



Country situation on estimation of carbon stock change in mineral soils

Country: INDONESIA

Name of presenter: Budiharto

Names of contributors: Adib Hasanawi
Budiharto
Heri Purnomo
Ibrahim Adamy

1) Greenhouse gas emission (GHG) data



Agriculture Sector's Key Category Analysis in 2020

Kode	Kategori	Gas	Emisi (CO2e)	Kontribusi %	Akumulasi %
3.C4	DIRECT N2O MANAGE SOILS	N2O	26.845,84	27,2	27,2
3.C7	RICE CULTIVATIONS	CH4	24.863,76	25,19	52,39
3.A1	ENTERIC FERMENTATION	CH4	18.174,00	18,41	70,80
3.A2b	DIRECT N2O MANURE MANAGEMENT	N2O	8.220,00	8,33	79,13
3.C5	INDIRECT N2O MANAGE SOILS	N2O	6.414,16	6,5	85,63
3.C6	INDIRECT N2O MANURE MANAGEMENT	N2O	4.786,00	4,85	90,48
3.C3	UREA FERTILIZATION	CO2	3.589,00	3,64	94,11
3.A2a	MANURE MANAGEMENT	CH4	2.002,00	2,03	96,14
3.C2	LIMING	CO2	1.781,24	1,8	97,95
3.C1a	BIOMASS BURNING CL	CH4, N2O	1.246,38	1,26	99,21
3.C1b	BIOMASS BURNING GL	CH4, N2O	780,57	0,79	100
			98.702,96	100	

Folu Sector's Key Category Analysis in 2020

Kategori	Emisi CO2 Eq (Gg)	Absolute	Kontribusi (%)	Kumulatif (%)
Other: Peat Decomposition	397.422,84	397.422,84	46,01	46,01
3B1a. Forest Remaining Forest	-335.018,10	335.018,10	38,78	84,79
3B6b. Non-Otherland to Otherland	52.942,87	52.942,87	6,13	90,92
3B2b. Non-Cropland to Cropland	51.608,25	51.608,25	5,97	96,89
Other: Peat Fire	18.460,42	18.460,42	2,14	99,03
3B2a. Cropland Remaining Cropland	-3.463,77	3.463,77	0,4	99,43
3C. Biomass Burning	2.088,46	2.088,46	0,24	99,67
3B3b. Non-Grassland to Grassland	-1.635,28	1.635,28	0,19	99,86
3B5b. Non-Settlement to Settlement	1.113,96	1.113,96	0,13	99,99
3B1b. Non-Forest to Forest	-84,9	84,9	0,01	100
3B3a. Grassland Remaining Grassland	0	0	0	100
3B4a. Wetland Remaining Wetland	NE	NE	NE	NE
3B4b. Non-Wetland to Wetland	NE	NE	NE	NE
3B5a. Settlement Remaining Settlement	0	0	0	100
3B6a. Otherland Remaining Otherland	0	0	0	100
Total	183.434,76	863.838,84	100	100

2) What are the climate targets (NDC or other) related to soil organic carbon?

No.	Sector	2010	Emission Level 2030 (Million Tons CO ₂ e)			Emission reduction				Annual Average Growth BAU (2010 – 2030)	Average Growth 2000 – 2012*
			BAU	CM1	CM2	Million Tons CO ₂ e		Percentage from Total BAU			
						CM1	CM2	CM1	CM2		
1	Energy*	453.2	1,669	1,355	1,271	314	398	11%	14%	6.7%	4.50%
2	Waste	88	296	285	270	11	26	0.38%	1%	6.3%	4.00%
3	IPPU	36	69.6	66.85	66.35	2.75	3.25	0.10%	0.11%	3.4%	0.10%
4	Agriculture	110.5	119.66	110.39	115.86	9	4	0.32%	0.13%	0.4%	1.30%
5	Forestry**	647	714	217	64	497	650	17.2%	23%	0.5%	2.70%
	Total	1,334	2,869	2,034	1,787	834	1,081	29%	38%	3.9%	3.20%

** Including peat fire

Specific measures :

1. Peat restoration
2. Peat water level management
3. Peat fire prevention

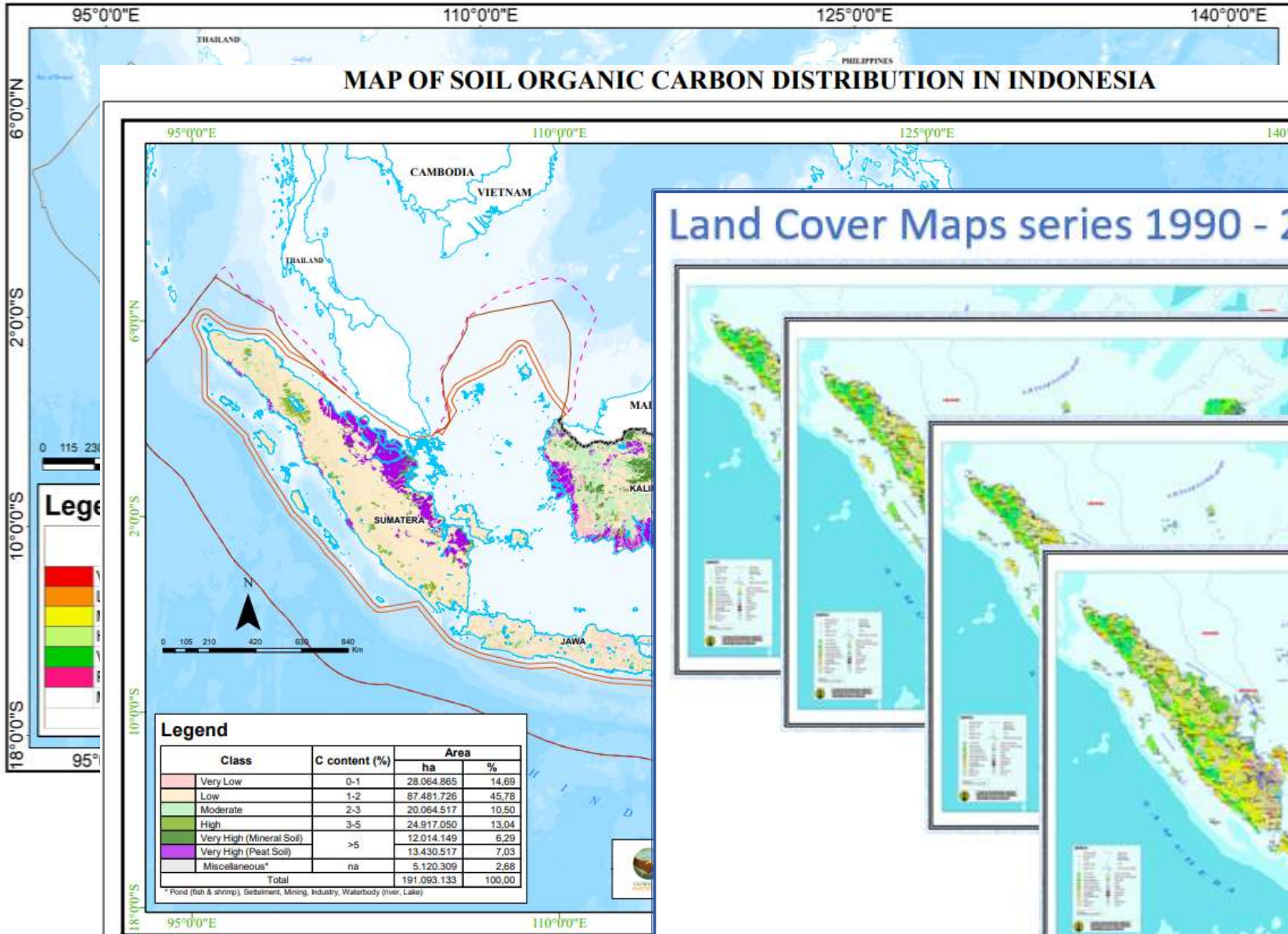
The land cover associated with the measures:

1. Wetland (peat land)
2. Plantation
3. Agriculture

NDC_FOLU : MAIN AREAS OF ACTIONS

1. Reducing deforestation (< 0,45 ha- 0,325 Mha per year in 2030)
2. Enhanced implementation of sustainable management principles in both natural production forests (reduce degradation) and plantation production forests.
3. Rehabilitation of degraded lands of 12 million ha by 2030 or 800 000 ha per year with 90 % survival rates.
4. Peatlands restoration of 2 million ha by 2030 with 90 % success.

3) What are the soil organic carbon data/maps available at national level ?



Land Cover Maps series 1990 - 2021



Plan of Development SOC Maps to Support National GHGI

1. Complete the attribute data with the Activity Data (AD) : land use changes and management changes (e.g. Forest Land, Cropland, Grassland, Wetlands, Settlements, Other land)
2. Information on historical land use (conversion within the last 20 years based on IPCC default)
3. Produce carbon sequestration potential maps with the capacity building: training for soil organic C sequestration potential (GSOCseq)

Thank You

Terimakasih

