



Boundary Determination to facilitate measuring and monitoring of carbon stocks and biodiversity

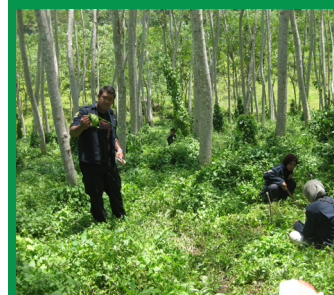


Determining boundary of activities:

- Aim to obtain baseline and basis data spatial about forest inventory and other bio-physical condition
- Include establishment of representative permanent sample plots (PSP) for monitoring forest change, measuring growth and yield (increment), estimating timber volume, species distribution, and biodiversity.

Meru Betiri National Park (MBNP), situated within 113°05'8"38"-113°05'8"30" BT and 8°02'0"48"-8°03'3"48" LS, has been selected as a representative conservation forest in Indonesia because of challenges in managing forest sustainably, hence contribute to reducing global warming which could have catastrophic impacts on the human living-environment. Determining the geographic boundary within MBNP aims to facilitate all activities that contribute to source and sinks in CO₂ equivalent from the five pool of carbon, i.e., above ground biomass (AGB), below ground biomass (BGB), dead wood, litter and soil. For this purposes, about 40 permanent sample plots (PSP) at 20 x 100 meter will be laid down representing each zone and land use category. The number and coordinates of each PSP can be seen in Table below.

NUCLEUS ZONE			FOREST ZONE		
PSP Number	Coordinates		PSP Number	Coordinates	
	X	Y		X	Y
4	825	9,064,108	2	825	9,054,540
5	824	9,067,048	6	822	9,052,727
8	821	9,057,899	7	821	9,055,240
9	820	9,053,991	13	815	9,055,417
12	816	9,053,194	14	811	9,058,926
16	810	9,062,281	15	809	9,059,962
17	810	9,063,750	20	808	9,070,528
18	810	9,065,633	27	816	9,071,205
19	809	9,067,547	28	816	9,073,438
22	822	9,072,384	29	803	9,067,694
23	822	9,069,420	30	803	9,065,050
24	820	9,067,905	32	805	9,063,410
25	818	9,067,945	33	802	9,060,138
26	818	9,069,507	39	791	9,063,687
34	801	9,061,393	40	791	9,062,255
37	793	9,061,949			
38	792	9,063,143			
UTILIZATION ZONE			REHABILITATION ZONE		
PSP Number	Coordinates		PSP Number	Coordinates	
	X	Y		X	Y
1	826	9,052,215	3	825	9,055,591
11	818	9,052,706	21	808	9,071,974
35	799	9,061,538	36	795	9,067,367
BUFFER/SPECIAL ZONE			REHABILITATION ZONE		
PSP Number	Coordinates		PSP Number	Coordinates	
	X	Y		X	Y
10	817	9,056,358			
31	804	9,063,672			



MBNP Boundary and Plan of PSP Location can be seen in Figure 1.

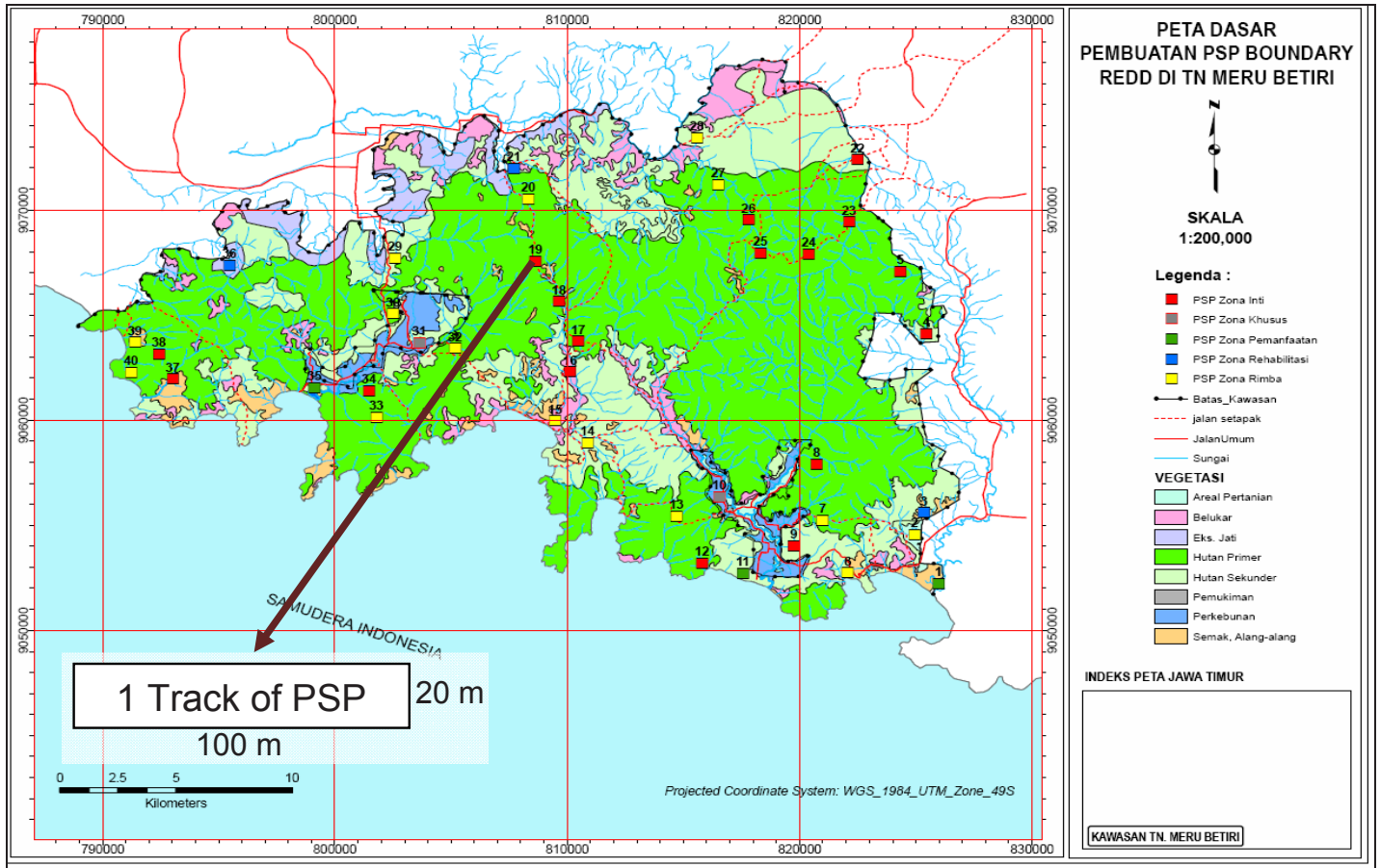


Figure 1. Boundary of MBNP and Location of PSP

Remote Sensing Monitoring

Satellite imagery for monitoring forest change would be used to monitor baseline deviation spatially. This remote sensing analysis would be backed up with PSP data from the ground (type of vegetation, diameter and height of tree). This is to ensure that the activities apply most demanding methods with highest certainty and accuracy, i.e., tier 3, hence changes of carbon would be monitored accurately by applying principles of measurable, reportable and verifiable (MRV) way.

Other data that need to be recorded are type of tree inventory, condition of the location, such as topography, soil, land use system, etc. By doing this, baseline data would be able to determine.



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