Australian Government
Australian Centre for International Agricultural Research

Queensland Government

SPC Secretariat of the Pacific Community

UTAS

ACIAR project

CSAW

FST/2009/062

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

Project organisation

Commissioning organisation

Australian Government
Australian Centre for International Agricultural Research

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Australian Centre for International Agricultural Research

Australia based

UTAS

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Queensland Government

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Project organisations

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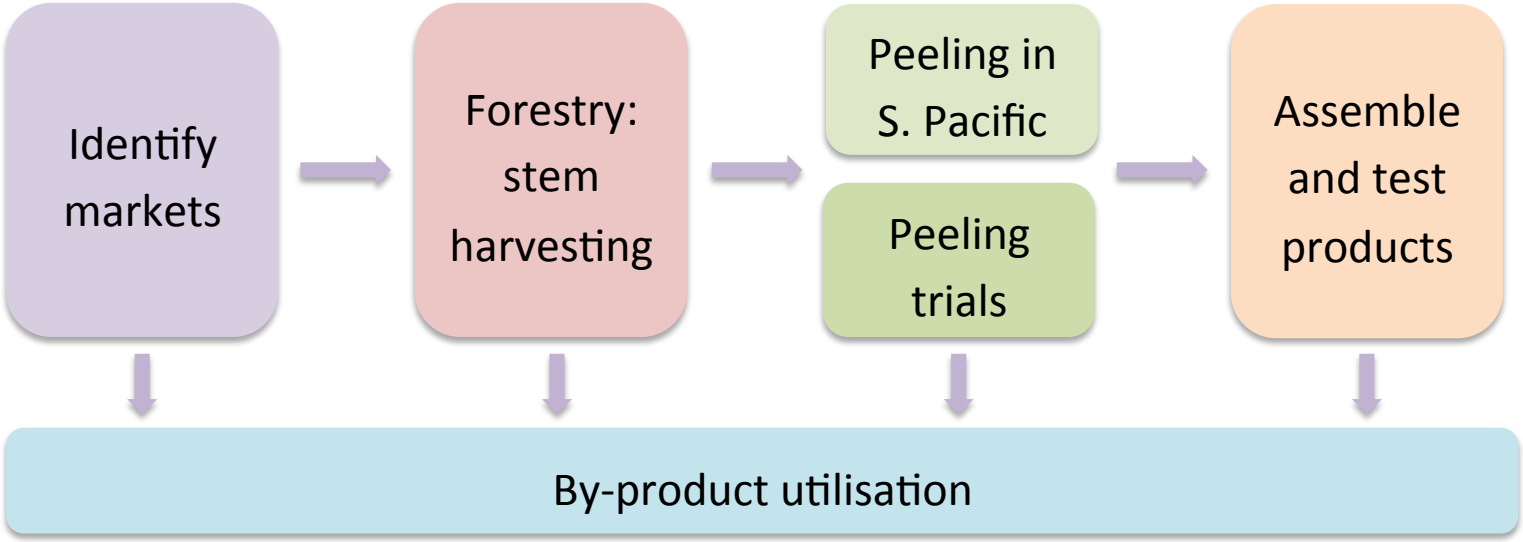
Ministry of Forestry Research, Solomon Islands

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

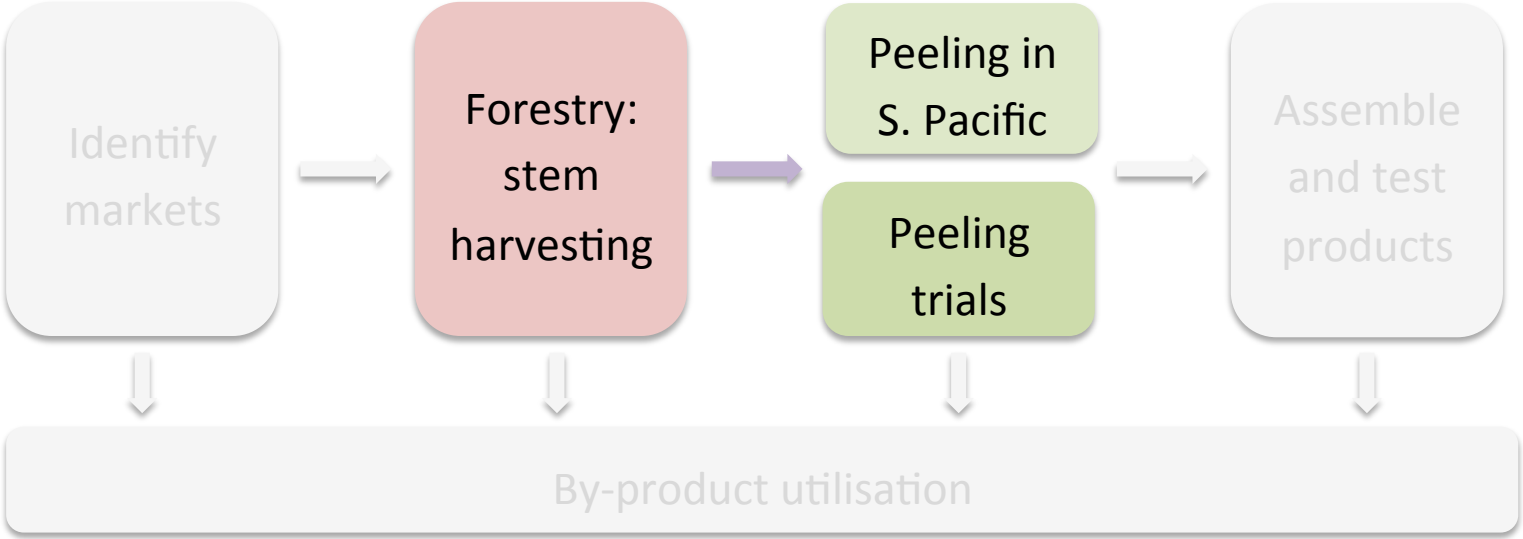
Forestry: stem harvesting

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

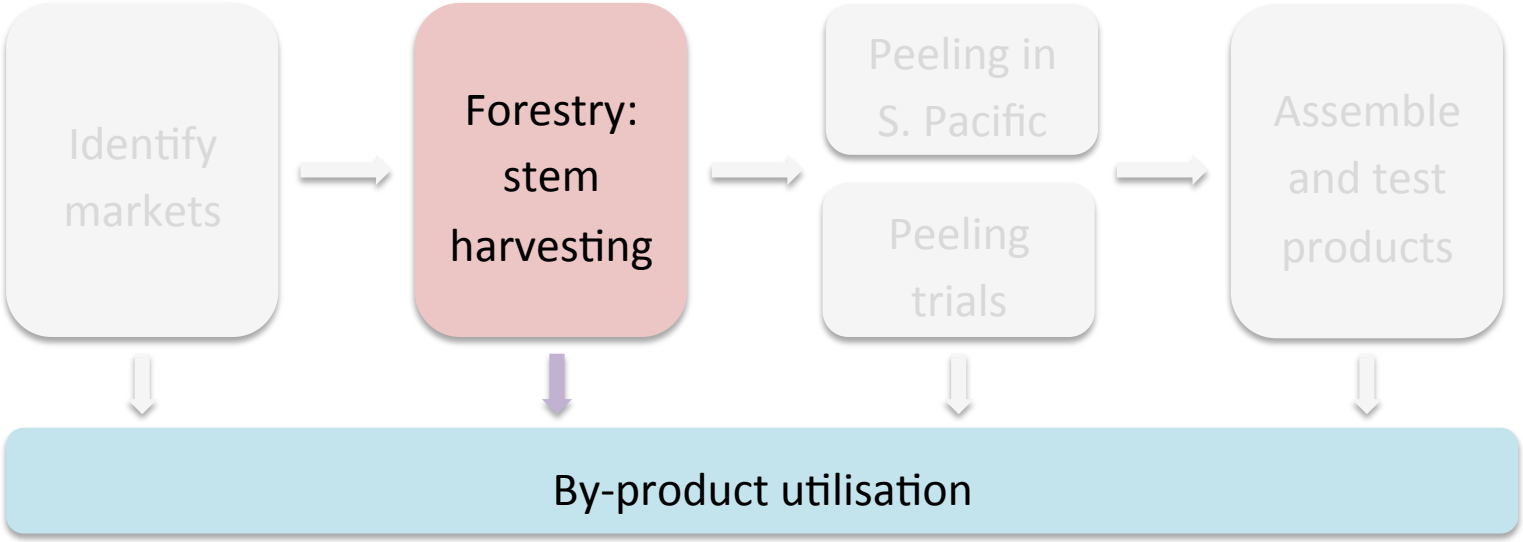
Objective 2 – Forestry



Material collected for Objective 4 peeling trials:

- Discs
- Stems

Objective 2 – Forestry



Material collected for Objective 6 trials of residue uses:

- Below grade stems
- Fronds

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

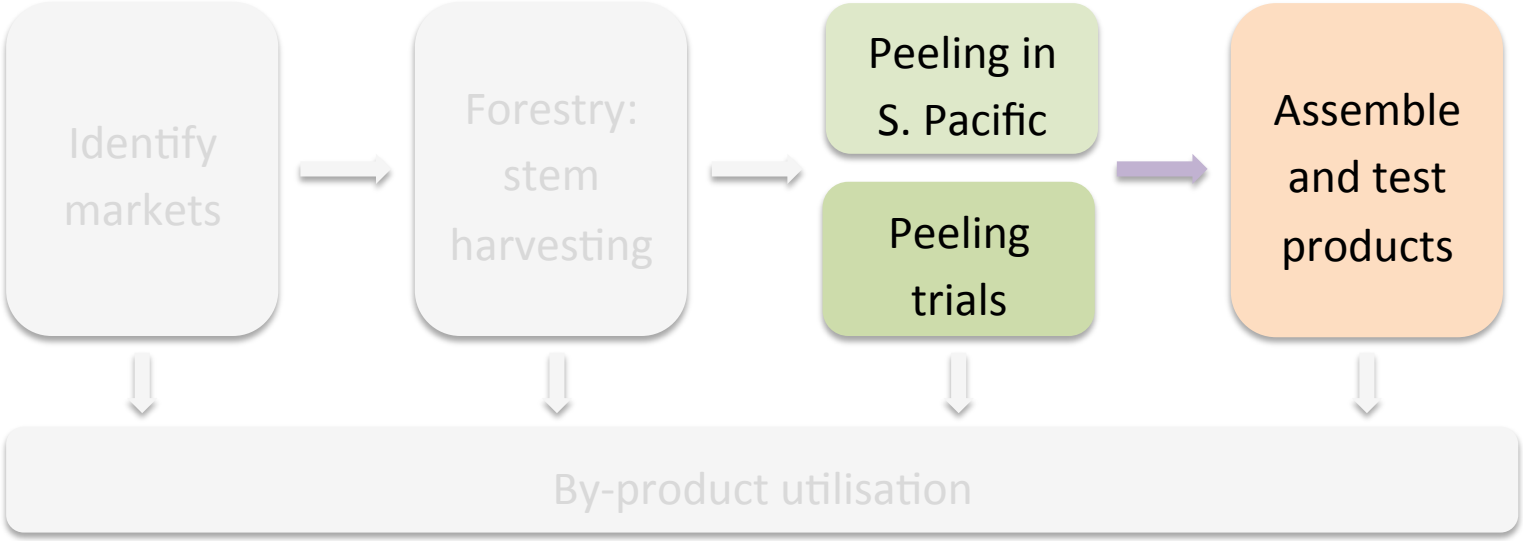
4.3 – Initial compact experimental peeling trial in Fiji on new lathe

4.4 – Compact commercial peeling trial in Fiji

4.5 – Broad industrial peeling trial in Fiji

4.6 – Properties and recovery assessment

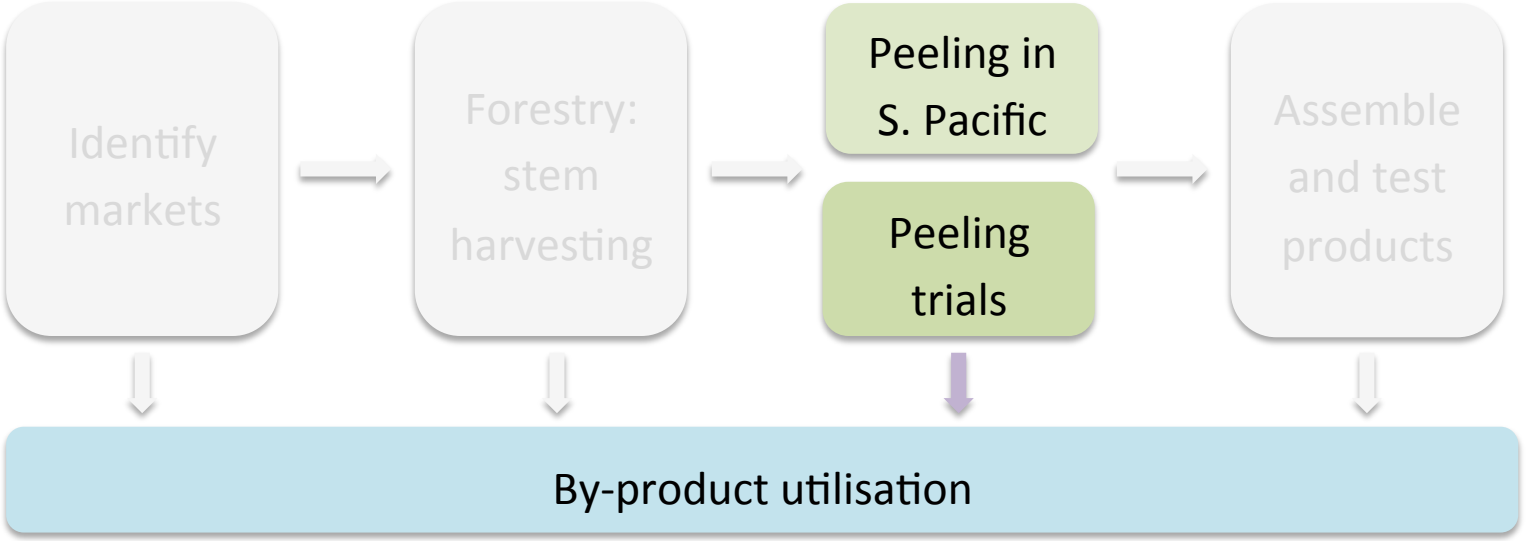
Objectives 3 & 4 - Peeling



Recovered veneer used to assemble product suite

- Appearance veneer, 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 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 the last year of 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.

Project staffing

- Dr Jon Shanks left his role as UTas lead project officer in December, 2014.
- Dr David Blackburn joined the project as UTas as project and forestry officer in January, 2015.
- Ilikimi Bokadi joined the SPC team.

Questions