



WORLD HERITAGE IS OUR PROMISE TO THE FUTURE

18 September 2019

Committee Secretariat

Select Committee on the effectiveness of the Australian Government's Northern Australia agenda

Department of the Senate

PO Box 6100

Parliament House

Canberra ACT 2600

Via email: Northernaustralia.sen@aph.gov.au

Dear Sir / Madam

Re: Submission to Select Committee on the effectiveness of the Australian Government's Northern Australia agenda

Thank you for the opportunity to provide a submission on the Select Committee's inquiry into investment in Northern Australia.

The Wet Tropics of Queensland World Heritage Area (the Area) is located in Far North Queensland and abuts the regional cities of Townsville and Cairns. This region is well positioned to support a strong, regional nature based economy. The Area already contributes at least \$5.2billion annually¹ to the regional economy, with significant potential for increased whole of community benefit. In a region that boasts two world heritage areas (the rainforest and the reef), nature plays a vital social, economic, cultural and environmental role, providing ecosystem services, tourism and recreation, research and biodiscovery and green infrastructure that contributes to the resilience and well-being of regional businesses and residents. Investment in supporting these roles will provide a strong economy and jobs in the future. Unfortunately, the Northern Australian Agenda does not adequately consider the real possibilities and potential for a nature-based economy, rather the focus is on traditional economic development models.

The story of world heritage listing for the Wet Tropics of Queensland is a success story that demonstrates that transitioning to a nature-based economy from a resource intensive economy has had a positive effect on the regional economy. Prior to its listing, the Area had a significant forestry industry that was experiencing reducing quotas due to unsustainable yields before the Commonwealth Government introduced a decision to ban logging in 1988. Although a structural adjustment package was provided for job creation, labour adjustment and business assistance to offset the impacts of the cessation of logging, the collapse of the forestry industry caused significant disruption for regional communities. Nonetheless, since that time a new economy has emerged and 30 years on, there is a vibrant, regional economy reliant on the outstanding universal value of the Area as well as an enviable lifestyle for those who live in the region (see Attachment A – *Case Study: A transition from timber extraction to tourism in the Wet Tropics rainforests*).

¹ State of the Wet Tropics Report 2014-2015, Economic Value of the Wet Tropics World Heritage Area

Background

The Wet Tropics of Queensland World Heritage Area was inscribed on the World Heritage list on 9 December 1988. The world's oldest living rainforest, and land of the world's oldest living culture, it is one of an exclusive group of World Heritage properties listed for all four natural criteria (UNESCO, 1988). In 2012, it achieved National Heritage listing for its Indigenous cultural values.

Although it comprises less than 0.2% of the Australian continent, some 32% of Australia's terrestrial fauna species (many of which occur nowhere else) are found across the 900,000 hectares of the Area (see Attachment B – map of geographic extent of the Area).

The Wet Tropics Management Authority (the Authority) is a Queensland statutory authority established to ensure that Australia's obligations under the World Heritage Convention in relation to the Wet Tropics is met. The Authority and its board of directors is jointly accountable to the Commonwealth and State environment ministers.

The Authority has diverse roles. Whilst it ensures protection of world heritage values through administration of (and assessment of development under) the statutory Wet Tropics Management Plan 1988, the Authority also builds collaborative partnerships with the community, Rainforest Aboriginal Peoples, research bodies, the tourism industry and governments to advance the conservation, protection, presentation and transmission to future generations of the Wet Tropics.

The Area plays an important role in the life of the community, through culture, recreation, employment and the quality of life that comes from living and working in such an aesthetically special place. As the only place with two world heritage areas side by side – the Wet Tropics and the Great Barrier Reef– natural assets underpin an economy heavily reliant on the tourism opportunities and ecosystem services it provides.

Australia boasts some of the best managed world heritage areas on the planet, with safe access and high quality support services. Despite this, there are mounting pressures from threatening processes such as pest incursions, increased fire risk and climate impacts. With these challenges come opportunities, and as a nature based economy, there are significant opportunities for regional jobs in tourism and tourism support businesses, but also in an emerging 'conservation economy', including, for example, in environmentally sensitive planning, architecture and design, landscape restoration and resilience, fire and pest management, threatened species recovery, and research, innovation and discovery. However, the Northern Australia Infrastructure Facility (NAIF) does not currently facilitate these types of activities.

Growing jobs through tourism

Identified as one of Australia's 'National Landscapes' for tourism purposes, the Wet Tropics forms an important part of the national identity and Australia's international image as an attractive tourism destination.

The Wet Tropics is an area of captivating natural beauty, described by Sir David Attenborough as 'the most extraordinary place on earth'. It has enormous potential as a visitor destination of choice and an exemplar of appropriate world heritage tourism where visitors contribute to its protection and promote its value to the world. However, this potential remains largely untapped.

Whilst there are exceptional experiences now with more than five million visitors each year, the Area has strong potential for broadening the visitor experience and expanding the tourism product – distributing visitation across a wider area and extending length of stay in the region. This will bring economic and employment growth, but also increase the need for appropriate infrastructure to attract investment and job creation.

The Area's large expanse of outstanding scenic beauty and wilderness is largely unexplored with current visitor numbers concentrated in Cairns and Port Douglas, with Mossman Gorge and the Daintree as the key focus points. However, the Area stretches for 450 kilometres between Cooktown and Townsville and into the tablelands, covering eleven local government areas.

The Authority plays a strong facilitating role promoting the natural assets of the region. By way of example, the Authority established the renowned Wet Tropics Tour Guide Program² to provide ongoing professional development for tour guides, educators and other public-contact personnel in the tourism and education industries. Delivered through Savannah Guides and with industry partners, the program aims to continually improve the interpretation of the Wet Tropics World Heritage Area. This provides a foundation for jobs in the Wet Tropics, through an assembly of trained guides able to interpret the special attributes of the Area for visitors. Last year the Authority held its first 'on country' training for Indigenous guides, as part of its effort to support cultural tourism.

Consistent with its strategic objective to 'enhance World Heritage presentation and support opportunities for natural and cultural tourism and recreation', the Authority wants to grow the potential of the Area and establish it as a 'must see' destination. To this extent, the Authority is preparing a collaborative Tourism Destination Plan, funded through an Australian National Heritage Grant. The object of the destination plan is to provide strategic guidance for ecologically appropriate placement and design of tourism activities that will better present its international importance to a wider audience, encourage dispersal throughout the region and create pathways for Rainforest Aboriginal people to increase participation in tourism and presentation of the Area. This will provide an opportunity to recognise and articulate the special and unique nature based tourism opportunity of each 'subregion', build on their distinctive characteristics to enhance the diversity of experiences, and create local jobs, particularly in high unemployment communities. These 'experiential hubs' would benefit from investment in imaginative infrastructure—where the architecture provides not only tourism necessities, but renowned attractions heralding the remarkable characteristics of the Area.

The Authority is also partnering with Tropical Tourism North Queensland, Tourism Events Queensland and other tourism industry organisations to promote the establishment of a world class World Heritage Gateway in Cairns, celebrating the natural and cultural values of north Queensland's two World Heritage Areas. Already identified as one of Queensland government's top 10 most significant tourism development opportunities, if investment is realised, the Gateway will bring a fresh, new-world development showcasing Queensland's natural beauty and indigenous cultures, strengthening north Queensland's tourism offering, encouraging exploration of the region's natural areas, and creating jobs for local residents³.

Of course, despite the many benefits, if poorly managed, tourism growth is not without risk. The World Heritage Committee has acknowledged the positive impact sustainable tourism can have on local communities and the protection of World Heritage properties. However, it has noted 'concern that the

² <https://www.wettropics.gov.au/tour-guide-training>

³ <https://www.wettropics.gov.au/site/user-assets/docs/World%20Heritage%20Gateway%20Cairns.pdf>

number of properties negatively affected by inadequate visitor management and tourism infrastructure development continues to increase', requesting State Parties 'to develop visitor management plans that assess appropriate carrying capacity of properties for visitors and address the issue of unregulated tourism' (UNESCO, 2018). The Authority's Tourism Destination Plan will address this, so that, done appropriately and consistent with its World Heritage obligations for protection and presentation, this under-utilised potential is a driver for the future jobs of the region. It will require investment to achieve the style of infrastructure and experiences worthy of a world heritage listed area.

Those jobs will be broader than in tourist activities, requiring contemporary planning and design skills, research for best placement, industry training, and facilities outside of the Area such as accommodation, restaurants, shops and a range of support services.

Whilst the tourism destination plan can form a part of the regional conversation for growing the sector, a coordinated, inclusive approach to managing these opportunities is needed, bringing together an alliance of industry, traditional owners, community and government representatives. Through a planned, collaborative and evidence-based approach, the potential of the Area can be realised.

Although the whitepaper recognizes the importance of tourism to the region, the NAIF is set up in a way so that the type of investment that will grow tourism is not supported. For example, iconic projects that attract and grow visitor numbers to a region may take considerable time to turn a profit whilst generating wealth for the region through increased visitor nights and overall tourism spend.

Investing in jobs on country

One of Authority's most critical partnerships, now and into the future, is with the traditional custodians of the land on which the Area is situated, the Rainforest Aboriginal Peoples.

There are at least 20 Rainforest Aboriginal tribal groups, 120 clans and 8 language groups—currently over 20,000 people—with ongoing traditional connections to landscapes in the Area.

When the property was listed there was little consideration of cultural values. Since then there has been substantial change, with stronger recognition of the biocultural values of the Area and the benefit of traditional knowledge to the continuing management of the Area's outstanding universal value. Native title is being progressively resolved, prescribed bodies corporate have been established, three Indigenous Protected Areas (IPA's) have been declared and a number of Indigenous ranger programs in some parts of the Area have built capacity and empowered traditional owners, with demonstrable results in tangible conservation outcomes. There are also an increasing number of established and emerging Indigenous tourism enterprises providing high quality natural and cultural experiences, with scope for more.

The Authority's approach to working with the traditional custodians has evolved towards more purposeful and collaborative engagement, focused on closer partnership relationships and maximising opportunities. There have been many positive outcomes including on-country tour guide training, fee for service contracts with Aboriginal organisations (e.g. yellow crazy ant eradication), annual grants programs to fulfill cultural responsibilities and manage cultural and natural values, and a workforce plan that has seen employment for Aboriginal people increase at the Authority from one person in 2016 to six today.

All of these gains provide a basis for growing the employment and economic opportunities for Rainforest Aboriginal Peoples. However, there is still a considerable way to go for Rainforest Aboriginal Peoples to meaningfully share in decision-making and the economic benefits of the Area as full partners. There

continues to be significantly high unemployment in Rainforest Aboriginal communities (e.g. Yarrabah 55.98% unemployment)⁴.

Investment through Australian and State government indigenous ranger programs provides meaningful employment, particularly for young people, with measurable benefits for family and the broader community. A February 2016 Australian Government review of social return on investment⁵ showed that an investment from government and a range of third parties in the national Indigenous ranger program generated a three-fold return on investment. The review found that the program is 'effectively overcoming barriers to addressing Indigenous disadvantage and engaging Indigenous Australians on country in meaningful employment to achieve large-scale conservation outcomes, aligning the interests of Indigenous Australians and the broader community'.

The investment into Indigenous rangers as part of the Northern Australia Agenda is welcomed by the Authority. However, there is currently a disproportionately low allocation of Indigenous ranger positions in Queensland relative to its size and Indigenous population. This means that there is significant scope for investment in IPA's, cultural tourism and on-country ranger programs to grow employment in the Wet Tropics region. Increased on-country rangers would provide significant social, cultural, environmental and economic benefits particularly through addressing emerging threats such as pest incursions, managing increasing fire risk, and establishing habitat to support transition and recovery of threatened species. These emerging threats, if not addressed, can impact on existing jobs in the tourism, agriculture and other sectors, as well as on the world heritage values of the Area.

There is also significant potential from appropriate recognition and sharing of traditional knowledge. The World Heritage Area is the only place in Australia where Aboriginal people have permanently inhabited a tropical rainforest environment, and, to do so, they developed specialised techniques to process toxic and other plants to make them edible. A range of skills development and job creation opportunities could flow through partnership arrangements with the Traditional Owners of that knowledge, universities and biodiscovery entities for the propagation, harvesting and extraction of compounds, and market development.

Assisting in the identification and progression of economic opportunities such as through tourism, ranger programs, science research and use of cultural resources is a key priority of the Authority. The development of a regional joint action plan to identify economic priorities and management opportunities would be a catalyst for achieving this, and for identifying and creating future jobs. Investment in planning for economic outcomes would provide a way forward for achieving the development of new infrastructure, with significant public benefit, particularly for the Traditional Owners of the land.

There are also notable fully costed, investment-ready world class projects that could be realised now, creating jobs and new experiences for visitors to the region. With a refreshed view on tourism investment, the NAIF could be well placed to facilitate these projects, with strong economic and social benefit.

Emerging economic opportunities for the future

The whitepaper, rightfully, identifies that Northern Australia "possesses exceptional biodiversity, holding spiritual and cultural significance for its Indigenous peoples, and underpinning human wellbeing".

⁴ ABS labour force survey and Centrelink data, compiled by Department of Employment, FNQROC, .idcommunity 2019.
<https://economy.id.com.au/fnqroc/unemployment?WebID=220&Indkey=23011>

⁵ Consolidated report on Indigenous Protected Areas following Social Return on Investment Analysis, Department of the Prime Minister and Cabinet (Social Ventures Australia), Feb 2016

Unfortunately, the Northern Australian Agenda fails to deliver a long term vision of protection of this asset, nor is there any consideration of incorporating the environment as a component of the economy. The Agenda takes a traditional, and increasingly unviable view that natural resources are valuable for their exploitation potential only. The Agenda should offer a vision for a transformative economy based on working with nature.

The Authority is focused on addressing the social, economic and environmental issues and challenges anticipated in the coming years—of which there are many. Perhaps the biggest one is climate change.

With changes to species distribution and density having already been recorded—and some sombre predictions of modelled effects—there will be a critical need for science-based solutions, participation by informed communities and substantial resources to improve the resilience of the Area pending a reduction in global emissions.

Following the hottest summer on record and alarming scientific evidence of its impacts on the world heritage values of the Area, in April 2019 the Authority issued a statement and 10-point response plan⁶ to address this. It includes actions that with resourcing, will necessarily create jobs, including a landscape level program to be delivered primarily by on-country Indigenous land and sea rangers, in partnership with land managers. The Wet Tropics World Heritage Restoration Program would bring together traditional knowledge and western science to deliver a cross tenure program of on-ground actions to enhance resilience, reduce emissions (carbon abatement), augment wildlife corridors, buffer refugia and provide social, environmental, cultural and economic co-benefits, particularly for World Heritage values, environmental services, adjacent landholders and Traditional Owners.

Invasive species will also continue to cause impacts. Existing problems, like feral pigs, and emerging new ones, like myrtle rust, will require collaborative effort and resources to manage impacts. Multi-faceted strategies like the highly effective Yellow Crazy Ant Eradication Program will form the basis of whole of community, rapid-response approaches to pest management. This program has demonstrated the cost benefit of tackling such problems head-on, and created a range of jobs with multiple co-benefits across sectors (See Attachment C, *Case Study: Yellow Crazy Ant Eradication Program*). When resourced, challenges like these provide employment opportunities without which other jobs, such as in the agriculture and tourism industries, may be at risk.

These programs also provide security for tourism and tourism jobs, through demonstrable actions that give confidence to residents and visitors alike that something can be and is being done, and that their enjoyment of the Area can help it, not depreciate it.

Similar approaches are relevant in urban settings in the Wet Tropics region. Urban growth in the region is expected to double to more than 700,000 people in the next 20 years⁷, requiring jobs, increasing demand for infrastructure like roads, water and energy supply and putting pressure on the natural environment. This growth could potentially sever wildlife corridors, causing species isolation and limiting their ability to respond to change.

⁶ A statement from the Board of the Wet Tropics Management Authority, <https://www.wettropics.gov.au/site/user-assets/docs/2019.04.29%20WTMA%20board%20climate%20change%20statement.pdf>

⁷ Cairns Regional Council, 2015.

It is important that development in the Area protects and sustains its nature based economy and world heritage values, and that growth pursues innovative infrastructure that complements rather than detracts or threatens its values.

Consequently, there is a strong opportunity for jobs of the future in ecologically sensitive planning and design. Complementing this is the identification and placement of natural (green) infrastructure, which can provide community resilience in the face of increased intensity of events. Green infrastructure can be cost effective in enhancing the resilience of the built environment, with multiple benefits for aesthetics, recreation, species habitat/transition, water quality, erosion/sedimentation prevention, flood mitigation, storm water management, carbon sequestration and quality of life for the community. Investment in resilience is also beneficial for creating local jobs particularly for low income communities where jobs are needed.

Science is also a catalyst for regional jobs of the future. As one of the few developed tropical economies in the world, the region's tropical knowledge, expertise and research capabilities are uniquely positioned to deliver targeted products and services to other tropical economies across the world. A defining feature of the Area is its location and its track record for research excellence in disciplines of particular relevance to the tropics. Opportunity exists for universities, research institutions, not-for-profit entities, industries and key economic and business agencies to collaborate to form stronger strategic alliances and to develop a clear framework for the building of a focused tropical knowledge economy in north Queensland.

James Cook University (JCU) is world renowned for its tropical sciences. It's Centre for Tropical Environment and Sustainability Science is already developing, implementing and exporting solutions to environment and sustainability issues faced by Australia and the rapidly developing tropical world. The university attracts students from 100 countries around the globe to study, conduct research and just enjoy the Area. Its research station – the Daintree Rainforest Observatory – allows students to study the rainforest hands-on and access the canopy via a 47m crane, allowing unique experiences and discovery opportunities.

Together with CSIRO and Central Queensland University, there are significant opportunities for developing an even more vibrant, world-class research region, developing and exporting advances in fields such as climate change science, infrastructure management, biodiversity monitoring and recovery, and restoration ecology, as well as the intersection between tourism and regional development.

To capitalise on this research investment, the region needs to retain and foster the best trained people, infrastructure, research programs and resourcing to study, understand, and manage Australia's tropical ecosystems in the future, whilst building its strengths in applying world-class research to real world problems.

The terms of reference for this inquiry provide for review of the current drivers of economic growth and consideration of the potential for innovative and strategic approaches to regional planning and economic prosperity. The Area sits within a region that is highly dependent on its natural assets. Though these assets are subject to emerging threats, there is a unique opportunity to meet the challenges of these threats and to grow the regional economy through a considered and strategic transition to a world class nature-based economy.

A nature-based economy will generate new industries and employment opportunities in the far north Queensland region. The select committee is urged to consider how governments, at all levels, can facilitate transition so that the Wet Tropics region can realise a number of significant benefits including:

- a vibrant and growing tourism industry that would partner with land managers, government and the community to collaboratively address threats
 - increased visitation through strategic dispersal of product and identification of unique selling points of sub-regions
 - investment into iconic visitor infrastructure such as a World Heritage Gateway Centre and other tourism opportunities
 - growth of Indigenous ranger programs—these gateway programs provide capacity development for First Nations people to increase their participation in land stewardship, tourism, biodiscovery, and research and monitoring, with numerous flow-on economic benefits
 - growth in employment and entrepreneurial opportunities for Rainforest Aboriginal Peoples as the land managers and knowledge holders
 - worldwide recognition of the Area as the centre for tropical knowledge, leading the world in research in tropical medicines, responses to climate change, tourism growth and tribal knowledge
 - private and public investment in land protection and rehabilitation to grow resilience and ensure the economic sustainability of the region
 - improved understanding of our response to threats through innovative research and monitoring
 - realisation of the strong opportunity for jobs in ecologically sensitive planning and design.
- Complementing this is the identification and placement of natural (green) infrastructure, which can provide community resilience in the face of increased intensity of events.

The Wet Tropics World Heritage Area is ranked by the International Union for Conservation of Nature (IUCN) as the 2nd most irreplaceable world heritage property on earth, and the 6th most irreplaceable protected area (of more than 173,000). That alone is worthy of investment.

Given the region's internationally significant world heritage values, infrastructure and economic development will require a necessarily different approach. Thirty years ago, world heritage listing was seen as an economic constraint and to this extent, more historic activities such as forestry and mining cannot occur. However, today the Wet Tropics' world heritage values support a world class tourism industry, its environmental services help to sustain adjacent agricultural industries and the Area provides more than \$5.2 billion in economic benefit annually. With contemporary, sensitive planning and investment, there is significant potential for projects that facilitate growth, provide investment opportunities and promote an internationally recognised, highly marketable business and tourist destination.

Thank you for considering the Authority's submission. Should you require any further information, please do not hesitate to contact Executive Director Mr Scott Buchanan by telephone

Yours sincerely,

Leslie Shirreffs PSM
Chair

Case Study: A transition from timber extraction to tourism in the Wet Tropics

In its recent history, the Wet Tropics region was the base for a significant timber industry. From around the 1930s until 1980, the Wet Tropics region had been logged at a rate of around 200,000m³ of timber per annum. By 1980 it was already clear to forestry professionals that the allowable cut was far in excess of sustainable yields (Stocker *et al* 1977).

In 1981 the Crown quota of timber from north Queensland rainforests was reduced to 152,000m³ but this figure could not be achieved by the logging companies (Department of Forestry Queensland, 1981). In 1983 Crown quotas were set at 130,000m³ but only 112,000m³ could be found. Although the Crown quota remained static, in 1985 the industry harvested only 88,000m³.

By 1987 the quota was reduced to 60,000m³ and still could not be met when in 1988, so as not to compromise the listing of the Wet Tropics World Heritage Area, the Australian Government passed a regulation under the *World Heritage Properties Conservation Act 1983* banning logging in the Wet Tropics. The Area was officially inscribed on the World Heritage list on 9 December 1988.

In the decade leading up to World Heritage listing, the industry based on Crown timber had collapsed from 200,000m³ per year to less than 60,000m³. Associated with this demise was the loss of perhaps two-thirds of the workforce (from about 2,000 in 1981 to around 760 in 1987) and a reduction in logging contractors associated with the reduced yield. All logging within the Area ceased in 1988 and by 1991 there were only two licensed timber mills still operating in the Atherton and Ingham forestry districts. Prior to listing there had been 12 mills in operation employing 486 timber workers. By 1991, 413 of these timber mill workers had been made redundant (Lynch 2000).

The World Heritage listing of the Area occurred at a time of immense social change in the region, arising particularly from the collapse of the timber industry. It was expected that such a dramatic contraction of a core regional industry would result in marked negative economic and social impacts in those communities most heavily dependent upon it.

The Commonwealth oversaw two social impact assessments (SIA): the first was conducted in 1987 prior to listing, with the other conducted four years later (Vanclay 1993). The initial SIA was used as the basis of a Structural Adjustment Package (SAP) designed to ensure retrenched timber workers would not be unfairly disadvantaged. A sum of \$75.3 million was allocated for the SAP, comprising \$50.9 million for employment-related programs and \$24.4 million for business compensation. The job creation component comprised public works projects, tree planting projects, private sector initiatives and local community initiatives. Assistance for displaced workers included a number of allowances, training subsidies and an early retirement package.

The major argument put forward opposing the nomination and listing of the Wet Tropics World Heritage Area was that it would socially and economically cripple the region by destroying the rainforest logging industry. It was claimed that there would be major losses of employment and income. These arguments were fiercely debated despite the facts that sustainable timber yields were in rapid decline, costs of maintaining the industry was exceeding royalties, and research showed significant environmental impacts from logging (Cassells *et al.* 1988).

There is no doubt that the timber industry had been a major contributor to north Queensland's regional economy since European settlement, and the effects of this industry permeated many aspects of regional

activity. Consequently, the end of the timber industry caused a major disruption to the economies of several communities reliant on this industry for their livelihoods.

At the time of listing, the gross value of the region in timber sales was around \$26 million. Driml (1997) converted this value to a 1994 equivalent of \$34 million in order to make post-listing comparisons between tourism and logging to the regional economy. This figure of \$34 million was directly comparable with the gross expenditure on tourism in 1994 of \$443 million. These figures indicate that the gross expenditure on tourism seven years after the prohibition of logging was around ten times the gross value of logging and timber production in the year logging ceased in the Area.

As predicted by many of the supporters for World Heritage listing, the growth in tourism more than offset negative economic impacts resulting from the cessation of logging (Driml 2000). It must be acknowledged, however, that tourism was not an alternative for many individuals and some communities previously dependent on the timber industry.

Almost two decades later, a nationwide analysis of the economic contribution of Australia's World Heritage properties found that in terms of national economic impact, the Wet Tropics was one of the most significant World Heritage areas in Australia. It was estimated to contribute more than \$2.6 billion in annual direct output and household income, as well as almost 13,600 direct and indirect jobs; demonstrating a very real and significant value of the Area to the regional, state and national economy (Gillespie Economics 2008).

During the year ending 2010, the region had an estimated 5.7 million visitors and was the third most significant destination in Australia for international visitors.⁸

⁸ State of the Wet Tropics 2017-18, 30 years of World Heritage in the Wet Tropics: reflections and aspirations Wet Tropics Management Authority, <https://www.wettropics.gov.au/site/user-assets/docs/WTMA%20State%20of%20Wet%20Tropics%20Report%202017-18.pdf>

Map of geographic extent of the Wet Tropics World Heritage Area



Attachment C

Case Study: Yellow Crazy Ant Eradication Program

Doing nothing is not an option

Yellow crazy ants are one of the world's 100 worst invasive species. Once well established, they swarm aggressively and destroy entire ecosystems, killing most other invertebrates and small animals like lizards, birds, frogs and turtles. They are a threat to agricultural productivity, and to the health and lifestyle of urban populations. They invade parklands, houses and yards, spraying acid on people and pets and destroying electrical appliances. Left untreated, yellow crazy ants would threaten the tourism industry and visitor enjoyment of the Wet Tropics, the world heritage values of the Area, the quality of life for local residents and the productivity of the sugar cane industry and other agriculture.

In Australia, yellow crazy ants are now present in a number of sites throughout Queensland and Arnhem Land. In the Cairns region, there are localised infestations in Gordonvale, Edmonton, Bentley Park, Bayview Heights and Russett Park (Kuranda), where yellow crazy ants are found in a variety of habitats including residential areas, sugarcane fields and the world heritage listed rainforest.

The Wet Tropics Management Authority has led the response to yellow crazy ants since 2013. The Yellow Crazy Ant Eradication Program (YCAEP) was escalated in 2016 as a result of a three year funding commitment from the Australian and Queensland governments totalling \$10.54 million, and again in 2019 when, based on its successes, achieved funding of another \$18m for the next three years.

The primary aim of the YCAEP, is to eradicate yellow crazy ant infestations in and adjacent to the World Heritage Area and to maintain the Areas' outstanding universal and heritage value.

The Authority has achieved demonstrable success, with three infestations eradicated, a halt to the spread of ants in the World Heritage Area and radically reduced numbers in other known infested areas. Many areas have now moved into post validation of eradication and treatment areas will continue to contract. The focus has to turned from broadscale aerial baiting to intensive surveys with focused treatment of areas with very low ant numbers. Any new detections are rapidly treated and monitored. A tracker dog will start in September 2019, towards ensuring that not one ant is left undetected. These results indicate that there is a very real potential to achieve ultimate eradication (see attachment D – Yellow crazy ant survey effort and eradication program 2017-2019).

The multi-faceted program's places its strong success primarily on the innovative and collaborative partnerships between the Authority, all levels of government, industry, Traditional Owners, scientists/scientific institutions, media and community conservation groups. The co-benefits of the program have been significant, demonstrating that the commitment to on-ground conservation activities can have positive social, economic and cultural benefits, in addition to the obvious environmental benefits. Some examples include:

- local Aboriginal ranger groups from Gimuy Walubara Yidinji and Djabugay Bulmba actively participate in operational contracts and training programs, creating skilled jobs for traditional owners of the land. An unanticipated additional benefit from on-country work by Aboriginal ranger teams has been the discovery of numerous artefacts and significant places, with cultural tourism opportunities being identified
- Kuranda Envirocare, a community volunteer organisation, mobilised a highly effective response, establishing the Kuranda Community Volunteer Task Force. These motivated community volunteers have contributed significantly to monitoring, treatments and property management plans in their area.

As a result of their efforts, they are reporting that native green ants and azure kingfishers are returning and the number of yellow crazy ants being caught in survey bait traps has fallen dramatically.

- the sugar industry has jumped on board, playing an active role in reporting infestations, identifying potential vectors for ant movements and developing industry protocols to prevent further spread from harvesting machinery and cane trains. It's good for community, for rainforests, and for addressing the impacts on crop productivity.
- in collaboration with James Cook University and experts around the world, scientists have researched the biology, life cycle and genetic distribution of yellow crazy ants and analysed the success of various treatment regimes for application in the Area. A range of innovative and adaptive methods have been, and are continuing to be developed to improve response options, such as trials for delivering bait with water crystals. This knowledge is being shared with other jurisdictions to assist management of the pest in other places. There are early discussions about opportunities for packaging the response methodology for Australia to export to the world. This expertise is already being sought. In August this year, three experienced members of the YCAEP team were flown to Christmas Island to share skills over three months in their battle against yellow crazy ants.

A recent independent review of the program and cost benefit analysis⁹ confirmed the value of the program stating that eradication is feasible under the current treatment methods, the cost of eradication is likely to be small relative to its large conservation impact, and estimated the net present value of the eradication program over the next 30 years will be \$6.1 billion including \$513 million of benefits for agriculture, tourism and households in the Wet Tropics. Modeling showed that, if treatment stopped today yellow crazy ants would infiltrate most of the mid-section of the Wet Tropics World Heritage Area, large parts of residential areas in southern Cairns and most of the Atherton food bowl.

This is a program that is providing results for the environment, for the economy and jobs and for the lifestyle of far North Queensland residents.

⁹ Independent Review of the Yellow Crazy Ant Eradication Program, Dr Daniel Spring and Prof Tom Kompas, The University of Melbourne, Centre of Excellence for Biosecurity Risk Analysis (CEBRA),
https://www.wettropics.gov.au/site/user-assets/docs/YCA%20funding/Extract%20Only_Yellow%20Crazy%20Ant%20Independent%20Review.pdf

Attachment D

Yellow crazy ant survey effort and eradication progress. 2017 2018 2019

