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ACF Submission to Joint Select Committee on Northern Australia Inquiry into the Development of Northern Australia 14 March 2014

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EXECUTIVE SUMMARY

This submission is premised on a key lesson in natural resource management which has been learnt at great cost in Australia over the last 200 years: a sustainable and resilient economy depends on maintaining and managing a healthy environment.

In other words, planning for economic development needs to learn from the mistakes of the past and be based on learning to live off environmental interest, not continuing to run down our environmental capital. This applies particularly to northern Australia.

Many examples in support of this fundamental premise could be cited from past experience, which 25 years ago prompted the launch of Landcare. The Murray Darling Basin system is a prime example of how poor planning can result in long term economic pain – the restoration of the MDB is now costing the federal government at least \$13 billion to fix. A poor understanding of water science in the early years of the MDB combined with the fragmented short term views of stakeholders across multiple jurisdictions resulted in the unsustainable development of the river system. We must not repeat these mistakes in the north.

Goals and tests for the sustainable economic development of northern Australia

ACF believes that a strong, diverse and sustainable economy for northern Australia is necessary to underpin the wellbeing of its communities, the long term management of its resources, and maintain its contribution to Australian and global society.

We share this view with other organisations in the north based on an understanding that:

- 1. Northern Australia's unique, relatively intact and globally significant natural and cultural values must be recognised and safeguarded as vital to its future;
- 2. Economic development options must involve genuine consultation with local communities and be compatible with local conditions;
- 3. Economic development in the north and Indigenous socio-economic development must be pursued together since neither is sustainable, nor equitable, without the other.

ACF Tests of Economic Development Plans for Northern Australia

Rather than a grand blueprint for the north, ACF strongly recommends using an iterative and adaptive planning process to formulate, and regularly revise, economic plans for northern Australia. This would provide more accurate information to inform federal policy, budget priorities and investments in infrastructure and result in better economic, social and environmental returns on these investments.

The planning process needs to be driven by these key outcome tests:

- 1. Are the plans environmentally sustainable?
- 2. Are the plans economically resilient?
- 3. Are the plans fair and equitable?

Test 1: Are the economic development plans environmentally sustainable?

Northern Australia enjoys significant comparative advantage in terms of its natural and cultural assets. Environmentally sustainable economic development in northern Australia requires economic activity and infrastructure compatible with maintaining these world class natural and cultural values, which underpin the tourism industry and other land and water uses, including pastoralism and fisheries.

To be genuinely sustainable, the long term plans for northern Australia must:

- 1. Protect biodiversity and restore ecosystem resilience through integrated approaches which link social, cultural and economic dimensions of people and place, and recognise Indigenous peoples' roles and rights.
- 2. Support Indigenous peoples' sustainable management of their land and resources and encourage mutual learning about contributions to sustainability.
- 3. Ensure a comprehensive, representative and well managed network of protected areas with high conservation and cultural values.

Test 2: Are the development plans economically resilient?

A resilient economic future for northern Australia begins with environmental sustainability.

The other key characteristics of economic resilience include:

- Strategies which are tailored to the different needs, barriers and enablers of different regions across the north, based on genuine engagement with, and informed consent by local communities.
- Diversity of economic activity appropriate to local conditions, especially to avoid the boom and bust cycles characteristic of the resources sector or reliance on a single dominant industry.

No one size grand plan will fit all across the north.

Environmental services can provide the foundations for reliable employment and income in all rural and remote communities. These can include employment in industries such carbon farming as well as economic opportunities in sustainable tourism, well managed pastoralism, ground water supplied horticulture (where this is based on robust science) and other value adding industries in arts, bush products and services.

An environmentally sustainable, regionally appropriate and diverse suite of economic activities will be enable northern Australia to become more resilient to future economic and climate shocks, enhancing the engagement and skill base of the local labour force and providing longer term income security to help maintain social support services.

To achieve this ACF believes the Parliamentary Inquiry and subsequent White Paper needs to consider and recommend:

- Policy, market incentive and natural resource management initiatives which provide for environmentally sustainable economic development compatible with conserving Northern Australia's globally significant natural and cultural values, with particular attention to likely climate change impacts such as salt water intrusion into wetlands from sea level rise, changing fire and burning patterns, and increased spread of pests and weeds;
- 2. Policy, regulatory, market and incentive instruments which support low-footprint, high-socioeconomic-benefit industries and land uses, including environmental services and carbon farming, appropriate tourism, and best practice in water use and renewable energy in rural and remote areas which can form the basis of future export industry in knowledge, skills and technology.

Test 3. Are the plans fair and equitable?

Economic development in the north and Indigenous socio-economic development must be pursued together since neither is sustainable, nor equitable, without the other.

SUMMARY OF ACF RECOMMENDATIONS

Recommendation 1. Land-use Compatibility Framework

Adopt a land-use compatibility framework to guide economic planning, based on science and Indigenous ecological knowledge, and which integrates the full value of all the outstanding natural and cultural values of northern Australia.

Recommendation 2. Regionally Driven, Diverse and Resilient Economies Adopt a regionally driven long term economic planning process which builds diverse and resilient economies, appropriate to the very different needs and comparative advantages of different regions – from the larger cities of Cairns and Darwin, to medium size towns such as Broome and Cooktown, to rural and remote communities.

Recommendation 3. Economic Participation of Indigenous Communities
Ensure the rights and interests of Indigenous people are core to economic development
planning and regional governance processes based on the principles and practise of Free,
Prior and Informed Consent.

Recommendation 4. Environmental Services Economy

Invest in environmental services, including Indigenous Rangers, land and sea management, fire management and carbon farming, to ensure a strong foundation and framework to maintain and develop other economic activities, especially tourism.

Recommendation 5. Tourism Development

Invest in appropriate tourism development - which protects and maintains the natural and cultural assets of the north and which spreads the benefits of tourism revenue and employment to more people in rural and remote communities, particularly to Indigenous communities.

Recommendation 6. Water Development

Establish a moratorium on the industrial and commercial development of river systems until scientifically robust National Water Initiative compliant plans are in place and used to inform future decision making.

Recommendation 7. Mining and Energy

Establish a robust and consistent regulatory regime across all jurisdictions in northern Australia to advance a responsible mining sector.

Put a moratorium on unconventional gas exploration and development (CSG, shale gas) until extensive studies are conducted on long term environmental impacts.

End plans for new or expanded uranium mining and promote responsible radioactive waste management based on transparent process, sound science and community consent. Establish policy enablers which promote investment in building a strong renewable energy economy (including export of knowledge and technology), based on the long term comparative advantages of northern Australia in solar and tidal energy.

INTRODUCTION

Northern Australia - a future worth conserving

Stretching over 2,500 kilometres from the Kimberley in the west, through Kakadu and Arnhem Land in the Northern Territory, to the Gulf country and Cape York Peninsula in the east, and including vast fringing reef marine parks of Ningaloo and the Great Barrier Reef, northern Australia is home to the largest, most ecologically intact ecosystems left on earth.

Little wonder, Australia is regarded by international visitors as the world's number one destination for outstanding beauty and natural environment (Tourism Australia research 2013: Consumer Demand Project, Nature)

The landscapes in the north form a sweep of forests, woodlands and spinifex clad ranges, threaded by a mosaic of wetlands and meandering pristine rivers. It is world renowned for its natural and cultural values, recognised in both National and World Heritage proclamations. This supports thousands of jobs and livelihoods in tourism, arts, and land and sea management.

The north is worth our strongest efforts to protect and conserve in line with the aspirations of Indigenous peoples who have been its custodians for tens of thousands of years.

The need for economic development that fits the nature of the country

For a range of compelling reasons, including to address Indigenous disadvantage, northern Australia *requires* a sustainable economic development pathway. This pathway needs to fit the nature of the country and capitalise on its natural assets rather than depend on large-scale irrigation or land-clearing, or the unfettered expansion of the mining sector.

Existing economic activities and natural values supported by the land and water resources of northern Australia, along with the uncertainties associated with development of water resources, demand that best practice water management and planning be in place before developing water resources or allocating water entitlement or use licences. Crucially, development must avoid repeating the mistakes of the past such as the over-extraction of water from the Murray-Darling Basin, now costing the tax-payer \$13 billion to restore. The complex interconnections between surface and groundwater are poorly understood in northern Australia and water extractions from one place could have significant impacts some distance away, and sometime in the future.

Turning threats into opportunities

There is a need to reverse the long term trend of environmental decline in Australia and to address the socio-economic development needs of Indigenous people.

The particular threats for northern Australia include the steady invasion of pests and weeds, a rapid decline of small mammal species, the growing impacts of climate change and ill-considered proposals to mine, dam and clear swathes of the north which would only degrade the north's National and World Heritage listed natural and cultural values.

The expansion of Indigenous Protected Areas and the growth of the Indigenous Rangers program are indicators of a strong new movement in the north to "keep country healthy". This includes the steady development of land and sea management services by Indigenous communities such as the control of pests and weeds, fire management and carbon farming commonly referred to as the environmental services sector. This sector provides reliable employment and income for many remote Indigenous communities, lifts skill levels and establishes the physical and administrative infrastructure required to establish and support other economic activities.

Tourism is one particular opportunity which can build on the social, administrative and physical infrastructure established with the Indigenous ranger programs, - particularly high value nature and culture based tourism. The future development of the tourism sector in the north must ensure more of the income and employment benefits flow to rural and remote communities, particularly to Indigenous communities who do the hard work of keeping the natural assets of the north in good order, particularly under Indigenous Protected Areas.

Another comparative advantage for northern Australia is solar energy, and in some areas tidal energy, with the opportunity for communities in the north to be energy self-sufficient and to supply both southern Australia and Asia with clean renewable energy. A focus on developing renewable energy in northern Australia reduces costs and provide greater security for industry and communities living in remote locations over the long term. Solar energy has been shown to work in over 130 remote Indigenous communities to date, with significant savings in fuel costs. Cleaner, smarter renewable energy for rural and remote communities can be the basis of a future strong knowledge and skills export economy consistent with maintaining the cultural and natural values of the north.

Understanding the nature of northern Australia and the vital role of water

Northern Australia has a much higher Indigenous population and a much larger Indigenous owned estate compared to southern Australia – around 30% in both cases. The overlap of the Indigenous estate with the conservation estate is a unique and fundamental feature of the north - which supports the world's oldest living culture, where many Indigenous people continue to live on country, often in very remote, significantly disadvantaged communities.

Any consideration of economic futures for northern Australia must recognise the region's significance for Indigenous people and their intrinsic and continuing connection to land and water.

Northern Australia has a richness in biodiversity which is rare by world standards existing in the only developed nation with a large tropical region. It supports the world's largest remaining tropical savannah, one of the world's largest networks of free-flowing tropical rivers, and the world's largest near-shore tropical marine ecosystem.

The north is strongly monsoonal with an almost rainless dry season followed by a shorter season of storms, cyclones and torrential rain. The harsh climate shapes the landscape and dictates the types of land use activities the north can sustain. Very few rivers in northern

Australia flow year-round and those that do are highly valued. They support complex and healthy ecosystems. These are freshwater systems of national significance.

Perennial rivers in northern Australia are rainfall dependent in the wet season and sustained by localised groundwater discharge during the dry season. The seamless interconnection between surface water flows and groundwater discharge (and recharge) is critical to their integrity.

Understanding of northern landscapes will be deepened through an integration and application of both western and Indigenous knowledge. Building the adaptive capacity of landscapes and the resilience of communities to respond to climate change in northern Australia is critical.

A CSIRO coordinated Northern Australia Land and Water Science Review in 2009 examined a range of options for use of land and water in northern Australia and the likely consequences of those uses, for communities, businesses and the environment. The Review detailed the key limitations and enablers required for future development in the north, including environmental, social, economic and governance considerations.

While the review did not provide sustainable development 'solutions' for northern Australia, it did provide data and recommend processes to ensure that developments are designed and selected to proceed with sustainability and equity.

The geographic scope of the science review was confined to a smaller area than the boundaries of northern Australia defined for the purposes of this Inquiry - the scope of the data in the 2009 science review were the river basins within the Timor Sea and Gulf of Carpentaria drainage divisions, and that part of the North East Coast drainage division north of Cairns - taking in the area north of Broome in the west and Port Douglas in the east.

The population of this region is about 200,000, which is about 20 per cent of the 'north of Capricorn' total population excluding major northern centres of population and industry such as Cairns and Townsville.

The review found that the northern Australian culture and economy is heavily based on natural resources, especially water, comprising:

- tourism and recreation (around A\$2,800 million),
- pastoralism (around A\$1,000 m),
- fishing and aquaculture (greater than A\$160 m),
- irrigated agriculture (around A\$160 m)
- defence (greater than A\$1,000 m)
- mining (around A\$9,100 m).

The review found that all future economic development and diversification opportunities rely on access to water, making virtually all water resources significant. Future expansion of these industries may generate increased competition amongst water uses and users.

Some key factors that were considered in the science review included:

The environment as a key water user

Life in northern Australia is extraordinarily dependent on the region's high natural values and intact landscapes. Development can directly reduce these values by depleting water, reducing water quality or by changing the natural flow of water in the landscape; all of which impact the animals and plants that live on the land and in the seas and rivers of the north.

Customary management, Indigenous livelihoods and water resource planning

Indigenous livelihoods are heavily reliant on water-dependent natural resources, which intersect and support its customary, state and market sectors. Indigenous people in northern Australia comprise a third of the north's population. Clarity of water rights in northern Australia affects Indigenous people's access to water and commercial opportunities, and could impact future unresolved Native Title claims.

Of the significant volume of rainfall that falls in northern Australia between October and April each year, the CSIRO review found that this water performs important roles and is not "wasted".

- 20 per cent flows through streams to the ocean: this flow maintains industries like fishing and tourism by providing the conditions required to support fish life. Reducing stream flow reduces nutrients and the food required for fishery stocks such as barramundi, threadfin and prawns to breed and grow.
- > 15 per cent becomes groundwater:: this water keeps the landscape and people alive and industries operating in the dry season. Remote communities draw most of their drinking water from groundwater.
- **65 per cent evaporates from soils, plants and water bodies:** evaporation is not just lost; this water plays an important role in the water cycle, enables plants to grow and maintains the climate in the north.

The review found that the expansion of irrigated agriculture had historically been limited by several factors: a lack of skills and experience in dealing with a challenging climate; sufficient water and quality soil that occur together; and economic, logistical and social isolation. These challenges still exist to varying degrees, but none on its own was sufficient to prevent further development. The Review found that there may be enough water and soil to support a doubling or tripling of the existing irrigated agriculture area. Technological advances, such as the use of more efficient irrigation methods or plants that use water more efficiently, could increase the opportunities for irrigated agriculture by making better use of scarce water resources.

ACF VISION: A prosperous and sustainable future for northern Australia.

By 2030 Northern Australia has applied lessons from the past and become a world leader in sustainable resource management – building a resilient economy which is providing secure jobs, lifting services and dramatically reducing the disadvantage faced by many Indigenous Australians.

This has been driven by a transformative change to integrate the full value of ecologically healthy landscapes and river systems into economic decision making. This underpins a high value tourism industry and is proving vital to managing climate change impacts on northern Australia, including for the agricultural sector and for the consequent economic shocks arising from climate change impacts and other megatrends as documented by the CSIRO globally, and in our region.

Joint venture business development activities initiated by Indigenous people utilising traditional knowledge and cultural assets are thriving. A core source of revenue is income from the global trade in carbon – which is also having widespread benefit for primary producers across the north as a way to diversify their income and keep their country productive. Skill levels are increasing on the back of more effective use in resources for training and education, and is the basis for a growing knowledge economy with Asia.

Thanks to Australia's increased reputation as the number one destination for natural beauty and environment, and well targeted investments in transport infrastructure, the tourism industry has broadened its reach to a diverse range of market and 'experience' segments and is providing reliable income and employment to small towns and remote communities across the north. In particular, Indigenous communities are engaged in and receiving substantial direct benefit from tourism – some of which is being reinvested back into managing the health of country, maintaining infrastructure and supporting services.

The national and international recognition of the natural and cultural landscapes of northern Australia, combined with the systematic application of a science based land-use compatibility framework, including reforms to provide more flexibility of land use on leasehold land, is improving the health and ecological connectivity of the landscape. Despite some adverse impacts from climate change, the ecological integrity and health is improving for National and World Heritage areas, Indigenous Protected Areas, National Parks, private wildlife sanctuaries, areas under conservation covenants and Ramsar listed wetlands. This has helped to reverse the decline of small mammals and other threatened plants and animals and enabled Australia to avoid a wave of extinctions.

Northern Australia is demonstrating world best practice in the use and management of its tropical freshwater systems based on a strengthened National Water Initiative. Reflecting their social, cultural and economic values, these freshwater systems are now declared assets of national significance. All river basins and their associated aquifers have implemented water management plans that comply with the objectives of the National Water Initiative. This was achieved through a sustained investment by Australian governments in addressing critical knowledge gaps and involving communities in water planning.

Indigenous people are central in land and water planning, management and decision making and adequate provision is made for environmental and Indigenous cultural water use, with regular review as new information becomes available, including from impacts of climate change.

Water use efficiency on irrigation farms has increased dramatically through the adoption of advanced water delivery technologies – and is the basis for a thriving skills and knowledge export industry. Farms use a 'closed system' approach, where excess water no longer drains into aquifers and rivers and nutrient and pesticide use have been stopped or dramatically reduced, minimising the impact of agriculture while improving farmers' net income.

Small scale irrigation systems are thriving in suitable areas which combine arable land with sustainable water use and access to markets. These new 'mosaic systems' have allowed landholders to increase overall unit productivity and better manage risk and consolidate diverse, dynamic and distributed economic activity.

The northern pastoral industry has increased its productivity with improved technologies and best practice land management (to decrease water use and methane production), and is contributing to better environmental outcomes through stewardship partnerships. The success of business development and management support programs has significantly improved the viability of a large number of Indigenous pastoral properties.

Improved rehabilitation and environmental mitigation strategies and practises across former mine sites and mining affected areas are leading to improved environmental outcomes and supporting the development of a new international market for Australian skills and technology.

Northern Australia has become a global hotspot in the development and deployment of renewable energy, particularly in solar and tidal energy applied to rural and remote communities, which has enabled all communities across the north, including the larger cities, to become energy self-sufficient and to build an innovative and strong renewable energy knowledge and skills based export economy.

DETAILED ACF RECOMMENDATIONS AND SUPPORTING ACTIONS

Recommendation 1. Land-use Compatibility Framework

Adopt a land-use compatibility framework to guide economic planning, based on science and Indigenous ecological knowledge, and which integrates the full value of all the outstanding natural and cultural values of northern Australia.

To shift development in the north onto a pathway that protects and maintains natural values and ecological processes which keep the country healthy, planning needs to be based on:

- The establishment of core areas to be managed primarily for conservation;
- Constraints on activities that are directly or indirectly destructive to the natural values and ecological processes of the north;
- The promotion of economic activities that are compatible with those values and processes.

This requires a network of protected areas (building on the current Indigenous Protected Areas network) which maintain the environmental integrity or connectivity of landscapes, and the health of river systems and wetlands - the lifeblood and kidneys of the north.

However, conservation in northern Australia also requires new thinking and a different approach than the traditional establishment of protected areas alone. A planning approach based on a land-use compatibility framework is required which:

- 1. Properly accounts for, and maintains the natural and cultural values, of northern Australia landscapes and waterways;
- 2. Maintains the ecological integrity of the processes that keep country healthy, particularly in response to the likely impacts of climate change;
- 3. Involves all property-holders and land managers, particularly Indigenous communities, to enable environmentally sustainable economic development.

The aim of the land-use compatibility framework approach is to increase economic activities which directly help to maintain, or can be made to be compatible with, the ecological processes and natural and cultural values of northern Australia. This in turns underpins the long term productivity and environmental sustainability of northern Australia economies – capable of withstanding future waves of global economic and environmental changes and shocks.

A Land-use Compatibility Framework for Northern Australia Source: Woinarski et al, The Nature of Northern Australia. ANU E Press, 2007

Classification of economic activity	Description	Examples
Conservation	Activities that directly and actively help to maintain ecological processes and natural values.	• Some government services (border control and quarantine)
		• Conservation management of country
		• National Parks, Indigenous Protected Areas, off-reserve management
		 Feral animal control and harvesting
Compatible	Activities that rarely if ever degrade, but may simply be neutral to the environment.	• Most government services (defence, health, education, provision of infrastructure)
		• Visual and creative arts, including the Indigenous arts and crafts sector
		 Nature and culture-based tourism
		• Information technology services
		• Biotechnology (e.g. bioprospecting); for example, identifying new medicines using traditional knowledge
Potentially compatible Incompatible	Activities that can be compatible with maintaining natural values and processes if done with care and in particular ways. Activities that are inherently degrading to natural values and processes, for which significant damage can only be reduced, and generally not to a satisfactory level.	• Pastoralism dependent on native pasture and operating within carrying capacities
		• Mining operations that have minimal water requirements and small ecological footprints
		• Low input aquaculture; for example, with natural feeding stock (e.g. shellfish, sponges)
		• Harvesting of native plants and animals from the wild
		• Fishing (commercial, recreational and Indigenous)
		• New residential and tourist developments
		• Mass tourism
		Military training
		• Trophy hunting of feral or native animals
		• Permanent and large-scale clearing of native vegetation for agriculture
		 Mining operations with a large ecological footprint (such as strip mining without adequate rehabilitation or protection of hydrological systems)
		• Large-scale water off-takes, impoundments and irrigation
		• Extensive plantation development
		• Extensive aquaculture developments with high input (e.g. fish fed other fish)
		• Genetically-modified crops
		• Pastoralism using invasive introduced grasses

Federal Budget Reform Steps

Another vital step to integrating the full value of the outstanding natural and cultural values of northern Australia into long term planning and decision making is to develop a national balance sheet, including Australia's natural assets and forward projections, and use it to drive more informed planning and priority setting.

Australia has played a very important role in the development of the UN System of Environmental-Economic Accounting (SEEA), a globally agreed statistical standard equivalent to GDP. This needs to be applied and the best place to start is in relation to future development options for northern Australia. For a modest allocation of \$20 million per year, publication of a full SEEA account for Australia is feasible, and would provide decision-makers at all levels of government and in the private sector with vital information about our natural assets.

Balance sheets are central to decision-making in every business, ensuring assets are not run down just to generate short-term revenues. Just as this evidence base is critical for good decision making in business, it is also needed to inform are good decision making by government, with communities, in economic planning. Such a balance sheet would help highlight issues in the policy and budget priorities that are currently invisible, such as resource depletion and the run down of critical infrastructure such as transport systems and ecological systems, or green infrastructure, such as healthy rivers and their catchments.

A further step to inform decision making for northern Australia is to expand the budget paper "Economic Outlook" for Australia into a "National Outlook" which takes into account a broader set of issues that will affect the nation's future, and breaks this down by regions – beginning with northern Australia.

Non-market production, such as looking after culture and country and caring for relatives, together with ecological production, such as clean water, soil production and climate regulation, are just as important as the production we currently count in the market place, if not more important to the functioning of our society. GDP represents perhaps only a third of total productive activity in Australia. So the full picture "National Outlook", not just an "Economic Outlook" budget paper, would help complete the budget and inform better decision making.

Recommendation 2. Regionally Driven, Diverse and Resilient Economies

Adopt a regionally driven long term economic planning process which builds diverse and resilient economies, appropriate to the very different needs and comparative advantages of different regions – from the larger cities of Cairns and Darwin, to medium size towns such as Broome and Cooktown, to rural and remote communities.

The Regional Australia Institute, in its 2013 report, *Rethinking the future of northern Australia's regions – More than mines, dams and development dreams*, after outlining the distinctive types of regions in northern Australia, recommends any strategy for northern development needs to recognise these differences to be successful, and requires more detailed assessment across these distinctive regions to identify the specific barriers to economic development in northern Australia including infrastructure, health and education. The report highlights a need for economic diversification in some regions (dominated by mining) and for prioritising value adding in others – including to develop a knowledge economy to meet the needs of growing Asian and Pacific markets.

The Regional Australia Institute report notes that to be successful in more remote regions an economic development strategy needs to "value the pristine natural environment and incorporate sustainability approaches to development".

Some policy priorities to assist with economic diversification noted in the Regional Australia Institute (and highlighted in the KLC submission to the Inquiry) include:

- 1. Resolving the complex impediments to using leasehold and Indigenous land and water as a flexible economic asset;
- 2. Reforming the governance of public investment to provide remote communities with more responsibility and say over their future.

ACF strongly recommends that federal and state/territory governments:

- allow adequate time for communities in the north to engage in the detail of economic proposals;
- transparently engage stakeholders in planning and decision making; and
- take a whole of government approach to planning and management.

Fundamental to informed decision making for long term economically resilient development is recognising the full economic value of the environmental and cultural assets of northern Australia and incorporating these into government priorities and investments.

Plans for agricultural development in northern Australia must be driven by:

1. Being the right fit for country: appropriate for northern Australia's unique environment, in particular the soils, climate, hydrology, natural values, social fabric, viability of existing or new infrastructure, access to markets.

2. Looking before we leap: the scope, scale and characteristics of agricultural development should be underpinned by science - requiring substantial and strategic investment land use capability and water use science to understand which areas may be suitable for sustainable, productive, profitable development.

In summary, economic development plans for northern Australia need to understand and reflect the enormous diversity of the regions in the north with proper valuing of the pristine natural environment and the incorporation of sustainability approaches.

Recommendation 3. Economic Participation of Indigenous Communities

Ensure the rights and interests of Indigenous people are core to economic development planning and regional governance processes based on the principles and practise of Free, Prior and Informed Consent.

ACF recommends the following principles are applied to the development and implementation of economic development plans in northern Australia. These are drawn from a forum with members of the Kimberley Land Council at a 2005 Kimberley Appropriate Economies Roundtable at Fitzroy Crossing, WA.

- 1. Development proposals acknowledge that culture guides economic activity for Indigenous people and appropriate development must be based on healthy country and strong culture.
- 2. Development proposals recognise and respect the rights of Traditional Owners to make decisions about their country.
- 3. Conservation and cultural management are recognised as important valuable and important contributions to the economy and society:
- The local economies of hunting, fishing, looking after people, culture and country are valued and supported;
- The rights of Traditional Owners are recognised when conservation areas are established;
- Senior Indigenous people are supported in the transmission of knowledge and confidence to young people;
- Benefits from cultural information are returned to the holders of that information.
- 4. The people of the region are able to participate in planning for the region, are supported by government in that process, and their views are respected and included when implementing outcomes.

ACF supports the general recommendations advanced by the Kimberley Land Council to this Inquiry and highlights the following recommendations:

- 1. The economic value of the environmental and cultural values of the Kimberley, and northern Australia generally, must be recognised;
- 2. Economic development policies should recognise and build on the unique position that Traditional Owners have, based on their knowledge of country which is relevant to:
- i. diversified economic activities such as cultural and environmental services;
- ii. tourism
- iii. defence, quarantine and biosecurity.
- 3. The Australian Government support for ranger networks across Australia is maintained while commercial opportunities from cultural and natural resource management are developed.

4. The Inquiry investigate and support the development of tenures that support diversified activities in northern Australia, including environmental services, carbon farming and cultural tourism activities.

Applying the principles of Free Prior and Informed Consent (FPIC)

Consistent with the explicit right to Free, Prior and Informed Consent (FPIC) contained in the 2007 United Nations Declaration on the Rights of Indigenous Peoples, ACF recommends that the following principles be adopted for future economic planning and activity in northern Australia:

- 1. Government must obtain Free, Prior and Informed Consent of Indigenous peoples before adopting and implementing legislative or administrative measures which may affect them or their traditional lands, waters, or related resources (including minerals, water, cultural sites, fauna and flora)
- 2. Indigenous People not be forcibly removed or relocated, permanently or temporarily, from their traditional lands or waters without their Free, Prior and Informed Consent.
- 3. Indigenous Peoples must give their Free, Prior and Informed Consent before hazardous materials are stored or disposed of on or in their traditional lands and waters.
- 4. Indigenous Peoples must have access to mechanisms to resolve disputes in relation to Free, Prior and Informed Consent with governments and other parties.

ACF supports and commends the general application of the guidelines developed by the federal Department of Environment: "Ask First: A guide to respecting heritage places and values"

Recommendation 4. Environmental Services Economy

Invest in environmental services, including Indigenous Rangers, land and sea management, fire management and carbon farming, to ensure a strong foundation and framework to maintain and develop other economic activities, especially tourism.

ACF advocates a focus on developing a resilient cultural and conservation economy in northern Australia. The scope of this economy and how it is advanced has been articulated in comprehensive reports including the 2005 Kimberley Appropriate Economies Roundtable Forum Proceedings, and the 2013 NAILSMA report: *Developing an Indigenous prospectus for northern development*" Second North Australian Indigenous Experts Forum on Sustainable Economic Development.

The environmental services stream in the Indigenous prospectus for northern development recognises the potential Indigenous people could play in northern Australia in meeting the growing demand of goods and services from Asia, whilst still maintaining environmental outcomes and cultural values. This stream aims to promote Indigenous involvement in natural resource management (NRM) for the commercial delivery of environmental and social benefits. Likewise, this stream seeks to establish NRM programs as a means of offsetting any environmental consequences that may occur in other proposals of Indigenous participation, such as agriculture.

The issues associated with the environmental services stream, identified in the Second Indigenous Experts Forum, include:

- A lack of participation or recognition of expertise in Indigenous skills;
- Failure to engage with Indigenous interests and landholders, particularly groups whom are already involved in environmental services projects in northern Australia;
- Overcoming existing or potential market failures to advance the delivery of goods and services;
- Identifying which regions and/or Indigenous groups are most appropriate to implement existing or potential proposals; and
- Uncertainty on what structures, processes and criteria are necessary to build robust enterprises and create permanent employment opportunities in order to meet economic ambitions and targets.

Critical Success Factors

ACF has also conducted analysis of the preconditions and critical success factors for the long term economic sustainability of cultural and conservation economy activities with Indigenous communities. This draws on a variety of case studies and research by other organisations including the Centre For Aboriginal Economic Policy Research (CAEPR) at the ANU, with particular reference on the role of the federal government agencies.

Critical success factors for building a durable cultural and conservation economy

1. Security of tenure, with community support and mandate from traditional owners.

A strong mandate from traditional Aboriginal owners and high levels of community support, with effective participatory planning, governance models and operational structures.

2. Strong Indigenous leadership.

A key driver of success is engagement of senior community leaders. These leaders need to be appropriately remunerated for their work.

3. Clear relationships with community organisations, particularly host organisations. Enterprises need independent incorporation and/or defined working arrangements, set out in Service Level Agreements, with the organisations hosting or supporting them.

4. Capacity building, training and organisational development.

The more sustainable organisations have a strong focus on continually growing and strengthening their organisation particularly through building the capacity and skill levels of their staff.

5. Access to science and research support.

The strongest projects have developed when there are researchers with 'western science' approaches operating alongside Indigenous managers with their local ecological knowledge and skills using a 'two tool-box' approach involving long-term partnerships between effective research institutions and Indigenous communities.

6. Coordinated delivery of support by government agencies.

It is more effective and efficient to negotiate a broad collaborative funding arrangement for an area rather than negotiate collaborative arrangements for individual projects on a case-by-case basis.

- 7. Longer-term partnerships with government agencies and/or businesses in the region. Indigenous groups which, by virtue of their location, skills and networks, are able to attract longer-term partnerships with government agencies and businesses, are more likely to successfully develop as sustainable organisations. Where government agencies have been able to deliver funding for periods of three years or more, the quality has increased significantly, due to security of funding for staff, equipment and planning.
- 8. Resources and time allocated to participatory planning and negotiations with Indigenous groups so that support is more tailored to local needs and priorities.

 Government agencies that have dedicated staff either in the field, or who are able to visit Indigenous groups for reasonable periods of time, can 'put a face' to a program and work with Indigenous groups and land councils on developing their projects. This is seen as more successful than the traditional grant application model. Where there is consistency of government staff working on a program, the benefits of this approach increase dramatically.

Recommendation 5. Tourism Development

Invest in appropriate tourism development - which protects and maintains the natural and cultural assets of the north and which spreads the benefits of tourism revenue and employment to more people in rural and remote communities, particularly to Indigenous communities.

According to research commissioned by Tourism Australia, Australia ranks as the world's number one destination for "world class beauty and natural environment", coming in ahead of Hawaii, Switzerland, New Zealand and Canada as having some of the most naturally outstanding places on earth. Northern Australia is home to many of these places – from the Kimberley to Kakadu and Arnhem Land, to the Gulf country, Cape York and the Wet Tropics - fringed by the stunning Great Barrier and Ningaloo Reefs.

The nature and culture based tourism sector is a relatively stable and significant driver of income and employment across all of Australia, with even higher significance in northern Australia. A 2012 report on nature based tourism in Australia by the Tourism and Transport Forum found that 61 percent of international visitors in 2011 engaged in nature based tourism (3.3 million) with an associated expenditure of \$12.78 billion. In addition, there were 12.9 million domestic overnight visitors (not including day visitors) engaged in nature based tourism spending \$12.35 billion in 2011. The value of the our national landscapes is reflected in programs such as Australia's National Landscapes Program and the significant focus and investment by Tourism Australia in marketing of Australia's natural environment. Refer Australia's National Landscape Program: 2012 Outcome Report (Department of Environment and Tourism Australia) and Tourism and Transport Forum, Nature based Tourism Report, March 2012.

Australia's Natural Advantage

In a 2013 report on the future of tourism in Queensland, commissioned by the Queensland Government, the CSIRO highlighted Australia's "Natural Advantage" in the face of the global megatrend of biodiversity decline due to continuing habitat damage, overexploitation, pollution, invasive alien species and climate change.

The key implication for tourism, in Queensland and across northern Australia, is that maintaining the health of world class natural assets will continue to attract tourists in greater numbers and, in the context of the impacts of megatrends globally, will hold even greater value to tourists coming to Australia in the future. The effective management and promotion of natural assets will help fetch a premium price premium in global tourism markets. (Refer The Future of Tourism in Queensland: Global megatrends creating opportunities and challenges over the coming twenty years. CSIRO, 2013)

ACF recommends the following immediate federal investments to build the social, administrative and support infrastructure required to foster appropriate tourism opportunities, as part of building a sustainable cultural and conservation economy.

5.1 Boost the Indigenous Ranger program

Lift the current target for the employment of Indigenous rangers from 730 at least 1,000 rangers by 2016, with a focus on high natural and cultural heritage areas including the Kimberley, Kakadu, Cape York and the Great Barrier Reef.

Since federal support for Indigenous rangers was established in 2006 this program has demonstrated enormous success in terms of conservation outcomes and cost effective Indigenous training and employment. A 2011 Allen Consulting Group assessment found the true cost of the program was 23% lower than the program budget because of reduced welfare payments and increased taxation revenue. In addition, more than \$12million accrued in benefits flowed to local communities serviced by the program, beyond those people directly employed. Indigenous ranger teams are now managing over 1.5 million square kilometres of land and sea country with over 90% of projects managing matters of National Environmental Significance under the EPBC and over 60% addressing key threatening processes such as the invasion of pests and weeds.

The Indigenous Ranger program provides the foundation for other economic opportunities in environmental services, tourism, bush products and enterprises consistent with the goals of Indigenous people to keep their country healthy and build strong community livelihoods.

5.2 Fund a package of training and infrastructure, targeted to remote Indigenous communities, to boost tourism in areas with declared natural and cultural values.

This includes training, partnership development, critical infrastructure needs, and ongoing business development support to enhance the management of National Heritage areas in the Kimberley, new joint managed National Parks (CYPAL) and nature refuges on Cape York and other areas with high natural and cultural values. The focus of the program would be to develop quality and integrity control systems for tourism activities so as to expand opportunities for Indigenous owned and managed high quality nature and culture based visitor experiences.

5.3 Invest in protecting well-functioning ecosystems with targeted action to conserve wildlife, manage key threats and sequester carbon in biodiversity hotspots.

This includes increasing federal investment, to be matched by States and Territory, in research and development to support management, understanding and monitoring of the Australian environment and the impacts of climate change on ecosystems; to implement a nationally consistent accounting and reporting of conservation progress and its associated economic and social benefits, and to invest in long-term strategic national connectivity conservation programs which reverse the decline of biodiversity in Australia.

Recommendation 6. Water Development

Establish a moratorium on the industrial and commercial development of river systems until scientifically robust National Water Initiative compliant plans are in place and used to inform future decision making.

An environmentally sustainable future for northern Australia requires a moratorium on development of river systems until scientifically robust, National Water Initiative compliant plans, are in place. Freshwater river systems in northern Australia need to be recognised as nationally significant and their hydrological connectivity maintained.

Existing commitments for managing water resources should be honoured including fully adopting and implementing the National Water Initiative (NWI) water reform framework. Indigenous ecological knowledge should shape development plans and Indigenous interests recognised in water planning and management, including the development of 'Strategic Indigenous Reserves' as a central element of water plans.

The Northern Australia Land and Water Taskforce found that the development of groundwater resources provides the best prospect to support new consumptive uses of water. The most prospective provinces are large and extend well beyond jurisdictional boundaries. Mosaic agriculture has been identified as an appropriate model for new agriculture in northern Australia that warrants further consideration.

Dispelling the myth of the northern foodbowl

The notion of turning northern Australia into a 'food bowl' requiring just bold vision is not supported by scientific research which points to poor soils, harsh climatic extremes, uncertain water availability, long distances to markets, costly infrastructure needs and a history of failed agricultural schemes.

The 2009 Report of the Northern Australia Land and Water Taskforce found that: "Contrary to popular belief, water resources in the north are neither unlimited, nor wasted. Equally, the potential for northern Australia to become a 'food bowl' is not supported by evidence."

The physical and climatic characteristics of northern Australia need to be better understood as the basis for best practice in the future sustainable development of water resources.

- There is no such thing as spare or unused water in northern Australia. Rainfall and runoff support wetlands, estuaries and coastal fisheries that underpin Indigenous and non-Indigenous economies and livelihoods. Redirection of water to other uses would involve complex trade-offs with existing social, economic and environmental benefits.
- 2. Most of the region lacks suitable soil and water resources for intensive agricultural development. Whilst there are areas that are suitable for irrigation development, they are scattered across the landscape rather than occupying large tracts of country.
- 3. Despite high rainfall, development is constrained by limited access to water because:

- High rainfall for a few months per year is followed by almost no rain for the rest of the year. Evaporation and plant use of water is so high that on average there is very little water for ten months of the year.
- Most rain falls near the coast and runs out to sea quickly, making it hard to capture and store for use. This also makes it inaccessible to agricultural development inland.
- Highly seasonal and highly variable rainfall along with high evaporation makes it
 hard to store water without large and deep dams, for where there are few, if any,
 good sites.
- The landscape is too flat to be suitable for dam-building and water storage on the scale that would be required to support large-scale irrigation development
- Capturing and storing water at the scale contemplated by food bowl proponents would be very inefficient and costly and not meet public cost-effectiveness criteria for investment.
- 4. Much of the land already being used for economic activity: pastoralism, including Indigenous pastoral land, comprises around 90 percent of the land area of northern Australia.
- Climate change impacts will make northern Australia's variable climate even more difficult for agriculture with changing rainfall patterns, increasing temperatures and more frequent and severe cyclones and wildfires.

More viable options for agricultural development include:

- To develop small, cropped areas, irrigated with groundwater, which are scattered over the landscape as part of a mosaic of land uses and tenures comprising natural savanna, cropped, grazed, irrigated land and protected areas.
- Subject to further study an additional 600 gigalitres of groundwater might be made available to support new water consumptive uses enabling the area of irrigable land to increase by around 20,000 40,000 hectares.

Recommendation 7. Mining and Energy

Establish a robust and consistent regulatory regime across all jurisdictions in northern Australia to advance a responsible mining sector.

Put a moratorium on unconventional gas exploration and development (CSG, shale gas) until extensive studies are conducted on long term environmental impacts.

End plans for new or expanded uranium mining and promote responsible radioactive waste management based on transparent process, sound science and community consent. Establish policy enablers which promote investment in building a strong renewable energy economy (including export of knowledge and technology), based on the long term comparative advantages of northern Australia in solar and tidal energy.

ACF recommends a more robust and consistent approach is taken to regulating the Australian mining sector across the jurisdictions of northern Australia, including to identify opportunities to harmonise regulation where possible and where this results in a more transparent and responsible mining sector.

ACF's tests of a more transparent and responsible mining sector include:

- Enhanced transparency and scrutiny of sector financing, including Australia becoming a full party to the Extractive Industries Transparency Initiative (EITI)
- No exploration or mining activities in ecosystems or habitat of high conservation value including in the conservation estate.
- No exploration or mining activities in areas of high cultural significance without free, prior and informed consent from Traditional Owners
- The assured commitment and demonstrated capacity to full rehabilitation and mine site remediation, including mine closure plans at the start of operations and dedicated and independently assessed rehabilitation bonds covering the full cost of rehabilitation.

A more robust, independent and transparent state and federal regulatory regime, includes

- enhanced capacity for on-site monitoring and intervention
- effective and independent review, dispute and grievance mechanisms for parties affected by mining operations
- regular independent review of the sector's performance in relation to best practice agreements and enduring community benefits outcomes with Aboriginal landowners.

Due to its inherent and unacceptably high risk, ACF opposes any mining of uranium. Uranium is a unique mineral which has a wide range of serious long term risks including accidents with its use in generating energy (as seen at Fukushima, a continuing nuclear crisis directly fuelled by Australian uranium), unresolved waste management issues, military weapons links and significant nuclear safety and security concerns. ACF supports no further new or expanded uranium operations and the accelerated closure and comprehensive rehabilitation of existing operations.

ACF supports a moratorium on unconventional gas including coal seam gas and shale gas, until more extensive scientific studies of long term water and land impacts are conducted. ACF opposes the expansion of coal mining due to the costly climate change impacts from the

burning of coal – for which northern Australia, particularly Indigenous communities, will pay a very high price in the future. (Refer report: Risks from Climate Change to Indigenous Communities in the Tropical North of Australia, 2009)

The global energy economy of the future will rely more and more on cleaner, smarter renewable energy – for which northern Australia has a clear comparative advantage, particularly in solar and tidal energy. Establishing a policy environment conducive to investment in renewable energy will enable all communities across the north, including the cities, to become energy self-sufficient and to build a strong and innovative renewable energy knowledge and skills export economy.

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