

AFRIT_SPL Small Tree Project with FPInnovations

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Scope of Work

The following AFRIT-SPL plots will have additional small tree work carried out on them to support a project done in cooperation with Dr Jili Li of FPIInnovations. Location maps (containing UTM coordinates are provided at the back of this document.

Plot #	Forest Type	Previous Small Tree Data	SubPlot Centre Reference
PRF040	Natural Hardwood	Yes	Use PRF plot Centre
PRF101	Natural Hardwood	Yes	Use PRF plot Centre
PRF161	Natural Hardwood	Yes	Use PRF plot Centre
PRF010	Plantation	Yes	Use PRF plot Centre
PRF200	Plantation	No	Use an large tree as Subplot Centre
PRF209	Plantation	No	Use an large tree as Subplot Centre
PR1110 ¹	Natural Pine	Yes	Use PRF plot Centre
PRF185	Natural Pine	No	Use an large tree as Subplot Centre
PRF186	Natural Pine	Yes	Use PRF plot Centre
PRF124	Mixed	No	Use PRF plot Centre
PRF176	Mixed	No	Use PRF plot Centre

¹ AWARE plot installed by Karin van Ewijk

Field Sampling Protocol

1. Select PRF plots that have both PRF small tree measured 2014 data and GeoSLAM data.
2. Establish a subplot of **3.99 m** at the plot centre (or for plots PRF200, PRF209 and PRF185 that don't have small trees at the centre of a plot – choose a large tree as a subplot centre. Indicate whether the centre plot post was used:

Centre of SubPlot: Plot Post

3. OR - If a large tree was used as a subplot reference:
 - a. Record the tree number used
 - b. Measure the distance and azimuth from the plot centre to the large tree used for subplot center.

Centre of SubPlot: Plot Post or Large Tree number degrees from post metres from post

4. In each subplot, stem map all **LIVE** trees with **DBH \geq 0.1 – 10.0 cm (but a minimum of 2 m high and a tree showing a clear stem and crown)**:
 - a. Record the DBH and species, distance and azimuth of each stem mapped tree
 - b. Select two stem mapped trees that are visible from the sky as much as possible and measure their height.
 - i. If no trees are visible from the sky, select two isolated sample trees (\leq 10 cm DBH) that not close to any large tree trunks and measure their height.
 - ii. **If the above two scenarios cannot be found, select the tallest sample tree in the subplot and measure its height.**

Species	DBh cm	Distance m	Azimuth degrees	Height m	Comments
1	2.5	3.1	30	3.2	
32	8.2	1.8	45	10.2	
32	5.2	0.9	270	6.2	might not be visible from sky
2	1.2	1.5	300		

5. Count the number of dead trees with **DBH \geq 0.1 – 10.0 cm (but a minimum of 2 m high)** on the Tally form.

Dead Tree Summary

Count of Dead Trees in Plot

2

with DBH \geq 0.1 - 10cm DBH

6. Take one picture for each subplot. Note it as completed on the tally form.

Date:

Photograph Taken:

7. If there is any stump on the ground that is not rotted badly, stem map its position as well (distance and azimuth). Maximum 3 stumps to be mapped in one subplot. See Tally form section provided below with tallying big, prominent rocks.
8. If there is any big rock (big enough to attract one's attention, at least half meter in size) on the ground, map its position as well (distance and azimuth from plot centre or Large tree subplot centre). Maximum 3 rocks to be mapped in one subplot.

Record location of stumps and rocks on this portion of the tally form.

Stem Mapped Natural Features					
Feature	Distance m	Azimuth <small>degrees</small>	Feature	Distance m	Azimuth <small>degrees</small>
Stump 1			Rock 1		
Stump 2			Rock 2		
Stump 3			Rock 3		

9. Provide any notes on the plot condition that may assist the researcher better understand the information you have recorded.

Notes:	<i>Subplot located in a rocky portion of the plot which is on a severe slope</i>
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Small Tree Spatial Stem Mapping Plots





