




Update on Training on National Forest Inventory manual development and capacity building

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4th Meeting of the Cambodia REDD+ Taskforce
Phnom Penh
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TCP/CMB/3304 NFI field manual development

Overview

- Initial recommendation provided by in NFI Design consultation December 2013,
- NFI Field manual was completed and shared with relevant institutions for proof-reading
- Training to support Cambodian NFI manual development and capacity building organized by Forestry Administration:
 1. NFI field manual training in Siem Reap (Deciduous, Semi-evergreen, Inundated forest) (Siem Reap 10-13 Feb, 2014)
 2. Class-room training and discussion sessions on feedback and advantages and disadvantages of circular vs rectangular plot shapes (Phnom Penh, 17-20 February, 2014)
 3. NFI field manual test in Koh Kong (Rear-mangrove, mangrove, evergreen forest) upon request from participants (Koh Kong, 11-14 March, 2014)



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TCP/CMB/3304 NFI field manual development

I. NFI field manual training in Siem Reap 10-13 Feb, 2014
(Deciduous, Semi-evergreen, Inundated forest)

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Day 1: Class-room session; Presentation of the NFI manual



Day 2: Basic training of instruments and field measurement techniques



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Day 3: Plot measurement in Deciduous and Semi-evergreen forest LUVS (upland strata)



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Day 4: Plot measurement in Flooded forest LUVS (wetland strata)



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II. Class-room training in Phnom Penh, 17-20 Feb, 2014
and feedback and discussion on advantages and disadvantages
of circular vs rectangular plot shapes

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TCP/CMB/3304 NFI Manual Feedback

Summary Key comments from Proof-reading:



Field safety: to include some strategic points into the manual like: field safety

Calculation: suggest to included formulas to calculate the number of plots by forest type, Formula for calculation of volume, etc.



Equipment: Consideration for additional equipment

Cluster Design for upland and wetland strata consideration: Is it possible to use the circular plots? (design both rectangular and circular plots?)

Additional clarification: If some plots fall into open area or forest area which already cleared, is it possible to shift the plots to other location? If so, which site (direction) should be shifted?



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TCP/CMB/3304 NFI Manual Feedback



Summary Comments Field Teams:

Field Forms: Several suggestions to improve field forms


Equipment: Consideration for the use of equipment for measurement and additional equipment to be included in the list of materials

Clear roles and responsibilities: Recommending 6-8 persons per team including guard and local assistants

Circular vs Rectangular plot considerations (see next slide)



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TCP/CMB/3304 NFI Manual Feedback

Comments Field Teams (advantages and disadvantages) to Siem Reap:

	Advantages	Disadvantages
Circular	<ol style="list-style-type: none"> 1. Easier to establish 2. Less errors 3. Need less manpower 4. Easy to record location of trees (bearing and distance) 	<ol style="list-style-type: none"> 1. Difficult to estimate if the tree is inside or outside the plot (boundary not clear) 2. Difficult to apply in evergreen and semi-evergreen forest
Rectangular	<ol style="list-style-type: none"> 1. Easy to measure, after plot layout 2. Easier to allocate trees to subplots 	<ol style="list-style-type: none"> 1. Establishment takes time 2. Need more manpower 3. Tree location takes time 4. Difficult to use vertex

Black = comments Monday 17 Feb 2014

Blue = additional comments 20 Feb 2014

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III. NFI field manual test in Koh Kong 11-14 March, 2014
(Rear-mangrove, mangrove, evergreen forest)

upon request from participants!

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Day 1: Remote Sensing Reconnaissance training



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Day 2: training and practice session; Rear-mangroves



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Day 3: training and practice session; Mangroves



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Day 4: training and practice session; Evergreen forest (incl. slope correction training)

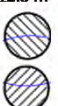



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TCP/CMB/3304 NFI shape considerations

Field mission to Koh Kong , comparison plots with similar area dimensions:

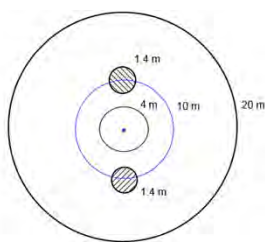
	Circular (Dimensions)	Circular (Area)	Rectangular (Dimensions)	Rectangular (Area)	
Plot	20 m	1 256.6 m ²	42 m x 30m	1260.0 m ²	dbh ≥ 30 cm
Subplot 1	10 m	314.2 m ²	21 m x 15m	315.0 m ²	dbh ≥ 10 cm
Subplot 2	4 m	50.3 m ²	7 m x 7m	49.0 m ²	dbh ≥ 5 cm
Subplot 3 for samplings, shrubs, and climbers	1.4 m (2 circles)	12.3 m ² 	4 m x 3 m	12.0 m ²	Trees: 1cm<dbh <5 cm Shrubs, climbers: dbh ≥ 5cm
Subplot 4 for seedlings, small shrubs and climbers	1.4 m	6.2 m ² 	2 m x 3 m	6.0 m ²	Trees: dbh < 1cm or no dbh; Shrubs, climbers: 1cm ≤ dbh < 5cm

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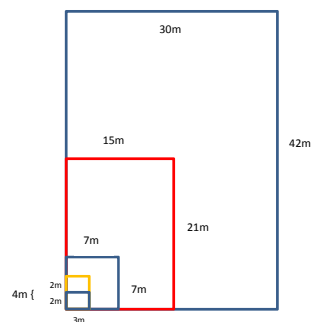


TCP/CMB/3304 NFI shape considerations

Field mission to Koh Kong , comparison plots with similar area dimensions:



Circular



Rectangular

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TCP/CMB/3304 NFI shape considerations

Field mission to Koh Kong initial observations:

	Advantages	Disadvantages
Circular	<ol style="list-style-type: none"> 1. Saves considerable time (total 14h13 circular, 18h40 rectangular for all groups) 2. Direct measurement of horizontal distance of tree to plot center using vertex in sloped plots 	<ol style="list-style-type: none"> 1. Additional training needed on the use of Vertex
Rectangular	<ol style="list-style-type: none"> 1. Feeling of appropriateness to current knowledge 	<ol style="list-style-type: none"> 1. In general more time needed to measure same area size 2. Slope correction necessary for X, Y distances measured in the field

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TCP/CMB/3304 NFI field manual development

Follow-up actions:

- Presentations of results at MRV/REL technical team meeting (20 March 2014), 4th Meeting of the Cambodia REDD+ Taskforce (28 March 2014)
- Compiled of feedback from FA, FAO, and participant to the NFI field manual training and testing; working on the final draft
- Final draft being translated in Khmer and made available for final comments

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Thank you!



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