

From Myth to Reality: New Pathways for Northern Development

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Contents

Introduction	1
Defining the north	2
Northern Development – A Punctuated History	3
The three big northern development narratives.....	3
More recent approaches to northern development.....	6
Opportunities and Possible Futures	7
What might a failed state scenario look like?	7
A stable federation of dynamic regional economies.....	7
From Mythology to Reality: What Will Deliver Genuine Development in the North?	9
Evaluating opportunities	10
Securing opportunities	11
Doing things differently in northern Australia.....	12
Acknowledgements	12
References	13

Introduction

There is much discussion and debate within the Australian community, government, the media and academia about the future development and potential of northern Australia. Foreign and Australian agriculturalists are looking to the nation's north with a weather-eye on food security and new economic opportunities. Mineral and energy exploration and development across the north have buttressed the nation's economic success over several decades. At the same time, the conservation sector would like to see the north's outstanding ecological values protected, and indeed, our tourism industry has been substantively based on the protection of key natural assets such as the Barrier Reef, the Kakadu wetlands and the Wet Tropics World Heritage Areas. Conservation and resource development interests alike, however, have had a mixed interface with the interests of the north's traditional owners, many of whom remain trapped in welfare dependency and poverty.

Dale (2014) suggests that there are real opportunities for northern Australians within these new national debates. He considers that post-war northern Australian history has been characterised by several national-scale conflicts being played out in and around the north's regional and local communities. Some of these major conflicts have centred on managing the impact and legacy of major mining, agriculture and energy developments. Others have concerned the impact of growing government regulation that is constraining development opportunities within the northern Australian landscape. These types of development and conservation-based conflicts, however, strongly interface with the bigger policy debates about how to 'close the gap' between Indigenous and other Australians. These three issues represent conflict between very different sectors within Australian society, and have been based on vastly different narratives about the future of the north.

With a view to learning from the past to help secure a brighter future, this discussion starter explores some of the deep cultural drivers behind these different visions, and to some extent, pervasive mythologies about the north. It explores how these divergent narratives need to be reconciled if the nation as a whole is to benefit from this proposed and potentially new phase of northern development. Our key take home message is that this currently unfolding future can build upon those things that are already working very well, and that new approaches don't need to repeat major policy and development conflicts and investment failures that have punctuated the story of the north since European settlement.

In short, we consider that the key to genuine progress relies on new approaches to 'de-risking' major government and private sector decisions about policy and investment in the north by:

- (i) Taking a strategic approach to building the evidence base needed to overcome some of the north's most significant tyrannies (distance and access to markets, limited soils, failed business models, labour, climate, knowledge, capacity, seasonal water availability, etc.); and
- (ii) Building effective and long-term partnerships and seriously engaging with northern regions, communities, enterprises, industries and people.

Consistent with the recently released Green Paper on Developing Northern Australia (Department of the Prime Minister and Cabinet, 2014), we consider that this means finding new and more effective pathways for policy development, planning at the regional and landscape scale, and substantive reform in the way decisions are made in the assessment and approval of major development projects. It also means governments, conservation interests, industries and those in the north focusing on what has worked and discarding those approaches that have not worked in the past. This will require all the parties sitting together to jointly decide the future directions that we need to take for the long term. Quality and defensible science and evidence needs to underpin decision making processes, and together we need to monitor joint progress towards shared goals.

Defining the north

Northern Australia could perhaps be best defined as one Australia's most contested landscapes. Indeed, there is often a very sharp contest between different visions and realities about the north that means defining northern Australia can be a contentious business. For the north's traditional owners, for example, there is not so much a place called northern Australia, but a series of Indigenous nation-states that share a similar culture, a long history of interaction, and regular international relationships with Indonesia, Timor and Papua New Guinea (PNG). Territorians would not see themselves as northern Queenslanders or northern West Australians. Many others within the broader Australian society make clear distinctions between remote and developed northern Australia (e.g., Walker, Porter & March, 2012). Other federal administrative structures view the north as variously the Northern Territory (NT), the Monsoonal Rangelands, or other self-defined geo-realities depending on their particular policy and administrative needs.

For this paper, we generally take the view that the north can loosely be delineated by the Tropic of Capricorn (see Figure 1). However, while many may not think of northern Australia as a "place" in a geo-political sense, its residents experience similar cultural, historic, economic, climatic, environmental and social conditions. People in the Kimberley, for example, face day-to-day realities more akin with Weipa than Perth. As such, there are many areas to the near south of that line (such as the Gascoyne-Murchison or the Alice Springs districts) that relate both to the north *and* the south. Consequently, care needs to be taken in interpreting facts and figures for "northern Australia". Distinctions of "who's in" and "who's out" of the north are perhaps not that useful in real terms. No matter how we define it though, Dale (2013) outlines several things that characterise northern Australia and that distinguish it from the vastly different south of the country. Some of these defining characteristics include: (i) the extent and potential of northern Australian lands and water; (ii) its location, population and strategic importance; (iii) the significant Indigenous population; (iv) the nature of land ownership and tenure; (v) the boom and bust history of the north's economic cycles; (vi) the economic opportunity possible through the north's competitive advantage in tropical knowledge; (vii) Australia's economic dependence on the future of northern Australia; (viii) northern Australia's vulnerability to climate change, extreme weather events and biodiversity loss; and (ix) the existence of energy dependency in a land of energy opportunities. Given these features, Dale (2013) goes on to explore the fragmented nature of the north's overarching system of governance. He considers that many of the current economic, social and environmental outcomes that are being secured should be celebrated and expanded. Equally, however, he also foreshadows the need for some radical improvements in governance to avoid a punctuated future arising from development.



Figure 1: Australia north of the tropic of Capricorn. Source CSIRO, 2014a, p. 5.

Northern Development – A Punctuated History

The three big northern development narratives

There have always been and continue to be grand narratives regarding the future prospects for the north. In exploring more recent history over the past 50 years, however, three big narratives have tended to reappear predictably. One is based on the perception that northern Australia is a place of endless economic bounty and limitless opportunity. The second derives from those who would like to see extensive conservation within the northern Australian landscape. Both these narratives are based on important realities. There are significant resource development opportunities in the north, while at the same time, the region is a largely intact bio-cultural landscape of immense international value. Both narratives, however, discount major physical, climatic, economic and social barriers.

The third narrative is more complex and relates to the way many non-Indigenous Australians have viewed Indigenous interests in the north. At one extreme, some have failed to see that the concept of *terra nullius* was indeed a colonial myth, leading to engagement approaches that have treated Indigenous interests as marginal or inconsequential. Alternatively, others involved in policy development may have not fully grasped the fact that traditional owners are indeed self-determining; with proposed approaches assuming that Indigenous people will simply adopt many well-intentioned national, state and territory government policies. Together, both these views perhaps reflect a broader myth that traditional owners across the north do not have significant on-going sovereignty over the much of the northern Australian domain.

Together, these three northern narratives have often created the foundations for grand plans and even grander failures in the distant and recent history of northern development.

In the more distant period of colonial history prior to World War II, development in the north was characterised by significant frontier conflict and sometimes tenuous colonial advances and retreats (e.g., consider the determined but failed attempts to establish colonial outposts at places like Port Essington and Somerset). Initially established in 1824, Port Essington was abandoned in 1849 because of isolation, disease, cyclones and difficult climatic conditions that made it hard to attract a stable labour force. The demise of the settlement saw the end of British attempts to occupy the northern Australian coast. There would be one further unsuccessful attempt, by the South Australian colonial government in 1864, at Escape Cliffs (also known as Palmerston), before the first permanent settlement was established at Darwin (also initially known as Palmerston), in 1869 (Parks and Wildlife Commission of the Northern Territory, 2000).

By the start of the World War I, the main economic bulkheads were well established in places like Rockhampton (1858), Mackay (1862), Townsville (1866), Darwin (1869), Katherine (1871), Cairns (1876) and Broome (1883). Mainstream economic activity was represented by short-term resource industries (e.g., mining, forestry, crocodile hunting), or somewhat marginal harvesting regimes (pastoralism, fishing, beche-de-mer), often made viable only by the participation of under-paid Indigenous or indentured labour. Equally, government and church mission stations across the north also ran their own, often-failed approaches to assimilating Indigenous north Australians into the new settler culture and economy. The fear of northern Australia being an “empty” land on Asia’s doorstep continued to drive much development effort; with the mantra of “populate or perish” driving several government-backed schemes. The approach of World War II sparked greater fears about security in the north of the nation, and perceptions in both the north and the south of Australia that the Government still wasn’t doing enough to develop the region. Some, such as Ted Theodore, even called for the formation of a separate northern State (Fitzgerald, 1994).

Post-war Australian optimism that saw the success of impressive nation-building projects in the south (such as the Snowy Mountains Scheme) revived enthusiasm for nation-building public

investment in the north. This happened even though the foundational barriers and issues limiting the prospects of northern development remained largely in place. These major proposals included bold schemes like the proposed Bradfield irrigation scheme; a massive scheme that envisaged turning rivers in Queensland's Wet Tropics inland. Some of these schemes progressed to the development phase, but many fundamentally struggled to deliver a return on investment. The Ord River Irrigation Scheme, for example, with its intended focus on cotton, initially failed to deliver a return on the significant public investment made during the late 1960s and 1970s (Greiner, 2000).

As early as 1965, Bruce Davidson summarised the core reasons why ambitious development plans for the north from the past had largely failed to deliver lasting results. His first published assessment of agricultural and pastoral development in tropical Australia concluded that most forms of agriculture north of the Tropic of Capricorn would be inefficient because prospective agricultural products could be produced more cheaply to the south (Davidson, 1972). In his view, several insurmountable cost impediments included transport, labour and pest management. In particular, he considered that the many arguments behind calls for major development were non-economic political agenda; leaving them open to future failure under changing policies or dependent on the expenditure of ongoing subsidies. He did, however, see ongoing potential for sugar and extensive cattle grazing as they could be produced in the tropics more cheaply than in temperate Australia. Not inconsistent with this, and in a deeper analysis of both privately and publically funded agricultural development since the 1950s, Ash (in press) has found that:

- The natural environment (climate, soils, pests and diseases) makes agriculture in northern Australia challenging, but in the agricultural developments assessed, these inherent environmental factors were not, with a couple of exceptions (e.g., insect pests and cotton in the early phase of the Ord River Irrigation Area) the primary reason for lack of success;
- Management, planning and finances were assessed to be the most important factors in determining the ongoing viability of agricultural developments, in particular, unrealistic expectations of achieving a reasonable return on investment in the first few years. This included overly optimistic expectations of being able to scale up rapidly, and not coming to grips with the limitations in the real-world operating environment; and
- Supply chains and markets were also important factors in determining the success of a number of the developments. For broadacre commodities that require processing facilities, these facilities need to be within a reasonable distance from production and at a scale to make them viable in the long term. In more remote regions, higher value products such as fruit, vegetables and niche crops have to date proved more successful, though high supply chain costs to both domestic and export markets remain impediments to expansion.

Overall, Ash (in press) shows that for developments to be successful, all factors relating to climate, soils, agronomy, pests, farm operations, management, planning, supply chains and markets need to be thought through in a comprehensive system-scale design. He considers that particular attention needs to be paid to scaling up at a considered pace and being prepared for reasonable lags before positive returns on investment are achieved.

Along a similar vein, several authors have investigated the very high level of failure of major (largely) government-funded developments inspired by federal or state Indigenous development policies. The philosophical intent behind these developments has shifted dramatically over the years. From the late 1800s, government and church-run missions established projects aimed both to make mission communities self-sufficient, but also to provide meaningful work and skills development. Later policy phases included assimilationist, integrationist, self-determination and later normalisation agendas. In nearly all cases across these policy eras throughout northern Australian history, Indigenous development projects have tended to fail for two consistent reasons:

- All the same technical reasons identified by Ash (in press) in his assessment of agricultural developments across northern Australia; and
- A common and sharp divergence between the policy-based intent of projects and the far more localised aspirations of Indigenous project clients.

Dale (1993), for example, explored the failure behind several rural development projects in two Indigenous communities in northern Queensland. In all cases, these projects failed to achieve their stated policy and programmatic objectives because the technical constraints were too great, and/or because the projects simply did not mesh well with the aspirations of their Indigenous clients. Project success, on the other hand, emerges when Indigenous development aspirations match policy objectives and when the preconditions for successful and profitable enterprise development align.

Finally, while there have been many iconic visions, and indeed actions to secure the wide-scale protection of northern Australia for conservation purposes (e.g., Kakadu National Park), many of these visions have themselves sparked conflict between supportive and opposed stakeholders and communities. Some telling examples in recent north Australian history include high levels of both support and conflict associated with the wild river declarations in northern Queensland and the listing of Cape York Peninsula for its World Heritage values. So far these ambitious plans failed to garner bipartisan political support, and in the case of wild rivers, consultation with the region's traditional owners and non-Indigenous communities was inadequate.

While many of the above debates have raged in relation to the agricultural development and conservation protection of the north, it needs to be remembered that, since the 1960s, many constraints to development outlined above have become more tractable; a result of the changing locus of markets, emerging infrastructure and regulatory reform. As a consequence, agriculture and fishing have grown dramatically, while Indigenous communities also now oversee significant economic activities within their land estates across a range of industries.

Additionally, significant mining, energy and tourism industries have now emerged right across the northern Australian landscape. In general, these industries have worked hard to meet their environmental obligations. As an economic driver in particular, mining and energy dwarf all other industries in terms of gross product in the north; delivering significant social and economic benefit to the whole nation. These mining and energy industries have significantly contributed to the overall health of the Australian economy, and the keys to the successes of mining and energy development in the north are different to agricultural development in that there is a clear competitive advantage. In the case of metals and ores, northern Australia has commodities in abundance that aren't available as cheaply from elsewhere in the world. Hence, notwithstanding the boom-bust nature of many ventures, mining can succeed in the north whereas agriculture (perhaps with the exceptions of sugar and cattle in some regions) has less comparative value compared to other global supplies. Tourism growth has equally relied on its international competitiveness.

The vitality of the tourism, mining and energy industries, however, rises and falls with the strength of the resources sector, exchange rates and economic confidence. Hence, while critically important, without greater diversity being built into in the northern Australian economy, these industries alone do have the tendency to subject northern regions to boom and bust cycles. Welters (2013), for example, shows the stabilising influence of defence spending in economies in places like Darwin and Townsville relative to the tourism dependent economy of Cairns. The growing strength of Australia's mining and energy services sector has also been a stabilising influence.

More recently, particularly in the NT, new partnerships have formed that are working to develop a conservation economy; where several non-government and corporate organisations have been some of the strongest proponents, supporters and funders of innovative, Indigenous-led land management. Examples include the Indigenous savanna burning programs funded by Conoco-Phillips

and Caltex. The Kimberley to Cape process has also engendered a more inclusive northern Australian dialogue on important aspects of environmental sustainability within northern landscapes. Such approaches establish a platform for new models of sustainable development across the north. These models are of great interest to multi-national resources companies and to leading pastoral houses (e.g., AACo and Consolidated Pastoral) who are very interested in ways of supporting the active and constructive engagement of traditional owners on country in their areas of operation.

The above suggests that the key take home message for northern development, if we are to deliver genuine economic opportunity, is that it will require real access to knowledge, collaborative capacity building and cross-governmental mobilisation of effort within northern Australian regions, coupled with serious analysis of the global comparative advantage of the resource to be developed. The history of grand northern visions based on policy myths rather than well-informed reality has generally resulted in conflict, economic failure, and a continuation of a boom-bust economy. The very clear result of all three narratives has been persistent under-development. Indeed, Megarrity (2011) has shown that political promises for northern development not based on economic and social reality have tended to be sacrificed on the altar of economic austerity once the political commitments made during election campaigns are assessed in the cold hard light of day.

Very importantly, however, as suggested by the new Green Paper (Department of the Prime Minister and Cabinet, 2014), there are great opportunities and at the same time many complex issues to be identified, analysed and resolved. Significant trade-offs will need to be negotiated and real partnerships established between development, Indigenous interests and conservation. If we do this, the genuine opportunities in targeted agriculture, tourism, mining, fishing and forestry, carbon, conservation and ecosystem services, and tropical knowledge services will grow. There is, however, a real need to ensure this effort is underpinned by stronger evidence, engagement and improved governance of the north.

More recent approaches to northern development

In the last ten years there have been at least three new Australian Government led efforts to re-vitalise northern development. These have included:

- The Australian Coalition Government's formation of a Northern Development Taskforce in 2007 (the Heffernan Committee). The committee included Aboriginal leader Noel Pearson, media magnate Lachlan Murdoch, tourism leader David Baffsky, and politicians Dave Tollner and Senator Ron Boswell;
- The Australian Labor Government's scrapping of the Heffernan Committee and the formation of the new stakeholder-based Northern Australia Land and Water Taskforce. Supporting and informing that Taskforce's efforts, CSIRO examined in detail the potential for development of northern Australian industry through the Northern Australia Land and Water Science Review (CSIRO, 2009); and
- The Taskforce's efforts were complemented by the Australian Government formation of the Office of Northern Australia, the formation of the North Australian Ministerial Forum and the commissioning of several key pieces of work informing the deliberations of the Forum through the Northern Australia Expert Advisory Panel, established to provide in-depth analyses of issues (e.g., see CSIRO, 2014b; James Cook University & CSIRO, 2013).

The evidence emerging from these landmark processes and studies and subsequent work, all of which have drawn on an ever-growing knowledge base and wide engagement, have identified significant growth prospects for major industries, as well as attendant impediments and enablers. In effect, while the prospects for both development and extensive conservation are good, the focus on building the evidence and engaging remain critical. The new Coalition Government's Green and White Paper processes and the aligned Northern Australian Joint Parliamentary Committee present

an additional new opportunity (Department of the Prime Minister and Cabinet, 2014; Joint Select Committee on Northern Australia, 2014). These processes are both heavily engaged (via the Parliamentary Committee) and evidence-based (through the White Paper process). The potential foundations of getting things right are in place, as are early thoughts about the long-term governance arrangements needed to institutionalise changes.

Opportunities and Possible Futures

The Australian Government's recently released Green Paper (Department of the Prime Minister and Cabinet, 2014) delivers a sound assessment of the significant economic opportunities available to northern Australia. This process, however, does not focus as much on the north's Indigenous development and environmental sustainability challenges. With all three of these key themes in mind, we explore the opportunities ahead given the megatrends facing our global future (Hajkowicz, Cook & Littleboy, 2012). We first need to speculate about how the future of the north might look if we don't resolve or reconcile some of the critical mythologies and cultural divides from the past. In a recently published book regarding the future of northern Australia, Dale (2014) has posited that, depending on how successful the nation is in charting this next critical phase of northern development, two vastly different scenarios could emerge. He suggests that, if future decision making about the future of the north goes spectacularly wrong, then a *Failed State Scenario* is indeed possible. However, with engaged decision making based on sound evidence, then a much brighter future is a real possibility. While this unfolding opportunity represents many possible futures, this could look something like the emergence of a *Stable Alliance of Dynamic Regional Economies* across northern Australia.

What might a failed state scenario look like?

In envisaging such a scenario, one could imagine fast growth mining towns with limited infrastructure and services and no sense of community, and significant boom-bust features based on the strength of the resources sector, exchange rates and commodity prices. Secondly, one could imagine the further decline of social function in remote Indigenous communities, housing sometimes the third and fourth generations of people facing social dysfunction and abject poverty. Finally, under this scenario, one could imagine a wider population retreat from northern Australia. Climatic risks could see an insurance red-line from Rockhampton to Port Hedland, above which the insurance industry would seek to reduce exposure. Rising fuel prices could push the cost of travel and domestic cooling beyond reach for many. We could at the same time, see north Australia continue to lose market share from international and domestic tourism (Prideaux, 2013). Equally, under this scenario, regulatory complexity and increasing corporate takeovers may have caused the demise of family-based pastoralism. Pockets of deep rural resentment could build in hinterland communities nearer the coast once people migrate there from the bush. Without capable, resourceful individuals out in the landscape, it would no longer be manageable, leaving it exposed to the consequences of rampant hot fires late in the dry season and weed and feral animal invasion.

A stable federation of dynamic regional economies

We see a better scenario being one of several stable and vibrant regional economies, linked together by a common purpose and direction. Each region could generally have its own economic and service centres, ensuring we have both an urban *and* rural dynamic to maintain home-grown capacity locally *and* to attract and retain human capital from elsewhere. The vibrant economic regions we talk of here could at the very least include the Pilbara (based on Karratha and Port Headland), the Kimberley (maybe even the eastern region based on Kununurra and the western based on Broome), the Darwin Top End, the Katherine-Daly-Roper region, Arnhem Land (based on Jabiru), the Centre (based around the Alice Springs region), the Torres Strait and Northern Peninsula Area, the Southern Gulf (based on

the Mt Isa region), the northern Gulf (based on the vibrant towns of Mt Surprise, Georgetown, Normanton and Karumba), the Wet Tropics (based on the Cairns, coastal and tablelands areas), Cape York Peninsula (based on Cooktown, Weipa and Coen) and Longreach, Townsville, Mackay and Rockhampton and their western hinterlands. Under this scenario, there would need to be a greater spread of national investment across these regions rather than simply a focus on Cairns, Townsville and Darwin. For the first time, government money aimed at securing the future of Indigenous communities would be devolved to more regions and their constituent communities. A real effort would be put into preparing the Australian workforce to go bush and stay there. Land and tenure reform in Indigenous communities and the pastoral landscape would have also led to a more equitable and decentralised spread of wealth and power from bigger towns. Nevertheless, under this scenario, Darwin in particular, but also Townsville and to a lesser extent Cairns would enjoy considerable growth as major centres for service industries (health, education, welfare and public administration) as well as defence industries, export ports and technology hubs for the resources sector.

A regionally aggregated and managed ecosystem services economy could also see a new layer of economic activity that is gradually emerging (e.g., see CSIRO, 2012). Under this economy, traditional owners and pastoralists across the north would gain a real and paid role for the management of landscapes to deliver environmental services such as habitat conservation, protection of water resources, and abatement of greenhouse gas emissions. New agricultural development would retain a good mix of larger corporate *and* small to medium enterprises. The key resource extraction industries in each of these regions would start strategically re-investing in the region's social and economic future. A better process for managing project assessment and approvals would have resulted in real and lasting community development initiatives being established alongside major project development (e.g. through sustaining employment for Indigenous ranger groups). Such improvements would need, however, to provide greater certainty to both mining companies and communities alike. More money wouldn't just stay in the region; this investment would be more effectively used to help build infrastructure and a better region for the future.

These regions would also be more resilient to natural disasters. Strategic investment in transport and communications infrastructure and new technologies would mean they are not cut off from the rest of Australia for various periods of time in most years. Planning laws would have ensured that communities are not located in harm's way (e.g., within storm surge zones) and all dwellings would have appropriate building standards, more tropical designs, but lower building costs. This capacity for dealing with risk would itself present a major opportunity for the region, with northern Australia being well-placed as a high-end knowledge provider and exporter in disaster risk reduction, management and response, climate change adaptation, water, food and energy security.

While on the knowledge opportunity, it is worth stressing that the potential of the knowledge-based economy in the north, both with an Australian focus on lifting productivity and also an export revenue focus, is extensive. Health, education and training, public administration, retail and tourism will likely remain the big employers in the north, and jobs in professional and technical services will likely exceed those in the resources and agriculture sectors over the longer term.

If we are to get things right, Australia needs to be picking up on the Green Paper themes (Department of the Prime Minister and Cabinet, 2014) about the size and growth rate of the global tropical economy, the need for knowledge services as a key element of that growth, and the fact that Australia research institutions are globally competitive in this most dynamic region. Of all OECD countries, Australia is arguably the most 'tropical', with the largest percentage of its land mass in the tropics. There are few globally competitive research institutions headquartered in the tropics, and for the time being, Australia has a disproportionate share of them. With clever investment centred on Australia's tropical universities (e.g. James Cook University, Charles Darwin University and Central Queensland University) we could develop a leadership position in this market, but delay may leave us far behind emerging institutions across the tropical world.

Additionally, these northern regions already also have a clear cultural and climatic link to south-east Asia and the Pacific, so they should be actively supported by government policy and the location of key agencies to be Australia's face to those cultures and economies. Given their shared histories and experiences, Indigenous cultures in these northern regions could also play a bigger role in building cultural relationships with our near northern neighbours. These regions would also be Australia's customs, biosecurity and defence frontlines. Regional communities in northern Australia already have an important role in international trade, research, education and defence-related relationships.

These regions would also have greater energy security and affordability. Well planned and carefully designed water storage and harvesting schemes (more likely based on groundwater in carefully targeted districts rather than large dams on major rivers) would also have generated innovative local water supply projects and a diversification of the economy into some major new agricultural and industrial opportunities. Development will be mindful of minimising environmental impacts, thereby ensuring the continued strength of nature-based tourism. More flexible land tenure and regulatory arrangements would also help facilitate this change. Investment in renewable energy, particularly in off-grid situations to reduce dependence on diesel, would reduce costs and increase resilience for remote communities, mines and pastoral enterprises. For the first time there would have been coordinated Australian, state, territory and local government investment in supporting each region to have a clear vision for the future and the durable regional institutions needed to mobilise the international, national, regional and local community effort and investment needed. Lifestyle and liveability would be a big and consistent theme in rural/urban planning, making each region's residents feel that they are making *genuine progress* while achieving the lifestyles they desire.

From Mythology to Reality: What Will Deliver Genuine Development in the North?

To secure the future, it has been important to analyse the contemporary opportunities that could be used to secure key reforms, to escape past mythologies and southern dreams of northern Australia. In anticipation and support of the Green and White Paper process, the Northern Australia R&D Dialogue has emerged to inform critical debates about the future. It comprises research and development (R&D) and education institutions with historic experience and a substantive footprint in northern Australia: Charles Darwin University (CDU); CSIRO; James Cook University (JCU); and the University of Western Australia (UWA). In addition to specialist capabilities these institutions bring:

- An established history of successful collaboration on large-scale research and development projects across northern Australia;
- Demonstrated capacity, such as through the Tropical Savanna CRC, Tropical Rivers and Coastal Knowledge (TRaCK) consortium, National Environmental Research Program (NERP) Hubs and the Northern Research Futures CRN, to draw on robust national and international networks that can generate world-class research capability in the north; and a
- Commitment and experience in working collaboratively and in culturally respectful ways with Indigenous people and organisations.

As this paper has suggested and the Australian Government Green Paper (Department of the Prime Minister and Cabinet, 2014) has confirmed, with economic foundations in pastoralism, mining, agriculture, health, education, defence and tourism, the north is poised to play a larger role in Australia's economic future. With the nation's largest reserves of iron ore and with globally significant offshore and onshore gas and coal reserves, northern Australia has the energy and raw materials to help fuel the rapidly expanding economies to the north. Seasonally abundant water supplies and significant interest from Australian and foreign investors have also led to a re-examination of the potential for the north to increase the supply of food to the wider region. These

are economic opportunities of a scope and scale that could position the north to play a critical role in delivering energy, mineral, food and water security for Australia and beyond. Given the combined needs of government, conservation, Indigenous and industrial interests, however, we also have an unprecedented opportunity to develop the north in a new way; a better way. If we seize this opportunity, development of the north could be inclusive and could secure a prosperous future for all people of the region.

We consider, however, that the north is not as well understood as the south. Consistent with the Green Paper on Developing Northern Australia (Department of the Prime Minister and Cabinet, 2014), we consider that there are six key uncertainties and challenges that must be understood and solved in order to provide the confidence to unlock future investment, including:

- Resolving regional scale land use conflict and tenure uncertainty;
- Assessing the capacity of soil, water and other resources, their suitability and the environmental consequences of alternative uses;
- Improving production technologies, practices and sustainability;
- Enhancing/informing new and improved markets and labour access, including appropriate opportunities for participation of Indigenous organisations and communities;
- Increasing the efficiency and resilience of transport and supply chains; and
- Enhancing policies, regional and project governance and the capacity for informed decision-making processes.

Northern development could secure certainty around both resources for industry and the future of the natural and cultural assets that define the region. Indeed, if done well, development of the north could avoid the mistakes that have left many other Australian regions with social, economic and environmental legacies that are costly or even impossible to repair. Getting it right in northern Australia, however, will require cohesive and integrated cross-jurisdictional decisions about policy and investment that are engaged, transparent, defensible and based on sound evidence. Achieving this will mean addressing some significant challenges.

Evaluating opportunities

It is not just the climate that is different in northern Australia. The high proportion of Indigenous people within the population requires solutions that fully involve them in the pursuit of secure and sustainable development. Further, in comparison to other parts of Australia, Indigenous and government-controlled lands dominate tenure arrangements. With the exception of a few small cities, population density in the north is very low and is highly dispersed across a wide region. Relatively poor infrastructure and vast distances inhibit service delivery, resulting in logistic challenges and poor connections to markets. This contributes to a challenging environment for industry development; a situation exacerbated by the challenges of attracting and retaining a skilled and stable workforce. Finally, a high level of government investment is common across the north as it supports all aspects of the economic and social fabric of the region.

Despite these challenges, opportunities abound for further sustainable development in primary industries, resources and tourism and in the development of a range of smart, specialised enterprises and industries. Many of these opportunities, however, are at different stages of development and some are just starting out along the innovation pathway. Further, there is generally a history of opportunities in northern Australia being overstated, resulting in under-delivery or unexpected and adverse outcomes. The primary reason for poor outcomes has been limited evaluation of the opportunities and the risks that attend them.

There is great value and a public interest in employing integrated (across institutions), cross-cutting (employing several disciplines and cross-sectoral) analysis of opportunities in order to inform government policy and to reduce the risk and to lower the threshold for investment. Unlocking potentially significant new investment and development also requires investor confidence about the scale of the opportunities and the risk associated with their development. Hence, embedding an integrated R&D and education capacity as a key part of the future governance arrangements for northern Australia can provide the engine needed for the smart evaluation of these opportunities.

Securing opportunities

Working with northern Australians to progress development opportunities is not a new endeavour. Australia has more than 100 years of experience to draw upon, some successes to build on and some key failures to learn from. From the R&D perspective, the notion of “securing opportunities” conveys two meanings, both of which are important for Australia’s overall development. On one hand, there is a need to build the momentum for development as local industries and communities have legitimate development aspirations that align with their local interests and values. The wider Australian nation also looks to northern Australia to play a more vital role in our social and economic future—including as our interface to a rapidly changing Asia-Pacific region.

On the other hand, to be real and sustained, the development opportunities in the north have to be “secure” in the following ways:

- Only development that does not generate unexpected or unacceptable damage to the unique mix of natural assets of northern Australia (land, water, ecosystems) will deliver long-term value;
- Development that fails to recognise and align with the diverse mix of cultural values and aspirations of northern Australian people will generate divisions and will also be insecure and of lesser value;
- Investors and other stakeholders in development activity need security of resource access and this requires deep knowledge and analysis of short term variability and long term change in resource trajectories;
- Communities need the assurance of long-term planning that identifies and works towards opportunities beyond extractive resource projects;
- Northern Australia is uniquely placed to contribute to Australia’s engagement in the wider tropical world and the Asia-Pacific region in particular, and this can add to national security, including helping to address particular challenges such as cross-border illegal activity;
- Northern Australia is exposed to a host of natural hazards (cyclone, drought, fire) and development needs to be progressed in ways that are resilient to these hazards; and
- Northern Australia is also in the front line of the many of the biosecurity challenges Australia faces. These challenges can quickly turn into serious threats to industry viability, environmental integrity or human health. Securing development opportunities in the north implies that we fully embrace a proactive biosecurity stance.

Progressing development opportunities without taking on board what is needed to secure these opportunities for local communities, for the wider national interest, and for the long term will lead to disappointment and wasted resources and it will potentially cause irreversible damage to our largely intact natural asset base. The R&D community can partner with governments, the northern community and proponents to help avoid such disappointments. Similarly, the education community can also help contribute to the longer term development of the skills and institutions needed to secure a positive future for northern Australia.

Doing things differently in northern Australia

This particular moment in time presents a great chance to rethink the approaches needed to secure the best future for the north that arise from emerging opportunities. This rethink needs to include the role of R&D within that wider governance system - ensuring a strong foundation for evidence-based private sector investment and government policy and program development. Overall, improved evaluation based on integrated knowledge can reduce risks and lower the thresholds for public and private investments. Some early steps in the right direction have recently emerged through cross-jurisdictional government processes; with the three northern Australian jurisdictions and the Australian Government working together on strategic issues, seeking advice and evidence from the wider science community in the north, and engaging major northern stakeholders (e.g., Indigenous people and the beef industry) in finding the right solutions.

Building upon these emerging approaches and making them more effective can deliver on northern development needs and showcase best practice approaches to evidence-based and inclusive governance across the tropics. This knowledge could become an exportable smart specialisation across the tropical world. To this end, this North Australian R&D Dialogue has formed to:

- Strengthen northern Australia's R&D capacity through a collaborative network of key research and education institutions with a significant footprint in northern Australia;
- Broker a much wider range of R&D capabilities nationally and internationally to help secure emerging northern Australian opportunities;
- Provide pathways for cohesive engagement with northern jurisdictions, stakeholders and the private sector to help inform major policy, program and investment opportunities;
- More broadly apply smarter technologies for solving problems (e.g., new generation remote sensing and an ability to analyse 'big data');
- Coordinate northern efforts to lift human/institutional capability via teaching/training, knowledge building and increasing the critical mass of R&D capability within the north; and
- Provide integrated science to solve complex problems beyond the capacity of any single R&D agency.

The benefit of this approach will be demand-driven R&D resulting in improved public and private sector decision-making. This engaged and evidence-driven approach will be the key to securing real opportunities for northern Australia.

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