



Pongamia Australia Ltd.  
775 Glen Allyn Road  
Glen Allyn QLD 4885  
ACN: 673 170 771

24 September 2024

Office of the Great Barrier Reef and World Heritage  
Queensland Department of Environment, Science and Innovation  
GPO Box 2454  
Brisbane QLD 4001

By Email: [OfficeoftheGBR@des.qld.gov.au](mailto:OfficeoftheGBR@des.qld.gov.au)

Dear Departmental Officer

**Re: The Reef 2050 Water Quality Improvement Plan (Reef 2050 WQIP)**

This letter confirms Pongamia Australia Ltd support for Agforce submission to the Reef 2050 Water Quality Improvement Plan (Reef 2050 WQIP). A couple of the Pongamia Australia directors have made contributions to the Agforce submission and we provide this letter as support.

Pongamia (*Millettia pinnata*) is a drought-resistant, leguminous tree, and Pongamia agro-forestry is a new emerging industry with dual purposes: providing renewable bioenergy (up to 4,500L biodiesel/Ha) and significantly enhancing soil carbon sequestration. Pongamia is a sturdy plant with no special nutritional requirements and can grow in extreme environmental conditions. It is tolerant to soil sodicity, pH imbalances, high temperatures, heavy metal contamination, drought and poorly drained soils. It is grown in a tree horticultural (perennial) situation, and therefore provides high levels of groundcover, both from the tree and in the inter-row. Most of this land is currently under pasture and is being grazed by beef cattle. There is the potential for companion systems as pongamia will have minimal impact on beef production if there is some grazing of the plantation. Pongamia also grows well on cropping land, but the general aim is to produce renewable fuels on land that is not being used to produce food. Pongamia trees have several benefits to restore the degraded land. A study showed that a 5-year-old pongamia plantation has a carbon sequestration potential of around 49.28 t ha/yr. Pongamia is capable of withstanding drought stress, can grow on saline soils and needs little topsoil as it has a dense network of lateral roots and thick long taproots. Pongamia plantations can help alleviate compaction and crusting. As described above, you would appreciate the potential fit Pongamia has in farming and grazing systems within reef catchments.

The Purpose of the Company is to support and promote the development of a clean, integrated and environmentally responsible Pongamia industry across Australia. The Company pursues the Purpose through a range of activities and services that include:

- a) supporting Pongamia growers across Australia to sustainably and responsibly produce a high-quality end product with multiple beneficial applications;
- b) embracing and supporting best management practices and advocating for policies that facilitate production of Pongamia;



Pongamia Australia Ltd.  
775 Glen Allyn Road  
Glen Allyn QLD 4885  
ACN: 673 170 771

- c) supporting innovation and continual improvement of Pongamia farming and manufacturing processes to ensure the validity of the industry and provide viable and cost-effective alternatives to energy, fertiliser, feedstocks and pasturage businesses;
- d) supporting the rehabilitation and replenishment of marginal or degraded soils across Australia through the incorporation of Pongamia and Pongamia compost or biochar into these soils;
- e) facilitating the marketing and trade of Pongamia and Pongamia products across Australia and overseas, and promoting the sourcing of improved Pongamia genetic material via collaboration with overseas entities;
- f) promoting the use of Pongamia as an alternative, cost-effective biofuel, source of nitrogen and carbon sequestration within agricultural industries across Australia;
- g) facilitating and promoting research, development and extension (RD&E) activities with the aim of improving the Pongamia industry and its derivative products in Australia;
- h) supporting value-added processing of Pongamia and working in partnership with major agricultural and manufacturing industries within Australia and overseas to ensure the production of clean energy, animal feed and organic fertilisers and other future applications including pharmaceuticals, textile and building materials; and
- i) undertaking such other actions as may foster the achievement of the Purpose.

In particular, with the key points made, we support:-

1. **Human-induced climate change is the primary threat to the Great Barrier Reef and poor water quality can exacerbate climate-related impact.** This is acknowledged in the 2022 Scientific Consensus Statement. It is essential that the WQIP recognises that climate change can itself change water quality outcomes by increasing temperatures and changing rainfall patterns that can affect nutrient runoff and soil erosion, eutrophication, and the release of nutrients from sediments into the water column.
2. Scientific evidence is a fundamental basis on which to build sound policy. Good science starts with a null hypothesis and is either proven or disproven – but all outcomes contribute to a ‘pool of science’ (often ruling out causal effects). Monitoring, modelling and reporting programs that inform water quality could be strengthened and refined by increasing their spatial and temporal coverage to capture regional and local differences and provide more balanced coverage across land uses and ecosystems. For instance, what is the baseload of sediment that comes out of Wet Tropics rainforests, that do not have grass cover, following large Tropical Cyclone events and rain depressions. Pongamia Australia Ltd would welcome a more thorough approach and hopes it will lead to fewer assumptions about the role of agriculture as the driver of poor water quality. Policy decisions must be based on empirical evidence rather than modelling.
3. **Recognition of existing best practices:** Many agricultural producers are already implementing best practices that contribute to water quality improvement. Departmental staff liaising with primary producers are encouraged to consider that they are addressing highly capable operators of complex agroecological systems. Also new best management



practice and farming systems, developed by industry. For instance, cover cropping, integrated tree/pasture cropping and tree/cropping Agro-silviculture operations.

4. **Genuine and balanced stakeholder engagement:** Industry has a long history of engagement with Government around reef regulations and there is a sense of disillusionment, within the Agricultural sector, based on past failures of Government to genuinely respond to genuine feedback provided in good faith.
5. **Fair and Effective Compliance:** Compliance measures need to be fair, non-punitive, and only used as a last resort after careful consideration and clear communication. Our experience has, unfortunately, all too often been that heavy handed officers enact stressful and sometimes devastating measures with insufficient understanding of primary production, and without compassion for complexities and mitigating circumstances.
6. **Role of third-party facilitation:** Frustration builds in response to mounting communication failures. When done correctly using trusted agents, utilising third-party facilitation can improve the relationship between government and industry.
7. **Catchment based approaches and impact of other land use types:** The preoccupation with agricultural land users is not only unfair but is ultimately unlikely to improve water quality: There are multiple land use types in GBR catchment areas, with poorly understood impacts. We continue to ask that areas not under agricultural land management get equal focus – including national and state government managed areas.
8. **Legislative conflicts:** Conflicts between different pieces of legislation need to be resolved to provide clear and achievable guidelines for Industry, both new investors within the biofuel sector and producers alike. This is particularly relevant in the context of vegetation management, reef regulations, water availability and biosecurity. It is of deep concern that vegetation mapping, despite advances in AI and machine learning, have not translated to better differentiation between vegetation types, especially woody weeds.
9. **Role of vegetation management for quality groundcover:** We firmly believe that it is groundcover, not tree-cover – whether that be through deep-rooted perennial grasses and legumes, or crop cover, stubble or trash blanketing, that allows for maximum infiltration following large rainfall events, and minimises runoff – through root channels etc. Controlling regrowth and weeds is key to improving beneficial forage and ground cover, with both production, biodiversity and water quality benefits. There is considerable scope for scientific, evidence-based approaches to improving vegetation policy, rather than the simplified ideological stance that creates an unscientific bias towards high density tree cover.



Pongamia Australia Ltd.  
775 Glen Allyn Road  
Glen Allyn QLD 4885  
ACN: 673 170 771

Signature:

Name	Peter Russell Spies for Mr. Michael Betar
Position title	Secretary, Pongamia Australia Ltd. for Mr. Michael Betar, Chair, Pongamia Australia Ltd.
Date	24 September 2024