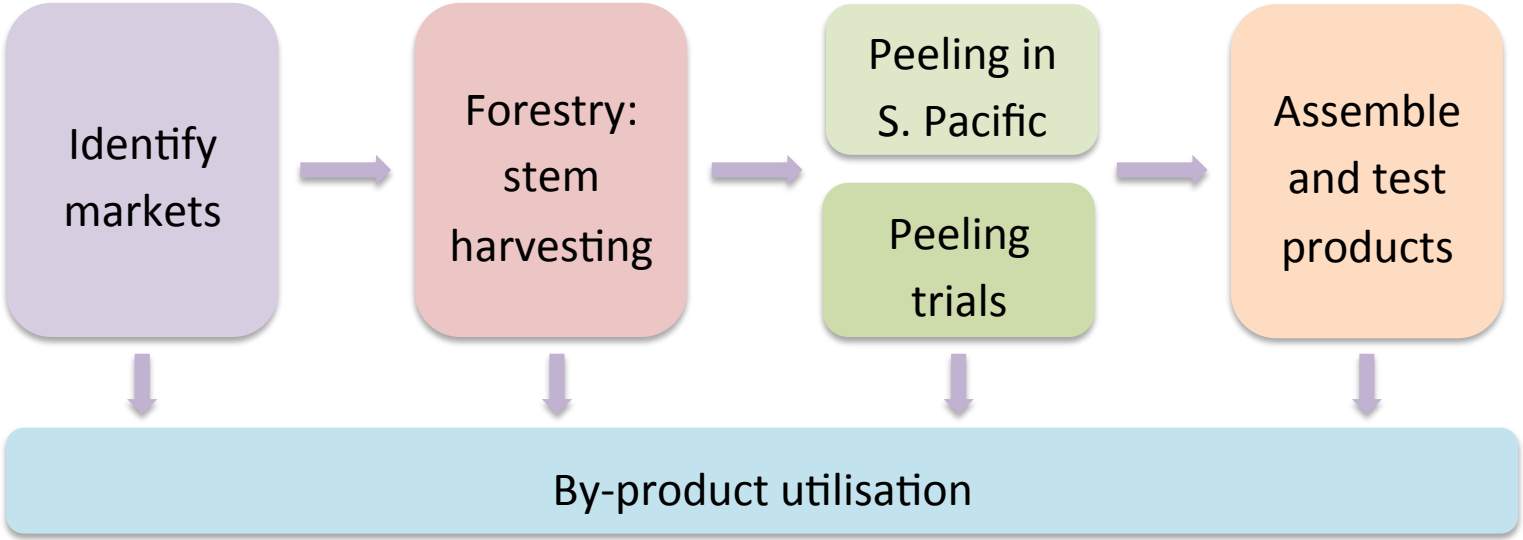
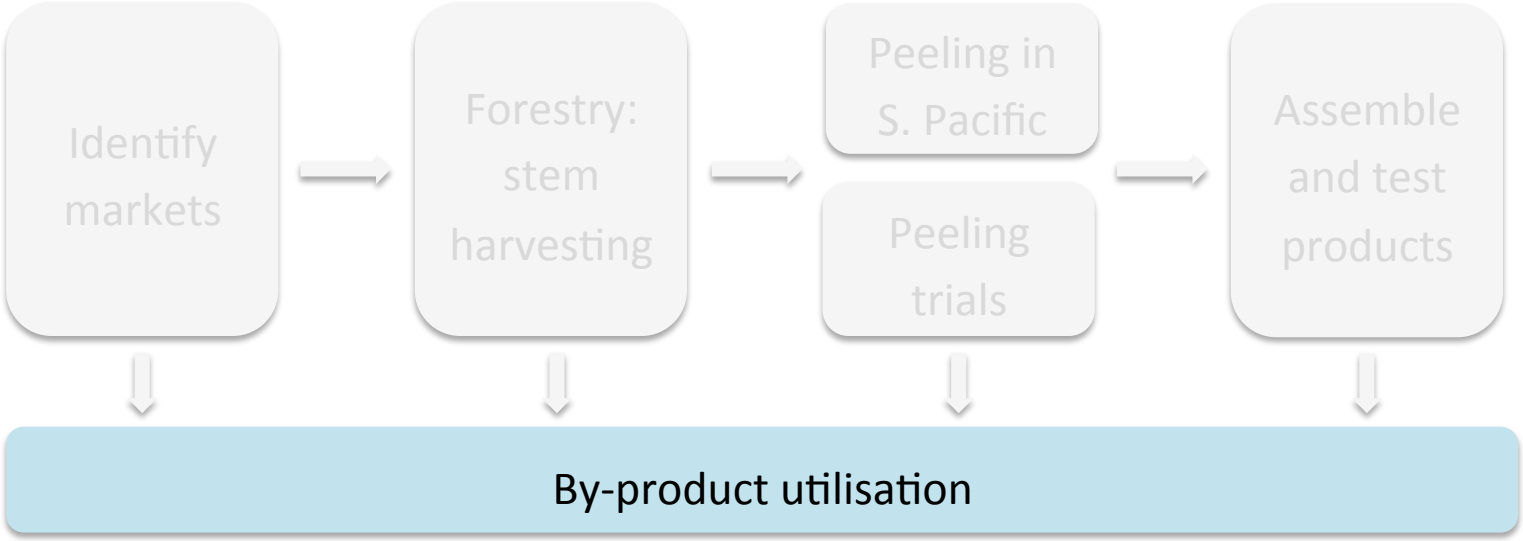
Objective 6

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

Project Objectives



Objective 6 – By-product utilisation



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

Objective 6 – By-product utilisation

By-product utilisation

6.1 – Collaboration with agricultural projects

- Residue use could include chip, mulch, bio-char, or growing medium
- The use of forestry residues and peeling residues in agriculture will be coordinated with existing agricultural research projects in the region
- Soft core material supplied for agricultural trials

6.1 Collaboration with Ag. Trials

- Richard Markham updated on developments on 9/8/13
- Discussion commenced with Dr Halavatau SPC
- Plan to meet with Poasa Nauluvula, Fiji Ministry of Agriculture on this trip
- Discussion commenced with Tei Tei Taveuni. Meeting planned on this trip
- Specification for soil conditioning material (mulch, biochar etc) to be developed

6.1 Collaboration with Ag. Trials

- Discussion commenced with EcoCarbons (ecocarbons.com/)
- EcoCarbons to comment on other possible residue uses based on their experience with plant based carbon products
- Details of collaboration to be develop but EcoCarbons have offered to provide comment in exchange for supply of resource

Objective 6 – By-product utilisation

By-product utilisation

6.2 – Biochar trials

- Residues obtained will be tested to determine calorific value
- Residues will be tested to asses viability of biochar production

6.2 – Biochar trials

- Biochar manufacturer contacted
- Biochar manufacture planned from trial 2 residues
- Peeling hollow stems leaves no core residue – TBC once trial commences
- Biochar production possible from material sourced in North QLD
- Biochar to be produced in Australia for use in TTT planting trials
- Initial investigation commenced in low-tech biochar production

6.2 – Biochar trials

- Preliminary biochar performance requirements developed through discussion with Geoff Dean
  - Probable crops Taro or Kava
  - Nutrient holding capacity; primed with other fertilizer
  - Possible inherent source of nutrient TBC
  - Pore size for water retention and soil habitat
- Detailed biochar specification to be developed to use trial 2 residue
- Material produced for pot trials on Taveuni

Summary

- Coordination commenced with ACIAR agricultural projects
- Project team to meet with Poasa Nauluvula and TTTaveuni during this trip to develop Action Plan for biochar trials
- Investigation commenced on possible residue uses and potential collaborators identified

Objective 6 – By-product utilisation

By-product utilisation

Key completion dates –

Activity	Planned	Actual
Collaboration with agricultural projects	November 2014	
Assessment of cocowood bio-char potential	November 2013	
Biochar produced and trialled	November 2014	

Objective 6 – By-product utilisation

By-product utilisation

Key activities next 12 months –

Activity	Anticipated completion
Develop specification for mulching trial with TTT and others	November 2013
Develop specification for biochar production	November 2013

Questions