

Sharing Stories of Success from Kimberley to Cape

The **Kimberley to Cape** initiative is working to identify **common ground** and **align messages** around a **prosperous and sustainable future for Northern Australia**. This discussion paper is one of a series that aims to **synthesise, simplify** and **share** the **views** of **diverse** organisations and experts around

what success might look like for specific sectors and topics such as agriculture, grazing, conservation, mining, planning and tourism in the North. As well as attempting to **draw out** what most parties might **agree on**, we **raise questions** for discussion in an effort to expand common ground and help **increase policy certainty**. The narratives are drafted through reviewing literature and through conversations and feedback, and are dynamic - **please let us know your views!** The idea is that in **collaboratively developing** and **refining** these shared stories we will generate **clearer and more consistent narratives** to help shape a successful future for the North...

Agriculture in Northern Australia in 2030 – a discussion

What might success look like for plant focused agriculture across the North? ¹

(note grazing will have its own paper)

Agriculture in Northern Australia in 2030 is **progressive, diverse** and **resilient**, supplying high quality product to local and international markets. It has grown from the expansion of existing successful enterprises, incorporating innovative practices and technology, and has diversified away from traditional bulk, undifferentiated cropping to now encompass multiple models and scales of production. It is guided and **driven by shared goals** of strong regional communities, a diversified regional economy and an environmentally sustainable production base. It is a significant employer, and contributes to Australia's export earnings, local and national food security, and regional vitality.

Pre-existing irrigation areas (eg Ord, Burdekin, Daly, Mareeba) **have increased their economic, social, cultural and environmental value** through a range of agreed measures and produce crops such as peanuts, chickpeas, cucurbits, chia, hemp, sandalwood, aromatic rice and tropical fruits. **Three 5,000-25,000ha new mosaic irrigation regions have been collaboratively planned and developed** across the North (eg in the Kimberley, Gulf/Cape and the Top End), and two to four more may be developed before reaching economic, water allocation and/or cumulative clearing limits. Across other **pastoral country 5-500ha areas of irrigated or dryland forage crops** are grown to finish cattle. **Near towns, protected horticultural cropping** is generating high returns relative to inputs and providing quality local produce.

More diversified agricultural enterprises such as aquaculture, crocodile farming, niche crops, bioprospecting and wild harvest products for the

What's this about and why should I read it?

We want to paint a picture of agriculture in Northern Australia in 2030 that's supported by multiple sectors. The picture here is based on many conversations, the references listed, and feedback to date. **Your input is important** in helping us identify what people agree on and what they don't - a shared picture will generate stronger community and investor confidence. For more information please see www.kimberleytocape.net.au.

pharmaceutical, cosmetic and food industries are succeeding due to comparative advantages in markets, climate adaptation and social licence. These don't need large areas of cleared land and/or large water allocations.

Diversification is also evident within individual agricultural enterprises with many businesses integrated with for example aquaculture, beef, honey, carbon, tourism, renewable energy, wild harvests and/or seed industries. Most draw on the North's new innovative R&D institutions and some are part of this knowledge economy, providing training to people across the Tropics.

Indigenous agricultural enterprises and support services are taking advantage of new markets and niches linked to their strengths. The 'Centrefarm' model and four pillar framework is expanding and Indigenous communities benefit from nearby developments as part of an industry-wide commitment to co-benefits.

Biosecurity is now to agribusiness what safety is to the mining industry - routine wash downs, inspections, reporting of incidents etc are mitigating the high risk of breaches due to increased movement of products and people, free trade agreements and more cropping. Effective monitoring and out-break procedures limit new pests, weeds and diseases, and precinct design, and new technology such as lasers, curb damage from geese, wallabies etc.

Supply chains are vertically integrated, efficient, traceable and nimble in responding to fluctuations in markets, biosecurity needs, costs and natural events. They are diverse, innovative and well aligned with Asian markets and are supported by a strategic transport network, harmonised government regulations and research and extension service hubs that work with individual growers. **Waste is minimal** and most energy is renewably sourced. Climate change mitigation and adaptation strategies are routinely included in decisions across the chain.

Agriculture in the North supports and is supported by a **local, vibrant agribusiness sector** (e.g. in machinery, engineering, seeds, safe chemicals, consultants, mechanics etc). Enterprises harness a **skilled workforce**, and are **less reliant on seasonal workforces** due to diversification, some automation, more double cropping, counter seasonal products and strategic processing facilities. They use local contractors including Indigenous businesses.

BOX 1 What do agricultural industry groups and government submissions²⁻⁵ say about:

Planning - Industry and government bodies call for improved regional planning to identify and agree on agricultural growth precincts, and for more consistent policies. They believe that development decisions need to be made with community participation, informed by the best available science and include social and environmental impacts².

Water - Industry and government bodies strongly support the NWI and appear to be moving away from (or are at least being more cautious about) large dams towards more viable, considered water sources such as off stream dams³.

Biosecurity - Industry and government bodies acknowledge the new biosecurity risks that increased agriculture in the North will bring to Australia and the importance of managing these. They call for increased biosecurity effort to accompany Northern development⁴.

Climate change – most didn't comment on climate change, perhaps implying this is something they tackle every day, that they're still assessing this issue, or that, in their view, it's not currently an important factor⁵.

Water use efficiency has increased significantly since 2015 through advanced technologies, trading and new crop varieties. All irrigated areas use a **'closed system'** where excess water is recycled. Water is sourced from **groundwater** and **small, off-stream dams** typically in upper catchments. Major instream dams have not stacked up due to poor cost-benefit ratios, a lack of good sites, high evaporation rates and impacts on fisheries and natural and cultural

values. Water is allocated according to agreed **plans** that meet National Water Initiative criteria and include reserves for future development by Traditional Owners.

A key success factor in the growth of the North's agriculture industry has been the promotion of Northern Australia as a reliable supplier of **safe, green, clean quality products** through the use of leading practices, branding, marketing, accreditations and collaborations – these have been critical in securing our market advantage and have driven efficiencies in soil, water and nutrient management, lowering input costs and reducing environmental impacts. Many growers **proactively** contribute (beyond duty-of-care) to the **protection** of the North's natural values to help ensure longterm productivity, competitive advantage and a positive legacy.



The development model

Most players in the agricultural sector believe that the right development model is one that builds on existing successes, typically starting small and expanding if successful⁶. It's one that emphasises diversification, works with the regional community and builds on the North's clean, green credentials. This model is strategic, learns from the past and has less exposure to the multiple challenges that affect the North.

This development model fits with the need for the North to focus on particular products and market windows^{eg7,8} - unlike for beef and dairy, there is no easy Asian market for Northern Australian horticultural products since many Asian countries are themselves major producers and have significantly lower production costs. Northern producers will therefore focus on comparative advantages including: 1. **High quality agricultural products with strong, traceable credentials** (many companies, especially Asian ones, are increasingly looking for quality and accountability, and the North is well placed to build on its reputation for clean, safe produce). 2. **Counter-seasonal products** (the North can meet and create demand for products during traditional off seasons, taking care to avoid oversupply⁹). 3. **Niche products not grown**



in Asia, including organic products. 4. Fodder crops to add value to beef production.

The right development model needs to account for the cost of learning through crop failures in some years (profitable products need gross returns of over ~\$4000 per ha and low freight costs relative to sale price). It also needs to be able to differentiate products, for example through using leading practices and creating social, cultural and environmental benefits.

BOX 2 Benefits and risks of agricultural development
 Agricultural development across Northern Australia can bring many benefits to individuals, communities and regions such as income, enhanced community services, employment, expanded social networks, better infrastructure and access to local produce. It can be an important contributor to the long term viability and vitality of northern communities, and to biodiversity through soil, weed and pest management. Agricultural development in the North can also bring broader benefits to Australia as a whole such as via increased export earnings, the ability to export more skills and technology, and improved food security.

In thinking about the scale and style of agricultural best suited to the North, these benefits need to be weighed against unwanted consequences. E.g. water extraction or diversion for irrigation can impact existing users such as fishing, prawning, tourism, the environment, grazing, and other ecosystem service users. Agricultural intensification often increases pesticide and fertiliser use which can pollute soil and water and affect food webs and nutrient balances. Runoff and flood water can carry sediment, seeds or other unwanted material. Weeds, pests and diseases can spread due to increased movement of people, vehicles and products. The cumulative effect of such impacts may impair the long-term sustainability of the development and negatively impact the values of surrounding and downstream areas. It could also tarnish Northern Australia's clean, green image, one of our strongest market advantages.

The proposed model of development – a) building up from existing successes, b) emphasising diversification and moving away from large scale monocultures, and c) capitalising on the North's clean, green credentials – has fewer risks and more benefits than an 'infrastructure heavy' model of development that uses relatively large water allocations, relies on low value or bulk commodities and is vulnerable to pests and disease. It also fits more closely with maintaining the outstanding natural and cultural values of Northern Australia, as long as collaborative robust, place-based planning is undertaken to ensure new agricultural developments are well placed, well designed and within agreed cumulative limits.

Identifying Common Ground

We are keen to understand and expand the common ground between sectors around what success looks like for agricultural development in the North. For example, views range from 'is the north the right place to pursue (irrigated) agriculture?' and 'let's clarify the real purpose of developing agriculture in the North before investing further' to 'major agricultural developments are the best chance we have for real involvement of aboriginal people in the economy' and 'we need agriculture in the North to feed the world'. We would therefore love your feedback, either in general or in response to the following questions, to progress the conversation and build greater consensus.

1. To what extent do you support the draft picture of success and model of agricultural development for the North? (ie a) builds on existing successes, typically starting small, b) emphasises diversification and c) uses and protects the North's clean, green credentials)
 - Fully support
 - Somewhat support
 - Don't support
 - Please explain [pls use more paper as needed]:

2. Many groups are calling for policy certainty through collaborative place-based planning where local communities are involved in identifying desired futures and land uses etc for their region – do you support this?
 - Strongly support
 - Somewhat support
 - Don't support
 - Please explain:

3. How can we best ensure agriculture in the North benefits regional communities?
 - It always benefits communities anyway
 - Promote social licences to operate
 - Ensure it's tied to policy, incentives etc
 - Ensure it's a legal requirement
 - Don't need to benefit communities
 - Please explain why and/or how:

4. How important is Northern Australia's clean green image to you or your enterprise/ industry / sector and, if it is important, how can we maintain it in the face of major development?
 - Very important
 - Somewhat important
 - Not important
 - How can we maintain it (eg accreditations, BMPs, conservation efforts)?:



In summary - Is success...

- more about diverse income streams than single commodity income streams?
- more about water innovation than water infrastructure?
- more about clever horticulture and fodder mosaics than vast cropping areas?
- more about boosting the North's clean, green reputation than compromising it?
- more about better using existing large irrigation schemes than overcapitalising on new ones?
- more about ensuring biosecurity safeguards than risking biosecurity breaches?

5. What should be the extent of (irrigated) cropping in the North? For example, are up to 7 new 5,000-25,000 ha irrigation regions across the North insufficient or excessive? Should there be a regional land clearing limit(s) to keep below or do land/water/economics adequately limit development? Should there be 'no go' areas for cropping in addition to current conservation reserves, areas of Indigenous significance and matters protected under law?

Are up to 7 x 5,000-25,000 ha new irrigation precincts across the North insufficient / sufficient / excessive? (please circle)

- Should be minimal clearing limits
- Should be clearing limits to protect ecosystem services and other natural values
- Should be improved off-reserve protection of high conservation value ecosystems
- Please add detail:

6. Do you think it makes more sense for us to invest in existing irrigation areas (eg Burdekin, Ord), in opening up new irrigation regions or in small scale systems for pastoral properties?

- Best to invest in existing schemes
- Best to invest in greenfield schemes
- Best to invest in small pastoral scale
- It's not that simple
- Please explain:

7. What other agricultural-related issues do you feel are important to address to increase the common ground between different sectors and build a shared picture of a prosperous and sustainable future for Northern Australia?

Please outline:

How we might contribute to achieving success in agricultural development across the North:

Once we have a shared picture of success, or at least have agreed on some parts of the picture, what actions do we need to take to move towards it? For example:

1. Increase information exchange and collaboration among agricultural bodies, other sectors and regional communities to better understand community and investor aspirations etc, e.g. via forums such as the Food Futures road shows.
2. Ensure the CRC for Developing the North assists in diversification and innovation to create a resourceful, sustainable and adaptable sector.
3. Investigate a 'Northern Australia' brand that serves multiple sectors including agriculture, and complements Australia-wide branding.
4. [please add your comments]
- 5.



Many thanks for your input. This will be used to build a more informed and cohesive picture of success and be anonymous unless requested. Please provide comments to:

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Please see the website page for references, and contact me for more information or to discuss!

Kimberley to Cape is a philanthropically funded initiative that works to support development and conservation that strengthens communities and enhances natural and cultural values from the Kimberley to Cape York. It is guided by a multisector Advisory Group, administered by the Environment Centre NT and hosted by RIEL at Charles Darwin University.