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AUSTRALIA

Ninti One Limited

Submission to the Joint Select Committee on Northern Australia

Ninti One Limited

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Introduction

Ninti One welcomes the opportunity to provide input in the development of the recommendations the Joint Select Committee on Northern Australia will present to Parliament for a white paper on Developing Northern Australia. Ninti One has over 10 years' experience in working and conducting research and community development projects in remote Australia, including remote Northern Australia. Our submission broadly responds to the Terms of Reference provided but is also attempting to bring to the attention of the Committee specific issues, challenges and opportunities inherent to remote Northern Australia, which we believe need to be considered to develop a successful plan to grow the North. We would also welcome the opportunity to participate the upcoming public hearings.

About Ninti One Limited

Ninti One is a not-for-profit, national company that builds opportunities for people in remote Australia through research, innovation and community development. We aim to:

- Address social and economic disadvantage of people in remote Australia
- Enhance and protect the natural environment
- Find solutions to economic exclusion
- Improve understanding of Australia's remote regions
- Increase economic participation of peoples
- Increase the skills and capacity of people
- Understand the impact of climate change on environment and people

We build on the expertise of our researchers and partners to extend the reach and influence of our research and research outcomes. Our networks of professional practitioners lead to high-calibre, multidisciplinary teams that can complete competitive contracts on cross-jurisdictional projects with a national and international focus.

Ninti One manages:

- The current activities and partnerships of the CRC for Remote Economic Participation (CRC-REP),
- the commercialisation of the Intellectual Property from CRC-REP and the legacy projects from the former Desert Knowledge CRC and,
- Consultancy services related to the delivery and commercialisation of research for the benefit of Australians living in remote areas.

CRC-REP has three goals:

- To develop new ways to build resilience and strengthen regional communities and economies across remote Australia
- To build new enterprises and strengthen existing industries that provide jobs, livelihoods and incomes in remote areas
- To improve the education and training pathways in remote areas so that people have better opportunities to participate in the range of economies that exist.

More information about our activities can be found at www.nintione.com.au

Northern Australia context and development of a Plan for Northern Australia

Northern Australia covers approximately 3 million square meters and has a population of about 1 million. Northern Australia, apart from a handful of regional cities (Townsville, Cairns, Darwin, Mackay and Rockhampton) and a diverse group of small towns, mostly comprises very remote areas, which include diverse settlements: pastoral, farming, mining, tourism and predominantly Aboriginal and Torres Strait Islander communities. Aboriginal people today comprise a major component of the population and landownership of Northern Australia, more so than most of the other parts of Australia. In general, the economy of the North is dominated by sectors that depend on natural resources and the provision of government services. Remote Australians, including in the North, have lower incomes, lower employment rates, and lower education attainment than the rest of Australians. These trends exacerbated in Aboriginal and Torres Islander population.

Ninti One believes there is an opportunity with the development of a white paper to develop a comprehensive plan, which will enable to build a sustainable future for Northern Australia and its residents. Such a plan must be based on good science and economic data and involves in both its development and implement phases people living in the North and organisations with expertise in the North and remote issues. The plan must also be inclusive of Aboriginal and Torres Strait Islander perspectives and have a strong focus on Aboriginal and Torres Strait Islander economic participation. Importantly, a policy context in which innovation can thrive in response to the complex and integrated nature of remote Northern Australia will be required to achieve desired outcomes.

Summary of key points

- **Understanding the characteristics of remote Northern Australia for successful policy development**

Remote Northern Australia, like the other remote areas in Australia is characterised by a set of features that are not individually unique but which together causes it to function in ways that are fundamentally different to other physical and social environments. These characteristics are:=

- climate variability
- widespread low and patchy primary productivity
- sparse, mobile and patchy human population
- distant markets and decision-making
- social variability
- limited research knowledge and cultural differences.

Acting individually these may not be significant but collectively they are. Called the 'Desert Syndrome', this concept developed under Ninti One co-funded research implies that future policies for Northern Australia must recognise that the causal links are unlikely to be easily broken and that great opportunities do exist if a holistic approach is taken and is driven by innovation. This involves avoiding a 'one size fits all' approach and developing local solutions. In the context of Northern Australia, there is need for effective collaborations across jurisdictions

and stakeholders to identify and realise opportunities. Ninti One can provide further information to the Committee on how to instigate and manage such collaborations for successful outcomes.

- **Building an accurate picture of Northern Australia**

There is an identified need to build an accurate statistical picture of the region. Developing reliable systems of baseline regional economic data is required to provide a comprehensive picture of Northern Australia communities, especially of the smaller and remote regions. This should be given priority to ensure development of sound evidence based policies to grow Northern Australia.

- **Increasing Aboriginal and Torres Strait Islander participation in the economy**

We believe that the future of Northern Australia is tied to the future of Aboriginal and Torres Strait Islander people. Indeed, based on population number, occupation and ownership of land, we believe the success of Northern Australia development will ultimately depend on increased Aboriginal participation in the economy.

Approximately, 20% of the land in Northern Australia is Aboriginal owned. The highest concentration of small Aboriginal and Torres Strait Islander communities is found in the Northern Territory, Western Australia and Queensland, with a significant proportion in the North. In terms of population, it is difficult to provide an accurate figure for the Aboriginal and Torres Strait Islander population in Northern Australia but we know that the Northern Territory population comprises 30% of Aboriginal and Torres Strait Islander people and in some areas of Northern Australia like in Cape York 60% or in the Kimberley over 50%. The Aboriginal and Torres Strait population in Northern Australia is fast growing with half its population under 24 years in remote communities, which means that by 2050 it is likely that there will be more Aboriginal people living in Northern Australia than non-Aboriginal people. Aboriginal and Torres Strait Islander employment rates are low in remote communities with the employment to population ratio at about 45%. Aboriginal and Torres Strait Islander participation in the largest industry sectors in Northern Australia, namely mining, agriculture, government services and tourism, is low.

Our research shows there are plenty of real jobs in remote Australia but over 90% of them are taken by non-Aboriginal or Torres Strait Islander people. Our research also shows that training and qualifications are not pre-requisite to engagement in employment in remote Australia as 44% of all employees have not completed a Certificate or higher qualification. Other factors are at play. We know that conventional regional development policy thinking and approaches are unlikely to be an agent of change in remote communities.

Recommendations:

- The Plan to develop Northern Australia needs to have a strong focus on Aboriginal and Torres Strait Islander economic development.
- In developing the plan, there is a critical need to involve Aboriginal and Torres Strait Islander to identify new and existing opportunities and how to realise them. Strong community consultation mechanisms will be required.
- Critical need to understand unique circumstances, needs and aspirations of communities to ignite entrepreneurship and business development.

- There is a need to think differently about employment practices to increase Aboriginal and Torres Strait Islander participation.
- Develop strategies to increase Aboriginal and Torres Strait Islander participation in existing large industry sectors present in the North, especially mining and tourism sectors.
- Identifying new opportunities, including in the fields of carbon economies, biodiversity conservation and land management, border security, quarantine, construction and knowledge economy.
- Regional and local customisations will be critical for successful economic development.

Ninti One has developed an Aboriginal Community Researchers (ACR) program, which enables Ninti One to deliver tailored, innovative and highly relevant research and community development outcomes in remote Aboriginal and Torres Strait Islander communities. Mainstream research practices and methodologies have often failed to achieve desired outcomes in remote Aboriginal and Torres Strait Islanders communities. By contrast, the Aboriginal Community Researcher Program has proven track records of achieving positive research outcomes because the program is inclusive of Aboriginal and Torres Strait Islander people's viewpoint and knowledge and places effective community engagement at the heart of its practice. We believe the Aboriginal Community Researcher program could assist in the development of the Plan to design and rollout effective programs aimed at increasing Aboriginal and Torres Strait Islander economic participation in Northern Australia. By involving local people it not only provides good employment outcomes it also fast tracks implementation of initiatives as change is more rapidly adopted at the local area.

- **Technological readiness and telecommunication infrastructure**

Technological readiness remains an important issue in rural and remote areas in Northern Australia and across our nation. This includes lack of mobile telephony coverage in remote communities; internet access and speed, affordability issues, digital literacy and active participation in the digital economy. In 2011, Ninti One provided a submission to the Joint Committee on the National Broadband Network and was subsequently invited to provide evidence at the public hearings. Some of our evidence was then used in the Second Report of the review of the rollout of the NBN. Most of the points raised in the submission are still relevant and can be viewed at <http://www.nintione.com.au/resource/NintiOneSubmissionToJointCommitteeOnNBN.pdf>

Ninti One is also a founding member of the Broadband for the Bush Alliance, which is a group of organisations that are committed to the digital inclusion of remote and rural Australia. The Alliance aims to ensure that remote and rural Australia does not become further disadvantaged in the area of communications. The Alliance seeks practical outcomes that promote digital inclusion, using both fixed and mobile technologies. The Alliance believes the Government's NBN plans need enhancement to include a strategy aimed at improving communications in remote and rural Australia by:

- Recognising that fixed and mobile services are both equally important parts of the solution;
- Taking account of existing communications infrastructure in remote and rural Australia and explore how to best use it, in conjunction infrastructure expansion activities;
- Applying the extended zone approach to mobile calls for greater affordability;

- Building the capacity of remote and rural Australians to participate effectively with the digital economy; and,
- Develop 'last mile' solutions to meet local needs

Such strategy would benefit Northern Australia and increase productivity. Importantly, we believe that mobile communications is essential and should be given priority. The advent of the smartphone offers Australians untold opportunities to engage with the digital economy, and is fast becoming Australia's most valued communications device. As the smartphone continues to revolutionise the way in which we conduct our personal and professional lives, it is critical that all Australians have access to a reliable mobile service. As demand for access to broadband through mobile devices continues to grow, the time to work towards improved coverage is now.

We acknowledge the recent \$100 million initiative of the Government towards a programme to improve mobile coverage and competition in regional Australia. However, more will be required and an allocation of funds specific to Northern Australia to improve mobile coverage should be encouraged as part of the Plan to develop Northern Australia. Indeed, the current lack of reliable and affordable telecommunications in Northern Australia will impend on future growth and competitiveness of the region. For example, research shows that one of the economic effects of the roll out of mobile phone coverage in South Africa is an employment increase of 15 percentage points when a locality receives network coverage.

The Broadband for the Bush Alliance has developed policy papers which describe our policy proposals in further detail. We encourage the Committee to visit the Alliance website to view position papers and policy: <http://broadbandforthebush.com.au/>

- **Housing**

There is a critical need for the development of affordable housing across all Northern Australia. Housing affordability remains an issue in Northern cities such as Darwin. In remote communities, especially Aboriginal and Torres Strait Islander communities, there is a critical shortage of housing and overcrowding remains a key issue. We suggest that a specific strategy should be developed to address remote housing needs, which would focus on supporting innovation in design and construction and providing training and employment opportunities for local Aboriginal and Torres Strait Islander residents. Ninti is active in developing innovative housing approaches.

- **Transport Futures**

The issue of lack of road and transport infrastructures in Northern Australia as an impediment to growth is well documented. For remote Aboriginal and Torres Strait Islander residents, transport systems are unsustainable and heavily dependent on private motor vehicles relying on petrol and roads. These systems do not now, and cannot in the future, meet the needs of a growing, ageing and increasingly mobile population. One of our CRC-REP research projects 'Transport futures for remote Australia' is exploring the potential for alternative transport systems, with a specific interest in how to enhance future livelihoods in remote Australia. The research is assessing the services and infrastructure, the economic opportunities available and will look at the technical feasibility of options and energy future scenarios. This research project is still in its early stages but we would be

happy to further discuss with the Committee how it could assist within the development of a transport strategy for Northern Australia.

- **Minerals sector and local communities**

Northern Australia has substantial mining and extractive industries. However, currently, only limited revenue generated by the resources industry remains in the community or even the region where it is generated. Our CRC-REP research project Enduring Community Value from Mining research is analysing benefits flowing from mining and how these can provide enduring benefits to communities and small-to-medium sized enterprises during and beyond the mine's life. In developing the Plan, it may be useful to consult our researchers to discuss their work currently underway in the Pilbara region.

- **Pastoral sector**

Opportunities for increasing beef production and industry profitability across northern Australia exist through the development of new technologies to improve extensive cattle production systems. Current challenges are the high labour and infrastructure requirements to collect the data needed to make optimum decisions as to when animals are bought and sold or husbandry practices are performed.

Research by Ninti One and a commercial partner Precision Pastoral Pty. Ltd. has produced the Remote Livestock Management System (RLMS). The RLMS is a combination of hardware and software capable of remotely identifying, weighing, and drafting individual animals within a cattle herd without labour inputs. It introduces to graziers and pastoralists the same sort of precision available to dairy and beef farmers on much smaller properties – enabling them to muster, weigh, monitor, draft and hold pastoral cattle for market over large distances. The RLMS has the capacity to increase beef enterprise production while reducing operating costs. The RLMS will be the first fully automated system for mustering and managing cattle in the rangelands and is close to commercialisation. RLMS is in daily use at fully operational pastoral stations.

Current research by CRC-REP, being conducted on pastoral stations across northern Australia, will combine the RLMS animal data with remote sensing tools for measuring pasture, to deliver decision-making software tailored to individual beef producers. This decision-making tool should not only improve profitability of the beef sector in northern Australia, but should also assist sustainable land management and sector resilience.

The Plan should facilitate this important sector to develop and adopt new technologies, which will support the growth and efficiency of the industry. Many of the component technologies have been developed for other purposes and can be coupled with improvements in communications described above to relatively inexpensively deliver good outcomes if collaborative research, extension and commercialisation are encouraged through appropriate policy and programs.

- **Supporting Research and Development in Northern Australia**

The Plan should consider how to better support Research and Development activities in Northern Australia. Efforts should be made to support existing research organisations and universities, which operate in Northern Australia and build capacity within the region. A policy context, which would encourage collaborations across jurisdictions in Northern Australia, will be beneficial.

- **Remote Australia Online to assist in the development of the Plan and policies to grow remote Northern Australia**

Ninti One recently launched Remote Australia Online (RAO), which is a one-stop shop for information about remote Australia. This Web-based information database comprises of a bibliography from research organisations across Australia on topics relating to remote Australia. Developed within Ninti One, it is the culmination of ten years' research and endeavour by specialist researchers, brought together in a robust reference catalogue. RAO delivers authoritative research on topics that impact this region and its people, including education and its pathways, policy, business, social and cultural welfare, infrastructure, communication and natural resource management. The information from diverse disciplines is now available in one central place at RAO. This resource available at www.nintione.com.au may assist in developing solutions and evidence-based policy for remote residents across Northern Australia