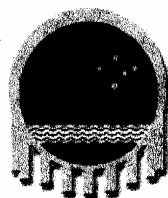


# **PACIFIC-ASIA BIODIVERSITY TRANSECT JOINT ANALYSIS WORKSHOP**

**November 25 – December 4, 2003**

**Hosted by:**

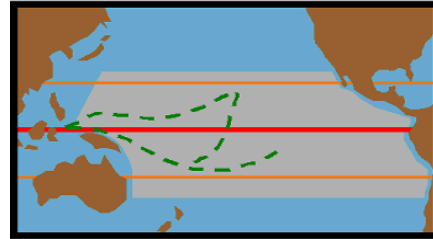


**National University  
of Samoa**

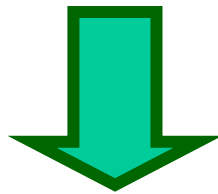
**Presented by: Mila Misa**



**PABITRA**  
The  
**Pacific-Asia Biodiversity**  
**Transect**  
**Network**



PABITRA: is a collaborative program for investigating the function of biodiversity and the health of ecosystems in the tropical Pacific Islands



Emphasis directed toward comparative analysis of indigenous upland & inland forest of volcanic islands and their roles as ecological reserves and watershed.



# HISTORY OF PABITRA

*Pacific Science Association (PSA)  
Committee on Ecology Conservation and  
Environmental Protection (ECEP)  
chaired by Dieter Mueller-Dombois*

*1999 – 19th PSA Congress Sydney Australia  
ECEP became the Division for Ecosystem  
Conservation in the PSA Task Force on  
Biodiversity.*

*PABITRA Network established in the same  
year.*



# RESEARCH STRATEGY

- HORIZONTAL APPROACH

– comparing ecosystem across islands within the same biome.

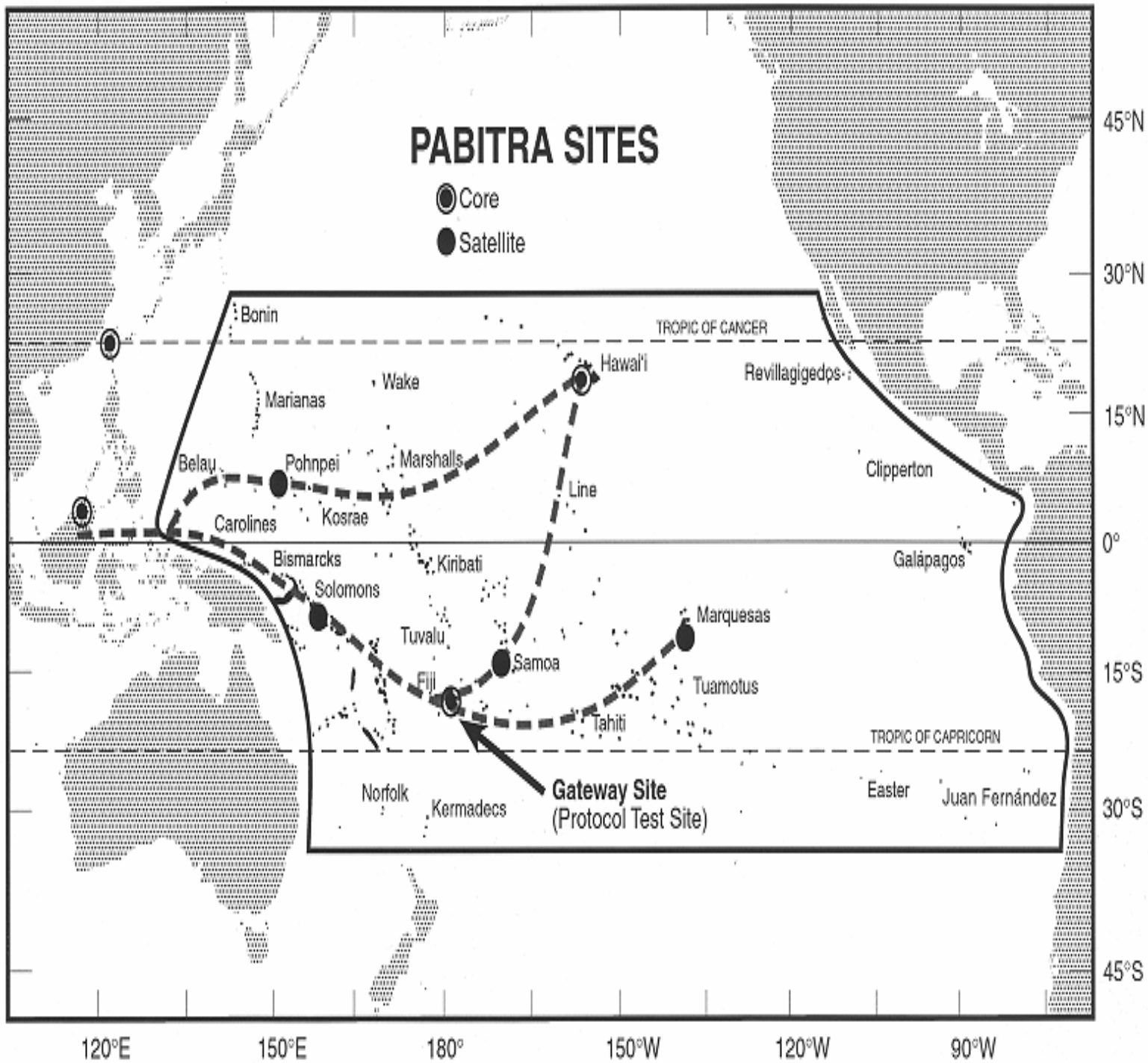
- VERTICAL APPROACH

– comparing ecosystem within the different layers of vertical strata. (Lowland, Upland, Montane Forest, Cloud Forest)



# TARGETING THE PACIFIC ISLANDS

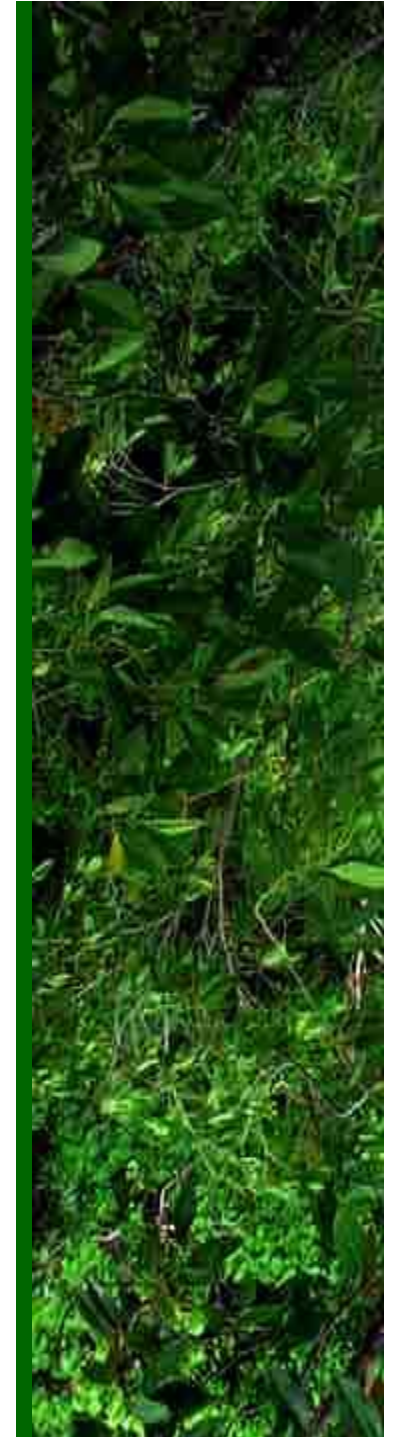




# List of Overseas Participants

★ Dieter Mueller-Dombois: *PABITRA*  
*Director*

- Marika Tuiwawa → *PABITRA*  
*Coordinator (Fiji)*
- Art Whistler: → *Plant taxonomist*
- Jack Lockwood → *Volcanologist*
- Jim Juvik: → *Climatologist*
- Gunnar Keppel: → *Plant biologist*
- Dan Gruner: → *Entomologist*
- Cedric Schuster → *Conservationist*
- James Atherton → *GIS Specialist*
- Harley Manner → *AgroEcosystem*

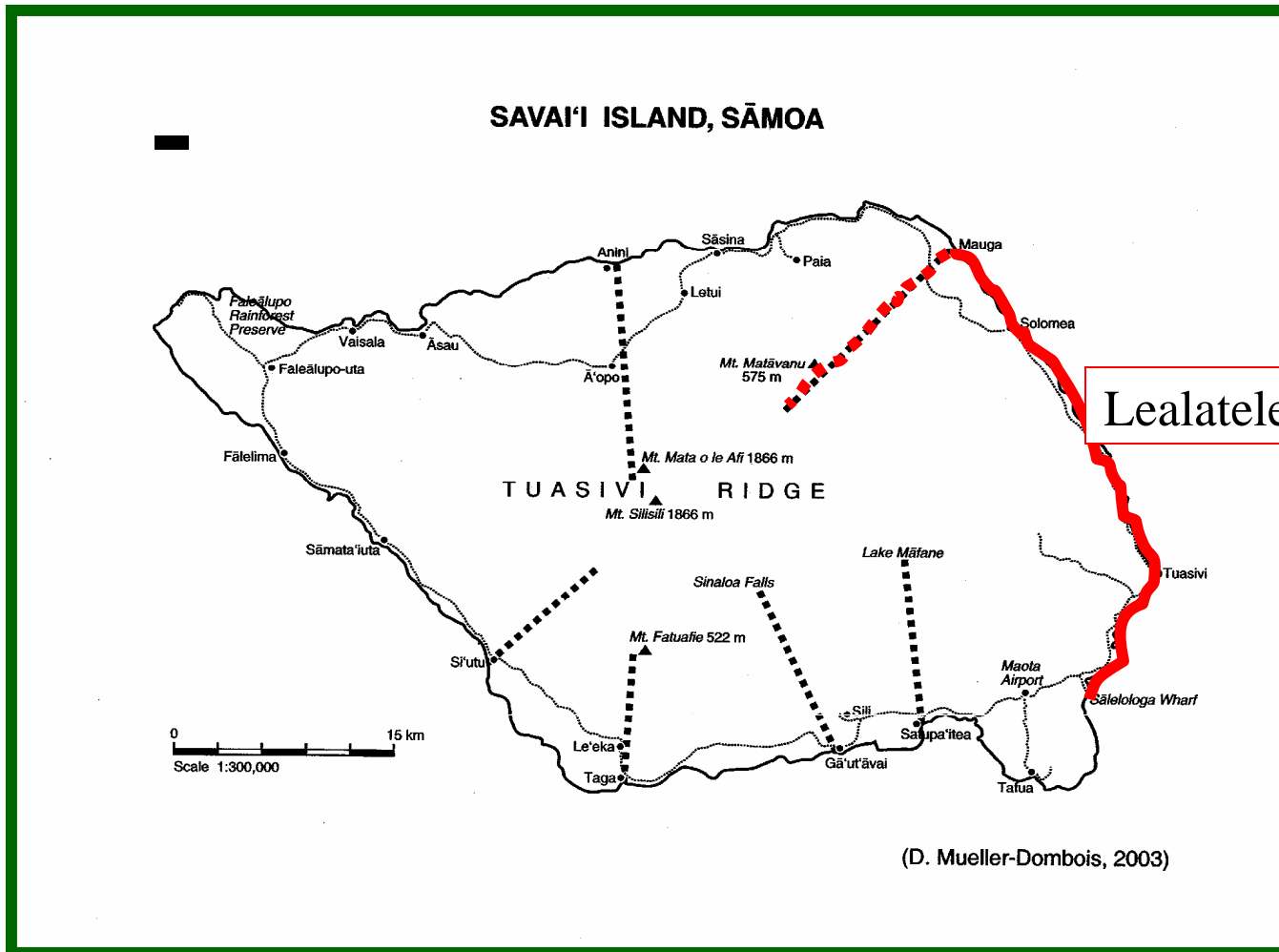


## TRANSECT SITE: Big Island of Savai'i

- Types of ecological zones
- Preserved native ecosystem
- Vegetation ecosystems
  - **Lowland**
  - **Secondary forests**
  - **Agricultural ecosystem**
  - **Freshwater wetlands**
  - **Coastal & Mangrove forest**
  - **Intertidal zones**
  - **Lagoons & Reef Ecosystems**
- Native angiosperm flora
  - 468 species

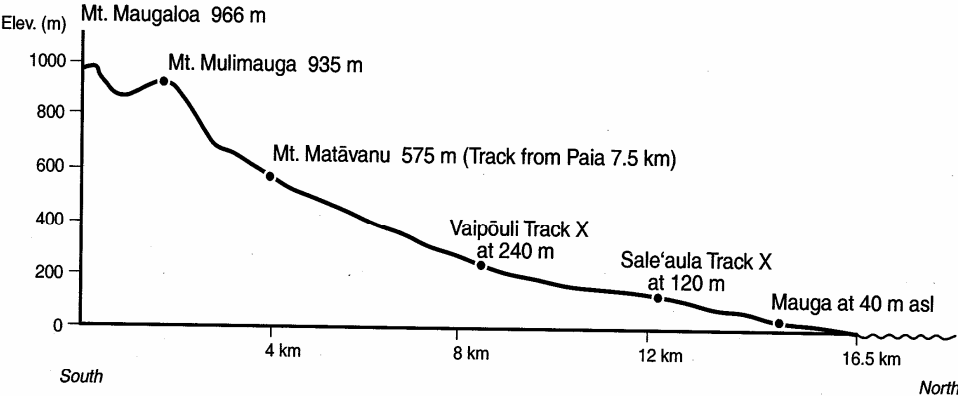


Thursday, November 27, 2003  
(Lealatele & Mt. Matavanu)



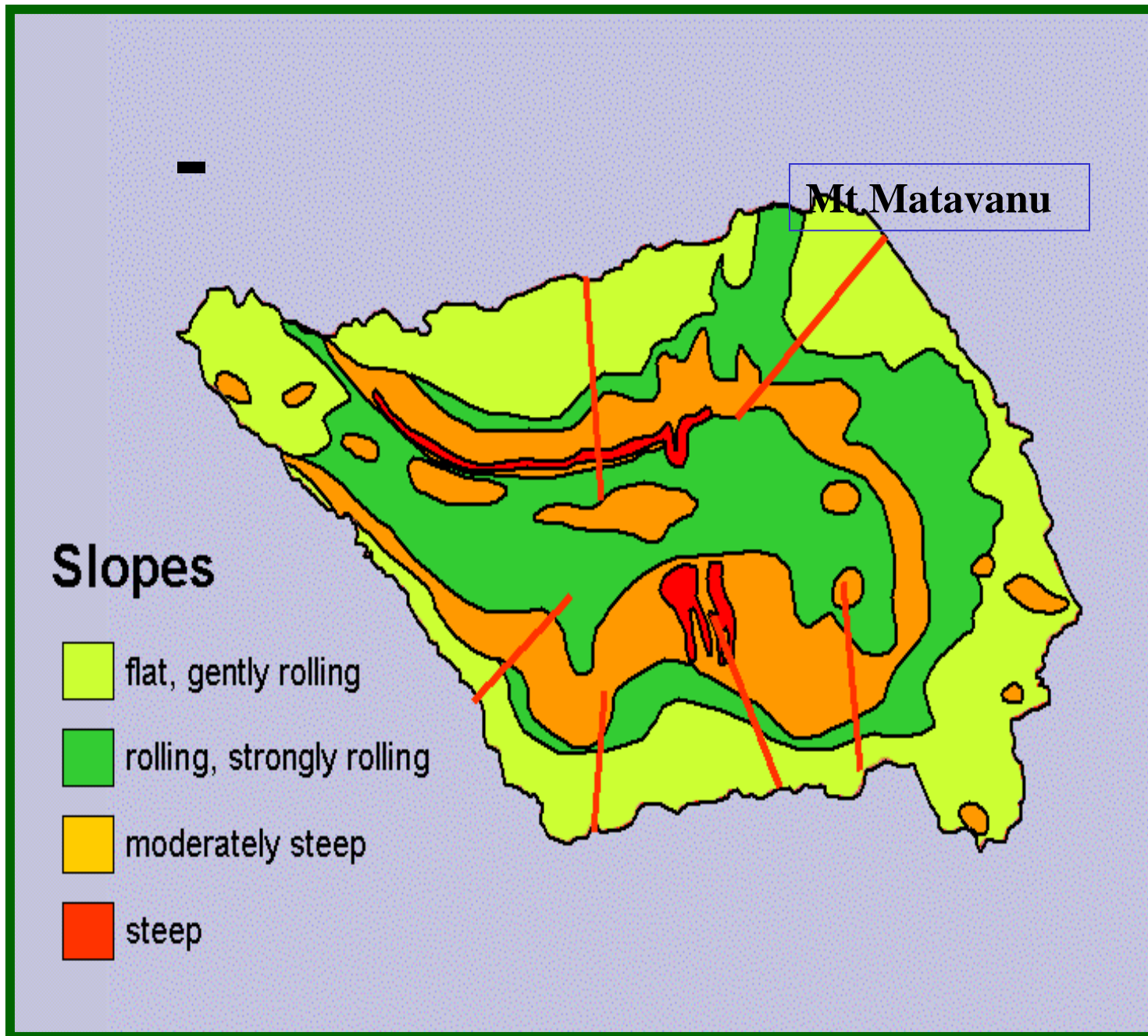
# NE SAVAI'I TOPOGRAPHIC PROFILE

## Matāvanu Flow Transect



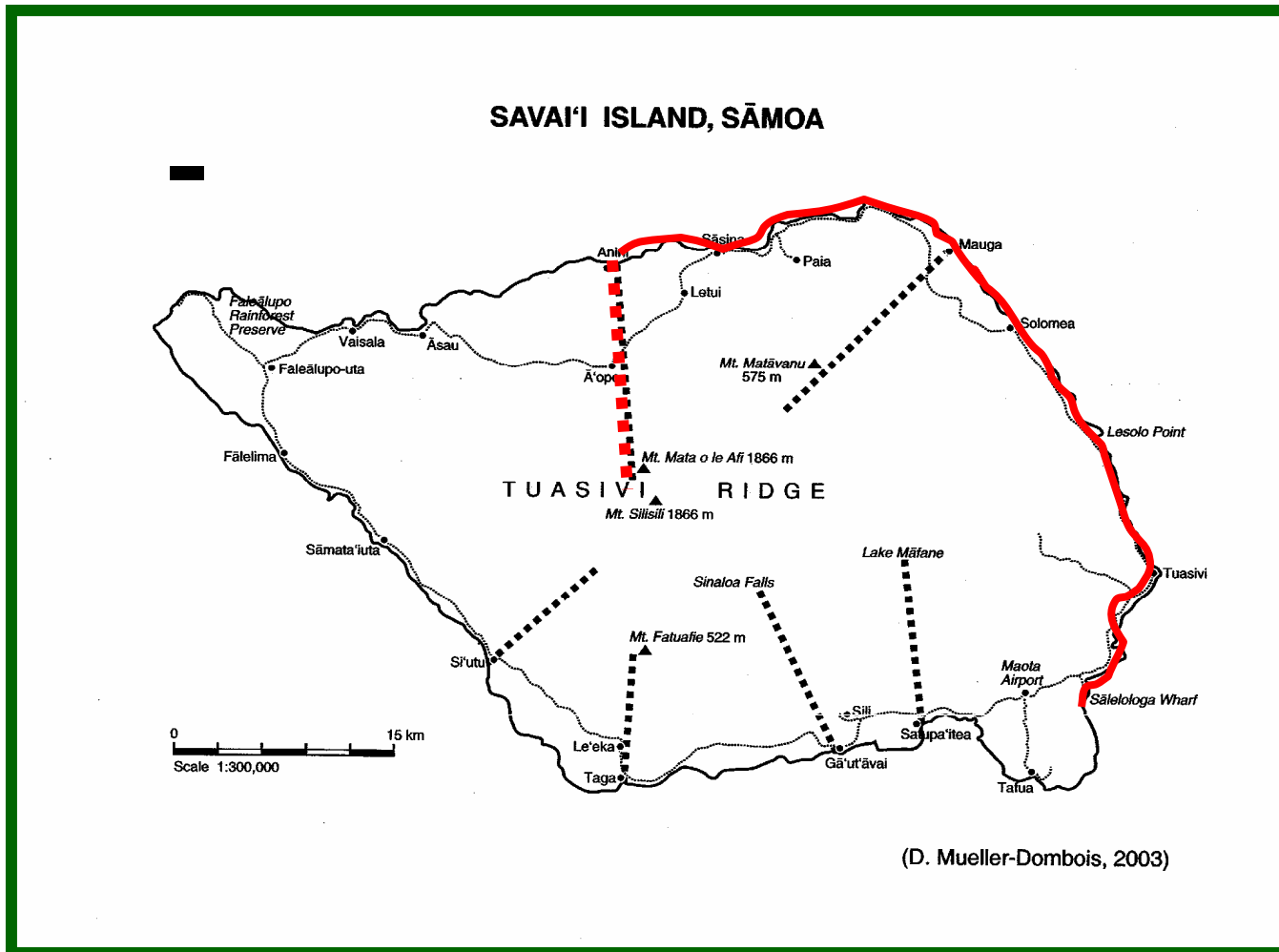
(D. Mueller-Dombois, 2003)





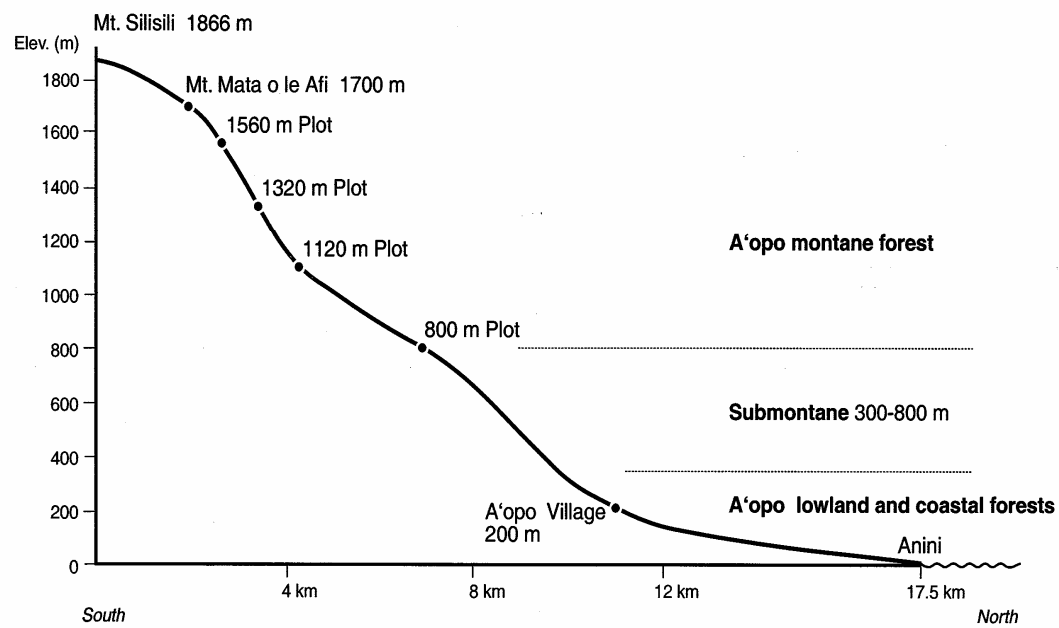
# Friday, November 28, 2003

## Mt. Mataoleafi - Aopo

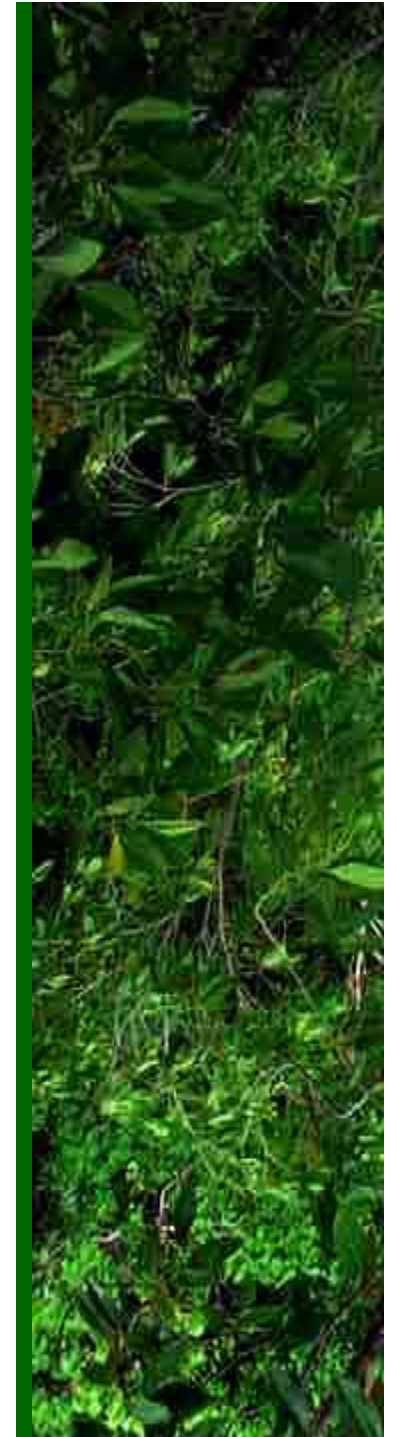


## NW SAVAI'I TOPOGRAPHIC PROFILE

### A'opo Transect



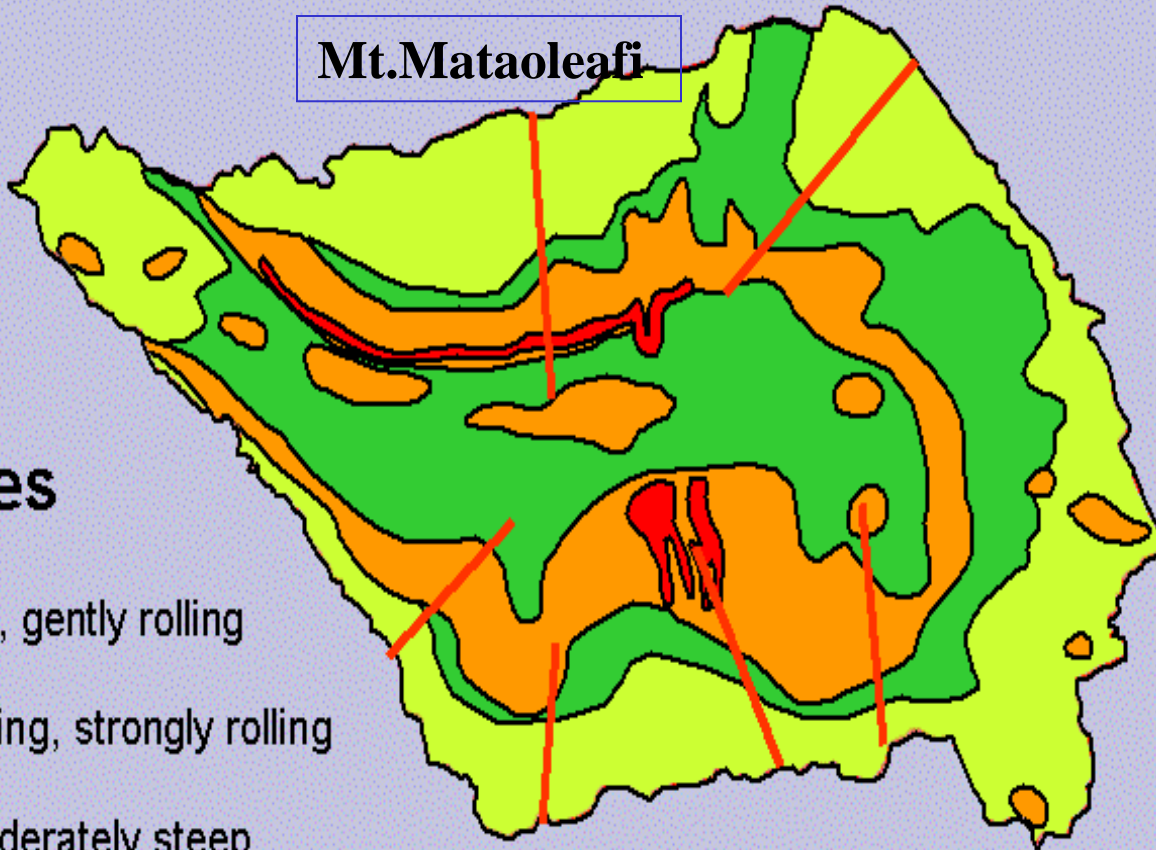
(D. Mueller-Dombois, 2003)



Mt. Mataoleafi

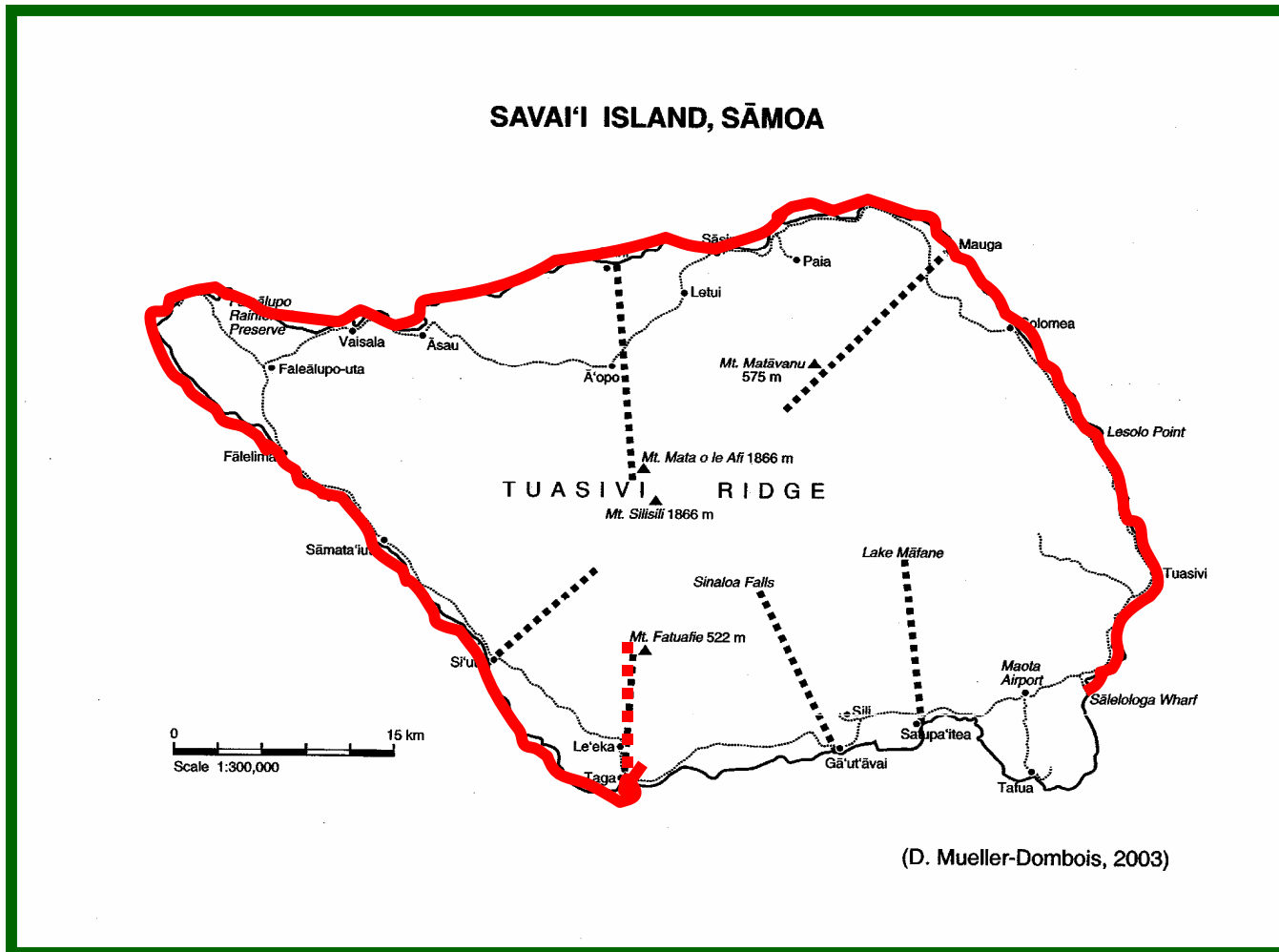
## Slopes

- flat, gently rolling
- rolling, strongly rolling
- moderately steep
- steep



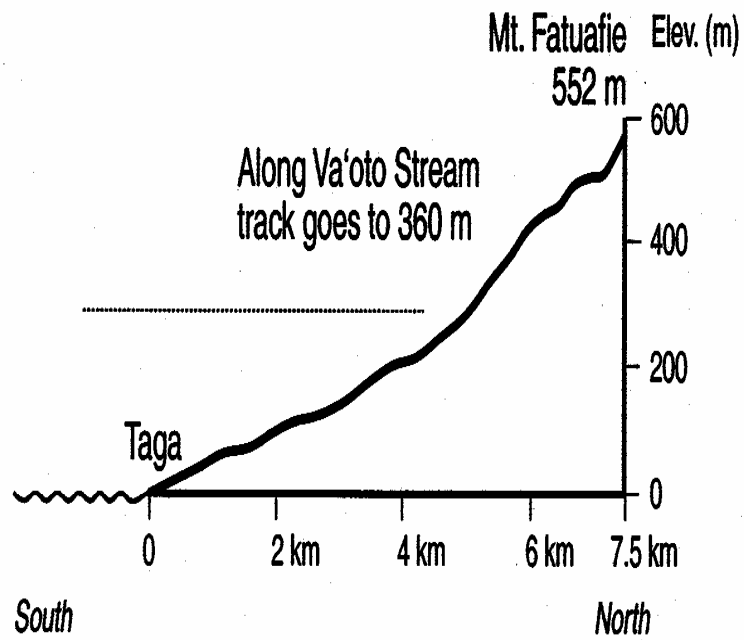
Monday, December 2, 2003

Mt. Olomanu - Taga

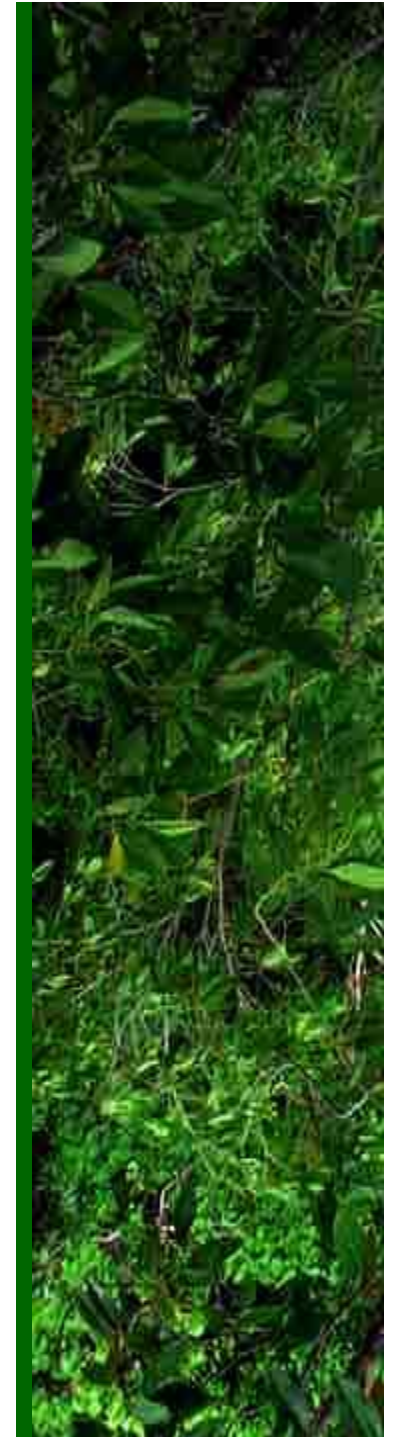


# Taga Transect

Only Submontane and lowland

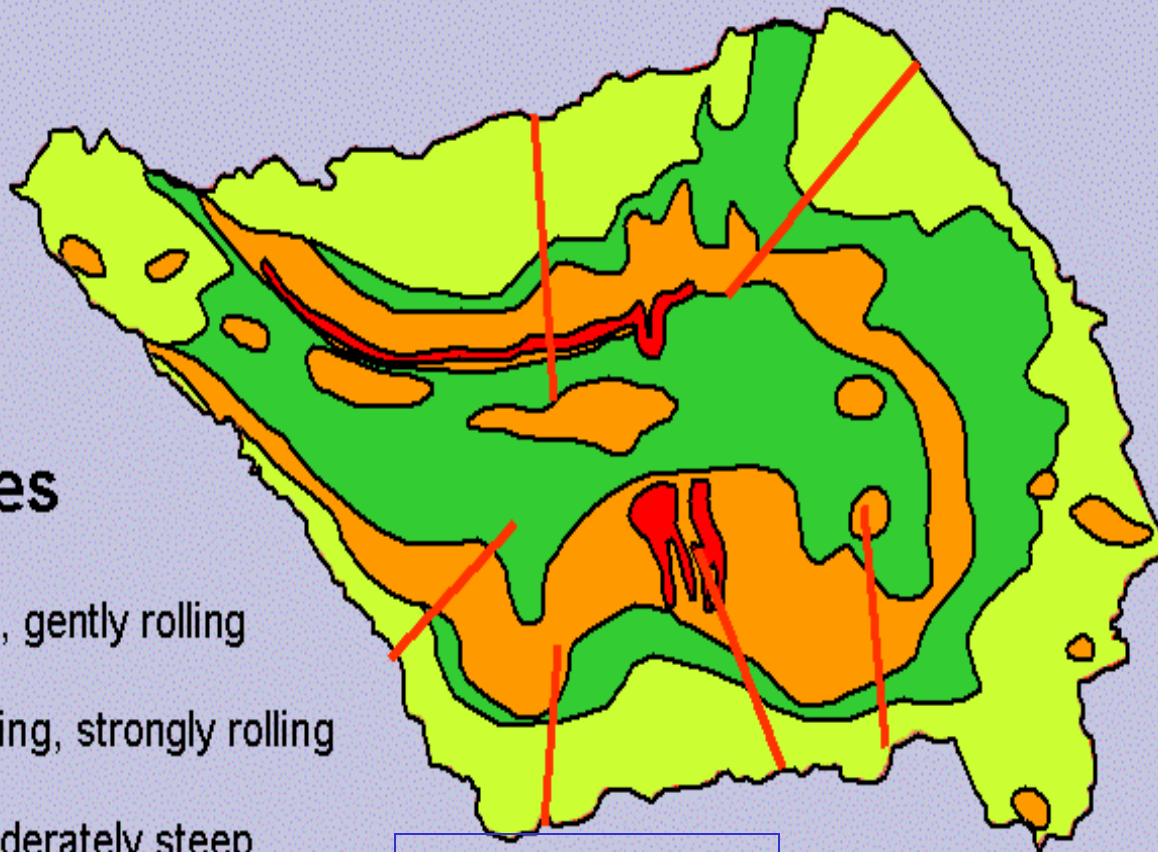


(D. Mueller-Dombois, 2003)



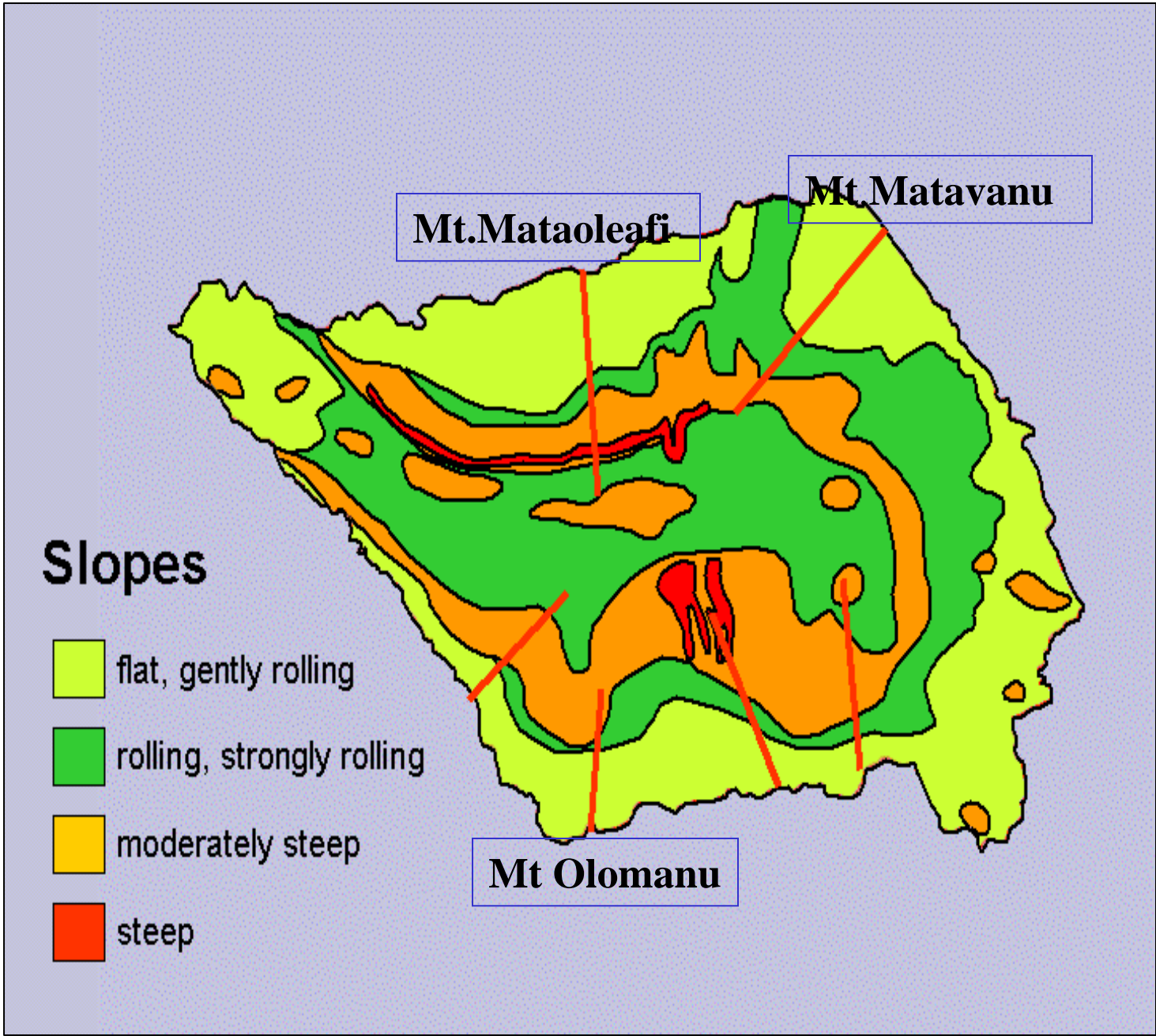
## Slopes

-  flat, gently rolling
-  rolling, strongly rolling
-  moderately steep
-  steep



**Mt. Olomanu**





## Conclusions:

Lealatele – Lowland -**Lavaflow scrub** \*\*\*

Mt. Matavanu – Upland – Lavaflow scrub

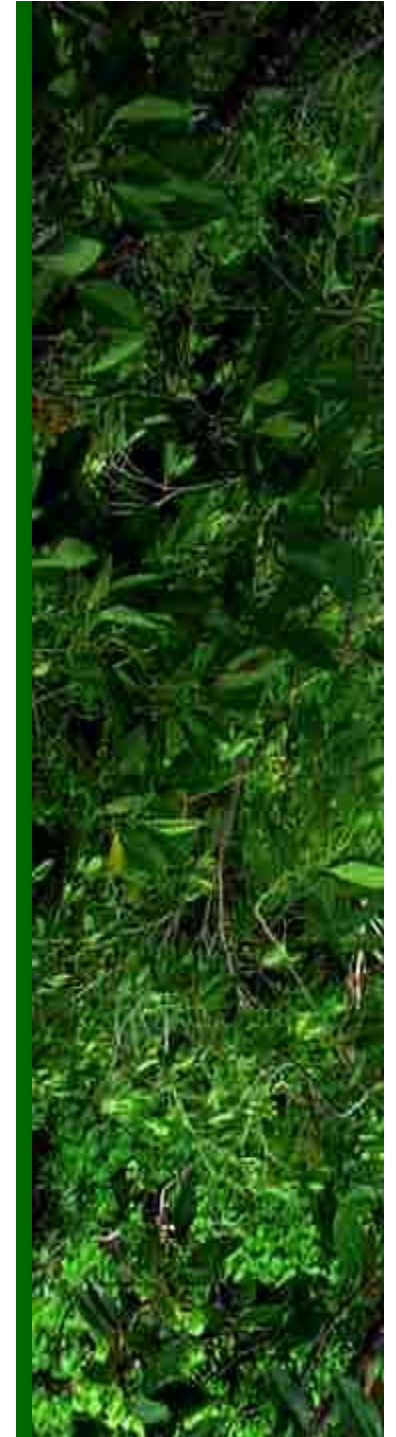
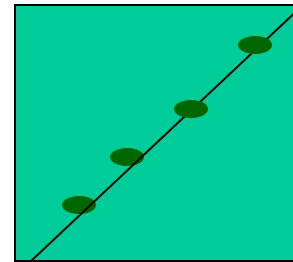
Mt. Mataoleafi – Montane rainforest

Mt. Olomanu – Lowland rainforest



## What are the Research Methods?

- Reconnaissance
  - preliminary check or work by observation
- Agroforestry Systems
  - Point center method
  - 5x5m plot
- Forestry Systems
  - 5x5m plot
  - Measure tree dbh
  - Measure tree heights



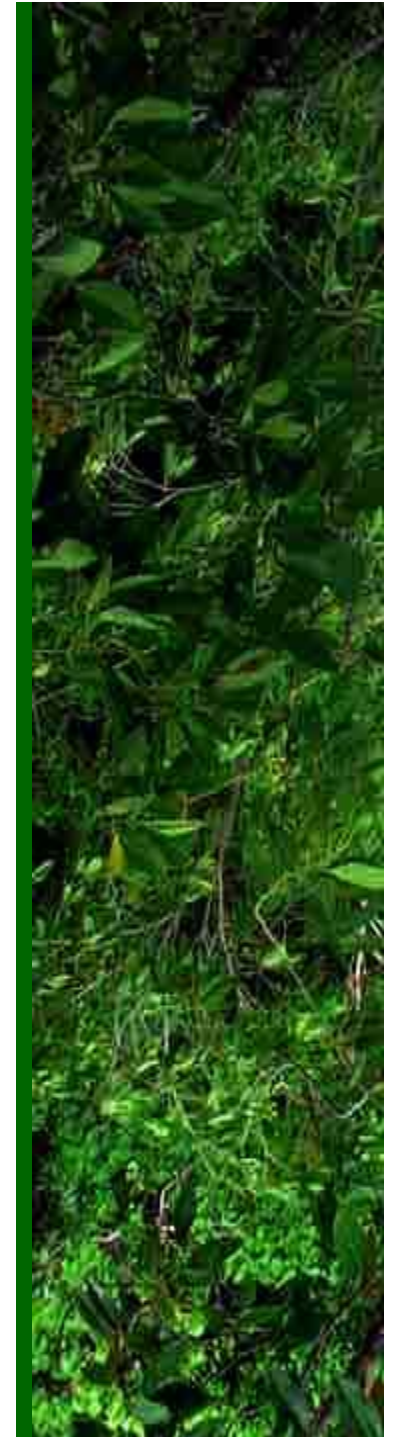
## Pros and cons of PABITRA Workshop

### PROS

- Familiarize ourselves with research in the field
- Make connections with the scientists
- How to organize PABITRA in Am. Samoa
- Analyze the problems and put it in a better perspective

### CONS

- Time consuming
- Unable to do research without the consent of the village
- A lot of money involved
- Better management & organization



Special Thanks to: Director of PABITA:  
Dieter Mueller-Dombios



Scientists presented

All my brother's and sister's of SAMOA

# Questions?



National University  
of Samoa

## *Certificate of Participation*

This is to certify that

**Mila Misa**

has successfully completed the

**Field Biology and Biodiversity  
Assessment Training and PABITRA  
Joint Analysis Workshop**

co-funded by the Asia Pacific Network for Global Climate  
Change Research at the National University of Samoa

from **November 25 to December 4, 2003**

*Di. Mueller-Dombois*  
Prof. Dieter Mueller-Dombois  
International Coordinator

*Magele Tafafunai Mauiliua Magele*  
Magele Tafafunai Mauiliua Magele  
Vice Chancellor, NUS

A JOINT COLLABORATION WITH THE NATIONAL UNIVERSITY OF SAMOA,  
UNIVERSITY OF KYOTO, DIWPA, UNIVERSITY OF GUAM, UNIVERSITY OF  
HAWAII AT MANOA, UNIVERSITY OF HAWAII AT HILO AND THE  
UNIVERSITY OF THE SOUTH PACIFIC AT SUVA.

**Ecology Management Training**

For more information about  
PABITRA visit:

[www.botany.hawaii.edu/pabitra/](http://www.botany.hawaii.edu/pabitra/)

Contact: Dieter Mueller-Dombois

<amdhawaii@aol.com>

or

Kim Bridges

<www.kimbridges.com>

