Objective 3

Establish experimental veneer-peeling capacity in the South Pacific
Project objectives

Identify markets

Forestry: stem harvesting

Peeling in S. Pacific

Peeling trials

Assemble and test products

By-product utilisation

Advanced veneer and other product from coconut wood
Objective 3 – South Pacific veneer peeling capacity

- Identify markets
- Forestry: stem harvesting
- Peeling in S. Pacific (Peeling trials)
- Assemble and test products

By-product utilisation

Advanced veneer and other product from coconut wood
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
3.1 – Commissioning a spindleless lathe equipment

- Lathe equipment in place in August, 2014.
- Equipment adjustments continuing.
- Latest trial commenced this week.
- Visit TUD for a demonstration tomorrow
3.1 Commissioning Spindleless Lathe
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Skills development
Skills development
Objective 3 – Experimental regional peeling

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

• Feasibility of transporting the lathe suite between regional centres will be assessed
  — Technical
  — Economic
  — Physical
Three regional trial locations were chosen and four sites investigated:

- TeiTei Taveuni Farmer Association selected location at Taveuni, Fiji.
- Strickland Brothers Ltd facility at Apia, Samoa.
- Two locations at Honiara, the Solomon Islands: The Timol Timber facility and the VATA Timber yard.
Option 1: The existing lathe suite is adapted for travel and relocated.

Option 2: One additional lathe suite is acquired, adapted for travel to each trial locations and relocated.

Option 3: Three additional lathe suites are acquired, one for each trial location, adapted and relocated.
Modeled operational stages

- **Stage 1: Initial training.**
  - An experienced operational staff member from each trial location is trained as a lathe team captain at TUD Nasinu.

- **Stage 2: Infrastructure upgrades.**
  - Local infrastructure is upgraded to operate the lathe equipment suite.

- **Stage 3: Equipment preparation.**
  - The equipment suite or suites are collected, packed and dispatched to the regional trial location.

- **Stage 4: Regional equipment installation.**
  - The equipment suite is unpacked, installed and commissioned.

- **Stage 5: Regional training.**
  - The local lathe team captain and a project officer train a lathe production team at the regional trial location.
Modeled operational stages

- **Stage 6:** Regional research.
  - Peeling experiments are conducted with local coconut resources.

- **Stage 7:** Regional demonstration.
  - Regional demonstration program is held for community, government and business groups.

- **Stage 8:** Repack and despatch.
  - Lathe decommissioning, repacking and relocation to the next centre.

- **Stage 9:** TUD Reinstall.
  - At the completion of the program, the equipment suite is left at the chosen location or returned to TUD for recommissioning.

- **Stage 10:** Central planning and coordination
## Modeled demonstration program

<table>
<thead>
<tr>
<th>Critical path activity</th>
<th>Option 1</th>
<th>Option 2</th>
<th>Option 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Order manufacture and deliver equipment</td>
<td></td>
<td>4 months</td>
<td>5 months</td>
</tr>
<tr>
<td>Modify equipment</td>
<td></td>
<td>2 months</td>
<td>3 months</td>
</tr>
<tr>
<td>Pack and prepare equipment</td>
<td>2 months</td>
<td>2 months</td>
<td>2 months</td>
</tr>
<tr>
<td>Dispatch and operate in Taveuni.</td>
<td>3 months</td>
<td>3 months</td>
<td>3 months</td>
</tr>
<tr>
<td>Dispatch and operate in Samoa</td>
<td>3 months</td>
<td>3 months</td>
<td>2 months</td>
</tr>
<tr>
<td>Dispatch and operate in the Solomons</td>
<td>3 months</td>
<td>3 months</td>
<td>2 months</td>
</tr>
<tr>
<td>Return to TUD and reinstall</td>
<td>2 months</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Slack</td>
<td>1 month</td>
<td>1 month</td>
<td>3 month</td>
</tr>
<tr>
<td>Total</td>
<td>14 months</td>
<td>18 months</td>
<td>20 months</td>
</tr>
</tbody>
</table>
The major significant risks are the level and cost of modification needed to any additional lathes and a suitable site, a power supply and transport for a Taveuni trial.
Estimated total cost

<table>
<thead>
<tr>
<th>Project cost summary ($)</th>
<th>Option 1</th>
<th>Option 2</th>
<th>Option 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personnel</td>
<td>$100,997</td>
<td>$102,636</td>
<td>$105,534</td>
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<tr>
<td>Supplies and services</td>
<td>$34,093</td>
<td>$29,193</td>
<td>$23,217</td>
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<td>Travel</td>
<td>$48,293</td>
<td>$47,337</td>
<td>$47,337</td>
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<tr>
<td>Capital items</td>
<td>$39,898</td>
<td>$153,398</td>
<td>$378,148</td>
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<tr>
<td>Contingency</td>
<td>$50,238</td>
<td>$74,827</td>
<td>$124,703</td>
</tr>
<tr>
<td>Total</td>
<td>$273,519</td>
<td>$407,391</td>
<td>$678,939</td>
</tr>
</tbody>
</table>

Option 1 leaves one peeling research facility in the Pacific. Options 2 & 3 establish satellite joint production/research facilities. A single organisation may fund Options 1 & 2. Organisations in association may fund Options 2 & 3.
Objective 3 – Experimental regional peeling

The final report highlights:

• The costs of equipment and training.
• The technical and infrastructure demands of establishing a basic facility.
• The need for robust transport services and trade support near the facility.
• The difficulty of establishing remote facilities without established support mechanisms.
### Key completion dates –

<table>
<thead>
<tr>
<th>Activity</th>
<th>Planned</th>
<th>Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lathe suite relocated to Fiji</td>
<td>March 2014</td>
<td>July 2014</td>
</tr>
<tr>
<td>Lathe suite commissioned in Fiji</td>
<td>March 2014</td>
<td>August 2014</td>
</tr>
<tr>
<td>Lathe suite adjustment in Fiji</td>
<td>November 2014</td>
<td>August 2015</td>
</tr>
<tr>
<td>Assessment of potential regional peeling program – verified.</td>
<td>June 2014</td>
<td>August 2015</td>
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</table>
Questions