft plan. This is a good idea for those parts of Australia that have not experienced the level of planning and consultation that has already taken place in Cape York Peninsula. It is also a good idea for those parts of Australia where there has been significant progress on existing plans. But it is fraught with difficulty where there has already been a lot of consultation and not enough perceived action on the main fronts. Whilst it is recognised that significant components of CYPLUS have been delivered, frustration is evident that key components remain incomplete.

Consultation about abstract notions such as 'planning processes' is always difficult unless it can be grounded in the real world of 'works on the ground.' Understandably, despite CYPLUS's achievements, a desire to see more progress dominates the mood on Cape York Peninsula. Consequently some conservation groups did not want to be involved in helping to set targets for this plan until they saw more progress on land acquisition. Some pastoralists did not want to talk about this plan until at least one Cape York Property Plan was produced. And many Indigenous people wondered why they were bothering, yet again, to explain to non-Indigenous people the inextricable links between a healthy people and a healthy country. Despite those misgivings, particularly initially, all groups provided very positive contributions. These are reflected in this Draft Plan.

Ultimately, people are at the heart of natural resource management. Engaging with the people who live and work on Cape York Peninsula is a vital part of dealing successfully with the natural resource challenges facing this special part of the world. We also recognise that other people including government workers, scientists and conservationists have a keen interest in helping to protect Cape York Peninsula's unique natural assets while also enabling genuinely sustainable development. Collectively, these people and organisations form the 'community' with whom the planning process consulted.

A Stakeholder Engagement Strategy that took account of the accreditation criteria, previous engagement outcomes, current consultation fatigue, and the diversity of interests that characterise the richness of this region, informed the consultation process. It revolved around the following concept of engagement:

Engagement: includes the ways in which people and organisations participate – including the power and capacity they have to influence or make decisions; engagement is about developing quality relationships to achieve better outcomes.

Although we met with many people in a short space of time, we would like to have engaged even more thoroughly in the lead up to this draft plan. Time, resources, context and cultural constraints, limited our ability to engage with people as much as we would have liked. As such, the process was more one of consultation. It was one step in progressing genuine and fully inclusive engagement – which is now a core element of the plan itself.

Specific attention was paid to consulting with Aboriginal and Torres Strait Islander people in acknowledgement of their traditional ownership and their custodial

responsibilities. Nonetheless, the same constraints meant that this too was more limited than we would have liked; it reinforced the need for everyone to keep getting better at genuine consultation – this is a feature of the Plan.

The purpose of engagement

Community engagement, both in planning and in implementation, needs to deliver three main outcomes:

information and communication: engagement must help us in contributing to, sharing, discussing, analysing and synthesising knowledge, data, experience, perspectives, ideas, aspirations and options regarding the management of natural resources;

decision-making: engagement must help us in categorising, appraising and prioritising *information*, and contributing to making fair and transparent decisions on important matters including priority-setting and “trade-offs” as well as institutional and delivery arrangements - ongoing processes that involve managing conflicting and political interests; and

ownership: engagement must help us in building relationships, understanding, and a willingness to be part of the process and outcomes, including a longer term willingness, by all concerned, to work together in addressing complex and potentially competing interests.

Who was consulted and how?

This stage of the consultation process largely took place from July to September 2004. It was supported by a communication and publicity strategy based around a *Having Your Say* pamphlet and a *Community Information Paper*. It also involved several media releases and participation in various forums.

A wide range of people and organisations from different ‘sectors’ were contacted including Aboriginal people, Torres Strait Islanders, mining, grazing, commercial fishing and tourism interests, other industries and services, conservation groups, local government, state agencies, federal agencies and research bodies. A comprehensive database of over 450 parties with an interest in the management of natural resources on Cape York Peninsula was a significant outcome of the process.

The final plan must be based on sound information. It must also be based on decision-making processes that accommodate different forms of knowledge. The techniques of ‘triangulation’ and ‘ranking’ help to do this. These are well-recognised, simple, participatory ways for crosschecking accuracy and setting priorities. Balancing different ideas and different forms of knowledge means moving back and forwards to review and refine outcomes. This process will continue through the circulation of the draft plan and the six-week public consultation period.

Several consultation methods were used to meet these criteria; they included:

- document review
- situation analysis
- one-to-one discussion
- existing forums
- small community and industry group discussions
- story-sharing
- case studies and scenarios

- action planning
- written submissions or comment
- 'expert' views (formal and informal)
- feedback and prioritisation at meetings.

Often these methods were used in combination, their application being guided by a set of overarching key questions.

The consultation program focussed on meeting with people individually and in small groups. This proved to be an effective way of enabling people to speak openly and honestly about what they see as the issues for this plan.

Further details of the consultation process are available in the Cape York Peninsula Natural Resource Management Plan Community Consultation Report, and in the Stakeholder Engagement Strategy, both of which will be available from the Cape York Community Engagement Group upon completion of the Final Plan and consultation process (contact details are provided at the beginning of the Plan in the section 'Development of the Plan and Having Your Say').

5.2 The 'How' of What We Want to Do

A striking feature of the consultation process was the strong and widely expressed concern that people have for *how* things get done. In this sense, the *processes* by which we address our targets are widely considered as valuable and important aspects of natural resource management on Cape York Peninsula.

A number of 'process' things arose that have a bearing on how this Plan was prepared and will need to be implemented if it is to achieve its goals. These are grouped into seven 'themes' that run through and across all of the assets identified above, and are themselves inter-connected. These seven themes are:

- systems and relationships
- well-being and the economic-social-environmental imperative
- managing diversity
- governance - power and politics
- cohesion in policy and practice
- co-ordination
- respect and trust - the 'bottom line'.

Systems and Relationships

The natural resource assets we are striving to manage do not exist in isolation from one another. They are bound together through a myriad of systems and relationships that we are still learning to understand.

- Our programs need to be underpinned by approaches that foster learning and adaptive management in natural resource management at every level, from policy to practice.
- Our natural resource management programs need to seek out opportunities to evolve ways of enhancing understanding that draws on different traditions (e.g. Indigenous and western science) and different sectoral perspectives (e.g. health and education).
- Our programs need to demonstrate how active adaptive management principles are being applied.

Well-Being and the Economic-Social-Environmental Imperative

Successful natural resource management is closely bound up with economic and socio-cultural well being. Protection of our unique natural assets and environmental integrity will mean it is here to nurture and sustain future generations, while enabling us to do this demands that we evolve sustainable socio-economic ways of being on the Cape now. This being said, most residents are not seeking massive economic returns but rather are concerned with protecting a lifestyle or culture.

Example: People are at the heart of natural resource management. Without people being out on land and sea country we cannot effectively monitor and deal with pests - be they plants, animals, humans or diseases. But people will only get out on country when they have the means to do so, or it is viable for them to be there. This applies equally to the region's Indigenous and non-Indigenous people.

Example: Threats to natural integrity affect all aspects of natural resource management and the protection of natural heritage.

Implication: ***Our programs will only be effective if combined with initiatives that enable people to create viable lives within the context of 'sustainable development'.***

Managing Diversity

Cape York Peninsula has a wealth of biological diversity. This is matched by a rich socio-cultural heritage and diversity of human connection with this place. This complexity is expanded by the strong interests and influence that people from outside the region have in its wellbeing.

Example: Conflicts may arise where different sectoral interests are perceived as being incompatible. The Cape York Heads of Agreement is an example of how conflict can be resolved.

Implications: Such inclusive arrangements accommodate a range of views and positions that celebrate and build on the innovative ways that diversity has been recognised and managed in the past. We need to give serious attention to processes of reconciliation and conflict resolution, of finding common ground from which to negotiate meaningful ways forward.

Governance - Power and Politics

Natural resource management on Cape York Peninsula is influenced by politics, the machinations of which largely occur south of Cape York Peninsula. Rightly or wrongly, this leaves many residents and on-Peninsula service providers, both Indigenous and non-Indigenous, feeling excluded and unfairly treated by those who purport to represent their interests. The result is reduced trust and commitment to plans such as this.

Example: Cape York Peninsula is unusual in that most representative bodies and departments with responsibilities for regional decision-making are located out of the region. Increasingly, Cape York Peninsula people with voice and influence find themselves living and focused out of the region. Distances and weak infrastructure make it harder still for them to provide a responsive service to their constituencies.

Implications: Our plan must provide for stronger direct representation from and accountability back to Cape communities. We must prioritise the development of participatory approaches that empowers local – adequately informed - planning, decision-making and management.

Example: A number of advisory groups to government have not yet been formally disbanded or formally replaced, such as CYRAP, CYRAG and the Heads of Agreement Implementation Group. It is hoped that this situation will be resolved in the near future. In addition, the roles and responsibilities of various advisory groups are sometimes not clear to all stakeholders, and sometimes seem to overlap. For example, the NHT Property Planning Group and the Heads of Agreement Implementation Group appeared to be both working at the same time on important issues like negotiating Indigenous people's access and conservation agreements on Pilot properties.

Implications: Lack of clarity in roles and responsibilities causes confusion, delays processes, and allows issues to be misinterpreted. It breeds mistrust and a sense that the goalposts keep moving. A review and resolution of such issues will be an important and positive step forward.

Cohesion in Policy and Practice

At times some government agencies promote natural resource management practices that appear to conflict with practices promoted by other government agencies. This may undermine effective natural resource management. .

At best, a lack of cohesion dissipates energy and causes confusion; at worst it creates more problems than it solves. Again, review and resolution of such issues will be an important and positive step forward.

Co-ordination

Addressing each asset on its own can help us focus on what it is we really want to achieve through this Plan. However, effective natural resource management depends upon an integrated, strategic approach to management of all assets and resources. All sections of the community, including scientists, traditional owners, cattle and other industry operators, and governments, are all keen to see this Plan contribute to better co-ordination and integration of natural resource management efforts on Cape York Peninsula. Example: There are demands on Land and Sea Centres by government departments and other organisations to facilitate implementation of different programs.

Implications: Our Plan needs to identify how mechanisms for improving coordination will be developed and implemented. It could involve piloting new co-operative initiatives, supporting co-ordinating bodies, and/or finding ways to reward efforts that enhance co-ordination and co-operation rather than competition.

Respect and Trust - The 'Bottom Line'

To regain trust there must be a genuine commitment to the Plan from the Cape York Peninsula community, stakeholders, government agencies and government itself. To achieve that trust ALL aspects of the Plan must be considered and adhered to by all participants and only progressed in a holistic and balanced way.

Implications:

- Our plan needs to reflect and draw inspiration from the principles underpinning the Heads of Agreement.
- Relationships are fundamental – our Plan needs to help people build mutual understanding and respect, and ultimately trust.

5.3 Strategies to Enable Change

In recognition of the value placed on both achieving tangible, integrated natural resource management outcomes but doing so in ways that respect processes and build relationships, this Plan proposes three core strategies be developed and implemented as the foundation upon which specific natural resource management programs unfold. In this sense, these are streams of critical activity that flow through and across our assets, and as such are embedded in management programs and actions. They are:

- **communication and engagement**, including specific attention to the needs and perspectives of all the different groups of people, and to the processes by which diversity and competing interests can be managed;
- **capacity building** - Cape York Peninsula based natural resource management organisations and groups need to be resourced to build their capacity in dealing with Government, diversity and competing interests; and
- **monitoring and evaluation: checking on change**, encompassing learning and adaptive management as well as accountability and transparency.

While it is appropriate that these strategies are integrated into natural resource management programs, past experience shows that these process-related functions, and the principles bound within them, tend to be overshadowed or overlooked, and as such warrant specific attention. It is thus strongly recommended that strategies be developed through collaborative processes that in themselves build understanding and commitment, and that their implementation is adequately funded, monitored and accounted for.

In the meantime, Table 5 is a checklist of questions that may help in guiding and assessing the extent to which principles and processes are being applied at each level of the natural resource management process, including in the delivery of this Plan through the Regional Investment Strategy.

Table 5: Checklist for natural resource management processes

Checklist for natural resource management processes
<p>To what extent does our planning decision, institutional arrangement, program, etc:</p> <ul style="list-style-type: none"> • Provide equity in the opportunity to engage? <ul style="list-style-type: none"> ○ To what extent have all those who have an interest had a genuine opportunity to be involved? • Nurture relationships? <ul style="list-style-type: none"> ○ What are the key relationships that characterise this situation? How are we building and strengthening these? How do we know if relationships are being successfully nurtured? • Recognise and respect different views and aspirations? <ul style="list-style-type: none"> ○ How are we accommodating differing perspectives? Are we generating creative, multi-faceted options in responding to challenging situations? Where competing interests exist, will our responses help evolve acceptable outcomes for all those involved? • Acknowledge, build on and balance scientific, cultural, and personal/local knowledge and understandings? <ul style="list-style-type: none"> ○ In what ways are we revising current information or positions, filling gaps, building new frameworks and blending understandings from which to make decisions? • Display participatory, open and transparent decision-making? <ul style="list-style-type: none"> ○ How are decisions taken? By whom? Where? How are they informed by and communicated back to those with an interest? • Facilitate good communication? <ul style="list-style-type: none"> ○ Who needs what information, when and how? Are people receiving information in timely and appropriate forms? How are we ensuring that learning is being shared and/or knowledge adequately protected where need be? • Promote a coordinated approach? <ul style="list-style-type: none"> ○ Between departments/organisations/programs • Build ownership? <ul style="list-style-type: none"> ○ Are we (re)building trust? Are we including specific but integrated approaches that reflect/respect the people of Cape York Peninsula especially Aboriginal and Islander perspectives and ways of doing things?



6 An Overview of Assets, Threats, Targets and Priorities

6.1 Setting Priorities

The detailed targets provided in the first section of Chapter 7 “Capacity Building” are in response to an almost universally recognised need for a review and improvement of the delivery mechanisms for natural resource management programs and strategies and the need to increase community and agency capacity to deliver those programs and projects. Having recognised that however, ***the overwhelming message from the consultation program has been the need for the delivery of more on-ground action; “less talk more action”. Actions that address urgent on-ground issues (pest plants and animals, fire management and grazing management) are given a high priority.***

The issues and actions raised during consultation were prioritised using the combination of approaches and methods described in Chapter 5. This included the following approaches:

- extrapolating and assessing material from existing plans and strategies and
- collating and analysing the findings that emerged from the consultation process.

The process of determining priorities was guided by:

- a set of principles incorporating best practice environmental management principles (e.g. protection rather than correction);
- answering the key questions of ‘how can we most effectively and efficiently tackle identified problems/issues?’ and ‘what is needed to undertake this action?’; and
- the synthesised outcomes that emerged from the consultation process, whereby sector-based interests were combined to generate consolidated priority lists.

Priorities were then grouped according to one of our key ‘asset’ classes. It is interesting to note that there is not always a direct correlation between priority issues and actions. For example, climate change was identified as a priority issue by some people, but is not identified as a priority action because people feel it is not something they have any real power to influence.

Within each asset, each priority action has been given a provisional rating indicating if it is of ‘high’, ‘medium’ or ‘low’ priority. A word of caution is warranted here; the fact that actions have reached inclusion in the Plan at this level indicates it is a priority and the appointment of a lower rating should be understood in this context.

The priorities were then reviewed by the Interim Advisory Group as part of an iterative review of drafts of this Plan. Ongoing processes of negotiation and agreement to be reached regarding priorities at regional and sub-regional levels will be fundamental to the success of this plan.

The top ‘High Priority’ issues to emerge from the consultation process in relative priority order are shown in Table 6. The asset classes to which they are assigned for consideration are also noted. However listing should not necessarily indicate that it is a priority for NHT funding.

Table 6: High priority issues

HIGH PRIORITY ISSUES	ASSET
Ineffective institutional arrangements and management for maintaining a viable, sustainable network of land and natural resources in healthy condition.	Community Capacity
Lack of respect and understanding of value systems (cultural heritage, historical heritage, conservation)	Cultural Heritage Community Capacity
Economic and social viability	Community Capacity
Lack of coordination and collaboration	Community Capacity
Politics and off-Cape influence and decision making	Community Capacity
Lack of agreements on land tenure and access to land/sea country	Community Capacity Land Country
Poor/unsustainable land and sea management practices	All
Ineffective/inequitable access to natural resource management resources (funds, information)	Community Capacity
Weeds and feral animals	All
Over-exploitation of marine assets	Sea Country
Limited organisational and community capacity	Community Capacity
Unregulated tourism activities	Land Country Water Sea Country Biodiversity

It is important to note that whilst the top priorities in this list are about institutional arrangements, politics and the efficiency of delivery and ability to deliver on-ground actions, the highest priority for on-ground action is the management of weeds and feral animals. This issue was consistently raised during the consultation process. This Plan supports the Cape York Peninsula Pest Management Strategy, through which, this issue is being addressed.

While the consultation and review of existing plans have highlighted some strong common themes, issues and broad management actions across all sections of the community, strong differences exist at a number of levels that are yet to be reconciled.

Some of these are long-standing. Sensitive, concerted and patient negotiations will be required for mutually satisfactory ways forward to emerge. As such, the attempt to construct targets and delivery arrangements where the underlying relationships and understandings upon which their implementation depends are not yet consolidated, can be corrosive.

This plan acknowledges and respects this situation, not only by recommending the vigilant use of checklists such as that presented in the section above, but also by incorporating a range of 'process' actions in the coming asset target tables. The proposed Monitoring and Evaluation Strategy will generate indicators and methods to measure change in these important but less tangible priority outcomes.

This being said, if people are to give any commitment to this Plan, there is an urgent need for immediate action and outcomes to be achieved. We need to demonstrate runs on the board, and quickly. People need to see that real progress is being made against priority actions.

Moreover, a holistic approach and careful consideration during implementation will be essential to ensure progress on all of the priority issues. It will be important to ensure that the implementation of one priority issue does not prevent the progression of others. There are trade-offs implicit in all of the priorities, and progress on all fronts will help to maintain the balance reflected in this Plan.

6.2 Asset Categories

The planning process identified eight categories of natural resource management assets for Cape York Peninsula. These are listed in Table 7 (along with the Code Letter used to denote each asset throughout the document):

Table 7: Asset categories and codes

ASSET	CODE
community capacity	C
cultural heritage	H
natural heritage	N
land country	L
water	W
sea country	S
biodiversity	B
Ecologically sustainable development	D

It is important to note that there is much overlap between these assets. For the sake of readability the discussion of some issues such as pest plants and fire management have been dealt with primarily under a single asset.

In reality these issues affect many of the other assets as well. For example fire management is discussed mainly under the heading of Land Country, but cross-references are made under other headings such as Biodiversity where fire management is equally important.

This is important to consider when discussing achievable management actions as those actions that have benefit across a range of assets may represent greater value for money. For example, pest plants and animals impact on all aspects of natural resource management and are considered the major threat to a number of the identified assets. Consequently pest plant and animal management is identified as a high priority.

6.3 Threats to Assets

A range of threats to the region's natural resource assets are recognised in this Plan. They were identified from literature reviews and a range of workshops, scientific review and discussions.

Table 8 provides a summary of the main identified threats. The top thirteen issues are listed in a preliminary priority order as identified during the consultation process.

Table 8: Summary of main identified threats and links to targets

IDENTIFIED THREAT	ASSET THREATENED*							
	C	H	N	L	W	S	B	D
Pest species (plants and animals)	•	•	•	L2 & L4	•	•	B2	•
Economic capacity of the region to undertake natural resource management activities (including social capacity)	C1	•	•	•	•	•	•	•
Ineffective institutional arrangements (including short term planning cycles, damage to community goodwill, coordination of decision making, enforcement of regulations)	C2	•	•	•	•	•	•	•
Inappropriate fire regimes		•	•	L3	•		•	•
Loss of Indigenous knowledge and failure to incorporate existing knowledge into natural resource management (lack of knowledge of how to engage with community especially Indigenous community in cooperative management)	•	H1,2,4,5&6	•	•	•	•	B1	•
Unmanaged visitation		H5	•	•	•	•	•	D1
Inappropriately Managed Grazing Activities (eg erosion and loss of biodiversity)		•	•	L2 & L4	W6		B4	•
Loss of management skills and experience in the region.	C1	•	•	L3	•	•	B2	•
Over harvesting of threatened species.			•			S1,2,3,4&5	•	•
Human population issues (increasing population and decentralisation)	•		•	•	•	•	•	•
Lack of knowledge of ecosystems			•	L1	•	•	B1	•
Climate Change		•	•	•	•	•	•	•
Riparian Degradation		•	•	•	W3 & 4		•	•
New Developments (including alienation of land and subdivision followed by real estate and tourism development large scales – pastoral lease to freehold to subdivision and incremental development)			•	•	•		•	D1
Exploration Permits and Practices for Minerals		•	•	•	•		•	
Mining		•	•	L4	•		•	D1
Inappropriate Use of Groundwater			•		W1		•	•
Marine Debris (including oil spills)			•			S1	•	•
Infrastructure Development		•	•	•	•		•	D1
Lack of security of land tenure	C2		•					•
Lack of land use planning		•	•	•	•		•	D1
Future possible land clearing and industrial scale logging		•	•	•	•		•	•
Irrigation impacts			•	•	•		•	D1
Lack of awareness of global, national and regional heritage (both natural and cultural) values of the region (including a perception that Cape York Peninsula is protected).	•	H1	N1&2	•	W6	•	B1,2	•
Lack of agreed value systems	•		•					
Lack of information sharing (difficulty of communications eg phones, radio, newspapers)	•	•	•	•	•	•	•	•
Risk of patronage politics in place of addressing priority threats to natural resource assets.	C1	•	•	•	•	•	•	•
Biosecurity (the risk of introduction of exotic diseases and pests)	•	•	•	L4	•	S4	•	•
Acquired properties lying dormant with little management practices								•
Poor road standards and design on PDR causing environmental damage through land degradation and pollution	•	•	•	•	•	•	•	•
The loss of local knowledge	•	•	•	•	•	•	•	•
Potential for unsustainable water extraction / dams & weirs			•		•		•	•

* The Asset Codes explained in Table 3 are also used in this table. While it is clear that most of the threats listed in this table apply to more than one asset category, this table shows the primary asset class where the particular threat is discussed in Chapter 7. Where the code letter is followed by a number in the body of the table, this refers to the relevant Aspirational Target detailed in Chapter 7. For example, L2 refers to the Land Country Aspirational Target Number 2.

It is interesting to note that these threats were very similar those listed in “The Natural Heritage Significance of Cape York Peninsula”. Those threats were listed as:

- Piecemeal decision-making
- Gas Pipeline (Papua New Guinea to Gladstone)
- Weipa Bauxite Mining
- Clearing
- Grazing and associated activity
- Feral animals and weeds
- Fire regime.

Since that report was published clearing has largely been addressed through *The Vegetation Management Act and Other Legislation Amendment Bill 2004*.

6.4 The Target Setting Approach

A consistent, structured approach is employed to record the targets for each natural resource asset. The main elements being:

- **Aspirational Targets:** High-level goals for the region’s assets.
- **Resource Condition Targets (RCTs):** define more exactly what success will look like at, say, a fifteen year horizon. They provide specific, measurable, achievable and realistic targets in terms of the condition of the broad outcomes. This allows us to measure our progress over time from where we are now, and to assess alternative projects in terms of how far they will move us towards these targets. In many cases, we do not have sufficient data, at this stage, to set these detailed resource condition targets and an early action will be to develop sufficient data and analysis to establish RCTs for each of the outcomes.
- **Management Action Targets (MATs):** identify the priority management actions needed over the next five years to progress towards the resource condition targets.

The priority listings of issues shown in Table 8 were taken into account as the proposed goals, targets and actions were developed for each asset class. The targets and actions are set out in detail in Chapter 7 and have been developed in response to those issues. An explanation of the codes used in the tables is provided below.

Key to the Asset Target Tables

Several codes are used throughout the tables in Chapter 7 to enable ease of reading and to link information within tables back to text.

Each Asset is labelled by one letter, as indicated in (brackets) after the asset name. For example the Land Country asset is labelled as (L).

The aspirational targets (AT) are coded according to asset and aspiration number. For example the first AT in the Land Country asset is L1, the second aspiration is L2 and so on.

The resource condition targets (RCT) are coded according to which AT they aim to achieve. For example the first RCT for aspiration target L1 will be coded as L1-1. The second RCT for the same aspiration is L1-2 and so on.

The management action targets (MAT) are coded according to which RCT they will achieve. For example the first MAT for RCT L1-1 will be coded as L1-1.1. The second MAT for the same RCT is L1-1.2 and so on.

MATs have also been categorised into Type of MAT to improve understanding of aims of each MAT as documented in the Guidelines for Target Setting for Regional NRM Planning. The following categories have been used;

RA – Resource Assessment

P – Planning

CB – Capacity Building

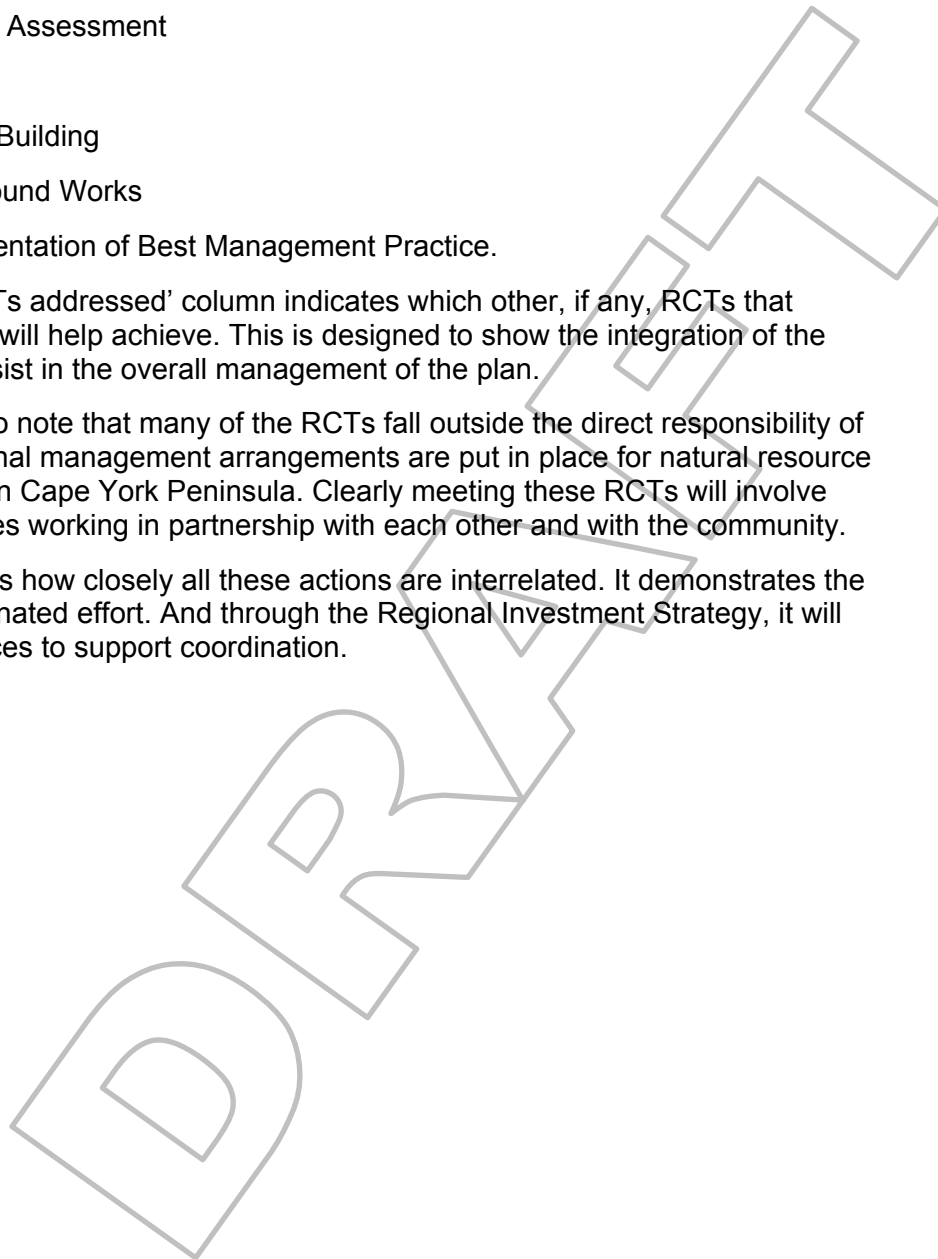
OGW – On Ground Works

BMP – Implementation of Best Management Practice.

The 'Other RCTs addressed' column indicates which other, if any, RCTs that particular MAT will help achieve. This is designed to show the integration of the actions and assist in the overall management of the plan.

It is important to note that many of the RCTs fall outside the direct responsibility of whatever regional management arrangements are put in place for natural resource management on Cape York Peninsula. Clearly meeting these RCTs will involve several agencies working in partnership with each other and with the community.

This Plan shows how closely all these actions are interrelated. It demonstrates the need for coordinated effort. And through the Regional Investment Strategy, it will provide resources to support coordination.



7 The Plan for Each Asset

This section of the Plan outlines specific targets and actions for each asset category. The plan for each asset is described under the following headings:

- overview
- key threats and issues
- current responses
- aspirations, outcomes and actions
- targets.

It should be noted that the targets and actions developed in this Plan have been developed cooperatively and are not mandatory but are rather intended to guide management actions and investment priorities. The Plan will be reviewed every 3-5 years and lessons learned during its implementation will be applied to the subsequent revised Plan.

The targets and management actions identified in this Plan are also intended to be implemented holistically and not carried out in isolation. It is also recognised that funding is not unlimited and that prioritisation of investment is required. The Regional Investment Strategy will address priorities and funding opportunities.

7.1 Community Capacity

There are many references to 'community capacity' throughout this Plan. Often this term is used as shorthand to describe institutional capacity as much as it used to describe the capacity of individuals and groups within the people of Cape York Peninsula. For example many of the high priority issues described in Chapter 8 have as much to do with institutional capacity as they do with community capacity *per se*. The term 'community capacity' is used to reinforce the sense that we are all in this together.

Overview

People are the fundamental asset underpinning natural resource management on Cape York Peninsula. We need people to monitor, assess and manage the threats to other assets. The institutional arrangements through which people work with each other are also critical.

Placing people, institutions and their capacity, at the centre of this plan acknowledges the concerns that were raised during consultation. It also balances technical, scientific and legislative solutions with the wisdom and benefits offered by social, cultural and traditional forms of knowledge and ideas.

Building community and institutional capacity is a complex task that we are only beginning to understand. Just as we are beginning to recognise the intricacies of ecosystem functioning, and to recognise how crude our understanding of these things is, we are beginning to recognise how much we are yet to understand about how to build the necessary social capital.

Fortunately, the people of Cape York Peninsula have a history of cutting-edge experience in creating new forms of relationships and new institutional arrangements. This is an invaluable resource to bring to the challenges we now face.

Example 1: Cape York Institute for Policy and Leadership is a public policy organisation that champions reform and innovation in Indigenous and social welfare policies. The Institute is governed by a majority Indigenous Board.

The Institute focuses on the key economic and social policy issues facing Indigenous communities:

- **economic development** - few sustainable businesses and endemic unemployment.
- **governance** - a crisis of governance fuelled by the persistence of artificial communities, low levels of education, little institutional capacity and an implementation deficit.
- **welfare reform** - beginnings of a debate around the role of welfare provision and Government service delivery in entrenching existing conditions.
- **substance abuse** - epidemic levels of alcohol and other substance abuse.
- **education reform** – need to raise the standard and expectations around youth education.
- **leadership** - leadership growth and skills development stunted by low education standards, poor participation in education, few role models, and dysfunctional family environments.

The Institute drives policy innovation and promotes active Indigenous participation in public policy debates. The Institutes objectives are to:

- improve the effectiveness of Indigenous policy at national, state and regional levels
- strengthen Indigenous leadership with greater Indigenous ownership of and participation in policy issues
- improve the effectiveness of implementation of Indigenous development initiatives, especially within Cape York
- improve the capacity of practitioners to better implement innovative policy and contribute to improved outcomes, and
- contribute, with partner organisations, to improved outcomes for communities.

Example 2: The Cooperative Research Centre for Tropical Rainforest Ecology and Management has developed a research project titled “Appropriate Economies Roundtable”. This project is developing models for culturally and environmentally appropriate economic activity in Northern Australia including Cape York Peninsula. It is seeking economic activity that will provide for ongoing protection of cultural and natural diversity, while improving the quality of life of people, particularly Indigenous peoples. The first Appropriate Economies Roundtable was held in 2003 and identified four major activities to support a sustainable future:

1. Tenure and conservation model reform: including more acquisitions of land, better models and funding for conservation management that enable Indigenous peoples’ roles.
2. Skills exchange: secondments, placements and working together on ‘country’ between Indigenous people and other people with environmental management skills and experience.
3. Pilot projects: combining western and traditional knowledge, building capacity and partnerships on pilot sustainable economies, and

4. Eco-Culture Bank or Trust: developing another financial stream available for culturally and environmentally appropriate activities

Further information is provided in the section 'Ecologically Sustainable Development' later in this Chapter. These ideas sit well with those emerging from the national Natural Resource Management Capacity Building Unit, in stating that:

"Capacity building for natural resource management goes beyond the traditional, top-down approach of enhancing skills and knowledge through training and provision of technical advice. It focuses on enhancing genuine community engagement in all aspects of natural resource management, from planning to on-ground actions. Therefore, in addition to the transfer of technology and technical capability, capacity building should foster social cohesion within communities, and build both human and social capital. Human capital refers to the capability of individuals, and social capital refers to the level to which social networks, relationships and processes within a community support individuals to exercise their capabilities".

Key Threats and Issues

As outlined in Chapter 3, different people have different perspectives about approaches to development and conservation on Cape York Peninsula. These are creating tensions and conflict within the community. These tensions are serious enough, potentially, to derail efforts to combat issues of common concern.

Nowhere is this more apparent than in the property planning process, which has suffered significant delays and setbacks as different approaches were trialled. Valuable lessons have been learned and must now be applied.

The Cape York Land Use Heads of Agreement is living proof that when different parties understand and respect each other's points of view genuine and significant progress and resolution of issues can take place.

Therefore the goodwill evident in that agreement needs to be nurtured during the property planning efforts in the future. This must be done in order to secure the potential for a more sustainable cattle industry and for Indigenous people to regain access to country.

Another example is the insecure funding of Land and Sea Centres, which has been a source of incredible frustration. Goodwill has been lost here as well. Those centres need secure base funding to succeed, and it is in everyone's interest for clear targets, articulated through this Plan, and the local Land and Sea Plans, to guide activity and provide accountability.

The issue of insecure funding is not solely a problem for Land and Sea Centres but a common one for many natural resource management projects. It needs to be addressed. During the community consultation process, the (fractured) delivery of NHT funding was again highlighted as having a serious impact on community capacity, emphasising further the need to address this issue as a matter of high priority.

Aboriginal enterprise and employment opportunities

Aboriginal people require economic independence and viability (which are essential for helping to tackle underlying social issues) to help build their capacity for natural resource management. Many aspects of capacity and other assets including land country, sea country, biodiversity and ecologically sustainable development are closely linked and could be discussed in any or all of these sections in this chapter.

For ease of reading and to reinforce their interconnected nature a number of issues are discussed here:

Enforcement Powers

Aboriginal community's real capacity to manage hunting, fishing, guns, camping, litter, etc will only be possible with a combination of:

- Equipment and human resources, including training (in enforcement procedures).
- By-laws and equivalent regulations.
- Powers to inspect, issue "tickets" or equivalent, in the hands of Rangers and similar authorised community personnel.
- Support of authorities (Police, AQIS, Customs, EPA etc).
- Support of major regional employers including Local Governments, pastoral and mining companies and contractors to them (in the form of codes of conduct including abiding by regulation re Aboriginal country, as a condition of employment or contract).

As roads, communication and other infrastructure improve, pressure from informal "tourism" will grow, adding to the present problems from (a minority) of irresponsible visiting employees and contractors with regional employers (in mining, roads, construction etc).

Research and support for self-regulation within and by Aboriginal Communities

Problems with illicit hunting etc do not come only from "outsiders" but also from within Aboriginal communities, who in many ways find them harder to regulate. A program to support assessment of these specific resources and issues (geese, dugong, turtle eggs, burning, gill netting, driving on dunes) within and by each Aboriginal community, in its own terms, so they can determine for themselves if limits are needed, and apply them in their own creative ways (e.g. by season, by bag limit, specific location etc). Such a program is identified in this section but has links to other assets and should be considered throughout the other assets.

Culturally and (remote) regionally appropriate training

In relation to training and accreditation there must be recognition of how different cultures recognise skills, knowledge and authority. For example, in western culture someone who speaks with knowledge and authority may be a highly qualified scientist, in an Indigenous community it may be an Elder – the different cultures perceive and value some things differently – this needs to be taken into account in developing training packages and recognising competencies that people already have because there are skills and knowledge out in the community that are valued highly by Indigenous people, but not recognised by westerners.

Culturally determined learning styles and authority structure reduce the effectiveness of some mainstream training and methodologies. Alternative and flexible training methodologies are needed which:

- Respect and utilise traditional authority in training programs by greater community involvement and real choice in the content, delivery methods and the provider of training programs is essential to achieve successful outcomes.
- Recognise and integrate traditional "competencies", including competency as "trainer"; with greater utilisation of existing skilled personnel within the

community in partnering arrangements with registered training organisations to deliver training that is culturally and regionally appropriate.

- Can better integrate training with work or CDEP programs, i.e. experiential learning where programmes need to be hands on, workplace based and targeted at existing or potential work/job opportunities
- Use existing and natural leadership models.
- Mentor emerging leadership and authorities in traditional communities where programs need to be developed that identify, encourage and enhance emerging leaders within communities.

Regionally appropriate training

The community consultation process identified that in addition to culturally and (remote) regionally appropriate training that alternative learning styles and flexible training methodologies are needed for all people in the region which:

- Includes greater community involvement and real choice in the content and delivery methods.
- Recognises that choice of provider of training programs is essential to achieve successful outcomes.
- Recognises and integrates traditional “competencies”, including competency as “trainer”; with greater utilisation of existing skilled personnel within the community in partnering arrangements with registered training organisations to deliver training that is culturally and regionally appropriate.
- Better integrate training with work or CDEP programs, i.e. experiential learning where programmes need to be hands on, workplace based and targeted at existing or potential work / job opportunities.
- Use existing and natural leadership models.
- Mentor emerging leadership and authorities in communities where programs need to be developed that identify, encourage and enhance emerging leaders within communities.

Economic development

An equitable approach to economic development is another important issue for Indigenous people. While non-Indigenous people were able to develop the mining and pastoralist industries in a time when there was little or no focus on environmental management. For example, both the pastoral and mining industries were developed prior to the introduction of land clearing legislation.

Indigenous people are gaining access to economic opportunities in a time when environmental protection is seen as very important. Feedback from the consultation process indicates that it is critical for this Plan to make allowance for environmental issues to occasionally be secondary to the need for Indigenous people to develop sustainable and appropriate enterprise capacity.

Current Institutional Arrangements

During the public consultation process the form that any future community based ‘Board’ may take that extends or replaces the current ‘Cape York Peninsula Interim Advisory Group’ was a significant issue that was highlighted by a number of people. A number of people and groups expressed an opinion that a community based

Board is preferred and is a model operating successfully in all other Queensland natural resource management regions.

The current arrangements for delivering the Queensland Government's election commitments "*Protecting Queensland's Natural Heritage: Cape York's Outstanding Values*" aims for coordinated land use, land management and planning outcomes for Cape York will be through:

- delivering the government's priorities for resolving land tenure and management arrangements;
- sharing all relevant information regarding key land and resource initiatives that may affect Cape York land dealings and resources; and
- ensuring appropriate community engagement processes for regional land use and planning are established and supported.

Tenure resolution on Cape York

The Queensland Government has made protecting the natural and cultural values of Cape York an important part of its agenda for this term of government.

The State is committed to working with the Commonwealth Government, Traditional Owners, pastoralists, conservationists and other stakeholders to implement the intent of the Cape York Heads of Agreement, and finalise tenure resolution of all existing State-held lands.

A change in government administrative arrangements means the new Department of Communities is now responsible for coordinating tenure resolution processes including the State Land Dealings Project and the Cape York Property Planning Pilot Project.

These arrangements separate tenure resolution processes from other community engagement processes. This will allow government to focus on tenure resolution and meet its existing commitments on Cape York Peninsula.

To support this new direction, two work groups have been formed within the Department of Communities – the Cape York Tenure Resolution Task Force and the Cape York Community Engagement Group.

Cape York Property Planning Pilot Project

Property planning on Cape York originated as an initiative from the Cape York Peninsula Land Use Study. The pilot is a voluntary process to negotiate agreed land use, access and management arrangements on 11 pilot properties in the region. Parties involved in the project include pastoralists, Traditional Owner interests and the State.

The project involves:

- preparation of Aboriginal cultural heritage plans, non-Indigenous cultural heritage plans, conservation assessments and pastoral assessments;
- coordinated facilitation of negotiations between parties; and
- coordinated agreement-making based on negotiated outcomes.

Any future extension of the property planning process beyond the initial 11 pilot properties will depend on assessment of the current planning process by the Queensland and Australian Governments.

Cape York Tenure Resolution Task Force

The task force is made up of specialist officers from the Department of Communities, Department of Natural Resources and Mines and the Environmental Protection Agency who have been brought together to work across government to achieve tenure resolution outcomes on Cape York.

The task force has responsibility for:

- resolution of dealings involving State held lands and finalisation of agreements arising from the Property Planning Project;
- providing advice and support to the Cape York Heads of Agreement Implementation Group; and
- negotiations with relevant parties to achieve tenure resolution outcomes.

Cape York Community Engagement Group

The Community Engagement Group forms part of the Department of Communities' Office of Rural and Regional Communities. Three distinct service areas comprise the Community Engagement Group - Planning, Engagement and Business.

The group has responsibility for:

- coordination and delivery of the Natural Resource Management Plan;
- coordination of implementation of negotiated Property Planning outcomes;
- all other Natural Heritage Trust projects relevant to Cape York Peninsula; and
- coordination and support of various groups that meet to discuss land use and management on Cape York Peninsula.

Government Engagement Mechanisms

Cape York Land Tenure Resolution Central Coordination Group

This group coordinates high level information sharing and policy decision-making within government. As an inter-agency forum, it provides advice to relevant State Ministers on Cape York Peninsula Natural Heritage Trust planning, investment and community engagement strategies.

Cape York Land Tenure Regional Directors Group

This group is comprised of Regional Directors from the Departments of Communities, Natural Resources and Mines, Aboriginal and Torres Strait Islander Policy and the Environmental Protection Agency. It holds responsibility for providing technical advice on matters relating to tenure resolution and ensuring inter-agency cooperation in the implementation of negotiated tenure, land use and land management outcomes.

Joint Ministerial Natural Heritage Steering Committee

This committee includes Federal and State Ministerial representatives, providing policy direction on natural resource management on Cape York.

Cape York Natural Heritage Trust Inter-Departmental Committee

This committee holds a support and advisory role to the Cape York Peninsula Interim Advisory Group and the Regional Directors Group.

Cape York Peninsula Interim Advisory Group

This group receives direction from the Ministerial Natural Heritage Joint Committee and is tasked with maintaining effective linkages between the Regional Directors Group, the CYNHT Inter-Departmental Committee and the wider community on Cape York.

Joint Steering Committee (JSC)

The JSC is co-chaired by Commonwealth and State officers, and receives advice from the CYNHT Inter-Departmental Committee.

Contact details

Cape York Community Engagement Group and Cape York Tenure Resolution Task Force:

Freecall 1800 657 431.

Institutional arrangements for community engagement on Cape York Peninsula in relation to natural resource management planning are shown in Figure 6.

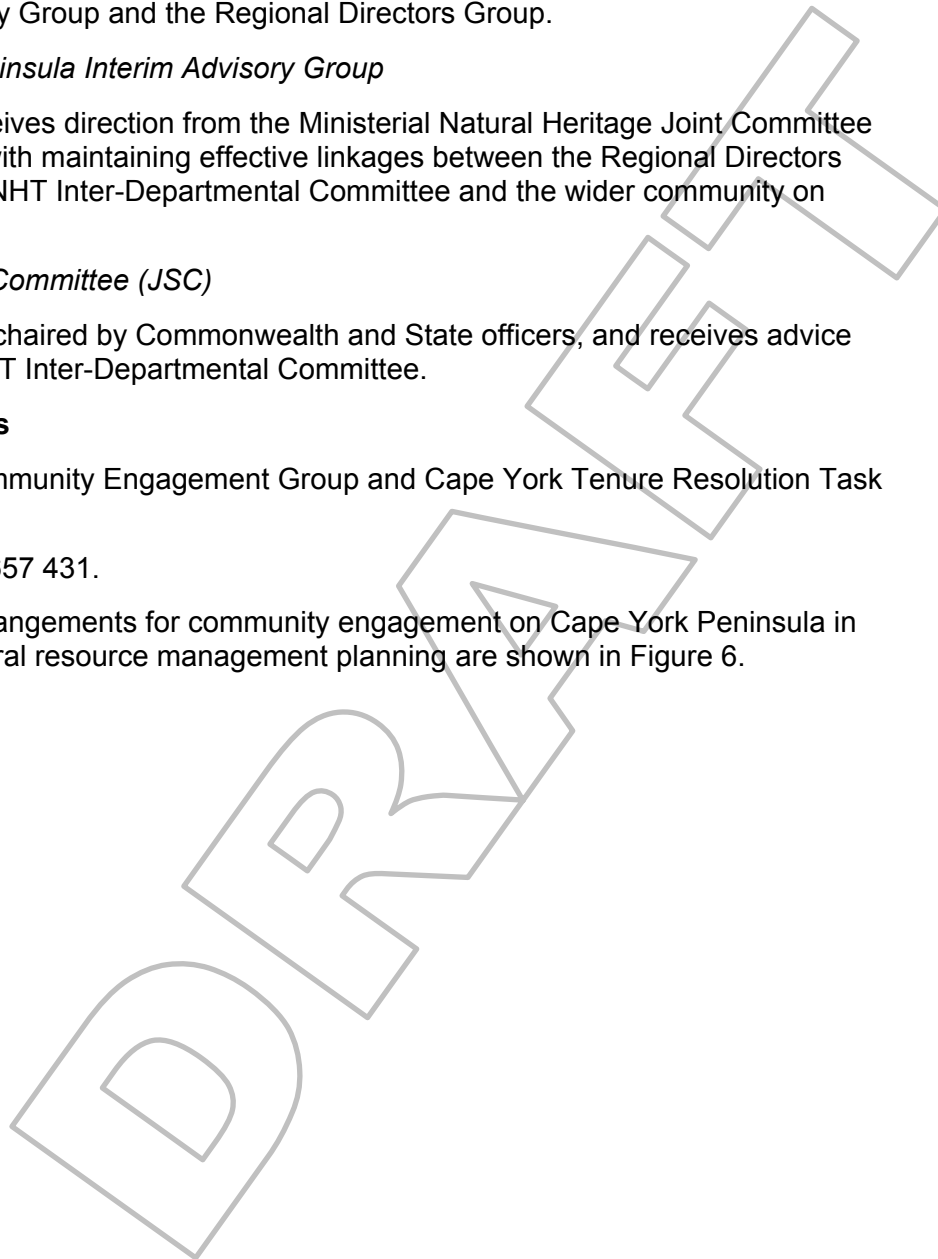
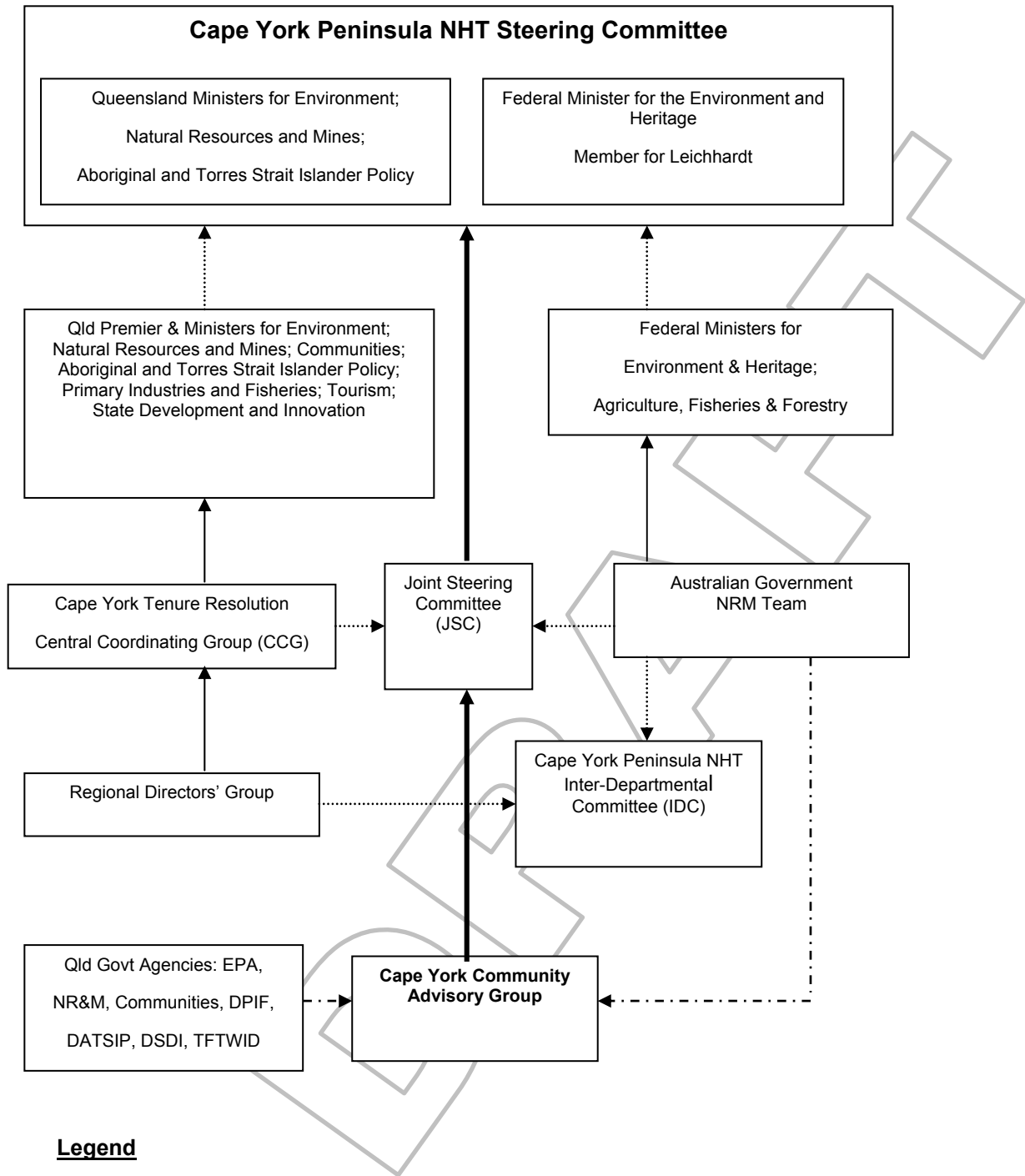


Figure 6: Current institutional arrangements for community engagement on Cape York Peninsula in relation to natural resource management planning



Legend

- Supporting and advisory relationship (government to community)
- Reporting relationship (within government)
- Advisory and recommending relationship (community to government)
- Representative relationship (inter-governmental committees)

Current Responses

Fortunately, the people of Cape York Peninsula have a history of cutting-edge experience in creating new forms of relationships and new institutional arrangements. This is an invaluable resource to bring to the challenges we now face.

Examples of this include the 'Business Hubs' approach to assisting development and the 'Appropriate Economies Roundtable', both discussed in Chapter 4.

There are also many natural resource management activities already being undertaken throughout the Peninsula.

Aspirations, Outcomes and Actions

People living on Cape York Peninsula have highly valuable experiential knowledge of their properties and land and sea country. Others, including people from outside the region, have built up equally valuable understandings of the national and global significance of Cape York Peninsula and the threats it faces. Indigenous elders have an intimate knowledge of Country that is priceless. We must build better ways to use these different types of knowledge effectively.

Therefore the goal for this part of the Plan is:

To build up the capacity of people and organisations to manage country sustainably

A capacity building strategy will be an important component of this Plan. Key outcomes include:

- informed, skilled and confident Peninsula-based people leading natural resource management on Cape York Peninsula.
- contributing to the maintenance or growth of economically and socially viable communities with ability to manage country in ways that protect and enhance the natural assets of the region.
- resolution of land tenure, land and sea country access, native title and property planning issues and uncertainty.
- strong levels of awareness, knowledge and understanding of natural resource management across Cape York Peninsula communities and among visitors.
- informed, skilled off-Peninsula service providers and decision-makers working cooperatively and with respect to help meet the targets in this Plan.
- institutional arrangements which respect diversity yet foster and reward collaboration and coordination.
- simplified and coordinated Government approaches that reflect community aspirations and issues.
- a community that is confident that its views and aspirations are properly reflected.

Targets for Community Capacity

Asset:	COMMUNITY and INSTITUTIONAL CAPACITY (C)						
Goal:	Building up the capacity of people and organisations to manage country sustainably					Integration and Collaboration	
Aspirational Target	Achievable RCTs 10 - 20 yrs	Management Action Targets (MATs) 3 – 5 yrs	Type of MAT	Management Actions as Proposed by Community	Other RCTs addressed	Priority	Potential Partners
C1 By 2025 community capacity projects, are adequately funded and resourced, and supported by appropriate institutional arrangements.	C1-1 By 2015 the community is effectively coordinating and overseeing the activities of the NRM Plan.	C1-1-1 Appropriately representative regional natural resource management arrangements are established and operating in accordance with agreed good governance criteria by June 2005.		<ul style="list-style-type: none"> Upon finalisation of the CYP NRM Plan develop simplified, plain English versions for Indigenous and non-indigenous people. 	C1-2, C1-4, C2-1, C2-3, C2-4, C2-5, C2-6, C2-7, C3-1, H2-1, H2-2, H3-1, H3-2, H6-1, H6-2, H6-3, L1-3, L2-1, L2-2, W3-1, W7-1, B1-8, B1-9, B1-10, B1-11, B2-1, B2-2, B2-3, B2-4.	H	Local, State and Federal Government
		C1-1-2 NRM Planning process completed by June 2005 by undertaking additional consultation and refining the NRM Plan and RIS.	P	<ul style="list-style-type: none"> Clearly articulate roles, responsibilities and institutional relationships for regional NRM arrangements to the people of Cape York Peninsula. Seek community endorsement of regional NRM arrangements by June 05. Agree on, use and communicate good governance criteria. Seek to establish funding arrangements that are long term and flexible; it is not always appropriate for funds to be spent by the end of a given financial year. Establish community working groups to support regional NRM arrangements. Maintain an NRM coordinator and appropriate support team, with appropriate office and logistical support and funding. Annually review the performance of regional NRM governance arrangements. Community capacity component to be considered for all natural resource management projects funded through NHT2. 		H	Local, State and Federal Government

Asset: COMMUNITY and INSTITUTIONAL CAPACITY (C)							
Goal: Building up the capacity of people and organisations to manage country sustainably							
Aspirational Target	Achievable RCTs 10 - 20 yrs	Management Action Targets (MATs) 3 – 5 yrs	Type of MAT	Management Actions as Proposed by Community	Integration and Collaboration		
					Other RCTs addressed	Priority	Potential Partners
	C1-2 By 2015 community Capacity for NRM has been improved.	C1-2-1 Within 5 years adequate funding and other resources secured for Community Capacity Building and Communication and Engagement activities.	CB	<ul style="list-style-type: none"> Develop Community Capacity Building and Communication and Engagement strategies. Appropriate allocation of funds and resources for relevant education, training and research. Develop partnerships with AQIS for quarantine activities (agricultural weeds and feral animals). Appropriate allocation of funds and resources for the development and implementation of new environmentally and culturally appropriate economic industries. ROCCY to document the natural resource management costs for all local governments on Cape York Peninsula and to provide this information to the Queensland and Australian Governments. Negotiate with Land and Sea Management Centres, rural fire centres, community councils, libraries and other organisations, as appropriate, to develop protocols for sharing resources. 		H	Local, State and Federal Government
		C1-2-2 By 2006 establish a 'Centre for Landcare' to provide a Landcare Officer with access to office space, administrative support and secretarial support at various locations throughout Cape York Peninsula.	CB OGW BMP			H	

Asset: COMMUNITY and INSTITUTIONAL CAPACITY (C)							
Goal: Building up the capacity of people and organisations to manage country sustainably							
Aspirational Target	Integration and Collaboration						
	Achievable RCTs 10 - 20 yrs	Management Action Targets (MATs) 3 – 5 yrs	Type of MAT	Management Actions as Proposed by Community	Other RCTs addressed	Priority	Potential Partners
		C1-2-3 Within 5 years ensure Land and Sea Management Centres are outcome-oriented, organisations with a secure funding base and adequate resources for Community Capacity Building as well as Communication and Engagement.	CB OGW BMP	<ul style="list-style-type: none"> • Establish agreed guiding principles. • Develop rolling three-year funding arrangements. • Develop shared responsibility agreements. • Develop operational work plans (including performance indicators, monitoring mechanisms and evaluation processes). • Develop reporting arrangements that provide accountability while keeping transaction costs low. • Support a network of Land and Sea Management Centres. • Develop a regular knowledge exchange program within the network as well as with other indigenous groups across northern Australia and elsewhere. • Ensure NRM investors make regular visits to country so that they understand the on-ground issues in Cape York Peninsula. 		H	Local, State and Federal Government, industry groups, DNR&M, DPI&F, leading companies

Asset:	COMMUNITY and INSTITUTIONAL CAPACITY (C)						
Goal:	Building up the capacity of people and organisations to manage country sustainably					Integration and Collaboration	
Aspirational Target	Achievable RCTs 10 - 20 yrs	Management Action Targets (MATs) 3 – 5 yrs	Type of MAT	Management Actions as Proposed by Community	Other RCTs addressed	Priority	Potential Partners
C2 By 2025 informed, skilled and confident Cape York Peninsula-based people, in socially cohesive and economically viable communities, are undertaking natural resource management on Cape York Peninsula.	C2-1 By 2015 competent, trusted and inclusive natural resource management leadership at regional, sub-regional and local levels.	C2-1-1 Initiatives to build trust and confidence in natural resource management policies and programs being developed and established by December 2005.	CB	Initiatives to include: <ul style="list-style-type: none"> Negotiate and demonstrate funding continuity and long term funding arrangements. Ensure collaborative program and project development between government agencies and communities. Deliver on-ground support and action, with the majority of funds being spent within Cape York Peninsula. On ground meetings to improve the understanding, and demonstrate the relevance, of natural resource management actions. Build the capacity- for government facilitators to adjust to a changing role. Recognise and make use of local knowledge and traditional knowledge. 	C1-1, C1-2, C2-3, C2-5, H2-2, H6-1, H6-2.	H	Consultant groups, industry groups, DNR&M, DPI&F, leading companies
		C2-1-2 Programs to support and enhance community leadership for natural resource management developed within one year.	CB	<ul style="list-style-type: none"> Implement Community Capacity Strategy and Communication and Engagement Strategy. 		H	Consultant groups, industry groups, DNR&M, DPI&F, community leaders
	C2-2 By 2015 community is using a cooperative approach towards land tenure and access to country.	C2-2-1 Land tenure issues being constructively addressed on at least 5 properties within one year, and up to 45 properties in 3-5 years.	P	<ul style="list-style-type: none"> Implement Communication and Engagement Strategy. Establish sound mechanisms to resolve outstanding State land tenure issues by negotiations Review Property Planning and finish 5 of the pilot Property Plans by Dec 2005. Finish the balance of the pilot Property Plans by Dec 2006 Finish a further 20 Property Plans by Dec 2007. 	C1-1, C2-3, C2-5, H2-2, H3-1, H3-2, H4-1, H4-2, H6-3, H7-1.	H	Consultant groups, industry groups, DNR&M, DPI&F

Asset: COMMUNITY and INSTITUTIONAL CAPACITY (C)							
Goal: Building up the capacity of people and organisations to manage country sustainably							
Aspirational Target	Integration and Collaboration			Integration and Collaboration			
	Achievable RCTs 10 - 20 yrs	Management Action Targets (MATs) 3 – 5 yrs	Type of MAT	Management Actions as Proposed by Community	Other RCTs addressed	Priority	Potential Partners
		C2-2-2 Mechanisms are in place that promote certainty of land tenure, thereby encouraging best practice in resource management, put in place within 1 year.	CB	<ul style="list-style-type: none"> Identify and publicise the framework and institutional arrangements by which tenure issues are being addressed. Regularly publicise updates on progress, achievements and learning. Develop/undertake process to achieve certainty of tenure. 		H	Native Title Tribunal, DNR&M
	C2-3 In 2015 Aboriginal communities continue to have certainty of tenure sufficient to attract and embark on long-term investment in ecologically sustainable economic development or infrastructure.	C2-3-1 By 2008 Aboriginal communities will have certainty of tenure sufficient to attract and embark on long-term investment in ecologically sustainable economic development or infrastructure.	CB, BMP		C1-1, C1-2, C2-2, C2-5.	H	Native Title Tribunal, DNR&M, communities
	C2-4 By 2015 Cape York Peninsula stakeholders are informed, trusted, and undertake cohesive management of natural resources ; with a continual increase in the number and type of people engaging in Natural Resource Management activities.	C2-4-1 Over the next 5 years and ongoing thereafter, community groups, property managers and individuals including young people are supported to participate in natural resource management projects.	CB	<ul style="list-style-type: none"> Identify and provide appropriate incentives. Establish and provide learning and development activities such as action research initiatives, training and education opportunities, and information-sharing networks. 	C1-1, C1-2, C2-1, C2-5, H2-1, H2-2, H5-1, H5-2, H6-1, H6-2, H6-3, L1-1, L1-2, L1-3, B1-9, B1-10, B1-11, B2-1, B2-3, D1-1, D1-2, D1-3, D1-4, D1-5, D1-6, D1-7, D1-8, D2-2, D4-1.	H	Consultant groups, industry groups, DNR&M, DPI&F, community

Asset: COMMUNITY and INSTITUTIONAL CAPACITY (C)							
Goal: Building up the capacity of people and organisations to manage country sustainably							
Aspirational Target	Integration and Collaboration				Other RCTs addressed	Priority	Potential Partners
	Achievable RCTs 10 - 20 yrs	Management Action Targets (MATs) 3 – 5 yrs	Type of MAT	Management Actions as Proposed by Community			
		<p>C2-4-2 Within 5 years, competency based systems established and used to recognise existing natural resource management skills and experience.</p>	CB	<ul style="list-style-type: none"> Establish programs to recognise the skills and expertise of Aboriginal, Torres Strait Islander, and other Cape York Peninsula residents in natural resource management. Link pest management training to National Conservation and Land Management Competencies and Cape York Peninsula Pest Management Strategy. Target training and development opportunities to address skill gaps Regional Training Organisations that deliver effective and appropriate training should be recognised and included in funding arrangements. Record and apply non-Indigenous local knowledge to projects where applicable. Accredited training program developed for Land and Sea Centre Coordinators and included in selection criteria for job positions. Continue dialogue with Traditional Owners. Establish protocols for including Traditional Owners in Park management. 		H	<p>Consultant groups, industry groups, DNR&M, DPI&F</p>
		<p>C2-4-3 Within 5 years additional Traditional Owners are included in the management of National Parks, relative to 2004 levels.</p>					<p>Traditional Owners, communities</p>

Asset: COMMUNITY and INSTITUTIONAL CAPACITY (C)							
Goal: Building up the capacity of people and organisations to manage country sustainably							
Aspirational Target	Achievable RCTs 10 - 20 yrs	Management Action Targets (MATs) 3 – 5 yrs	Type of MAT	Management Actions as Proposed by Community	Other RCTs addressed	Priority	Potential Partners
	C2-5 Best practice land and sea management is used by 2015.	C2-5-1 Commencing in 2005, continuously improve, or, where necessary, develop and implement, competency guidelines and standards for sustainable land and sea management.	BMP	<ul style="list-style-type: none"> Identify and document key competencies to implement sustainable land and sea management practices including linkage to the National Competencies for Conservation and Land Management (already endorsed by Australian National Training Authority). Establish competency accreditation and recognition awards program for individuals and organisations. Identify and implement competency development activities. Establish mechanisms to share costs of best practice implementation (e.g. cooperative burning programs, haymaking equipment, wash-down facilities etc). Establish mechanisms to share best practice experiences (see Communication and Engagement Strategy). 	C1-1, C1-2, C2-1, C2-2, C2-4, C2-7, H2-2, H6-2, N4-2, L2-1, L2-2, W2-1, W3-1, S1-1, S1-2, S1-3, S1-4, S3-1, S4-1, B2-2, D1-1, D1-2, D1-3, D1-4, D1-5, D1-6, D1-7, D1-8, D2-2.	H	Consultant groups, industry groups, DNR&M, DPI&F
		C2-5-2 Within 3 years develop incentives and protocols that motivate land and sea managers to implement best practices established.	CB	<ul style="list-style-type: none"> In consultation with the people of Cape York Peninsula, develop a suite of measures to encourage best practice and discourage poor practice (see Communication and Engagement Strategy). 			

Asset: COMMUNITY and INSTITUTIONAL CAPACITY (C)							
Goal: Building up the capacity of people and organisations to manage country sustainably							
Aspirational Target	Achievable RCTs 10 - 20 yrs	Management Action Targets (MATs) 3 – 5 yrs	Type of MAT	Management Actions as Proposed by Community	Integration and Collaboration Other RCTs addressed	Priority	Potential Partners
C3 By 2025 establish a competent saltwater and freshwater country management capacity, undertaking research and monitoring at Cape York scale.	C2-6 By 2015 natural resource outcomes are demonstrably improved through integrated capacity building.	C2-6-1 By 2007 three capacity building initiatives being piloted to demonstrate how capacity building contributes to natural resource outcomes.	CB	<ul style="list-style-type: none"> Identify opportunities for collaborative research with Traditional Owners as an important and valuable two-way process. Identify 3 potential pilot programs Develop action research plans, along with protocols and processes for implementation. Regularly publicise and share emerging findings with wider Cape York Peninsula audiences (see Communication and Engagement Strategy). 	C1-1, C1-2, C2-1, C2-4, H2-1, H2-2, H6-1, H6-2, H6-3, L1-3, B1-9, B1-10, B2-4, D1-1.	H	Community
	C2-7 By 2015 the efficacy of natural resource management is supported by monitoring and evaluation.	C2-7-1 From 2005 monitoring and evaluation is an included component of all NHT2 funded activities	M&E	<ul style="list-style-type: none"> Develop monitoring and evaluation criteria, for all NHT funded activities including: in-house service providers and contractors (both private and Government). Consider whether these should be stand-alone systems or part of a state or regional portal. Current and future technology should be considered in the establishment of this function. Report quarterly on income and expenditure. 	An element of all RCTs but specifically: C1-1, C1-2, C2-1, C2-4, L2-1, L2-2, W4-1, B1-3, B2-2.	H	All
	C3-1 By 2015 have established mechanisms for indigenous prioritised saltwater and freshwater country research, policy development and established appropriate committee representation.	C3-1-1 Within 5 years consolidate a regional saltwater and freshwater issues representational process with endorsement of sub-regional traditional owners.	C3-1-1	<ul style="list-style-type: none"> Provide responses to Govt policy on fisheries and catchment issues. Inform traditional owners of policy implications. Apply for funding for fisheries and other issues. Assist in facilitating marine and estuarine protection. 	N1-2, N4-1, N4-4, W1-1, W4-1, W6-1, W7-1, W7-2, S1-3, S1-4, S1-5, S2-1, S2-2, S2-3, S4-1, B1-1, B1-2, B1-3.	M	Community, Consultant groups, industry groups, DNR&M, DPI&F

7.2 Cultural Heritage

It is important to note that the targets associated with Indigenous cultural heritage require further discussion with Traditional Owners.

It is also important to note that, for the purposes of this Plan, the term 'cultural heritage' is used to cast light on the enduring link that Indigenous people see between healthy people and healthy country.

It is also important to note that during the consultation process a strong desire was expressed by a number of non-Indigenous people that cultural heritage is also very important to many non-Indigenous people and that the Plan needs to recognise this. Cultural heritage in this context applies to all Cape York Peninsula residents.

Overview

This Plan recognises the traditional ownership and custodial responsibilities that lie with the Indigenous people of Cape York Peninsula and the profound impact that non-Indigenous policies and practices have had on Indigenous rights and well-being. It also recognises their special relationship with country.

Cape York Peninsula is endowed with a rich culture and heritage that encompasses Aboriginal, Torres Strait Islander and European patterns of settlement and connections with country.

As outlined in Chapter 2 the history of non-Indigenous land use has involved three waves of settlement beginning in the 1860s with pastoralists and miners followed by wartime use by Australian and American personnel. It culminated in a third wave of visitors seeking a wilderness experience. Each of these waves has left behind a legacy of cultural heritage that deserves to be better recorded.

But the Plan recognises that the unique culture and heritage of Cape York Peninsula is also characterised by historical developments that now see Indigenous and non-Indigenous people alike valuing common lifestyles, beliefs and places. In particular the frontier developments led by cattle and Christianity are important in this regard.

Cultural heritage on Cape York Peninsula is thus a living, evolving history that on all fronts is strongly embedded with the natural environment and is more than the sum of traditional and historical sites of significance.

Key Threats and Issues

Major threats identified during the consultation process (which cover mainly cultural heritage issues but also other related issues) included:

- pressures on significant cultural sites by tourism and other encroachments;
- pest plants and animals;
- inadequate infrastructure;
- concern over loss of traditional knowledge and practices;
- insecurities associated with land tenure;
- concerns that acquisitions for conservation are eroding the better cattle country as well as the total industry land mass;
- difficulty accessing 'Country' not under Indigenous control and consequent lack of access to significant sites for customary, cultural and preservation purposes;
- lack of recognition of the special relationship between Indigenous people and 'Country';

- lack of recognition that people who work the land also identify strongly with their land;
 - cynicism in portraying pastoralists as environmental vandals as opposed to their view of themselves embracing natural resource management on an everyday basis;
 - lack of, or inconsistent government support for, natural resource management measures aimed at preservation or enhancement of cultural assets;
 - lack of capacity to respond effectively to threats to cultural heritage; and
 - cynicism of non-Indigenous people about ability of Indigenous people to care for country.
- The cultural heritage base and the local knowledge of non-Indigenous people have so far been poorly recorded.

Twelve key issues were identified.

- Recognition and incorporation of local and traditional knowledge on natural resource management issues into current policies and programs.
- Increasing access to country by Indigenous people for purposes of practice of customs and preservation of significant sites.
- Uncertain land tenure threatens pastoralists' ability to reflect their concern for natural resource management in their priorities and on-ground management programs.
- Improving the understanding and acceptance of the special relationship between Indigenous people and country.
- Improving the understanding and acceptance that people who work the land also identify strongly with their land and the need for Landcare.
- Recording, preservation and passing on of traditional knowledge.
- Ongoing support for Traditional Owners to care for country.
- Ongoing support for land managers to care for country.
- Ongoing support for Landcare as a vehicle for promoting natural resource management.
- Land and Sea Management Centres as a vital mechanism for delivery of natural resource management programs on Indigenous land.
- Some community members expressed a view that there is a need to maintain a critical mass in the pastoral industry, and that property acquisitions should only be carried out in ways that help to maintain a viable pastoral industry.
- Need for sustainable economic development including employment opportunities to enable Indigenous people to effectively care for country.

Current Responses

The *Aboriginal Lands Act 1991* is currently being reviewed. That and the State Rural Leasehold Land Strategy may have implications for cultural heritage, but at this stage it is not clear what those implications will be.

Land and Sea Centre programs have been the major initiative supporting natural resource management in Indigenous communities. A major concern in many of the communities was the impact of the loss of funding following the end of the first National Heritage Trust (NHT1) funding program. Under this program buildings were constructed, vehicles and boats purchased, offices equipped, coordinators hired,

rangers appointed and trained, plans developed, networks established, relationships built and land and sea programs commenced. To differing extents, much of this essential block-building work has been lost with the demise of that source funding.

For a variety of reasons, some communities have been more successful in maintaining some of the structure and programs developed under NHT1. However, a great deal of momentum has been lost. Perhaps of most critical importance has been the loss of belief in, and commitment to, land and sea programs. The influx of funding and other support for land and sea management occasioned by NHT1 brought a good deal of hope and enthusiasm to communities. They felt that their efforts to regain ownership, access or management to their traditional country, sparked initially by successes with native title determinations, were now being supported with them gaining access to the means to effectively care for and develop country. The consultation findings were that there is a feeling that again, hopes have been dashed.

A second initiative was the establishment and support of regional and sub-regional bodies to assist land and sea programs in the Indigenous communities across Cape York Peninsula. At the sub regional level, two main networks were developed led by *Balkanu* and the *West Coast Traditional Owners*.

Most communities aligned with one or other of these networks, although some clans developed their own arrangements negotiating directly with the Cape York Peninsula NHT Unit and other such bodies, while others have accessed support through community Councils. The consultation revealed differing views, often strongly held and expressed, which indicated that for regional coordination to be effective, careful consideration will need to be taken of the differing views and mechanisms will need to be put in place that satisfy the Traditional Owners from all the communities.

Indigenous Community Councils (Local Government) on DOGIT Lands and Land Trusts established under the *Aboriginal Land Act 1991* are the major Indigenous land owning entities in Cape York and have important roles and responsibilities in the management of cultural heritage. In addition, the role of a Prescribed Bodies Corporate (PBC) under the *Native Title Act 1993* is to protect and manage the native title, in accordance with the wishes of the relevant indigenous people, and with the requirements of the legislation which may also include management responsibilities for cultural heritage.

From a non-Indigenous perspective there is also a strong desire to build on the sharing of both cultures. The cultural heritage information base and the local knowledge of non-Indigenous people have so far been poorly recorded.

Aspirations, Outcomes and Actions

The Cultural Heritage goal to which we aspire is to “Look after cultural heritage for future communities.”

The key outcomes expressed by people and existing plans include:

- strong and healthy communities and individuals are caring for country, both Indigenous and non-Indigenous
- understanding, respect and support exists for the special relationship Indigenous people have with Country
- effective systems are in place which ensure Indigenous access to country and protection of significant cultural sites

- traditional knowledge is retained, protected and passed on to ensuing generations
- secure and effective mechanisms and agreements are in place to support all Cape York Peninsula residents in caring for Country
- mutual understanding and respect exists for the historical connections and heritage of all Cape York Peninsula communities.
- recognition of non-Indigenous local knowledge.

Cape York Natural Heritage Trust Plan – Strategy 4 Heritage Site Management An Action Plan

The Cape York Natural Heritage Trust Plan – Strategy 4 “Heritage Site Management An Action Plan” recognises that resources to manage all heritage sites are simply not available. Rather it is envisaged that the nature of protective actions should be three pronged:

- Resource allocation towards targeted information delivery based on the themes identified in the Resource Inventory (communications plan);
- Developing collaborative actions for major projects on Cape York Peninsula heritage sites of significance (eg Somerset); and
- Site specific projects (including localised signage) aimed at mitigating negative impacts (impacts from people, vehicle, industry practices, and pest plants and animal movement) delivered through a sub-application process.

This Cape York Peninsula Draft Natural Resource Management Plan supports this approach.

Underlying Concerns

Indigenous peoples concerns

Indigenous people on Cape York Peninsula have underlying concerns related to their ability to effectively care for Country. In order to do this they identified that they needed:

- to be healthy mentally and physically including freedom from the negative impacts of drugs and alcohol (requiring health and social services including substance misuse, domestic violence services, child support, policing, sport and recreation programs).
- to live in comfortable and functional conditions (adequate housing and essential services).
- to know how and what to do (information, education and training, access to traditional knowledge, legal support services).
- to have effective leadership and community organisations that are democratic and accountable (Councils, Land and Sea Centres, Land Trusts).
- to have understanding and support for their goals (outstations support programs, relationships with their community and its organisations, regional groups, government services and others).
- to have access to the things needed to support their activities (tools, vehicles, boats, buildings, communications, transport, etc).

These are all aspects of the communities’ *capacity* or ability to support and enhance the lives of its members. All contribute to the overall strength of the community. Strong communities derive from strong leadership, strong families and strong ties to Country.

At the legislative level, the importance of the protection of Indigenous cultural heritage has been recognised with the Aboriginal and Torres Strait Islander Heritage Protection Act (1984), which provides overriding protection for all Aboriginal and Torres Strait Islander sites and places.

The *Aboriginal Cultural Heritage Act (2003)* provides protection of Aboriginal cultural heritage that includes sites, artefacts and archaeology. It includes Duty of Care Guidelines and a register and database for cultural heritage.

At the policy and planning level, many of the numerous regional planning and policy documents such as CYPLUS, Great Barrier Reef 25 Year Plan and FNQ 2010 recognise the importance of the inclusion of Indigenous issues and viewpoints.

Despite these legislative and policy initiatives Indigenous people continue to demand greater and more meaningful involvement in the planning and management arrangements affecting 'Country' and point to a lack of recognition of their rights and interests in much of the current legislative, policy and management arrangements. This Plan builds upon this issue with provision for ongoing consultation with Traditional Owners and other Aboriginal and Islander people.

Non-Indigenous peoples concerns

During the consultation process a number of non-Indigenous people expressed concern that the cultural heritage base and the local knowledge of non-Indigenous people have so far been poorly recorded.

It was also identified that non-indigenous people needed to have access to the resources to support natural resource management.

Targets for Cultural Heritage

Note: All Cultural Heritage actions are to be discussed further with traditional owners before implementation

Asset :	CULTURAL HERITAGE (H)						
Goal :	Looking after cultural heritage for future communities				Integration and Collaboration		
Aspirational Target	Achievable RCTs 10 - 20 yrs	Management Action Targets (MATs) 3 – 5 yrs	Type of MAT	Management Actions as Proposed by Community	Other RCTs addressed	Priority	Potential Partners
H1 In 2025 mutual understanding of the full range of cultural and historical heritage values on Cape York Peninsula is enhanced, recognized, respected and protected.	H1-1 By 2015 the diverse range of cultural and historical heritage is recognized.	H1-1-1 Indigenous Cultural Heritage significance assessment completed by 2010. H1-1-2 Non-indigenous Cultural Heritage significance assessment completed by 2010. H1-1-3 From 2007, appropriate dissemination and use of information from Indigenous and non-indigenous Cultural Heritage significance.	CB	<ul style="list-style-type: none"> ▪ Develop programs for cultural and historical recognition and respect of the diverse range of values. ▪ Develop and implement appropriate protection of cultural and heritage sites. ▪ Establish programmes to identify appropriate and adequate ways of enhancing cultural and historical values. Eg. Recording, publications. 	C2-4, H2-1, H3-1, H3-2, N1-1, L1-2.	M	AI communities
H2 In 2025 strong and healthy communities and individuals continue to care for country with appropriate levels of support and institutional arrangements (see also capacity building).	H2-1: A healthy and educated workforce operating by 2015.	H2-1-1 Within 4 years integrate natural resource management activities with health and education programs at all levels.	CB	<ul style="list-style-type: none"> • Identifying processes that will lead to a healthy and educated workforce. • Enhance natural resource management and cultural heritage modules in school curricula (e.g. WaterWatch, Seagrass Watch, and Caring for Country camps for all children). • Greater cooperation facilitated through roundtable forums between health, education and natural resource management service providers to develop integrated <u>natural resource management</u> programs. • Piloting of COAG initiatives for addressing Indigenous disadvantage. 	C2-1, C2-4, H1-1, H2-2, H5-1, HH5-2, H5-3, I1-1, L1-2, L1-3, B1-9, B1-10, B2-3.	M	Depts of Education, Health, Communities, ICC COAG
		H2-1-2 Within 5 years, orientation and mentoring system established for non-Indigenous and Indigenous people working within Cape York Peninsula Indigenous culture and society.	CB	<ul style="list-style-type: none"> • Develop and implement Cape York Peninsula-specific orientation material and activities. • Identify appropriate potential 'caring for country' mentors. • Establish processes to monitor and ensure orientation and mentoring develop. 			

Asset :	CULTURAL HERITAGE (H)						
Goal :	Looking after cultural heritage for future communities						Integration and Collaboration
Aspirational Target	Achievable RCTs 10 - 20 yrs	Management Action Targets (MATs) 3 – 5 yrs	Type of MAT	Management Actions as Proposed by Community	Other RCTs addressed	Priority	Potential Partners
		H2-1.3 By 2006 develop and implement 2 programs to sponsor competency-based, graduate and post graduate education.	P	<ul style="list-style-type: none"> Establishment of competency-based recognition program for cultural heritage and natural resource management Identification of potential sponsors and scholarships, processes and conditions. Develop support program for participants during study (link with mentoring program). Promote programs through high schools in region to identify potential recipients. 		M	Industries, community, education department
	H2-2 By 2015 a well-resourced and administered community able to deliver on caring for country targets. <ul style="list-style-type: none"> Link appropriate organisations to develop future direction (see section 7.1). 	H2-2-1 By July 2005, identify and document existing governance and leadership programs.	CB	<ul style="list-style-type: none"> Identify governance and leadership needs and related training and skills needs. Develop and implement training and development program. Link with Cape York Institute for Policy and Leadership and others to develop future directions. 	C1-1, C1-2, C2-1, C2-2, C2-4, C2-7, H6-1, H6-2, H6-3, L1-3, L2-2.	H	Industries, community, education department
H2-2-2 Governance and leadership training programs to be developed as appropriate, where gaps are identified, to be agreed and implemented by 2006.		CB	<ul style="list-style-type: none"> Identify and develop relations with desired potential partners. Establish 'common ground' and roles and responsibilities as basis for partnerships, and monitor mutual benefits. Develop ways to improve coordination between and across partners and implementing bodies such as land and seas centres. 	H			
H2-2-3 Within 5 years expanded partnership arrangements to deliver culturally appropriate, integrated natural resource management programs and services.		P	<ul style="list-style-type: none"> Simplified NRM administration procedures. Support person for regional - community level administration and accountability. Develop and pilot alternative nrm based employment options (e.g. job sharing, flexi-hours, pools of staff). 			M	Land councils, Community, Indigenous groups, NAILSMA
H2-2-4 Within 5 years culturally appropriate administration and management systems and practices, developed, resourced and implemented.		P	<ul style="list-style-type: none"> Flexible, 3-5 yr funding arrangements, based on performance, implemented Enhanced information and equipment accessing mechanisms identified and utilised. 	H		State and Federal Governments	
		H2-2-5 Within 5 years, long-term appropriate resourcing options developed, authorised and made available.	P				

Asset : CULTURAL HERITAGE (H)							
Goal : Looking after cultural heritage for future communities							
Aspirational Target	Achievable RCTs 10 - 20 yrs	Management Action Targets (MATs) 3 – 5 yrs	Type of MAT	Management Actions as Proposed by Community	Other RCTs addressed	Priority	Potential Partners
H3: In 2025 understanding, respect and support exists for the special relationship people have with country.	H3-1 By 2015 the Cape York Peninsula community understands the relationship between 'health' and 'country'.	H3-1-1 'Caring for country' outcomes established as criteria in all funding processes from 2005 onwards.	CB	<ul style="list-style-type: none"> 'Caring for country' criteria established and incorporated into funding requirements for all projects in Cape York Peninsula. 	C1-2, C2-2, H2-1, H2-2, H3-2, H4-1, H5-1, H5-2, H5-3, H7-1.	H	Land council, Traditional owners
		H3-1-2 Awareness raising and education programs at all levels developed and implemented from 2005.	CB	<ul style="list-style-type: none"> Workshops and cross cultural learning/training carried out at all levels, including for government personnel Promotional material developed and distributed across all sectors in the regional and with other key participants. 		H	Land council, Traditional owners, community
		H3-1-3 Build relationships/promote visits to country to further understanding of special relationships over the next 3-5 years.	CB	<ul style="list-style-type: none"> Set up exchange study visits and tours with key service providers and interest groups. Establish regular visits to country by key personnel to listen to issues and concerns and provide information. 		H	Land council, Traditional owners, NAILSMA, government agencies All communities
		H3-1-4 Within 2 years develop protocols to promote understanding of relationship with land and sea to all partners.	CB	<ul style="list-style-type: none"> Develop protocols to ensure understanding incorporated into all aspects of land and sea management. 		H	Land council, Traditional owners, NAILSMA, government agencies, Community Councils and Land Trusts, All communities
	H3-2 In 2015 cultural heritage is managed and maintained through the application of 'Caring for Country' principles.	H3-2-1 Within 5 years document traditional knowledge and land management principles and use this knowledge as appropriate and when practical.	RA	<ul style="list-style-type: none"> Traditional Knowledge Projects developed and, where existing, extended to identify principles of caring for country and mechanisms for application of knowledge to diverse range of activities. Mechanisms established to protect traditional knowledge from inappropriate use and ensure intellectual property rights. 	C1-2, C2-2, H2-1, H2-2, H3-2, H4-1, H5-1, H5-2, H5-3, H7-1.	H	Land council, Traditional owners, NAILSMA, government agencies All communities

Asset :	CULTURAL HERITAGE (H)						
Goal :	Looking after cultural heritage for future communities						Integration and Collaboration
Aspirational Target	Achievable RCTs 10 - 20 yrs	Management Action Targets (MATs) 3 – 5 yrs	Type of MAT	Management Actions as Proposed by Community	Other RCTs addressed	Priority	Potential Partners
		H3-2-2 Implement a greater number of projects from 2005 onwards that demonstrate integration of Indigenous knowledge and management with contemporary management knowledge and practice.	P	<ul style="list-style-type: none"> Review, incorporate and apply principles to existing programs (e.g. rehabilitation and revegetation on Aboriginal Land project). Develop simple mechanisms to enhance incorporation of Indigenous knowledge and management into future projects on CYP. Collaborative action research and information sharing projects to demonstrate outcomes. 		H	Land council, Traditional owners, NAILSMA, government agencies JCU, CDEP All communities
		H3-2-3 Within 3 years develop and implement voluntary co-management processes and outcomes for land and sea management where applicable.	P	<ul style="list-style-type: none"> Develop/pilot alternative models for co-management that build capacity for greater Indigenous self-management but may continue to use non-Indigenous support personnel. Establish and document Indigenous and co-management practices and outcomes in key joint projects. This information can then be used to facilitate application to other projects and programs. 		H	Land council, Traditional owners, NAILSMA, government agencies, CDEP All communities
		H3-2-4 Review and improve policy and program integration from levels at 2005 in order to better deliver 'caring for country' outcomes.	CB	<ul style="list-style-type: none"> Identify and implement pilot COAG initiatives. Promote involvement of ICC in regional natural resource management planning and delivery. Promote regional, sub-regional and local level cross-sectoral collaboration and coordination. 		H	Land council, Traditional owners, NAILSMA, government agencies All communities
H4: In 2025 effective systems are in place which ensure Indigenous access to country and protection of significant cultural sites.	H4-1 By 2015 Indigenous people have access to country and significant cultural sites.	H4-1-1 By 2007, there is ongoing application of widely accepted legal and practical mechanisms to facilitate Indigenous access to traditional lands through land tenure negotiations, ILUAs and other agreement processes.	P	<ul style="list-style-type: none"> Identify incentives to progress access agreements being reached and applied. Education activities to inform and promote discussion about access entitlements and options. Processes to build understanding, negotiate and reach agreement facilitated with appropriate support. 	C2-2, C2-3, H1-1, H2-2, H3-2, H4-1.	H	Land council, Traditional owners, NAILSMA, government agencies

Asset : CULTURAL HERITAGE (H)									
Goal : Looking after cultural heritage for future communities									
Aspirational Target	Management Action Targets (MATs)			Management Actions as Proposed by Community	Integration and Collaboration				
	Achievable RCTs 10 - 20 yrs	3 – 5 yrs	Type of MAT		Other RCTs addressed	Priority	Potential Partners		
(Where appropriate, pastoralists need to know where these sites are and what they can do to support their protection.)	H4-2 By 2015 significant sites are identified and cared for appropriately.	H4-2-1 By 2006 provide adequate financial and institutional support for Traditional Owners to identify, record and preserve sites.	OGW	<ul style="list-style-type: none"> Integrate site identification and management with other cultural heritage preservation and country management activities. Skill-enhancement programs for appropriate site management developed with Indigenous rangers and Traditional Owners. Support initiatives for integrating site preservation with traditional knowledge and caring for country projects with Indigenous youngsters and others. Work with pastoralists and national parks, where appropriate, to identify and gain access to sites. 	H1-1, H2-1, H2-2, H3-2, H4-1, H5-1, H5-2, H5-3, H6-1, H6-2, H6-3, H7-1.	H	Land council, Traditional owners		
		H4-2-2 Aboriginal Cultural Heritage Register as defined in the <i>Aboriginal Cultural Act 2003</i> , enhanced and process for utilising information in land and sea management developed by 2007.	RA				<ul style="list-style-type: none"> Establish protocols for including appropriate site information into land and sea management (e.g. through PMPs, land and seas centre work, homeland plans). 	M	Land council, Traditional owners
		H4-2-3 Within 3 years determine effective measures for the protection and management of sites throughout Cape York Peninsula, including control of tourism, weeds and animals and weather impacts.	P				<ul style="list-style-type: none"> Work with tour operators to continue to develop sensitive and sustainable tourism practices at cultural sites, including fencing, signage and interpretation. Establish and undertake fencing and weather protection projects for priority sites. 	H	Land council, Traditional owners, CDEP, communities
		H4-2-4 Within the next 2 years establish greater coordination of policies, funding and programs amongst agencies and authorities involved in supporting site management and conservation.	P				<ul style="list-style-type: none"> Support addressed through the COAG trial. Simplified resource accessing and acquittal processes. 	M	Land council, Traditional owners, NAILSMA, government agencies, CDEP, communities

Asset :	CULTURAL HERITAGE (H)						
Goal :	Looking after cultural heritage for future communities					Integration and Collaboration	
Aspirational Target	Achievable RCTs 10 - 20 yrs	Management Action Targets (MATs) 3 – 5 yrs	Type of MAT	Management Actions as Proposed by Community	Other RCTs addressed	Priority	Potential Partners
H5: In 2025 traditional knowledge is retained, protected and passed on to ensuing generations.	H5-1 By 2015 traditional knowledge is collected and stored in culturally appropriate ways.	H5-1-1 Within 2 years develop and implement traditional knowledge recording projects that secure knowledge in appropriate ways.	RA	<ul style="list-style-type: none"> Traditional knowledge projects expanded to include a wider number of language groups. Experience from the Balkanu Traditional Knowledge project is used to guide other collection and storage activities, including methods and protocols. Mechanisms to protect Intellectual property rights associated with Indigenous knowledge are explored / developed. 	H1-1, H2-1, H2-2, H3-2, H4-1, H5-1, H5-2, H5-3, H6-1, H6-2, H6-3, H7-1.	H	Land council, Traditional owners
	H5-2 By 2015 Indigenous children have a good knowledge about 'country' via traditional and modern methods. Learnings continue.	H5-2-1 Programs to facilitate passing on of knowledge to appropriate community members are developed and supported within 2 years.	CB	<ul style="list-style-type: none"> A range of initiatives being developed, implemented and assessed to facilitate connection of Indigenous children with their country and culture, strengthening identity and a sense of pride, including e.g.: <ul style="list-style-type: none"> school based activities camps and outings with Traditional Owners homeland activities video and photo stories visual and performing arts activities. Pilot, partnership, action research projects being undertaken in conjunction with Traditional Owners, youth, and rangers, and maybe others (e.g. from education and health) and the outcomes publicised. 	C1-2, C2-4, H1-1, H2-1, H3-1, H3-2, H4-2, H5-1, L1-1.	H	Land council, Traditional owners

Asset : CULTURAL HERITAGE (H)							
Goal : Looking after cultural heritage for future communities							
Aspirational Target	Achievable RCTs 10 - 20 yrs	Management Action Targets (MATs) 3 – 5 yrs	Type of MAT	Management Actions as Proposed by Community	Other RCTs addressed	Priority	Potential Partners
	H5-3 By 2015 there is recognition of traditional and local knowledge by scientific and general community.	H5-3-1 Within 2 years have programs and protocols in place to promote sharing of knowledge between scientific community, traditional owners, land managers and communities, where appropriate.	CB	<ul style="list-style-type: none"> Joint research and learning programs being undertaken (e.g. between Rangers, Traditional Owners and researchers and communities) and done so according to agreed protocols. Participatory Action Research (PAR) approaches being promoted and implemented, whereby emerging findings and learning are used for active adaptive management decision-making. Joint presentations of research/study outcomes and co-management research models occurring in local, regional and wider forums. Information and findings from scientific research being translated into ordinary language and returned to or made available to concerned communities (both Indigenous and non-Indigenous) in timely and appropriate ways. 	H3-1, H3-2, H4-1, H4-3, H5-1, L1-1.	H	Land council, Traditional owners, NAILSMA, government agencies JCU, CSIRO, CRC, communities
H6: By 2025 secure, effective mechanisms and agreements are in place to support Traditional Owners in caring for country.	H6-1 By 2015 all Land and Sea Centres are being supported by Traditional Owners and are working effectively.	H6-1-1 By 2006 develop a simple and secure funding process for Land and Sea Centres to ensure ongoing programs and to ensure that rangers have stable employment and training available. See also Cultural Heritage targets.	P	<ul style="list-style-type: none"> Identify and engage a range of public and private funding sources so L&SMC are not solely reliant on one source of funds. Development, negotiation and piloting of alternative funding, reporting and accountability arrangements for Land and Sea Centres and the programs they want to implement, which provides flexibility for the different ways in which Indigenous programs and people work. Land and Sea Centre Plans being developed and used in ways that are culturally appropriate and demonstrate ownership by Traditional Owners and rangers. 	C1-1, C1-2, C2-1, C2-4, H2-2, H3-1, H3-2, H4-1, H4-2, H5-1, L1-1, L3-1, L3-2, L3-3.	H	Land council, Traditional owners, NAILSMA, government agencies, communities
		H6-1-2 By 2006 protocols and procedures are developed describing Land and Sea Centre roles, responsibilities, and relationships with Traditional Owners, Community Councils and others as appropriate. See also Cultural Heritage targets.	P	<ul style="list-style-type: none"> Gaining the support and legal approval of respective Community Councils. General guidelines developed to provide frameworks and templates which each Centre can adapt and develop to their context. 		H	

Asset :	CULTURAL HERITAGE (H)						
Goal :	Looking after cultural heritage for future communities					Integration and Collaboration	
Aspirational Target	Achievable RCTs 10 - 20 yrs	Management Action Targets (MATs) 3 – 5 yrs	Type of MAT	Management Actions as Proposed by Community	Other RCTs addressed	Priority	Potential Partners
	H6-2 By 2015 a regional Land and Sea Centre network is operating effectively.	H6-2-1 By 2008 a strong and effective regional network of Centres are established, supporting improved communication, management and cooperation within and between Centres and outside organisations including Government. See also C1-2-2.	CB	<ul style="list-style-type: none"> Agreement reached on what the Network should do and how, and how it should be resourced. Use of the network for negotiating, agreeing and coordinating regional and sub-regional programs (e.g. turtle and dugong protection, and drift net programs). Use of the network for communication and information sharing pertinent to Land and Sea Centre programs and functioning. Use of the network as a forum for capacity building activities. Use of the network to provide input into regional strategic planning and policy development bodies. 	C1-1, C1-2, C2-1, C2-4, H2-2, H3-1, H3-2, H4-1, H4-2, H5-1, L1-1, L3-1, L3-2, L3-3.	M	Land council, Traditional owners, NAILSMA, government agencies, communities
	H6-3 By 2015 individual initiatives are pursued and Traditional Owners are provided the appropriate support.	H6-3.1 Mechanisms and protocols are developed and in place by 2008 to enable Traditional Owners to pursue natural resource management initiatives independently. H6-3-2 From 2005 support Community Councils and other responsible parties to develop Pest Management Plans.	CB	<ul style="list-style-type: none"> Arrangements in place to enable individual Traditional Owners and clans to access support for natural resource management and caring for country activities directly or through other mechanisms (e.g. through Councils) 	C1-1, C1-2, C1-3, C2-1, C2-4, H1-1, H1-2, H4-2, N4-6, B1-7.	L	Land council, Traditional owners, NAILSMA, government agencies, communities
H7: By 2025 mutual understanding and respect exists for the historical connections and heritage of all the Cape York Peninsula communities and mechanisms are in place for balancing the needs and aspirations of different stakeholders.	H7-1 By 2015 historical connections and heritage of all people are recognised and respected.	H7-1-1 Within 4 years develop programs that promote recognition and build acceptance of the diverse range of associations people have with Cape York Peninsula and its natural resources.	P, CB	<ul style="list-style-type: none"> Education and awareness activities being carried out about the diversity of people, lifestyles, views and knowledge that exists on Cape York Peninsula and its relationship with natural resource management. Historical heritage protection initiatives supported (e.g. non-Indigenous and Indigenous cattle industry history and knowledge). Identification and management of non-indigenous sites of significance such as early exploration sites; WW2 sites; early European Settlements (Eg Telegraph Station). 	C1-1, C1-2, C2-4, H1-1, H3-1, H4-1, H4-2, H5-1, H5-2, H5-3.	H	Community groups, Industry groups, Local council, Tourist operators

7.3 Natural Heritage

Of particular importance is the recognition of the “Natural Heritage” value of the region as discussed in Chapter 2. It is acknowledged that Cape York Peninsula has global significance for its biodiversity, bio-evolution, geo-diversity, geo-evolution, natural processes, natural integrity, contribution to knowledge, and aesthetics. One way of recognising and protecting those values is through a well-managed Protected Areas System, including a land acquisition strategy (still an outstanding undelivered commitment from NHT1).

Overview

Beyond its local values, it is widely recognised that Cape York Peninsula is a very special region both nationally and internationally. In recognition of the Peninsula’s special natural heritage values, CYPLUS Stage 2 recommended that sustainable use and management of the area’s natural resources would require an assessment of Natural Heritage Significance early in the Stage 3 phase. That assessment found that ***Cape York Peninsula has characteristics and features that are, regionally and nationally and globally significant in respect of all eight natural heritage criteria*** (Mackey *et al.*, 2001). The Queensland Government recommended that the Statement of Significance should be used as a tool to guide further planning on Cape York Peninsula.

Geology, Landscape and Soils

Cape York Peninsula has seven geological regions based on age and type of rocks. Associated mineral resources of economic importance include gold, bauxite, kaolin and silica sand. The Peninsula has ten general physiographic classes that have been grouped into three primary physiographic units consisting of:

- Depositional surfaces
- Dissected Cainozoic surfaces
- Hilly to mountainous areas.

The one hundred and thirteen soil types identified on Cape York Peninsula have been classified into seven natural landscape divisions, which occur over most of the area. Ten major soil types have been identified. Many of the soils have low levels of phosphorus and nitrogen, are deficient in other nutrients and trace elements, and are weakly structured and prone to erosion when cleared.

The following eight criteria are considered to be the significant natural value assets identified in CYPLUS Stage 1 and in the “Statement of Natural Heritage Significance for Cape York Peninsula”:

1. Geodiversity
2. Geodiversity
3. Bioevolution
4. Biodiversity
5. Natural Integrity
6. On-going Natural Processes
7. Contribution to Knowledge
8. Aesthetics

Further details are provided in Section 2.2 and in Annexe 6.

Conservation Significance

Cape York Peninsula is one of Australia's key conservation areas. Its dunefields and deltaic fan deposits are amongst the best developed in the world, while the biogeographic and evolutionary relationships of the plants and animals to the biota of New Guinea provides important insights into the evolutionary history of Australasia.

In a national context, Cape York Peninsula is a key area for wilderness, heathland, rainforest, riparian and wetland conservation. The Peninsula also contains some of Australia's highest concentrations of rare and threatened species as well as restricted endemics. It is also an important area for species richness, and is particularly rich for invertebrates, freshwater fish, mangroves, seagrass and orchids. The combination and extent of these features of national significance result in much of the study area being of international conservation significance (Abrahams, H et. al. 1995).

Features of conservation value are not restricted or concentrated in a few areas but are generally widespread and occur over most of the Peninsula. For example, the best examples (being the largest and least disturbed patches) of each of the 201 natural vegetation classes that occur on the Peninsula, are not found in a few key areas but are distributed right across the area. Similarly, although rare vegetation classes tend to be clustered in certain areas, different sets of areas are important for different values such as endemic species, or wetland values.

Over 80% of Cape York Peninsula has been identified as having natural conservation significance for at least one natural heritage attribute. The vastness and importance of this area, together with the widespread nature of individual values, necessitates a regional consideration of natural heritage values in land use planning, rather than a focus on a few key areas. Clearly conservation of its heritage values will be a major component of any land use planning or development strategy for Cape York Peninsula. This includes conservation both inside and outside protected areas.

Further information is available from:

<http://www.deh.gov.au/erin/cyplus/lup/index.html>

Wet Tropics Bioregion

The Wet Tropics Bioregion makes up only about one percent of the Cape York Peninsula NRM planning area, however, it contains a rich biodiversity, significant both regionally and internationally. A significant proportion of this rich biodiversity is not found elsewhere on Cape York Peninsula. For instance, the boulders of Black Mountain, Mount Simon and the Trevethan range are the only known habitat of two species of lizards and one frog species. Vulnerable ghost bats also use the cave and boulder system there. The upland rainforest areas of Mount Finnegan and Big tableland represent the most northern range of a variety of plants and animals (particularly frog and possum species). Bennet's tree kangaroos are also found in the region. These species are particularly vulnerable to climate change. This northern part of the Wet Tropics Bioregion also contains important Aboriginal cultural sites.

Great Barrier Reef World Heritage Area

Whilst not part of the Cape York Peninsula Natural Resource Management Plan area, the Great Barrier Reef is nevertheless immediately adjacent to the Plan area. The east coast catchments flow into the Reef lagoon; management activities in those catchments can affect water quantity and quality entering the lagoon. Therefore the Plan needs to cover those management activities.

The Great Barrier Reef is widely acclaimed as one of the world's great natural treasures. In 1981, the Great Barrier Reef gained international recognition through its inscription on the World Heritage List. The Great Barrier Reef World Heritage Area is the world's largest and is one of only a few World Heritage Areas that satisfy all four natural World Heritage Criteria. Further information is available from: http://www.qbrmpa.gov.au/corp_site/info_services/publications/sotr/. See also Chapter 4.

Key Threats and Issues

A range of potential threats exists to the region's Natural Heritage Values. The most significant is perhaps a general lack of awareness of the global, national and regional heritage values of the region. This includes a misconception that Cape York Peninsula is already protected through World Heritage listing or through a system of National Parks and Conservation Reserves. In fact, less than 12% of the region is contained in the current Parks system.

Physical threats to the region's Natural Heritage Values, whilst recognised here, are dealt with individually in other sections. Potential threats include:

- Pest plants and animals;
- Biosecurity (the risk of introduction of exotic diseases, plants or animals);
- A range of land management issues including: inappropriate grazing activities, mining, exploration, new developments, management of infrastructure (eg roads), and tourist impacts.

During the consultation process for this NRM Plan, a need was highlighted to clearly identify any land earmarked for voluntary buy back, conservation or other restrictions/constraints to enable assessment of viability of ecologically sustainable economic options for the remainder of the area(s).

Current Responses

In addition to the existing network of National Parks, Conservation Parks and Habitat Protection Areas there are two Queensland Government policy commitments that require consultation with the region's population. They are:

1. **World Heritage recognition.** The Queensland Government committed in 2004 to compiling the case towards World Heritage listing of appropriate areas of Cape York Peninsula. At the time of completing this Plan, few details were available and the implications for the management of natural resources unclear.

During the consultation process for the development of this NRM Plan it was clear that the issue of World Heritage listing is not universally embraced and that any progress towards listing including compiling a case towards listing will require genuine consultation with the people in the region. The targets for Natural Heritage reflect this cautious approach.

Further details are available at:

http://www.teambeattie.com/db_download/Cape_York_Policy_04_01_30.pdf

2. **Protection of Wild Rivers.** Queensland's 'pristine rivers' are regarded as a precious resource. These waterways are termed 'wild rivers' and are considered to be one of Queensland's most valuable natural assets. These are rivers that have almost all of their natural values intact. They have high heritage value, and are a source of scenic beauty, recreational activity and cultural significance. The Queensland Government committed in 2004 to introducing new legislation to protect 'wild rivers' via:

- Allowing limited agricultural, urban and industrial development, e.g. small-scale 'eco-friendly' tourism development would be encouraged.
- Strictly limited and regulated water allocations or water extractions from wild rivers.
- No new dams or weirs permitted on a wild river or its main tributaries.
- Flow control activities such as stream alignment, de-snagging (other than for safety reasons) and levee banks will not be permitted.
- Further developments on floodplains must not restrict floodplain flows
- Protection of associated wetlands.
- No stocking of wild rivers with non-endemic species.
- No use of exotic plant species in ponded pastures.
- New off-stream storages to be limited in capacity, for example for stock and domestic purposes.
- No new in-stream mining activities. Any out-of-stream mining in the region will be subject to Environmental Impact Assessments.

Information was limited at the time of compiling this document but rivers being considered for inclusion in the 'Wild Rivers Policy' in the Cape York Peninsula NRM region include: Archer River system; Coleman River system; Ducie River system; Holroyd River system; Jacky Jacky Creek; Jardine River; Lockhart River; Olive & Pascoe Rivers; Stewart River; Watson River and Wenlock River.

During the consultation process for the development of this Draft NRM Plan it was clear that to many residents of the region the imposition of the Wild Rivers Policy without consultation would not be welcome. The lack of detail available about the Wild Rivers Policy is certainly a contributing factor to discontent. A genuine consultation process prior to introduction of the Policy will be essential.

Further details are provided in section 4.2 and at:

http://www.teambeattie.com/db_download/Wild_Rivers_04_01_28.pdf.

Aspirations, Outcomes and Actions

The goal for managing the natural heritage values of the region is "Protecting the Natural Heritage Values that make Cape York Peninsula such a special place at local, regional national and international levels".

The aspirational targets are:

- In 2025, the natural heritage values of Cape York Peninsula are recognised, protected and managed in accordance with their significance; and World Heritage listing of identified areas and management arrangements that are supported by and benefiting local people are in place.
- By 2025 natural integrity has been restored to degraded areas across CYP.

- By 2025 sustainable networks of remnant vegetation are retained throughout any areas on CYP where land clearing is permitted under State law.
- In 2025, the terrestrial and marine biodiversity of Cape York Peninsula is retained through strategic, coordinated, well resourced and informed management regimes.

The aspirational targets, resource condition targets, management action targets and actions proposed to achieve the goal are listed in the following table.

DRAFT

Targets for Natural Heritage

Asset: NATURAL HERITAGE (N)							
Goal: Protecting the Natural Heritage Values that make Cape York Peninsula such a special place at local, regional national and international levels.							Integration and Collaboration
Aspirational Target	Achievable RCTs 10 - 20 yrs	Management Action Targets (MATs) 3 – 5 yrs	Type of MAT	Management Actions as Proposed by Community	Other RCTs addressed	Priority	Potential Partners
<p>N1 In 2025 the natural heritage values of Cape York Peninsula are recognised, protected and managed in accordance with their significance; and World Heritage listing of identified areas and management arrangements that are supported by and benefiting local people are in place.</p> <p>(The natural heritage values include natural integrity, ongoing natural processes, biodiversity, bio-evolution, geo-diversity, aesthetics and contribution to knowledge).</p>	<p>N1-1 By 2010 the Natural Heritage Values of Cape York Peninsula are maintained at World Heritage standard.</p>	<p>N1-1-1 By 2008, local people understand the implications and benefits of World Heritage listing and support World Heritage nomination.</p>	P	<ul style="list-style-type: none"> • Compile information about the implications of World Heritage listing. • Engage all stakeholders to inform them about the implications of World Heritage assessment and listing and to identify concerns about world heritage listing through appropriate processes. • Work with stakeholders to develop a transparent and agreed pathway for World Heritage nomination that addresses stakeholder concerns. 	<p>C1-1, C2-4, H1-1, N2-1, N3-1, N4-1, N4-2, N4-3, N4-4, N4-5, N4-6, L1-3, L2-1, L2-2, L3-1, S1-1, S1-2, S1-3, S1-4S2-1, , S202, S2-3, S2-4, S4-1, W1-1, W2-1, W3-1, W4-1, W5-1, W5-2, W6-1, W6-2, W7-1, W7-2, B1-1, B1-2, B1-3, B1-4, B1-5, B1-6, B1-7, B1-8, B1-0, B1-11, B2-1, B2-2, B3-1, B4-1, B4-2, B4-3, B4-4,D 1-1,D1-2, D1-3, D1-4, D1-5, D1-6, D1-7, D1-8, D2-1, D2-2.</p>	H	<p>Commonwealth, State and Local Governments, Traditional Owners, landholders, communities, industry, government agencies.</p>

Asset:	NATURAL HERITAGE (N)						
Goal:	Protecting the Natural Heritage Values that make Cape York Peninsula such a special place at local, regional national and international levels.						Integration and Collaboration
Aspirational Target	Achievable RCTs 10 - 20 yrs	Management Action Targets (MATs) 3 – 5 yrs	Type of MAT	Management Actions as Proposed by Community	Other RCTs addressed	Priority	Potential Partners
		<p>N1-1-2 By 2008, the natural heritage values of Cape York Peninsula are identified and optimal management has been planned through values mapping, and careful land use planning, at the bioregional, bioregional province, catchment and local scales.</p>	RA, P	<ul style="list-style-type: none"> • Collate all available information on the natural heritage significance of Cape York Peninsula. • Identify and value land uses that are compatible and incompatible with protection of natural heritage values. • Develop a land use and management plan for the bioregion in consultation with relevant stakeholders to ensure that all areas are managed in accordance with their natural heritage significance. The Land Use and Management Plan should have three broad land use / management categories. <ul style="list-style-type: none"> – Category A – Provides high level protection to the areas that have been identified in the Statement of Natural Heritage Significance as having high natural heritage value. Regardless of tenure, land in this category is managed primarily to protect natural heritage values. The existing regulations of the Vegetation Management Act apply to this zone in full. – Category B – Protects the natural heritage values including the natural integrity of regional ecosystems and hydro-ecological processes while allowing for compatible land uses. – Category C – Allows for more intensive development such as projects of state significance, towns and infrastructure but has strict provisions to ensure the complete protection of ecosystems of conservation significance and retention of viable networks of remnant vegetation that are representative of all regional ecosystems etc. 		H	<p>Commonwealth, State and Local Governments, Traditional Owners, landholders, communities, industry, government agencies.</p>

Asset:		NATURAL HERITAGE (N)					Integration and Collaboration	
Goal:		Protecting the Natural Heritage Values that make Cape York Peninsula such a special place at local, regional national and international levels.						
Aspirational Target	Achievable RCTs 10 - 20 yrs	Management Action Targets (MATs) 3 – 5 yrs	Type of MAT	Management Actions as Proposed by Community	Other RCTs addressed	Priority	Potential Partners	
		N1-1-3 By 2010, all lands are being managed so that their identified natural heritage values (incorporating natural integrity, ongoing natural processes, biodiversity, bio-evolution, geo-diversity, aesthetics and contribution to knowledge) are being maintained.	OGW, CB, P	<ul style="list-style-type: none"> • Design a range of management options for each land use / management category to indicate what land uses are compatible with the identified natural heritage values and to ensure that management is consistent with maintaining those values across the landscape. • Develop management guidelines to protect identified natural heritage values and to ensure that biodiversity and natural integrity are maintained across the landscape (ie across all land tenures). • Incorporate Indigenous knowledge, biodiversity principles and total catchment management principles into management guidelines where appropriate. • Support the implementation of management plans to protect natural heritage values across all land tenures. 		H	Commonwealth, State and Local Governments, Traditional Owners, landholders, communities, industry, government agencies.	

Asset:		NATURAL HERITAGE (N)				Integration and Collaboration	
Goal:		Protecting the Natural Heritage Values that make Cape York Peninsula such a special place at local, regional national and international levels.					
Aspirational Target	Achievable RCTs 10 - 20 yrs	Management Action Targets (MATs) 3 – 5 yrs	Type of MAT	Management Actions as Proposed by Community	Other RCTs addressed	Priority	Potential Partners
		N1-1-4 By 2010, there is an integrated and well resourced network of protected land and sea areas managed for the protection of natural heritage, cultural heritage and spiritual values.	OGW, P	<ul style="list-style-type: none"> • Develop an agreed acquisition strategy between State and Federal governments to purchase land that has been identified as having high natural heritage values, and to upgrade facilities. • Implement the acquisition strategy to secure long term protection and management of areas of high natural heritage value. • Develop new models for protected area management that provide for indigenous management and co-management. • Develop management plans for protected areas to support the maintenance of biodiversity and natural integrity subject to appropriate engagement of Aboriginal interests and consideration of prior land claims. • Develop and implement good neighbour agreements with adjacent landholders. • Identify and prioritise resource requirements for protection of natural heritage values (including monitoring activities, fire management, pest and weed management, fencing, infrastructure, visitor facilities, interpretive displays, staff). • Secure long term funding for management of protected areas. • Inject new funds into the protected area system to improve management of natural heritage. Implement management and on-ground works.		H	Commonwealth, State and Local Governments, Traditional Owners, landholders, communities, industry, government agencies.

Asset:		NATURAL HERITAGE (N)					Integration and Collaboration	
Goal:		Protecting the Natural Heritage Values that make Cape York Peninsula such a special place at local, regional national and international levels.						
Aspirational Target	Achievable RCTs 10 - 20 yrs	Management Action Targets (MATs) 3 – 5 yrs	Type of MAT	Management Actions as Proposed by Community	Other RCTs addressed	Priority	Potential Partners	
		N1-1-5 By 2010, management to maintain natural heritage values (incorporating natural integrity, ongoing natural processes, biodiversity, bio-evolution, geo-diversity, aesthetics and contribution to knowledge) is coordinated and supported across all land tenures.	P	<ul style="list-style-type: none"> Establish mechanisms and networks to co-ordinate natural heritage management across CYP and carry out the following actions. Identify key partners and resourcing requirements. Promote and support cooperative management between all stakeholders. Improve communication and coordination on land and resource management within CYP. Develop appropriate management guidelines. Promote the adoption of biodiversity conservation principles across all land tenures. Collate information from all sources on management of natural and cultural heritage values and disseminated as appropriate. Develop and implement a monitoring and evaluation program and collate information from all sources on monitoring and evaluation. Assess the effectiveness of management in maintaining natural heritage values across all tenures. Support the storage and appropriate transmission of indigenous knowledge to support maintenance of natural and cultural heritage. 		H	Commonwealth, State and Local Governments, Traditional Owners, landholders, communities, industry, government agencies.	

Asset:		NATURAL HERITAGE (N)				Integration and Collaboration		
Goal:		Protecting the Natural Heritage Values that make Cape York Peninsula such a special place at local, regional national and international levels.						
Aspirational Target	Achievable RCTs 10 - 20 yrs	Management Action Targets (MATs) 3 – 5 yrs	Type of MAT	Management Actions as Proposed by Community	Other RCTs addressed	Priority	Potential Partners	
				<ul style="list-style-type: none"> Coordinate the development of recovery plans. Identify research priorities and assist in the implementation of priority research activities. Identify priorities for on-ground works and resourcing requirements Support the implementation of strategic on-ground works. Secure long term resourcing for management of natural heritage values across all land tenures. 				
	N1-2 In 2015, hydrological and ecological processes on Cape York Peninsula remain intact.	N1-2-1 By 2010, all lands are being managed so that the natural integrity of ecological and hydrological connections is maintained.	RA	<ul style="list-style-type: none"> Develop priorities for research that will (a) identify processes that are threatening natural integrity of on CYP and (b) identify management requirements for maintaining natural integrity on CYP. Undertake targeted research to identify the processes threatening natural integrity and appropriate management interventions. Collate and complete mapping of the ground and surface water resources of the region. Identify surface – ground water links. Identify areas of dry season water flux and associated refuges. Design management guidelines for maintaining dry season water flows. Support the implementation of on-ground works to protect springs and other areas of water efflux. 	N1-1, N4-1, N4-2, N4-3, N4-4, N4-5, N4-6L3-1, W1-1, W2-1, W4-1, W7-1, W7-2, B1-1, B1-3, B1-5, B1-6, B1-8.	H	State and Local Governments, Traditional Owners, landholders, communities, industry, government agencies.	

Asset: NATURAL HERITAGE (N)							
Goal: Protecting the Natural Heritage Values that make Cape York Peninsula such a special place at local, regional national and international levels.							Integration and Collaboration
Aspirational Target	Achievable RCTs 10 - 20 yrs	Management Action Targets (MATs) 3 – 5 yrs	Type of MAT	Management Actions as Proposed by Community	Other RCTs addressed	Priority	Potential Partners
N2 By 2025 natural integrity has been restored to degraded areas across CYP.	N2-1 By 2015 Identified degrading activities affecting the natural integrity of high conservation value areas have ceased and natural integrity is being restored.	N2-1-1 By 2008, an audit of degraded natural areas to be restored has been completed and restoration works on identified areas of high conservation value have begun.	RA	<ul style="list-style-type: none"> Identify areas in which natural integrity has been significantly degraded. Produce maps of natural integrity values highlighting areas where natural integrity has been significantly degraded. Design ecological restoration plans for areas where natural integrity has been impaired. Working with landholders, support the implementation of ecological restoration plans for areas where natural integrity has been impaired across all tenures. Develop agreements with landholders to ensure that management practices are appropriate for maintaining the on-ground outcomes. 	N1-1, N1-2, B1-3, B1-6, B1-7, B4-1, B4-2, B4-4.	H	Government agencies, Traditional Owners, landholders, communities, industry.
N3 By 2025 sustainable networks of remnant vegetation are retained throughout any areas on CYP where land clearing is permitted under State law.	N3-1 By 2015 sustainable networks of remnant vegetation are retained throughout any areas on CYP where land clearing is permitted under State law.	N3-1-1 By 2008, where land clearing is permitted under State law (eg mining areas and projects of state significance), viable and sustainable networks of remnant vegetation are retained incorporating all regional ecosystem types.	P	<ul style="list-style-type: none"> Prepare careful land use plans for all existing and new developments including developments of State significance to ensure protection of ecosystems of conservation significance and the retention of sustainable networks of all other regional ecosystems within the development area. These plans must also take into account the cumulative impacts of all developments on regional ecosystems. Prepare a land use plan for the Weipa Plateau Bioregional Province in consultation with mining representatives, traditional owners, environmental representatives and state and federal government agencies that will ensure that viable and sustainable networks of remnant vegetation are retained incorporating all regional ecosystem types. 	D4-1, B1-4, B1-5, B2-1, B3-1, B4-1, B4-2.	H	State and Local Governments, government agencies, Traditional Owners, landholders, communities, industry.

Asset: NATURAL HERITAGE (N)							
Goal: Protecting the Natural Heritage Values that make Cape York Peninsula such a special place at local, regional national and international levels.							Integration and Collaboration
Aspirational Target	Achievable RCTs 10 - 20 yrs	Management Action Targets (MATs) 3 – 5 yrs	Type of MAT	Management Actions as Proposed by Community	Other RCTs addressed	Priority	Potential Partners
N4 In 2025, the terrestrial and marine biodiversity of Cape York Peninsula is retained through strategic, coordinated, well resourced and informed management regimes.	N4-1 By 2015, the terrestrial and marine biodiversity of Cape York Peninsula is in as healthy or healthier condition than in 2004.	N4-1-1 By 2008 the management requirements for maintaining regional ecosystems and species are well understood.	RA	<ul style="list-style-type: none"> Complete Regional Ecosystem mapping to 1:250 000 scale. Undertake inventory of representative ground layer communities. Collate information on the fire regimes and broad management requirements for the maintenance of regional ecosystems. Identify key indicator species and communities that reflect native pasture condition, appropriate fire regime and broader management regimes. Identify species and communities adversely impacted by current land management practices. Establish healthy population thresholds of key indicator species and communities. Establish monitoring and evaluation protocols for establishing trends of regional ecosystems, and key indicator species and communities. Identify reference sites containing well managed, healthy populations of key indicator species and communities against which to compare trends in the broader environment. Develop a methodology for assessing and mapping cumulative impacts on regional ecosystems (terrestrial and marine). Assess and map the cumulative impacts of all activities on regional ecosystems (terrestrial and marine) identify key threatening processes at the level of regional ecosystems. 	N1-2, N2-1, N4-2, N4-3, N4-4, N4-5, N4-6, W1-1, W4-1, W5-1, W5-2, W7-1, W7-2, B1-1, B1-2, B1-3, B1-4, B1-5, B1-6, B1-7, B1-8B1-9, B2-1, B3-1, B4-1, B4-2, B4-3, B4-4.	M	State and Local Governments, government agencies, research institutions, Traditional Owners, Landholders.

Asset:		NATURAL HERITAGE (N)					Integration and Collaboration	
Goal:		Protecting the Natural Heritage Values that make Cape York Peninsula such a special place at local, regional national and international levels.						
Aspirational Target	Achievable RCTs 10 - 20 yrs	Management Action Targets (MATs) 3 – 5 yrs	Type of MAT	Management Actions as Proposed by Community	Other RCTs addressed	Priority	Potential Partners	
		N4-1-2 By 2008, the conservation status of regional biodiversity is enhanced through management that is strategically targeted at managing the processes that are threatening regional ecosystems of concern and species of conservation significance.	OGW	<ul style="list-style-type: none"> Identify regional ecosystems of concern including consideration of extensive processes that are causing changes in ecosystem structure. Work with landholders across all tenures to identify appropriate management interventions for addressing threatening processes. Coordinate and support the implementation of management actions to address threatening processes across all tenures. 		H	State and Local Governments, government agencies, research institutions, Traditional Owners, Landholders.	

Asset:		NATURAL HERITAGE (N)				Integration and Collaboration	
Goal:		Protecting the Natural Heritage Values that make Cape York Peninsula such a special place at local, regional national and international levels.					
Aspirational Target	Achievable RCTs 10 - 20 yrs	Management Action Targets (MATs) 3 – 5 yrs	Type of MAT	Management Actions as Proposed by Community	Other RCTs addressed	Priority	Potential Partners
	N4-2 By 2015, all terrestrial vertebrate species are well represented in the protected area system and populations of all species are stable or improving on 2004 levels.	N4-2-1 By 2008 the management requirements for protecting all terrestrial vertebrate species are well understood and are being implemented.	P	<ul style="list-style-type: none"> Design and implement systematic field surveys to assess the conservation status of terrestrial vertebrates (particularly native mammals but including migratory birds). Map the distribution of terrestrial vertebrates (particularly mammals). Assess how well the existing protected area system protects terrestrial vertebrates (and native mammals in particular). Identify priorities for property acquisition to improve the conservation status of terrestrial vertebrates). Identify processes threatening terrestrial vertebrates (particularly native mammals). Develop and implement conservation plans for terrestrial vertebrates. Secure long term resources for implementation of conservation plans. Adopt established monitoring and evaluation protocols. Develop an education program for reporting sightings. 	B2-1, B4-3.	H	State and Local Governments, government agencies, research institutions, Traditional Owners, Landholders.

Asset: NATURAL HERITAGE (N) Goal: Protecting the Natural Heritage Values that make Cape York Peninsula such a special place at local, regional national and international levels.							
Aspirational Target	Integration and Collaboration			Management Actions as Proposed by Community	Other RCTs addressed	Priority	Potential Partners
	Achievable RCTs 10 - 20 yrs	Management Action Targets (MATs) 3 – 5 yrs	Type of MAT				
	N4-3 By 2015, populations of threatened terrestrial species and threatened communities are above 2004 levels and increasing.	N4-3-1 By 2008 the management requirements for protecting threatened terrestrial species and threatened communities are well understood and are being implemented. (See also biodiversity targets, and community capacity targets in relation to incorporating local knowledge in surveys).	RA	<ul style="list-style-type: none"> Design and implement systematic field surveys to assess the conservation status of threatened species and threatened communities. Map the distribution of threatened species and threatened communities Identify the habitat requirements of threatened species. Develop a methodology for assessing and mapping cumulative impacts on threatened species. Conduct a cumulative impact assessment for all threatened species. Identify threatening processes for threatened species. Secure long term resources for implementation of threatened species and threatened communities recovery plans across all tenures. Work with all relevant stakeholders to develop and implement targeted recovery plans for all threatened species and threatened communities. Develop agreements with landholders to ensure that management practices are appropriate for maintaining the on-ground outcomes. Adopt established monitoring and evaluation protocols. Develop an education program and protocols for reporting sightings. 	C2-4, H2-1, H3-2, B1-1, B1-3, B1-4, B1-5, B1-6, B1-8, B2-1, B3-1, B4-1, B4-2, B4-3, B4-4.	H	State and Local Governments, government agencies, research institutions, Traditional Owners, Landholders.

Asset:		NATURAL HERITAGE (N)				Integration and Collaboration	
Goal:		Protecting the Natural Heritage Values that make Cape York Peninsula such a special place at local, regional national and international levels.					
Aspirational Target	Achievable RCTs 10 - 20 yrs	Management Action Targets (MATs) 3 – 5 yrs	Type of MAT	Management Actions as Proposed by Community	Other RCTs addressed	Priority	Potential Partners
	N4-4 By 2015 populations of threatened marine species (including marine turtles, dugong, giant clams and sawfish) are above 2004 levels and increasing.	N4-4-1 By 2008 the management requirements for protecting threatened marine species are well understood and are being implemented. See also Sea Country targets.	RA	<ul style="list-style-type: none"> Assess the conservation status of threatened marine species (including marine turtles, dugong, giant clams and sawfish). Develop a methodology for assessing and mapping cumulative impacts on threatened species. Conduct a cumulative impact assessment for all threatened species. Identify threatening processes for threatened species. Secure long term resources for implementation of threatened species recovery plans across all tenures. Work with all relevant stakeholders to develop and implement targeted recovery plans for all threatened marine species. Develop and implement a long term monitoring program. Develop an education program for reporting sightings. Support the development of sustainable harvesting processes in consultation with indigenous communities. Develop and implement seagrass management plans. Develop and implement a regional marine protected area strategy. 	C2-4, H2-1, H3-2, B1-2, S1-4, S1-6, S2-1, S2-2, S2-3, S2-4.	H	State and Local Governments, government agencies, research institutions, NOO, Traditional Owners, Landholders.

Asset:		NATURAL HERITAGE (N)				Integration and Collaboration	
Goal:		Protecting the Natural Heritage Values that make Cape York Peninsula such a special place at local, regional national and international levels.					
Aspirational Target	Achievable RCTs 10 - 20 yrs	Management Action Targets (MATs) 3 – 5 yrs	Type of MAT	Management Actions as Proposed by Community	Other RCTs addressed	Priority	Potential Partners
	N4-5 By 2015 the condition of CYP ecosystems and biodiversity are at or above 2004 levels through appropriate fire management regimes.	N4-5-1 By 2008, fire management that supports the maintenance of regional ecosystems is in place.	OGW, P	<ul style="list-style-type: none"> Continue funding and support for Cape York Peninsula Sustainable Fire Management Project. Prepare and implement fire management plans as part of Cape York Peninsula Sustainable Fire Management Project. Prepare a Cape York Peninsula Fire Management Strategy, consistent with the Northern Australian Fire Management Strategy. Collate information on the fire regime requirements for the maintenance of regional ecosystems. Collect information on indigenous burning and incorporate into management plans as appropriate. Provide input on fire regime requirements into the development of recovery plans for threatened species and communities. Support all stakeholders with the development of management plans by providing input on fire regime requirements for the maintenance of regional ecosystems. Support the implementation of appropriate fire regimes for the maintenance of regional ecosystems (including riparian vegetation). Promote the use of fire as a property management tool, e.g. for control of woody weeds. 	B1-3, B1-4, B1-5, B1-6, B-9, B1-11, B2-1, B3-1, B4-1B42, B4-3, B4-4.	H	CYP Sustainable Fire Management Project, State and Local Governments, government agencies, research institutions, Traditional Owners, Landholders.

Asset:		NATURAL HERITAGE (N)				Integration and Collaboration	
Goal:		Protecting the Natural Heritage Values that make Cape York Peninsula such a special place at local, regional national and international levels.					
Aspirational Target	Achievable RCTs 10 - 20 yrs	Management Action Targets (MATs) 3 – 5 yrs	Type of MAT	Management Actions as Proposed by Community	Other RCTs addressed	Priority	Potential Partners
	N4-6 In 2015, CYP natural and cultural heritage values, including ecosystems and biodiversity, are less adversely affected by weeds and feral animals than in 2004.	N4-6-1 By 2008, strategic plans for weed and feral animal management across CYP are prepared, resourced and being implemented.	OGW, P	<ul style="list-style-type: none"> ▪ Continue funding and support for the CY Weeds and Feral Animals Program and the CYP Pest Advisory Committee. ▪ Seek formal approval for the CYP Pest Management Strategy. ▪ Continue to prepare and implement strategic plans for weed and feral animal management on CYP, and implement the actions identified under Goals 1 (Commitment), 2 (Strategic Planning Framework and Management) and 8 (Integration) of the CYP Pest Management Strategy. Plans to be prepared include but are not limited to the following: <ul style="list-style-type: none"> ○ Complete pest management plans for all local government and Indigenous community areas. ○ Prepare a CYP-wide pest management plan with emphasis on minimising the adverse impacts of weeds and feral animals on the natural and cultural heritage values of CYP; and identifying regional priorities for weed and feral animal management. ○ Support the development of pest management plans for properties and State-managed areas. ○ Ensure that plans are developed in collaboration with all relevant stakeholders. ○ Ensure that plans are consistent with Federal and State pest management strategies, quarantine strategies, Threat Abatement Plans and other relevant plans. 	C1-2, C2-4, C2-5, C2-7, H5-3, H6-2, N1-1, N1-2, N2-1, N4-1, N4-3, L1-3, W5-1, W5-2, B1-7.	H	CYP Pest Advisory Committee, State and Local Governments, government agencies, research institutions, Traditional Owners, Landholders.

Asset:		NATURAL HERITAGE (N)					Integration and Collaboration	
Goal:		Protecting the Natural Heritage Values that make Cape York Peninsula such a special place at local, regional national and international levels.						
Aspirational Target	Achievable RCTs 10 - 20 yrs	Management Action Targets (MATs) 3 – 5 yrs	Type of MAT	Management Actions as Proposed by Community	Other RCTs addressed	Priority	Potential Partners	
				<ul style="list-style-type: none"> ▪ Seek adequate resources for weed and feral animal management and implement the actions identified under Goal 6 (Resourcing) of the CYP Pest Management Strategy. ▪ Continue to gather the information needed for strategic planning and management of weeds and feral animals. Information to be gathered includes but is not limited to the following: <ul style="list-style-type: none"> ○ Complete mapping of Weeds of National Significance. ○ Complete mapping of other serious environmental weeds with high potential spread and highly adverse impacts (e.g. Gamba grass, Lion's tail, Leucaena, Praxelis and sicklepod). ○ Complete mapping of feral animals. ○ Gather information about efficacy of control methods. ○ Recognise the economic value of some feral animal species for local communities and take this into account in developing pest management plans. 				

Asset:		NATURAL HERITAGE (N)				Integration and Collaboration	
Goal:		Protecting the Natural Heritage Values that make Cape York Peninsula such a special place at local, regional national and international levels.					
Aspirational Target	Achievable RCTs 10 - 20 yrs	Management Action Targets (MATs) 3 – 5 yrs	Type of MAT	Management Actions as Proposed by Community	Other RCTs addressed	Priority	Potential Partners
		N4-6-2 From 2005, no new weeds or feral animals become established on CYP.	OGW, CB	<ul style="list-style-type: none"> ▪ Develop and implement a program for prevention, early detection and rapid control of new weeds and feral animal species, and implement actions under Goal 3 (Prevention and Early Intervention) of the CYP Pest Management Strategy. Actions to be taken include but are not limited to the following. ▪ Raise public awareness about the potential impact of introducing new species, and the need for prevention, early detection, reporting and control of new weed and feral animal species. ▪ Strongly encourage effective hygiene practices during transport, earth works, road works, stock movements and all other activities that may spread pest species. ▪ Support and collaborate with AQIS, NAQS and other relevant organisations in quarantine and pest prevention programs. ▪ Install and maintain wash down facilities in strategic locations. ▪ Carry out strategic surveys and monitoring to assist early detection of new species, and encourage all land managers to monitor their areas. ▪ Raise awareness about the need for stock feed certification. ▪ Review, implement and enforce appropriate hay and stock feed certification systems to reduce new weed outbreaks. ▪ Develop similar certification processes for poultry food. ▪ Strongly encourage rapid, strategic and coordinated response to all new pest species. 		H	CYP Pest Advisory Committee, State and Local Governments, government agencies, research institutions, Traditional Owners, Landholders.

Asset:		NATURAL HERITAGE (N)					Integration and Collaboration	
Goal:		Protecting the Natural Heritage Values that make Cape York Peninsula such a special place at local, regional national and international levels.						
Aspirational Target	Achievable RCTs 10 - 20 yrs	Management Action Targets (MATs) 3 – 5 yrs	Type of MAT	Management Actions as Proposed by Community	Other RCTs addressed	Priority	Potential Partners	
		N4-6-3 By 2008, effective weed & feral animal management practices are reducing the adverse impacts of weeds and feral animals on the natural and cultural heritage values of CYP below 2004 levels.	OGW	<ul style="list-style-type: none"> Carry out and support strategic management of weeds and feral animals, in accordance with relevant Federal, State, regional, local and property pest management plans and other relevant plans. Implement the actions identified under Goal 4 (Effective Management Systems) and Goal 5 (Communication) of the CYP Pest Management Strategy. Promote strategic management of weeds and feral animals. Improve communication and coordination on weed and feral animal management between all stakeholders. Support on-ground weed and feral animal control works in accordance with strategic plans and identified high priorities. 		H	CYP Pest Advisory Committee, State and Local Governments, government agencies, research institutions, Traditional Owners, Landholders.	

7.4 Land Country

This Plan recognises the traditional ownership and custodial responsibilities that lie with the Indigenous people of Cape York Peninsula and the profound impact that non-Indigenous policies and practices have had on Indigenous rights and well-being.

It also recognises that vast areas of land on Cape York Peninsula are under the direct or indirect ownership of the State. Most of this is in the form of leasehold land or National Parks.

Overview

Beef cattle grazing is the primary land use on Cape York. Around 60 pastoral leasehold properties make up 60 per cent of the land area. Some of the properties are leased and managed by families who have strong historical connections to the area, including Indigenous Traditional Owners. Mining has world-class bauxite and silica sand deposits and the potential to host world-class kaolin deposits. Mining and tourism are also economically important to Cape York Peninsula.

Areas under different land tenures are shown in Table 9 and Figure 7.

Table 9: Cape York Peninsula NRM Plan Area Land Tenure

Type of Tenure	% of NRM Plan Area	Area (km ²)
Land Lease	54	74,120
Aboriginal Tenure	23	31,292
National Park	12	16682
Unallocated State Land	4	5468
Mining Tenure	3	3768
Reserve	2	2693
Timber Reserve	1	1692
Forestry Reserve	0	200
State Forest	0	8.7

Where land has been transferred under the *Aboriginal Lands Act 1991* to Land Trusts, significant restrictions apply to the land title. For example, Aboriginal land cannot be sold or used as surety to raise finance. Similar restrictions have been placed on Deed of Grant in Trust (DOGIT) lands.

As discussed in Chapter 4, the unifying theme for natural resource managers on Cape York Peninsula is the notion of 'caring for country'. But the concept of country needs to be expanded for non-Indigenous people. Land country is a source of living wealth in the form of biodiversity. It is a source of spiritual and cultural wealth for Indigenous people. It is a source of sustenance for the people of Cape York Peninsula. And it is a source of material wealth in the form of mining, agriculture and tourism.

Indigenous people are born with a special relationship with 'Country'. That relationship is highly complex, subject to secrecy at times, knowledge of it is carefully controlled and it permeates all aspects of life. 'Country' is much more than just the land and sea and resources that exist in or inhabit that piece of ground or water. The concept of Country encompasses the relationship between people and country and this is spelt out in the stories, traditions and knowledge about Country that are passed from generation to generation. Many believe it is of questionable

value to attempt to describe the relationship between people and Country, as the connection is of a subtle, esoteric nature, knowable only to Indigenous people. Perhaps the best understanding a non-Indigenous person can achieve is by experiencing Indigenous people living on Country – spending time out on Country.

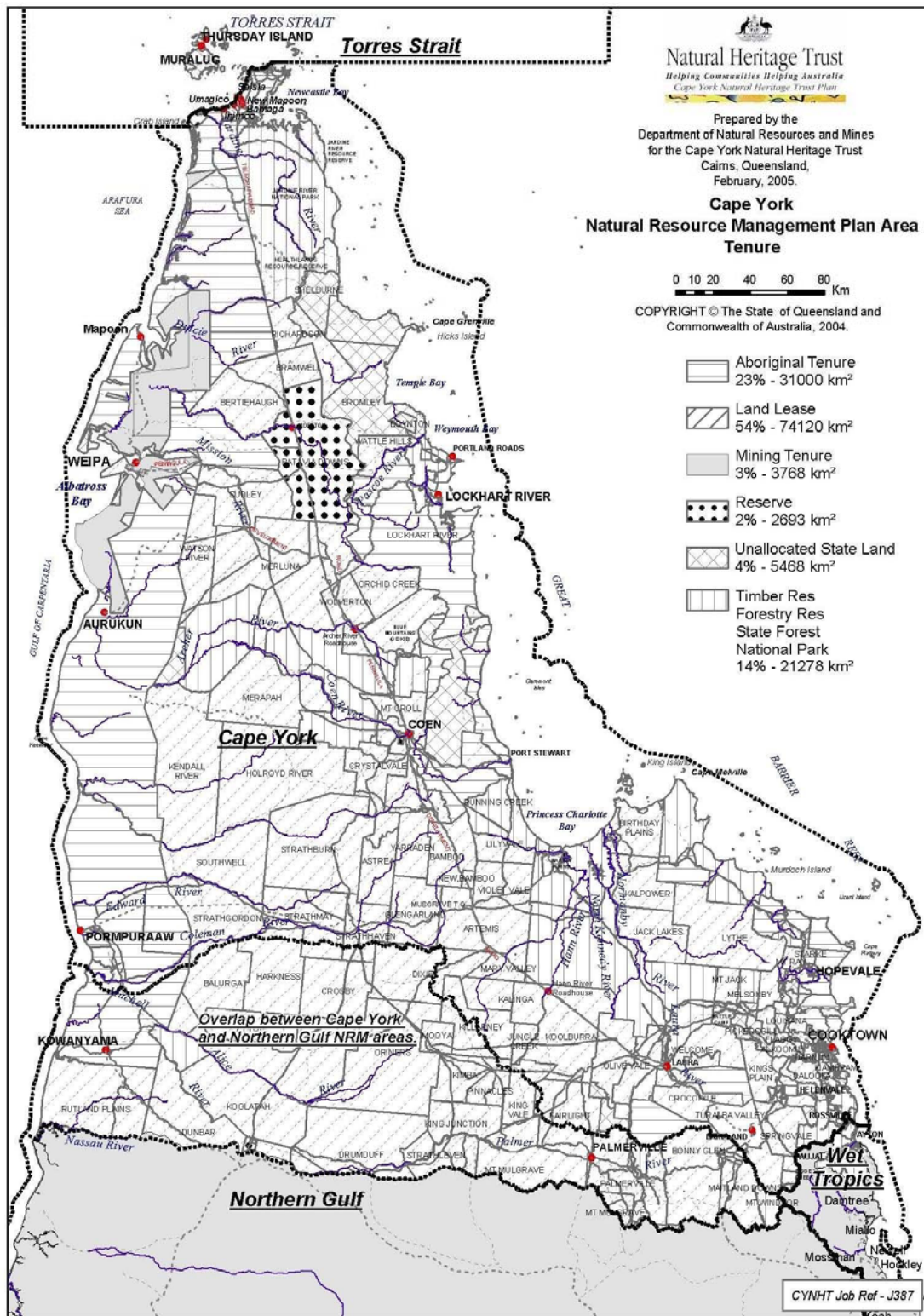


Figure 7: Land Tenure of Cape York Peninsula NRM Region.

Key Threats and Issues

Regaining Access to Country

The core issue for Indigenous people is their right to gain negotiated access to their traditional country in order to care for it, including access to Indigenous lands, leasehold land, mining leases, State conservation parks and national parks. The support required to extend access will include legal services, native title determinations and agreements with landholders, mining companies and governments.

Where native title rights and interests conflict with the valid rights and interests of another party that are obtained from a legitimate interest, then the rights and interests of the other party will prevail over the native title rights and interests to the extent of the inconsistency.

People who hold native title have a right to continue to practise their law and customs over traditional lands and waters. This may include visiting to protect important places, hunting, gathering, collecting bush medicines and other kinds of traditional customs. They may also have a right to negotiate over mining developments and mineral exploration.

An Indigenous land use agreement (ILUA) is a voluntary agreement about the use and management of land, made between a native title group and other people. An ILUA is one of the most practical ways to resolve native title issues. It allows people to make agreements about how land is used without entering into more formal native title process.

Bauxite mining leases

Large tracts of land are contained within mining lease areas with much not expected to be mined for many decades. Aboriginal peoples have expressed an interest in playing a much more active role in managing these lands including:

- land management and conservation, including pest control, fire management etc. (partnerships should be encouraged between mining companies who have legal management obligations, and Aboriginal communities who they might engage to provide that management).
- Aboriginal economic use before mining, including forestry, grazing, flora/seed harvesting, bush tucker/medicine extraction and tourism. (Some of these could be joint ventures, others may be wholly Aboriginal owned enterprises, others may be owned by mining companies but employing Aboriginal labour and expertise).
- Aboriginal cultural access, including ceremony, conservation/recording/sharing of traditional knowledge, archaeological survey. (These ought to be allowed, even supported by mining companies as a condition of lease.)
- strategic relinquishment planning, such that Aboriginal stakeholders in particular can plan with some certainty for *post*-mining land use enterprises, including cattle/grazing, forestry, revegetation, or other enterprises.

These points are addressed through targets D5 in the asset Ecologically Sustainable Development.

Land tenure

The tenure boundaries of the Peninsula do limit sound planning and land management and it is proposed that all processes that consider tenure issues

(property planning, Land Act dealings, land acquisitions and national park planning) should consider the effectiveness of current boundaries and propose amendments where appropriate.

Weeds and Feral animals

Weeds and feral animals are those introduced from other parts of the world (from overseas and from other areas of Australia) that pose a threat to ecosystem integrity or local native plant and animal species. Weeds and feral animals have the ability to extensively influence both land and biodiversity (they may also have adverse impacts on water and sea country and can damage or reduce access to cultural heritage sites).

Nearly 250 species of plants introduced from other parts of the world have been recorded on Cape York Peninsula. Thirty-five of these species are considered weeds and, in general, their distributions are poorly known. Additionally, several species of weeds currently established outside the Cape York Peninsula area have the potential to become significant pest plants if their distributions extend into the Peninsula area.

Weeds of National Significance in the region are:

Alligator Weed	<i>Alternanthera philoxeroides</i>
Lantana	<i>Lantana camara</i>
Hymenachne	<i>Hymenachne amplexicaulis</i>
Mesquite	<i>Prosopis</i> spp.
Parkinsonia	<i>Parkinsonia aculeate</i>
Parthenium	<i>Parthenium hysterophorus</i>
Pond Apple	<i>Annona glabra</i>
Prickly Acacia	<i>Acacia nilotica</i> ssp. <i>indica</i>
Rubber Vine	<i>Cryptostegia grandiflora</i>

Weeds on the National Environmental Alert List

In 2000, the Department of the Environment and Heritage worked with experts to identify plant species that are in the early stages of establishment and have the potential to become a significant threat to biodiversity if they are not managed. Those species that were identified have been placed on the National Environmental Alert List. The List is made up of 28 non-native weeds that have established naturalised populations in the wild. The full list can be found at www.deh.gov.au/biodiversity/invasive/weeds/alert-list.html

The purpose of the List is to identify those species that are in the early stages of establishment and have the potential to become a significant threat to biodiversity if they are not managed. Siam weed *Chromolaena odorata* is found in Cape York.

The Cape York Peninsula Weeds and Feral Program has mapped weeds to 1:100,000 scale though these maps may not be as easily accessible as they should be and should/will be upgraded as part of the property management planning program.

Weeds have become established following both deliberate and accidental introduction and will often establish in disturbed areas including new development activities such as mine sites, exploration activities and the construction of tracks and roads. Weeds affect local native vegetation in various ways, but they usually exhibit aggressive growth leading to smothering and/or exclusion of native species. Rubber vine (*Cryptostegia grandiflora*) is a most serious pest plant on Cape York Peninsula at present, distributed over 80% of the Mitchell River catchment (as well as other

areas) where it destroys riparian and remnant rainforest vegetation, smothers trees and shrubs and shades out the ground layer. Other serious weeds in the region include sicklepod (*Senna obtusifolia*), pond apple (*Annona glabra*), parkinsonian (*Parkinsonia aculeate*), belly-ache bush (*Jatropha gossypifolia*), salvinia (*Salvinia molesta*), hymenachne (*Hymenachne amplexicaulis*), Gamba Grass (*Andropogon gayanus*) and lantana (*Lantana camara*). Significant threats include the introduction of parthenium (*Parthenium hysterophorus*).

Several pest animal species have established populations in parts of Cape York Peninsula. Of these, feral pigs (*Sus scrofa*), feral dogs (*Canis lupus familiaris*), feral horses (Brumbies) (*Equus caballus*) and feral cats (*Felis catus*) have been considered the most significant with varying distributions and impacts within the Peninsula. Each of these pests is a potential vector for diseases. Other pest animal species that occur in comparatively limited areas or low numbers in Cape York Peninsula include rabbit (*Oryctolagus cuniculus*), cane toad (*Bufo marinus*), fox (*Vulpes vulpes*), rodents and several species of bird.

Low human population levels and large tracts of land make control of weeds and animals on the Peninsula difficult. Resources directed towards control of weeds have been limited and further long term commitment to management is required. Control of feral animals is generally attempted by shooting, trapping, poisoning or biological control and again, further long term commitment to management is required. For further information on the achievements of the Cape York Weeds and Feral Animal Program since 1998 refer to the Cape York Pest Management Strategy 2004 – 2010.

Mackey *et al.* 2001 noted that, with the exception of feral pigs (*Sus scrofa*), Cape York Peninsula currently experiences a low incidence of problem feral animals and weeds. However, they add that the area is “very vulnerable to escalation of feral and weed impacts” and further note that long-term eradication or strategic control should remain a management objective if the natural heritage values of Cape York Peninsula are to be maintained.

Inappropriate Fire Management Regimes

Fire has the ability to extensively influence both land and biodiversity (it may also influence water by inducing erosion following vegetation loss after high intensity fires) but it is being discussed here in the Land Country Section. Much of the following information and many of the targets discussed later are also applicable to biodiversity.

Fire has had a long-standing association with the local landscapes and may, depending upon the timing, extent and intensity, impact negatively or in fact benefit the biodiversity of local areas.

Four processes generate fires on Cape York Peninsula:

- *Managed or Prescribed Burns* – which are deliberate land management practices initiated throughout the year (but mostly during the dry season) depending on conditions and the objectives of land managers.
- *Wildfires* – are started by lightning strikes and occur mostly at the start of the wet season as grass fires with varied intensities that are directly related to the dryness of fuel and type and community of vegetation.
- *Accidental Fires* – which might start as an accident, as a result of carelessness by campers and others.
- *Deliberate arson.*

Aboriginal people have used fire as a land management tool to 'clean' the country for many years, although restrictions to access and land tenure have reduced the extent of fire management by Aboriginal people.

Many people directly involved in pastoralism, Indigenous land management and nature conservation consider managed burns an appropriate land management tool. Other members of the Cape York Peninsula community consider managed burns inappropriate owing to concerns about conservation and animal welfare. Managed burns are generally undertaken for the management of:

Aboriginal Areas – throughout the year for a variety of needs.

Nature Conservation Areas – for maintenance and protection of a diversity of habitats in National Parks. In this context managed burning is used to prevent more destructive fires.

The Pastoral Industry – mostly to maintain feed for cattle through the dry season and reduce fuel load, for the prevention of wild fire. Some pastoralists limit their use of fire because of concerns about loss of forage, an inability to contain fire and damage to or destruction of animals, nests and habitats.

Changes to burning patterns over the last 100 years or so are believed to have:

- Expanded the area of Melaleuca woodlands at the expense of grasslands
- Expanded areas of grasslands and woodlands at the expense of rainforest
- In some areas expanded rainforest at the expense of grasslands and woodlands
- Changed the reproductive strategies of some plant species which are now adapted to fire.

Such changes have resulted in alterations to the distribution of vegetation communities and vertebrate species.

Clearly fire has the capacity to modify the environmental characteristics of an area in the short-term and in some circumstances the long term. Similarly, lack of fire may also modify local ecotones (transitional areas between habitats). Additionally, inappropriate fire regimes may alter the distribution and composition of biota. Timing of fire regimes in relation to the wet season, particularly near high gradient landscapes, has implications for aquatic communities owing to the erosion potential of many local soils.

Prescribed burning must be well planned and implemented with a clear objective that benefits the environment.

Fire is recognised as one possible environmental management tool that could be used for the benefit of not only the environment but also the economy.

Soils

Soil disturbance and erosion risk is also associated with a number of activities; in urban centres and peri-urban lands degradation can be locally quite severe. Roads, crossings and stock routes are also places where erosion often initiates.

The importance of soil fertility and soil acidification for pasture management and carrying capacity also needs to be recognised. The Phosphorous status of soil is a critical factor for pasture productivity and management strategies. Soil acidification may be a serious potential issue where pasture production has been accelerated eg legume introduction. (Further information about is available in Ahern, Shields,

Enderlin and Baker (1994) ***Soil fertility of Central and Northeast Queensland Grazing Lands***. Department of Primary Industries QI94065.)

For grazing lands, total grazing pressure and fire management are key factors in sustainable management.

Inappropriately Managed Grazing Activities

Grazing represents a significant land use on Cape York Peninsula. The potential for inappropriate grazing management to have a significant impact on the natural assets of the Peninsula is quite high.

The effect of cattle in riparian zones, competition between introduced pasture grasses and native plants, altered fire regimes, the inadvertent introduction of serious weed pests, fragmentation of ecosystems and land clearing for pasture development are components of the grazing industry which potentially threaten water quality, soil stability, biodiversity and the integrity of natural processes.

Since the establishment of the Natural Heritage Trust it has been widely accepted that one of the accepted ways of encouraging improved management of grazing is to provide subsidies to land managers to fence areas of high environmental value. It has been argued that the fencing of such areas should be the sole responsibility of the land manager as part of a duty of care and that on occasion fencing may not be the best environmental option. However, this view is not universally accepted and fencing subsidies for high value areas remain common practice across Australia.

Unmanaged Visitation

Tourism on Cape York Peninsula is based largely on its natural resources and associated cultural assets. Ecotourism, camping, group tours and recreational fishing represent some of the range of recreational opportunities available on Cape York Peninsula. Tourism is likely to continue to grow in the region as infrastructure (roads and facilities) and the range of accommodation and other opportunities increases.

Tourism growth, particularly when based on natural resources, often requires increased effort to manage effectively both the tourists and the natural resources. Issues such as waste management (including litter), over-use of some areas and other elements of management of tourists (noise, illegal camping, damage to dune areas and vegetation by vehicles) have the potential, if not properly addressed, to threaten those natural resources that attracted the tourists initially.

Mining

Current large-scale mining activities are concentrated along coastal regions of Cape York Peninsula north and south of Weipa (bauxite and kaolin) and in the region of Cape Flattery (silica sands). North Queensland contains bauxite resources rated the worlds best in terms of size, quality and cost. Comalco's Weipa mine on the west coast of Cape York Peninsula alone has an indicated ore reserve of some 3.4 billion tonnes with an annual production in 2002-2003 worth some \$260 million. On a smaller scale are the Skardon River kaolin mine, 100 km north of Weipa, currently exporting its product overseas; and Cape Flattery the largest global exporter of silica sand and the highest producer of silica sand of any mine in the world with annual production exceeding 1 million tonnes. In addition to these activities is the small scale gold mining in the Palmer River area.

Other areas of potential major economic significance for mining include those located south-east of Aurukun (bauxite), and Kendall River (kaolin), between

Mapoon and Bamaga (kaolin and bauxite), north and north-east of Coen (tin and heavy minerals respectively) and south-west from Cooktown (tin and tungsten). The re-commencement of tin mining at Collingwood Mine is now a real possibility since the increase in the tin price. Additional areas of potential minor economic significance for mining include gold around Bamaga, Lockhart River, Coen, and Palmerville. Smaller scale mining operations occur throughout the region where economic reserves are mined.

More than ten mining companies, either individually or as joint ventures, are working in Cape York, exploring for further gold, copper, bauxite, or kaolin resources. At present there is no focus on the heavy mineral resources north-east of Coen, or the tungsten deposits south-west of Cooktown. The limestone resources along the Palmer River, adjacent to the Palmer Fault, remain untapped. The PNG Gas Pipeline Project still remains in planning stage, with no definite commencement date. The Shelburne Bay silica sand resource site has recently become restricted to future exploration or mining.

Areas of mining leases and exploration permits are shown in Figure 8.

Mining invariably involves changes to the natural environment. CYPLUS Stage 1 identified government policies and legislative changes designed to address shortcomings of some mining operations with regard to objectives of the National Strategy for Ecologically Sustainable Development.

Exploration Permits and Practices for Minerals

Cape York Peninsula's mining history dates back to the 1870s. In recent years mining activities have been subject to improved environmental planning and management practices by Queensland legislation and policies to bring industry into line with the objectives of the National Strategy for Ecologically Sustainable Development.

Decentralisation of Population

The development of Outstations, to support the back to homelands movement, is being implemented to provide and maintain the relationship and opportunities for Indigenous peoples with their land. As outlined in CYPLUS Stage 2, the primary needs of Outstations include adequate water supply, suitable shelter, sanitation, access to transport, communications equipment, an all-weather storage building, power and access to several social facilities. Also underlying the viability of outstations is the need for economically viable lifestyles that do not depend upon welfare income.

Establishment of such facilities has the potential for both negative and positive impacts:

- The main potential positive impact is that people are 'back on the land' which is often necessary in order to undertake natural resource management activities such as weed and pest animal control.
- Negative localised environmental impacts during both installation and occupation may include vegetation clearance and other building related activities, installation of roads or other access facilities, related weed infestation, altered hunting pressure, waste and wastewater treatment and disposal. Such establishments therefore have the potential to impact on biodiversity values and the integrity of land and inland waters in the development and adjacent areas.

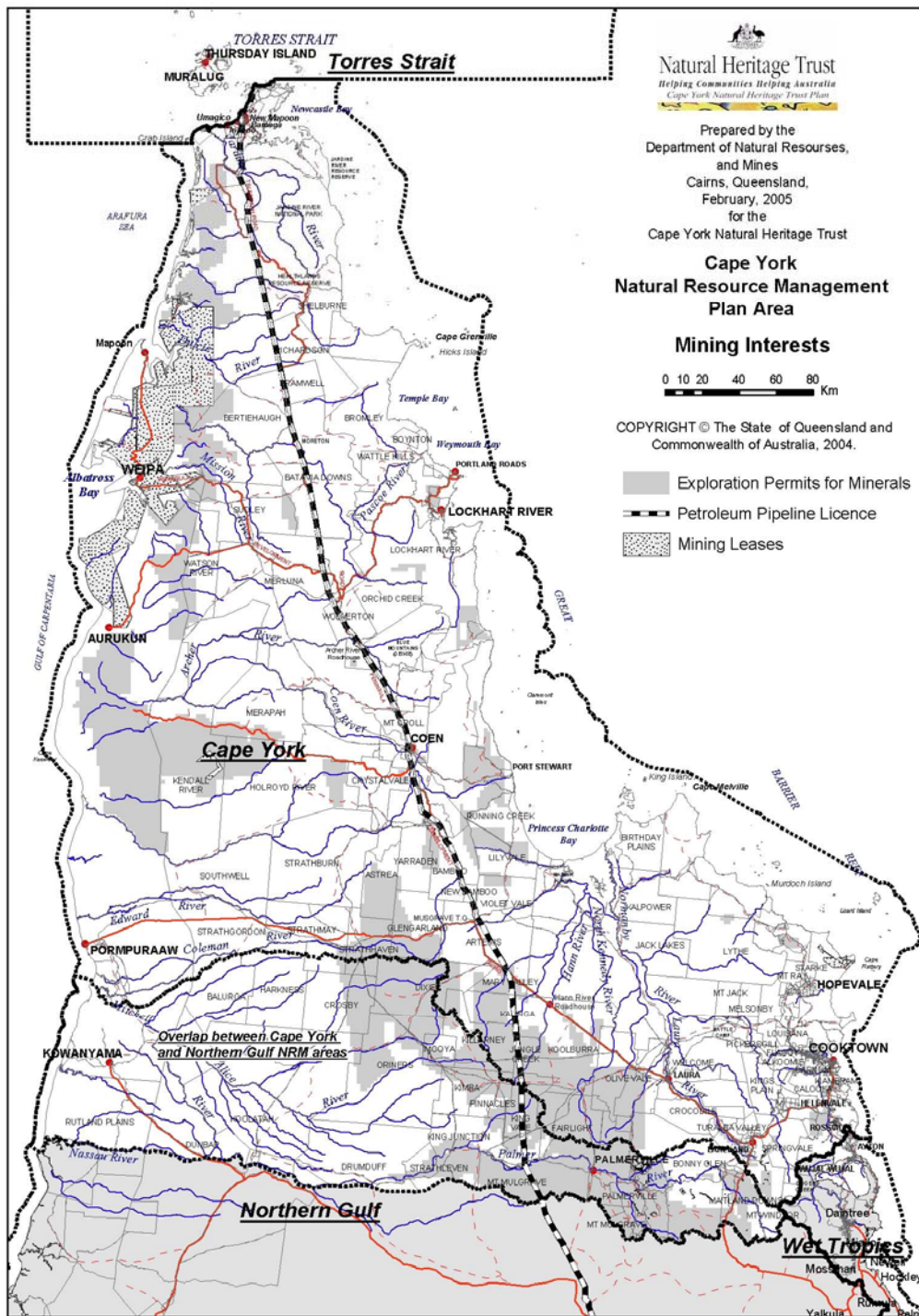


Figure 8: Areas of Mining Leases and Exploration Permits

Infrastructure Development

Further development of Cape York Peninsula will require installation of further infrastructure such as power lines, water conduits and roads. Whilst environmental management practices to minimise environmental impacts at and near such installations are likely to be followed, sensitive planning is required to ensure other impacts are also minimised

New Developments

New developments may have the potential to alter or otherwise impact local biodiversity values and/or function of species and ecosystems on land, inland water and coastal areas influenced by such developments.

The proposed PNG-Queensland Gas Pipeline project involves installation of a pipeline from Papua New Guinea across the floor of Torres Strait to landfall near Cape York and then (essentially) along the Great Dividing Range to the Rockhampton area.

Whilst such projects are subject to Defined Legislation and Policy in order to, amongst other things, minimise environmental disturbance, they invariably result in unavoidable environmental impacts which may or may not result in longer term impacts to biodiversity values and ecosystem function in those areas on and near the development.

Current Responses

The granting of rights under native title as well as State land transfers under the *Aboriginal Land Act 1991* and the *Torres Strait Islander Land Act 1991* (both currently under review) are enabling Indigenous people to regain access to land country. Increased Indigenous participation in land and sea management is increasing the demand for financial and other resources to carry out natural resource management.

Land and Sea Management Centres have been created to help service this demand but they have not enjoyed stable recurrent funding. Nor have funding bodies thought through how the potential confluence of Traditional Owner and non-Indigenous interests might be pursued.

State Government Roles and Legislation

The Department of Natural Resources and Mines provides a range of monitoring, modelling, research, guidelines and control programs. The Department of Primary Industries and Fisheries (DPI&F) also works with rural industry to increase profitability on a sustainable basis and provides research, extension and regulatory services.

State Legislation and strategies pertaining to control of activities that can affect Land Country include:

- *Environmental Protection Act 1994 (EP Act)*
- *Environmental Protection and Other Legislation Amendments Bill 2000*
- *Integrated Planning and Act 1997*
- *Land Act 1994* including the State Rural Leasehold Land Strategy
- *Land Protection (Pest and Stock Route Management) Act 2002*
- *Mineral Resources Act 1989*
- *Petroleum Act 1923*

- *Petroleum and Gas (Production and Safety) Act 2004*
- *Aboriginal Land Act 1991*
- *Fisheries Act 1994* (provides the State's legislative framework for the regulation of fisheries, coastal areas important as fisheries habitat and marine plants. The Act affects some aspects of land management in regard to: marine plants such as salt water couch; and activities that affect fish passage. The Act and regulations are administered by the Queensland Fisheries Service, which is part of the Department of Primary Industries & Fisheries (DPI&F))
- *Queensland Weeds Strategy 2002-2006*
- *The Queensland Pest Animal Strategy 2002-2006*

Research into biological **control of the cane toad** (*Bufo marinus*) is continuing. South American viruses imported into high security facilities are being characterised and evaluated for their potential as biological control agents.

The **National Brucellosis and Tuberculosis Eradication Campaign** (BTEC), initiated in 1970, also improved the efficiency of many pastoral operations in northern Australia. BTEC required better property and paddock fencing to enable improved herd monitoring and control.

Aspirations, Outcomes and Actions

State goal and summarise key outcomes & actions to complete this section

- Secure base funding for Land and Sea Management Centres. This should be coupled with clear targets, articulated through this Plan, and the local Land and Sea Plans, to guide activity and provide accountability.

Local Government Roles and Responses

Local Government and Community Councils play an important role in pest management.

- Local Government Area Pest Management Plans are a statutory requirement under the *Land Protection (Pest and Stock Route Management) Act 2002*. Local government is given statutory force to be implemented under this Act.

Local Government Area Pest Management Plans provide strategic direction and an action plan for Local Governments and other local stakeholders to meet their pest management responsibilities within a Local Government Boundary.

The Plans are linked to State Strategies, Pest Management Principles, Guidelines for Pest Management, and State Agency Pest Management Plans.

- Deed of Grant in Trust pest management plans developed by the Cape York Weed and Feral Animal project

Targets for Land Country

Note: for fire, weed and feral animal management targets and actions, see Natural Heritage targets

Asset :	LAND COUNTRY						
Goal :	Caring for land country to meet environmental, social and economic needs					Integration and Collaboration	
Aspirational Target	Achievable RCTs 10 - 20 yrs	Management Action Targets (MATs) 3 – 5 yrs	Type of MAT	Management Actions as Proposed by Community	Other RCTs addressed	Priority	Potential Partners
L1: By 2025 knowledge and information about sustainable land management practices is documented and widely accessible to CYP communities.	L1-1 By 2015 local knowledge of land management practices is appropriately documented.	L1-1-1 By 2008 have a program in place to collate local knowledge and to incorporate this knowledge in CYP land management.	RA, CB	<ul style="list-style-type: none"> Establish protocols for accessing, recording, documenting and using traditional knowledge, and for allocation of intellectual property rights. Support the storage and appropriate transmission of Indigenous knowledge. Support the collation of local knowledge. 	C2-3, H4-1, H5-2, L1-2.	M	Land councils, Traditional owners, government agencies, community
		L1-1-2 In accord with the Capacity Building Strategy employ local people for collection and interpretation of sustainable land management information within 3 years.	CB	<ul style="list-style-type: none"> See Community Capacity Building Strategy. Engage local people, and wherever appropriate, Indigenous people, in collection and interpretation of land management information. 		M	Land councils, Traditional owners, government agencies, community
	L1-2 By 2015 there is a high level of community-wide understanding of 'caring for country' principles.	L1-2-1 Publication of 'caring for country' principles, sourcing local land management information from notable members of Indigenous communities and pastoral industry by 2007.	BMP	<ul style="list-style-type: none"> Collect and collate locally sourced information on best practice land management that can be comfortably shared between communities and stakeholders. 	C2-3, H3-2, H4-1, H5-2, L1-1, L1-3.	M	Traditional owners, government agencies, pastoralists, community
	L1-3 By 2015 sustainable land management information is widely available to CYP communities.	L1-3-1 Within 3 years, sustainable land management information being communicated to CYP communities in accordance with a Communication and Engagement Strategy.	CB	<ul style="list-style-type: none"> Develop and implement Communication and Engagement Strategy. Make information and guidelines available to CYP communities and to agencies and companies serving CYP (e.g. electricity lines, data cables, gas pipelines) in appropriate formats. Ensure all new developments are cognisant of this natural resource management Plan. 	C1-2, H1-1, L1-1, L1-3, L1-4, L1-5, L1-6, L1-9, L2-2, B1-3, B1-9, N2-5.	M	DNR&M, DPI&F, CRC, CSIRO, community
L2 By 2025 sustainable land management is supported within a Peninsula-wide	L2-1 By 2015 land condition is measurably improved through implementation of subregional plans, appropriate legislation, infrastructure planning and	L2-1-1 By 2007 have protocols to build best practice management into leases, licences and permits in ways that accommodate society's evolving expectations about environmental management, while also providing investment certainty.	P, BMP	<ul style="list-style-type: none"> In consultation with land managers, review specific leases, licences and permits; negotiate conditions to reflect best practice environmental management. 	C1-1, C2-4, L1-3, L2-2, L2-3, N1-1, N3-1, N4-1	H	DNR&M, DPI&F, CRC, CSIRO, community, traditional owners, pastoralists

Asset : LAND COUNTRY							
Goal :	Caring for land country to meet environmental, social and economic needs					Integration and Collaboration	
Aspirational Target	Achievable RCTs 10 - 20 yrs	Management Action Targets (MATs) 3 – 5 yrs	Type of MAT	Management Actions as Proposed by Community	Other RCTs addressed	Priority	Potential Partners
conservation strategy backed up by management plans for fire, weeds, pest animals, and rivers and coastal zones.	ecologically sustainable management practices.	L2-1-2-By 2008 protocols for best practice adopted by organizations and agencies servicing Cape York Peninsula infrastructure needs.	P, BMP	<ul style="list-style-type: none"> • Ensure development and infrastructure projects overseen by appropriate State government agencies. • Ensure cultural impact assessments for all new developments. • Develop and implement Monitoring and Evaluation audit process to ensure that actions identified in Environmental Impact Assessments are being honoured and implemented. • Review all local government instruments to integrate capability. 		M	DNR&M, DPI&F, CRC, CSIRO, community, traditional owners
	L2-2 By 2015 a monitoring and evaluation strategy is implemented and demonstrating effectiveness of land management strategies and plans.	L2-2-1 Develop and implement the monitoring and evaluation strategy by 2006.	P	<ul style="list-style-type: none"> • Develop and implement a Monitoring and Evaluation plan and program. 	C1-1, C2-7, L1-3, L2-1, N1-1, N3-1, N4-1	H	DNR&M, DPI&F, CRC, CSIRO, community, traditional owners

Asset : LAND COUNTRY							
Goal :	Caring for land country to meet environmental, social and economic needs					Integration and Collaboration	
Aspirational Target	Achievable RCTs 10 - 20 yrs	Management Action Targets (MATs) 3 – 5 yrs	Type of MAT	Management Actions as Proposed by Community	Other RCTs addressed	Priority	Potential Partners
L3 In 2025 there has been no loss of natural heritage values on pastoral leases.	L3-1 By 2015 there is no loss of biodiversity and other natural heritage values on pastoral leases relative to 2004 levels.	<p>L3-1-1 By 2008, appropriate land condition targets and assessment methods have been agreed.</p> <p>L3-1-2 By 2008, appropriate management systems for maintaining biodiversity and other natural heritage values on pastoral leases have been developed.</p> <p>L3-1-3 By 2010, 80% of pastoral leases on CYP are implementing appropriate management systems for maintaining biodiversity and other natural heritage values on pastoral leases.</p> <p>L3-1-4 By 2010, documented knowledge of ecologically sustainable native pasture management is adequate and being applied to more than 80% of native pasture in ways that contribute to sustainable land management.</p> <p>See also related targets under Community Capacity, Natural Heritage and Biodiversity.</p>	P, BMP, OGW	<ul style="list-style-type: none"> • Collate relevant information (including local knowledge) on sustainable management of native pastures. • Develop and reach agreement on land condition targets for a range of CYP pasture types. • Develop acceptable and usable methods for assessing the condition of biodiversity, natural integrity and on-going processes on pastoral lands that are appropriate for CYP and compatible with existing grazing land condition frameworks. • Develop appropriate Sustainable Grazing Management Systems for range of native pasture types found on CYP. • Develop a range of long term, viable options for biodiversity conservation on pastoral leases. • Support existing projects and identify and implement new opportunities for establishment of conservation protected areas in pastoral leases using Golden Shouldered Parrot as case study. • Extend funding for Golden Shouldered Parrot Project. • Use current leaseholder and Traditional Owner knowledge and experience in conservation on leases. • Extend funding for rehabilitation projects on pastoral lands. • Provide incentives for the implementation of priority on-ground works that are demonstrably in the public interest. • Identify Monitoring and Evaluation protocols for demonstrating sustainable grazing practices. 	N1-1, N1-2, N2-1, N3-1, N4-1, B1-3, B1-4, B2-1, B2-1, D1-2.	H	DNR&M, DPI&F, CRC, CSIRO, pastoralists

Asset : LAND COUNTRY							
Goal :	Caring for land country to meet environmental, social and economic needs				Integration and Collaboration		
Aspirational Target	Achievable RCTs 10 - 20 yrs	Management Action Targets (MATs) 3 – 5 yrs	Type of MAT	Management Actions as Proposed by Community	Other RCTs addressed	Priority	Potential Partners
L4 By 2025 most abandoned mines have been adequately rehabilitated.	L4-1 By 2015 all abandoned mines have been identified and appropriate safety mechanisms are in place; and L4-2 By 2015 all abandoned mines have been rehabilitated to prevent negative environmental impacts.	L4-1-1 By 2006 complete an inventory and risk assessment of abandoned mines, including priorities for rehabilitation and the form of that rehabilitation.		<ul style="list-style-type: none"> • Link with the Department of Natural Resources and Mines abandoned mine land program (AMLPL). This program addresses issues relating to abandoned mine sites on a state wide risk-based priority basis. • Commence audit of abandoned mine sites. • When closing mine shafts, ensure populations of threatened bat species are not adversely affected. 	H2-1, L4-1, L4-2, W4-1.	M	DNR&M, DSD&I, Local Councils, mining companies

7.5 Water

Water provides the major connection between the uplands, savannah lowlands, coastal plains, wetlands and offshore habitats. Each of these also acts as a receiving environment for changes occurring elsewhere in the catchment. Therefore there are many linkages between issues in this and other sections of the plan. Weeds, feral animals and grazing management are recurring themes.

Overview

Traditional knowledge is recognised as being vital in the understanding of water issues and the impacts of activities on fresh water. Indigenous people have a lot of knowledge about local water systems including surface water, springs, and artesian water. It is essential that management actions and activities identified in this Plan take account of and integrate that knowledge.

Sixteen complete river basins and two partial basins occur across Cape York Peninsula. Rivers draining to the east coast are generally steeper, shorter, contain fewer permanent lagoons and have higher runoff than rivers draining westwards. West coast rivers, of which the Mitchell is the largest, have large flood plains and experience widespread flooding during summer yet there can be limited or no flow at other times. Wetlands are widespread, and more numerous on the west coast. The wetlands of Cape York Peninsula are amongst the largest, richest and most diverse in Australia. Many of the wetlands are also amongst the best examples of their type in Australia, while vast coastal and sub-coastal wetlands of the mid west coast are of national importance to waterbird populations. Fourteen wetlands on Cape York Peninsula are identified as of national significance and a further three wetland areas are of regional significance.

Groundwater is abundant particularly in the sedimentary deposits of the Annan, Carpentaria and Laura Rivers. Groundwater is valuable for freshwater ecosystems, and it is also an important but often under-valued component of landscape well-being. The unexplored biology of groundwater in the area (stygo fauna) and the important ecosystem processes groundwater biota provide such as nutrient cycling are important ecological features that little is known about. Similarly, springs are relatively poorly researched and understood. Soil salinity is a dramatic example from south-eastern Australia of how groundwater can influence a landscape; clearing in groundwater recharge areas can affect downstream biological communities.

Groundwater is also an important economic asset. On Cape York Peninsula it supports mining, pastoral activities, horticulture, cropping, and households.

Cape York Peninsula's isolation from major population centres has helped to preserve its unique natural heritage values. But as access to the region improves, pressures are increasing. Visitors in particular focus on aquatic habitats for camping and fishing during their time in Cape York Peninsula.

Key Threats and Issues

Major management issues for aquatic environments in general have been identified by the Australian Centre for Tropical Freshwater Research (D Burrows pers com 2004) as being:

- Improved management of cattle access to aquatic habitats;
- Control of feral animals, especially pigs;
- Riparian weeds such as rubbervine (*Cryptostegia grandiflora*);

- marine/ estuarine margins including off-shore islands; Pond Apple;
- Instream weeds such as floating weeds and ponded pasture species; and
- Lack of information requiring the need to undertake a significant riparian condition assessment program across the region;

Other issues that are more locally specific include:

- Effects of recreational and tourism activities (eg, water quality, fishing, weeds and bank erosion at popular campsites);
- Distribution and effects of translocated fishes;
- Potential contamination from mine sites, especially abandoned mines; and
- Survey for and effects of, fish passage barriers.

Knowledge issues include the need for:

- Greater knowledge of the presence, distribution and ecology of aquatic fauna, especially fish, crustacean, frog, turtle, macroinvertebrates and aquatic plant species;
- Understanding of water quality patterns and processes across Cape York Peninsula;
- Understanding of patterns of landscape and habitat change; and
- Greater community understanding of aquatic issues.

The following threats are discussed in this section on Water but many of the threats and associated Targets for addressing those threats are also relevant to biodiversity.

Threatened Fish Species

From a conservation perspective, probably the most significant freshwater fish species in Cape York Peninsula is the freshwater sawfish *Pristis microdon* (also referred to as *Pristis pristis* in many previous reports). It is listed as vulnerable under the Commonwealth Environment Protection and Biodiversity Conservation Act, and as endangered on the 2000 IUCN Red List of Threatened Species (Critically Endangered in South East Asia). It has recently been nominated for listing as Vulnerable under the Queensland Nature Conservation Act. With a reputed ability to grow to seven metres in length, it is Australia's largest freshwater fish.

Their saw-shaped rostrum, means that non-experts easily identify them – even though there are a number of sawfish species and the taxonomy of individual species remains uncertain. They have been sighted in estuaries and several hundred kilometres inland. At least four other species of sawfish occur in the sea country of the Gulf of Carpentaria. They are all similarly threatened. All sawfish species are susceptible to fishing pressures. They are targeted for their fins. They are caught in the commercial bycatch of the shark fishery and in beach protective shark nets in the Queensland Shark Control Program.

There are numerous rivers in the Gulf and on Cape York Peninsula for which reliable anecdotal reports of freshwater sawfish, but no formal records, are known. Given the size and distinctive shape of freshwater sawfish, anecdotal reports should be reliable (at least for identification). Collection of such anecdotal information would

provide significant valuable information on the distribution (current and historical) of this species. It would be a valuable resource for planning and management.

The giant freshwater whipray, *Himantura chaophraya*, is poorly known but similarly threatened. It can grow up to 200cm disc width and weigh up to 600kg. This species is listed as Vulnerable under the 2000 IUCN Red List (Critically Endangered in Thailand) and is vulnerable to fishing as prey and bycatch, drought and fish passage barriers. The speartooth shark, *Glyphis sp.* is only known from the Alligator River in the Northern Territory and the Bizant River in Queensland, but a specimen was recently collected from the Ducie River on Cape York Peninsula (S. Peverell pers. comm.). It is listed as Critically Endangered under the federal EPBC Act (see Annexe 4) and has been nominated for listing as Endangered under the Qld Nature Conservation Act.

Fish Management Issues

Fish distributions within rivers may be restricted by passage barriers. Some river reaches above major waterfalls, may have no fish species present (eg, Picanniny Creek in the Palmer catchment above Picanniny Falls – Herbert et al. 1995). Weirs quite often act as barriers to fish movement. The effect of the Annan River weir is not clear although at least some fish species are known to be able to negotiate this barrier at least some of the time. Other structures such as poorly designed road crossings and culverts may also act as fish passage barriers. Surveys of such potential barriers would be worthwhile. Fish are also affected by poor water quality, aquatic weeds, riparian degradation, erosion and loss of habitat and high fishing pressure.

Riparian and Aquatic Weeds

Riparian vegetation is critical to the health and productivity of aquatic ecosystems. The CYPLUS studies identified the riparian environments of the Normanby, Coen, Archer and Wenlock rivers as being of the highest conservation value. The greatest threat to riparian vegetation throughout the region is weeds which threaten ecological and productive values by outcompeting native vegetation and providing a different and often poorer habitat for native animals. The most widespread serious riparian weed is rubbervine (*Cryptostegia grandiflora*), which can either grow as a free-standing multi-stemmed bush of several metres height or as a vine clambering up and covering all the branches of large trees.

The distribution of rubbervine is often strongly associated with areas of human activity such as towns, camping areas and road crossings. Knowledge of the distribution and colonisation pathways and patterns of weeds like rubbervine will greatly aid in developing effective region-wide management strategies. Rubbervine is most prevalent along the Mitchell and Coleman rivers and in the Lakefield area. A rust fungus, introduced as a biological control agent, is available and is effective at reducing leaf production but is not enough to kill the plants.

Fire has recently become a common management tool for controlling rubbervine, but may require spelling from grazing of the riparian area in order to build up a larger fuel load (understorey grasses) to create a sufficiently hot fire to kill the rubbervine plants. Ongoing research is being conducted into the effectiveness of fire as a control method and the indirect impacts to native plant regeneration and animal populations caused by this use of fire.

Pond apple (*Annona glabra*) is a serious weed of wetlands in the Wet Tropics and is now established near Cooktown and at Temple Bay and other sites along the east coast of the Cape York and Umagico on the west-coast. Other weeds in the region

which can impact on the values and condition of aquatic and riparian habitats include giant rats tail grass (*Sporobolus pyramidalis*), calotrope (*Catotropis procera*), castor oil bush (*Ricinus communis*), chinee apple (*Zizyphus mauritiana*), noogoora burr (*Xanthium pungens*), parkinsonia (*Parkinsonia aculeata*), prickly acacia, sicklepod and bellyache bush. Recent discoveries of bellyache bush in the Palmer River should warrant a high priority for control. Several other weeds that are not present in Cape York Peninsula but have established in other parts of northern Australia that would be particular threats to Cape York Peninsula wetlands if allowed to establish there. Giant sensitive bush (*Mimosa pigra*), from Central America, is a significant weed on the floodplains on the Northern Territory, costing millions of dollars annually. It also occurs around Peter Faust Dam near Proserpine.

Exotic ponded pasture species such as para grass (*Brachiaria mutica*), hymenachne (*Hymenachne amplexicaulis*), and aleman grass (*Echinachloa polystachya*) are major weeds of aquatic habitats. In coastal areas from Rockhampton north to the Daintree, they are the most important degradation factor of remnant coastal wetlands. They have been trialled for ponded pasture in several parts of Cape York Peninsula and the Gulf of Carpentaria, though apparently with limited success. Hymenachne occurs in the Annan and Endeavour Rivers with a big potential. It is also grown in the Hann River upper catchments with real potential threat to Lakefield National Park.

Two species of serious floating weeds –water hyacinth (*Eichhornia crassipes*) and water lettuce (*Pistia stratiotes*), occur in the Mitchell catchment. All are declared weeds under Queensland legislation and salvinia (*Salvinia molesta*) is a WONS-listed species. Water lettuce is common in Lake Mitchell (Ryan et al. 2002, Werren 2000); water hyacinth (*Eichhornia crassipes*) currently infests streams and lagoons of the lower Mitchell River. Salvinia (*Salvinia molesta*) has previously been found in the Mitchell Catchment and occurs in Honey Dam at Lakeland. This infestation has the potential to wash into Lakefield National Park. These weeds can rapidly grow over an entire lagoon, blocking surface access and seriously altering aquatic habitat availability, quality and reducing water quality.

Bellyache Bush (*Jatropha gossypifolia*) has infested 40km of the Palmer River below Palmerville. The seeds of this plant are toxic to animals and humans. Although not a WONS-listed species, this weed has the potential to become a major threat.

Available information on the occurrence and distribution of many of these aquatic and wetland weeds is insufficient for their effective and strategic control.

Feral animals

Feral pigs (*Sus scrofa*) are common throughout the study region. They are particularly damaging to riparian and aquatic habitats. They prey upon eggs and small animals, uproot plants and greatly disturb soil, create erosion and foul water quality. Control methods such as baiting, trapping and shooting require significant effort and resources.

The Feral Pig Threat Abatement Plan identifies seven main objectives to manage the threat by feral pigs:

1. Prevent feral pigs establishing in areas where they currently do not occur and where they are likely to pose a threat to nationally listed threatened species and ecological communities.
2. Quantify the impact that feral pigs have on nationally listed threatened species and ecological communities.

3. Increase awareness and understanding of the damage that feral pigs cause and what can be done about it in both the general community and amongst relevant land managers.
4. Promote a coordinated and integrated approach to managing the damage that feral pigs cause, that takes account of the issues and restrictions due to all land users in the area.
5. Encourage appropriate consultation and liaison between key stakeholders during planning and prior to implementation when managing the impact of feral pigs.
6. Ensure that feral pig management plans are appropriately integrated into the hierarchy of natural resource planning and policy programs.
7. Improve the effectiveness, efficiency and humanness of techniques and strategies for managing feral.

There are brumbies (wild horses) at Aurukun on the flood plains together with feral cattle.

Brumbies also occur in numbers within Mungkan Kandju National Park.

Cane toads (*Bufo marinus*) are very common around permanent and semi-permanent waterholes. They are poisonous to many native animals that eat them. Cane toads (*Bufo marinus*) can also out-compete native frogs and toads.

Grazing Management

Grazing is the dominant land use across Cape York Peninsula. Riparian environments provide some of the better grazing country. While overall livestock number may be low they can concentrate around aquatic habitats, especially during the late dry season.

Inappropriate Use of Groundwater

Future increased water requirements are likely to place additional demand on the region's groundwater resources and will require monitoring and management. The risk of contamination of groundwater resources also needs to be considered.

Riparian Degradation

Riparian environments are characterised by high diversity and density of plant and animal species compared with surrounding environments. Riparian environments influence the health of water environments by providing shade, channel stability, nutrient inputs (from vegetative debris), instream habitat and protection from sedimentation.

Riparian environments of Cape York Peninsula are relatively undisturbed. Nonetheless, there are localised problems associated with inappropriate clearing, weeds, feral animals and stock activities along and within watercourses.

The protection of riparian environments not only maintains the diversity and functioning of riparian habitats; it also influences the condition and functioning of associated inland water ecosystems.

Tourism

Tourists are drawn to water. Fishing draws some. Aesthetics draw others. And, in isolated areas, ablution draws all. Tourists use some water sites regularly. Vehicle crossings increase erosion and sedimentation. Rubbish disposal and defecation on floodplains increase waterway pollution. Soap and shampoo use in waterways and

waterholes reduce water quality. Vehicles spread weed seeds. And intense fishing pressures reduce local fish populations. Most problems are localised, so high risk sites can be identified for treatment.

Many popular camping spots within Cape York Peninsula are not provided with appropriate toilet facilities –facilities that individuals feel comfortable and safe using and are capable of effectively treating nightsoil. Some areas have limited facilities that are in such poor condition they receive negligible use, while others have no facilities at all.

Many campers apparently have little or no idea on how to safely dispose of nightsoil. This is evident in the large amounts of used toilet paper indiscriminately scattered throughout many camp sites.

However, where there are appropriate toilets, they are well used. Campers do not expect elaborate and expensive facilities; they are more than happy to use whatever is available provided they feel they can safely use them.

The sheer number and isolation of camp sites throughout Cape York Peninsula mean that it would not be economically feasible, nor for that matter necessary, for toilet facilities to be provided at all of them. High risk sites need to be identified for treatment.

Mining

Government regulates current mines to reduce their environmental impact, but abandoned mines and mine workings, some over 100 years old, can pose a significant threat to the health of nearby aquatic habitats. Apart from physical disturbances mentioned above, mines disturb soil layers that are heavily laden with metals. Acid mine drainage and high concentrations of heavy metals in runoff can have a big effect on water quality.

The Palmer River is highly disturbed by mining. Herbert et al. (1995) assessed it to be the most disturbed river on Cape York Peninsula.

Prioritising which of the old mine sites most need remedial action requires a strategic approach, a rapid appraisal of risks and a well developed sense of marginal returns on investment.

Water Resource Development

Despite speculation about the potential for irrigation developments in northern Australia, the Annan River weir is the only significant water storage in Cape York Peninsula. Several proposals are still being considered for the Mitchell catchment; they will be assessed under the Mitchell Water Resource Plan.

Current Responses

Two aspects of livestock management in riparian zones have emerged in recent years. The first is wet season spelling to allow palatable native perennial grasses to set seed and increase biomass. Wet season spelling provides more feed later in the year, and also maintains protective ground cover to reduce the risk of runoff and erosion.

The second is riparian fencing to protect water quality for vulnerable waterholes (not the entire watercourse, just the waterholes). Other advantages include being able to build up higher fuel loads to use fire to control weeds such as rubbervine (*Cryptostegia grandiflora*). Where fencing is not applicable, other approaches to

managing cattle access to sensitive waterhole and riparian areas may be available (eg, installing offstream water points, conservative grazing during sensitive periods).

Programs to assist landholders with means to better manage cattle access to key waterbodies, despite some early reservations, have had a high level of uptake by landholders in other catchments. Such riparian management approaches may not be considered practical in all situations and some may not even require it. Because of the thousands of kilometres of unfenced riparian and aquatic habitat, assessments of which waterbodies would most benefit from such management arrangements would make for a more strategic approach to the issue by enabling on-ground funds to be utilised in locations where they would have the greatest environmental benefit.

Knowledge Gaps

Although there are thousands of wetlands and waterbodies within Cape York Peninsula, the most widely recognised are the extensive coastal floodplain wetlands. These feature prominently in the Directory of Important Wetlands in Australia and on the Register of the National Estate.

The upper rainforest-covered tributaries of the Palmer and Annan Rivers are listed within the Wet Tropics World Heritage Area. Many wetlands on the floodplain and coastal margins formally recognised in the Directory of Important Wetlands of Australia. Others are on the Register of the National Estate. 'Listing' in this way implies value but there are numerous unlisted waterbodies that are also particularly valuable, and worthy of greater recognition. The values for inland wetlands are less well recognised. There is no standard basis across the region or its catchments for recognising those waterbodies that may hold special values. Individual waterbodies would be recognised as important by those that have had associations with them, but this does not enable their importance to be evaluated in a regional context.

Springs are small but particularly important aquatic habitats that are particularly vulnerable to disturbance from livestock, feral pigs, brumbies, ponded pastures, excavation and bore-drain construction. They may contain specialist spring animal and plant species and are often of great cultural and pastoral significance. The EPA has mapped virtually all Queensland springs associated with the Great Artesian Basin and undertaken a prioritisation process. They have also partly mapped other springs.

Water Quality

Maintaining, and where necessary improving, water quality is essential in securing the health of aquatic ecosystems. There is a gauging station and ambient monitoring network in Cape York Peninsula (managed by NR&M), but most of the data collected under this program has never been formally analysed. Moreover, most of the historical data focuses on salinity levels. Environmentally relevant indicators such as nutrients are now being monitored, but other important parameters such as chlorophyll are not yet sampled at all.

The ANZECC water quality guidelines recommend that water quality targets be derived from locally relevant conditions and situations. This requires replicated water quality data from relevant types of waterbodies in the region. The data available from existing gauging stations would be only partially useful in this regard.

Water quality varies widely within years and between years. Measuring water quality during storm events with high stream flows requires different approaches and involves different management issues to base flows during the dry season.

However, regional data on water quality runoff during high flow events is limited and even modelling approaches used to estimate runoff in other catchments around Australia have not been applied to the Cape York Peninsula catchments. It is difficult to model vast floodplains where water travels widely and crosses into different catchments.

A program to collect water samples during high stream flow events is required to demonstrate whether land condition is affecting water quality in downstream environments such as the Great Barrier Reef. This would be consistent with the Great Barrier Reef Water Quality Protection Plan.

Despite the difficulty in measuring and modelling storm runoff, several indicators can be measured. They include:

1. Vegetation cover and pasture condition – Below 70 percent vegetation cover, rainfall infiltration begins to decrease noticeably and below 40 percent, it decreases significantly.
2. Riparian Condition (for example, bank erosion, bank damage, riparian fencing).

We need a water quality classification system for the major waterbodies in the catchment along with an assessment of how many there are in each category and which ones would be most representative in a data collection program. And this approach would need to be compatible with the National Water Quality Management Strategy.

Sediment and nutrient delivery modelling may assist with the identification of 'hotspot' areas for sediment and nutrient delivery to the Great Barrier Reef Marine Park. Further information is available in the report titled 'Sources of sediment and nutrient export to the Great Barrier Reef world Heritage Area' and it is available at: <http://www.actfr.jcu.edu.au/staff/ion2.htm>.

Quantitative Riverine Condition Assessments

The levels of disturbance, from grazing, mining and tourism, to the aquatic habitats of Cape York Peninsula are generally considered to be low. Thirty sites within that part of the Mitchell catchment that is within Cape York Peninsula were assessed under the State of the Rivers program and as part of the National Land and Water Resources Audit. This averages out at around one site for every 200km of stream length – so the geographic coverage is limited. Nine sites in the Palmer River sub-catchment were assessed as part of CYPLUS. No other quantitative, repeatable, assessments of riverine condition have ever been undertaken.

Freshwater Fishes

Eighty-eight freshwater fish species (including 15 vagrants from estuarine areas) were recognised in the CYPLUS program. Several more have been added to that list since then. This represents approximately 40 per cent of Australia's known freshwater fish. The fish of Cape York Peninsula have much in common with New Guinea. For example, approximately three-quarters of the fish species known from the Jardine and Olive Rivers are also known from New Guinea.

Although Cape York Peninsula was well surveyed for fish during CYPLUS, this basically provided only presence/absence information. There are still many large gaps in our knowledge of the distribution of fishes, let alone other basic aspects of their ecology and biogeographical significance. Even the taxonomy and distribution

of common, large, recreationally popular fish species such as grunter (*Scortum spp.*) and black bream (*Hephaestus fuliginosus*) remain unresolved.

The distribution and abundance of species of high conservation value, such as the freshwater sawfish (Australia's largest freshwater fish), freshwater whipray and the lake grunter, are also very poorly known. Even in river systems that have been well surveyed, particular habitat types within those rivers may be underrepresented in fish surveys. Most work has focused only on the main river channel. Further information on species occupying rarely sampled habitats is unlikely to come to light in general surveys.

There remains much to be found or resolved about the fish in Cape York Peninsula rivers. The number of new species and range distribution of existing species found during the CYPLUS studies of 1992-1993 and similar studies in the Wet Tropics from 1993-1994 reflect this. There is good reason to think that new species, even large species, can still be found.

Aquatic Invertebrates

Relatively little is known about the aquatic invertebrates (insects, crustaceans, worms and molluscs) of Cape York Peninsula. There have been no studies that have compiled even a moderately comprehensive species list for the region. Even amongst the larger invertebrates, many new species await discovery and description. Several species of crab, shrimp and crayfish were described from Cape York Peninsula during the 1990s, and many are only known from one locality of local area. Perhaps the most restricted is the spiny crayfish, *Euastacus robertsi*, which is only known from high altitude (greater than 1,000 metres) streams on Mt. Finnigan and Thornton Peak.

Other Aquatic Fauna

For the most part, frogs of Cape York Peninsula are generalist species typical of open forest and drier regions of Australia. The only species of conservation concern would occur in the upper reaches of tributaries surrounded by rainforest. The upper tributaries of the Mitchell catchment contain five frog species of conservation concern, plus an unknown number of significant and undescribed invertebrate species. At least two frog species and one new turtle species have been described since CYPLUS, indicating the fundamental survey work to define the aquatic fauna of Cape York Peninsula is far from finished.

Aspirations, Outcomes and Actions

The goal for water is 'Looking after water for community and environmental needs'. A key component of the natural resource management plan will be ensuring that on-ground works are conducted in a strategic manner and that implementation of the plan results in an improvement or maintenance of environmental condition. A large-scale habitat condition assessment program would aid in covering these requirements. A beginning point for such a study would be a thorough desktop review and analysis of existing information to a depth greater than allowed during the preparation of various plans that have occurred in the catchment.

The Gulf and Mitchell Water Resources Plan was also in preparation at the time of completing this NRM plan. As part of the Mitchell catchment falls within the CYP NRM Plan area it is expected that there will be opportunities to apply the findings of the Gulf and Mitchell Water Resources Plan that are directly applicable to the Mitchell catchment and potentially, broader application of management findings to Cape York Peninsula.

Targets for Water

Asset:	Water				Integration and Collaboration		
Goal:	Looking after water for community and environmental needs						
Aspirational Target	Achievable RCTs 10 - 20 yrs	Management Action Targets (MATs) 3 – 5 yrs	Type of MAT	Management Actions as Proposed by Community	Other RCTs addressed	Priority	Potential Partners
W1 In 2025 natural hydrological processes remain intact. (see also N1-2)	W1-1 In 2015 natural surface-groundwater links and interactions are maintained, including intact vegetation protecting infiltration.	W1-1-1 Within 5 years map CYP ground and surface water resources. W1-1-2 Within 5 years surface-groundwater interactions are identified and understood. W1-1- 3 Within 5 years, areas of dry season surface water flows that are critical refuge habitat are identified and protected.	P	<ul style="list-style-type: none"> Map ground and surface water resources, including identification of the flux of water in the dry season. Where culturally appropriate, link mapping with Traditional Ecological Knowledge. Implement relevant actions from Gulf and Mitchell Water Resources Plan. 	N1-2, W2-1, W3-1, W7-1, W7-2.	M	DNR&M, catchment groups. Traditional owners and all communities. Local govt and industry
W2 In 2025 all known surface springs continue to flow subject to natural seasonal variation.	W2-1 By 2015 groundwater levels and pressure are managed within limits of sustainable yield.	W2-1-1 All settlements of more than 5 households to have water management plans and appropriate bore control measures put in place by 2006.	P	<ul style="list-style-type: none"> Document all relevant groundwater resources including contaminants and capacity. Document usage at relevant sites. Identify surface springs requiring protection and identify priorities for protection. Feedback information into current management. Establish sustainable yield and 'permissible annual volumes' for groundwater resources with initial priority on the West Coast. Allow for and identify location of additional bores for stock in areas where new paddocks will enhance grazing practices. Identify rates of extraction and recharge. Develop and implement water management plans. Control remaining unregulated bores. Monitor other water quality issues on a case by case basis. 	H1-2, H2-1, N1-2, C1-2, C2-5, W2-1, W7-1, B1-10, B2-1.	M	DNR&M, all communities, Local govt and industry

Asset: Water							
Goal: Looking after water for community and environmental needs							
Aspirational Target	Achievable RCTs 10 - 20 yrs	Management Action Targets (MATs) 3 – 5 yrs	Type of MAT	Management Actions as Proposed by Community	Integration and Collaboration Other RCTs addressed	Priority	Potential Partners
W3 In 2025 surface water quantity continues to meet community and environmental needs (subject to natural climatic variations).	W3-1 In 2015 surface water quality and quantity continues to be managed within sustainable yields.	W3-1-1 By 2007 river systems are managed in ways that ensure ongoing water extraction for domestic, stock, agricultural and other economic uses while maintaining environmental flows.	P	<ul style="list-style-type: none"> At community level develop water allocation plans for surface and ground water resources that will ensure the maintenance of ongoing hydrological processes. Develop a river management policy for CYP with consideration of the Queensland Governments' Wild Rivers Policy. Develop education and awareness programs and extension materials regarding wise water management practices and use, including the use of tanks, water supply options and treatment options. Identify for treatment high risk sites where tourist/camping facilities are impacting on water quality. 	H1-2, H2-1, C1-2, C2-5, N1-2, L1-3, L1-8, W2-1, W7-1, B1-10, B2-1, D1-2.	M	DNR&M, , pastoralists, Traditional owners and all communities
		W3-1-2 By 2007 information about good water management practices and options including water supply and treatment are available to all CYP residents.	OGW	<ul style="list-style-type: none"> Priority creeks and rivers identified for fencing. Adequate incentives provided for fencing. Extension program established to encourage the establishment of appropriate off-stream watering points. 		M	DPI&F, DNR&M, pastoralists, Traditional owners and all communities
		W3-1-3 By 2010 all sensitive riparian areas are voluntarily fenced, and off-stream watering points established so as not to restrict access to water for domestic and stock water supplies.		<ul style="list-style-type: none"> Water access, allocations and restrictions agreed at regional and community levels. 		M	DPI&F, DNR&M, local council, Traditional owners and all communities
W4 In 2025 water quality processes are maintained in a manner that supports all of the ecological processes normally expected of such systems.	W4-1 By 2015 all water bodies meet regional water quality targets (to be determined).	W4-1-1 By 2007 undertake a full analysis of existing water quality data from the region to determine its utility, trends and recommendations for improvement.	RA	<ul style="list-style-type: none"> Undertake a full analysis of existing water quality data and develop and implement recommendations. 	N1-2, L4-6, W3-1, W5-1, W6-1, W6-2, W6-3, W6-4, W6-5, W7-1, S5-1, B1-1, B1-2.	H	DNR&M, JCU, Consultant groups, CSIRO, local council, all communities

Asset: Water							
Goal: Looking after water for community and environmental needs							
Aspirational Target	Achievable RCTs 10 - 20 yrs	Management Action Targets (MATs) 3 – 5 yrs	Type of MAT	Management Actions as Proposed by Community	Other RCTs addressed	Priority	Potential Partners
		W4-1-2 By July 2005, design and begin a program to develop regionally relevant water quality targets (for flood event and ambient water quality).	P	<ul style="list-style-type: none"> Design and begin a program to develop regionally relevant water quality targets consistent with the Reef Water Quality Protection Plan and including West Coast catchments and coastal areas. If date of July 2005 not achievable then interim targets to be developed and reviewed/amend once more information available. Develop and implement a program to collect water samples during high stream flow events is required to demonstrate whether land condition is affecting water quality in downstream environments such as the Great Barrier Reef, Torres Strait and the Gulf. Develop a water quality classification system for the major waterbodies in the catchment along with an assessment of how many there are in each category and which ones would be most representative in a data collection program. 		H	DNR&M, local council, all communities
		W4-1-3 Within 2 years develop and provide opportunities for Indigenous and other community involvement in monitoring activities for freshwater and marine health.		<ul style="list-style-type: none"> Include community involvement in all water quality monitoring programs. 		M	DNR&M, local council, all communities
		W4-1-4 By 2007 assess options for the treatment of all urban sewage to tertiary level before release into waterways.	P	<ul style="list-style-type: none"> Investigate economic viability and implications of tertiary treatment of urban sewage. 		M	DNR&M, local council, all communities
		W4-1-5 By 2007 identify priorities for improvement of water quality.	P	<ul style="list-style-type: none"> Based on water quality data, identify priorities for improvement of water quality. 		H	DNR&M, local council, all communities
		W4-1-6 By 2007 develop appropriate management actions to address priority water quality issues.	P	<ul style="list-style-type: none"> Communities and relevant agencies to liaise and develop management actions to address priority water quality issues. 		H	DNR&M, local council, all communities

Asset: Water							
Goal: Looking after water for community and environmental needs							
Aspirational Target	Achievable RCTs 10 - 20 yrs	Management Action Targets (MATs) 3 – 5 yrs	Type of MAT	Management Actions as Proposed by Community	Other RCTs addressed	Priority	Potential Partners
W5 In 2025 riparian vegetation in all locations throughout the region remains substantially intact and is not significantly impacted by weed species or pest animals. See also L5	W5-1 By 2015 the abundance of key riparian pest plant species and populations of feral pigs is reduced from 2004 levels.	W5-1-1 By 2008, in accordance with relevant provisions of the Cape York Pest Management Strategy, develop a riparian weed control plan that determines priority riparian weeds, recommends control strategies to protect significant natural wetland and riparian assets and detects new outbreaks and outliers.	P	<ul style="list-style-type: none"> Develop a riparian weed control plan. Develop/support regionally coordinated feral pig control program. Monitor waterways of Cape York Peninsula for the presence of exotic and translocated aquatic species. Continue public education campaigns and rapid responses to reported sightings. 	H1-1, C1-1, C2-1, C2-4, L1-2, L3-2, L4-4, L4-5, W4-2, W6-3, W6-6, B1-1.	H	DNR&M ,DPI&F, CSIRO, CRC, consultant groups, Traditional owners and all communities
	W5-2 In 2015 aquatic weeds do not dominate or have a significant negative effect on the health of any aquatic waterbody.	W5-2-1 By 2008, in accordance with relevant provisions of the Cape York Pest Management Strategy, control aquatic weed infestations that have a significant negative effect on the health of waterbodies.	CB, P, OGW	<ul style="list-style-type: none"> Commence weed control program specific to riparian areas in valuable aquatic locations. Establish, maintain and strengthen quarantine and prevention measures to ensure no introduction of new aquatic pest species. 	H1-1, C1-1, C2-1, C2-4, L1-2, L3-2, L4-4, L4-5, W4-2, W6-3, W6-6, B1-1.	H	DNR&M ,DPI&F, CSIRO, CRC, consultant groups, Traditional owners and all communities
W6 In 2025 all major aquatic habitats of the region retain or improve upon their 2004 morphological integrity (eg, control erosion) and support healthy and productive populations of naturally occurring native species.	W6-1 By 2015 bank and gully erosion induced by humans, vehicles and stock is reduced from 2004 levels in all major streams within the CYP region. W6-2 By 2015 actively eroding spots in critical locations are remediated.	W6-1-1 By 2008 identify erosion problem spots and develop a management strategy. W6-1-2 By 2008 popular visitation sites managed in consultation with landholders and land managers to minimise erosion and water quality degradation.	P, OGW	<ul style="list-style-type: none"> Compare historical and current evidence of erosion, identify priority problem sites and develop a management and remediation strategy. Restrict vehicle access where appropriate and rationalise track numbers in other priority areas. 	H1-2, H2-2, L2-1, L2-6, W2-1, W3-1, W6-1, W6-4, W6-5, S5-1, B1-6.	M	DNR&M ,DPI&F, CSIRO, CRC, consultant groups, Traditional owners and all communities

Asset: Water							
Goal: Looking after water for community and environmental needs							
Aspirational Target	Achievable RCTs 10 - 20 yrs	Management Action Targets (MATs) 3 – 5 yrs	Type of MAT	Management Actions as Proposed by Community	Other RCTs addressed	Priority	Potential Partners
W7 By 2025 the biodiversity values, natural integrity and ecological processes of all CYP aquatic environments is maintained (See also N3).	W7-1 By 2015 the health, condition status and biodiversity of all natural waterbodies on CYP have not declined from their 2004 levels and are improved where possible.	W7-1-1 By 2008, all CYP landholders and land managers are aware of riparian and aquatic habitat management issues and options and have access to support for measures to minimise impacts on riparian and aquatic habitats.	RA, P	<ul style="list-style-type: none"> • Improve community knowledge of aquatic and riparian management issues and management options. • Increase aquatic management extension activities with the CYP community. • Identify appropriate management targets for riparian habitats, e.g. 60% ground cover prior to the onset of the wet season as the minimum target for major riparian areas where woody plant cover along the riverbank is not high. • Provide support (including through grants) to landholders to undertake measure to reduce impacts on and threats to, riparian and aquatic habitats. • Include management goals and monitoring methods specific to wetland and riparian management in Property Management Plans or other property management tools. 	H1-1, H5-1, L4-2, L4-6, W1-1, W2-1, W3-1, W4-1, W6-4, W6-5, W7-1, B1-1.	H	DNR&M ,DPI&F, CSIRO, CRC, consultant groups, Traditional owners and all communities
		W7-1-2 By 2007, complete an assessment of current ecological status (condition) and prioritisation of threats and management issues of riparian and aquatic habitats across the whole Cape York Peninsula region.	RA	<ul style="list-style-type: none"> • Systematically survey fish and macroinvertebrate diversity and community structure throughout all major systems which were not adequately covered in the CYPLUS surveys. Particular attention is required in the Olive/Pascoe systems and dune lakes of Cape Flattery and Shelburne Bay. • Design and commence a program to monitor the health of waterbodies, with community involvement. • Survey the distribution of all fish species with significantly disjunct distributions in the Cape York Peninsula region. • By 2007, complete an inventory of fish passage barriers and prioritise those that need modification. 			

Asset: Water							
Goal: Looking after water for community and environmental needs							
Aspirational Target	Achievable RCTs 10 - 20 yrs	Management Action Targets (MATs) 3 – 5 yrs	Type of MAT	Management Actions as Proposed by Community	Integration and Collaboration Other RCTs addressed	Priority	Potential Partners
	W7-2 By 2015 all wetlands in the region have been assessed for their conservation value and status and management measures to protect those values in high value wetlands have been negotiated, agreed and are being implemented.	W7-2-1 By 2008 complete conservation value assessment of all wetlands in the region.	RA	<ul style="list-style-type: none"> • Complete conservation value assessment of all wetlands in the region with particular attention to wetlands important for migratory birds. • Negotiate and develop agreed management measures for the management of high quality wetlands. • Develop linkages with Reef Water Quality Protection Plan. 	H1-1, H5-1, W1-1, W2-1, W3-1, W4-1, W6-1, W6-4, W6-5, W7-1, B1-1	H	DNR&M ,DPI&F, CSIRO, CRC, consultant groups, Traditional owners and all communities

7.6 Sea Countryⁱⁱⁱ

Overview

The Indigenous concept of 'sea country' is important in natural resource management on Cape York Peninsula. Indigenous people there make up the majority of the coastal population. In sea country, the sea is not viewed as a common domain open to all, and nor is the sea viewed as clearly distinguished from the land. Rather land and sea are viewed as a continuum of country.

Many Indigenous people in Cape York Peninsula view all seasonally inundated wetlands and estuarine and marine parts of the ocean environment as part of the sea; many species of sea life pass through these parts of the environment in their lifecycles. This understanding of the extent of sea country is contrary to mainstream marine-planning viewpoints, but it must be recognised in future negotiations with Indigenous communities.

It is important to note that the majority of sea country on Cape York Peninsula is under the direct management control of State and Federal Government agencies. The associated fisheries of the region are underpinned by DPI&F Declared Fish Habitat Areas (DFHA) including Princess Charlotte Bay, Silver Plains, Temple Bay, Escape River and Nassau River.

It is also important to note that in some parts of Cape York Peninsula, there are social and family relationships, and shared rights in natural resource use between 'saltwater' people on the coast and 'freshwater' people who live further inland. In that way, ideas about marine resource ownership or use can also extend for considerable distances inland.

Consequently, any regional scale review of marine resource use issues has to be one that accords with Indigenous views of the landscapes and seascapes of the region.

Traditionally the use of marine resources is part of a regular seasonal cycle of economic activity that follows the lifecycles of sea life (fish and crustaceans) in the region. People move from place to place throughout the year to take advantage of the supply of different natural resources.

Mining, shipping, fishing and tourism are the major non-Indigenous economic activities in the sea country of Cape York Peninsula. There is potential to expand all of these industries in the future. One of Australia's most valuable fisheries – the Northern Prawn Fishery – operates in Cape York Peninsula. It is also an increasingly popular area for recreational fishing.

There are strong differences between the marine environments of the west and east coasts of Cape York Peninsula. The most obvious are that the west coast has a fairly continuous and uniform coastline with fewer embayments, fewer islands and considerably fewer reefs than occur on the east coast – other than in the Arafura Sea region.

The coastal/ marine ecosystems/ processes of the east coast (including the Great Barrier Reef and lagoon, fringing the coral sea, etc), and the west coast are different. The Gulf waters of the west coast are essentially a shallow turbid embayment with a currents circulating in a clockwise direction. These differences add to the diversity and consequently to the importance of the region.

There are also strong differences in the distribution of marine vegetation. There are around 210,000 hectares of sea grass and 83,000 hectares of mangroves on the east coast. This contrasts with around 16,000 ha of seagrass, and 122,000 hectares of mangroves on the west coast. *Rhizophora* species are dominant on the east coast and almost absent on the west coast.

This is probably because of the open exposure and lack of embayment in the Gulf of Carpentaria coastline. Most of the seagrass beds recorded on the west coast are in the Arafura Sea marine bioregion. There are no foreshore mangroves north of the Melamen Creek, though extensive mangrove communities occur in Albatross Bay and Archer Bay and along the tidal reaches of the main river channels.

Aboriginal use of boats and of the open sea is less intensive on the west coast than on the east coast of Cape York Peninsula. On the west coast, south of the Archer River, more fish, turtle and crustaceans are obtained from the estuaries and seasonally flooded saltwater country. This pattern of open sea and estuarine marine resource use is also reflected in the distribution of commercial and recreational fishing all along the west coast.

Apart from the considerable cultural and social value of sea country to Aboriginal people, its importance in most people's diet should not be underestimated. Fish is the staple food of people throughout coastal areas of Cape York Peninsula and Turtle and Dugong are also a significant resource. Early non-Indigenous records describe a seasonal rhythm on the west coast whereby people made use of wetland flora and fauna as they became available. This same rhythm permeates present day community life.

For example, in Kowanyama in the later dry and early wet seasons 'Crayfish time' is followed by 'Shark time', which is then followed by 'Geese egg time'. These provide major food staples to the community as they become available, and the technology used to collect them – hand line, spear or net or fish trap – has changed little since the first contact between Indigenous and non-Indigenous people.

Everything that is caught is eaten. Other than the seasonal 'feasts' that occur with sea country animals as they become available, there are no strong preferences for any particular species. The waste of any catch is absolutely repulsive; it is completely opposite to the worldview of Indigenous people.

One study has estimated that about 40 per cent of household food income in Kowanyama is obtained from subsistence activities such as fishing, hunting or egg collecting, and that the total annual value of these activities to the community is about \$547,000. It is expected that similar data applies to all other Indigenous communities on Cape York Peninsula. For example, in Mapoon, fishing, hunting for geese and other animals provides a substantial contribution to the weekly food supply of many households. There are no substantive data on the customary economies of Indigenous communities of Cape York Peninsula. This is a major knowledge gap in a region where the overwhelming majority of the population is Indigenous and where non-Indigenous fishers also have economic interests in sea country. The full ecological, economic, social and cultural impacts on communities should be considered when considering limits on takes of any species.

Coastal zone

The coastal zone of Cape York Peninsula is one of the longest of any NRM region and as such is a significant environment that requires particular recognition and management planning.

The mangrove and seagrass communities of the CYPLUS study area are floristically amongst the richest in the world, with over thirty mangrove species and twelve seagrass species recorded from individual communities. On the basis of species richness, rare and uncommon species or features, diversity of habitat, the relative lack of disturbance and importance for maintaining fish populations, sixteen mangrove and seagrass areas within the CYPLUS study area have been identified as of conservation significance. Further information is available at:

<http://www.deh.gov.au/erin/cyplus/lup/index.html>

Key Threats and Issues

Marine debris, particularly within and on the coast of the Gulf of Carpentaria, poses a significant danger to marina fauna including birds, turtles and dugong. The greatest threat comes from “Ghost Nets” – discarded or lost commercial fishing nets, which roam the waters of the Gulf and wash up on its shores. Indications are that these nets are mainly of international origin.

Port infrastructure and commercial shipping also pose a threat in the form of oil and other chemical spills.

Indigenous people are concerned about what they perceive is a serious depletion of their fish stocks through recreational and commercial fishing. They are also concerned about:

- Waste, for example discarded by-catch, plus frames and heads from filleting.
- Lack of economic benefit flowing back to Aboriginal people from activity in their country.
- Social costs, for example the bringing of alcohol to communities and outstations.
- Threats to cultural sites.
- Habitat loss due to run-off from mining and cattle operations.
- Predation by feral pigs on turtle eggs and disturbance of habitat.
- The dumping of rubbish. and
- Inadequate funding for monitoring by Community and Government sea management agencies.

Shared issues of Sea Country

There are commonly shared issues with other natural resource management areas: Wet Tropics and Torres Strait on the East Coast; Northern and Southern Gulf catchments and Torres Strait on the West Coast in the Gulf of Carpentaria. There are also internationally shared issues, particularly regarding Ghost Nets and other marine debris.

It is essential to develop cross-regional cooperation on issues including marine debris, turtle and dugong, and fishing effort on total fish stocks. There are currently cross-regional projects in operation or under development to address issues including marine debris, and turtle and dugong harvesting.

Coastal zone

Coastal issues include:

- coastal use and development;
- physical coastal processes (the effects of waves, tides, currents and coastal storms);
- public access to the coast;
- commercial, recreational and Indigenous fisheries;

- off-shore islands;
- port dredging and management of port facilities for mining operations;
- protection and management of significant coastal habitats;
- coastal wetlands; and
- coastal habitats for marine species.

Specific threats include:

- grazing pressure and degradation of water quality;
- mine site management and rehabilitation;
- land development;
- urban sewage and stormwater;
- soil erosion and native vegetation loss/degradation;
- tourism practices and potential for aquaculture;
- impacts of acid-sulfate soils; and
- incursion of exotic plants, animals and diseases into coastal environments.

Current Responses

The granting of rights under native title as well as State land transfers under the *Aboriginal Land Act 1991* and the *Torres Strait Islander Land Act 1991* (both currently under review) are enabling Indigenous people to regain access to sea country. Increased Indigenous participation in land and sea management is increasing the demand for natural resource management resources.

Land and Sea Management Centres have been created to help service this demand but they have not enjoyed stable recurrent funding. Nor have funding bodies identified how the potential confluence of Traditional Owner and non-Indigenous interests might be pursued.

As discussed in Chapter 4, 'Traditional Use of Marine Resource Agreements' are being negotiated through the GBRMPA, under new zoning plans. They will describe how individual groups will manage sea country. This initiative is expected to complement and enhance the development and implementation of sea country targets through a shared understanding of land and sea issues.

Some communities have established camps for recreational fishers who visit the community. Fishing permits are limited and demand for them, for which payment of a fee is required, is always high.

The Traditional Owners of each campsite are consulted before the start of the fishing season about how many people may be allowed to fish there that year. Around Kowanyama a proportion of the fees received are paid into homeland accounts and another proportion is allocated to the funding of aerial and boat surveillance of commercial fisheries in the Gulf of Carpentaria by Community Rangers.

Sometimes Traditional Owners close campsites for ritual reasons or for conservation reasons if it is felt that fish stocks are insufficient to satisfy both visitors' recreational and local peoples' subsistence needs. Many people do not like recreational fishermen arriving with freezers or with a boat attached to their vehicles and it is likely that such fixtures will be banned in some areas in the future. Meanwhile, local people always encourage visiting fishers to give any catch that is surplus to their immediate needs to families in the community.

Aboriginal councils can require a permit (usually for the provision of camping). Some communities have started to monitor both recreational and subsistence fishers take.

however, the continuation of these programs is contingent upon ongoing funding. Fisheries monitoring, run through the ranger program, derives operational monies from the permit system. Advice in 2004 indicates that in some areas, recreational fishing, tourists and camping numbers have not been as high as in previous years. This may potentially be because of tourists concerns about having to comply with alcohol management plans. This has implications for the success of such programs and socio economic well being of some communities. Fisheries monitoring is just one element of the range of activities undertaken as part of the ranger program (A West pers comm. 2004).

The North Australian Indigenous Land and Sea Management Alliance (NAILSMA)

The North Australia Indigenous Land and Sea Management Alliance (NAILSMA) is an alliance between Balkanu Cape York Development Corporation, Kimberly Land Council (KLC), Carpentaria Land Council Aboriginal Corporation, Indigenous Land Corporation and staff from the Tropical Savannas CRC and is building capacity and providing support for community management of resources.

Great Barrier Reef Marine Park Authority

Great Barrier Reef Marine Park Act 1975 which (among other things):

- Provides a framework for planning and management of the Marine Park, including through zoning plans of management and permits.
- Prohibits operations for the recovery of minerals (which includes prospecting or exploration for minerals) in the Marine Park (unless approved by the GBRMPA for research).

Great Barrier Reef Marine Park Regulations 1983:

- The primary regulations in force under the Great Barrier Reef Marine Park Act 1975.

Great Barrier Reef Marine Park (Aquaculture) Regulations 2000:

- Regulates the discharge of waste from aquaculture operations, which may affect animals and plants in the Great Barrier Reef marine Park.

Aquaculture activities require a permit for operation if it is located within the Great Barrier Reef Marine Park or within the 'controlled area' (5km inland of the Astronomical Tide Mark).

Great Barrier Reef Marine Park Zoning Plan 2003:

- Aims to ensure better protection of the Marine Park's biodiversity. This involves the establishment of zoning throughout the Marine park where activities are limited by zone category.

Great Barrier Reef Water Quality Protection Plan

This joint State and Australian Government initiative aims to halt and reverse the decline in water quality entering the Reef within 10 years. Cape York Peninsula has significant coastline and aquatic systems that flow into the Great Barrier Reef and though much of the region is undeveloped compared with the Wet Tropical and Burdekin coasts, there are significant problems of management of pollutants from diffuse sources in the water entering the Reef. The central tenets of the Reef Plan aim to address this issue via improving decision-making in land use planning (e.g. adoption of sustainable production systems, conserving existing wetland and riparian areas).

The Reef Plan involves the joint development by industry, governments and communities of strategies to mitigate these impacts. This includes NRM boards that have an opportunity to address reef water quality issues via the development of self management strategies, education and extension, economic incentives, land use planning within the NRM framework, and building on partnerships between industry, government and the community. Regional NRM arrangements have an opportunity to play a primary role in implementing many of the actions, in concert with Commonwealth and Queensland Governments.

For further information see section 1.2 of this Plan.

Legislative responses

Commonwealth and State legislation and policy provides an integrated framework we all work within. The Commonwealth *Environment Protection Biodiversity Conservation Act 1999* provides for strategic assessment of fisheries and the preparation of Threat Abatement Plans, both of which involve community input. There is also an integrated framework for coastal zone management through State Coastal Management Plan-Queensland's Coastal Policy (currently being drafted by the Queensland EPA).

Other current strategies, plans and legislative responses

- *Fisheries Act 1994* and subordinate management plans.
- *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). This is Commonwealth legislation that provides a national framework for environment protection through a focus on protecting matters of national environmental significance and on the conservation of Australia's biodiversity (see also biodiversity section and *Annexe 4 which contains a list of threatened species listed under the EPBC Act that may occur on Cape York Peninsula*).
- Declared Fish Habitat Areas (DFHA's): Annan R, Princess Charlotte Bay, Silver Plains, Temple Bay, Escape R, Nassau R, Statten / Gilbert. Two other FHA's are in the process of being declared, they are the Starcke River and Margaret Bay.
- Aquaculture and the Aquaculture Scoping Study.
- International conventions (RAMSAR, JAMBA, CAMBA).
- The State Coastal Management Plan-Queensland's Coastal Policy (prepared under the *Coastal Protection and Management Act 1995*) describes how the coastal zone is to be managed under the headings: coastal use and development; physical coastal processes (the effects of waves, tides, currents and coastal storms); public access to the coast; water quality; Indigenous traditional owner cultural resources; cultural heritage; coastal landscapes; conserving nature; coordinated management; and research and information.
- Land and Sea Centres.
- National Oceans Office – Planning initiative.

There are currently opportunities for community input into the strategic assessment of fisheries being conducted under the EPBC Act, Threat Abatement Plans being prepared under the EPBC Act, Integrated Framework for Coastal Zone Management, and Coastal Management Plans which the Queensland EPA are currently drafting.

Aspirations, Outcomes and Actions

The main points about planning for the future management of sea country in Cape York Peninsula are that:

- The present capacity to manage sea country differs between communities.
- Consultation about future management of sea country should be approached on a community by community basis.
- The 'Indigenous Protected Area' and 'Indigenous Land Use Agreement' processes must provide appropriate and generally understood mechanisms for Indigenous people to participate in mainstream planning or management strategies.
- Coordination support from Indigenous regional support organisations should be available as requested (and adequately resourced), with a view to aligning subregional and regional strategies at State and Commonwealth level, as well as legal overseeing of prospective agreements.
- The interactions between commercial, recreational and traditional fisheries need to be investigated.
- Habitat changes must be monitored. There is presently little routine monitoring of changes in important habitat such as seagrass and mangroves. More intensive monitoring is likely to be required as regional development increases. Such monitoring should include a catchment-based focus to allow management of habitats in a holistic manner.
- The most pressing need is secure base funding for Land and Sea Management Centres. This should be coupled with clear targets, articulated through this Plan, and the local Land and Sea Plans, to guide activity and provide accountability.
- A Regional Coastal Management Plan for Cape York Peninsula needs to be prepared under the Queensland Coastal Management Act.
- Environmental tourism provides a significant opportunity to improve the management and protection of populations such as turtles.

Targets for Sea Country

Asset:	Sea Country						
Goal:	Caring for sea country to meet environmental, social and economic needs					Integration and Collaboration	
Aspirational Target	Achievable RCTs 10 - 20 yrs	Management Action Targets (MATs) 3 – 5 yrs	Type of MAT	Management Actions as Proposed by Community	Other RCTs addressed	Priority	Potential Partners
S1 In 2025 all CYP fisheries are managed sustainably and with minimal impact on marine fauna.	S1-1 By 2020, all commercial CYP fisheries are sustainable and are being managed through appropriate, ecologically sustainable management regimes.	S1-1-1 From 2005, engage with relevant partners to develop and implement ecologically sustainable management regimes in all commercial CYP fisheries.	P	<ul style="list-style-type: none"> ▪ Participate in fisheries management process, including licence and quota renewal processes, to ensure that they take account of and integrate the targets of this NRM Plan for CYP. ▪ Identify sustainable harvest levels of commercial fish stocks. ▪ Develop and implement the most appropriate management regimes for all commercially targeted species to ensure ecological sustainability. ▪ Examine options for CYP East Coast fisheries to operate under Wildlife Trade Operation accreditation under EPBC as per the Gulf commercial fisheries. • Contribute to the Department of Environment and Heritage strategic fisheries assessments (requirement under EPBC Act 1999), and through management advisory groups including Gulf of Carpentaria and Torres Strait Fisheries Advisory Committees. • Contribute to the refinement of measures of sustainable yield. • Use pilot studies, for example of the Mapoon fishing crabbing enterprise, for the development of sustainable crabbing targets. • Support the observer program. • Encourage fishing industry to increase levels of employment of local people in ecologically sustainable activities. 	N4-1, N4-4, D1-1, D1-4, S1-4, S1-5, S2-3, H1-1, H5-2, B1-10, B3-1, B4-1, B4-2, B4-3, H1-1, H5-2, B1-10.	H	Community, DPI&F, DNR&M, NOO, Coastcare, NAILSMA, CDEP, AFMA, MAC, fishing industry

Asset: Sea Country							
Goal: Caring for sea country to meet environmental, social and economic needs							
Aspirational Target	Achievable RCTs 10 - 20 yrs	Management Action Targets (MATs) 3 – 5 yrs	Type of MAT	Management Actions as Proposed by Community	Other RCTs addressed	Priority	Potential Partners
		S1-1-2 From 2005, engage with relevant partners to ensure continuous improvement in by-catch exclusion processes (with reference to existing consultation processes and By-Catch Action Plan for the Gulf of Carpentaria).	BMP	Contribute to: <ul style="list-style-type: none"> • Development and implementation of by-catch education programs and monitoring programs. • Continuous improvement of by-catch reduction measures and reporting procedures. • Improvement in compliance monitoring and enforcement. • Supporting the observer program. 		H	Community, DPI&F, DNR&M, NOO, Coastcare, NAILSMA, CDEP, AFMA, fishing industry
	S1-2 By 2015 recreational fishery resources are sustainable and managed in the context of maintaining 'enduring natural processes'.	<p>S1-2-1 By 2007 have investigated and if appropriate, developed and enforced methods to limit the impact of recreational fishing through gear restrictions such as such as freezers size limits.</p> <p>S1-2-2 By 2008 refine ecologically sustainable yields (based on current and ongoing research) and determine allocations to recreational, Indigenous and commercial fisheries.</p>	P	<ul style="list-style-type: none"> • Recognise and promote the concept of cross-regional fisheries management and within that context undertake the following. • Develop measures of sustainable yield. • Consider CYP specific bag limits, recognising work already done to date. • Investigate compliance and enforcement issues and partner regulatory organisations for potential changes to management approaches. • Develop education and awareness programs. • Develop and partner enforcement agencies to enforce appropriate limitations on recreational fishing through freezer restrictions, gear restrictions, bag limits, limits etc. 		M	Community, DPI&F, DNR&M, NOO, Coastcare, NAILSMA, CDEP, fishing industry
	S1-3 By 2015 Indigenous fishery resources are sustainable and managed in the context of maintaining 'enduring natural processes'.	<p>S1-3-1 By 2010, Indigenous communities to determine indigenous and subsistence marine harvesting needs and takes.</p> <p>S1-3-2 By 2010, survey work and monitoring work in indigenous CYP communities is contributing to sustainable marine harvesting.</p>	BMP	<ul style="list-style-type: none"> • Recognise and promote the concept of cross-regional fisheries management and within that context undertake the following: <ul style="list-style-type: none"> ○ Develop measures of sustainable yield. ○ Consider Cape York Peninsula specific harvesting limits. ○ Investigate compliance and enforcement issues. ○ Develop education and awareness programs. 	H1-1, H5-2, N4-1, N4-4, B1-10, B3-1, B4-1, B4-2, B4-3.		Indigenous communities, DPI&F, DNR&M, NOO, Coastcare, NAILSMA, CDEP,

Asset:	Sea Country						
Goal:	Caring for sea country to meet environmental, social and economic needs					Integration and Collaboration	
Aspirational Target	Achievable RCTs 10 - 20 yrs	Management Action Targets (MATs) 3 – 5 yrs	Type of MAT	Management Actions as Proposed by Community	Other RCTs addressed	Priority	Potential Partners
	S1-4 By 2015 critical Indigenous, commercial and recreational fisheries habitat and fish stocks remain at or above 2004 condition and levels.	S1-4-1 By 2008, critical Indigenous, commercial and recreational fisheries habitat and fish stocks are protected.	P	<ul style="list-style-type: none"> Contribute to the protection of critical fish habitat areas and fish stocks through Queensland Department of Primary Industries and Fisheries Declared Fish Habitat Areas (DFHA) process including: <ul style="list-style-type: none"> Identify the current and potential risks to critical habitat. Identify current zoning and management practices applicable to critical habitats. Ensure that connectivity between critical habitats is maintained. 	H1-1, H5-2, N4-1, N4-4, B1-10, B3-1, B4-1, B4-2, B4-3.	H	Community, DPI&F, DNR&M, NOO, Coastcare, NAILSMA, CDEP, AFMA, fishing industry
	S1-5 By 2015 there is a reduction in the number and extent of ghost nets from 2004 levels.	S1-5-1 By 2008 integrate Cape York Peninsula marine debris management actions into cross-regional NHT project and recommendations in the National Oceans Office "Finding Solutions for marine debris in the north" report, contributing to the Northern Region Marine Planning process, and the development of the Threat Abatement Plan for marine debris (under the EPBC Act 199).	OGW	<ul style="list-style-type: none"> Within the cross regional management project: <ul style="list-style-type: none"> Develop and implement net removal programs in consultation with Land and Sea Management Centres. Investigate potential for regular formal marine debris collection (along the lines of 'Clean Up Australia'). 	H2-1, H5-1, C2-1, C2-4, S1-2, S3-1, S3-2, S3-3, S3-5, B1-1, B1-2, B2-1, B3-1.	H	Community, DPI&F, DNR&M, NOO, Coastcare, NAILSMA, CDEP, fishing industry
		S1-5-2 By 2010 there will be zero new nets originating from Australia.	P	<ul style="list-style-type: none"> Establish communication, awareness, best practice and monitoring programs. 		M	Community, DPI&F, DNR&M, NOO, Coastcare, NAILSMA, CDEP, fishing industry
		S1-5-3 By 2007 there will be a reduction in the number of new nets originating from other priority countries.	RA	<p>Within the cross regional management project:</p> <ul style="list-style-type: none"> Establish a monitoring program to identify the points of origin of ghost nets (using net construction as a 'signature'). Encourage the establishment of an international treaty governing communication, awareness and best practice programs in priority countries. Encourage research and development of impact reduction techniques such as vessel monitoring systems, biodegradable nets, tags. 		M	Community, DPI&F, DNR&M, NOO, Coastcare, NAILSMA, CDEP, fishing industry

Asset:	Sea Country							
Goal:	Caring for sea country to meet environmental, social and economic needs					Integration and Collaboration		
Aspirational Target	Achievable RCTs 10 - 20 yrs	Management Action Targets (MATs) 3 – 5 yrs	Type of MAT	Management Actions as Proposed by Community	Other RCTs addressed	Priority	Potential Partners	
S2 Through cross-regional cooperation, in 2025 there will be no loss of native species.	S2-1 By 2015 turtle breeding populations are above 2004 levels.	S2-1-1 An 80% reduction in the number of turtle nesting sites subject to pig predation by 2009.	OGW	<ul style="list-style-type: none"> Continue to develop and implement a turtle monitoring and education program. Develop and implement a pig management plan. 	N4-1, N4-4, L3-2, L4-6, W4-1, B3-1, B4-1, B4-4, S1-2, B1-1, B2-1, H1-1, H1-2, H5-1.	M	Community, DPI&F, DNR&M, NOO, Coastcare, NAILSMA, CDEP, fishing industry	
		S2-1-2 By 2008 'Turtle Exclusion Devices' used with all fishing nets to which such devices can be fitted.	BMP			<ul style="list-style-type: none"> Develop and implement a monitoring and education program. 	M	Community, DPI&F, DNR&M, NOO, Coastcare, NAILSMA, CDEP, fishing industry, WWF
		S2-1-3 In cooperation/conjunction with cross-regional NHT turtle and dugong project, by 2008 there will be sustainable indigenous harvesting of turtles.	BMP	<ul style="list-style-type: none"> Develop and implement a monitoring system to assess harvest levels in the context of all other losses. Support the development of sustainable harvesting processes in consultation with indigenous communities. 		M	Traditional groups, DPI&F	
		S2-1-4 By 2007 night time tour boats operated in ways that don't increase the risk of marine predation of hatchlings.	BMP	<ul style="list-style-type: none"> With reference to industry codes of conduct including charter boat operation guidelines and shipping management plan identify and implement appropriate management of night time lighting. 		M	Community, DPI&F, DNR&M, NOO, Coastcare, NAILSMA, CDEP, tourism industry, WWF	
	S2-2 By 2015 dugong breeding populations are above 2004 levels.	S2-2-1 In cooperation/conjunction with cross-regional NHT turtle and dugong project, by 2006 dugong populations will be monitored continuously.		RA	<ul style="list-style-type: none"> Standardise dugong population monitoring procedures and implement monitoring program. Develop and implement a monitoring and education program. 	H1-1, C1-1, B1-3, B1-6, N4-1, N4-4.	H	Community, DPI&F, DNR&M, NOO, Coastcare, NAILSMA, CDEP, fishing industry
				P	<ul style="list-style-type: none"> Develop and implement sea grass management plans. 		H	Community, DPI&F, DNR&M, NOO, Coastcare, NAILSMA, CRC, fishing industry
		S2-2-2 No net reduction in dugong populations due to human-induced impacts in the extent or area of sea grass grazing potential within the next 5 years.						
		S2-2-3 By 2007 nil dugong caught as bycatch.		BMP	<ul style="list-style-type: none"> Develop and implement a monitoring system. 		H	Community, DPI&F, DNR&M, NOO, Coastcare, NAILSMA, CRC, fishing industry, WWF

Asset:	Sea Country						
Goal:	Caring for sea country to meet environmental, social and economic needs					Integration and Collaboration	
Aspirational Target	Achievable RCTs 10 - 20 yrs	Management Action Targets (MATs) 3 – 5 yrs	Type of MAT	Management Actions as Proposed by Community	Other RCTs addressed	Priority	Potential Partners
		S2-2-4 In cooperation/conjunction with cross-regional NHT turtle and dugong project, by 2008 there will be sustainable indigenous harvesting of dugongs.	BMP	<ul style="list-style-type: none"> Develop and implement a monitoring system to assess harvest levels in the context of all other losses. Support the development of sustainable harvesting processes in consultation with indigenous communities. 		H	Traditional groups, DPI&F
	S2-3 By 2015 an increase in sawfish breeding populations from 2004 levels.	S2-3-1 By 2007 set up and implement a habitat and species monitoring program.	P	<ul style="list-style-type: none"> Develop and commence a sawfish species monitoring program. 	H1-1, C1-1, B1-3, B1-2, B1-6, N4-1, N4-4.	H	Community, DPI&F, DNR&M, NOO, Coastcare, NAILSMA, CRC, fishing industry, WWF
	S2-4 In 2015 there will be no reduction of migratory birds due to human induced degradation of habitat in the CYP region.	S2-4-1 By 2007 identify all significant wetland and other habitat areas in the region critical for migratory bird species.	P	<ul style="list-style-type: none"> Support wetland conservation programs. Support international migratory bird treaties (CAMBA, JAMBA). 	H1-1, C1-1, B1-3, B1-6.	H	Community, DPI&F, DNR&M, NOO, Coastcare, WWF
S3 By 2025 environmental impacts of shipping industries are minimised.	S3-1 By 2015, there have been negligible oil spills associated with shipping and no new marine pests introduced from ballast water or hull fouling.	S3-1-1 From 2005, all risks associated with coastal shipping are minimised to avoid damage to natural resources.	P	<ul style="list-style-type: none"> Develop, consolidate and implement plans for prevention, management and emergency response to oil spills and ballast water for all CYP sea country. Endorse the shipping management plan being produced by the Department of Transport in conjunction with the Great Barrier Reef Marine Park Authority. Work with the Department of Transport to develop a shipping management plan for the west coast including ballast water management plan for Weipa. Monitor Introduced Marine Species in partnership with Ports Corporation of Queensland (PCQ) and Community rangers (Land and Sea Centre project). 	B1-3, B2-1, B3-1, N4-1.	M	Land and Sea Centres - Community rangers, Ports Corp / Authority, NOO, DPI&F, Coastcare, PCG,
S4 In 2025, there is no decline in the health of coastal or marine ecosystems.	S4-1 By 2015, terrestrial activities are having no adverse impact on coastal or marine ecosystems.	<p>S4-1-1 Prepare a condition report for estuarine, coastal and marine ecosystems.</p> <p>S4-1-2 Establish benchmarks for the maintenance and improvement of coastal and marine assets.</p> <p>S4-1-3 Identify priority actions for the maintenance and improvement of coastal and marine assets.</p>	P	<ul style="list-style-type: none"> Identify develop and commence remediation activities. Facilitate agreements with communities and LGA's to effectively maintain the integrity of coastal buffer zones identified as significant assets. Identify key threats to these assets and 	L1-3, L3-1, L4-5, W5-1, W6-3, N4-1.	M	DNR&M, Land managers, DPI&F, NOO, Coastcare, CRC, CSIRO

Asset: Sea Country							
Goal: Caring for sea country to meet environmental, social and economic needs							
Aspirational Target	Achievable RCTs 10 - 20 yrs	Management Action Targets (MATs) 3 – 5 yrs	Type of MAT	Management Actions as Proposed by Community	Integration and Collaboration Other RCTs addressed	Priority	Potential Partners
		<p>S4-1-4 Retain the integrity of regional vegetation cover.</p> <p>S4-1-5 By 2009 identify extent and major causes of water pollution and implement remedial activities.</p> <p>S4-1-6 Within 2 years develop and provide an opportunity for Indigenous and other community involvement in monitoring activities for freshwater and marine health (see also target W3-1-3).</p> <p>S4-1-7 Coastal and marine access and activity zoning plan finalised and commenced within 3 - 5 years.</p>		<p>prioritise management actions to mitigate those threats.</p> <ul style="list-style-type: none"> • Build upon current programs to improve coastal stability and condition (needs for fencing, revegetation, weed control and dune stabilisation) in priority areas within the coastal environment; document and protect coastal habitats that are important to the survival of important marine species. • In co-operation with native title representative bodies and other key stakeholders support negotiated agreements between Traditional Owners and other relevant stakeholders for access, management and use of coastal resources 			

7.7 Biodiversity

Overview

Biodiversity is a term now in common use that describes the sum of all species and their habitat (the places where they live). In terms of biodiversity, Cape York Peninsula is widely considered to be a very special area both within Australia and internationally (see also Chapter 3).

Biodiversity in the region can be defined at four levels.

- **Regional Landscape Diversity** – the diversity of the landscape components of a region and the functional relationships that affect environmental conditions within ecosystems.
- **Regional Ecosystem Diversity** – the diversity of the different types of ecological communities formed by living organisms and the relations between them.
- **Regional Species Diversity** – the diversity of species.
- **Regional Genetic Diversity** – the diversity of genes within each species.

Bioregions represent the primary level of biodiversity classification in Queensland, and are based on broad landscape patterns that reflect the major structural geologies and climate as well as major changes in vegetation and wildlife.

The Cape York Peninsula bioregion accounts for most of the planning region, but the plan also includes minor sections of the Wet Tropics, Einasleigh Uplands and Northern Gulf Plains bioregions.

There are thirty broad vegetation groups identified on Cape York Peninsula that can be consolidated into six main groups of which eucalypt woodlands are dominant in terms of area of cover (65 per cent). Currently 3,338 terrestrial plant species have been identified at Cape York Peninsula of which 264 are endemic, 11.4 per cent are rare or threatened and 7.4 per cent are exotics. Fourteen species of seagrass have been found in the Torres Strait and east coast of Cape York and 36 mangrove species occur along both coasts of the Peninsula. Within this species count Cape York Peninsula hosts a significant number of rare and threatened species of flora.

Cape York Peninsula's terrestrial fauna includes more than 500 vertebrate species, which include one quarter of Australia's frogs, one quarter of its reptiles, one half of its birds and one third of its mammals. Forty of these species are endemic to Cape York Peninsula. This diverse fauna is attributed to the range of available habitat types and the presence of pre-Holocene species from Asia and Papua New Guinea. Two hundred and fifty eight invertebrate species are considered endemic to Cape York Peninsula. Within this species count Cape York Peninsula hosts a significant number of rare and threatened species of fauna.

Additionally, 85 species of fish have been recorded from freshwater areas of the Peninsula, 15 of which spend some of their lives in estuarine and/or ocean waters. Local marine and estuarine areas contain diverse assemblages of fish and crustacea, some of which are commercially valuable.

Readers wanting further information about the regions biodiversity and threats may find the following references a valuable source of information:

- CYPLUS 1.
- Statement of Natural Heritage Significance for Cape York Peninsula, Mackey, B., Nix, H., and Hitchcock, P., 2001 available at:

http://www.epa.qld.gov.au/nature_conservation/biodiversity/conserving_biodiversity/cape_york_peninsula/

- *Australia State of the Environment 2001*, Independent Report to the Commonwealth Minister for the Environment and Heritage. Australian State of the Environment Committee, <http://www.deh.gov.au/soe/2001/biodiversity.html#keyissues> <http://www.deh.gov.au/soe/2001/biodiversity/index.html>
- Queensland State of the Environment Report (2003).
- http://www.epa.qld.gov.au/environmental_management/state_of_the_environment/state_of_the_environment_2003/
- http://www.epa.qld.gov.au/environmental_management/state_of_the_environment/state_of_the_environment_2003/
- National Land and Water Resources Audit http://audit.ea.gov.au/ANRA/vegetation/vegetation_frame.cfm?region_type=AUS®ion_code=AUS&info=landscape_health http://audit.ea.gov.au/ANRA/vegetation/vegetation_frame.cfm?region_type=AUS®ion_code=AUS&info=bio_asses
- The Australian Government *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) provides for identification and listing of Threatened Species (see *Annexe 4*) and Threatened Ecological Communities; development of Recovery Plans (see section 1.2) for listed species and ecological communities; recognition of Key Threatening Processes; and where appropriate reducing these processes through Threat Abatement Plans. <http://www.deh.gov.au/epbc/biodiversityconservation/index.html> <http://www.deh.gov.au/cgi-bin/sprat/public/publicgetkeythreats.pl>

The following are considered to be the significant natural value assets identified in: CYPLUS Stage 1; the "Statement of Natural Heritage Significance for Cape York Peninsula"; and during the consultation phase of the development of the NRM Plan.

- Terrestrial Biological Diversity (including freshwater ecosystems) - an exceptional and highly significant level of diversity for *in situ* conservation of biological diversity, including those containing rare or threatened species, communities and ecosystems of outstanding (universal/regional/continental/local) value from the point of view of science or conservation).
- Terrestrial Natural Integrity - high level of undisturbed set of landscape ecosystems – wildlife habitat is largely uncleared, unfragmented and undegraded.
- Enduring Natural Processes - highly significant examples of fully functional geophysical, evolutionary and ecological processes.
- Contribution to Knowledge - highly significant contribution to knowledge and understanding of natural history and to direct educational value.
- Marine Biological Diversity - highly significant level of marine diversity, including rare or threatened species, communities or ecosystems of outstanding (universal/regional/ continental/local) value from the point of view of science or conservation.
- Marine Natural Integrity - high level of undisturbed marine ecosystems – marine habitat is largely intact.
- Biological Affinities and Connections with New Guinea – Cape York Peninsula has unique connections with New Guinea through migratory and other species.

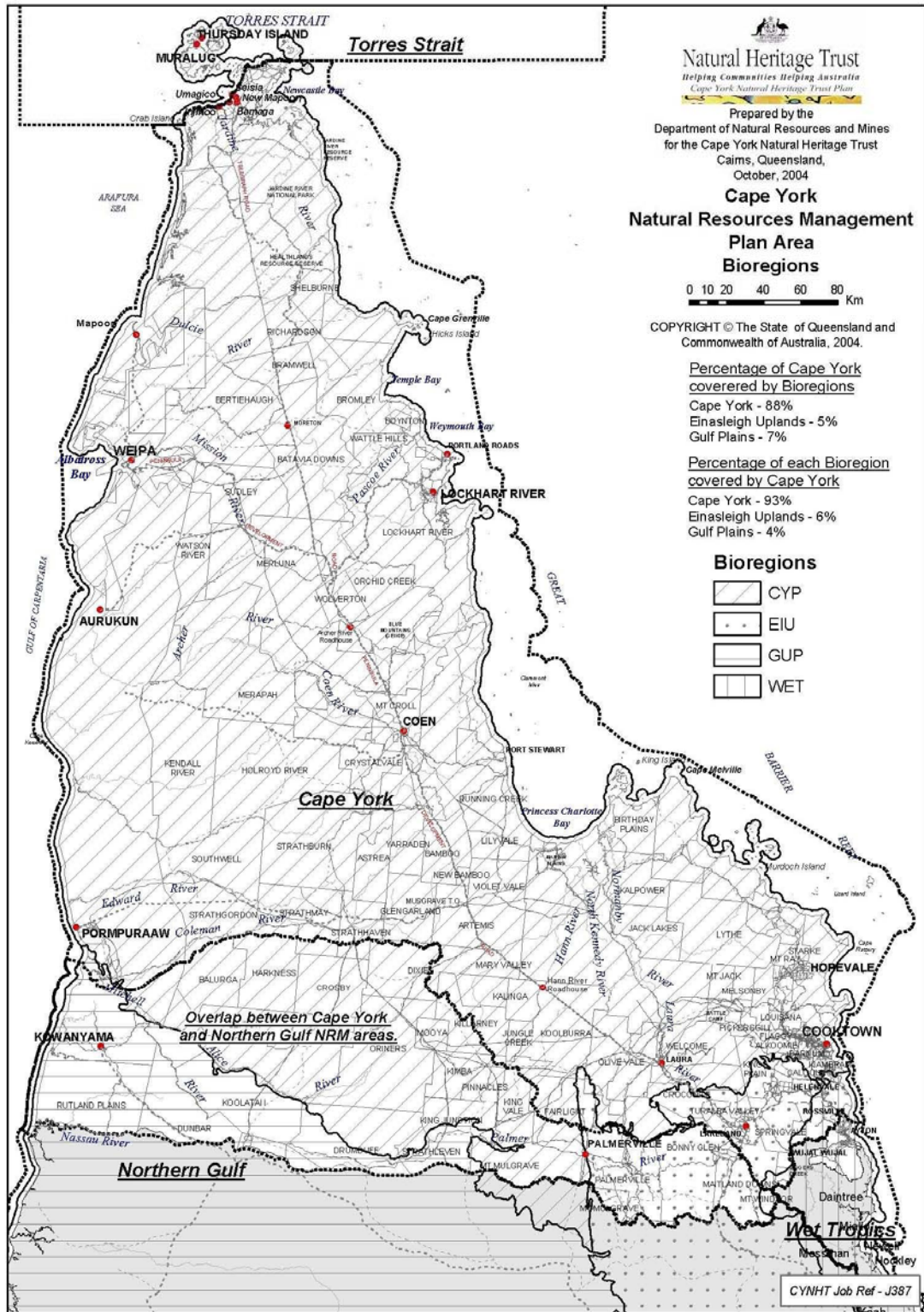


Figure 9: Bioregions of Cape York Peninsula NRM Region.

Key Threats and Issues

A range of threats to biodiversity (including weeds and animals, biosecurity, and land management activities) are discussed in the Land Country, Water and Sea Country sections. Other threats to biodiversity include:

Climate Change

Climate change is a naturally occurring process that may be experiencing a greater rate of change over recent decades as a consequence of various discharges to the atmosphere on a global scale. Global warming is one predicted and variously measured change that has the potential to influence environmental features such as air and water temperatures, ocean levels and weather patterns.

Global warming has a range of potential consequences in the context of Cape York Peninsula. Sea level rises would be expected to influence the extent and condition of coastal zone natural resources, including low-lying, near-coast inland resources such as wetlands. Altered air temperatures and weather patterns would be expected to influence the suitability of some areas for species currently resident there.

Whilst there is little in the local context that could be achieved that would appreciably affect the extent of climate change, education of likely consequences and pro-active planning could help ameliorate impacts – at least in the short-term. Further information about climate change can be found in the 2004-2007 National Biodiversity & Climate Change Action Plan.

Aboriginal management

Aboriginal natural resource management practices have been conservationist by nature and have maintained ecological stability for millennia. This needs to be recognised in the context of natural justice when new sustainable and appropriate Aboriginal enterprises are being considered that may conflict with environmental controls such as the Wild Rivers Policy. There is a case to be argued that pastoral, mining and other industries and developments were established and grew strong long before present environmental protections, which may well have prevented them had they been in place.

Harvesting of Native Fauna

Traditional hunting and gathering has been practised on Cape York Peninsula for many centuries. For Aboriginal peoples, all environments, habitats and resources were part of owned and managed clan estates for which particular groups and individuals had responsibility.

More recently, factors other than traditional hunting and gathering have exerted additional pressure on some target resources. Examples could include local effects, such as the impact of feral pigs on turtle recruitment or of increased competition for some common property resources (i.e. fish). Effects of non-local origin could include introduction of exotics (including disease) or factors outside the study area affecting target populations within the study area. The broad range of possibilities for resource depletion emphasizes the potential for benefits from a more integrated approach to management of target resources locally.

Trends in population need to be assessed as a basis for management decisions.

Current Responses

Planning and management of biodiversity needs to be integrated at all tiers of government, agencies and organisations. Strategic links and cooperative partnerships with non-government organisations, industry and community groups are required to conserve biodiversity.

National initiatives

While responsibility for land use and nature conservation rests primarily with the States and Territories, the Commonwealth has obligations and responsibilities arising from international conventions and treaties. The National Strategy for the Conservation of Australia's Biological Diversity outlines a range of objectives to achieve its stated goal of protecting biodiversity and maintaining ecological processes and systems. In 1996 the Commonwealth Government established the Natural Heritage Trust (NHT) to fund projects in five major environmental areas: vegetation, rivers, biodiversity, land, and coasts and marine. The NHT is the most important mechanism by which the Commonwealth contributes to implementing the National Strategy for the Conservation of Australia's Biological Diversity.

Other major national policies influence the management of biodiversity in Queensland:

- The National Forest Policy Statement provides broad conservation and industry goals for the ecologically sustainable management of Australia's forest estate.
- The Commonwealth Wetlands Policy comprises a series of objectives, principles and strategies to guide the Government's actions relating to the 'wise use' of wetlands in Australia.
- Australia's Oceans Policy provides a framework for integrated and ecosystem-based planning and management for all of Australia's marine jurisdictions.
- National Objectives and Targets for Biodiversity Conservation (2001-2005).
- National Biodiversity and Climate Change Action Plan (2004 – 2007).
- National Framework for the Management and Monitoring of Australia's Native Vegetation.
- A National Approach to Firewood Collection and Use in Australia.
- EMS National Implementation Plan.
- Australia's National Framework for EMS in Agriculture.
- Framework for a National Cooperative Approach to Coastal Zone Management.
- Environment Protection and Biodiversity Conservation Act (1999).
- Great Barrier Reef Marine Park Act (1975).

International Conventions and Agreements

Although the Commonwealth Government is the legal signatory to international conventions, the Queensland Government, by virtue of its land management roles, is primarily responsible for the day-to-day implementation of these agreements in the State. Such international agreements include:

- Convention on Biological Diversity
- Convention on Wetlands of International Importance, especially as Waterfowl Habitat (the Ramsar Convention)

- Convention Concerning the Protection of the World Cultural and Natural Heritage
- Agreement between the Government of Australia and the Government of the People's Republic of China for the Protection of Migratory Birds in Danger of Extinction and Their Environment (CAMBA)
- Agreement between the Government of Australia and the Government of Japan for the Protection of Migratory Birds and Birds in Danger of Extinction and Their Environment (JAMBA)
- Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)
- Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention)
- Convention on Conservation of Nature in the South Pacific (Apia Convention)

State Initiatives

- The *Water Resources Act 2000* (controls the removal of native vegetation in creeks and rivers (non-tidal watercourses))
- *Nature Conservation Act 1992*
- *Environmental Protection Act 1994*
- *Land Protection Act 1994*
- *Coastal Protection and Management Act 1995*
- *Integrated Planning Act 1997*
- *Water Act 2000* (includes provisions for the Gulf Water Resource Plan)
- *Fisheries Act 1994*
- *Vegetation Management and Other Legislation Amendment Act 2004*

This last Act will bring about a major change to Queensland's tree clearing laws. It regulates tree clearing by incorporating the clearing provisions of the Land Act 1994 and the Vegetation Management Act 1999 into a single piece of legislation for both leasehold and freehold land, helping to simplify Queensland's tree clearing laws.

One of the major initiatives in regional planning is this Draft Natural Resources Management Plan and associated Regional Investment Strategy which incorporates biodiversity conservation within a broad regional framework for ecologically sustainable development.

Voluntary Property Acquisition

The State government has allocated \$7.5 million for the acquisition of land of high conservation value on Cape York Peninsula.

Local government initiatives

Local government is responsible for land use planning and development appraisals for local government areas throughout the region and is a way in which councils can contribute to the conservation of biodiversity. Mechanisms in place include strategic plans, development control plans, land use zoning, local planning policies, bylaws and vegetation protection ordinances.

In 1998 the National Assembly of Local Government adopted a National Local Government Biodiversity Strategy, developed jointly by the Australian Local Government Association and the Biological Diversity Advisory Council.

The strategy sets out a national plan to enable biodiversity conservation to become a mainstream function of local government.

Managing introduced species

The traditional feral animal and weed management goal of eradication generally has not worked in Australia despite campaigns that have been expensive and of varying intensity over many years (but early intervention has eradicated some pests very soon after introduction). Current feral animal and weed control strategies and management programs are coordinated at all levels of government and focus on those species known to be causing significant problems or posing significant threats.

Details about the Cape York Peninsula Pest Management Strategy (CYP PMS) are provided in Section 1.2. Local government is critical in pest management. With the shift to Shire Councils for Aboriginal Councils and subsequent responsibility for pest management, there needs to be recognition that resources will be required to undertake this role.

Some further information is provided in an Annex 5 and readers are encouraged to reference the full Cape York Peninsula Pest Management Strategy (CYP PMS) for further details of pest management in the region.

Feral animals

National threat abatement plans have been prepared for cats, rabbits and goats in accordance with the Endangered Species Protection Act 1992 (Commonwealth). Rabbits, goats and pigs are declared as pests under the Land Protection (*Pest and Stock Route Management*) Act 2002 in Queensland. Control is the responsibility of every landholder. Feral animal control programs have been implemented for protected areas across the State. Control of feral animals is also part of many recovery programs for threatened species.

There is, however, no comprehensive State-wide strategy for controlling feral animals to protect rare or threatened species or ecosystems. Control techniques for feral species in Queensland vary and include conventional methods (such as fencing, trapping, poisoning and shooting) and biological control. Overall, control tends to be for agricultural rather than conservation purposes and, for some species, is opportunistic and haphazard. Many coordinated control programs, including aerial removal of pigs have been undertaken on marine plain ecosystems over the last 5 years. This has primarily occurred within National Parks and west coast DoGIT lands for conservation purposes. The marine plain ecosystem has been found to consistently harbour the highest pig densities later in the dry season.

While brumbies are now not declared and the landholder does not legally have a responsibility to control, many still do due to adverse impacts to pastoral management. The impact of Brumbies on rare or threatened ecosystems on CYP is not clearly known, particularly in riparian and marine plain environments.

The Fisheries Act has regulations and penalties regarding noxious fish and their release into open waters. However, there are no clear, uniform regulations relating to keeping non-native species in outdoor ornamental ponds.

Weeds

The National Weed Strategy provides guidelines under which weed management measures can be used more strategically and effectively, integrating the efforts of all stakeholders. The strategy deals with weeds of national significance, in particular those that constitute major threats to Australia's biodiversity.

In Queensland, NR&M has initiated several programs to manage major or potential weed infestations, including

- **State Agency Pest Management Plans** which assist in the management of declared pests on State-controlled land in accordance with the *Land Protection (Pest and Stock Route Management) Act 2002* and the Queensland government policy for managing pests on State-controlled land.

State Agency Pest Management Plans are intended to provide the basis for the development of locally or regionally relevant State Agency Implementation Plans that will provide valuable input to the development of [Local Government Area Pest Management Plans](#) and [Regional Natural Resource Management Plans](#).

- **Strategic Weed Eradication and Education Program** - a former partnership between Department of Natural Resources, the Shires, landholders and the community in preventing the spread of principle declared weeds such as rubber vine.
- **Biological control** agents – an ongoing program of investigation, trialling and distribution of biological control agents for a number of weed species.

Marine pests

Management of marine pests currently focuses on preventing entry rather than relying on post-entry eradication or control. The Commonwealth Department of Environment and Heritage, EPA, DPI&F, the Australian Ballast Water Management Advisory Council and the Australian Quarantine Inspection Service are involved in a pilot community monitoring program aimed at the early detection and eradication of marine pests.

Grazing management

Most grazing land on the Peninsula is Leasehold. The draft State Rural Leasehold Land Strategy was released for public consultation in late March 2003 by the Department of Natural Resources and Mines. The Strategy aims to provide a policy framework for achieving sustainable management and use of state rural leasehold land by protecting its environmental, social and economic values, and recognising the various interests held in it.

The approach of the strategy is long term and linked to natural resource management outcomes. It builds on the provisions of the *Land Act 1994* and, while it does not rely on any substantial changes to existing legislation, it does provide a major shift from the current prescriptive approach to land administration, to a performance-based and outcomes-focused approach (DNRM&E, 2003).

The Department of Natural Resources, Mines and Energy has also compiled the draft Property Resource Management Planning guidelines.

Fishing management

Fisheries management for marine and estuaries is discussed in the Sea Country section.

Conservation Areas and plans

Conservation Areas are those areas that possess significant natural, cultural, or historical values. Conservation areas include National Parks, Environmental Parks, Fish Habitat Reserves, Wetland Reserves, Nature Refuges (previously Fauna Sanctuaries), Fish Habitat Areas (FHAs) and sites listed on the National Estate Register and the World Heritage Register.

This Plan, through the Regional Investment Strategy, will be the vehicle for resourcing the implementation of relevant Endangered Species Recovery Plans (see section 1.2), Threat Abatement Plans and Conservation Plans.

Aspirations, Outcomes and Actions

The goal for biodiversity is 'Looking after biodiversity'.

The aspirations for biodiversity are:

- In 2025 there is widely accessible, comprehensive knowledge of biodiversity and natural integrity values, and their conservation status, as well as appropriate management principles.
- By 2025 there is implementation of an agreed Peninsula-wide conservation strategy to conserve biodiversity, through appropriate land and sea management.
- In 2025 Biodiversity and natural integrity conservation is adequately resourced and funded and contributes to community capacity.
- In 2025 Biodiversity and natural integrity are restored/maintained (at or above 2004 levels) through appropriate management.

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Targets for Biodiversity

BIODIVERSITY							
Asset:	Looking after biodiversity						Integration and Collaboration
Goal:							
Aspirational Target	Achievable RCTs 10 - 20 yrs	Management Action Targets (MATs) 3 – 5 yrs	Type of MAT	Management Actions as Proposed by Community	Other RCTs addressed	Priority	Potential Partners
B1 In 2025 there is widely accessible, comprehensive knowledge of biodiversity and natural integrity values, and their conservation status, as well as appropriate management principles.	B1-1 By 2015, terrestrial, freshwater and marine higher species of CYP are ecologically healthy.	B1-1-1 Within 5 years identify and fill gaps in knowledge of species occurrence and conservation status (in accord with Strategy 9 of CYPLUS Stage I Rare and Threatened Species Assessment and Recovery).	RA	<ul style="list-style-type: none"> Map and determine population size of all threatened species. 	H1-2, C1-2, C2-1, N1-1, N2-1, N3-1, N4-1, N4-2, N4-3, N4-4, N4-5, L1-2, L4-5, W4-2, S1-2, S2-1, S3-1, S3-2, S3-4, B1-2, B1-3, B1-5, B1-8, B1-9, B1-11, B4-1.	M	CRC, CSIRO, DNR&M, consultant groups
	B1-2 By 2015, the freshwater sawfish remain present in all of their known current range and show signs of population recovery.	B1-2-1 Within 5 years, determine the historical and current range of the freshwater sawfish and the issues facing its security.	RA	<ul style="list-style-type: none"> Collect anecdotal information that would provide significant valuable information on the distribution (current and historical) of this species. It would be a valuable resource for planning and management. Develop an education program to report sightings and other relevant information from the public. 	N4-1, N4-4, B1-3, B1-7, B4-1.	M	CRC, CSIRO, DNR&M, consultant groups, Traditional Owners, landholders, communities

Asset: BIODIVERSITY							
Goal: Looking after biodiversity							Integration and Collaboration
Aspirational Target	Achievable RCTs 10 - 20 yrs	Management Action Targets (MATs) 3 – 5 yrs	Type of MAT	Management Actions as Proposed by Community	Other RCTs addressed	Priority	Potential Partners
	B1-3 Habitat requirements of, and threats to most threatened species and threatened communities have an improving trend by 2015.	B1-3-1 Within 5 years, assess habitat requirements of and threats to all endangered species and communities, 10% of vulnerable species, and all VMA threatened regional ecosystems documented (in accord with Strategy 9 of CYPLUS Stage I: Rare and Threatened Species Assessment and Recovery).	RA	<ul style="list-style-type: none"> Establish Monitoring and Evaluation protocols for establishing trends in threatened species populations and regional ecosystem extent. Identify extent and severity of known ecological threatening processes. Identify currently unknown threatening processes and develop/implement priority actions. Develop reliable and credible methods for assessing biodiversity and conservation values on National Parks and Protected Areas. Determine how well the mammals at risk are protected in the current protected area system. Identify appropriate fire management practices for the management of biodiversity and natural integrity values as part of Cape York Peninsula Fire Project. Identify appropriate weed management practices for the management of biodiversity and natural integrity values. Identify appropriate pest animal management practices for the management of biodiversity and natural integrity values. 	N1-1, N2-1, N2-N3-1, N4-1, N4-2, N4-3, N4-4, N4-5, B1-3, B1-7, B4-1.	M	CRC, CSIRO, DNR&M, consultant groups, Traditional Owners, landholders, communities
		B1-3-2 Within 5 years undertake targeted research to identify the extent and causes of declines in granivorous birds.					
		B1-3-3 Within 5 years undertake targeted research to identify the extent and causes of declines in mammals and their conservation status.					
		B1-3-4 Complete Regional Ecosystem mapping in 5 years to 1:250 000 scale.	RA				
	B1-4 By 2015, representative ground layer communities, with particular attention to rare and threatened species will have an improving trend.	B1-4-1 By 2009 undertake inventory of 10% of representative ground layer communities.	RA	<ul style="list-style-type: none"> Establish Monitoring and Evaluation protocol for characterising ground layer vegetation, with hierarchical surveying of common and rare species. Remeasure ground layer characteristics at 	N1-2, N2-1, N3-1, N4-1, L1-3, L4-1, L4-2.	M	CRC, CSIRO, DNR&M, consultant groups, Traditional Owners,

Asset: BIODIVERSITY							
Goal: Looking after biodiversity							
Integration and Collaboration							
Aspirational Target	Achievable RCTs 10 - 20 yrs	Management Action Targets (MATs) 3 – 5 yrs	Type of MAT	Management Actions as Proposed by Community	Other RCTs addressed	Priority	Potential Partners
	B1-5 By 2015 trends in key indicator species and communities are ecologically improving.	B1-5-1 Within 5 years key indicator species and communities that reflect native pasture condition, appropriate fire regime and broader management regimes are identified.	BMP	<ul style="list-style-type: none"> up to 700 selected CORVEG sites (Crowley and Fisher 2001). Investigate use of remote sensing to assess cover of ground layer vegetation (Landsberg and Crowley 2004), such as Land Change Cover Analysis (LCCA; Karfs 2001). Collate all available information on habitat requirements and management principles for the known flora and fauna of Cape York Peninsula. Identify species and communities adversely affected by inappropriate land management (see Landsberg and Crowley 2004). Establish healthy population thresholds of key indicator species and communities. Establish management requirements for management of key indicator species and communities. Establish Monitoring and Evaluation protocols for establishing trends of key indicator species and communities. Identify benchmark sites containing well-managed, healthy populations of key indicator species and communities (Woinarski 2001) against which to compare trends in the broader environment (Landsberg and Crowley 2004). 	N1-2, N2-1, N3-1, N4-1, L1-3, L1-4, L1-8, L2-3, L3-2, B4-4.	M	landholders, communities CRC, CSIRO, DNR&M, consultant groups, Traditional Owners, landholders, communities
	B1-6 By 2015 areas with high natural integrity value are understood and conserved accordingly (e.g. high geophysical value, enduring evolutionary and ecological processes, exceptional natural beauty, communities of universal value, and extensive areas of continuous undisturbed	B1-6-1 Complete any unfinished inventories of areas with high natural integrity value (in accord with Strategy 6 of CYPLUS Stage I: Assessment of Natural and Cultural Values). Included in B2	RA	<ul style="list-style-type: none"> Collate all available information on sites with high natural integrity on Cape York Peninsula. Mapping and documentation of sites with high natural integrity and make readily available to community. Identify threats to areas with high natural integrity value. Establish Monitoring and Evaluation protocols for establishing condition of areas with high natural integrity value subject to 	N1-1, H5-2, H1-1, C1-2, L2-1, B2-1, B3-1.	M	CRC, CSIRO, DNR&M, consultant groups, Traditional Owners, landholders, communities

Asset: BIODIVERSITY							
Goal: Looking after biodiversity							
Integration and Collaboration							
Aspirational Target	Achievable RCTs 10 - 20 yrs	Management Action Targets (MATs) 3 – 5 yrs	Type of MAT	Management Actions as Proposed by Community	Other RCTs addressed	Priority	Potential Partners
	vegetation). B1-7 Pest species are managed so that there is no decline in the health of biodiversity by 2015.	B1-7-1 As part of Cape York Weeds and Feral Animals Project, within 5 years, develop management recommendations for the prevention and control of weeds.	BMP	<ul style="list-style-type: none"> significant threats. In collaboration with NR&M collate all available information on control of significant weeds on or likely to spread to Cape York Peninsula, including efficacy and economic assessments. Identify management practices that minimise the spread and establishment of weeds (e.g. vehicle hygiene, sourcing of weed-free hay, and control of emerging outbreaks). Where adequate information on weed eradication does not exist, undertake controlled trials. 	N N4-6, C2-1, L1-2, L4-4, L4-5, L4-7, L4-8, B1-5, B4-4.	H	CRC, CSIRO, DNR&M, consultant groups, Traditional Owners, landholders, communities
	B1-8 By 2015 a sound knowledge for integrating diverse biodiversity and natural integrity values has been acquired.	B1-8-1 Within 5 years, undertake targeted regional biodiversity and natural integrity assessments to inform management planning.	RA	<ul style="list-style-type: none"> Identify potential coordinated conservation areas on the basis of biodiversity management requirements (after Garnett and Crowley 2000). Identify suitable management principles for coordinated conservation areas, including both on and off-reserve management practices. 	N1-1, N1-2, N2-1, N3-1, N4-1, H2-2, L1-3, L1-8, L2-1, B1-3, B1-6, B1-7, B4-3.	M	CRC, CSIRO, DNR&M, consultant groups, Traditional Owners, landholders, communities
		B1-8-2 Within 5 years, Indigenous knowledge of biodiversity and natural integrity preserved supported, and where appropriate, incorporated into management guidelines.	RA	<ul style="list-style-type: none"> Establish protocols for accessing, recording, documenting and using traditional knowledge, and for allocation of intellectual property rights. Support the storage and appropriate transmission of Indigenous knowledge Engage Indigenous people in above (see capacity building). 		H	Indigenous groups, CRC, CSIRO, DNR&M, consultant groups, Traditional Owners, landholders, communities

Asset: BIODIVERSITY							
Goal: Looking after biodiversity							
Integration and Collaboration							
Aspirational Target	Achievable RCTs 10 - 20 yrs	Management Action Targets (MATs) 3 – 5 yrs	Type of MAT	Management Actions as Proposed by Community	Other RCTs addressed	Priority	Potential Partners
	B1-9 By 2015 biodiversity is managed by the wider community on a day-to-day basis.	B1-9-1 Within 5 years, biodiversity and natural integrity information being communicated to CYP communities in accord with Communication and Engagement Strategy.	CB	<ul style="list-style-type: none"> Make information and guidelines available to all CYP communities and to agencies and companies serving CYP (e.g. electricity lines, data cables, gas pipelines) in appropriate formats. Cooperate with agencies and organizations contributing to community awareness of NRM issues, including Rural Fires, AQIS and NAQS. 	N1-1, N2-1, N4-1, N4-3, N4-4, H2-2, H4-1, H4-2, H5-1, C1-2, C2-1, C2-3, C2-5, L1-1, L1-2, L1-3, L1-8, L2-1, B1-3, B1-6, B1-7, B4-3.	M	CRC, CSIRO, DNR&M, consultant groups, community groups, local council, Traditional Owners, landholders, communities
	B1-10 By 2015 there is a collection of information contributing to community capacity.	B1-10-1 Within 5 years, local people employed in collection and interpretation of biodiversity and local integrity information in accord with Capacity Building Strategy.	CB	<ul style="list-style-type: none"> Engage local people, and wherever appropriate, Indigenous people, in collection and interpretation of biodiversity and local integrity information (see Capacity Building Strategy). 	N1-1, N2-1, N3-1, N4-1, N4-3, N4-4, N4-5, N4-6, H2-2, H4-1, H4-2, H5-1, L1-1, L1-2, L1-3, L1-8, L2-1, B1-3, B1-6, B1-7, B4-3.	M	CRC, CSIRO, DNR&M, consultant groups, community groups, local council, Traditional Owners, landholders, communities
	B1-11 By 2015 natural processes are managed using joint understandings of caring for country.	<p>B1-11-1 Aboriginal landscape management practices and understanding incorporated into current biodiversity conservation approaches e.g. fire management.</p> <p>B1-11-2 New models of protected area management developed to take better account of Traditional Owners' rights and interests.</p>	CB	<ul style="list-style-type: none"> Establish protocols for accessing, allocation of intellectual property rights, recording and documenting traditional knowledge. Engagement of Aboriginal people in above and application of knowledge in association with current practices. Adapt co-management models (i.e. collaboration between management authorities and other stakeholders such as TOs or neighbouring communities) to CYP context, focussing on ecosystem function and maintaining cultural diversity. (Refer to: Indigenous and Traditional People and Protected Areas – Principles, Guidelines and Case Studies. Best Practice in Protected Areas Guideline series No4 – IUCN) Also incorporate recommendations from the 5th International Parks Congress. 	C2-4, H3-1, H3-2, H5-3, H6-1.	M	CRC, CSIRO, DNR&M, consultant groups, community groups, local council, Traditional Owners, landholders, communities

Asset: BIODIVERSITY								
Goal: Looking after biodiversity								
Aspirational Target	Achievable RCTs 10 - 20 yrs	Management Action Targets (MATs) 3 – 5 yrs	Type of MAT	Management Actions as Proposed by Community	Integration and Collaboration			
					Other RCTs addressed	Priority	Potential Partners	
B2 By 2025 there is implementation of an agreed Peninsula-wide conservation strategy to conserve biodiversity, through appropriate land and sea management.	B2-1 By 2015 the biodiversity of the region is conserved according to a conservation strategy with detailed management plans for values and threats (sub-plans). Cooperative arrangements with all stakeholders, using joint understandings of " and the conservation strategy.	B2-1-1 Within 5 years, key partners, roles, capacity, resourcing and support requirements identified and supported.	P	<ul style="list-style-type: none"> Develop a data base of interested parties, including skills, and capacity to provide labour, funds and other resources. Promote and support joint management arrangements and cooperative agreements between agencies, Indigenous peoples, Landcare centres, Land and Sea Centres and land owners, with appropriate capacity building. Provide leadership and employment opportunities for local communities in plan production and implementation (see capacity building). 	N1-1, N2-1, N3-1, N4-1, N4-2, N4-5, C1-1, C1-2, C2-1, C2-3, C2-5.	H	CRC, CSIRO, DNR&M, community, Traditional Owners, landholders, communities	
		B2-1-2 Within 5 years, Aboriginal landscape management practices and understanding incorporated into current biodiversity conservation approaches (e.g. fire management), strategic plan and sub-plans.	BMP	<ul style="list-style-type: none"> Engage Indigenous people in the application of Indigenous knowledge in association with current practices. Adapt co-management models (i.e. collaboration between management authorities and other stakeholders such as TOs or neighbouring communities) to CYP context, focussing on ecosystem function and maintaining cultural diversity. 			H	CRC, CSIRO, DNR&M, Indigenous groups, community
		B2-1-3 Within 5 years, incorporate biodiversity conservation principles and practices into all Land and Sea Centre Programs.	P	<ul style="list-style-type: none"> Integrate L&SC programs with biodiversity conservation initiatives across CYP. 			H	CRC, CSIRO, DNR&M, Indigenous groups, community
		B2-1-4 Where land clearing is permitted under State law (primarily mining areas and projects of State significance), maintain viable and sustainable networks of remnant vegetation incorporating all regional ecosystem types.	P	<ul style="list-style-type: none"> Prepare land use plans that will ensure the retention of sustainable networks of regional ecosystems in areas of intensive land use where regional ecosystems are threatened. Eg tall <i>Eucalyptus tetradonta</i> woodlands on the Weipa Plateau Bioregional Province. Prepare a land use plan for the Weipa Plateau Bioregional Province in consultation with mining representatives, traditional owners, environmental representatives and state and federal government agencies. 			H	CRC, CSIRO, DNR&M, community, consultant groups
		B2-1-5 Within 5 years, prepare and implement detailed strategic peninsula-wide	P	<ul style="list-style-type: none"> In accord with Strategy 9 of CYPLUS Stage I Rare and Threatened Species 			H	CRC, CSIRO, DNR&M, DPI&F,

Asset:	BIODIVERSITY						
Goal:	Looking after biodiversity					Integration and Collaboration	
Aspirational Target	Achievable RCTs 10 - 20 yrs	Management Action Targets (MATs) 3 – 5 yrs	Type of MAT	Management Actions as Proposed by Community	Other RCTs addressed	Priority	Potential Partners
		<p>management plans for fire, feral animals and weeds and recovery plans for threatened species and communities, and integrate with management plans for the various land uses and sub-regions affected.</p> <p>B2-1-6 Within 5 years identify those locations where natural integrity has been significantly degraded.</p> <p>B2-1-7 Within 5 years design and implement appropriate ecological restoration projects.</p>		<p>Assessment and Recovery, prepare and implement threatened species and community Recovery Plans (including Monitoring and Evaluation strategy to identify loss/decline/ stabilisation/recovery, and starting with a grasslands recovery plan).</p> <ul style="list-style-type: none"> • Prepare and implement fire management plans as part of Cape York Peninsula Fire Project. • As part of Cape York Weeds and Feral Animals Project, prepare weed and pest animal management plans, including protocol for appropriate vehicle hygiene protocol (such as wash-down facilities) in collaboration with QNRM, AQIS and NAQS. • Prepare and implement co-ordinated conservation area management plans (incorporating management principles for maintenance/recovery of threatened species, regional ecosystems, ground layer vegetation, key indicator species and communities, as well as management plans for fire, weeds and feral animals). • Support the preparation and implementation of property plans that include conservation outcomes and Indigenous land use and access agreements. • Support the preparation and implementation of Protected Area Management Plans. 			Indigenous groups, community

Asset: BIODIVERSITY							
Goal: Looking after biodiversity							
Integration and Collaboration							
Aspirational Target	Achievable RCTs 10 - 20 yrs	Management Action Targets (MATs) 3 – 5 yrs	Type of MAT	Management Actions as Proposed by Community	Other RCTs addressed	Priority	Potential Partners
		<p>B2-1-8 Within 5 years, prepare integrated Protected Area strategy (in accord with Strategy 1 of CYNHT Stage 1: Managing Natural Resources).</p> <p>B2-1-9 By 2015 there is an Integrated network of protected land and sea areas managed for the protection of natural, cultural and spiritual values.</p> <p>B2-1-10 By 2006 the State Government has compiled the case for World Heritage listing in accordance with State policy.</p> <p>B2-1-11 By 2006 strategies are developed and commenced for voluntary acquisitions of areas of scientifically assessed highest natural and conservation values. (This must be accompanied by the development of a fully funded long-term management plan.)</p>	P	<ul style="list-style-type: none"> Develop a system of protected areas to protect the identified natural heritage values of CYP through a network including core strongly protected areas and compatible use areas. Establish and implement a range of management options developed for each area (including options for local Traditional Owners/ rangers and conservation service providers identified and engaged where appropriate). Compile case for World Heritage listing (see target N2). Implementation of the targeted strategy to acquire \$7.5 million worth of properties of high natural and cultural conservation value in accordance with the State policy. 		H	CRC, CSIRO, DNR&M, Indigenous groups, community
	B2-2 By 2015 a Monitoring and Evaluation strategy is implemented and demonstrating effectiveness of the conservation strategy.	B2-2-1 Use Monitoring and Evaluation protocol developed in recovery plans, and fire, weed and pest animal management plans to identify trends in threatened species, ecosystem function, ground layer condition, natural resource integrity, and management objectives.	RA	<ul style="list-style-type: none"> Implement Monitoring and Evaluation strategies within each sub-plan to identify priority actions. Develop adaptive (flexible and responsive) management process to maintain and enhance integrity of processes. Establish functional Monitoring and Evaluation systems to ensure processes are not disturbed beyond natural recovery limits. 	C2-7, L4-4, L4-5, L4-7, L4-8, W4-1, W6-6, B1-1, B1-2, B2-1, B1-5, B4-1, B4-4	H	CRC, CSIRO, DNR&M, Indigenous groups, community
	B2-3 By 2015 the planning strategy is well-communicated to all CYP communities.	B2-3-1 Within 5 years, develop appropriate communication tools for informing the community of planning procedures and outcomes (see capacity building).	P	<ul style="list-style-type: none"> Make planning information available to all CYP communities through web-site, liaison officers, sectoral networks, and identify other appropriate means of communication. 	H1-2, C1-1, C1-2, C2-1, C2-4, C2-5, C2-6, C2-7.	M	CRC, CSIRO, DNR&M, Indigenous groups, community
	B2-4 In 2015 planning strategy contributing to community capacity.	B2-4-1 In 2008 local people are being employed in development of conservation strategy.	CB	<ul style="list-style-type: none"> Engage local people, and wherever appropriate, Indigenous people, in development of conservation strategy (see 	H1-2, H5-2, C1-1, C1-2, C2-1, C2-3, C2-5	M	DNR&M, Indigenous groups,

Asset: BIODIVERSITY							
Goal: Looking after biodiversity							Integration and Collaboration
Aspirational Target	Achievable RCTs 10 - 20 yrs	Management Action Targets (MATs) 3 – 5 yrs	Type of MAT	Management Actions as Proposed by Community	Other RCTs addressed	Priority	Potential Partners
B3 In 2025 biodiversity and natural integrity conservation is adequately resourced and funded and contributes to community capacity.	B3-1 By 2015 protected areas, threatened species and ecosystems, and off-park conservation actions are managed for biodiversity benefit.	(See Natural Heritage Targets)	P	<ul style="list-style-type: none"> capacity building). Resource development of regional conservation strategy and sub-plans Secure long-term resourcing and support of Land and Sea Centres and Land Care Resource Centre. Establish and/or support QPWS operational bases, with sufficient staff, adequate delegation and funding levels. Establish and support Land Care Resource Centre and Land and Sea Centres (in association with other agencies e.g. Rural Fires, community councils etc), with sufficient staff, resources and funding levels at several locations through the peninsula. Appropriate allocation of funds for enhanced management of all protected areas as part of the Peninsula-wide conservation strategy. Appropriate allocation of funds and resourcing for quarantine activities for biodiversity protection. Secure long-term funding and resourcing for case studies of conservation on pastoral lands (e.g. Golden Shouldered Parrot project). Secure long-term funding and resourcing for case studies of conservation on Indigenous lands (e.g. Finch and frog projects). 	H3-1, H3-2, H5-2, C2-3, L2-1, N1-1, N2-1, N3-1, N4-1, N4-3, N4-4, B1-7	H	community CRC, CSIRO, DNR&M, Indigenous groups, community, WWF

BIODIVERSITY							
Asset:	Looking after biodiversity						
Goal:							Integration and Collaboration
Aspirational Target	Achievable RCTs 10 - 20 yrs	Management Action Targets (MATs) 3 – 5 yrs	Type of MAT	Management Actions as Proposed by Community	Other RCTs addressed	Priority	Potential Partners
	Ground layer vegetation is healthy, with no loss of high quality areas. B4-3 In 2015 National Parks and Protected Areas continue to be managed for the conservation of biodiversity and natural integrity.	B4-2-2 Diversity and cover of ground layer species are maintained/restored. B4-3-1 Seek and secure opportunities to ensure park managers are adequately resourced and supported.	P	<ul style="list-style-type: none"> Work closely with neighbours and rangers in or adjacent to protected areas and National parks in the development of management programmes for Fire management, Dingo containment and Weeds and feral animal control. Work closely with neighbours in feral animals (pigs and horses) control programs in and adjacent to National Parks. Identify critical habitat for endangered species. (See target C2-3-3). 	N1-1, N3-1, N4-2, L2-1, B2-1, B3-1	M	community, pastoralists and landholders CRC, CSIRO, DNR&M, Indigenous groups, community
	B4-4 By 2015 biodiversity and natural integrity values are enhanced through appropriate fire, weed and pest animal management regimes.	See N4-5 and N4-6.	BMP	<ul style="list-style-type: none"> Implement fire, weeds and pest management plans. Implement vehicle hygiene protocol by establishing appropriate (mobile?) wash-down facilities. 	N4-5, N4-6, L4-4, L4-5, L4-7, L4-8, W4-1, W6-6, B1-1, B1-2, B2-1, B1-5, B4-1, B4-4	H	CRC, CSIRO, DNR&M, Indigenous groups, community

7.8 Ecologically Sustainable Development

Whilst not a natural resource 'asset', ecologically sustainable development (ESD) is, a key objective and outcome sought through the implementation of the management principles outlined in this discussion paper. This Plan recognises that economic development and activities are an essential element of supporting communities and their ability to undertake natural resource management activities. The goals, objectives and principles of the National Strategy for Ecologically Sustainable Development help to define the meaning and purpose of ESD and are provided as follows:

What is ecologically sustainable development?

Ecologically Sustainable Development (ESD) represents one of the greatest challenges facing Australia's governments, industry, business and community in the coming years. While there is no universally accepted definition of ESD, in 1990 the Commonwealth Government suggested the following definition for ESD in Australia:

- 'using, conserving and enhancing the community's resources so that ecological processes, on which life depends, are maintained, and the total quality of life, now and in the future, can be increased'.

Put more simply, ESD is development which aims to meet the needs of Australians today, while conserving our ecosystems for the benefit of future generations. To do this, we need to develop ways of using those environmental resources which form the basis of our economy in a way which maintains and, where possible, improves their range, variety and quality. At the same time we need to use those resources to develop industry and generate employment.

By developing this Strategy, we have demonstrated our belief that a coordinated approach to ESD is required. There are many reasons for this, including the need to look at management of Australia's ecological and economic resources on a regional, national and international basis, and the significance of potential threats to our environment and economy if we do not take action.

Governments recognise that there is no identifiable point where we can say we have achieved ESD. Some key changes to the way we think, act and make decisions, however, will help ensure Australia's economic development is ecologically sustainable. There are two main features which distinguish an ecologically sustainable approach to development:

- we need to consider, in an integrated way, the wider economic, social and environmental implications of our decisions and actions for Australia, the international community and the biosphere; and
- we need to take a long-term rather than short-term view when taking those decisions and actions.

By following an ecologically sustainable path of development, we should be able to reduce the likelihood of serious environmental impacts arising from our economic activity. The number of divisive and damaging confrontations which have characterised some of our development projects should also decrease. More practically, ESD will mean changes to our patterns of resource use, including improvements in the quality of our air, land and water, and in the development of new, environmentally friendly products and processes.

Australia's goal, core objectives and guiding principles for the Strategy

The Goal is:

Development that improves the total quality of life, both now and in the future, in a way that maintains the ecological processes on which life depends.

The Core Objectives are:

- to enhance individual and community well-being and welfare by following a path of economic development that safeguards the welfare of future generations
- to provide for equity within and between generations
- to protect biological diversity and maintain essential ecological processes and life-support systems.

The Guiding Principles are:

- decision making processes should effectively integrate both long and short-term economic, environmental, social and equity considerations
- where there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation
- the global dimension of environmental impacts of actions and policies should be recognised and considered
- the need to develop a strong, growing and diversified economy which can enhance the capacity for environmental protection should be recognised
- the need to maintain and enhance international competitiveness in an environmentally sound manner should be recognised
- cost effective and flexible policy instruments should be adopted, such as improved valuation, pricing and incentive mechanisms
- decisions and actions should provide for broad community involvement on issues which affect them.

These guiding principles and core objectives need to be considered as a package. No objective or principle should predominate over the others. A balanced approach is required that takes into account all these objectives and principles to pursue the goal of ESD.

Regional Profile

Beef cattle grazing is the primary land use on Cape York. Around 60 pastoral leasehold properties make up 60 per cent of the land area. Some of the properties are leased and managed by families who have strong historical connections to the area, including Indigenous Traditional Owners.

Mining has world-class bauxite and silica sand deposits and the potential to host world-class kaolin deposits.

Further information about the grazing and mining industries is included in this Plan in sections 7.4 and 3.4.

Tourism

The “Strategic Management Plan for Tourism on Cape York Peninsula” (CYPDA, 1996) states that “There is considerable potential for the development of a tourism industry on Cape York Peninsula based on the twin assets of the land and people provided:

- a base level of infrastructure related to visitor management and information provision is established including information and interpretation centres, signage, boardwalks,
- there is a focus on information in order to increase understanding and cross cultural education amongst the stakeholder groups,
- itineraries are developed which facilitate opportunities for residents to participate in tourism activities which will enhance visitors understanding and appreciation of varied elements of the assets of land and people,
- there is a respect for the principle of inclusion of Aboriginal people in terms of freehold tenure and traditional landowning interests.”

There is general agreement that if properly developed and managed, tourism provides a good potential to grow the economic and employment base of the region without degrading its natural resources. The desired outcomes for the tourism industry on Cape York Peninsula are:

- a low impact and culturally appropriate industry which provides social, cultural and economic benefits for Cape York Peninsula residents;
- improved involvement in and influence over the tourism industry by indigenous people;
- integration with other industries such as grazing and mining;
- an industry that provides a unique and viable range of products attractive to a range of niche markets;
- co-ordination amongst all stakeholder groups concerned with the management and operation of tourism on Cape York Peninsula;
- an industry which provides first class opportunities that will engender a genuine appreciation and increased understanding of the regions natural and cultural diversity;
- the development of appropriate codes of conduct ensuring an equitable exchange between visitor and visited; and
- a better informed & educated visitor and managed visitor flow.

Indigenous peoples of Cape York Peninsula face particularly great challenges. Government initiatives to improve health, education and environmental factors that limit their potential for healthy, financially independent and fulfilling lives are urgently needed. For this reason it is recommended that funding for education and health initiatives are a high priority for Cape York Peninsula Indigenous communities.

Education and Health Initiatives: The socio-economic status (as measured by socio-economic indicators such as health, education and employment) of Indigenous peoples is well below that of non-Indigenous Australians. For example, Cape York Peninsula’s Indigenous peoples experience higher rates of death from diseases such as heart disease, pneumonia, and diabetes when compared to the rest of Queensland. Over 60% of the Indigenous population have incomes of less

than \$12,000 and more than half live in over-crowded houses occupied by six or more people.

A number of critical policies for achieving better social and economic outcomes for Indigenous people have been initiated since 2000. A key to achieving lasting and meaningful change to the current social dislocation in Indigenous communities is to encourage sustainable economic development opportunities in the region, that will be available to Indigenous people. Aquaculture has been identified as one area which may provide such an opportunity to remote communities. It will be important to promote ecologically sustainable development in all sectors to facilitate Indigenous access to the wider economy. Sustainable access to natural resources will be required for the ecologically sustainable development of all sectors.

The intention therefore is to provide appropriate recognition of opportunities for ESD and economic activities. This does not mean that the targets and management actions identified in here will be suitable for funding through the Natural Heritage Trust but they are targets and management actions that require sustainable access to natural resources and could be supported via other funding sources to be identified in the Regional Investment Strategy.

Overview

This Plan strives to uphold the first over-riding CYPLUS principle:

“Use and management of the lands and waters of Cape York Peninsula will follow the principles of ‘ecologically sustainable development’ recognising, at all levels of decision-making, all dimensions of sustainability (ecological, economic, cultural, spiritual and social well-being) in both the short and long term.”

With reference to that principle this Draft Cape York Peninsula Natural Resource Management Plan aims to encourage initiatives, enterprises and industries to be undertaken in a manner that meets the definition of ESD. CYPLUS also identified the need to develop projects for Cape York Peninsula that would create a strong and diversified economy within a framework that recognises the unique environmental values of the region. The major objective for land use planning and decision making identified in the CYPLUS was:

“To encourage environmental and economic land use decision making which takes full account of all relevant land and resource values.”

A number of initiatives are already actively being pursued across the region.

Cape York Partnerships Economic Development Policy

The State Government is giving high priority to the implementation of its' Cape York Partnerships Economic Development Policy Framework (CYPEDPF), which was formally endorsed in late 2001. This policy framework, which focuses on progressing sustainable employment and economic development opportunities for the Cape's Indigenous communities, seeks the following outcomes:

- providing a framework for government action and input into the CYP Negotiation Table process, on economic and employment matters;
- supporting the development and maintenance of social, cultural, capital capacity and infrastructure within the region;
- establishing specific economic development and employment projects within each indigenous community on the Cape;
- increasing total employment within the region;

- increasing the proportion of indigenous people within the labour force in the region;
- increasing the volume of cash circulating within the regional economy;
- increasing the Gross Regional Product (GRP) of the region; and
- facilitating the growth of indigenous owned enterprise on Cape York.

In working towards these outcomes, a number of guiding principles are applied, including:

- recognition that the identification, and consideration, of preferred economic development projects must be led, and supported, by the indigenous communities;
- a willingness to learn from past experiences, including mistakes, and build upon successful practice models used elsewhere;
- recognition that the development of community capacity to progress the economic development agenda will be a long term and complex process;
- recognition that not all communities and indigenous groups will be interested in achieving the same outcomes or progressing at the same pace;
- recognition that the State is only one of the key stakeholders, and will need to encourage an integrated approach by all levels of government;
- building upon other initiatives and programs that complement the objectives of the Cape York Partnerships; and
- recognition of the importance and relevance of both traditional (clan, culture, community etc) and commercial principles in the development of indigenous business opportunities.

A number of specific strategies are being pursued to achieve the overarching outcomes of the Cape York Partnerships Economic Development Policy framework, including:

Import Substitution

- encourage the establishment of indigenous businesses, particularly for the provision of goods and services within Aboriginal communities; and
- give priority to the development and encouragement of businesses and activities that can substitute for goods and services that are currently “imported” into the Cape.

Regional Enterprise Development

- foster indigenous economic and business development, within the context of core “whole of government” policies, such as CYP2010, Tenure resolution, the Ten Year Indigenous Partnership, Growing Tourism, Regional Economic Development, Access Queensland, Crime Prevention and the Cape York Natural Heritage Trails;

- ensure that government economic development, employment, training and infrastructure policies, services and programs, particularly for indigenous communities, reflect the objectives of Cape York Partnerships;
- recognise the need for, and support the development of, regional business development and service delivery structures that nurture and support indigenous economic development; and
- complement the strategies of other groups in the region (eg CYRAG) who may not be explicit Cape York Partnership partners.

Small Enterprise and Export Development

- focus on those sectors of the economy that will provide the greatest opportunity to encourage a range of inter-related businesses (ie economic clusters where a number of micro-businesses can be developed as a consequence of the initiation of a larger project);
- identify and facilitate micro-business opportunities; and
- identify actions required by government to stimulate and encourage targeted and priority indigenous economic development opportunities, including the consolidation and integration of existing government services and programs.

Education and Training

- in conjunction with the Indigenous Enterprises Partnership, facilitate business development by, and to transfer relevant skills and knowledge to, indigenous people, whether individuals, families, clans or communities; and
- ensure that government industry development and training programs are specifically targeted to reflect the needs of those sectors that offer the greatest, and most immediate, development opportunities.

Developing Enabling Structures

- ensure that the facilitation of economic development and employment opportunities recognises the unique needs and characteristics of the different indigenous communities;
- facilitate the identification of “champions”, in both the public sector and the indigenous communities, for various economic development projects; and
- foster the development of community based indicators of progress and triple bottom line auditing of community performance.

A number of specific economic development opportunities, within the context of meeting ESD principles, have been identified for progression, as part of the Government’s overall Cape York Partnerships Economic Development Program. These include:

- Forestry products;
- Fishing and Aqua-culture;

- Agricultural and Pastoral;
- Tourism, Art and Culture;
- Land and Sea Management; and
- Community Development, Micro-business and Infrastructure provision.

In addition to this State Government policy, for the (Indigenous) economic development objectives for Cape York, there are a number of related processes and actions that are contributing to the identification of appropriate sustainable economic development opportunities. These include, but are not limited to:

Appropriate Economies Roundtable

One avenue for fulfilling the principle of ESD is the 'Appropriate Economies Roundtable'. It is being fostered by the Cooperative Research Centre for Tropical Rainforest Ecology and Management and the Australian Conservation Foundation. This project is developing models for culturally and environmentally appropriate economic activity in Northern Australia including Cape York Peninsula.

The focus of this effort is economic activity that will provide for ongoing protection of cultural and natural diversity, while improving the quality of life of people, particularly Indigenous peoples. The first Appropriate Economies Roundtable was held in 2003. A key outcome of the discussions during that first Roundtable was the identification of a range of options for economic development that is compatible with the natural heritage values of Cape York Peninsula (Eds R. Hill and S. T. Turton, October 2004).

The Roundtable identified four major activities to support a sustainable future:

1. Tenure and conservation model reform: including more acquisitions of land, better models and funding for conservation management that enable Indigenous peoples' roles.
2. Skills exchange: secondments, placements and working together on 'country' between Indigenous people and those with environmental backgrounds.
3. Pilot projects: combining western and traditional knowledge, building capacity and partnerships on pilot sustainable economies.
4. Eco-Culture Bank or Trust: developing another financial stream available for culturally and environmentally appropriate activities.

Business hubs

The notion of business hubs has been proposed as part of the Balkanu Cape York Development Corporation's Regional Economic Development Strategy (REDS) prepared for the Department of State Development. The idea is based on the belief that support services underpin the creation of nearly all successful businesses, and that gaining access to this support has been difficult for Indigenous entrepreneurs. Failure to get support makes business creation more risky, particularly when the skill level of the entrepreneur is low.

Hubs are envisioned as providing access to a suite of support services, including finance, ongoing advice about all aspects of operating a business, general services including book-keeping, legal support, and training, and provision of a mentor. A

major task of Business Hubs will be to coordinate the activities of other service providers.

The first Business Hub was established at Cooktown in 2001 with additional Hubs planned for centres across the region.

Renewable energy initiatives

Funding support should be a priority for renewable energy initiatives in Indigenous and non Indigenous communities across the region either through expansion of existing bushlight program and/or alternative arrangements.

Other Plan Strategies and Studies

Other plans, strategies and studies that identify industry development opportunities in the region include:

- Cape York Peninsula Beef Industry Strategy (Cape York Beef Industry Group 2001)

This strategy enunciates a desired future for the Peninsula cattle industry – *'In the year 2010, the beef industry on CYP will be a dynamic, diverse, secure sustainable and profitable industry'*.

The cattle industry has been central to the economy, employment and social development of the region for over 130 years. The potential for further and sustainable development within the CYP region will be subject to current Government policy, particularly vegetation management.

Several key areas for strategic action are identified.

- Cape York Peninsula Mining Strategy
- Forestry Opportunities for Cape York Communities – Information Paper (DPI&F, 2002)

This information paper gives consideration to the socio economic development opportunities that salvage and plantation forest product industries can offer in the CYP region, particularly in conjunction with mining activity.

The paper discusses traditional indigenous uses of the regions timber species and existing commercial forestry activities, which have typically been small scale, low intensity operations for lower value products.

The paper identifies several tree species that have commercial potential and a number of potential ecologically sustainable forest industry development activities ranging from immediate, low cost ventures capable of delivering positive revenues in a short period of time, such as salvage operations to more complex longer term projects, such as plantations associated with mining rehabilitation.

- Field and Horticulture Crops on Cape York Peninsula – A situation Analysis (DPI&F, 2003)

This paper undertook a situation analysis identifying the current resources and factors likely to affect broad-acre and horticultural cropping in Cape York Peninsula.

It was determined that a variety of crops have potential for this region identifying land with negligible limitations, and land with minor limitations (for at least one of the land uses studied). There also appears to be good quantities of surface and groundwater of suitable quality available.

Three concomitant market opportunities were also investigated for the region including intra community markets, inter community markets and those remote from Cape York Peninsula. Issues of labour and pest management from native and feral fauna also hold sway.

A selection of crop types, future opportunities and constraints is presented.

Any large scale horticultural development will need to observe native vegetation management legislation.

- Scoping Study Report into Opportunities for Indigenous Aquaculture in North Queensland (2004)

The scoping study sought to identify indigenous interests in aquaculture development in North Queensland, including the Cape York Region. The study looked at employment, training and economic development opportunities for indigenous communities within the aquaculture industry with a view to supplement and diversify food production for local consumption, sale and for restocking of local fisheries.

Consistent with the recommendations of the study, the existing North Queensland Indigenous Aquaculture Working Group (NQIAWG) now utilises a decision support / assessment process to ensure potential development opportunities are economically viable, sustainable and commensurate with identified bioregional constraints.

There is scope for dialogue between this group and proposed Land and Sea Management Centres regarding Indigenous aquaculture opportunities within Cape York Peninsula.

- Lockhart Aquaculture Potential (DPI&F, 2003)
- Characteristics, Utilisation and Potential Markets for Cape York Peninsula Timbers (Queensland Forestry Research Institute Agency for Food and Fibre Sciences, DPI&F, 2001).

It is acknowledged that these strategies and reports have been developed and need to be recognised when considering ESD opportunities that may be promoted or encouraged under the umbrella of this Draft Natural Resource Management Plan. These reports and strategies will however, be subject to current Government policy on land use management on the Cape.

Key Threats and Issues

In identifying and progressing ecologically sustainable development the key issue is to strike an appropriate balance between the economic development, community/social development and conservation goals. In striving to rationally accommodate different points of view about the future extent and form of economic development in the region it is critical to have a robust framework, which allows for the holistic assessment of development proposals, within the context of ESD principles. There is a balance point that must be sought and reached that recognises the legitimate aspirations of development and conservation. This Natural Resource Management Plan advocates adherence to first over-riding CYPLUS principle:

“Use and management of the lands and waters of Cape York Peninsula will follow the principles of ‘ecologically sustainable development’ recognising, at all levels of decision-making, all dimensions of sustainability (ecological, economic, cultural, spiritual and social well-being) in both the short and long term.”

Applying this principle does not mean preventing development, rather that development needs to be truly sustainable. It must also be recognised that mining is a legitimate form of development and that it will proceed under legislative controls that are already in place although those controls may be subject to review in the future in consultation with the mining industry.

Current Responses

Queensland Indigenous Economic Development Strategy

The QIEDS contains broad strategies designed to achieve enhanced economic development for Indigenous people in Queensland. The many specific actions to be undertaken in implementing these strategies will result in a wide range of targeted outcomes. These detailed outcomes can be grouped into the following key outcomes:

- A greater degree of economic equality for indigenous people;
- Improved levels of employment for Indigenous people; and
- Improved levels of Indigenous participation in business.

The long-term aim of the QIEDS is to assist Indigenous Queenslanders to achieve comparable levels of economic independence as enjoyed by the wider Queensland community. Further information is available at:
<http://www.indigenous.qld.gov.au/partnerships/economic.cfm>

Cape York Partnerships

Cape York Partnerships is an initiative of the Queensland government and Indigenous peoples on Cape York Peninsula, released by the Government in May 2000, and focusing on addressing Indigenous social and economic well-being through whole of government negotiated approaches.

The Far North Queensland (FNQ) overall framework for economic development (Cairns Regional Economic Development Corporation, CREDC 2003) **has identified a number of** key strategies for the region's future: aviation; creative industries (film, TV, information & communication technologies); international education and training; bio-industries; tourism; tropical foods/processing; super yachts; sports; heavy engineering and manufacturing. CYPLUS economic strategies, which form part of the FNQ Framework, are for mining, tourism, commercial fishing, pastoral industry, cropping and horticulture, aquaculture and forests.

FNQ Sustainable Industries study was commissioned by the Queensland Government to set broad principles for the development of sustainable industries in the FNQ (Blackwood 2003). This study recommends the strategic directions for sustainable industries as: positioning the region as world leader for tropical reef and rainforest preservation and management; establishing a regional sustainability taskforce, business network and regional branding; and creating a centre for cleaner production training. Although the FNQ region as defined by this study does not include Cape York Peninsula, many of these strategic directions may be of relevance.

Beyond Cape York Peninsula, the Northern Territory government has been particularly active in addressing Indigenous economic development broadly. The NT government hosted a series of three forums "Seizing our Economic Future Indigenous Economic Forum" (see Whitehead 2003). Strategies discussed at these forums included: governance, carbon accumulation through better fire management, caring for country, cultural industries (arts, crafts, music, performance, media), tourism, wildlife farming as well as sustainable pastoralism and mining.

At the global level, the Financing Protected Areas Task Force of the World Commission on Protected Areas (WCPA) of IUCN, in collaboration with the Economics Unit of IUCN (2000), has produced guidelines on generating revenue for

protected areas and supporting conservation economies. Some of their ideas and suggestions are shown in Table 10 include:

Table 10: Ideas for generating revenue for protected areas and supporting conservation economies

Activity	Opportunity
Biodiversity Enterprise Funds	Highly flexible investment funds that provide support for sustainable small and medium size enterprises (see Schneiders, this volume)
Carbon offsets	Selling carbon credits to greenhouse gas emitters
Donor funds	Philanthropic, corporate, Green Trusts, workplace donation schemes
Tourism	Transport Food Accommodation Publishing: postcards, calendars, books, CDs, films, music Crafts and Arts: modern objects from tradition, paintings, sculpture, beading, weaving, natural jewellery Performance: music, dance, theatre, radio, media Specialist guiding: cultural interpretation, sport fishing, adventure Self guided: trails, walks, camps
Cause-related marketing	Sale of items whose main value lies in the purchaser's knowledge of having helped conservation/Indigenous futures
Bioprospecting	Benefit sharing agreements that provide for companies to access natural resources
Adoption programs and conservation concessions	Leasing or "selling" areas for protection

Additional opportunities for Ecologically Sustainable Development and activity are shown in Table 11.

Table 11: Additional opportunities for Ecologically Sustainable Development (after eds R. Hill and S. T. Turton, October 2004)

Largely compatible		
Cultural industries: arts, craft, architecture, events Land and Sea Management: monitoring; enforcement; local employment Protected Areas: management monitoring Education, training and mentoring for local communities Communications and information technology.	Food: market gardens; bush foods; nurseries; seed collection Eco- commodities: carbon credits Renewable energy technologies Information technology for remote communities. Non destructive research Human and community services Traditional medicines and health.	Nature based and culture based tourism (community based) Protected Areas: access fees Feral and weed management Education and training for fee paying Language revival.
Potentially compatible with good management		
Pastoralism: no broadscale land clearing; no intensive practices: feedlotting, improved pastures, subdivision fencing (minimal) Eco timber: community based forestry	Aquaculture: low impact, low input Feral animal harvest. Sport and extreme sports. Bioprospecting.	Small scale novel crops, e.g. Sandalwood Recreational fishing.
Incompatible		
Aquaculture: commercial; high input; introduced species.	Large scale cropping Industrial scale forestry:	Broadscale land clearing Large scale water impoundment Uranium mining Sand mining Mining exploration,

The contents of the above table reflect the assessment by people at that roundtable

Aspirations, Outcomes and Actions

The goal for Ecologically Sustainable Development is “Encouraging development and economic activities that are ecologically sustainable”.

The aspirations for ESD are:

- In 2025, ecologically sustainable development is supporting cohesive CYP communities and their natural resource management activities.
- By 2010 all Aboriginal communities will be economically viable, ecologically sustainable and self-supporting.
- In 2025 the human health and environmental impact of unsealed roads have been fully assessed and are being actively managed.
- By 2025, bauxite mining interests, Aboriginal communities and other stakeholders have cooperated to achieve the relinquishment of an optimal area of mining lease land, into productive use including cultural and ecological use, managed by Traditional Owners or Aboriginal communities with traditional links to that land, or other CYP stake-holders where appropriate.

Targets for Ecologically Sustainable Development

Asset: Goal: Aspirational Target	ECOLOGICALLY SUSTAINABLE DEVELOPMENT (D)						
	Achievable RCTs 10 - 20 yrs	Management Action Targets (MATs) 3 – 5 yrs	Type of MAT	Management Actions as Proposed by Community	Integration and Collaboration Other RCTs addressed	Priority	Potential Partners
D1 In 2025, ecologically sustainable development is supporting cohesive CYP communities and their natural resource management activities.	D1-1 By 2015, all CYP communities have an ecologically sustainable economic base.	D1-1-1 Options to ensure the major resource-based sectors contribute to the sustainable wealth of the region are developed within 5 years.	P	<ul style="list-style-type: none"> Implement Capacity Building Strategy, viable industry guidelines, and the Meeting Challenges Making Choices process. 	H1-2, H5-1 L3-3, H1-1, C1-1, C1-2, C2-3, C2-3, C2-6, C2-7, L1-3, L1-4, L1-5, L3-3, S2-1,	H	Major industries, DSD&I
		D1-1-2 Within 2 years innovative options for achieving 'sustainable development and conservation' on Cape York Peninsula are investigated and development commenced.	P	<ul style="list-style-type: none"> Implement Capacity Building Strategy, viable industry guidelines, and implement the Governments' CYP economic development policy framework. 		M	community
		D1-1-3 Within 5 years, natural resource management employment opportunities are integrated into broader programs that contribute to the self-reliance of Indigenous communities. (See also Cultural Heritage targets).	CB	<ul style="list-style-type: none"> Develop realistic employment and income generation opportunities (see Community Capacity Building Strategy). 		M	DSD&I, local councils, CDEP, Indigenous groups
		D1-1-4 By 2006 a range of culturally appropriate and ecologically sustainable industries has been assessed and seed funding is available to assist establishment.	CB	<ul style="list-style-type: none"> Obtain funding and assess the viability and ecological sustainability of potential new industries. Develop and implement environmentally and culturally appropriate guidelines for the management of any new industries. Promote, develop and implement culturally appropriate and ecologically sustainable industries. Support existing industries to continue and improve ecologically sustainable practices. 		M	State and Federal Government, community
		D1-1-5 Within 5 years natural resource management employment opportunities are integrated into homeland opportunities and contributing to the self-reliance of Indigenous communities.	CB	<ul style="list-style-type: none"> Investigate and develop options to integrate employment and homeland opportunities. 			

Asset: ECOLOGICALLY SUSTAINABLE DEVELOPMENT (D)							
Goal: Encouraging development and economic activities that are ecologically sustainable							
Aspirational Target	Achievable RCTs 10 - 20 yrs	Management Action Targets (MATs) 3 – 5 yrs	Type of MAT	Management Actions as Proposed by Community	Integration and Collaboration Other RCTs addressed	Priority	Potential Partners
	D1-2 By 2015 the CYP pastoral industry is contributing to an ecologically sustainable base for CYP communities	D1-2-1 By 2008 at least half of CYP grazing enterprises will have undertaken best management practice planning, and are implementing the plans.	BMP	<ul style="list-style-type: none"> Identify CY appropriate sustainable grazing management systems Implement Sustainable Grazing Management System program on Cape York Peninsula. Support pastoral industry to continue and improve ecologically sustainable practices 	H1-1, C2-3, L4-1, L4-2 L1-3, L1-8, L3-1, L4-1, W2-1, W3-1, W5-1, W6-1, W6-2, W6-3, W6-4, W6-5, B2-1, B4-2.	H	Pastoralists, DPI&F, NR&M
		D1-2-2 Paddocks fenced for best practice grazing management by 2010	OGW	<ul style="list-style-type: none"> Incentives for fencing provided in a timely manner. Access to timber for fencing material approved. Protocols/agreements for identification of fencing lines to meet with cultural and environmental requirements established and implemented. 		M	DPI&F, Agforce, Consultant groups, pastoralists

Asset: ECOLOGICALLY SUSTAINABLE DEVELOPMENT (D)							
Goal: Encouraging development and economic activities that are ecologically sustainable							
Aspirational Target	Achievable RCTs 10 - 20 yrs	Management Action Targets (MATs) 3 – 5 yrs	Type of MAT	Management Actions as Proposed by Community	Integration and Collaboration		
					Other RCTs addressed	Priority	Potential Partners
		D1-2-3 Ecologically sustainable improvements undertaken on 11 pastoral properties through development of Property Plans (through improved animal husbandry and improved pasture management) by 2010.	P	<ul style="list-style-type: none"> • Develop ecologically sustainable methods of hay production on Cape York Peninsula • Develop ecologically sustainable ways to contain weaners as well as injured and sick stock. • Vegetation structure managed using appropriate fire regimes. • Native pastures maintained by appropriate combinations of moderate stocking rates, fire, and spell grazing. • Improved pastures maintained in suitable areas using approved species that have been endorsed as environmentally acceptable for Cape York Peninsula and in accordance with State clearing legislation. • Seasonal stocking rates are consistent with land condition and long-term carrying capacity of each land title. • Emphasis on improved liveweight gain over increased stocking rates. • Promote new technologies deemed to be both ecologically sustainable and economically viable. 		H	Pastoralists, DPI&F, DNR&M, DSD&I
		D1-2-4 By 2006 the CYP pastoral industry is providing increased employment opportunities through ecologically sustainable activities.	P	<ul style="list-style-type: none"> • Encourage pastoral enterprises to increase employment of local people in activities that are ecological sustainable (see Capacity Building Strategy) 		M	DPI&F, DNR&M, DSD&I, Local Councils, Pastoralists

Asset: ECOLOGICALLY SUSTAINABLE DEVELOPMENT (D)							
Goal: Encouraging development and economic activities that are ecologically sustainable							
Aspirational Target	Achievable RCTs 10 - 20 yrs	Management Action Targets (MATs) 3 – 5 yrs	Type of MAT	Management Actions as Proposed by Community	Integration and Collaboration Other RCTs addressed	Priority	Potential Partners
	D1-3 By 2015, an ecologically sustainable tourism industry is contributing to the economic and social well-being of CYP communities while maintaining the natural and cultural heritage values of the region.	D1-3-1 By 2006 the CYP tourism industry is carried out in an environmentally and culturally appropriate manner and is improving public understanding of the natural and cultural values of CYP and local indigenous laws and customs.	P	<ul style="list-style-type: none"> • Work with local community to develop a comprehensive and well-promoted natural and cultural tourism strategy that builds on CYPLUS. • Encourage tourist activities to adhere to recommendations listed in <i>Tourism Management Plan for Cape York Peninsula</i> (Economic Strategy 11 of CYPLUS Stage II) and <i>Heritage Site Management: An Action Plan</i> (Cape York Natural Heritage Trust Plan Strategy 4). • Encourage tourist operators to work more closely with community people and to increase levels of employment of local people (see Capacity Building Strategy). • Develop local protocols for tourist operators (local community work together with tourist operators). • Develop orientation and interpretation materials for self-drive tourists. • Develop stronger permitting and compliance systems for when other methods don't work. • Promote ecologically sustainable and culturally appropriate tourism that benefits local communities. • Support improvements to visitor facilities that reduce environmental impacts (e.g. toilets and waste facilities). 	H1-2, H3-1, H5-2, L2-1, B3-1, B4-3	M	DNR&M, DSD&I, Local Councils, Tourism industry, tourism companies, savannah guides

Asset: ECOLOGICALLY SUSTAINABLE DEVELOPMENT (D)							
Goal: Encouraging development and economic activities that are ecologically sustainable							
Aspirational Target	Achievable RCTs 10 - 20 yrs	Management Action Targets (MATs) 3 – 5 yrs	Type of MAT	Management Actions as Proposed by Community	Integration and Collaboration Other RCTs addressed	Priority	Potential Partners
	<p>D1-4 By 2015 the CYP fishing industry is contributing to an ecologically sustainable economic base for CYP communities.</p> <p>D1-5 By 2015, the CYP mining industry is adopting world's best practice and is contributing to the economic and social well-being of CYP communities.</p>	<p>See sea country targets and actions.</p> <p>D1-5-1 CYP specific mining industry guidelines that are environmentally and culturally appropriate for CYP are developed in consultation with traditional owners, conservation sector representatives and government agencies by 2006. (See also Natural Heritage targets).</p>	P	<ul style="list-style-type: none"> • Collate relevant information about the existing statutory requirements and processes, and local knowledge, relating to environmental management of mining. • Negotiate CYP-specific mining guidelines with stakeholders. • Encourage mining companies to be even more committed and innovative in giving back to communities. • Encourage mining industry to increase levels of employment of local people (see Capacity Building Strategy). • Implement Cape York Peninsula Mining Strategy where actions contribute to natural resource management outcomes. 	L1-5, L2-4, L2-5, L2-6	M	DNR&M, DSD&I, Local Councils, mining companies

Asset: ECOLOGICALLY SUSTAINABLE DEVELOPMENT (D)							
Goal: Encouraging development and economic activities that are ecologically sustainable							
Aspirational Target	Achievable RCTs 10 - 20 yrs	Management Action Targets (MATs) 3 – 5 yrs	Type of MAT	Management Actions as Proposed by Community	Integration and Collaboration Other RCTs addressed	Priority	Potential Partners
	<p>D1-6 By 2015 the CYP forestry industry is contributing to an ecologically sustainable economic base for CYP communities.</p>	<p>D1-6-1 By 2006 develop CYP specific forestry industry guidelines that ensure the maintenance of natural and cultural heritage values, in consultation with traditional owners, conservation sector representatives and government agencies. (See also N2-2.)</p> <p>D1-6-2 From 2005 apply the principles of “The Code of Practice for Native Forest Timber Production” in all native forest timber harvesting operations.</p> <p>D1-6-3 By 2008, forest industry opportunities are investigated that are environmentally and culturally appropriate for CYP.</p>	P	<ul style="list-style-type: none"> ▪ Develop CYP specific forestry guidelines. ▪ Assess current forestry activities for compliance with forestry guidelines. ▪ Apply models for sustainable yield calculation based on existing CYPLUS and other data”. ▪ Identify and establish native forest areas for long-term management of native forest hardwood resources. ▪ Optimise the productive use of all timber at the time of clearing, including for land management e.g. fences, yards, saw milling. ▪ Conduct controlled experiments regarding sustainable yield. ▪ Investigate the potential for enhancing forestry enterprises, during rehabilitation of mining sites. ▪ Encourage forestry industry to increase levels of employment of local people in ecologically sustainable activities (see Capacity Building Strategy). ▪ Investigate the potential for and develop if appropriate/viable, small scale local forestry enterprises on Aboriginal Freehold land and pastoral leases. 	L1-4, L2-4, L2-5, L2-6	M	DPI&F, DNR&M, DSD&I, Local Councils, Forestry companies

Asset:	ECOLOGICALLY SUSTAINABLE DEVELOPMENT (D)						
Goal:	Encouraging development and economic activities that are ecologically sustainable					Integration and Collaboration	
Aspirational Target	Achievable RCTs 10 - 20 yrs	Management Action Targets (MATs) 3 – 5 yrs	Type of MAT	Management Actions as Proposed by Community	Other RCTs addressed	Priority	Potential Partners
	D1-7 By 2015 the CYP cropping and horticulture industries are contributing to an ecologically sustainable economic base for CYP communities.	D1-7-1 By 2008 implement Cape York Peninsula Cropping and Horticulture Industry Strategy where actions contribute to an ecologically sustainable base for CYP communities.	P	<ul style="list-style-type: none"> Support cropping and horticulture industry to continue and improve ecologically sustainable practices. Encourage cropping and horticulture industry to increase levels of employment of local people in ecologically sustainable activities (see Capacity Building Strategy). Promote ecologically sustainable and culturally appropriate cropping and horticulture. 	L1-1, L1-2, L1-3, L2-1, L2-2.	M	DPI&F. industry
	D1-8 By 2015 ecologically sustainable aquaculture industry opportunities investigated, encouraged and established if economically viable.	D1-8-1 Subject to State regulations and policies and with reference to the Indigenous Aquaculture scoping study for North Queensland, identify and use appropriate species for aquaculture projects in the region by 2008.	RA	<ul style="list-style-type: none"> Develop and implement plans to identify appropriate species and sites (with reference to DPI&F aquaculture scoping study and the provisions of the Fisheries Act 1994 and subordinate management plans. DPI&F licence aquaculture facilities. EPA licence discharges.) 	H5-2, L2-4 L4-8, B1-5	M	DPI&F. industry
		D1-8-2 From 2004, no exotic species or diseases released into the wild (with reference to DPI&F Aquaculture policy).	BMP	<ul style="list-style-type: none"> Develop and implement an appropriate regulatory framework. 		H	NOO, DPI&F, Coastcare
	D1-9 By 2015 there is a 50% increase in use of renewable energy.	D1-9-1 In 2005 commence investigations into opportunities to increase the uptake of renewable energy sources.	BMP	<ul style="list-style-type: none"> Investigate opportunities to extend subsidises for solar and wind power units for use at household and community level. Investigate the feasibility of extended solar subsidies to include installation costs. 	C1-1, C2-4, L1-6, L2-4	L	CSIRO, industry

Asset: ECOLOGICALLY SUSTAINABLE DEVELOPMENT (D)							
Goal: Encouraging development and economic activities that are ecologically sustainable							
Aspirational Target	Achievable RCTs 10 - 20 yrs	Management Action Targets (MATs) 3 – 5 yrs	Type of MAT	Management Actions as Proposed by Community	Integration and Collaboration Other RCTs addressed	Priority	Potential Partners
D2 By 2010 all Aboriginal communities will be economically viable, ecologically sustainable and self-supporting.	D2-1 By 2008 most communities are economically viable, ecologically sustainable and self-supporting.	D2-1-1 By 2006 opportunities for economically viable, ecologically sustainable and self-supporting communities have been identified and targets for X% of communities to be economically viable, ecologically sustainable and self-supporting have been developed.	CB	<ul style="list-style-type: none"> Review recommended actions from CYPLUS and update in consultation with stakeholders. 	C1-2, C2-3, C2-4.	H	Traditional Owners, communities, industry
	D2-2 In 2015 traditional hunting is continuing to contribute to an ecologically sustainable economic base for CYP communities.	D2-2-1 By 2009 sustainable targets for species subject to traditional hunting have been assessed and agreed. (see also targets S1-4, S1-5, S2-1 & S2-2)	BMP	<ul style="list-style-type: none"> Consider Cape York Peninsula specific harvesting limits for terrestrial, freshwater and marine species. Develop measures of sustainable yield. Develop education and awareness programs. Investigate compliance and enforcement issues. 	S1-4, S1-5, S2-1, S2-2.	M	Traditional Owners, communities, DPI&F
D3 In 2025 the human health and environmental impact of unsealed roads have been fully assessed and are being actively managed.	D3-1 By 2015 all unsealed roads have been assessed and management plans are being implemented to address health and environmental impacts.	D3-1-1 By 2006 assess the impacts to human health and environmental impacts (including downstream effects) of unsealed roads on the Peninsula.	BMP	<ul style="list-style-type: none"> Review recommended actions from CYPLUS and update in consultation with stakeholders. 	H2-1, C1-2	H	Main Roads, Local Government
	D3-2 By 2020 the Peninsula Developmental Road is sealed along its whole length.	D3-2-1 By 2009 the Peninsula Development Road is sealed along not less than 25% of its total length.	BMP	<ul style="list-style-type: none"> Review recommended actions from CYPLUS and update in consultation with stakeholders. 	C1-2, H2-1	H	Main Roads, Local Government

Asset: ECOLOGICALLY SUSTAINABLE DEVELOPMENT (D)							
Goal: Encouraging development and economic activities that are ecologically sustainable							
Aspirational Target	Achievable RCTs 10 - 20 yrs	Management Action Targets (MATs) 3 – 5 yrs	Type of MAT	Management Actions as Proposed by Community	Integration and Collaboration Other RCTs addressed	Priority	Potential Partners
D4 By 2025, bauxite mining interests, Aboriginal communities and other stakeholders have cooperated to achieve the relinquishment of an optimal area of mining lease land, into productive use including cultural and ecological use, managed by Traditional Owners or Aboriginal communities with traditional links to that land, or other CYP stake-holders where appropriate [including QPWS, industry].	D4-1 By 2015 mining lease holders are allowing pre-mining access to country for Aboriginal stakeholders for cultural practice, or enterprise development consistent with its future mining on a yet to be negotiated % of mining leases and, Aboriginal stakeholders have negotiated with Mining Lease holders a broad program for relinquishment over a yet to be negotiated % of mining leases.	<p>D4-1-1 By 2007 the Queensland Government has committed in principle to return relinquished mining land for management by Traditional Owners and/or Aboriginal communities with traditional links to such land. Mining lease holders are allowing pre-mining access to country for Aboriginal stakeholders for cultural practice, or enterprise development consistent with its future mining.</p> <p>D4-1-2 By 2010, bauxite mining interests have identified portions of land with other significant resource value, pre- or post- mining, including cultural value. They have begun negotiations to allow their management for the benefit of Aboriginal stakeholders with traditional links to that land, or the wider CYP community where no such Aboriginal stakeholders are identified.</p> <p>D4-1-3 By 2015, Aboriginal stakeholders have negotiated with mining lease holders a broad program for relinquishment, with some guide as to sequence and time-frame for mining various sections, with sufficient certainty to facilitate:</p> <ul style="list-style-type: none"> • optimum pre-mining harvest of resources (timber, seed, tubers etc). • forward planning for post-mining enterprise (forestry, grazing, tourism) including market development, training, landform design (specific plantings, drainage, fencing, access...). 	BMP	<ul style="list-style-type: none"> • Commence negotiations between Aboriginal stakeholders, bauxite mining interests and Queensland government to achieve targets. 	C2-4, HH2-2, H4-1, D1-5.	H	Traditional Owners, Mining companies, DNR&M

8 Roles, Responsibilities and Regional Arrangements

It will be a crucial first step to in implementing this Plan to clarify representation, roles and responsibilities associated with regional management arrangements and widely publicise them as soon as is practicable.

Within the Aboriginal and Torres Strait Islander communities, there are concerns about mechanisms for representation at regional level in a context where speaking about matters associated with country is bound by customs and protocols.

The value in having a collective regional voice to represent overarching Indigenous interests in the natural resource management arena has, however, been widely recognised. Preliminary discussion has been held among community representatives at a meeting at Bizant in June 2004, where a cautious go-ahead was given to Balkanu to develop a regional strategic natural resource management role in keeping with this interest. This role is yet to be fully endorsed, and will likely be dependent on the arrangements associated with the establishment of an appropriate steering committee.

A further and related concern amongst Indigenous communities is with the arrangements by which natural resource management support and programs will be delivered at a sub-regional and even community level. There appear to be three distinct sub-regional areas within which degrees of cooperation exist, and within which Traditional Owners are clearly keen to retain control over management and delivery arrangements.

At all these levels, a prerequisite will be the (re)building of relationships and trust whereby communities feel confident in those performing regional and sub-regional roles. This may take time to develop, and as such it may be necessary to explore transitional arrangements or to proceed with a range of mechanisms in order that communities are willing to engage in natural resource management – and without which some priority goals and targets in this Plan will not be achieved. Being able to deliver quick, meaningful “runs on the board” will also be important in building confidence that effort is being directed out and into communities and not only up and out to government and other beyond-region bodies – a factor that applies equally to non-Indigenous people.

It is with these issues in mind that such a high priority has been placed in this Plan upon the need to review natural resource management arrangements and delivery mechanisms as reflected in the Community Capacity section of Chapter 7. The Plan is also mindful of the need not to undertake additional planning and consultation activities without delivering on-ground action. Without immediate targeted action the credibility of the Plan and planning process is at risk.

9 Monitoring, Evaluation and Reporting

People want and need to know:

- what's happening to our environment
- how the things we are doing, are or are not, contributing to its well-being
- what decisions we must take to keep it right.

They also want to know how programs and resources are contributing to natural resource management goals, and how effective and efficient these have been.

Collectively, we derive this information from processes of 'monitoring and evaluation'.

Monitoring and Evaluation has three main functions:

- to help us learn
- to enable us to make better decisions
- to account for how we have used resources (money, time, effort).

Reporting is a key component in meeting these functions.

People on Cape York Peninsula and others, including conservationists, Traditional Owners, land managers and fishing folk, have been tracking changes in the condition of natural resource assets across the region for many years. They have valuable experiential knowledge of how things have been changing and insights into why changes are occurring. Scientists and agency personnel have contributed to our understanding through research and related initiatives.

For the future, we must prepare a monitoring and evaluation strategy and establish associated institutional systems and governance frameworks that ensure that much stronger and more robust learning, accountability and feedback processes are put in place.

This Strategy should assist all local communities, government partners, and others involved in natural resource management planning and implementation for Cape York Peninsula in:

- building a collective understanding of what 'monitoring and evaluation' is and its role and functioning within natural resource management in Cape York Peninsula
- determining key performance criteria, roles and responsibilities of all key stakeholders, and the institutional arrangements necessary to support these
- continuing the process of determining our priority learning, adaptive management and accountability needs
- developing appropriate monitoring and evaluation plans for addressing priority needs, including simplified and culturally appropriate methods and reporting processes
- appreciating the role and impact of monitoring and evaluation itself in progressing achievement of natural resource management targets.

Very simply, it will involve reaching agreement on who needs what information, for what reasons, when and how.

To date, monitoring and evaluation in natural resource management has tended to focus on measuring outputs rather than outcomes and impact. This new plan with its increased emphasis on targets, and the associated proposed monitoring and evaluation Strategy, will give greater attention to these other important aspects of monitoring and evaluation.

Table 12: Monitoring examples

Level of Review:	Measures:	Example:
Outputs (Actions)	What was done; what happened	Number of hectares sprayed for weeds
Outcomes (MATs)	What is occurring as a result of what happened	Use of country according to best practice principles Number of native species returning
Impact (RCTs)	How a target situation has changed	Level and quality of functioning of the area as a healthy ecosystem Ability to sustain ecological, cultural and economic benefits

This will involve using a combination of methods to track change against quantitative, qualitative and process indicators. In particular, we shall need to develop some simple but rigorous ways of monitoring and evaluating performance of those priority actions that address things like respect, trust, governance, participation in decision-making, and so on. The social sciences can help in this task, as will insights from approaches such as Participatory Monitoring and Evaluation (PME) and Participatory Action Research (PAR) – which themselves will help us simultaneously address principles of inclusion and capacity building.

Other factors that will be informed by our monitoring and evaluation Strategy include development of a risk management strategy, and ways to assess 'effectiveness' and 'efficiency'.

10 The Next Steps – Building the Regional Investment Strategy

The next step beyond developing this Natural Resource Management Plan is to develop a Regional Investment Strategy (RIS).

The RIS will be a document that identifies funding requirements and sources of funding. It can be viewed as a prospectus from which a range of innovative funding and in-kind investment partnerships can potentially be developed offering mutual benefits to investors, communities and the environment through e.g. enhanced cooperation and coordination, tax and shareholder incentives, initiatives that combine to deliver economic and socio-cultural as well as conservation outcomes.

The prioritisation processes will take account of the economic, environmental and social benefits and costs involved in meeting each target. They will also take account of co-investment and matching funding possibilities.

Whilst the development of this Plan is being funded through the Natural Heritage Trust, it is not expected that all of the targets and actions will be eligible for potential funding through that source, hence, this Plan should be viewed as a Natural Resource Management Plan and not a Natural Heritage Trust plan.

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Annexes

1. A Planning Matrix.
2. How the NRM Plan Targets Address the Matters for Targets Identified as a Component of the Accreditation process.
3. Employment numbers by industry sector in 2001.
4. Threatened Species List under EPBC Act
5. History of Pest Management on Cape York Peninsula
6. Eight Criteria for the Assessment of Natural Heritage Significance (Mackey et. al. 2001)

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ANNEXE 1 - A Planning Matrix

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Critical links, resources and examples from specific plans outlined / referenced – numbers in brackets - e.g. (4) refer to specific Plans					
Regional Outcomes Criteria	Information Base Regional profiles, condition and trend, identification of assets and pressures	Objectives & Targets Aspirational, resource condition or mgt targets	Priorities & Options Identified regional priorities and tools applied; impact assessment, scenario planning, cost-benefit etc.	Implementation Programs, policies and actions, investment & agreements	Monitoring & Review - including, indicators, evaluation and reporting frameworks
Social and economic outcomes	Population, employment and service provision supporting towns and communities	<p>"How will we achieve this" statements in Issues sections on infrastructure, employment, telecommunications, well-being of residential and rural communities, cultural landscape – contribute to MAT development (6)</p> <p>In (7) see 'desired outcomes' (some applicable as Aspirational Targets) and 'actions' (some possibly applicable as MATs) in Strategies</p> <p>2.4 Natural and cultural values</p> <p>3.1-3.4 Indigenous mgt of natural and cultural resources</p> <p>6. Places, sites and cultural property</p> <p>8. Land</p> <p>9. Outstation movement</p> <p>10-16 Pastoral, Mining, Tourism, Commercial Fishing, Cropping and Horticulture; Aquaculture, Forest Industries (NB some of these contain possible RCTs expressed as 'sustainable' expansion limits)</p> <p>24-29 check NRM relevant Infrastructure (roads, information infrastructure)</p> <p>In (8) Objectives under strategy 4 'heritage site management' suitable as aspirational targets or redefined as MATs. And element 3 under strategy 1 Indigenous peoples land management.</p>	<p>Alignment or leverage from proposed projects and investments in relevant issues sections (6)</p>	<p>"Measures" identified could support / link to the development of performance measures for MATs under relevant sections (6)</p>	
	Physical infrastructure is appropriate for communities & environments				
Social and economic outcomes	Indigenous values (including cultural heritage) are recognised and protected	<p>For these strategies addressed in (7) and others outlined from (7) below in <i>Objectives and Targets</i> – the Commonwealth Government lead agencies are identified as are their major policy and programmatic commitments / responses to these strategies and major funding sources available – relevant State Govt agency involvement is also flagged - may be slightly outdated but possibly good starting point for ascertaining existing and possible government contribution to the regional investment strategy or identifying key roles for implementation.</p>	<p>★</p>	<p>Indicative allocation of funds required to implement identified and possible sources.</p>	
	Non-Indigenous cultural heritage and landscape values are recognised and protected				
Social and economic outcomes	Economic viability of enterprises and industries is improved	<p>Alignment or leverage from proposed projects and investments in relevant issues sections (6)</p>	<p>★</p>	<p>Indicative allocation of funds required to implement identified and possible sources.</p>	
Capacity Outcomes	Inclusive participation and active involvement in groups and networks is maintained	<p>"How will we achieve this" statements in Issues sections on Regional Governance and Intergovernmental relationships, telecommunications and community facilities –</p>	<p>Alignment or leverage from proposed projects and investments in relevant issues sections (6)</p>	<p>"Measures" identified could support / link to the development of performance measures for MATs under relevant sections (6)</p>	
	On-going learning, skills development and training is supported				

<p>Access to and use of technical information is improved</p> <p>Regions are able to respond positively to external change pressures and internal variability</p> <p>Institutions are aligned for regional sustainability</p>		<p>contribute to MAT development (6)</p> <p>Eight pest management objectives are stated which could contribute / reflect a direct link to the development of management action targets under the NRM plan linked to improved capacity for managing pest species (5).</p> <p>In (7) see 'desired outcomes' (some applicable as Aspirational Targets) and 'actions' (some possibly applicable as MATs) in Strategies</p> <p>Number of strategies e.g. 4.4, 4.5, 19, dealing with vocational training or decision making relating to NRM / leadership</p> <p>7.2 Social networks and effective communication</p> <p>8, 30, 23 (especially 23.6 and 23.7) Land, Land tenure, regional governance and institutional alignment, service delivery</p> <p>Voluntary partnerships with Indigenous land managers 3.1</p> <p>In (8) Strategy 1 – managing natural resources, element 1 – Cape York Property Plans - could offer basis for MATs on implementing PMP – obvious criticisms presented in Mid term review not withstanding.</p>	<p>Legislative requirements for responsibility for pest management across landholders, Council and State Government are articulated (5)</p> <p style="text-align: center;">* See above</p>
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Catchment and River health outcomes</p> <p>Soil and water salinity levels are maintained or improved</p> <p>Water quality in freshwater streams and lakes is maintained or improved</p> <p>Environmental flow requirements of streams maintained</p> <p>Groundwater levels and quality is maintained or restored</p>	<p>Agricultural and water resource assets of the Mitchell catchment are identified. Possible pressures / threats on the land and water resource base are identified and projected including: current water resource demand and potential demand for urban, industrial and agricultural use in each catchment (3)</p>	<p>See Reef Water Quality Protection Plan notes attached separately (including catchment risk profiles and possible MATs stated as actions).</p>	<p>A preliminary options analysis has been undertaken for structural (in-stream water storages) and non-structural (recycling, water use efficiency, demand management) alternatives for meeting future water demands in the Mitchell catchment including biophysical and social assessments and technical feasibility assessments. (3)</p>
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Coastal outcomes</p> <p>Water quality in estuarine and marine waters is maintained or improved</p>	<p>The Coastal resources and Key coastal management</p>	<p>"Coastal management <i>outcomes</i>" identified in Chapter 2 of the State Coastal Management Plan</p>	<p>Roles of 'agencies and groups' (Chapter 3) are clearly articulated at the State level for</p>

	<p>Downstream impacts (connectivity) considered</p> <p>Impacts on physical coastal processes are managed</p>	<p>issues sections within <i>Cape York Peninsula Coast and Gulf of Carpentaria Coast</i> 'Regional overviews' in Schedule 1 of the State Coastal Management Plan clearly identify a mix of regional coastal assets, pressures and key management actions for consideration as possible MATs. (4)</p>	<p>may provide a framework / baseline for the development of aspirational targets (4)</p> <p>See <i>Reef Water Quality Protection Plan</i> notes attached separately (including catchment risk profiles and possible MATs stated as actions).</p>	<p>coastal management in regions – this may provide a basis for exploring / negotiating investment partnerships or clarifying implementation responsibilities (4)</p>
<p>Carbon and Energy Outcomes</p>	<p>Regional net carbon emissions are minimised</p>		<p>In (7) Under Strategy 25, action 25.1.5 outlines introduction of subsidy scheme for alternative power supply options and implementation roles / tasks therefore</p>	
<p>Biodiversity Outcomes</p>	<p>Landscape structure and complexity are maintained</p> <p>Ecosystem diversity is maintained</p> <p>Species diversity is maintained</p> <p>Ecosystem integrity is maintained</p>		<p>Performance requirements & acceptable solutions for clearing on freehold and leasehold land (including for weed and pest mgt; fodder, thinning, encroachment, extractive industry and regrowth mgt) (1&2)</p> <p>In (7) outcomes and actions for 1.1-2.3 protected areas and ecosystem management, and, 3.1-3.4 – Indigenous mgt for conservation and NRM outcomes.</p> <p>"How will we achieve this" statements Natural Environment issues section – contribute to MAT development (6)</p> <p>In (8) Objectives under strategy 2 enhancing Cape York protected areas; strategy 3 controlling feral animals and weeds and strategy 9 rare and threatened species assessment and recovery - suitable as aspirational targets or redefined as MATs.</p>	<p>Prioritisation of pest plan and animal species has been undertaken using criteria of 'threat', 'achievability' and declaration status.</p> <p>Actions, lead agents and performance measures stated for pest management objectives could be reviewed in the development of pest management investment under the NRM plan & existing Council expenditure evaluated in terms of effectiveness (5).</p> <p>* See above</p> <p>←</p> <p>←</p> <p>Indicative allocation of funds / sources required to implement are provided.</p>
<p>Soil and Pasture health outcomes</p>	<p>Soil condition and health maintained</p>		<p>Land degradation – strategy 2.6 in (7) see 'desired outcomes' (some applicable as Aspirational Targets) and 'actions' (some possibly applicable as MATs)</p>	<p>* See above</p> <p>←</p>

Plans reviewed:

(1) Regional Vegetation Management Code for Ongoing Clearing Purposes - Cape York Peninsula Bioregion - 25 June 2004, Queensland Government Natural Resource and Mines

http://www.nrme.qld.gov.au/vegetation/pdf/codes/cy_ongoingcode_250604.pdf

(2) Regional Vegetation Management Code for Ongoing Clearing Purposes – Gulf Plains Bioregion (Northern) - 25 June 2004, Queensland Government Natural Resource and Mines

http://www.nrme.qld.gov.au/vegetation/pdf/codes/ngp_ongoingcode_250604.pdf

(3) Gulf and Mitchell Agricultural Land and Water Resource Assessment Report, May 2004 - (to inform proposed Gulf-Mitchell Water Resource Plan)

Queensland Government, Dept Natural Resource and Mines

http://www.nrme.qld.gov.au/wrp/pdf/gulf/gulf_mitchell_wrp_lawar.pdf

(4) State Coastal Management Plan – Queensland’s Coastal Policy – State of Queensland, Environmental Protection Agency

http://www.epa.qld.gov.au/environmental_management/coast_and_oceans/coastal_management/state_coastal_management_plan/

(5) Cook Shire Council Pest Management Plan, Cook Shire Council (1998)

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http://www.dotars.gov.au/regional/cyplus/final_response_may_2002.pdf

(8) Cape York Natural Heritage Trust Plan, 1997-2001, Commonwealth of Australia, 1998

<http://www.nht.gov.au/nht1/programs/cynhtp/pubs/capeyork-noimage.pdf>

ANNEXE 2 – How the NRM Plan Targets Address the Matters for Targets Identified as a Component of the Accreditation process.

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How the NRM Plan Targets Address the Matters for Targets Identified as a Component of the Accreditation process.

Resource Condition Matters Addressed	Resource Condition Targets (examples)
Land Salinity	Not relevant to Cape York Peninsula
Soil Condition	L1-3 By 2015 sustainable land management information is widely available to CYP communities. L2-1 By 2015 land condition is measurably improved through implementation of subregional plans, appropriate legislation, infrastructure planning and ecologically sustainable management practices. L4-2 By 2015 all abandoned mines have been rehabilitated to prevent negative environmental impacts.
Native vegetation communities' integrity	L4-1 By 2020 there is no net loss in biodiversity values maintained on grazing land B4-4 By 2020 biodiversity and natural integrity values are enhanced through appropriate fire, weed and pest animal management regimes. B4-2 By 2015 variety and extent of regional ecosystems is preserved; and Ground layer vegetation is healthy, with no loss of high quality areas.
Inland aquatic ecosystems integrity (rivers and other wetlands)	W7-1 By 2015 the health, condition status and biodiversity of all natural waterbodies on CYP have not declined from their 2004 levels and are improved where possible. W7-2 By 2015 all wetlands in the region have been assessed for their conservation value and status and management measures to protect those values in high value wetlands have been negotiated, agreed and are being implemented.
Estuarine, coastal and marine habitats integrity	S1-1 By 2020, all commercial CYP fisheries are sustainable and are being managed through appropriate, ecologically sustainable management regimes. S4-1 By 2020, terrestrial activities are having no adverse impact on coastal or marine ecosystems. S1-5 By 2015 there is a reduction in the number and extent of ghost nets from 2004 levels.
Nutrients in aquatic environments	W4-1 By 2015 all water bodies meet regional water quality targets (to be determined). S4-1 By 2020, terrestrial activities are having no adverse impact on coastal or marine ecosystems.
Turbidity / suspended particulate matter in aquatic environments	W3-1 In 2015 surface water quality and quantity continues to be managed within sustainable yields. W6-1 By 2015 bank and gully erosion induced by humans, vehicles and stock is reduced from 2004 levels in all major streams within the CYP region. W6-2 By 2015 actively eroding spots in critical locations are remediated.
Surface water salinity in freshwater aquatic environments	Not relevant to Cape York Peninsula
Significant native species and ecological communities	B2-3 By 2020, an increase in sawfish populations from 2004 levels. S2-4 By 2020 there will be no reduction of migratory birds due to human induced degradation of habitat in the CYP region. S3-2 By 2010 dugong breeding populations are above 2004 levels.
Ecologically significant invasive species	N4-6 In 2015, CYP natural and cultural heritage values, including ecosystems and biodiversity, are less adversely affected by weeds and feral animals than in 2004. B1-7 Pest species are managed so that there is no decline in the health of biodiversity by 2015.

ANNEXE 3 – Employment numbers by industry sector in 2001.

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Employment numbers by industry sector in 2001.

Sector	Numbers
01 Agriculture (Number)	316
02 Serv to Agric Hunting & Trapping (Number)	14
03 Forestry and Logging (Number)	8
04 Commercial Fishing (Number)	77
11 Coal Mining (Number)	4
13 Metal Ore Mining (Number)	457
14 Other Mining (Number)	57
15 Services to Mining (Number)	3
B0 Mining,undefined (Number)	17
21 Food,Bevrge & Tobcco Mfg (Number)	37
22 Txtl Clthg Ftwr & Lthr Mfg (Number)	7
23 Wood & Paper Prod Mfg (Number)	12
24 Prntg,Publishg & Recorded Media (Number)	13
25 Petrlm Coal Chmcl & Ass Prod Mfg (Number)	12
26 Non-Metalic Mini Prod Mfg (Number)	9
27 Metal Product Manufacturing (Number)	65
28 Machinery & Equipment Mfg (Number)	30
29 Other Manufacturing (Number)	13
C0 Manufacturing,undefined (Number)	16
36 Electricity and Gas Supply (Number)	21
37 Water Sply Swrge & Drnge Serv (Number)	18
41 General Construction (Number)	191
42 Construction Trade Services (Number)	261
E0 Construction,undefined (Number)	5
45 Basic Material Wholesaling (Number)	42
46 Machinery & Mtr Vehicle Whlsing (Number)	36
47 Personal & Hhold Good Whlsing (Number)	42
F0 Wholesale Trade,undefined (Number)	3
51 Food Retailing (Number)	251
52 Prsnl & Hhold Good Retailing (Number)	140
53 Mtr Vehicle Retailing & Serv (Number)	139
G0 Retail Trade,undefined (Number)	38
57 Accomodtn,Cafes & Restaurants (Number)	471
61 Road Transport (Number)	98
62 Rail Transport (Number)	3
63 Water Transport (Number)	50
64 Air and Space Transport (Number)	38
66 Services to Transport (Number)	71
I0 Transport & Storage,undef (Number)	15
71 Communication Services (Number)	50
73 Finance (Number)	28
74 Insurance (Number)	5
75 Services to Finance & Insurance (Number)	7
K0 Finance and Insurance,undef (Number)	3
77 Property Services (Number)	52
78 Business Services (Number)	233

81 Government Administration (Number)	2,559
82 Defence (Number)	47
84 Education (Number)	594
86 Health Services (Number)	382
87 Community Services (Number)	148
00 Health,Community Serv,undef (Number)	17
91 Motion Picture,Radio,TV Serv (Number)	7
92 Libraries,Museums and the Arts (Number)	41
93 Sport and Recreation (Number)	33
95 Personal Services (Number)	68
96 Other Services (Number)	153
99 Non-classifiable economic units (Number)	31
&& Not stated (Number)	243
@@ Not applicable (Number)	11,103
VV Overseas visitor (Number)	521

Footnotes: 1. Statistical local area (SLA) data was used to create this NRM region level data. When NRM regions encompass entire SLAs, all of the SLA data are allocated to the relevant NRM regions. When SLAs are split across NRM regions, the population splits derived from the 2001 Census of Population and Housing are used to allocate SLA data to two or more NRM regions on a percentage basis.

Cape York region is an aggregation of: Aurukun (SLA 0250)(100%), Carpentaria (SLA 2250)(43%), Cook (S) (excl. Weipa) (SLA 2501)(100%), Cook (S) - Weipa only (SLA 2504)(100%), Douglas (SLA 2800)(5%), Torres (SLA 6950)(59%).

Disclaimer: Although the information in this table has been derived from sources believed to be reliable, the Queensland Office of Economic and Statistical Research and Natural Resources and Mines do not guarantee or make any representations as to its accuracy, or completeness. It disclaims all responsibility and all liability (including without limitation, liability in negligence) for all expenses, losses, damages and costs you might incur as a result of the information being inaccurate or incomplete in any way, and for any reason.

Source: Australian Bureau of Statistics. (QRBIS database maintained by the Office of Economic and Statistical Research (OESR). QRBIS is jointly funded by the Australian Federal and Queensland Government for NAPSQ and NHT2 purposes.)

Annexe 4: Threatened Species as Listed in The EPBC Act .

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Environment Protection and Biodiversity Conservation Act 1999

The Australian Government administers the *Environment Protection and Biodiversity Conservation Act 1999* (the EPBC Act) which provides a regulatory framework to protect matters of national environmental significance, including: threatened species and ecological communities; Ramsar wetlands of international significance; listed migratory species, World Heritage properties, Commonwealth marine areas; National Heritage places (from 1 January 2004); and nuclear actions. Under the environmental assessment provisions of the EPBC Act, actions that are likely to have a significant impact on a matter of national environmental significance are subject to a rigorous assessment and approval process. An action includes a project, development, undertaking, activity, or series of activities.

The Act reflects a national approach to environmental management and it clearly and logically defines Australian Government roles, thus providing a framework to reduce the potential for intergovernmental overlap and duplication. Further information is available at www.deh.gov.au/epbc/index.html.

Threatened species and ecological communities; migratory species

The following are threatened species and ecological communities and also migratory species which appear on Australian Government (ERIN) data base as possibly being found on Cape York.

Environment Protection and Biodiversity Conservation Act 1999 - Section 179

Categories of threatened species

- (1) A native species is eligible to be included in the *extinct* category at a particular time if, at that time, there is no reasonable doubt that the last member of the species has died.
- (2) A native species is eligible to be included in the *extinct in the wild* category at a particular time if, at that time:
 - (a) it is known only to survive in cultivation, in captivity or as a naturalised population well outside its past range; or
 - (b) it has not been recorded in its known and/or expected habitat, at appropriate seasons, anywhere in its past range, despite exhaustive surveys over a time frame appropriate to its life cycle and form.
- (3) A native species is eligible to be included in the *critically endangered* category at a particular time if, at that time, it is facing an extremely high risk of extinction in the wild in the immediate future, as determined in accordance with the prescribed criteria.
- (4) A native species is eligible to be included in the *endangered* category at a particular time if, at that time:
 - (a) it is not critically endangered; and
 - (b) it is facing a very high risk of extinction in the wild in the near future, as determined in accordance with the prescribed criteria.
- (5) A native species is eligible to be included in the *vulnerable* category at a particular time if, at that time:
 - (a) it is not critically endangered or endangered; and
 - (b) it is facing a high risk of extinction in the wild in the medium-term future, as determined in accordance with the prescribed criteria.

(6) A native species is eligible to be included in the *conservation dependent* category at a particular time if, at that time, the species is the focus of a specific conservation program, the cessation of which would result in the species becoming vulnerable, endangered or critically endangered within a period of 5 years.

**Threatened Species of NHT2 Region Cape York, Queensland
Listed under the Commonwealth *Environment Protection and Biodiversity Conservation Act*
1999**

Taxon Id	KINGDOM	Scientific Name	Common Name	EPBC STATUS	ADOPTED_REC_Plan
18628	Plantae	Cyathea exilis	-	Endangered	
66181	Animalia	Glyphis sp. A	Speartooth Shark	Critically Endangered	
1988	Plantae	Gardenia psidioides	-	Vulnerable	
56629	Plantae	Huperzia carinata	Keeled Tassel-fern	Endangered	
75599		Hydnophytum ferrugineum	-		
8230	Plantae	Myriophyllum coronatum	-	Vulnerable	
67451		Aulacopris matthewsi	Flightless Dung Beetle		
6469	Plantae	Eremochloa muricata	-	Endangered	
11388	Plantae	Sarcophilus hirticalcar	-	Vulnerable	
11334		Cyathea felina	-		
21816	Plantae	Xanthostemon formosus	-	Endangered	
3221	Plantae	Grammitis reinwardtii	-	Vulnerable	
11371	Plantae	Calophyllum bicolor	-	Vulnerable	
20065	Plantae	Calamus warburgii	-	Vulnerable	
21864		Coix gasteenii	-		
10002	Plantae	Bulbophyllum gracillimum	-	Vulnerable	
64905	Plantae	Grastidium tozerense	-	Vulnerable	
4494	Plantae	Vanda hindsii	Cape York Vanda	Vulnerable	
68383		Acmena sp. Cooper Creek (P.I.Forster+ PIF15557)	-		
62434	Plantae	Macadamia claudiensis	-	Vulnerable	
56630	Plantae	Huperzia dalhousieana	Blue Tassel-fern	Endangered	
11542	Plantae	Pomatocalpa marsupiale	-	Vulnerable	
64560	Plantae	Carmona retusa	-	Vulnerable	
56714	Plantae	Syzygium velarum	-	Vulnerable	
14285	Plantae	Trichoglottis australiensis	-	Vulnerable	
2723	Plantae	Dipodium pictum	-	Endangered	
13365	Plantae	Xanthostemon youngii	Crimson Penda	Vulnerable	
9716	Plantae	Wodyetia bifurcata	Foxtail Palm	Vulnerable	
56565	Plantae	Ctenopteris blechnoides	-	Vulnerable	
8261		Noahdendron nicholasii	-		
15240	Plantae	Dendrobium antennatum	Antelope Orchid	Endangered	
55778	Plantae	Cycas silvestris	-	Vulnerable	
9227	Plantae	Bulbophyllum longiflorum	-	Vulnerable	
14674	Plantae	Gulubia costata	-	Vulnerable	
66461	Plantae	Acacia sp. Mclvor River (J.R.Clarkson 5475)	shrub	Vulnerable	
64837	Plantae	Babingtonia tozerensis	-	Vulnerable	
15397	Plantae	Rhinerrhiza moorei	-	Vulnerable	
64940	Plantae	Philotheca acrolopha	-	Vulnerable	
65911		Archidendron kanisii	-		

Taxon Id	KINGDOM	Scientific Name	Common Name	EPBC STATUS	ADOPTED_REC_Plan
1023	Animalia	<i>Sula sula</i>	Red-footed Booby		
64529	Plantae	<i>Marsdenia paludicola</i>	-	Vulnerable	
3580	Plantae	<i>Gardenia actinocarpa</i>	-	Endangered	
64874	Plantae	<i>Crepidium lawleri</i>	-	Endangered	
19694	Plantae	<i>Spathoglottis plicata</i>	-	Vulnerable	
59035		<i>Stackhousia</i> sp. Mclvor River (J.R.Clarkson 5201)	-		
24403	Plantae	<i>Habenaria macraithii</i>	-	Endangered	
59293	Animalia	<i>Turnex olivei</i>	Buff-breasted Button-quail	Endangered	
10306	Plantae	<i>Dendrobium bigibbum</i>	Cooktown Orchid	Vulnerable	
6392		<i>Nepenthes mirabilis</i>	Tropical Pitcher Plant		
13585	Plantae	<i>Dendrobium johannis</i>	-	Vulnerable	
4079	Plantae	<i>Jedda multicaulis</i>	-	Vulnerable	
10822	Plantae	<i>Dendrobium carronii</i>	-	Vulnerable	
26187	Animalia	<i>Coracina tenuirostris melvillensis</i>	Melville Cicadabird		
4067	Plantae	<i>Arenga australasica</i>	Australian Arenga Palm	Vulnerable	
59085	Plantae	<i>Centotheca philippensis</i>	-	Vulnerable	
607	Animalia	<i>Monarcha frater</i>	Black-winged Monarch		
24166	Plantae	<i>Huperzia phlegmarioides</i>	Layered Tassel-fern	Vulnerable	
31318	Plantae	<i>Brachychiton vitifolius</i>	-	Vulnerable	
56634	Plantae	<i>Huperzia squarrosa</i>	Rock Tassel-fern, Water Tassel-fern	Endangered	
52889	Plantae	<i>Endiandra cooperana</i>	-	Endangered	
1013	Animalia	<i>Fregata minor</i>	Great Frigatebird, Greater Frigatebird		
13819	Plantae	<i>Solanum dunalianum</i>	-	Vulnerable	
9940	Plantae	<i>Drosera prolifera</i>	-	Vulnerable	
123	Animalia	<i>Notomys aquilo</i>	Northern Hopping-mouse	Vulnerable	
41133	Plantae	<i>Dendrobium phalaenopsis</i>	-	Vulnerable	
66256	Animalia	<i>Micrognathus natans</i>	Offshore Pipefish		
794	Animalia	<i>Sterna fuscata</i>	Sooty Tern		
8651	Plantae	<i>Ectrosia blakei</i>	-	Vulnerable	
20863	Plantae	<i>Acriopsis javanica</i>	-	Vulnerable	
66195	Animalia	<i>Choeroichthys cinctus</i>	Barred Short-bodied Pipefish, Girdled Pipefish		
66223	Animalia	<i>Halicampus matafae</i>	Samoan Pipefish		
66190	Animalia	<i>Bulbonaricus davaoensis</i>	Davao Pughead Pipefish		
66197	Animalia	<i>Choeroichthys sculptus</i>	Sculptured Pipefish		
66266	Animalia	<i>Phoxocampus diacanthus</i>	Pale-blotched Pipefish, Spined Pipefish		
1841	Animalia	<i>Litoria lorica</i>	Armoured Mistfrog	Endangered	Recovery Plan for the stream-dwelling rainforest frogs of the wet tropics biogeographic region of north-east Queensland 2000 - 2004
64885	Plantae	<i>Dendrobium superbiens</i>	-	Vulnerable	
11289	Plantae	<i>Dendrobium nindii</i>	-	Endangered	
810	Animalia	<i>Larus novaehollandiae</i>	Silver Gull		
1012	Animalia	<i>Fregata ariel</i>	Lesser Frigatebird, Least Frigatebird		
11852	Plantae	<i>Myrmecodia beccarii</i>	-	Vulnerable	
66889	Animalia	<i>Saccolaimus saccolaimus nudicluniatus</i>	Bare-rumped Sheathtail Bat	Critically Endangered	
720	Animalia	<i>Psephotus chrysopterygius</i>	Golden-shouldered	Endangered	Recovery Plan for the

Taxon Id	KINGDOM	Scientific Name	Common Name	EPBC STATUS	ADOPTED_REC_Plan
			Parrot		Golden-shouldered Parrot (Psephotus chrysopterygius) 1999-2002
872	Animalia	Arenaria interpres	Ruddy Turnstone		
59467	Animalia	Sterna caspia	Caspian Tern		
66215	Animalia	Festucalex gibbsi	Gibbs' Pipefish		
180	Animalia	Hipposideros semoni	Semon's Leaf-nosed Bat, Greater Wart-nosed Horseshoe-bat	Endangered	Recovery plan for cave-dwelling bats, Rhinolophus philippinensis, Hipposideros semoni and Taphozous troughtoni 2001-2005
25986	Animalia	Casuarius casuarius johnsonii	Southern Cassowary (Australian)	Endangered	Recovery Plan for the Southern Cassowary Casuarius casuarius johnsonii 2001-2005.
46794	Plantae	Zeuxine polygonoides	-	Vulnerable	
19924		Costus potierae	-		
59311	Animalia	Heteroscelus brevipes	Grey-tailed Tattler		
25545	Animalia	Pluvialis fulva	Pacific Golden Plover		
66890	Animalia	Rhinolophus philippinensis (large form)	Greater Large-eared Horseshoe Bat	Endangered	Recovery plan for cave-dwelling bats, Rhinolophus philippinensis, Hipposideros semoni and Taphozous troughtoni 2001-2005
14763	Plantae	Hodgkinsonia frutescens	Atherton Turkey Bush	Vulnerable	
879	Animalia	Charadrius mongolus	Lesser Sand Plover, Mongolian Plover		
4806	Plantae	Stemona angusta	-	Vulnerable	
825	Animalia	Anous stolidus	Common Noddy		
1100	Animalia	Hydrelaps darwiniensis	Black-ringed Seasnake		
68447		Pristis clavata	Dwarf Sawfish, Queensland Sawfish		
185	Animalia	Pteropus conspicillatus	Spectacled Flying-fox	Vulnerable	
1106	Animalia	Hydrophis gracilis	Slender Seasnake		
1112	Animalia	Hydrophis pacificus	Large-headed Seasnake		
994	Animalia	Phaethon rubricauda	Red-tailed Tropicbird		
849	Animalia	Numenius phaeopus	Whimbrel		
1101	Animalia	Hydrophis atriceps	Black-headed Seasnake		
55235	Plantae	Tylophora williamsii	-	Vulnerable	
45	Animalia	Orcaella brevirostris	Irrawaddy Dolphin		
50	Animalia	Sousa chinensis	Indo-Pacific Humpback Dolphin		
1767	Animalia	Lepidochelys olivacea	Pacific Ridley, Olive Ridley	Endangered	
28	Animalia	Dugong dugon	Dugong		
1107	Animalia	Hydrophis inornatus	Plain Seasnake		
662	Animalia	Hirundo rustica	Barn Swallow		
1021	Animalia	Sula dactylatra	Masked Booby		
20972	Plantae	Acacia guymeri	-	Vulnerable	
68418	Animalia	Tursiops aduncus	Spotted Bottlenose Dolphin		
25926	Animalia	Hydrophis mcdowellii	-		
904	Animalia	Grus antigone	Sarus Crane		
1774	Animalia	Crocodylus porosus	Estuarine Crocodile, Salt-water Crocodile		
824	Animalia	Anous minutus	Black Noddy		
66263	Animalia	Nannocampus pictus	Painted Pipefish, Reef Pipefish		

Taxon Id	KINGDOM	Scientific Name	Common Name	EPBC STATUS	ADOPTED_REC_Plan
1802	Animalia	Litoria rheocola	Common Mistfrog	Endangered	Recovery Plan for the stream-dwelling rainforest frogs of the wet tropics biogeographic region of north-east Queensland 2000 - 2004
18776	Plantae	Ristantia gouldii	-	Vulnerable	
66234	Animalia	Hippocampus angustus	Western Spiny Seahorse, Narrow-bellied Seahorse		
1109	Animalia	Hydrophis melanosoma	Black-banded Robust Seasnake		
66192	Animalia	Campichthys tricarinatus	Three-keel Pipefish		
76184		Brachaelurus colcloughi	Colclough's Shark, Bluegrey Carpet Shark		
68448		Anoxypristis cuspidata	Narrow Sawfish, Knifetooth Sawfish		
36	Animalia	Balaenoptera musculus	Blue Whale	Endangered	
66226	Animalia	Haliichthys taeniophorus	Ribboned Seadragon, Ribboned Pipefish		
19154	Plantae	Asplenium wildii	-	Vulnerable	
1773	Animalia	Crocodylus johnstoni	Freshwater Crocodile		
66270	Animalia	Siokunichthys breviceps	Soft-coral Pipefish		
68442		Pristis zijsron	Green Sawfish, Dindagubba, Narrowsnout Sawfish		
66721	Animalia	Hippocampus bargibanti	Pygmy Seahorse		
66224	Animalia	Halicampus nitidus	Glittering Pipefish		
66204	Animalia	Corythoichthys paxtoni	Paxton's Pipefish		
1766	Animalia	Eretmochelys imbricata	Hawksbill Turtle	Vulnerable	
66720		Hippocampus trimaculatus	Low-crowned Seahorse, Flat-faced Seahorse		
35	Animalia	Balaenoptera edeni	Bryde's Whale		
46	Animalia	Orcinus orca	Killer Whale		
51	Animalia	Stenella attenuata	Spotted Dolphin		
60	Animalia	Delphinus delphis	Common Dolphin		
64	Animalia	Grampus griseus	Risso's Dolphin		
68417	Animalia	Tursiops truncatus s. str.	Bottlenose Dolphin		
59257	Animalia	Natator depressus	Flatback Turtle	Vulnerable	
64475	Animalia	Dasyurus maculatus gracilis	Spotted-tailed Quoll or Yarli (North Queensland subspecies)	Endangered	
66257	Animalia	Microphis brachyurus	Short-tailed Pipefish, Short-tailed River Pipefish		
1103	Animalia	Hydrophis caeruleus	Dwarf Seasnake		
609	Animalia	Monarcha melanopsis	Black-faced Monarch		
1763	Animalia	Caretta caretta	Loggerhead Turtle	Endangered	
815	Animalia	Sterna bengalensis	Lesser Crested Tern		
1765	Animalia	Chelonia mydas	Green Turtle	Vulnerable	
1768	Animalia	Dermochelys coriacea	Leathery Turtle, Leatherback Turtle, Luth	Vulnerable	
612	Animalia	Myiagra cyanoleuca	Satin Flycatcher		
66219	Animalia	Halicampus brocki	Brock's Pipefish		
66239	Animalia	Hippocampus spinosissimus	Hedgehog Seahorse		
56692	Plantae	Mesua sp. Boonjee (A.K.Irvine 1218)	-	Vulnerable	
1813	Animalia	Nyctimystes dayi	Lace-eyed Tree Frog, Australian Lacelid	Endangered	Recovery Plan for the stream-dwelling rainforest frogs of the wet tropics biogeographic

Taxon Id	KINGDOM	Scientific Name	Common Name	EPBC STATUS	ADOPTED_REC_Plan
					region of north-east Queensland 2000 - 2004
66232	Animalia	Hippichthys spicifer	Belly-barred Pipefish, Banded Freshwater Pipefish		
814	Animalia	Sterna anaethetus	Bridled Tern		
610	Animalia	Monarcha trivirgatus	Spectacled Monarch		
817	Animalia	Sterna dougallii	Roseate Tern		
800	Animalia	Sterna sumatrana	Black-naped Tern		
1027	Animalia	Puffinus pacificus	Wedge-tailed Shearwater		
942	Animalia	Erythrotriorchis radiatus	Red Goshawk	Vulnerable	
816	Animalia	Sterna bergii	Crested Tern		
68388		Crepidomanes aphlebioides	-		
1126	Animalia	Enhydrina schistosa	Beaked Seasnake		
66209	Animalia	Cosmocampus maxweberi	Maxweber's Pipefish		
66210	Animalia	Doryrhamphus dactylophorus	Ringed Pipefish		
1817	Animalia	Litoria nannotis	Waterfall Frog, Torrent Tree Frog	Endangered	Recovery Plan for the stream-dwelling rainforest frogs of the wet tropics biogeographic region of north-east Queensland 2000 - 2004
592	Animalia	Rhipidura rufifrons	Rufous Fantail		
66212	Animalia	Doryrhamphus janssi	Cleaner Pipefish, Janss' Pipefish		
66187	Animalia	Acentronura tentaculata	Hairy Pygmy Pipehorse		
174		Macroderma gigas	Ghost Bat		
66182	Animalia	Pristis microdon	Freshwater Sawfish	Vulnerable	
64443	Animalia	Neochmia phaeton evangelinae	Crimson Finch (white-bellied)	Vulnerable	
66214	Animalia	Festucalex cinctus	Girdled Pipefish		
66236	Animalia	Hippocampus histrix	Spiny Seahorse		
1113	Animalia	Lapemis hardwickii	Spine-bellied Seasnake		
978	Animalia	Anseranas semipalmata	Magpie Goose		
1111	Animalia	Hydrophis ornatus	a seasnake		
1420	Animalia	Egernia rugosa	Yakka Skink	Vulnerable	
1091	Animalia	Pelamis platurus	Yellow-bellied Seasnake		
4952	Plantae	Oreodendron biflorum	-	Vulnerable	
15984	Plantae	Phalaenopsis rosenstromii	-	Endangered	
1124	Animalia	Disteira major	Olive-headed Seasnake		
1911	Animalia	Taudactylus acutirostris	Sharp-snouted Day Frog	Extinct	Recovery Plan for the stream-dwelling rainforest frogs of the wet tropics biogeographic region of north-east Queensland 2000 - 2004
1117	Animalia	Aipysurus eydouxii	Spine-tailed Seasnake		
38	Animalia	Megaptera novaeangliae	Humpback Whale	Vulnerable	
1116	Animalia	Aipysurus duboisii	Dubois' Seasnake		
22564	Plantae	Phaius pictus	-	Vulnerable	
1123	Animalia	Disteira kingii	Spectacled Seasnake		
66281	Animalia	Trachyrhamphus longirostris	Long-nosed Pipefish, Straight Stick Pipefish		
1104	Animalia	Hydrophis elegans	Elegant Seasnake		
1122	Animalia	Astrotia stokesii	Stokes' Seasnake		
14680	Plantae	Canthium costatum	-	Vulnerable	
66194	Animalia	Choeroichthys brachysoma	Pacific Short-bodied Pipefish, Short-bodied		

Taxon Id	KINGDOM	Scientific Name	Common Name	EPBC STATUS	ADOPTED_REC_Plan
			Pipefish		
66200	Animalia	<i>Corythoichthys flavofasciatus</i>	Yellow-banded Pipefish, Network Pipefish		
66211	Animalia	<i>Doryrhamphus excisus</i>	Indian Blue-stripe Pipefish, Blue-stripe Pipefish		
66225	Animalia	<i>Halicampus spinirostris</i>	Spiny-snout Pipefish		
1114	Animalia	<i>Acalyptophis peronii</i>	Horned Seasnake		
25927	Animalia	<i>Hydrophis vorisi</i>	a seasnake		
1120	Animalia	<i>Aipysurus laevis</i>	Olive Seasnake		
66668	Animalia	<i>Petaurus australis</i> unnamed subsp.	Fluffy Glider, Yellow- bellied Glider (Wet Tropics)	Vulnerable	
14310	Plantae	<i>Dendrobium mirbelianum</i>	dendrobium orchid	Endangered	
66199	Animalia	<i>Corythoichthys amplexus</i>	Fijian Banded Pipefish, Brown-banded Pipefish		
66221	Animalia	<i>Halicampus grayi</i>	Mud Pipefish, Gray's Pipefish		
66237	Animalia	<i>Hippocampus kuda</i>	Spotted Seahorse, Yellow Seahorse		
66272	Animalia	<i>Solegnathus hardwickii</i>	Pipehorse		
66280	Animalia	<i>Trachyrhamphus bicoarctatus</i>	Bend Stick Pipefish, Short-tailed Pipefish		
66198	Animalia	<i>Choeroichthys suillus</i>	Pig-snouted Pipefish		
33	Animalia	<i>Balaenoptera acutorostrata</i>	Minke Whale		
66228	Animalia	<i>Hippichthys cyanospilos</i>	Blue-speckled Pipefish, Blue-spotted Pipefish		
66231	Animalia	<i>Hippichthys penicillus</i>	Beady Pipefish, Steep- nosed Pipefish		
66238	Animalia	<i>Hippocampus planifrons</i>	Flat-face Seahorse		
682	Animalia	<i>Hirundapus caudacutus</i>	White-throated Needletail		
1820	Animalia	<i>Litoria nyakalensis</i>	Mountain Mistfrog	Endangered	Recovery Plan for the stream- dwelling rainforest frogs of the wet tropics biogeographic region of north-east Queensland 2000 - 2004
66202	Animalia	<i>Corythoichthys intestinalis</i>	Australian Messmate Pipefish, Banded Pipefish		
66220	Animalia	<i>Halicampus dunckeri</i>	Red-hair Pipefish, Duncker's Pipefish		
66205	Animalia	<i>Corythoichthys schultzi</i>	Schultz's Pipefish		
848	Animalia	<i>Numenius minutus</i>	Little Curlew, Little Whimbrel		
66680	Animalia	<i>Rhincodon typus</i>	Whale Shark	Vulnerable	
64470	Animalia	<i>Carcharodon carcharias</i>	Great White Shark	Vulnerable	
66203	Animalia	<i>Corythoichthys ocellatus</i>	Orange-spotted Pipefish, Ocellated Pipefish		
66254	Animalia	<i>Micrognathus brevirostris</i>	Thorn-tailed Pipefish		
66279	Animalia	<i>Syngnathoides biaculeatus</i>	Double-ended Pipehorse, Alligator Pipefish		
66183	Animalia	<i>Solenostomus cyanopterus</i>	Blue-finned Ghost Pipefish, Robust Ghost Pipefish		
863	Animalia	<i>Gallinago hardwickii</i>	Latham's Snipe, Japanese Snipe		
66184	Animalia	<i>Solenostomus paradoxus</i>	Harlequin Ghost Pipefish, Ornate Ghost Pipefish		
66253	Animalia	<i>Micrognathus andersonii</i>	Anderson's Pipefish,		

Taxon Id	KINGDOM	Scientific Name	Common Name	EPBC STATUS	ADOPTED_REC_Plan
			Shortnose Pipefish		
1093	Animalia	Laticauda laticaudata	a sea krait		
1092	Animalia	Laticauda colubrina	a sea krait		
2104	Plantae	Phaius tancarvilleae	Swamp Lily, Greater Swamp-orchid	Endangered	
66222	Animalia	Halicampus macrorhynchus	Whiskered Pipefish, Ornate Pipefish		
943	Animalia	Haliaeetus leucogaster	White-bellied Sea-Eagle		
25979	Animalia	Nettapus coromandelianus albipennis	Australian Cotton Pygmy-goose		
66241	Animalia	Hippocampus zebra	Zebra Seahorse		
66229	Animalia	Hippichthys heptagonus	Madura Pipefish, Reticulated Freshwater Pipefish		
1022	Animalia	Sula leucogaster	Brown Booby		
56631	Plantae	Huperzia lockyeri	-	Vulnerable	
66973	Animalia	Pterodroma heraldica	Herald Petrel	Critically Endangered	
65721		Boea kinnearii	-		
214	Animalia	Bettongia tropica	Northern Bettong	Endangered	Recovery Plan for the northern bettong Bettongia tropica 2000-2004
889	Animalia	Rostratula benghalensis s. lat.	Painted Snipe		
56050	Plantae	Dendrobium callitrophilum	-	Vulnerable	
7237	Plantae	Polyscias bellendenkerensis	-	Vulnerable	
56632	Plantae	Huperzia marsupiiformis	Water Tassel-fern	Vulnerable	
74	Animalia	Mesoplodon densirostris	Blainville's Beaked Whale		
29	Animalia	Stenella longirostris	Long-snouted Spinner Dolphin		
52	Animalia	Stenella coeruleoalba	Striped Dolphin		
56	Animalia	Ziphius cavirostris	Cuvier's Beaked Whale		
30	Animalia	Steno bredanensis	Rough-toothed Dolphin		
47	Animalia	Peponocephala electra	Melon-headed Whale		
48	Animalia	Pseudorca crassidens	False Killer Whale		
57	Animalia	Kogia breviceps	Pygmy Sperm Whale		
58	Animalia	Kogia simus	Dwarf Sperm Whale		
61	Animalia	Feresa attenuata	Pygmy Killer Whale		
67229	Animalia	Physeter macrocephalus	Sperm Whale		
67812	Animalia	Balaenoptera bonaerensis	Antarctic Minke Whale, Dark-shoulder Minke Whale		
62	Animalia	Globicephala macrorhynchus	Short-finned Pilot Whale		
41	Animalia	Lagenodelphis hosei	Fraser's Dolphin		
840	Animalia	Glareola maldivarum	Oriental Pratincole		
1090	Animalia	Parahydrophis mertoni	Northern Mangrove Seasnake		
26027	Animalia	Neochmia ruficauda ruficauda	Star Finch (eastern), Star Finch (southern)	Endangered	

Threatened Communities of NHT2 Region Cape York, Queensland**Listed under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999***

COMMUNITY NAME	EPBC STATUS	Total Extent of Community Nationally (ha)	Area of Community within a region (ha)	Proportion of Community's Range within Region (%)	Proportion of Region containing Community (%)
Mabi Forest (Complex Notophyll Vine Forest 5b)	Critically Endangered	1,585	279	17.61	0.0012
The community of native species dependent on natural discharge of groundwater from the Great Artesian Basin	Endangered	255,743	6,391	2.50	0.0272

Feral animals and weeds of NHT2 Region Cape York, Queensland

Listed under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*

Taxon Id	Scientific Name	Common Name		WONS or ALERT	TAPS
2	<i>Capra hircus</i>	Goat	FERAL		TAP
128	<i>Oryctolagus cuniculus</i>	Rabbit, European Rabbit	FERAL		TAP
18	<i>Vulpes vulpes</i>	Red Fox, Fox	FERAL		TAP
1	<i>Bubalus bubalis</i>	Water Buffalo, Swamp Buffalo	FERAL		-
19	<i>Felis catus</i>	Cat, House Cat, Domestic Cat	FERAL		TAP
6	<i>Sus scrofa</i>	Pig	FERAL		TAP IN PROCESS
1772	<i>Bufo marinus</i>	Cane Toad	FERAL		-
68407	<i>Prosopis</i> spp.	Mesquite	WEED	WONS	
20213	<i>Cenchrus ciliaris</i>	Buffel-grass, Black Buffel-grass	WEED	-	
11620	<i>Alternanthera philoxeroides</i>	Alligator Weed	WEED	WONS	
10892	<i>Lantana camara</i>	Lantana, Common Lantana	WEED	WONS	
6196	<i>Acacia nilotica</i> subsp. <i>indica</i>	Prickly Acacia, Babul	WEED	WONS	
18913	<i>Cryptostegia grandiflora</i>	Rubber Vine, Palay Rubber-vine, Ornamental Rubber-vine	WEED	WONS	
12301	<i>Parkinsonia aculeata</i>	Jerusalem Thorn, Parkinsonia, Mexican Palo Verde	WEED	WONS	
19566	<i>Parthenium hysterophorus</i>	Parthenium Weed	WEED	WONS	
31754	<i>Hymenachne amplexicaulis</i>	Hymenachne	WEED	WONS	
6311	<i>Annona glabra</i>	Pond Apple	WEED	WONS	

Annexe 5: HISTORY OF PEST MANAGEMENT ON CAPE YORK PENINSULA

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Extract from Cape York Peninsula Pest Management Strategy 2004-2010 (Cape York Weeds & Feral Animals Program)

Cape York Peninsula Land Use Strategy (CYPLUS)

Cape York Peninsula Land Use Strategy (CYPLUS) Stage 2 Report followed a three-year period of local information gathering – the CYPLUS Stage process – in which 44 reports on the natural, cultural, social and economic values of the Peninsula were prepared. Amongst these was a report titled *Animal and Weed Pests of CYP* by Jim Mitchell and Graham Hardwick. This report identified 37 species of weeds and seven species of vertebrate feral animals occurring on Cape York Peninsula Land Use area. Although descriptive, this study mapped pests only as a presence or absence at a property level. Since many properties are over 800 square kilometres, the report was not detailed enough to develop control strategies or programs. Neither did it recommend priorities for control.

Though the CYPLUS Stage 2 report provided little more direction, it did call on the then Departments of Environment and Natural Resources for the preparation of:

“detailed management plans for all of CYP Peninsula for fire, feral animals (particularly pigs) and weeds (particularly rubber vine) and integrate these with the management plans for the various land uses affected” (CYRAG, 1997, p93).

CYP Natural Heritage Trust Plan

CYP Natural Heritage Trust Plan was developed by the Australian Government in response to key conservation recommendations of the CYPLUS Stage 2 Report and the Cape York Peninsula Heads of Agreement. “The plan fulfils the Howard Government’s commitment to allocate up to \$40 million to the Peninsula” (EA, 1998, p.3).

The outcome was \$40 million of Australian Government funding being allocated to 10 strategies outlined in the Plan. Strategy 3 – Controlling feral animals and weeds – had an allocation of \$3.95 million over four years (1997 – 2001). Strategy 3 was to establish a community-based pest and weed control program (EA, 1998). Its objective was to “control and manage weeds and feral animals in CYP in order to protect natural ecosystems and increase productivity” (EA, 1998, p. 13).

Cook Shire Pest Management Plan

Clear direction on pest management priorities for Cook Shire was given by local community members through the Cook Shire Pest Management Committee, resulting in the Cook Shire Pest Management Plan developed in 1997-98. This plan was revised in 2002/3 and currently lists 58 weeds and seven feral animals as being of concern in the Shire.

Cape York Weeds and Feral Animal Project

The Cape York Weeds and Feral Animals Project (CYWAFAPa) was the result of two community-based planning processes – CYPLUS regional planning process, completed in May 1997, and the Cook Shire Pest Management Planning process, completed in February 1998. The former identified that weeds and feral animals were issues that needed to be addressed through the Peninsula while the latter provided specific direction on pest issues for the Cook Shire area.

Cook Shire’s community Pest Management Committee developed a project proposal for pest management and submitted it to the newly formed Cape York Natural Heritage Trust (CYNHT) funding program. The proposal targeted the local Government area of Cook Shire (63 per cent of the total CYP region) since that was the area for which the Pest Management Plan has been developed. CYNHT

requested that a “whole-of-Peninsula” proposal be developed instead. Apart from the area to be targeted, the major difference between the original project proposal and the final proposal that became CYWAFAPa was the concept of the Cape York Pest Advisory Committee, CYPAC.

CYPAC

CYPAC provided and continues to provide a forum for representatives of stakeholder groups from throughout the Peninsula and Government agencies relevant to the implementation of the CYWAFAPa and CYWAFAPb. Its membership was and continues to be:

- Two community representatives from the 3 catchment-based sub-regions of CYP defined for this project (Figure 3);
 - The DOGIT Community Councils;
 - Aurukun Shire Council;
 - Torres Shire Council;
 - Cook Shire Council;
 - Department of Natural Resources and Mines;
 - Environmental Protection Authority (Queensland Parks and Wildlife Service); and
 - Department of Main Roads.

CYPAC's main role remains to ensure that all stakeholders are involved in determining the regional pest management priorities that were implemented through the CYWAFAPa and CYWAFAPb. More specifically, its key tasks are:

- To encourage, assist and facilitate the development of Pest Management Plans (PMP's) with a view to having complementary and locally driven plans in all local Government areas of the region;
- To prioritise and provide direction for weed and feral animal management through the CYWAFAP. This included:
 - Reviewing the draft and approving the final quarterly or six monthly work program/s for the CYWAFAP;
 - reviewing the draft and approving the final yearly budget;
- To develop agreed Performance Indicators for the project and evaluate the project against these at each meeting;
- To inform and consult with constituents and to faithfully represent their views;
- To ensure the Project develops and maintains links with other relevant programs and projects;
- To identify and utilise opportunities to build the capacity (skills, knowledge and resources) of land managers in the region to deal with weeds and feral animals;
- To encourage land owners and /or occupiers to fulfil their responsibilities in relation to weeds and feral animal management; and

- CYP Pest Management Strategy Created on 25/11/2004 13 • To provide recommendations to appropriate levels of Government and the Rural Lands Protection Board on pest priorities and management needs in CYP.

CYPPAC agreed that for the committee to continue a restructure would be necessary in order to make meetings more cost and administratively efficient while expanding to include a wider range of stakeholder interests. At this meeting a restructure sub-committee was nominated to develop new terms of reference, roles and responsibilities for CYPPAC by the end of 2004. A list of CYPPAC members current and past is located in Appendix 2 including the Restructure Committee. Cape York Weeds and Feral Animal Project Achievements

The CYWAFAPa was the first of its kind in Australia. It was a result of community-based planning processes at two significant levels – the regional level, through the CYPLUS regional planning process, completed in May 1997, and the sub-regional Cook Shire Pest Management Planning process, completed in February 1998. During the life of the Project many areas were surveyed and mapped and the data stored in a geographic information system (GIS) database that is compatible with Pest Info (the pest database managed by the Queensland Department of Natural Resources, Mines and Energy).

The Project's achievements were outstanding particularly given the enormous undertaking in building team capacity, acquiring resources and overcoming guarded community attitudes before any effective on-ground work could commence. The project had to be extensively built from the ground up and was committed to employing local people. This required an intensive induction, orientation and training program and a number of short courses, including Council Workplace Health and Safety Induction; Agricultural Chemical Handling and Distribution; First Aid; 1080 Baiting; Firearm Safety; Weed Identification; and Chainsaw Operation courses, for the project staff. Staff also familiarised themselves with the Cook Shire Pest Management Plan and established contacts with various community groups and individuals around the Peninsula. The team worked tirelessly in building trust with landholders around the Peninsula who harboured wary attitudes, particularly toward Government bodies.

The project greatly enhanced local community understanding of pest issues during its initial phase whilst significantly contributing toward developing a reputable knowledge of pests in the area.

The achievements of the project are too numerous to list here and are presented in a technical report titled Cape York Weeds and Feral Animals Project, January 1999 – August 2002: Summary of Achievements, available from Cook Shire Council, the proponents of the project.

Change of Focus; Change of Name - Cape York Weeds and Feral Animal "Program"

In August 2002 a second NHT funded project titled Strategic pest planning, management and community capacity building in Cape York Peninsula (CYWAFAPb) was commenced. This project was to provide a bridge between the Cape York Weeds and Feral Animals Project and the time when all local Governments in the region have community-based pest management plans, landholders have property pest management plans, a Cape-wide PMP is developed and responsible authorities and landholders are implementing the priorities outlined in their plans. The project group was still known to the community as the Cape York Weeds and Feral Animals Project to ensure consolidation and enhancement of the substantial progress made

to date in building partnerships with the CYP community. Due to funding constraints this project was modified in July 2003 to focus on developing this Strategy and progressing the Indigenous Community pest management plans to ensure the Cape-wide pest management plan was developed in a timely manner. Other work undertaken includes assisting landholders with developing property pest management plans and delivering training modules from the Conservation and Land Management Package to Community Rangers. The project group is now known as the Cape York Weeds and Feral Animals 'Program' (CYWAFAPb). This slight name change was implemented to allow for the working group to develop its own identity necessary for expanding its activities by taking on outside contract work. This is seen as a necessary requirement if the group is to become less reliant on NHT funding in the future and allows expertise and skills to be retained on CYP in a working unit.

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Annexe 6: Eight Criteria for the Assessment of Natural Heritage Significance (Mackey et. al. 2001)

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1.0 Geoevolution

Outstanding examples representing major stages of Earth's evolutionary history, including significant geological processes which have contributed to the development of landforms, or significant geomorphic or physiographic features.

The scale, complexity and scientific interest of the phenomenon of on-going physical and biological separation of New Guinea from Australia are of continental, regional and global significance. The whole of Cape York, as part of the physical bridge between two land masses, represents an outstanding evolving geological landscape. As such, Cape York Peninsula holds the key to understanding past and on-going geological processes which have formed Cape York Peninsula's geological landscape (geomorphology) and the connections between the ancient, stable shield of Australia and the much younger evolving land mass of New Guinea. As well, Cape York provides important insights into evolutionary processes which contribute to an understanding of the biogeographic relationships within, distribution of and comparisons between the plants and animals of the two regions.

Examples of outstanding features representing major stages of Earth's evolutionary history include:

- The eastern dunefields of Cape Bedford – Cape Flattery and Shelburne Bay
- The chenier ridges of Princess Charlotte Bay

The Eastern dunefields and the chenier systems are of global significance as evidence of geo-evolution under the influence of global climate change/sea level change. The Shelburne Bay dune fields are distinguished from the Cape Flattery dunefields by their remoteness and the lack of mining impact. The *Natural Heritage Significance of Cape York Peninsula* report suggests that further research will prove other geological and geomorphologic features to be of national, regional or global significance from a natural heritage viewpoint.

These natural systems present significant opportunities for globally important research, regionally important economic eco-cultural tourism prospects and contribute significantly to *sustainability of life and culture*. For example; the chenier plains of Princess Charlotte Bay, provide an exceptional record of cyclone activity over the past 6 000 years, during which sea-levels have approximated those of the present. This surrogate record is important both for a better understanding of global and regional climate systems and for assessment of the frequency of cyclonic events and storm surges, and in terms of its extent and natural condition is globally without equal. The Eastern dunefields of Shelburne Bay, Cape Bedford-Cape Flattery, which rival the temperate Fraser Island/Caloola dunefields in every aspect, including aesthetic, are one of very few places in the coastal tropics where large, elongate, parabolic dunes are still active. The white sands country of Shelburne Bay is also of high cultural significance and importance to the Wuthathi traditional owners.

2.0 Geodiversity*

*Geodiversity (Geological and geomorphological diversity) is independent of its importance in illustrating Earth's evolution (geo-evolution)

The most important and significant lands for in situ conservation of geodiversity, including those containing rare or threatened features of outstanding (universal/regional/continental/local) value from the point of view of science or conservation.

There is possibly no match globally for evidence of a very long-term stability of a tropical landscape than that of Cape York Peninsula. A recent, published claim (Nott and Horton 2000; cited in Mackey *et al* 2001) suggests the Kimba Plateau provides evidence for the oldest known continental drainage divide in the world, at 180 million years. Even without this claim, geologists are in no doubt that region includes landscapes of very great age.

The Natural Heritage Significance of Cape York Peninsula report detailed the following four significant geological features that highlight the geodiversity of Cape York Peninsula, noting in their assessment that further survey and investigation will no doubt reveal additional candidates.

Examples of important and significant lands for *in situ* conservation of geodiversity include:

- The Eastern Dunefields of Cape Bedford – Cape Flattery and Shelburne Bay (see above)
- The karst systems of the Mitchell-Palmer Limestone Belt
- The Black Mountain and Cape Grenville Boulder Landscapes
- The Chenier Plains of Princess Charlotte Bay (see above)

The karst region of the Mitchell Palmer Limestone Belt is considered by expert opinion to be significant at a national level and very possibly at the wider Austral/Pacific level. The blue-green algae covered (which gives the blackened appearance) boulders of the Black Mountain and Cape Grenville landscapes are the largest and best examples in Australia. On Cape Melville, there are emergent trees of the Gondwanic conifer, *Araucaria cunninghamii*, the Hoop pine.

Additional geological and morphological features on Cape York Peninsula which have been identified and are generally accepted as significant for geodiversity include:

- The beach barrier systems on the western lowlands of Cape York Peninsula
- The bauxite formations of the west coast including stratigraphic cross-sections
- The ancient and extensive alluvial plains (deltaic structures of the outwash plains)
- Sandstone escarpments

The beach barrier systems are thought to be especially significant as a very graphic record of the post-glacial progradation of the Carpentaria shoreline. The oldest chenier identified in the study area of Cape York Peninsula dates from 120,000 BP (late Pleistocene), possibly representing a continuous record of the progressive seaward accretion of the coastline. The *Natural Heritage Significance of Cape York Peninsula* report recommends further investigation and clarification). Both the eastern (Shelburne Bay and Cape Flattery) and the western beach barrier systems may be indicative of the contribution which the coastal landforms of Cape York Peninsula can make to the understanding of climate change and sea level changes post-Pleistocene.

The *Natural Heritage Significance of Cape York Peninsula* assessment of geoevolutionary and geodiversity values suggests that the greater part of Cape York Peninsula represents a region containing other containing other geological and geomorphological features which will prove with further research to be of national, regional or global significance from a natural heritage viewpoint.

3.0 Bioevolution

Outstanding examples representing major stages of Earth's biological evolutionary history, including the record of life.

Cape York Peninsula is of national, regional and global significance as a largely intact land and biological bridge retaining valuable evidence of the bio-evolution and on-going 'fragmentation' of the biomes of the Australian Wet Tropics region and the island of New Guinea. p77. Geo-evolutionary processes of connection and separation between Cape York Peninsula and New Guinea referred to above have contributed to the present day complement and diversity of Cape York Peninsula fauna and flora, which are an amalgam of the mega diverse Australian and New Guinea biota in a dynamic mix that is of global significance.

Cape York is unique in Australia with respect to the strength of its biological affinities and connections with New Guinea. These are most developed in the north and east, while the western lowland sectors of Cape York Peninsula exhibit strong affinities with northern tropical Australia. The peninsula landmass has been and remains the key connection to New Guinea, and Torres Strait has acted as both a bridge and barrier (Walker 1972, Schodde and Calaby 1972 cited in Mackey *et al* 2001) to exchange of biota (plants and animals). Together with lowlands in New Guinea, Cape York Peninsula has extensive areas that contain clues to the evolution of both a common and a derived assemblage of fauna and flora. Of the substantial proportion of species whose distribution is limited to Cape York Peninsula in Australia (i.e. are endemic), a significant number also occur in New Guinea.

Fossil locations throughout the Cape hold important evidence for Australia's Gondwanic heritage of plant life. Potentially of critical importance to understanding of palaeo (ancient) -climate and palaeo-ecology in the lowland, megatherm (tropical) environments of northern Australia and New Guinea are the most northerly known Pleistocene fossil fauna sites in the Glen Garland Swamps, containing 20 swamp depressions, on the relict land surface of the Coleman Plateau (Mulvaney 1994 cited in Mackey *et al* 2001).

Outstanding examples representing major stages of earth's biological evolutionary history, including the record of life include:

- Glen Garland Swamps on the relict land surface of the Coleman Plateau.

Cape York Peninsula contains an array of contemporary biota that illustrate stages in biological evolution that extend back in time to before the break up of Gondwana and final separation of Australia from Antarctica. The austral conifers, *Araucaria cunninghamii* persists as a relict population on deep sands in dune fields and among massive boulders on Cape Melville

4.0 Biodiversity

The ecosystems with their component species, populations and genetic inheritance together comprise the biodiversity of Cape York Peninsula which is of national, regional and global significance as an area of outstanding biodiversity. Significant components of the region's rich and diverse assemblage are unique in Australia.

At a global scale, Cape York Peninsula contains three significant bio-climates; the drier south western lowlands (core tropical savannah), the wetter region at the tip and slightly less seasonal rainfall areas of the mid-east. This is the first indicator that the biota of the region may be globally significant. While there are strong climatic affinities, Cape York Peninsula is bio-climatically distinct from PNG as well as from

the adjacent Wet Tropics region. Despite this, Cape York Peninsula exhibits very strong biological connections with New Guinea.

Cape York Peninsula is an environmentally diverse area, with distinctive hydroecological features. Much of the region experiences a long, dry season. This has profound biological implications, in that permanent or semi-permanent surface water becomes critical for the persistence of important elements of the flora and fauna. Thus, locations that contain permanent flowing streams, groundwater discharge areas (springs) and other forms of water holes, support vegetation that is differentiated from the surrounding landscape matrix and that constitutes important dry season habitat resource and refuges. Hydroecological impacts of the monsoonal wet/dry seasons drive landscape evolution and biological responses. Thus, surface water/groundwater interchange must be understood before embarking on any natural resource management on land.

While the Wet Tropics World Heritage Area to the south preserves more of the temperate (mesotherm) biological inheritance, Cape York Peninsula preserves much more of the megatherm (tropical lowland) biological inheritance that is shared with New Guinea. Both regions are of equal importance and have international significance from a biodiversity perspective but only the Wet Tropics Bioregion is protected under the World Heritage Convention. (p69). For very many species Cape York Peninsula provides the most important remaining relatively undisturbed habitat.p66. Long-standing connections and co-occurrence of suitable habitat is considered to be significant for the relatively high number of volant mammal species (eg gliders) that are found on both sides of Cape York Peninsula.

Cape York Peninsula has significant percentages of endemic fauna species (i.e. their distribution within Australia is restricted to its boundaries) including:

- 21% of butterflies (60% of all Australian species have been recorded in Cape York Peninsula)
- 5% of non-passerine birds (eg Southern Cassowary, hawks & eagles and long distance migrants)
- 14% of passerine birds
- 16% of volant mammals (eg fruit bats & microbats)
- 13% of freshwater fish (The Wenlock River is argued to contain the richest known freshwater fish fauna in Australia with the Jardine River not far behind it).
- 23% of frogs
- 25% of reptiles
- 20% of non-volant mammals
- 40 known terrestrial vertebrates including two rock wallaby, bird, skink, frog, gecko, *Melomys*, monitor and *Antechinus* species
- An expected (with further data collection) high invertebrate endimicity.p162

As well Cape York Peninsula contains:

- 25% of Australia's frogs and reptiles
- 50% of our birds
- a third of the continent's mammals and
- nearly two thirds of the country's known butterflies.
- over 500 species of terrestrial vertebrates

Offshore island coral cays and islands are the most important breeding ground for many tropical marine bird species and the extensive wetlands provide important breeding and dry-season foraging grounds for a large assemblage of wetland species. The seasonal cycles of filling and drying are responsible for complex

movements of wetland bird species from regions both to the south and to the north of Cape York Peninsula

The CYPLUS report (Abraham et al 1995) highlighted the global significance of selected elements of biodiversity found in Cape York Peninsula. Their analysis suggests that the following characteristics are of particular global significance:

- The closed forests, wetlands, seagrass, seabird breeding, roosting, and feeding locations.
- The mangrove ecosystems which are amongst the worlds most species rich
- One of the world's largest number of recorded orchid species

Cape York Peninsula contains the largest continuous, least disturbed by modern technology tract of core tropical savannah biome remaining with a high degree of natural integrity and 39 floristic vegetation types unique to tropical Australia. Two vegetation types are structurally distinguished. These are 1) an association of *Eucalyptus tetradonta*, *E. hylandii* var. *campestris*, *Erythrophleum chlorostachys* and 2) an association of *Eucalyptus tetradonta*, *E. nesophila*, *Erythrophleum chlorostachys* (Bauxite plateau, northern Cape York Peninsula). These associations are at the southern and northern ends respectively of the deeply weathered Aurukun land surface and in both cases can exceed 30m in height.

Dominant structural vegetation types include Tall Woodlands, Closed and Open Forests, Low Open and Closed Forests; Low Woodland; low open woodland, open heath, Tussock Grassland and Sparse Herbland.

A number of structural vegetation types such as Closed Sedgeland; Tall Shrubland; Tall Open Shrubland; Dwarf open Heath; Closed Tussock Grasslands; Closed Scrub grassland and Closed Herbland, while of a lesser significance on an areal basis, contribute to vegetation and habitat diversity within the broader matrix and deserve closer attention.

Cape York Peninsula contains a total of 3,338 species (Nelder and Clarkson 1995 cited in Mackey *et al* 2001) of which 2,412 are vascular plant species. Endemic plant species of the region number 264 plant species and three genera – focused in the Mcllwraith-Iron Ranges, gallery forests and vine thickets. So far, 104 relict Gondwanic plant species have been recorded, including Austral conifers in the *Araucariaceae* and *Podocarpaceae* families, the *Proteaceae* general *Caravonica* and *Placospernum*, and some orchid genera. These old endemics tend to be concentrated in closed-forest and especially complex mesophyll vine forest to the south, as well as the notophyll forest of the mid-Peninsula ranges, and the semi-deciduous mesophyll vine forest of the lowlands along the Claudie and Normanby Rivers.

Continentially significant animal habitats include: sand dunes; heath; closed forests (Cape York Peninsula has 20% of Australia's closed forest cover) and gallery forests; islands; cliffs; boulder mountains; mangrove and seagrass. P72. The wide variety of structural vegetation and its admixture; such as the network of gallery forests and the scattered vine thickets that occur throughout vast expanses of *Eucalyptus* and *Melaleuca* woodland, littoral thickets on mainland beaches and offshore islands; sandplain heath and a range of other vegetation types, facilitates migration and seasonal movements of a number of bird and bat species. Cape York Peninsula is a vital component of the Eastern Australian Bird Migration System (Nix 1976 cited in Mackey *et al* 2001) for species in transit to and from New Guinea; species that overwinter and other species that have seasonal movements within the larger framework of north-eastern Australia and New Guinea (Blakers *et al* 1984, Kikkawa 1976 cited in Mackey *et al* 2001).

5.0 / 6.0 Natural Integrity & Ongoing Natural Processes

Natural Integrity: *Ecosystems and landscapes which exhibit outstanding ecological and geophysical integrity.*

On-going Natural Processes: *Contains the essential elements to allow or maintain significant on-going ecological and geophysical evolutionary and life-support systems.*

The integrity of natural processes is a major dimension of natural heritage values, which may be global, regional, national or local. Natural integrity is used here to indicate the degree to which pattern and process in environmental and ecological systems are function of natural processes rather than human perturbation, in particular those cause by modern technological society. To put it differently, natural integrity reflects the extent to which the dominant ecological and environmental character of a landscape or seascape is the result of natural systems and processes (eg genetics, laws of physics and chemistry, evolution and natural selection) operate unimpeded by the impacts of modern industrial technology.

As discussed above Cape York Peninsula contains three globally significant bioclimates. Each of these have landscapes that are relatively undisturbed compared with analogous landscapes elsewhere in the world. For example, the globally significant tropical savannah landscape of Cape York Peninsula is distinguished from those of Arnhem Land and the Kimberly Region by possessing a high degree of naturalness over a greater diversity of bioclimates. Irrespective of the scale considered, the region remains a remarkably unfragmented set of landscape ecosystems.

The National Wilderness Inventory, when used as a measure of ecological integrity, identifies Cape York Peninsula, together with parts of Arnhem Land and the Kimberly Region, as the largest and most substantial intact areas of higher rainfall landscapes in Australia. The western half of the Peninsula is part of the Great Artesian Basin and largely underlies arid and semi-arid regions where water is sparse and unreliable. Recharge occurs mainly in the eastern marginal zone (Habermehl 1980 cited in Mackey *et al* 2001). This means that the high integrity of the area's hydrological systems is therefore of national significance.

Cape York Peninsula substantially comprises a continuous (i.e. uncleared and unfragmented) of native vegetation/ soil landscape ecosystems, with key hydrological processes, that drive and couple the surface-groundwater resources remaining essentially intact. As noted above, entire catchments function unimpeded, which reflects a low level of human exploitation of water, due to the overall small size of the human population and the limited extent of industrial activity. The low level of disturbance across the region means that recharge areas remain in a natural state with their native vegetation/soil cover and continue to function optimally. The distribution of key vegetation types and associated fauna is closely associated with and dependent on the distribution and availability of surface and near surface water during the dry winter period. The low level of disturbance across the region means that recharge areas remain in a natural state, perennial springs are maintained and other important dry season refuges are retained. Thus, the hydroecological processes of Cape York Peninsula have a high degree of natural integrity and the hydrological processes have a high level of natural integrity from both a national and global perspective. This high level of natural integrity, particularly in relation to land cover and related hydroecological processes, demands that the concept of Total

Catchment Management inform future management considerations of Cape York Peninsula.

Maintenance of the integrated subsurface/surface hydrological processes is essential to the biology and ecology of Cape York Peninsula, including the seasonal movement and breeding of fish fauna, riparian forest and gallery forest, and the distribution and availability of refuges during the extended dry period. The condition of the native vegetation cover is a key factor in the functioning of these processes. Habitat clearance, fragmentation and degradation are recognized as three of the most threatening processes to the conservation of biodiversity (Zuidema et al 1996, Recher and Lim 1990 cited in Mackey *et al* 2001). The condition of the native vegetation cover is therefore a critical index of the integrity of access to key natural ecological processes. The continuous cover of native vegetation-soil ecosystems throughout the region means that these threatening processes are not yet widespread problems as they are elsewhere and despite the very long history of human habitation, in general terms, Cape York Peninsula has maintained a high level of integrity and intact landscape.

Cape York Peninsula has been assessed as a large, environmentally and biologically diverse network of interconnected landscape ecosystems whose natural processes possess a high degree of integrity at global, national and local scales^{iv}.

7.0 Contribution to Knowledge

Examples of geomorphic or physiographic features, ecosystems, plant and animal communities or natural processes or phenomena, the study of which has, or is continuing to contribute significantly to an understanding of the natural history beyond that place.

Cape York Peninsula already makes a direct contribution to knowledge and has important characteristics which will ensure that it continues to make an important contribution to knowledge of natural history beyond the Peninsula proper.

The most important features that support assessment of Cape York Peninsula's global significance for *Contribution to Knowledge* are:

- The largest continuous tract of core tropical savannah biome remaining with a high degree of natural integrity
- A relative safe environment for visitation
- Ready access for much of the year
- Land tenure of much of the land which provides the foundation for sound, long-term management necessary for developing research and education programs
- A long record of natural history research, including the CYPLUS program, provides a firm base for future research and studies
- Relative proximity to major research facilities in Cairns
- The research challenge of extensive and diverse areas of high natural integrity that have been scantily, if at all, researched
- Global significance as a base-line landscape in tropical environments of future climate.

Cape York Peninsula has been assessed as containing important features that have globally significance for Contribution to Knowledge (Mackey *et al* 2001)

8.0 Aesthetics

Superlative natural phenomena or areas of exceptional natural beauty or aesthetic importance.

Cape York Peninsula contains various superlative natural phenomena and areas of exceptional natural beauty and aesthetic importance, including:

- 1800 km long coastal foreshore, a high proportion of which is exceptional natural visual integrity
- Long, sandy beaches of exceptional natural beauty particularly on the east coast
- Visually distinct eastern foreshore headlands
- The high level natural integrity of the adjacent waters of the Great Barrier Reef World Heritage Area
- Accessible viewpoints that provide elevated vistas of the extensive natural wooded landscapes, e.g. Grassy Hill at Cooktown
- Prominent, distinct and unique landscape features e.g. Black Mountain, Cape Melville, Iron Range
- Micro landscape features, especially closed forest, gallery forest, water features, tower karst caves
- Shelburne Bay & Cape Flattery dunefields
- Iron Range rainforests
- Jardine and Wenlock River catchments
- The Quinkan landscapes
- The beach barrier systems and associated Pleistocene Carpentaria foreshore dune
- The Princess Charlotte chenier system.

Cape York Peninsula, *in toto* has been assessed as having a high aesthetic potential. The area offers an outstanding aesthetic experience. The exceptional natural beauty and aesthetic values renders the area significant at least at the national level and with further mapping and analysis, part or the entire Peninsula may warrant a being assessed as globally significant.

END NOTES

ⁱ This section of the plan draw heavily on Mackey, B., Nix, H., and Hitchcock, P., 2001, “The Natural Heritage Significance of Cape York Peninsula”.

ⁱⁱ Lyndon Schneiders provides a comprehensive account of this history at <http://www.wilderness.org.au/campaigns/northernaustralia/capeyork/cyvision>.

ⁱⁱⁱ This section draws heavily on Living on Saltwater Country Part B: Review of literature about Aboriginal rights, use, management and interests in northern Australia.