

Forest Management

The Project on Capacity Development for Sustainable Forest Resource Management in Solomon Islands

Background

MOFR-JICA Project has supported Forest Management activities including natural forest management/planted forest management in Komuniboli and in Falake. As the plans of natural forest management/planted forest management are explained in Factsheet Vol.1: Project-Overview at page 5-6, this Factsheet: Vol.11: Forest Management explains trainings and monitoring/Evaluation.

Basic Training

MOFR-JICA Project explains definitions of Regeneration cutting / Non-regeneration cutting, and safety measures (How should we deal with a leaning-over-tree?) in Komuniboli and in Falake.

Regeneration cutting

- 1) Clear cutting: Harvesting 100 % of objective species.
- 2) Selective cutting: Harvesting 25 or 50 % of objective species.

Thinning is carried out at the same time.

Objective species are usually *Pometia* (Akwa), *Vitex cofassus*, *Tectona grandis* (Teak), *Swietenia macrophylla* (Mahogany), etc.

Non-regeneration cutting

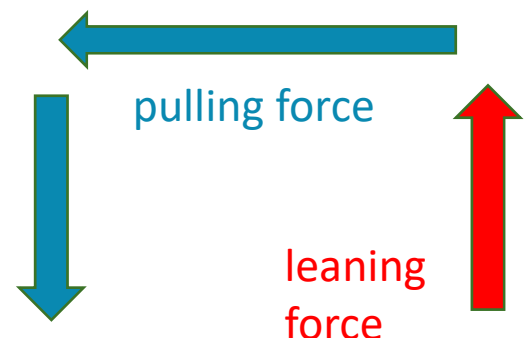
- 3) Weeding: Removing weeds.
- 4) Removal cutting : Removing non-objective species.
- 5) Thinning: Removing low-quality-objective species.

How should we deal with a leaning-over-tree?

By using hoist, pull the leaning-over-tree to the direction to 90 degrees of the leaning force.



Source: Forestry and Timber Manufacturing Safety & Health Association, Japan/Safty Navi for Chainsaw Operation



Technical Training for Regenerating Forest

Regenerating forest consists of two ways: 1) natural regeneration and 2) planted regeneration. Usually, natural regeneration is followed by selective cutting. Natural regeneration is facilitated by weeding around seedlings. Planted regeneration is followed by clear cutting. Planted regeneration is made by planting seedlings grown in nursery bed.

In that sense, there are two kinds of technical trainings for regeneration: trainings of 1) facilitating natural regeneration, and of 2) nursery bed making.

Facilitating natural regeneration is easy. Firstly, start weeding around newly germinated seedlings. Then, we can stop weeding when newly germinated seedlings grow 50 cm higher than the height of the grasses.

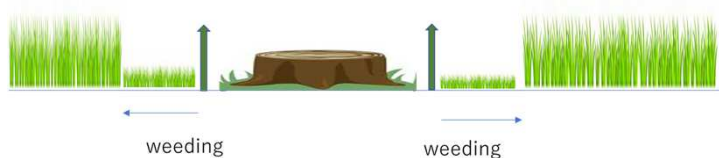
There are two kinds of nursery beds: 1) germination bed and 2) stand-out bed. We sow seed in germination bed. Seedlings grown in germination bed are transplanted into stand-out bed.

How to facilitate regeneration?

Start weeding around newly germinated seedlings.



Continue weeding around newly germinated seedlings.



Continue weeding around newly germinated seedlings.



We can stop weeding when newly germinated seedlings grow 50 cm higher than the height of the grasses.



We should remove vine.

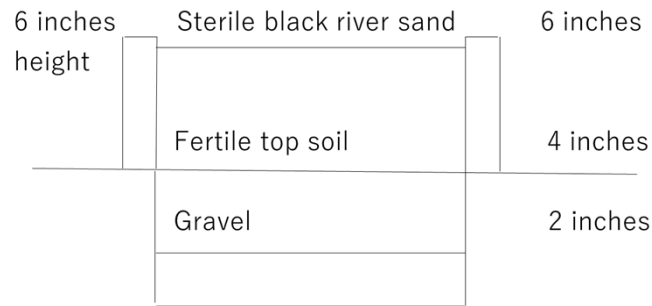


If we happen to find well-grown germinated seedlings such as photo, all we have to do is to take care of the seedlings. (Weeding might not be needed.)



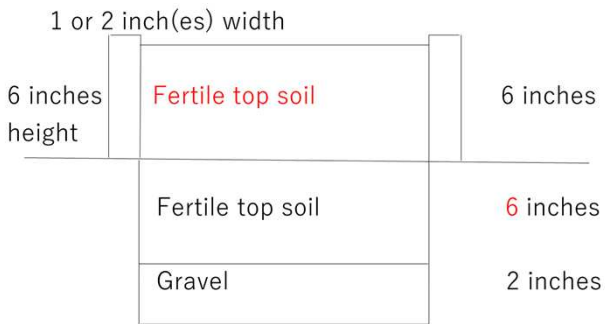
Cross section of germination bed

Objective species: Teak, Mahogany
For germination bed, shading is not needed.
1 kg of teak/mahogany can be sown in 1 m by 1 m.
1 or 2 inch(es) width



Cross section of stand-out bed

Objective species: Teak, Mahogany
For stand-out bed, shading with net/coconut leaves is needed.



Front bed is germination bed. Back bed is stand-out bed.

Technical Training for utilizing forest

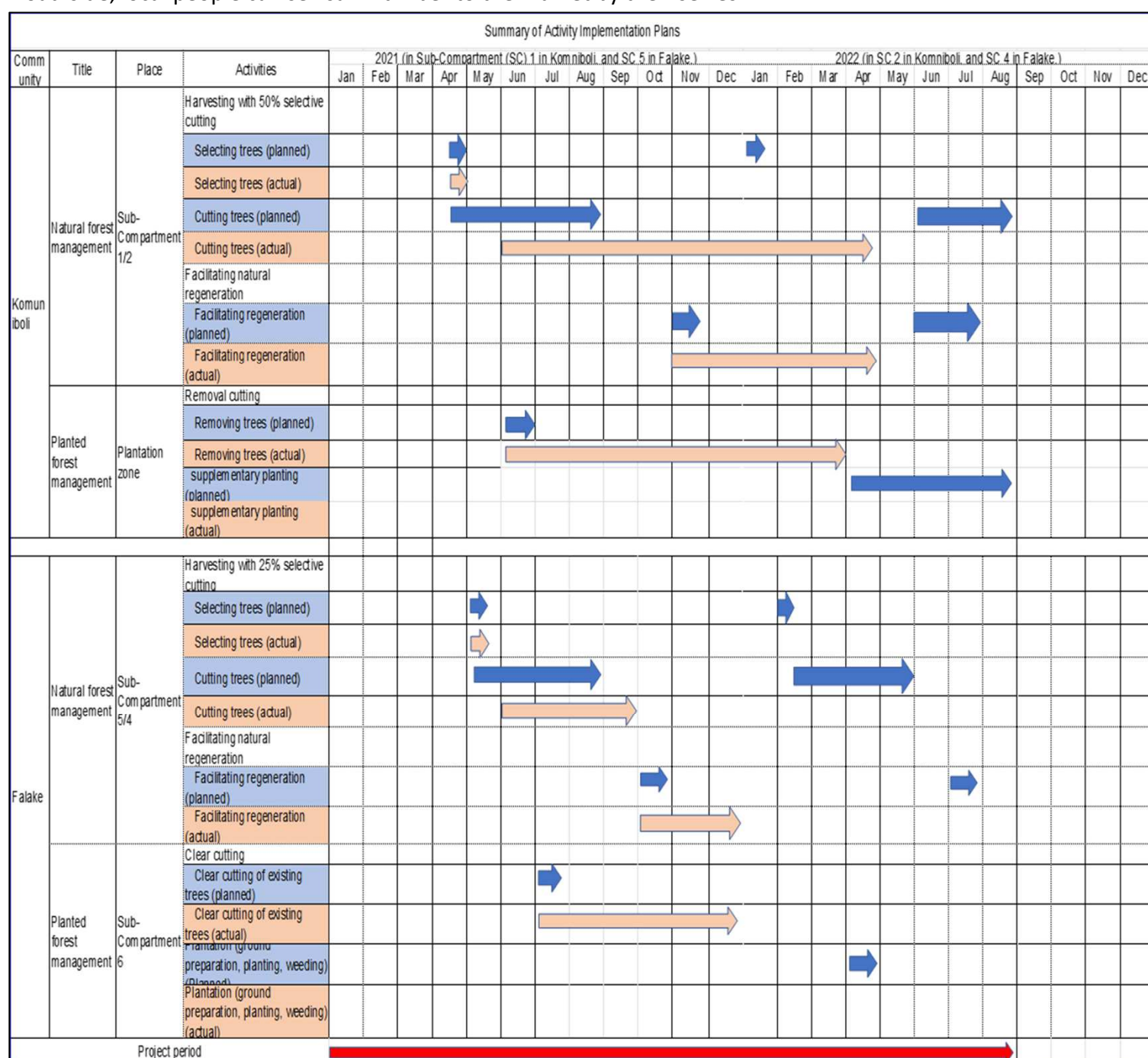
Forest management activities consist of nursery, natural regeneration/planting, weeding, removal cutting, thinning, felling/harvesting, milling, wood processing (such as furniture making), and marketing. MOFR-JICA Project provides not only trainings of nursery and regeneration, but also trainings of felling/milling and furniture making.



Monitoring and Evaluation

Monitoring and Evaluation; Lessons Learned.

The activities of forest management were commenced since April 2021 and would be continued until April 2022 as stated in the table bellow. About 60 specific items (such as Effective Measures to Bring Timbers Out From Forest, Institutionalize Eco Forestry Initiatives, etc.) related with community based sustainable forest management have been monitored and evaluated, and about 60's of Lessons Learned have been extracted. Among 60's of Lessons Learned, the most important Lessons Learned would be to provide mobile mill (Lucas Mill would be common in Solomon Islands) to local communities to let them manage forest by themselves. Generally speaking, local community does not own tractor to take felled trees to road side. Only way for local community to utilize forest was to sell logging concession right to logging company who owns tractor. Selling concession right is not sustainable way to utilize forest. In order to let local people manage forest in a sustainable way, MOFR-JICA project decided to provide Lucas Mill to Komuniboli and to Falake. Community people can bring Lucas Mill near a felled tree and can make the felled tree into sawn timber by using Lucas mill in-side in forest. Then local people can easily pull out sawn timber from in-side in forest to road-side in forest by using manpower. Once sawn timber is piled in road-side, local people can sell sawn timber to the market by themselves.



Monitoring and Evaluation

Total numbers of standing/cross-cut/milled trees in Komuniboli and in Falake are shown in below.

Komuniboli in Sub-Compartment 1					
	timing	total numbers of standing trees	total numbers of cross-cut trees	total numbers of not-milled trees due to defect	total numbers of milled trees
	Mar-21	52	0	0	0
	Apr-21	52	0	0	0
	May-21	52	0	0	0
	Jun-21	51	1	0	1
	Jul-21	51	1	0	1
	Aug-21	39	13	0	13
	Sep-21	39	13	0	13
	Oct-21	33	19	0	15
	Nov-21	33	19	0	17
	Dec-21	33	19	0	17
	Jan-22	30	22	0	21
	Feb-22				
	Mar-22				
	Apr-22				
	May-22				
Falake in Sub-Compartment 5					
	timing	total numbers of standing trees	total numbers of cross-cut trees	total numbers of not-milled trees due to defect	total numbers of milled trees
	Mar-21	10	0	0	0
	Apr-21	10	0	0	0
	May-21	10	0	0	0
	Jun-21	9	1	0	1
	Jul-21	9	1	0	1
	Aug-21	1	9	2	7
	Sep-21	0	10	2	8
	Oct-21	0	10	2	8
	Nov-21	0	10	2	8
	Dec-21	0	10	2	8

Summary

The pilot communities (Komuniboli, Guadalcanal, and Falake, Malaita) have built the capacity of community based sustainable forest management especially by handling Lucas Mill.

The communities have begun to expand community based sustainable forest management further. In fact, Lucas Mills have already been lent in Buma, Malaita and in Wairokai, Malaita.