

## 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

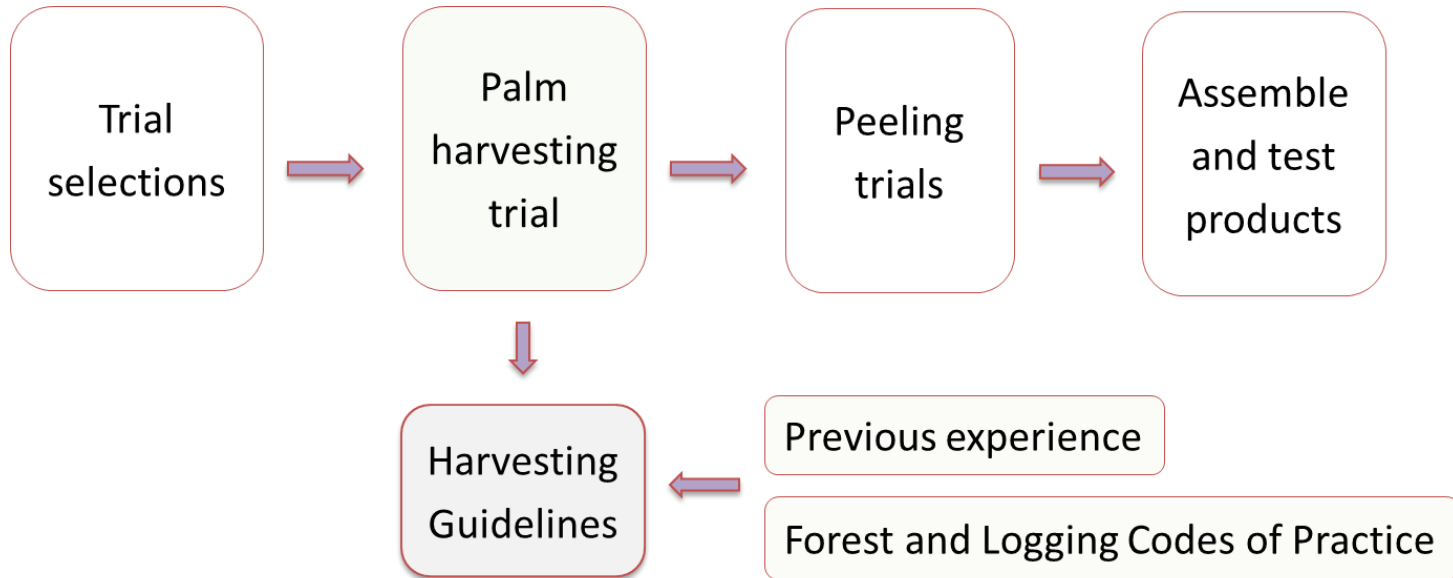
Coconut  
palm  
harvesting

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



# 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

# Objective 2.2 Guidelines for Harvesting Coconut Palms

## Log Specifications:

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



## Objective 2.2 Guidelines for Harvesting Coconut Palms



### 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.

## Objective 2.2 Guidelines for Harvesting Coconut Palms

### 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.





## Objective 2.2 Guidelines for Harvesting Coconut Palms

### 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.



## Objective 2.2 Guidelines for Harvesting Coconut Palms

### **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

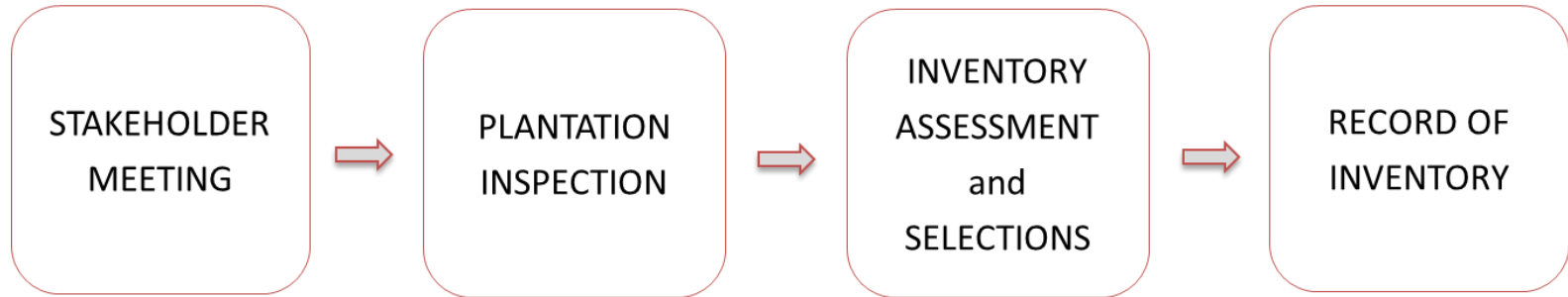
## Objective 2.2 Guidelines for Harvesting Coconut Palms

### Harvesting Guidelines – LEGAL COMPLIANCE

- Fiji Forest Harvesting Code of Practice 2<sup>nd</sup> Ed. (2013). Republic of Fiji Ministry of Fisheries & Forests. Suva, Viti Levu. Fiji.
- The Revised Solomon Islands Code of Logging Practice (2002). Ministry of Forests, Environment & Conservation. Honiara, Solomon Islands.
- The Samoan Code of Practice for Harvesting of Native Forest and Plantations (2001) URS FORTECH with stakeholders from Industry, Government and Landowner bodies. Prepared for the Samoan Ministry of Agriculture, Forestry, Fisheries and Meteorology.

# Objective 2.2 Guidelines for Harvesting Coconut Palms

## Harvesting Guidelines – PRE-HARVESTING ARRANGEMENTS

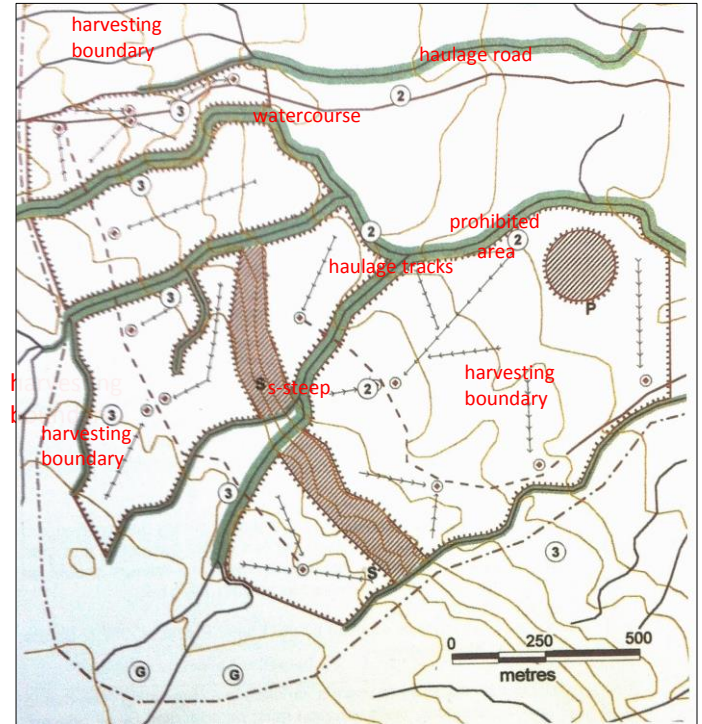


# Objective 2.2 Guidelines for Harvesting Coconut Palms

## Harvesting Guidelines – HARVESTING PLAN



Google Maps, Government Department maps and Geographic Information Systems software can all assist in developing the Harvesting Map.



# Objective 2.2 Guidelines for Harvesting Coconut Palms

## Harvesting Guidelines - HARVESTING PERSONNEL

Harvesting guidelines include requirements for:

- Harvest Supervisor
- Fellers
- Harvest Machine Operators



# Objective 2.2 Guidelines for Harvesting Coconut Palms

## Harvesting Guidelines - HARVESTING OPERATIONS



Harvesting Guidelines detail requirements for:

- Harvesting machines and equipment
- Safety equipment
- Access roads, tracks and landings
- Felling
- Log preparation
- Log handling
- Salvaging windblown palms



# Objective 2.2 Guidelines for Harvesting Coconut Palms

## Harvesting Guidelines - ENVIRONMENTAL PROTECTION



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.

# Objective 2.2 Guidelines for Harvesting Coconut Palms

## Harvesting Guidelines: RESTORATION and REHABILITATION of HARVESTED AREAS

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



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### Harvesting Guidelines: RESTORATION and REHABILITATION of HARVESTED AREAS

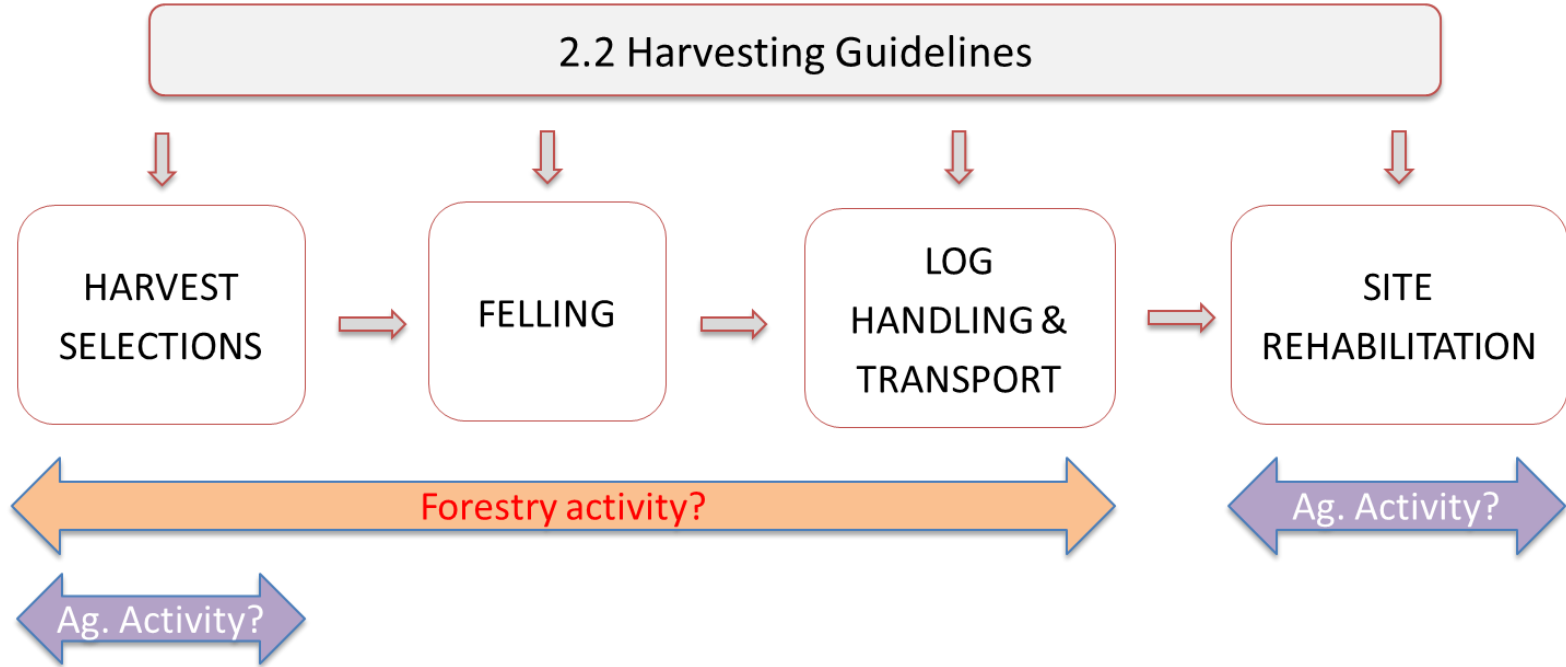


Biochar types from coconut wood pyrolysis



Wood chipping for coconut wood compost

# Objective 2.2 Guidelines for Harvesting Coconut Palms



## Objective 2.2 Guidelines for Harvesting Coconut Palms



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

