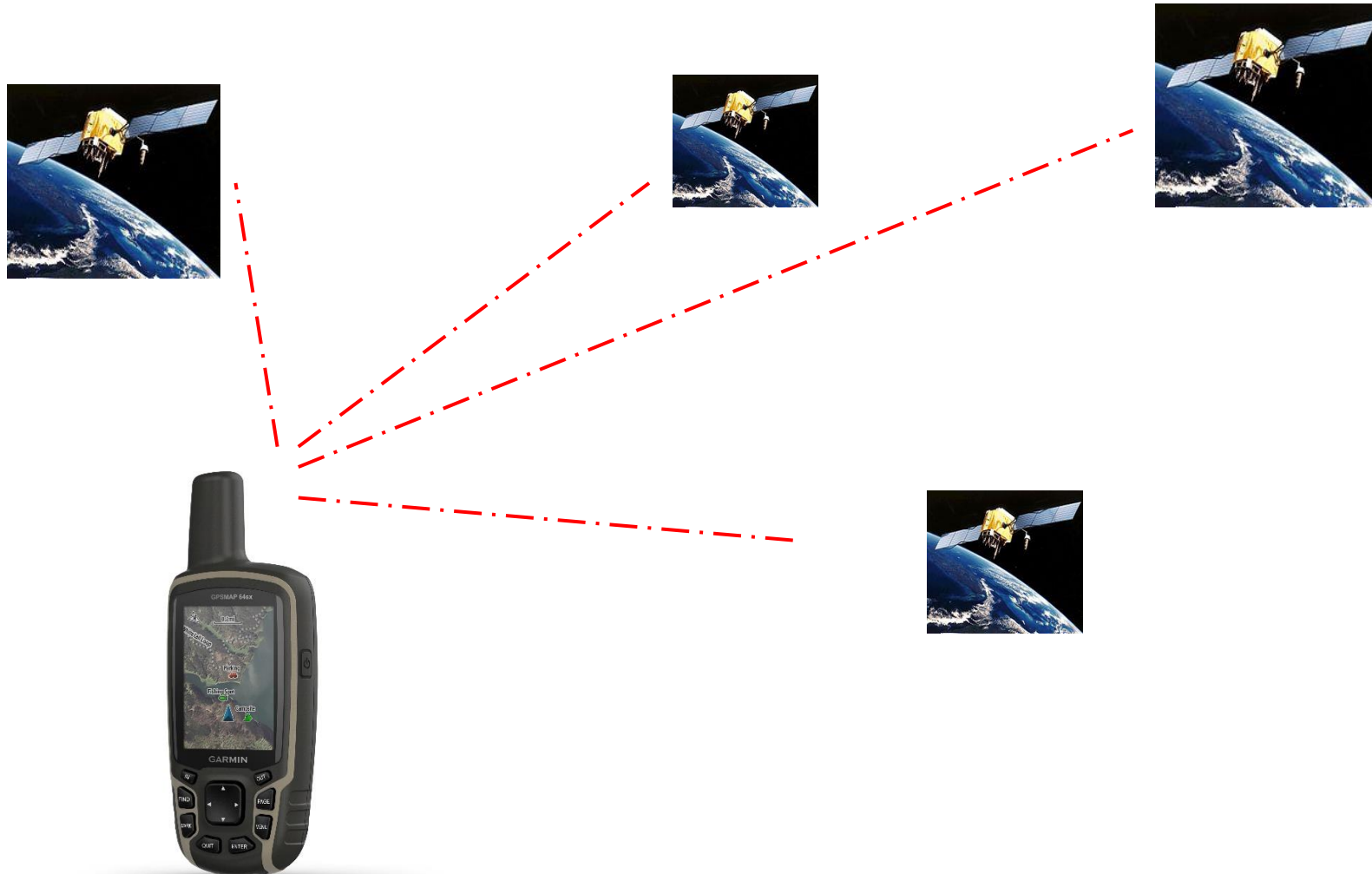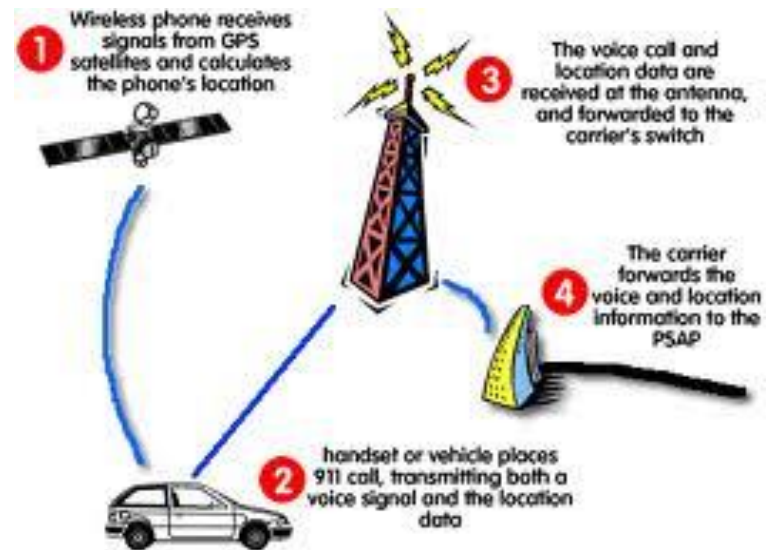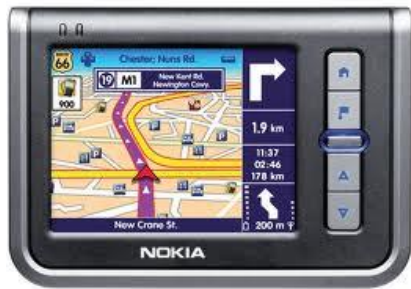# GPS Boundary Survey & Mapping

Global Positioning System (GPS)

- Unit that utilises Satellite Signals to pinpoint location on the earth.

- Technology used in Surveying, Telecommunication, Aviation, Shipping, and other many applications.

- It replaces chain and compass surveying.

- It makes surveying more efficient, easy and faster.

PROJECT GPS Default SETTING

• Distance in Metres and.

• Area in Hectares.

• DATUM should be set to WGS 84'.

• PROJECTION is set for Universal Transverse Mercator (UTM).

Data Collection

- Get geographical references(coordinates) of Location

  -Latitude (easting) and Longitude (northing)

- Elevation (height above sea level)

- Date

- Make WAYPOINTs

Make Waypoints

- Acquire satellite signal (3 or more is sufficient)

- Press "Mark"

- Fill in Details by punching in letters

- Scroll through and verify

- Store by pressing "OK"

GPS Survey Sheet

Crew Leader _____   **Page #** _____

Community: _____ **Clan:**_____**Date:**_____

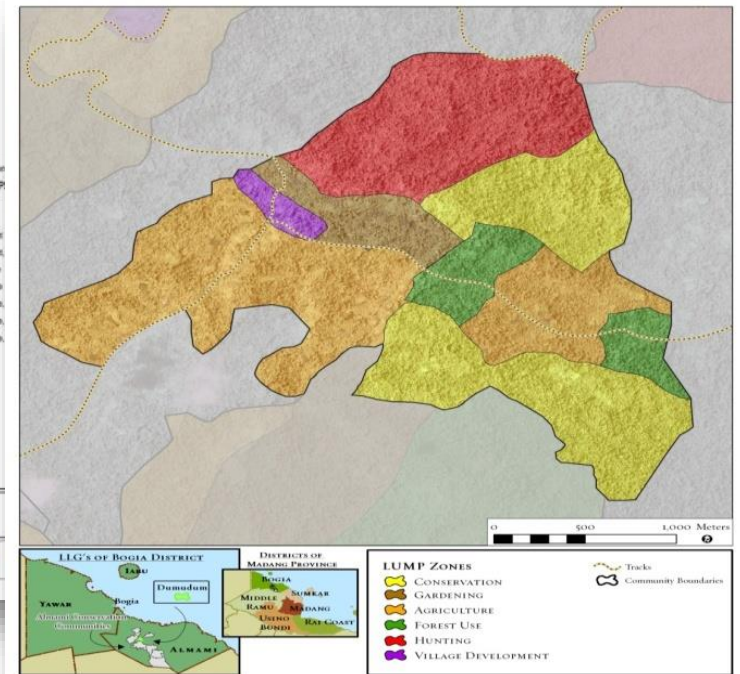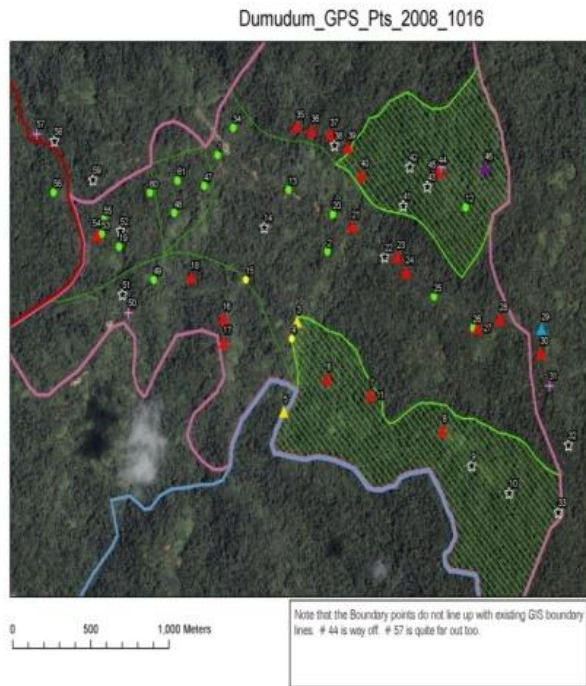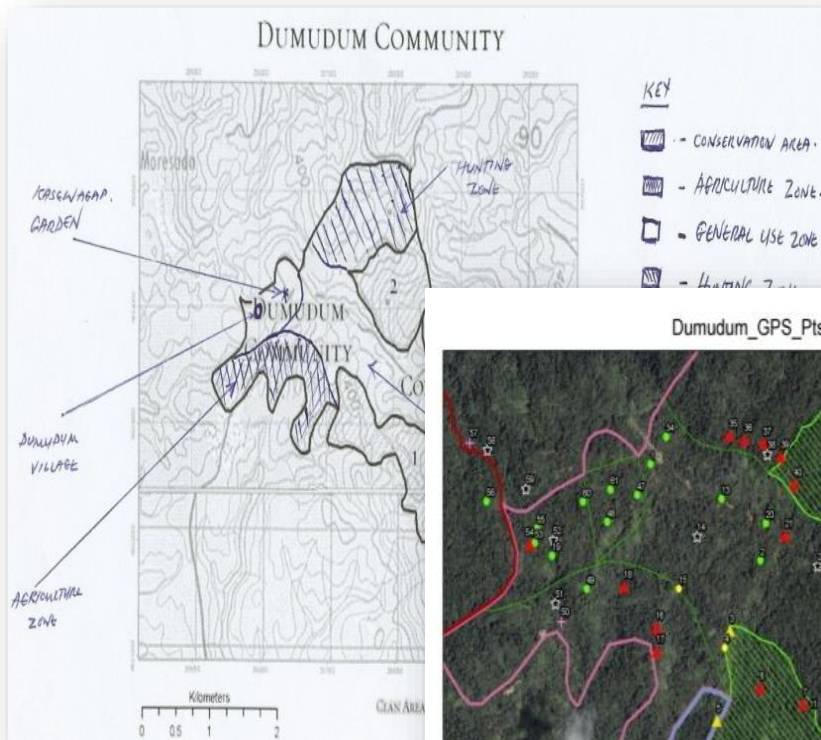| Waypoint	Longitude X-Coordinate Northing	Latitude Y-Coordinate Easting	Elevation (m)	Accuracy- no. of Satellites	Boundary Type	Feature Land Cover	Description

Some Challenges of GPS

- Thick canopy
- Thick cloud cover
- Standing close to metallic objects.
- In creek beds with inclines on both sides.

You can access signal from a good position and walk to location, Climb trees and wait for signal to be acquired (however long) and walk away from metallic objects.

Making Maps

- All Data collected to be inputted into computer using Google Earth.
- Use GIS software to generate maps.

Community/Ward Boundary Demarcation and Land Use Planning

Tools Used

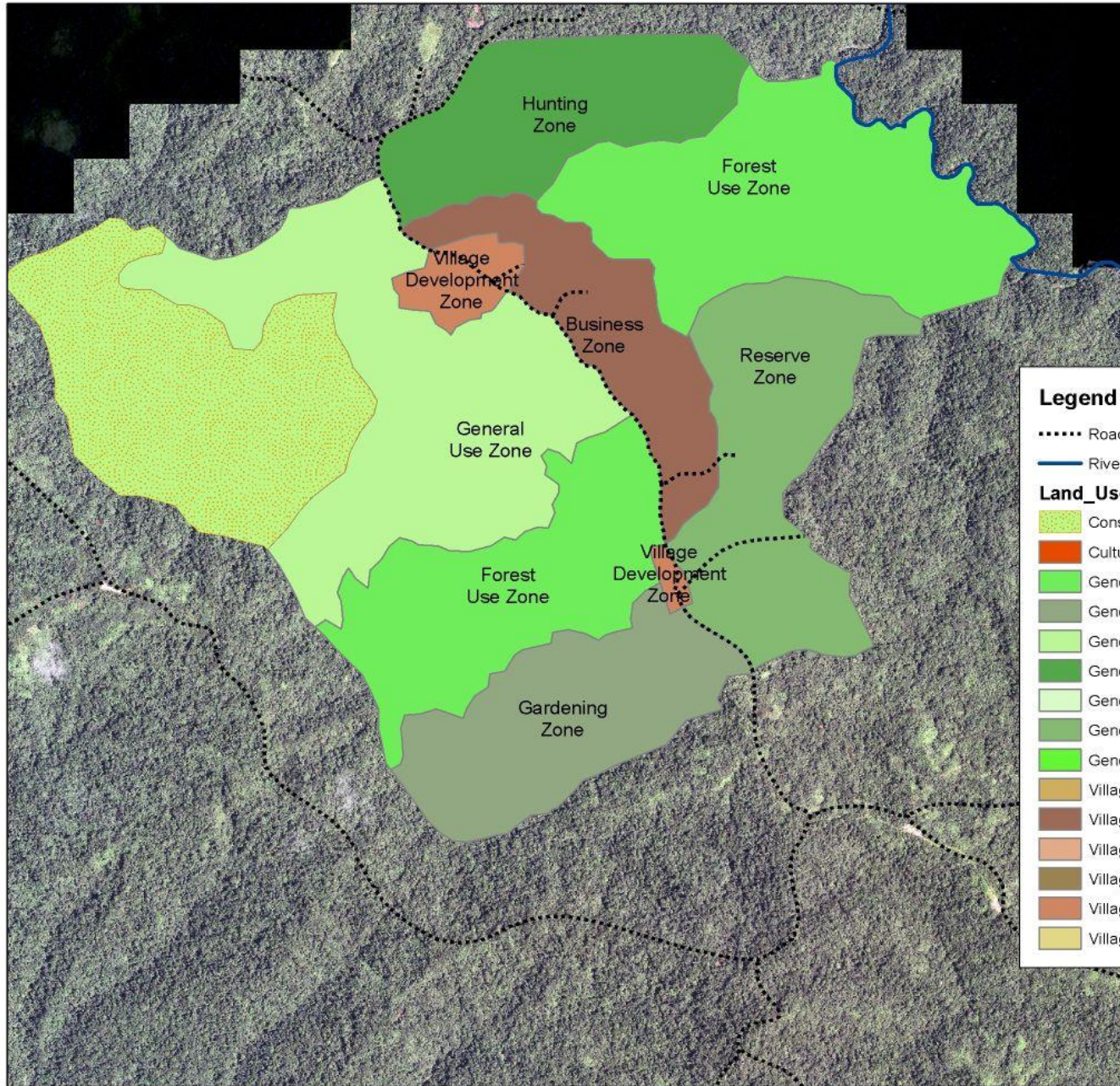▪Participatory sketch mapping.

▪GPS data collection.

▪Basic Spatial Analysis and GeoProcessing (GIS)

Community Land-use Map

Forest Use Area

Conservation Area

Gardening Area

Village Development Area
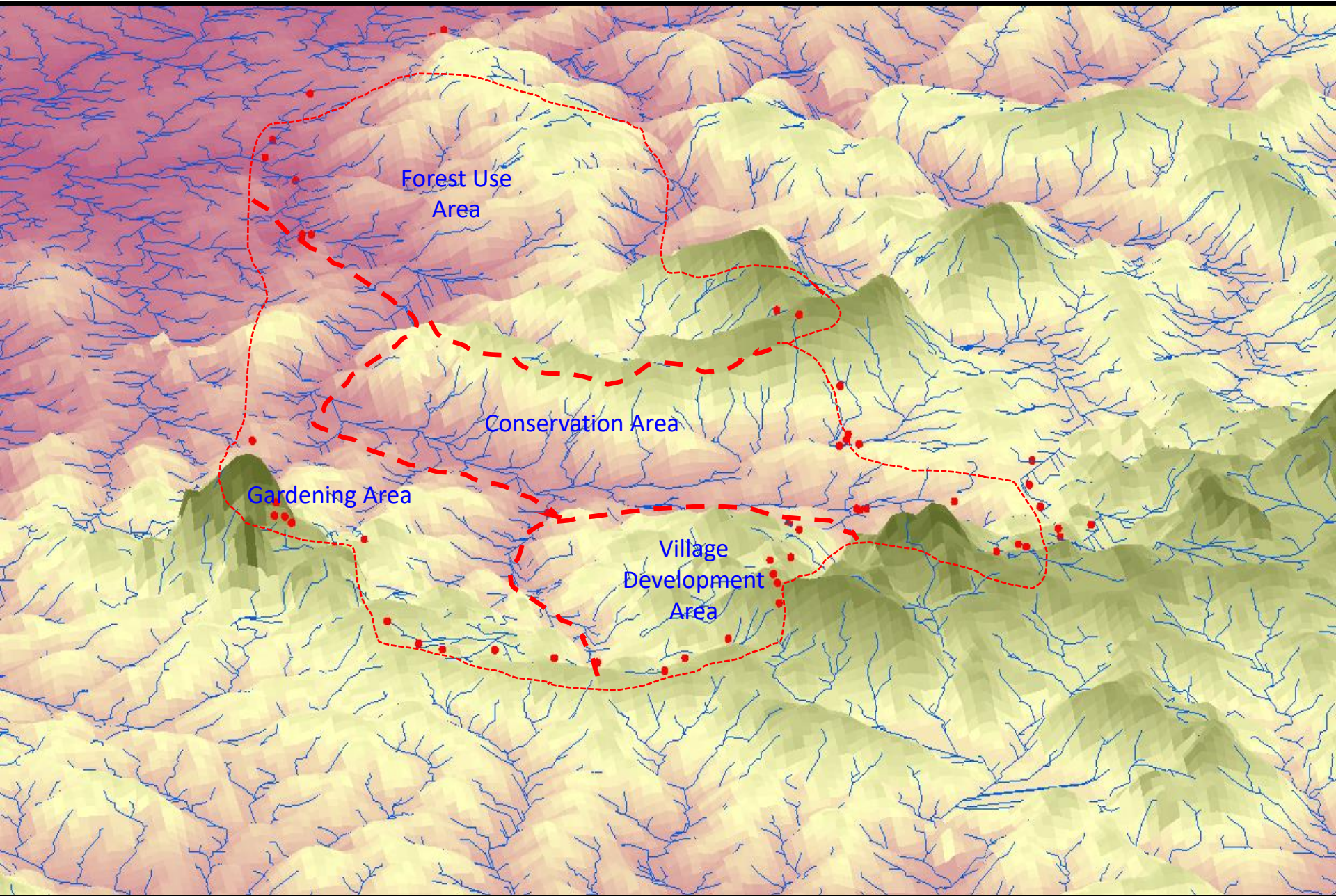
**Avipa Clan Land Use DRAFT**

Legend

- ······ Roads
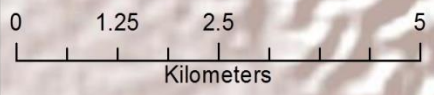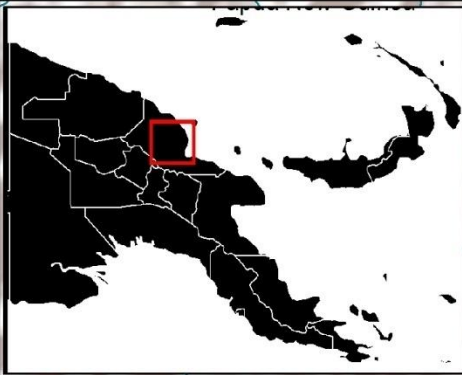- ——— Rivers

Land_Use, Land_Use_2

- Conservation , <Null>
- Culture , Sacred Site
- General Use , Forest Use Zone
- General Use , Gardening Zone
- General Use , General Use Zone
- General Use , Hunting Zone
- General Use , Hunting Zone / Reserve Zone
- General Use , Reserve Zone
- General Use , Village Development Zone, Business Zone
- Village Development , Agricultural Zone
- Village Development , Business Zone
- Village Development , Cash Cropping
- Village Development , Settelment
- Village Development , Village Development Zone
- Village Development , Village Development Zone, Business Zone

0   0.5   1 KM
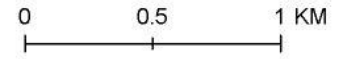
Map by Nate Peterson
The Nature Conservancy
Pacific Island Countries Program
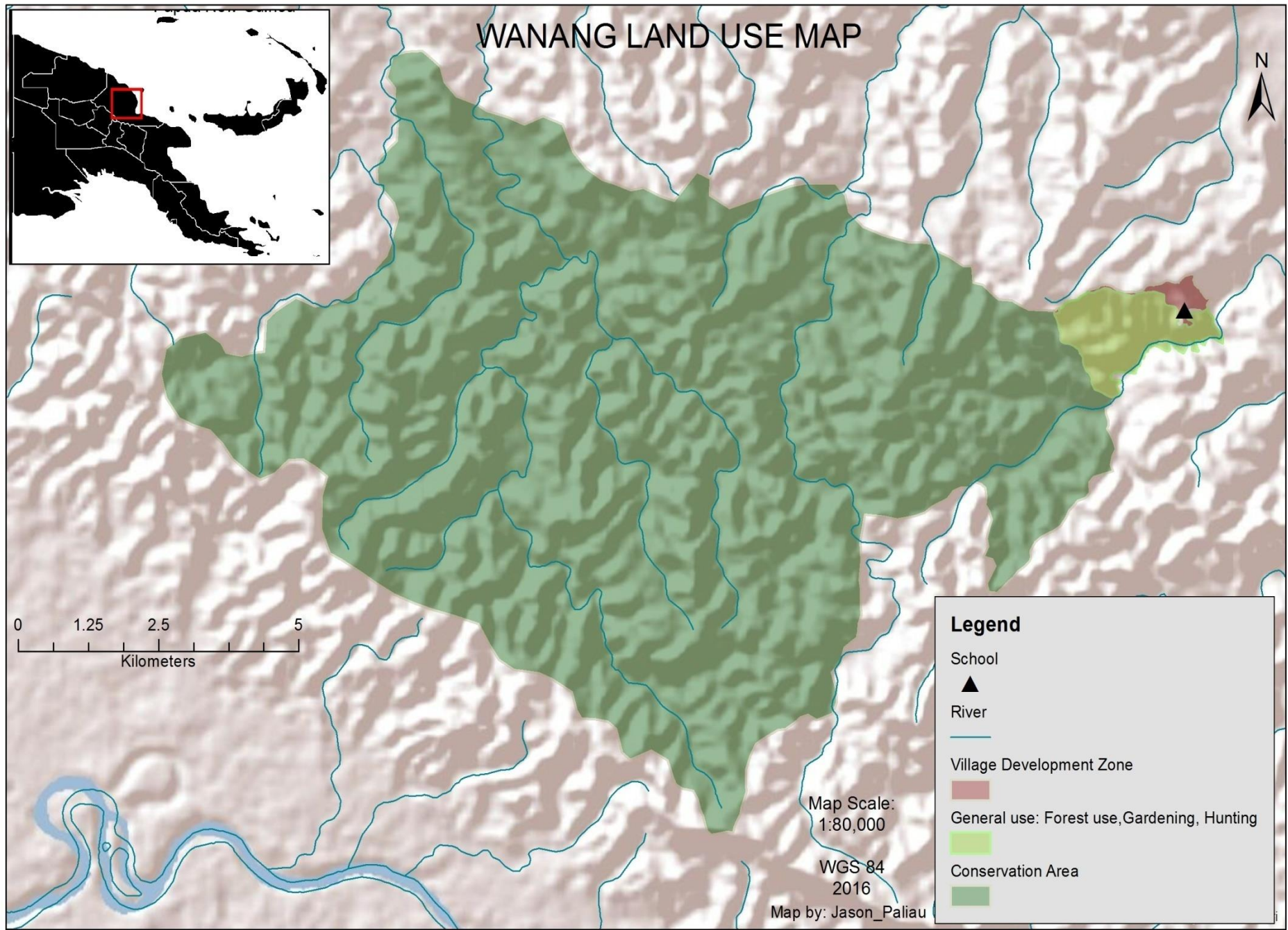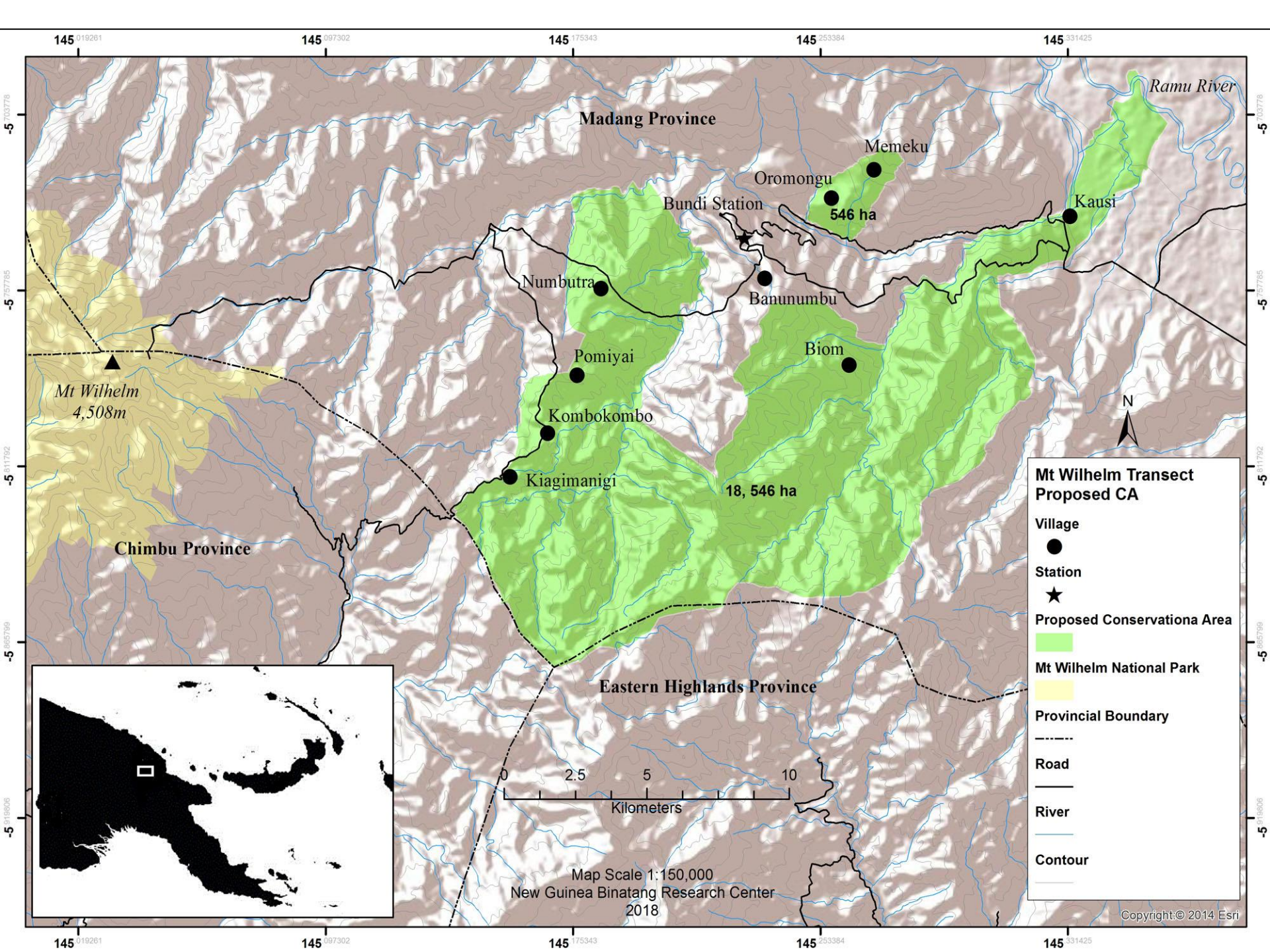17 July, 2008

WANANG LAND USE MAP

N

Map Scale:
1:80,000

WGS 84
2016
Map by: Jason_Paliau

0   1.25   2.5   5
Kilometers

Legend

School
▲

River

Village Development Zone

General use: Forest use, Gardening, Hunting

Conservation Area

Map showing the Mt Wilhelm Transect Proposed Conservation Area.

Labels on map:

Madang Province

Ramu River

Memeku

Oromongu

Bundi Station

Kausi

546 ha

Numbutra

Banunumbu

Biom

Pomiyai

Kombokombo

18, 546 ha

Kiagimanigi

Mt Wilhelm
4,508m

Chimbu Province

Eastern Highlands Province

Legend:

Mt Wilhelm Transect Proposed CA

Village ●

Station ★

Proposed Conservationa Area

Mt Wilhelm National Park

Provincial Boundary

Road

River

Contour

N

0   2.5   5   10
Kilometers

Map Scale 1:150,000
New Guinea Binatang Research Center
2018

Em Tasol!