

APPENDIX 1 - Malaysia

Table A1.1. Carbon debt calculation of Malaysia case

		estimates					references	
Carbon debt due to conversion of lowland tropical rainforest								
Aboveground carbon stock loss	197.5 Mg C ha ⁻¹	268	254.5	201.25	157	178	126	(Yamakura et al. 1986, Hoshizahi et al. 2004, Imai et al. 2009, Miettinen and Liew 2009, Niiyama et al. 2010)
-19% forest products	37.5 Mg C ha ⁻¹							(IPCC 2006)
subtotal	159.9 Mg C ha⁻¹							
Belowground carbon stock loss								
biomass	47.8 Mg C ha ⁻¹	13%	21%	26%	23.50%	37%		(Houghton and Hackler 2001)
		47.95	[Mg C ha ⁻¹]					(Niiyama et al. 2010)
soil	18.2 Mg C ha ⁻¹							(IPCC 2006)
subtotal	66.0 Mg C ha⁻¹							
Carbon stocked in oil palm plantation	35.8 Mg C ha ⁻¹	36	35.5	31.5	40			(Germer and Sauerborn 2008, Murdiyarso et al. 2010, Pereira de Souza et al. 2010)
Total carbon debt	190.2 Mg C ha⁻¹							
	698.8 Mg CO₂ ha⁻¹							

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