

ACIAR project



FST/2009/062

Development of advanced
veneer and other product
from coconut wood to
enhance livelihoods in
South Pacific communities

Project organisations

Commissioning organisation



Australian Government

Australian Centre for
International Agricultural Research

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Forestry Research Program Manager

Australian Centre for International Agricultural Research

Australia based



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**Queensland
Government**

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Project organisations

Partner country based



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Ms. Moana Masau

Project Officer, Fiji Ministry of Fisheries & Forests



Tolusina Pouli

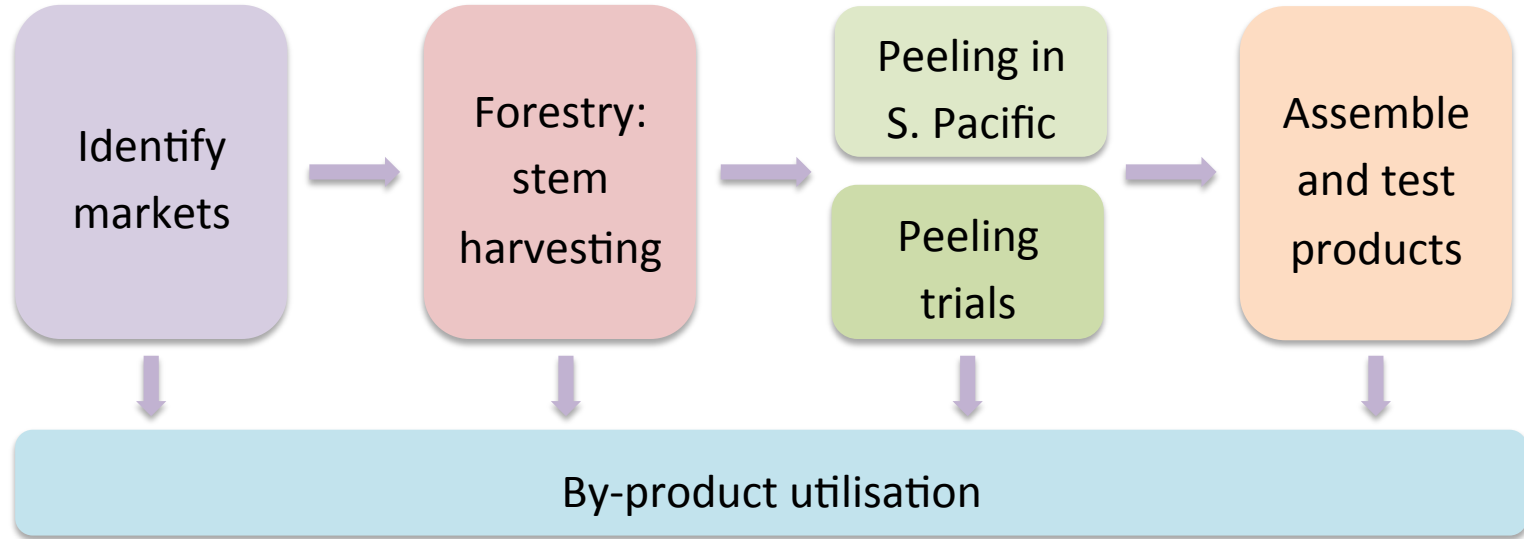
Forestry Department, Ministry of Natural Resources and the Environment, Samoa



Reeves Moveni (represented today by Ms Stephanie Rokoi)

Ministry of Forestry Research, Solomon Islands

Project Objectives



Objective 1 – Identify Markets

Identify
markets

Objective 1 – Identify the most promising product options for the veneer from coconut stem

1.1 – Market assessment and product development

1.2 – Value-chain analysis

1.3 – Stakeholder engagement

Objective 1 – Identify Markets



Objective 2 – Forestry

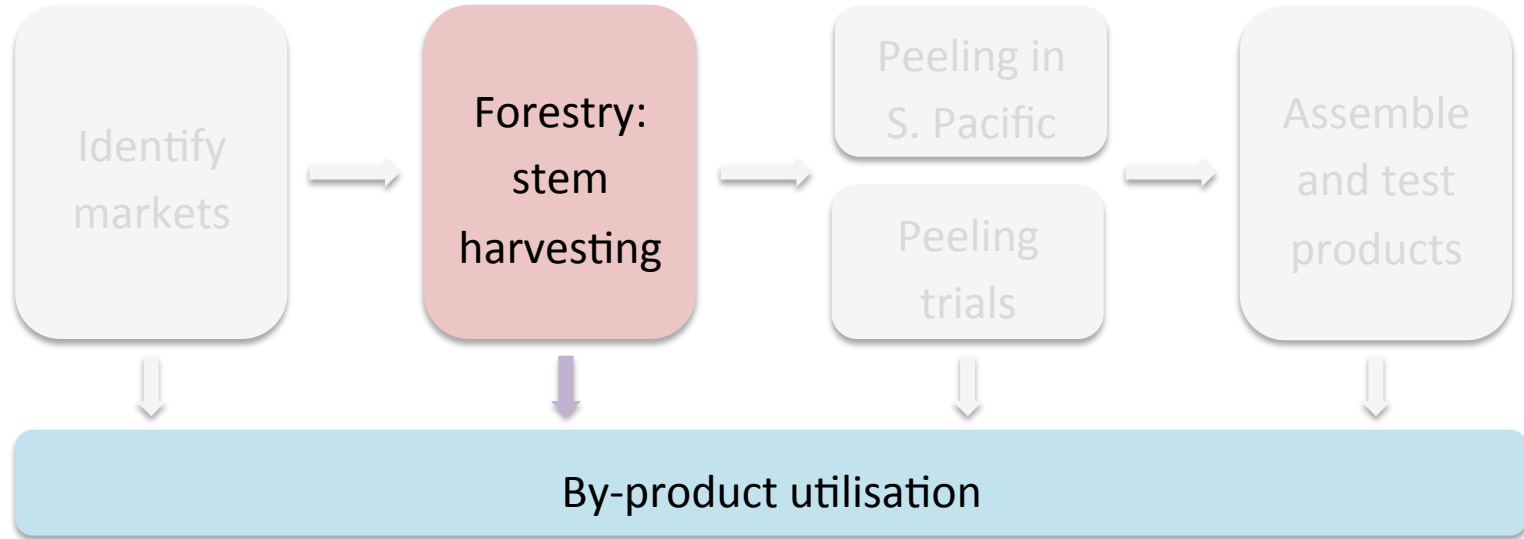
Forestry:
stem
harvesting

Objective 2 - Develop protocols and capacity for sustainable low-impact coconut wood harvesting, plantation rehabilitation, and log grading, handling and transport

2.1 - Local resource assessment and harvesting

2.2 - Development and training in harvesting and handling protocols

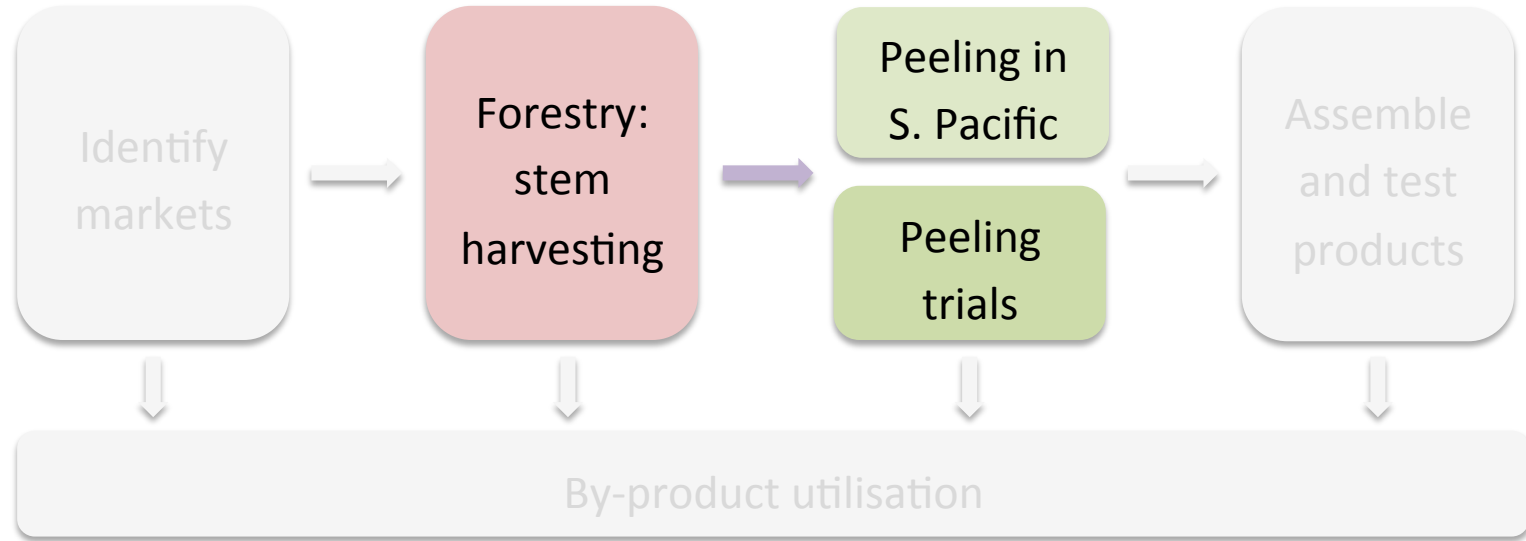
Objective 2 – Forestry



Material collected for Objective 4 peeling trials:

- Below grade stems
- Fronds

Objective 2 – Forestry



Material collected for Objective 6 trials of residue uses:

- Discs
- Stems

Obj. 3 – Veneer peeling in S. Pacific

Peeling in
S. Pacific

Peeling
trials

Objective 3 – Establish experimental veneer-peeling capacity in the South Pacific

3.1 – Commissioning a spindleless lathe equipment

3.2 – Assessing the potential of a regional trial and demonstration program

Objective 4 – Peeling trials

Peeling in
S. Pacific

Peeling
trials

Objective 4 – Determine the optimum processing parameters & protocols for peeling coconut stems & the properties of the recovered veneer

4.1 – Assessing veneer processing parameters from cocowood disks

4.2 – Calibrating processing parameters at QDAFF

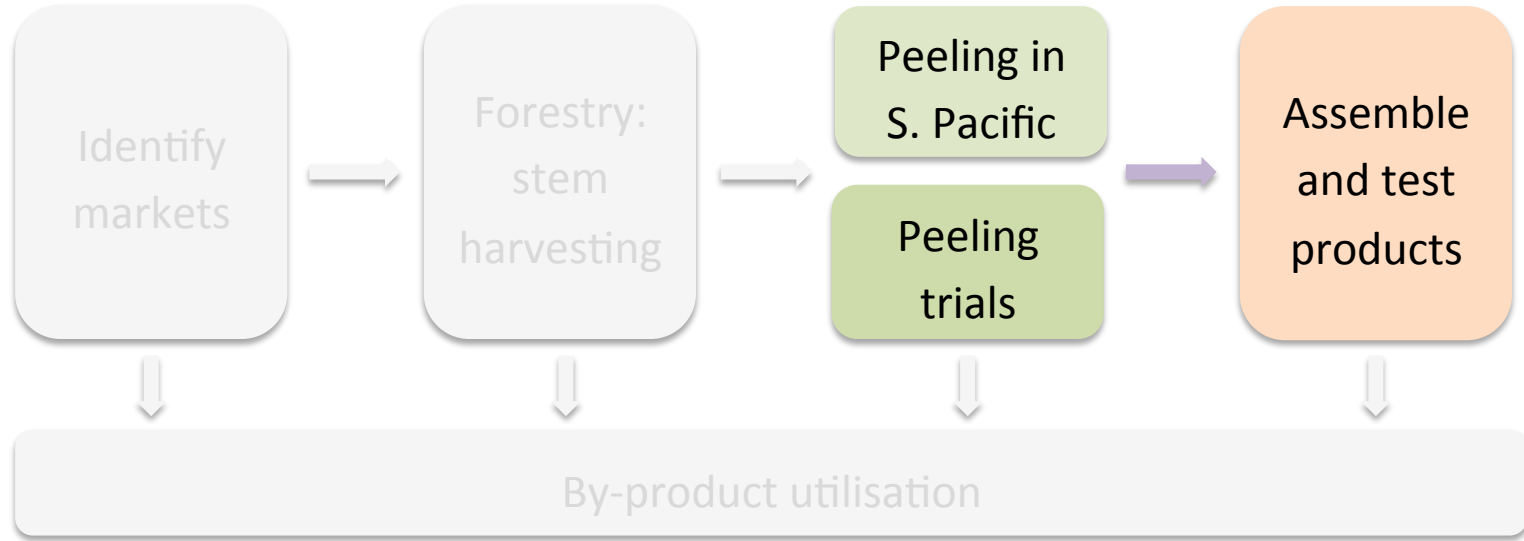
4.3 – Initial compact experimental peeling trial in Fiji on new lathe

4.4 – Compact commercial peeling trial in Fiji

4.5 – Broad industrial peeling trial in Fiji

4.6 – Properties and recovery assessment

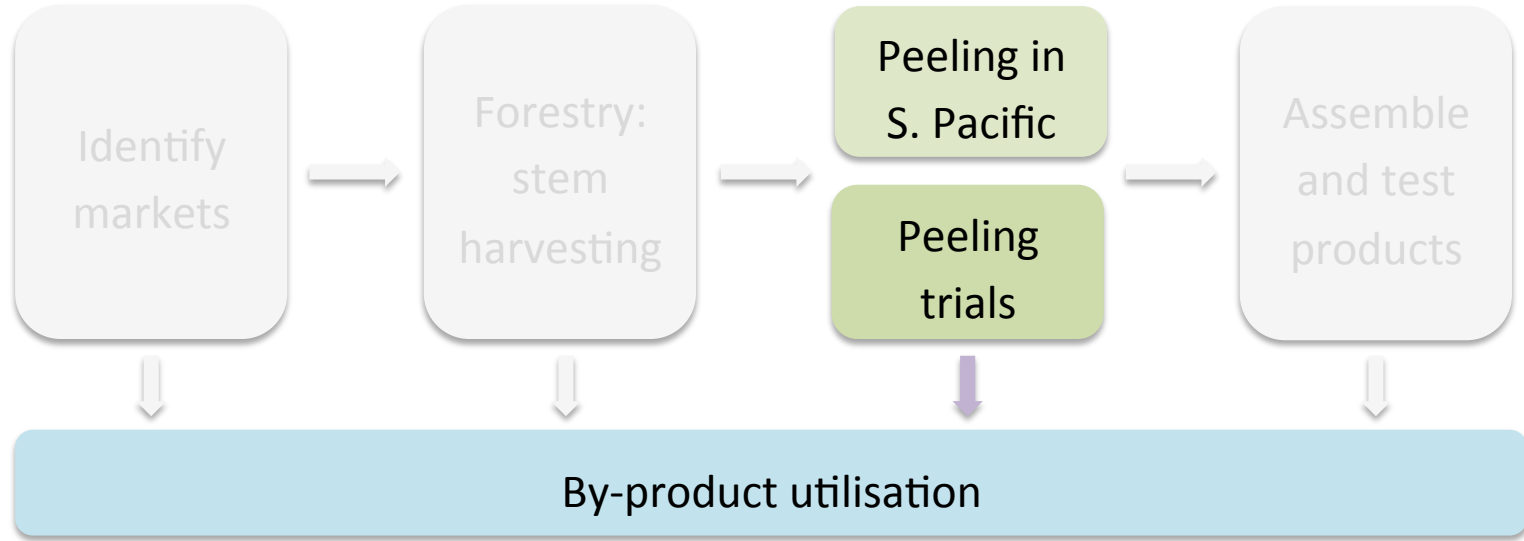
Objectives 3 & 4 - Peeling



Recovered veneer used to assemble product suite

- plywood
- Laminated veneer lumber etc

Objectives 3 & 4 - Peeling



Material collected for residue trials

- Outer material
- Core
- Below grade veneer

Objective 5 – Products

Assemble
and test
products

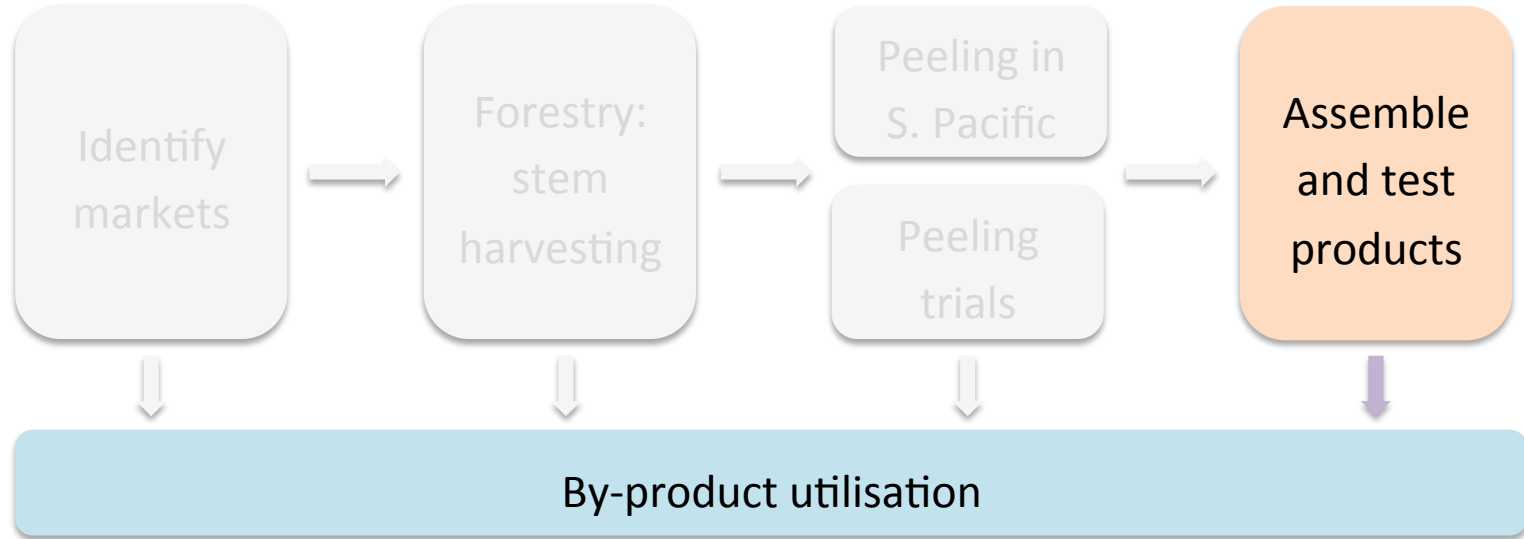
Objective 5 – Assemble the product suite and establish its characteristics and in-service performance

5.1 – Experimental product assembly

5.2 – Product characterisation and testing

5.3 – Product assessment in-service

Objective 5 - Products



Material collected for residue trials

- Assembly residues

Objective 6 – By-product utilisation

By-
product
utilisation

Objective 6 - Determine the costs and benefits of using the residual cortex and soft, central cores for bio-char and other agricultural products

6.1 – Collaboration with agricultural projects

6.2 – Biochar trials

Summary

This is a four-year, collaborative project with six specific objectives:

1. Identify the most promising product options for the veneer from coconut stem.
2. Develop protocols and capacity for sustainable low-impact coconut wood harvesting, plantation rehabilitation, and log grading, handling and transport.
3. Establish experimental veneer-peeling capacity in the South Pacific.
4. Determine the optimum processing parameters and protocols for peeling coconut stems and the properties of the recovered veneer.
5. Assemble the product suite and establish its characteristics and in-service performance. Characterisation would be to local and export performance standards.
6. Determine the costs and benefits of using the residual cortex and soft, central cores for bio-char and other agricultural products.

Questions



Australian Government
Australian Centre for
International Agricultural Research



Queensland
Government



SPC
Secretariat
of the Pacific
Community



centre for sustainable
architecture with wood

