

# Managing Yap's Volcanic Soils



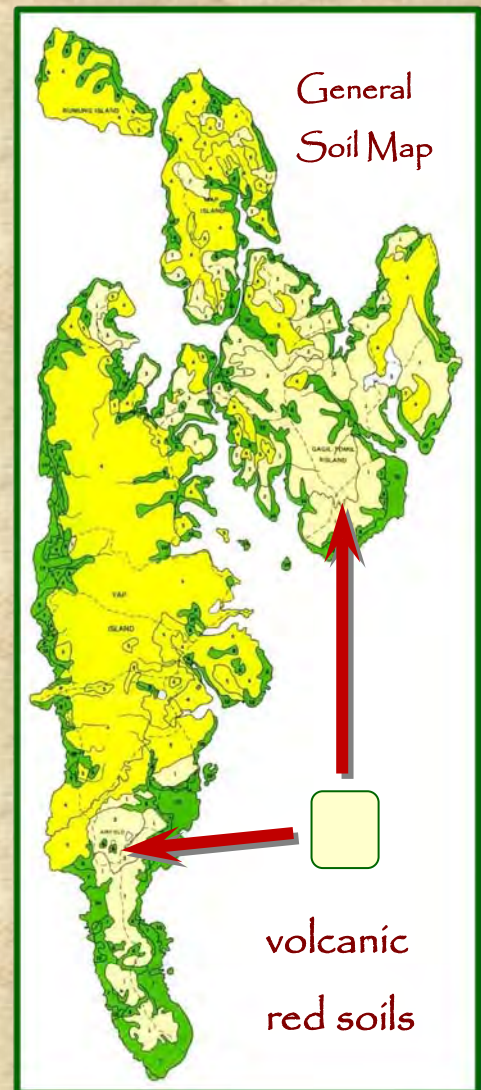
## The Problem



## Degraded Volcanic Savanna Soils

- ✓ Volcanic soils are easily degraded
- ✓ Loss of topsoil causes soil degradation and can lead to uncontrollable erosion
- ✓ Small amounts of nutrients and high acidity prevent plants from growing
- ✓ Degraded lands support ferns and are challenging to farm or grow trees

## Location





## Healthy Forest Soil



## Unhealthy Savanna Soil



## Build Soil Organic Matter



- ✓ Red soil does not hold nutrients for plants
- ✓ Black soil does hold nutrients for plants
- ✓ Add mulch (tree leaves etc.) to soil surface to make topsoil

Add mulch to soil surface



## Add Nutrients, Protect Topsoil

- ✓ Mulch decomposes to release nutrients
- ✓ Mulch keeps soil covered to prevent erosion
- ✓ It's easier to protect existing topsoil than to make new topsoil
- ✓ Synthetic fertilizer may be used if available

Protect topsoil from erosion



## Reduce Acidity

- ✓ Add lime (finely ground coral) to improve soil for crops
- ✓ Add crushed coral at a rate of about one 3 gallon bucket (40 pounds) for a 100 foot row
- ✓ Coral adds plant nutrients