Objective 2

Develop protocols and capacity for sustainable low-impact coconut wood harvesting, plantation rehabilitation, and log grading, handling and transport.
Objective 2.2 Guidelines for Harvesting Coconut Palms

Objective 2 - Develop protocols and capacity for sustainable coconut palm harvesting, plantation rehabilitation, and log, handling and transport

2.1 - Local resource assessment

2.2 - Guidelines for Harvesting Coconut Palms in South Pacific Island Countries
Objective 2.2 Guidelines for Harvesting Coconut Palms

1. Trial selections
2. Palm harvesting trial
3. Peeling trials
4. Assemble and test products

- Harvesting Guidelines
- Previous experience
- Forest and Logging Codes of Practice

Advanced veneer and other product from coconut wood
Objective 2.2 Guidelines for Harvesting Coconut Palms

Harvest selections trail
Coconut palm harvesting trial near Savusavu, Fiji - June 2015

A total of 96 x 6 m peeler quality logs were felled.
Objective 2.2 Guidelines for Harvesting Coconut Palms

Harvest selections → Felling → Log handling & transportation → Site rehabilitation

Advanced veneer and other product from coconut wood
Log Specifications:

- Lower diameters were measured before felling.
- Log sweep was estimated by eye before felling, then measured after felling.
Log specifications:

- Lower diameter range of 29 – 35 cm
- Log sweep less than 3 cm in any 2.5 m length.
- No presence or historical evidence of termites or other pests and disease.
Log recovery:

- Approximately 65% of standing palms would produce a peeler log to the required specification.
- Remaining stems were too large (mainly) or had excessive sweep (about 5%).
- Palms had to be cut at approximately 1 m above ground to avoid butt-sweep.
- Palms stems were about 35-40 m high.
Log handling:

• A landing was cleared for the harvested logs at a well drained location.

• A tractor front-end loader was used to forward logs to the landing and load logs on the truck.
Log supply:

Logs were forwarded to the veneer peeling mill at Labasa in northern Vanua Levu, Fiji and stacked on bearers.
Guidelines for Harvesting Coconut Palms in South Pacific Islands Countries

Sections in the Guidelines include:

• LEGAL COMPLIANCE
• PRE-HARVESTING ARRANGEMENTS
• THE HARVESTING PLAN
• HARVESTING PERSONNEL
• COCONUT PALM HARVESTING OPERATIONS
• ENVIRONMENTAL PROTECTION
• RESTORATION and REHABILITATION OF THE HARVESTED AREA
Objective 2.2 Guidelines for Harvesting Coconut Palms

Harvesting Guidelines – LEGAL COMPLIANCE


Objective 2.2 Guidelines for Harvesting Coconut Palms

Harvesting Guidelines – PRE-HARVESTING ARRANGEMENTS

1. STAKEHOLDER MEETING
2. PLANTATION INSPECTION
3. INVENTORY ASSESSMENT and SELECTIONS
4. RECORD OF INVENTORY

Advanced veneer and other product from coconut wood
Google Maps, Government Department maps and Geographic Information Systems software can all assist in developing the Harvesting Map.
Harvesting guidelines include requirements for:

- Harvest Supervisor
- Fellers
- Harvest Machine Operators
Harvesting Guidelines detail requirements for:

- Harvesting machines and equipment
- Safety equipment
- Access roads, tracks and landings
- Felling
- Log preparation
- Log handling
- Salvaging windblown palms
The Harvesting Guidelines recommend practices to minimise the risk of:

- Spreading pests and disease in the plantation during harvesting.
- The spread of pests and disease in log handling.
- The spread of pests and disease at the log processors.
The Stakeholders should decide future land use before harvesting options include:

- Site clearance for the replanting of coconut palms
- Site clearance for a single crop or stock pasture
- Site clearance for inter-row or multi-cropping systems
Objective 2.2 Guidelines for Harvesting Coconut Palms

Harvesting Guidelines: RESTORATION and REHABILITATION of HARVESTED AREAS

Biochar types from coconut wood pyrolysis

Wood chipping for coconut wood compost
Objective 2.2 Guidelines for Harvesting Coconut Palms

2.2 Harvesting Guidelines

- Harvest Selections
- Felling
- Log Handling & Transport
- Site Rehabilitation

Forestry activity?

Ag. Activity?
Existing barriers to the practical acceptance of coconut harvesting guidelines:

- Community and estate owners view their rights differently to forest owners or operators.
- These owners are used to acting independently, and this is most likely to carry over to coconut harvesting.
Guidelines for Harvesting – Questions