



Forestry

Enhancing returns from high-value agroforestry species in Vanuatu



Overview

In Vanuatu there is great potential for a smallholder-led planted forest industry, based on high value timbers and non-timber products such as Canarium nut, sandalwood oil and whitewood timber. The Government of Vanuatu recently initiated a Decade of Reforestation, under which it aims to support the planting of millions of trees.

For this approach to be effective, landowners need access to high quality germplasm, knowledge of appropriate silvicultural systems and locally appropriate processing systems capable of providing good returns from value added products. This project seeks to improve adoption of planted forestry by addressing the knowledge and resource gaps for three key commercial species, building on previous research work.

Conventional approaches for providing extension services to smallholders in Vanuatu are constrained by insufficient government and institutional resources. This project will investigate the applicability and effectiveness of peer-mediated learning (farmer-led extension) in Vanuatu.

KEY FACTS

ACIAR Project No. FST/2016/154

Duration: July 2017 to September 2021 (4 years)

Target areas: Vanuatu

Budget: AU\$1,530,000

Project leader

Dr Tony Page, University of the Sunshine Coast

Key partners

- Southern Cross University
- Vanuatu Department of Forests
- Vanuatu Department of Industry

ACIAR Research Program Manager

Dr Nora Devoe



Research/Objective

The project's overall aim is to advance the Vanuatu planted forestry sector by improving the availability of new and existing technologies and facilitating wider smallholder adoption of three high-value forestry species: canarium, sandalwood and whitewood.

The specific objectives are to:

- Enhance availability of improved quality canarium seed through evaluation and capture of wild resources.
- Improve the value of planted sandalwood by widening the deployment of improved genetic resources.
- Enhance knowledge and capacity within whitewood value chain stakeholders of growing, processing and marketing high and lower value wood products.
- Increase adoption of existing technologies for planted forests through improved knowledge development and transfer among stakeholders.

Expected scientific results

- For canarium: knowledge on the genetic variation of commercial traits in canarium to selection of better performing individuals and/or provenances.
- For sandalwood: Improved knowledge of and access to high-quality germplasm.
- For whitewood: quantification of available timber resources within existing whitewood plantations and knowledge of options for low cost drying and preservation techniques.
- For research adoption and industry development: improved capacity of Vanuatu Department of Forestry staff to implement peer-mediated extension; national forestry-based radio program stimulating greater engagement, investment and economic impact of forestry in Vanuatu; and the 'Market Development Group' building understanding of key industry stakeholders of supply chain function, leading to greater cooperation within and economic viability of the whitewood industry.

Expected outcomes

- Canarium varieties with high yield and large kernels identified and established in seed production orchards. This, along with the knowledge disseminated in a production manual, leading to greater nut product quality and consistency in the supply chain, improved market potential and industry viability.
- Wider availability of improved sandalwood germplasm resulting in greater investment in sandalwood planting and better quality of sandalwood traded.
- Establishment of new breeding resources leading to a greater participation of the private sector in improving sandalwood germplasm.
- Improved knowledge of existing planted whitewood resources promoting additional industry investment in processing technologies and improved supply chain function.
- Cost-effective methods of whitewood drying and preservation leading to increased utilisation of existing plantings and longevity of dwellings.
- Improved approaches to extension leading to greater adoption by smallholders of research outputs, proficiency in planted forestry and reduced dependence on formal extension services.

