Dear Sir/Madam,

This submission is made to the Australian Government's Foreign Affairs and Aid Subcommittee inquiry into Australia's response to the priorities of Pacific Island countries and the Pacific region in order to illustrate how we can mobilise the best and most relevant of Australian expertise to assist Pacific Islands nations to address their most urgent and vital concerns.

Please see below a draft proposal (Australia Pacific Trees or APT Partnership) which has been progressively developed since 2022. It has yet to be formally submitted to the Australian Government, but will be finalised in the next month and submitted to DFAT.

The APT project reflects the expressed priorities of the partner Pacific countries, including notably Fiji, Samoa, Solomon Islands and Vanuatu, with regards to climate change adaptation and mitigation. The heads of the respective Pacific Islands Ministries of Forestry and/or Environment have indicated their support and willingness for the APT Project and strong desire to participate. The APT proposal builds on previous highly successful Australian Government projects in the region including SPRIG (South Pacific Regional Initiative on Forest Genetic Resources) and various ACIAR Forestry R&D projects. APT engages the key Australian Universities and private sector with relevant experience and knowledge in the Pacific Islands.

We thank the committee for undertaking this vital inquiry and will be happy to answer any questions regarding the draft APT proposal.

Yours faithfully,

Dr Lex Thomson Associate Professor, University of the Sunshine Coast Scientific Advisor, Pacific Australia Reforestation Co Pty Ltd (23/6/2024)

# AUSTRALIA PACIFIC TREES PARTNERSHIP (APT)

# MOBILISING AUSTRALIA'S BEST TO PARTNER WITH AND INCREASE THE CAPACITY OF PACIFIC ISLANDS NATIONS TO ADAPT TO AND MITIGATE CLIMATE CHANGE AND INCREASE FOOD SECURITY

(THROUGH A HOLISITIC APPROACH TO RESTORATION AND REFORESTATION OF

# DEGRADED LANDS, COASTAL PROTECTION AND PERIURBAN AGROFORESTRY)

# Background

Climate change—including extreme events and rising sea level—poses an existential threat to Pacific Island nations, peoples, culture and biodiversity. Accordingly Pacific nations have been vocal in supporting global climate action, including the 2015 Paris Agreement and 2021 Glasgow Climate Pact, and welcomed the incoming Australian Government's strong commitments on addressing climate change.

Even high island archipelago Pacific states such as Fiji, Samoa and Solomon Islands face major threats to their agricultural production and food security, housing and coastal infrastructure from climate change and extreme events and need to undertake appropriate adaptation planning and measures.

At the same time there is a major potential to sequester substantial carbon in forests and agroforests on degraded and underutilised lands. Reforestation will help deliver climate change mitigation while contributing to global efforts to reduce greenhouse gases, whilst concurrently providing vital income to Pacific Islands communities and governments through green climate financing. Embedding trees species that are threatened by climate change and other impacts into these plantings will afford a key conservation action.

# **Building on trusted partnerships**

Australia has had a long and successful collaboration with Pacific Islands nations in areas such as sustainable development, capacity development, participatory engagement with and empowerment of women and youth, climate science, conservation and management of natural resources. These include the AusAID-funded CSIRO/SPC SPRIG (South Pacific Regional Initiative on Forest Genetic Resources) project with outstanding achievements in conservation, management and improvement of indigenous forest genetic resources; numerous ACIAR-supported forestry research projects, involving Australian Universities and national partners, contributing to development of private smallholder agroforestry, sandalwood plantings and sustainable native forest management; as well as private sector investment such as through the Pacific Australia Reforestation Co (PARC) Pty Ltd/Pacific Reforestation (Fiji) Ltd which has undertaken vital planted forestry research in Fiji whilst developing seed resources of important tree species, including a major seed export industry to Indonesia. Australian organizations such as Landcare, Greening Australia, Greenfleet and Airseed Australia have pioneered landscape restoration approaches in Australia including in tropics, working with collective partnerships of farmers/ smallholders and employing successful, highly efficient direct seeding approaches to reforestation.

In addition to Pacific Islands communities, womens', youth and faith-based groups, the key project partners are planned to include:

#### Australia:

Griffith University, Qld (postgraduate training, capacity development/arboriculture)

University of South Australia, SA (postgraduate training, capacity development/biodiversity values)

University of the Sunshine Coast, Qld (postgraduate training, capacity development/sandalwood)

CSIRO National Collections and Marine Infrastructure Australian Tree Seed Centre, ACT (training in tree seed collection and handling)

Pacific Australia Reforestation Co Pty Ltd, Melbourne, Vic / Pacific Reforestation (Fiji) Ltd, Suva, Fiji (agroforestry/arboriculture & grasslands reforestation technology/seed production; ; community engagement)

Greenfleet, Melbourne, Vic (carbon forestry; community engagement)

Airseed Australia, Sydney, NSW (UAV direct seeding and monitoring of regeneration; possible role to be confirmed)

# Pacific Islands:

Ministry of Forestry, Fiji (reforestation/seed collection/propagation/forest carbon monitoring/; community engagement)

Ministry of Natural Resources and Environment, Samoa (reforestation/seed collection/propagation/forest carbon monitoring)

Ministry of Forestry and Research, Solomon Islands (reforestation/seed collection/propagation/forest carbon monitoring)

Minister of Agriculture, Food and Forests, Tonga (reforestation/seed collection/propagation/forest carbon monitoring)

Ministry of Agriculture, Livestock, Forestry, Fisheries, and Biosecurity, Vanuatu (reforestation/seed collection/propagation/forest carbon monitoring)

Secretariat of Pacific Community (Tree seed collection, storage and distribution; community engagement and extension to other Pacific Island nations)

Pacific Island Farmer Organisations Network (extension through member organisations/ value chains)

University of the South Pacific, Fiji National University & Solomon Islands National University (graduate and postgraduate training/capacity development)

Kastom Gaden and Nut Growers Association of Solomon Islands (food tree gardens/ arboriculture in Solomon Islands; community engagement and restoration of ultramafic soils/mined sites)

# **Project Activities**

The project will undertake large-scale forest and coastal restoration, development of tree-based food and medicinal plant gardens and broad-based capacity building to underpin sustainable rural development in Pacific Islands nations. This will involve participatory engagement of traditional landowners and communities in planning and undertaking of project activities. The project will include the following components:

1. **Restoration and reforestation** of degraded fire-prone grasslands in Viti Levu and Vanua Levu, Fiji; Savai'i, Samoa and Guadalcanal, Solomon Islands – using nature-based solutions, notably direct seeding of local pioneer and early succession trees and framework species ecological restoration - multipurpose (carbon) forestry.

Coastal protection plantings, including food trees and mangroves in all project countries

Restoration of mined areas on ultramafic soils, Choiseul, Solomon Islands– multipurpose (carbon) forestry.

National biodiversity assets will be optimised through incorporating rare and threatened species, and restoring their habitats.

- 2. Climate change adaptation restoration of coastal foreshores, mangroves and forests
- 3. **Food security, nutrition & carbon sequestration** Urban, peri-urban and village arboriculture based on breadfruit, and other local fruit nut and medicinal trees and shrubs.
- 4. Building Pacific Island Nation's Capacity to implement Nature-based solutions to Climate Change
  - A. Communities, NGOs and customary land owners (training provided by Ministries of Forestry, SPC Greenfleet, PARC/PRF).
  - B. Graduate (training at FNU, SINU, USP)
  - C. Postgraduate (training at Griffith University, University of South Australia, University of the Sunshine Coast, University of the South Pacific and Fiji National University)
  - D. Forestry & Environment Staff (on-the-job)

Monitoring, evaluation, and continuous improvement will be embedded in this project and vital for its sustainable outcomes.

# Outcomes:

The project simultaneously addresses and works towards six of the United Nations Sustainable Development Goals, viz. SDG1 No Poverty; SDG2 Zero Hunger; SDG5 Gender Equality; SDG13 Climate Action; SDG15 Life on Land; SDG17 Partnerships.

The project promotes Australia's increased role in assisting Pacific Islands nations' development and sustainability.

The project works towards meeting objectives of agreements on climate and land degradation signed by various Pacific Islands nations and Australia:

E.g. Fiji – Paris, World Bank agreement, COP26 Glasgow Pact, UN Convention to Combat Desertification (UNCCD)

https://www.worldbank.org/en/news/press-release/2021/01/28/world-bank-and-fiji-signagreement-to-reduce-forest-emissions-and-boost-climate-resilience

https://unfccc.int/sites/default/files/resource/cma2021\_10\_add1\_adv.pdf

https://ukcop26.org/wp-content/uploads/2021/11/COP26-Presidency-Outcomes-The-Climate-Pact.pdf

# Notes:

The proposed project would have an initial geographic focus on Fiji, Samoa, Solomon Islands, Tonga and Vanuatu but later extended to Kiribati and Tuvalu.

It would implement major large-scale reforestation and restoration of degraded landscapes, especially fire-prone grasslands and secondary forests/scrub dominated by invasive species, testing and developing new technologies, such as UAV direct seeding and thinning/conversion to biochar to optimise carbon sequestration, as well as promoting arboreal horticulture, especially in urban/periurban areas and enhancing coastal forests and mangroves.

Arboreal horticulture systems will contribute to poverty reduction, food security and nutrition, economic development, gender equality while improving and stabilising fragile soils and sequestering carbon and improving health of reef and other inshore marine ecosystems. Mangroves are amongst most effective carbon sequestering ecosystems, as well documented for the Rewa River delta mangroves near Suva. Mangroves are also vital for coastal protection, local sources of income for women, and as nurseries for pelagic fish populations.

It would have a major capacity development focus, both for tertiary and post-graduate students to acquire the skills needed for multipurpose/carbon forestry (of course underpinned by solid scientific training) as well as womens' and community groups in seed collection, direct seeding and management of new forests.