

**DEVELOPMENT OF  
NORTHERN AUSTRALIA**

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REPORT TO AUSTRALIA 21

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## OBJECTIVES

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To provide a scoping document that will frame Australia 2 discussion on the future development of northern Australia. This will take the following form:

- Identify drivers of change in northern Australia
- Set out how those drivers can be influenced
- Outline potential scenarios for the future of the north
- Thresholds for change
- Identify research that is informing tropical policy
- Knowledge needs
- Key actions needed for a sustainable tropical future

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## INTRODUCTION

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### **AUSTRALIA 21 AND THE DEVELOPMENT OF NORTHERN AUSTRALIA**

Australia 21 has the capacity to convene networks of thinkers, researchers and policy makers from around the nation to answer challenging questions about the future and to develop credible frameworks for understanding that can form the basis of public policy.

With the decline in productivity of the drying South, questions are being asked about the possibility of development of a major food growing industry in the North. Each of the Northern States and Territory is currently facing challenging questions about this projected development, the accompanying requirements for infrastructure, and growing pressures to exploit water resources in the north. Some of these questions are common to each of the jurisdictions while others are jurisdiction-specific. Some need to be tackled across State and Territory borders.

There are also significant unresolved questions about the sustainability of development in these parts of Australia, the future of indigenous communities and the suitability of various regions for agricultural development. Some of the landscapes are fragile and any forward looking plan must take account of the resilience of the landscape ecosystems and the societies that will inhabit them.

The pressures are such that there is increasing pressure for substantial development in each of the three Northern Australian jurisdictions as population pressures build and as food production in the south diminishes. What is needed to help to guide these developments is a coherent vision for a northern Australia of which our grandchildren will be proud. In plain language we should be asking ourselves the question, “How should we manage the future of Northern Australia over the next fifty years in such a way as to permit those of us who are still around in fifty years time to look back with pride on what we have done?” Developing such a vision requires inputs from diverse

disciplines and institutions and there needs to be a degree of coherence and symbiosis across the three jurisdictions in developing this vision.

The Board of Australia 21 believes it can assist this process and is ready to foster wide-ranging discussion in 2008 among national policy makers, industry leaders and researchers. The central question will be as follows:

What are the opportunities for, and constraints on, development in Northern Australia (defined as north of the 26th parallel)? What kind of vision for development of this area is likely to optimise the resilience of the population which lives there now and in the future as well as the resilience of the ecosystems on which that population will depend? How can this vision contribute to the development of Australia as a whole?

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## BACKGROUND

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At the start of the 21<sup>st</sup> century Northern Australia has a simple economy based primarily around extractive and primary industries and tourism. There is rudimentary infrastructure outside the largest towns and the environment is superficially intact including numerous rivers that run unfettered to the sea and a near-continuous cover of native vegetation. The human population is small. More than 20% of the population is Indigenous many of whom have abysmal levels of health, education, housing, personal safety and economic independence but who maintain strong cultural connections with their land.

The great contrast with southern Australia is not for want of trying. Ever since Europeans visited northern Australia ambitious visions and adventurous investments have repeatedly been imposed on the tropical landscape and its people. Almost all have foundered on ignorance – of the soils, the climate, the people and their motivations – as well as poor planning, lack of long-term capital and the exigencies of isolation and distance. There was no equivalent in the north of the gold and wool that built southern Australia. The cattle kings had grass castles and the mining settlements flared and died with their ore bodies. Southern government underwrote nearly all activity, the investment being driven as much by perceived military threat from the north as economic opportunity. Indigenous people were often the bemused subjects of moral fashion, from evangelical Christianity to welfare reform, each assaulting their cultural identity and capacity to control their own destiny.

But now there is a shift in attitude to northern Australia. Rather than the north being a place to gamble on unlikely dreams, for entrepreneurs aspiring to speculative riches, the south is now seeking succour from the north's environmental wealth that is seen as having been left behind in some accident of history. Having squandered the natural capital of temperate Australia at a pace outstripping any other continent, there is a belief in the south that those who have tried and failed to exploit the north have never been sufficiently desperate. Now, it is thought, innovation driven by necessity and fugitive capital, by superior technology and a unified political priority will succeed where mere dreamers have failed.

But to what end? Is the aim a north that maintains its environmental prosperity while increasing in social and material wealth – that skills and capital of the south transfer residence to the north to its benefit? Or is the aim merely to feed southern appetites until the north, too, has been exhausted? The south now needs the north as more than a

remote military outpost, but can the expression of that need result in more than repetition of the south's mistakes?

Substantial changes to the trajectory of the north are likely to occur in coming decades. This document aims to provide background material to a debate on where that trajectory will lead. This is done in two ways. The first is to outline briefly seven scenarios for the north and how they might interact with scenarios for the country. The second is to analyse ten drivers of futures in northern Australia, how they are likely to be influenced, research being undertaken to understand them and future information needs for those shaping the new future through policy<sup>1</sup>.

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## **PRINCIPAL DRIVERS OF CHANGE IN TROPICAL AUSTRALIA**

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The ten drivers identified will shape the Australian tropics over the next three decades: demography, social function, property rights, Commonwealth policy, global economic strength, resource use, oil availability, climate change, invasive organisms and technological change. These can be placed along a continuum of controllability. Many are interchangeable; all interact. Several drivers have technical, economic and social impediments, not least that they require complementary policies and decisions by the States or Territory and by the Commonwealth, some are entirely dependent on decisions made nationally or globally. Many trends will be relentless and little considered until thresholds of adversity are passed, after which new priorities and policies will flip from marginal to imperative. Anticipation of the policies needed to avoid the least desirable outcomes will nevertheless be a valuable investment for times when society is ready to make hard decisions. The drivers are listed below. More detail is provided in an Appendix.

### **DEMOGRAPHIC AND SETTLEMENT PATTERNS**

On current trends the population of tropical Australia of about half a million will still be under a million by 2030, although the proportion who are Indigenous may have doubled. The non-Indigenous population will probably continue to be relatively transient, although the total number of people living to old age in the tropics will increase. The population outside major centres will probably grow less than in the cities and may even decline as the cost of servicing remote areas increases and people move to towns and cities. Digital communication is also encouraging delivery of services remotely, both to remote areas from regional centres and to the north from the south. Only active incentives will reverse the trend for the tropical population to become centred on a few urban enclaves.

### **SOCIAL FUNCTION**

Existing major problems for health, education and governance in many parts of the Australian tropics, particularly for Indigenous people, will remain without dynamic changes in government policy. Even in the urban centres, where better services are

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<sup>1</sup> For more detail of drivers and scenarios see Garnett, S.T., Woinarski, J.C.Z., Gerritsen, R. and Duff, G. 2008. *Future options for northern Australia*. Cooperative Research Centre for Tropical Savanna Management, Darwin.

available, there are problems with attracting a sufficiently skilled workforce to provide the services expected in modern Australian society. A high level of skills migration, with some skills becoming hard to acquire, is increasingly likely to be met by immigration of skilled workers from abroad, by commuting from southern centres and digital communication.

## **LAND TENURE AND ASSOCIATED PROPERTY RIGHTS**

Most of tropical Australia is owned by government and leased for pastoralism. There is potential for governments to impose increasingly stringent lease conditions to match rhetoric about sustainable land management. This would include an expansion of input from the community on standards of stewardship on pastoral and other lands. Intensification of management to utilise pasture more fully and increase production will also have to compete with overlapping Indigenous rights to land as well as with the still hazy rights to water, carbon and other resources that are increasingly being unpackaged from overall rights to land. The second major land tenure is as Aboriginal land. There is a received wisdom that benefits derived from enterprise on Aboriginal land needs to be returned to entrepreneurial individuals rather than distributed among the lands' collective ownership. This could have a profound influence on the nature and extent of economic enterprise on those lands.

## **COMMONWEALTH GOVERNMENT POLICY**

The Commonwealth Government has always had an immense influence in the north, particularly the Northern Territory, but the level of intervention has varied unpredictably. A Federalist Commonwealth will continue intergovernmental business as it has usually been, with the Commonwealth leading the policy agenda and the States/Territories carrying out service delivery. A Centralist Commonwealth may reshape the governmental funding and service delivery systems of northern Australia. This is most likely with respect to funding and services to Indigenous communities but health, education, border security, environmental issues and mining may also see a more direct controlling role for the Commonwealth.

## **GLOBALISED TRADE AND THE INTERNATIONAL ECONOMY**

The current boom in China in both production and market activity is having a substantial influence of the economy of northern Australia. The Indian economy is also starting to expand rapidly and democratisation of Indonesia may similarly increase the economic influence of that country over the next several decades. This may lead not only to accelerated and expanded exploitation of minerals but investment in large scale food, wood and biofuel production. However environmental or social perturbations to Asian growth, or declines in American or European markets, will have major knock-on effects in the northern economy, both directly and through the level of support available from Canberra. Alternatively the emerging carbon market and environmental consciousness could see a boom in sales of 'green' products from tropical Australia.

## **RESOURCE USE**

There are many natural resources present in northern Australia that can be expected to be in increasing demand from a resource-depleted world. The most prominent of these is water. Tropical water flowing to the sea is increasingly the envy of drying southern capitals where decisions are made. The extensive savannas may yet find markets for their

timber despite formidable technical obstacles. But, while some resource markets can be predicted relatively confidently from current trends, trends in others are far less certain, responding to new technologies, geo-political changes or the compound impacts of global climate change. It is likely that there will be increasing demand for, and value of, northern Australia's horticultural production from pockets of fertile lands, as well as for uranium, aluminium and some other metal resources, and fish. Demand for these particular products will have substantial local impacts in the north.

## **OIL FUTURES**

Peak oil is immanent. Increased oil prices are now a permanent feature of the global economy and are likely to get higher. This will have major impacts on the periphery of transport networks such as northern Australia. Higher fuel prices will increase the cost of both imports and exports. Higher costs for flying could have an enormous impact on remoter parts of the region, the profitability of mines and the sense of isolation from larger population centres. The end of cheap oil also represents an opportunity given the reserves of natural gas under the continental shelf and uranium on land. How these two will balance will determine the future of the north's economy.

## **GLOBAL CLIMATE CHANGE**

The climate is undoubtedly warming, rainfall in the eastern tropics will probably decrease, sea levels rise and there may be a greater frequency of strong cyclones. Cyclones will have also have indirect effects through changes to the global economy. However climate change may present novel opportunities with the north becoming a source of green energy and a sink for greenhouse gases.

## **INVASIVE ORGANISMS**

Weeds, feral animals and foreign pathogens are all spreading at various rates through tropical Australia. Many have become embedded in the local environment, some are causing major changes in vegetation structure, biodiversity and the profitability of primary industries.

## **INNOVATION AND TECHNOLOGY**

Communication technology is just one of many new technologies that are transforming society in tropical Australia, as it is everywhere. But, while it will bring the voices closer, there may be less incentive to bring the people – much more management at least can be undertaken at a comfortable distance in southern capitals.

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## **INFLUENCING THE DRIVERS**

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Some drivers can be influenced by government policy at a State, Territory or Commonwealth level, others are manifestations of global trends which no local law or investment can divert. Any strategy for a sustainable future for the north needs to recognise where policy can effectively reverse undesirable change and where it is necessary to adapt to the inevitable. Here we spell out the potential for influence, and the jurisdictions that can exert that influence.

## **DEMOGRAPHIC AND SETTLEMENT PATTERNS**

Large economic and political drivers cannot be controlled or even substantially influenced from within the region while biological momentum takes generations to changes. However human movements are highly susceptible to government policy. For instance current trends to reduce government support for small communities and cut welfare payments in settlements may accelerate urban drift. Understanding migration patterns and subsequent policy adjustments regarding regional investments and service delivery may reduce turnover of migrants.

## **SOCIAL FUNCTION**

The future of health, education and governance and their ability to steer trajectories for the north is most strongly influenced by public policy and public sector investment. National policies and agendas are critical. The role of health, education and governance in mitigating social and economic disadvantage for remote Indigenous communities is contested areas of public policy. The only real certainty is that decisions made now in this area will have ramifications for generations to come.

## **LAND TENURE AND ASSOCIATED PROPERTY RIGHTS**

Land tenure is controlled entirely by the two tropical States and also effectively by the Northern Territory. However Territory legislation can readily be over-ruled by the Federal Parliament, particularly Indigenous tenure since the Native Title and the Northern Territory Land Rights Act are administered by the Commonwealth,

## **COMMONWEALTH GOVERNMENT POLICY**

The constitution limits the extent to which the Commonwealth can intervene in State development, although fiscal levers can be used to drive State concessions of authority. The Commonwealth has potentially unlimited jurisdiction over the Northern Territory and will retain this potential until statehood is achieved. Most issues, however, will be played out at a national level as part of the ongoing interaction between State and Commonwealth rights, particularly through the Council of Australian Governments.

## **GLOBALISED TRADE AND THE INTERNATIONAL ECONOMY**

Local infrastructure development, policies and legislation may affect the rate and nature of change. Development of efficient transport and port facilities will encourage export-driven resource-based industries while entrepreneurial sustainability enterprises that take advantage of carbon and other similar markets. Policy can also encourage investment of resource extraction incomes into the knowledge economy to ensure employment and enterprises persist in the long term.

## **RESOURCE USE**

Impacts of this driver can be moderated by incorporation into policies and regulations the lessons learned from an improved baseline assessment of north Australia's natural resources. Research into what levels of exploitation are sustainable, particularly for water extraction and the need to maintain adequate flows, can be combined with careful application of realistic value to the many natural resources of the region that are now largely unvalued.

## **OIL FUTURES**

Oil prices will be set by supply, consumption and political interactions between them well beyond Australian borders. Governments, however, can set policies that will reduce local expenditure on energy, increase energy use efficiency, enable local consumption of fossil fuels that are currently exported and encourage and invest in the adoption of new technologies and practices.

## **GLOBAL CLIMATE CHANGE**

Climate change has passed the point of control over the short to medium term. The key now is adaptation. However its detrimental impacts may be minimised, and receptiveness for its beneficial impacts maximised, by using strategic regional and national futures planning to drive government policy development. Implementation of such planning may help shift land-use and industrial patterns to control longer-term climate change and take advantage of emergent markets.

## **INVASIVE ORGANISMS**

Some diseases, pests and weeds are now irrevocably embedded in the Australian environment but intensive efforts to eradicate new incursions can be successful if undertaken soon enough after detection. Other invasive organisms can be controlled through intense if expensive management or bio-engineered controls. Increased quarantine vigilance can reduce the probability of incursions, and enable rapid responses. However the ever increasing number of people and volume of trade moving between countries cumulatively generates significant risks of new organisms entering the country.

## **INNOVATION AND TECHNOLOGY**

Investment in new technologies is likely to become dominated by private sector investment. With increasing globalisation and deregulation of industry, the local or national controllability of this driver will diminish further. However, the true bottleneck to realisation of the benefits of innovation, that of human capacity, is within the reach of actors in northern Australia, including communities and governments, with appropriate social investments.

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## **SCENARIOS FOR A NORTHERN FUTURE**

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Given the drivers, the extent of our knowledge and the degree of influence that can be exerted, northern Australia could in many different directions. Here we suggest seven scenarios, in full realisation that no one scenario will ever hold true across such a vast area. There will be pockets of each of them, a patchwork of interacting futures with costs and benefits for both local people and those from outside. But one can safely say that some elements will come to dominate – but which ones will depend on the nature and strength of investment by the Australian people and its governments.

## **CHRONIC UNDERDEVELOPMENT**

Essentially the status quo. Despite much local enthusiasm for large scale economic development, most investment is transitory, relating primarily to the extraction of natural resources, tourism and pastoral production. There is little value-adding to natural

resources, minimum engagement of Indigenous people in the wider economy and an exceptionally heavy reliance on government revenues from outside the region. The environmental assets will slowly deteriorate despite sporadic efforts by the environmentally-committed.

Relies on existing levels of investment and policy settings, including current rules governing local government and Grants Commission allocations. Assumes no major southern push for northern resources or increase in northern investment.

## **DEGENERATION**

Under this gloomy scenario the south essentially abandons the north. Existing industries will operate out of enclaves of privilege where transient skilled workers eke out short, well-paid contracts. The balance of the impoverished population live in increasing squalor as refugees from unserved remote and rural regions overwhelm urban welfare services. Environmental values collapse under the combined weight of weeds, feral animals and unmanaged fire.

Assumes withdrawal of investment that show no short-term benefit. May also incorporate southern population centres using northern resources, such as water, without investment in northern social capital.

## **NORTHERN RICEBOWL**

The north takes over from the south as the centre of agricultural production. Notwithstanding a history of repeated failure, the great northern rivers, from Fitzroy to Fitzroy, are harnessed for irrigated agriculture. Local concerns for fishing, tourism and cultural values are swept aside by a sense of national emergency, there is a massive injection of capital into infrastructure and the mirage of Asian demand is substantiated into real markets than can support Australian labour costs. There is also investment in research; remarkable advances are made through structural and genetic engineering to counter climatic extremes and the desperate poverty of the north's ancient weathered soils.

Assumes a revolution in southern investment in infrastructure and research, some of it into problems of agricultural production that have proved so intractable that research organisations like CSIRO have given up trying to solve them. For such investment to be secure it must also encompass investment into the social capital that will persuade people to commit a substantial proportion of their lives to the north and improve the conditions of those living there.

## **INDUSTRIAL POWERHOUSE**

The global conglomerates that currently extract oil, gas and minerals from northern Australia and its coastal seas decide to invest locally in industries that will transform primary produce into sophisticated manufactured goods. The resulting investment in housing, services, plant and skills transforms many northern centres and catalyses similar value-adding in agricultural, forestry and fishing produce.

This revolution will not occur without a transformation in investment priorities by the major resource companies, or by those companies to which Australian resources are sold. This commitment to the north must be not only from southern Australia but also

by transnational conglomerates that can currently draw on the skilled labour required in offshore markets at a fraction of the cost in northern Australia.

## **ENVIRONMENT FIRST**

The rarity of relatively intact landscapes is appreciated and much of that remaining in northern Australia is dedicated to the conservation of nature through national parks, Indigenous protected areas and privately run nature reserves. Indigenous people in particular are actively engaged in conservation management, which provides a source of employment closely aligned with their own cultural aspirations for the land. Tourism is the major source of income in the broader landscape with other intensive development concentrated in an area no greater than developed now.

Only if the south maintains a thriving economy independent on northern resources will the environment be given the priority envisaged under this scenario. The condition of Australia's northern environment has survived partly as an historical accident. It needs active investment using funds derived from conventional economic activity if it is to be maintained.

## **INDIGENOUS COMMUNITY UTOPIA**

This is one of two scenarios in which the most committed residents of the north, the Indigenous people, are finally able to take full advantage of the opportunities offered by the outside world on their own terms. In this scenario a massive investment in education and health in remote communities and homelands would allow levels of Indigenous engagement with mainstream economic ventures to rise dramatically, with increasing Indigenous community owned and vertically integrated ecotourism, aquaculture, arts and crafts, and entertainment businesses. The export market would greatly expand for certified traditional bush medicines and herbal remedies, and high value bush products such as game meats, native honey and food flavourings that are processed and value-added locally. Indigenous people would also assume much of the responsibility for surveillance and quarantine along the Australian coastline as well as managing the tropical woodlands and forest for the emerging carbon market.

This scenario also relies on a vigorous economy in southern Australia that can support the surge in social investment required by Indigenous communities and can sustain the high-value niche markets into which Indigenous product can be sold. However it also envisages the emergence of new markets, such as carbon trading and locally-derived surveillance services, that may be a feature of the new northern economy.

## **CREATIVE URBAN ENGAGEMENT**

The second Indigenous-centric scenario imagines that the existing urban drift would continue but that, rather than becoming fringe-dwellers, Indigenous people would become actively engaged with urban society. At the same time, as already happens with many Indigenous people, they would retain a connection with culture and land so that they would also be able to take advantage of land management and other opportunities derived from land ownership. Thus, as skill levels increase among Indigenous people in the north, the substantial welfare economy would wind down and many jobs currently filled by transient southerners would be taken by local people with a long-term commitment to the region's well-being.

In many ways this is a hybrid scenario deriving benefit from existing trends – urban drift, a need for tropical products and services, difficulty in attracting outside skills to provide those services – with broader local economic development to provide the employment. It relies entirely on investment by the south in a healthy, educated, motivated Indigenous people who are in charge of their own destiny.

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## **THRESHOLDS FOR CHANGE**

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So how do we know where when a scenario has been realised, or movement towards it is assured or inevitable? Where are the tipping points at which the current state of the north can be said to have changed into something new, whether that novelty be desirable or otherwise? Perhaps the first step towards identifying such points is to understand the metrics to be monitored if such phase changes are to be detected. Some are obvious – the indicators of Indigenous disadvantage adopted by the Productivity Commission for instance. Others are more nebulous – at what point if community governance assessed as shifting from the chaotic to the resilient? To measure something is to give value to it. Such decisions cannot reasonably be made by individuals. Rather there should be community agreement on what should be measured, and community involvement in the measurement. However the first step will be to provide the community with a range of realistic alternatives from which to choose. This might be a role for the Australia 21 group.

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## **RESEARCH CURRENTLY INFORMING TROPICAL POLICY**

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Research on issues that affect tropical Australia is patchy – by discipline, by geography and by the resources available for study. Most is localised but a few programs are regional or the region is encompassed within national programs. Such research must inform the way policy is formulated to respond to the drivers and influence realisation of the scenarios. Here we summarise briefly the major programs.

### **DEMOGRAPHIC AND SETTLEMENT PATTERNS**

Most demographic research is undertaken at a jurisdictional level, usually to provide forecasts for financial planning. There is a reasonable understanding of demographic trends among non-Indigenous people in the north on the basis of ABS data, although limited amounts on the drivers of demography, particularly mobility. Indigenous demography is the subject of relatively small studies by ANU and CDU but there are large questions on mobility that remain unanswered.

### **SOCIAL FUNCTION**

The components of social function – education, health, governance, justice – are all subjects of substantial research programs within their individual disciplines. This includes a new program under the aegis of the Tropical Framework Agreement for Science, Knowledge and Innovation on tropical disease and substantial interjurisdictional programs to improve literacy and research on governance in communities. Currently lacking are the research programs needed to fill the intersections between the disciplines –

the research on how to teach unhealthy kids, how to cure illiterate adults, how to provide any services to communities that lack adequate governance and levels of personal safety.

## **LAND TENURE AND ASSOCIATED PROPERTY RIGHTS**

The implications for Indigenous society of Native Title legislation and the provisions of Aboriginal freehold, which have now been in place for several decades, are the subject of some small research programs. Research on the implications of changes to leasehold conditions appears to be lacking.

## **COMMONWEALTH GOVERNMENT POLICY**

Analysis of the comparative merits of State or Commonwealth control of health policy is presumably underpinning current discussions within COAG. In the Northern Territory there is also debate, possibly underpinned by research, on Indigenous policy. Almost all research is undertaken within government agencies without academic scrutiny or analysis.

## **GLOBALISED TRADE AND THE INTERNATIONAL ECONOMY**

Treasury and industry modelling provides jurisdictional information. ABARE provides annual outlooks that reflect past trends but the skill in forecasting is unknown.

## **RESOURCE USE**

The largest research programs across the north relate to resource use. The Tropical Rivers and Coastal Knowledge research program, a product of the Tropical SKI framework agreement, aims to provide inter-jurisdictional guidance on how best to manage the northern rivers. This incorporates a major investment from CERF. The Marine and Tropical Sciences Research Facility fulfils a similar role in north Queensland. Tropical Savanna and Desert Knowledge CRCs provide research advice on management of the broader landscape. Territory and State agencies provide most advice on fisheries but the Australian Institute of Marine Science works across jurisdictions.

## **OIL FUTURES**

Industry is actively exploring expanding energy exploitation in the north, urged on by governments. Some investments in alternative sources of energy are being undertaken at a local level.

## **GLOBAL CLIMATE CHANGE**

A national climate change research initiative is being negotiated. Smaller programs occur within jurisdictions. Much of the existing research programs are now being seen through the climate change lens, or at least justified through relevance to its implications. Opportunities for payment for environmental services based on greenhouse gas markets are being actively investigated.

## **INVASIVE ORGANISMS**

The Tropical SKI initiative on biosecurity and disease crosses all jurisdictions. Similarly programs spawned from the Weeds CRC and the Biosecurity CRC are looking at weeds and feral animals respectively, usually on a species by species basis.

## **INNOVATION AND TECHNOLOGY**

The CRCs for Tropical Savannas and Desert Knowledge have been developing a range of tailored tools for use across the entire region, primarily for use by primary industries but also for allowing communication among dispersed businesses spread across the region. Departments of education and health have also been making increasing use of telecommunications for distance education and telemedicine but the extent to which these are being enhanced by research is unknown.

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## **MISSING KNOWLEDGE AND ACTIONS NEEDED FOR A SUSTAINABLE TROPICAL FUTURE**

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The Prime Minister has convened a summit on the future of Australia to be held in 2008. Inevitably this summit will concentrate on the needs and aspirations of the majority of Australians, all but 3% of whom live in southern Australia. Through this initiative, however, Australia 21 could build on this summit with a workshop of its own, taking the ideas a step further. Such a workshop could identify the metrics by which thresholds can be identified, the knowledge we are missing if policy is to be fully informed and the actions needed for a sustainable future.