

# Field Manual

## National Forest Inventory in Papua New Guinea

---

Bruno Kuroh

# Field Measurement Manual

## Presentation Outline

1. Introduction
2. Objective
3. Plot Location
4. Plot Layout
5. Measurement Parameters
6. Tree Measurement methods
7. Field sheets

# 1. Introduction

- Field Measurement Manual for the Multipurpose National Forest inventory in Papua New Guinea.

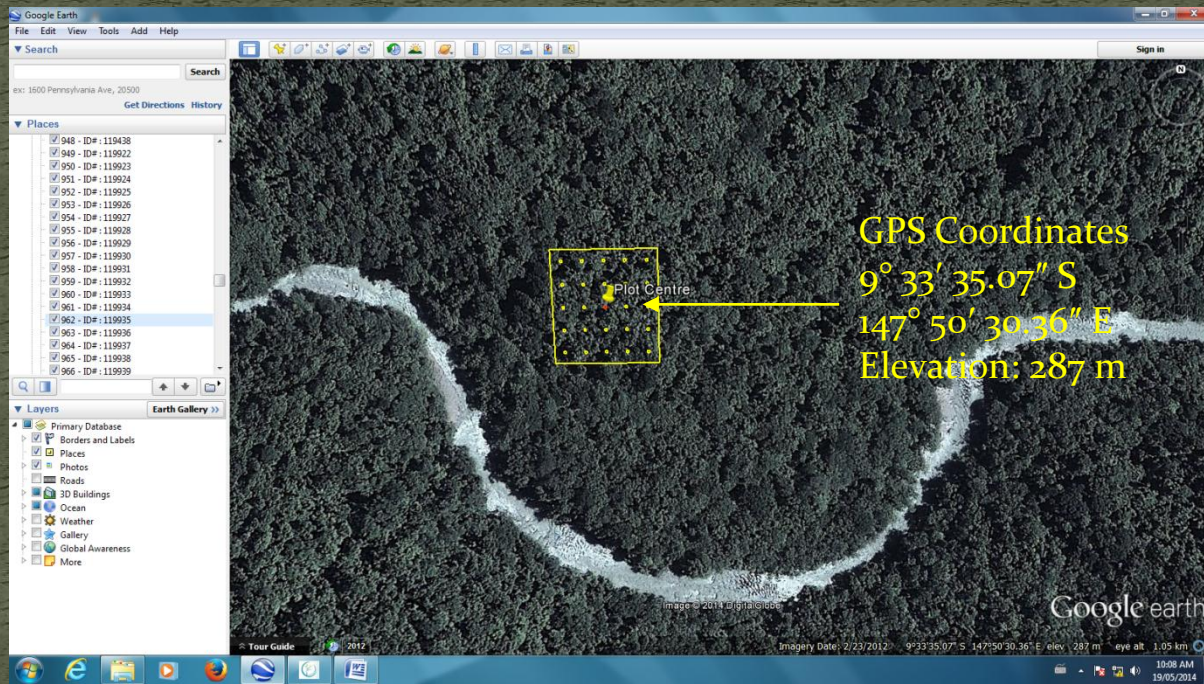
# 2. Objective

The basic aim is to provide a set of

- field measurement guidelines to assist field officers and technical staff in measuring trees, (live, dead standing & fallen) to quantify the amount of above ground biomass/carbon.

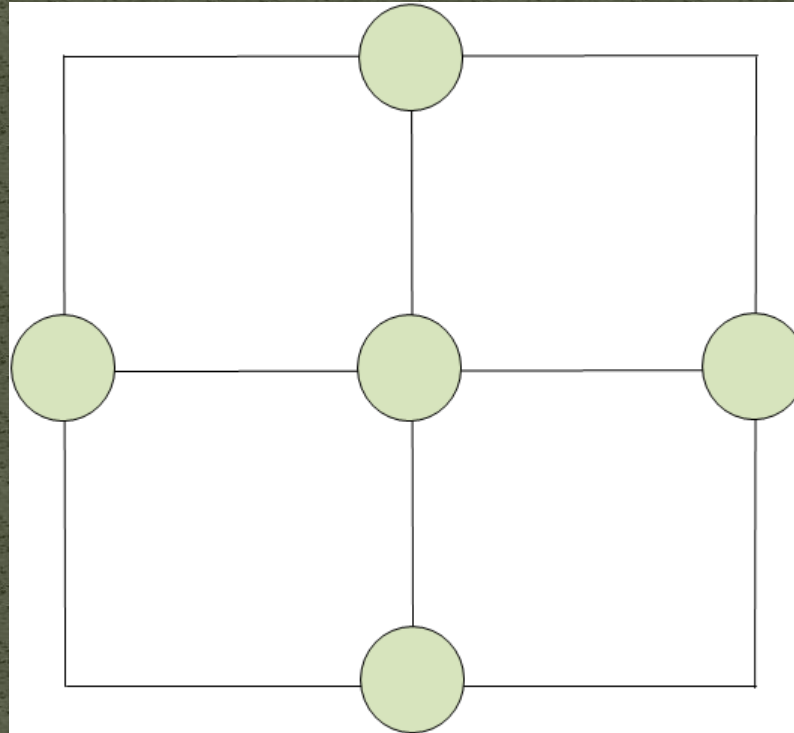
### 3. Field measurement

- Accessing the Plot: Air, sea, road
- Locating the Plot: Use of GPS

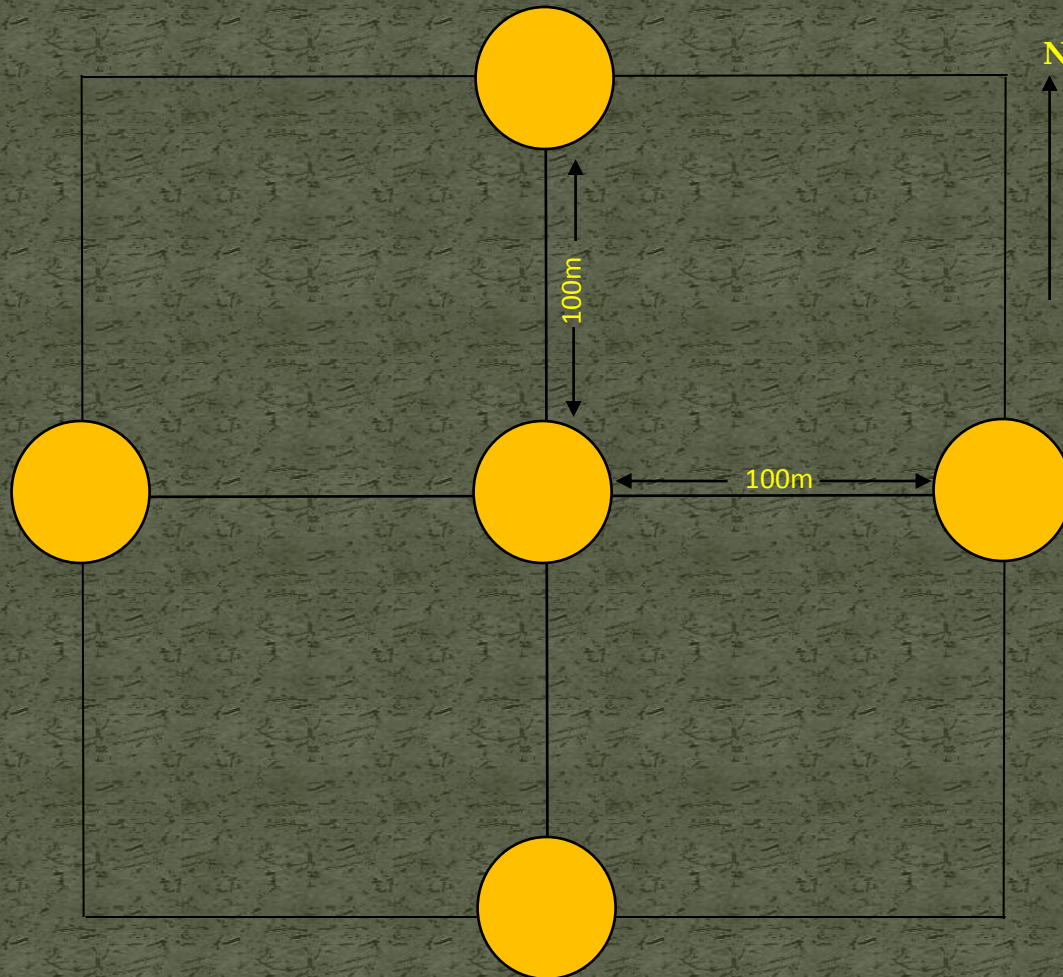


## 4. Field measurement

- Setting up of the Plot
- Plot Layout (Circular Plot)
- Cluster (5)



# Plot Dimensions

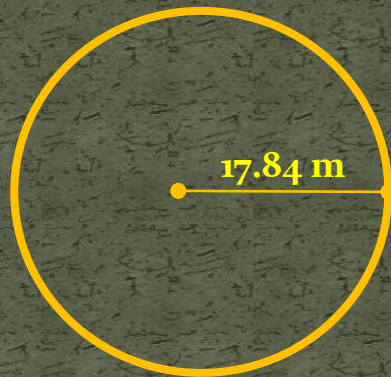


# Plot Size

Main Plot (Plot A)

Plot radius of 17.84 m

Measure all trees  $\geq 50$  cm dbh

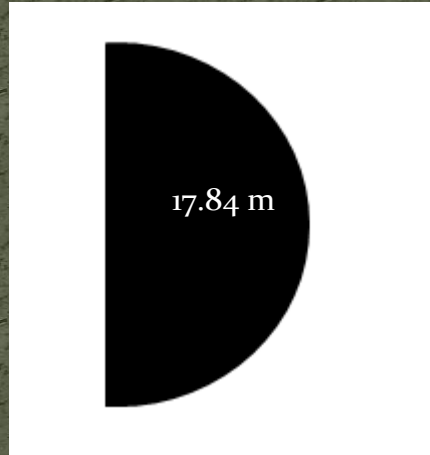


# Plot size

Sub-plot1 (Plot B)

Plot radius: 17.84 m

Measure all trees  $\geq 30$  cm dbh (half the size of main plot)

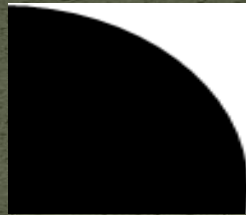




# Sub plot 2 (Plot C)

Plot radius: 12.62 m

Measure trees 10-29 cm dbh (Poles )



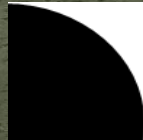
12.62m

## Sub plot 3 (Plot D)

Plot radius: 8.0 m

Measure saplings 5-9.9cm

Seedling: Regeneration count (tally)



8.0 m

## 5. Sampling plot and sub-plot Measurement parameters

Plot Type	Plot Shape	Plot Size		Tree Size	Information Collected
		m <sup>2</sup>	ha		
Main Plot (All Sampling Units)	17.84m	1000	0.1	Measure all trees > 50 cm dbh	Species, dbh, height,
Sub plot 1 (All Sampling Units)	17.84m	500	0.05	Measure all trees >30 cm dbh	Species, dbh, height
Sub plot 2 (All Sampling Units)	12.62m	125	0.0125	Measure all poles >10 cm dbh	Species, dbh
Sub plot 3 (All Sampling Units)	8m	50	0.005	Count number of seedlings dbh < 5 cm and height > 1.5 m	Species groups

## 6. Parameters to be measured

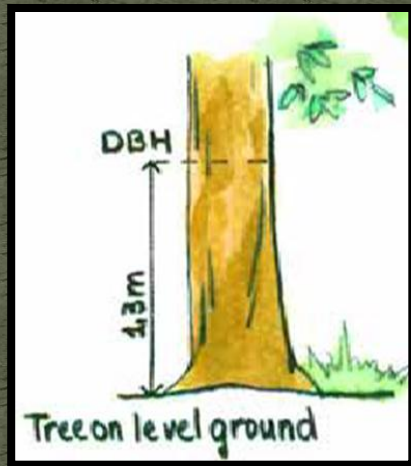
Diameter (dbh) in cm

Height (m): using clinometer & height pole

Length (lying deadwood)

# Diameter measurement

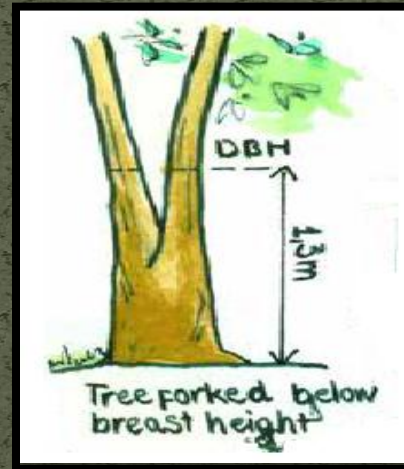
## Common scenarios encountered



1



2



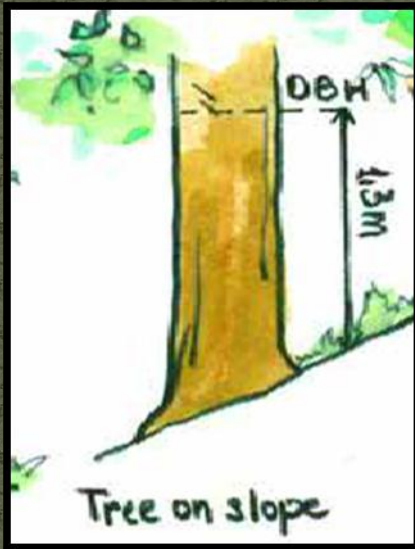
3



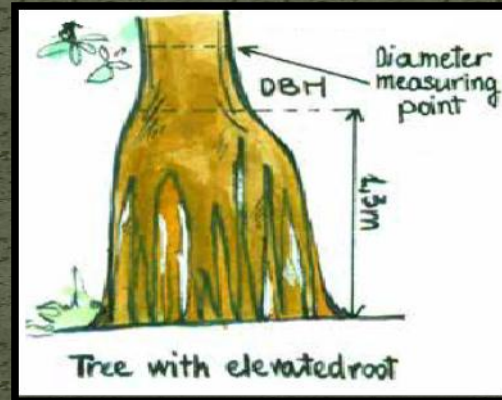
4

# Measurement Parameters

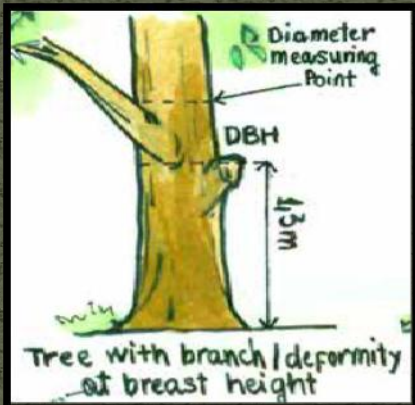
## Scenarios encountered



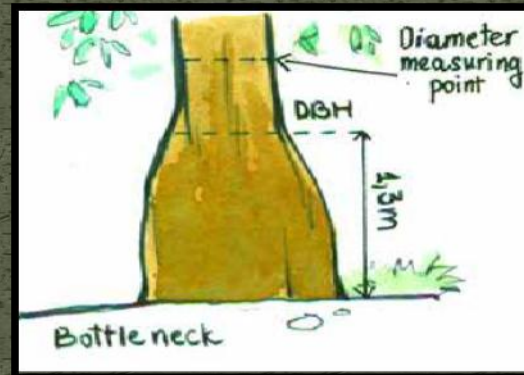
5



7



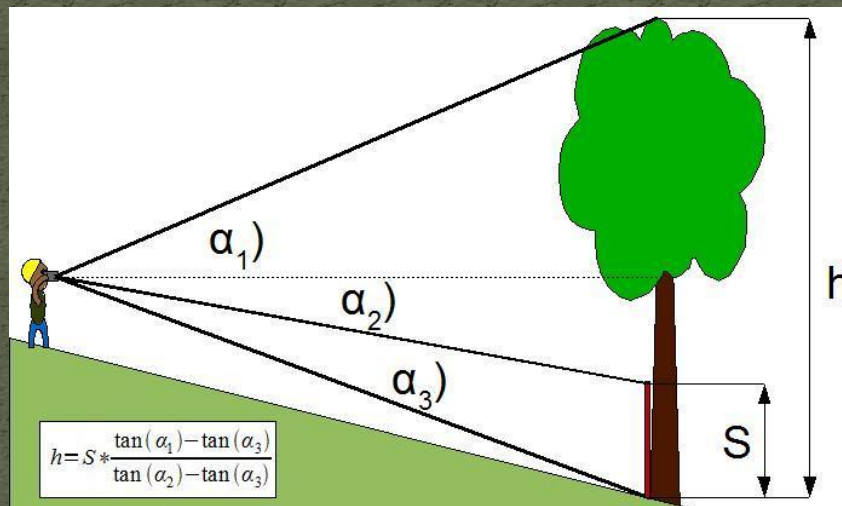
6



8

# Height Measurement

- Tree Height Measurement  
Using clinometer and height pole







# Data analysis

- Data entry
- Data Analysis

Open Foris Collect (Calc)

Thank you...