

ADVANTAGES

- Relative small financial input in the establishment of the technology
- Indigenous tools can be used

DISADVANTAGE

- Litters from the overlapping tree canopies may cause fire.

PhilCAT-SLM



Department of Environment and
Natural Resources-Forest
Management Bureau



Bureau of Agricultural Research



Bureau of Soils and Water Management

“Development of Decision Support Tools on Sustainable Land Management (SLM) as a Key to Address Abiotic Stresses in Areas Vulnerable to Climate Change”

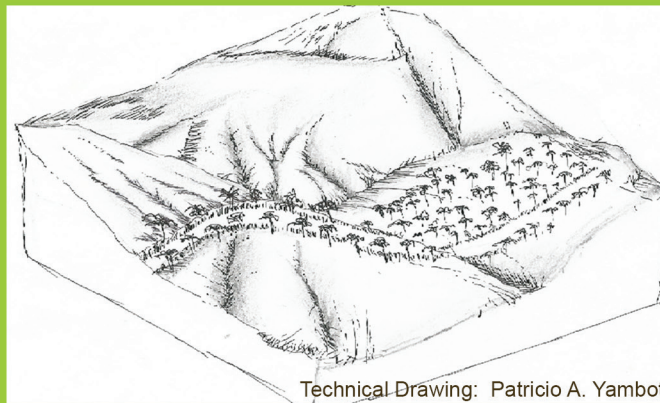


FIREBREAKS

Firebreaks are strips of land that are cleaned and maintained free of cultivation to prevent the spread of forest fires.

WHAT ARE FIREBREAKS?

Firebreaks are strips of land that are cleaned and maintained free of grasses to prevent the spread of forest fires to adjoining areas. The strips are mostly located in mountain ridges and have an approximate width of 6 meters. Ideally, an area of 10 hectares should be surrounded by firebreaks but the area may vary depending on the topography. In places with steep slopes, the area enclosed by firebreaks should be smaller as fire tends to spread faster in these locations than in flatter localities.



Firebreaks established in ANR sites

TECHNICAL FUNCTIONS

- Stabilization of soil (e.g. by tree roots against landslides)
- Sediment retention/trapping
- Sediment harvesting
- Increase of biomass
- Control of fires
- Reduction of dry material as fuel for wildfires

HOW TO ESTABLISH FIREBREAKS?

1. Clear a sufficient width of strip (about 6 meters) of wild grasses.
2. On the edges of the strip, plant kakawate cuttings to slow down the growth and spread of grasses. The kakawate can also be utilized as raw materials for vermicomposting.
3. Clean or maintain the firebreaks every February or March or before the onset of the dry season.

IMPACTS OF THE TECHNOLOGY

Production and Socio-Economic Benefit

- Reduced risk of production failure

Socio-Cultural Benefits

- Strengthened community institution
- Improved conservation/erosion knowledge

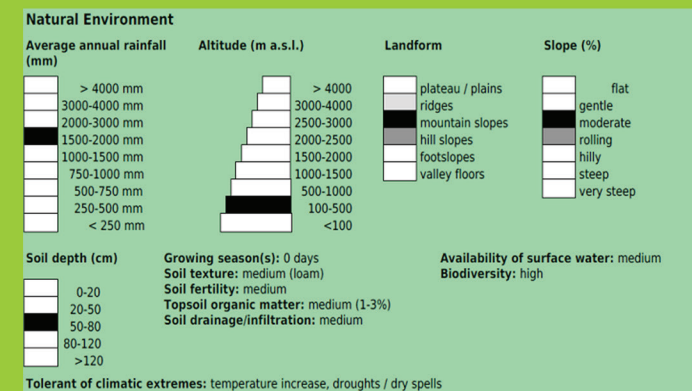
Off-Site Benefits

- Reduced damage on public / private infrastructure
- Reduced wind transported sediments

Ecological Benefits

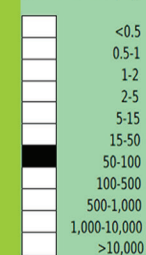
- Reduced hazard towards adverse events
- Reduced fire risk
- Reduced evaporation
- Reduced surface runoff
- Reduced wind velocity
- Improved soil cover
- Increased soil organic matter/below ground carbon
- Reduced emission of carbon and greenhouse gases
- Reduced invasive/alien species
- Increased beneficial species
- Increased biological pest and disease control

ENVIRONMENT



Human Environment

Forests / woodlands per household (ha)



Land ownership: state

Land use rights: open access (unorganised)
Relative level of wealth: poor, which represents 100% of the land users; 100% of the total area is owned by poor land users

Importance of off-farm income:

Access to service and infrastructure: low: technical assistance, employment (eg off-farm), market, roads & transport, drinking water and sanitation; moderate: health, education, energy
Market orientation:
Purpose of forest / woodland use: fruits and nuts, other forest products / uses (honey, medical, etc.)

