General information

Project code, name, location	BBL-L-003	Bamboologic Van den Borne 1	Reusel, Nederland
Area	1,92	ha	
Holding pool	20%		freed up when measurements confirm projection pathways
Project emissions	20%		LCA estimate, standard 20%, must be pecified when > 20%

Storage potential per ha

Baseline TEC	247	tCO2/ha	Above Ground, Below Ground and Soil Organic Carbon, following CDM AR-ACM0003
Reference capacity	742	tCO2/ha	INBAR (2018), range confirmed from Abebe et al (2021) and others
Storage potential	495	tCO2/ha	Target -/- baseline

Storage potential for project

Projected storage	950	tCO2	storage potential per ha x area
LCA emissions	190	tCO2	project related emissions
Net storage potential	760	tCO2	project storage -/- emissions

Removal Credits issued

Credits first 12 years	760	credits	net storage potential following Land Stored Carbon - Bamboo protocol
Holding Pool	152	credits	20% of the first 12 years + construction credit reservartion
Construction credits reservation	180	tCO2	reservation on construction stored carbon to cover climate zone contingencies
Credits issued 15/05/2023	608	credits	80% of the first 12 years

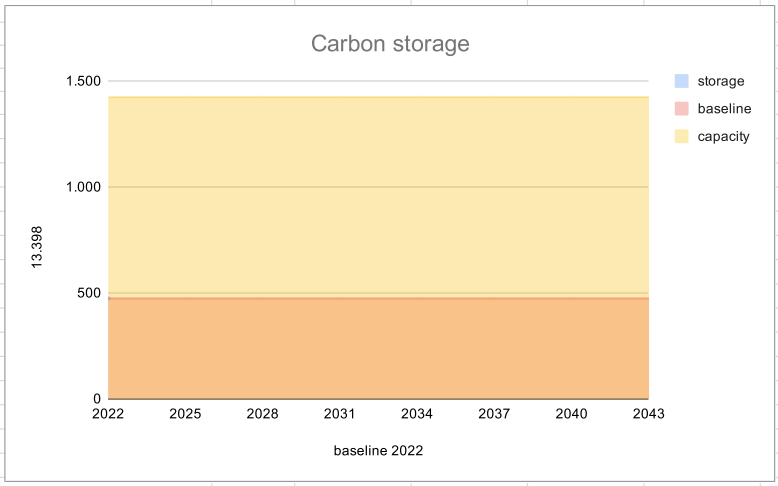
317

26,38784

Field Code	Field name	Size (ha)	Owner	Ownership contract
BBL-L-003-1	Borne Bamboo 1	1,92	Jacob van den Borne	Link

#	Field code	Field	Year	Date	Sample depth	SOC/AGB	Carbon (g/kg)	AGB (tCO2/ha)	Sample/report nr.	report link	Sample done by	Notes
001	BBL-L-003-1	Borne Bamboo 1	2023	23-3-2023	30	soc	16	nihil	301282/006001799	Link	Eurofins	
002												
003												
004												
005												
006												
007												
009												
010												
011												
012												
013												
014												
015												

Carbon Calculation for		**BBL-L-003**								
Surface	1,92	ha	Fields tab							
Capacity Reference TEC	30,00	SOC g/kg	References tab							
Capacity Reference AGB	316,00	tCO2e/ha	References tab							
	2023		**2026**		**2029**		**2032**		**2035**	
Measurement average	16,00	SOC g/kg	0,00	SOC g/kg	#DIV/0!	SOC g/kg	#DIV/0!	SOC g/kg	#DIV/0!	SOC g/kg
Sample depth	30	cm	#DIV/0!	cm	#DIV/0!	cm	#DIV/0!	cm	#DIV/0!	cm
Calculation depth	30	cm	30	cm	30	cm	30	cm	30	cm
Soil density	1,403	g/cm3	#N/A	g/cm3	#DIV/0!	g/cm3	#DIV/0!	g/cm3	#DIV/0!	g/cm3
SOC (soil carbon) / ha	247	tCO2e/ha	#N/A	tCO2e/ha	#DIV/0!	tCO2e/ha	#DIV/0!	tCO2e/ha	#DIV/0!	tCO2e/ha
AGB (above ground) / ha	0,00	tCO2e/ha	#DIV/0!	tCO2e/ha	#DIV/0!	tCO2e/ha	#DIV/0!	tCO2e/ha	#DIV/0!	tCO2e/ha
Storage current	474	tCO2e	#N/A	tCO2e	#DIV/0!	tCO2e	#DIV/0!	tCO2e	#DIV/0!	tCO2e
Target storage / ha	742	tCO2e/ha	742	tCO2e/ha	742	tCO2e/ha	742	tCO2e/ha	742	tCO2e/ha
Target storage project	1.424	tCO2e	1.424	tCO2e	1.424	tCO2e	1.424	tCO2e	1.424	tCO2e



Sources		20																
value	**source**	**URL**	Notes															
CEDA aboveground biomass carbon	https://climateesaint/media/dc	https://datacedaa	2018 data															
SOC	A critical review of the conventional SOC to SOM conversion factor (Geoderma,Volume 156, Issues 3–4, 15 May 2010, Pages 75-83)																	
Density	Wageningen University	https://edepot.wu	We've added these soil density levels to the calculation factors tab															
Reference data for capacity																		
Reference description	INBAR / Van der Lugt et al (2018), range confirmed from Abebe et al (2021) and others. See below (References)																	
SOC (soil)	30,00	gC/kg																
ABG + BGB	316	tCO2e/ha	394,00															
Total Ecosystem Carbon TEC	742,00	tCO2e/ha																
																agb t/ha	avg	min	max
References																0	0	0	0
Bamboo		20,000	year															
value	**CO2/ha**	**CO2/ha/y**	**range low**	**range high**	**range avg**	**unit**	**source**	**URL**	Notes									
Inda aboveground biomass carbon		79,11	15,360	27,79	21,575	tC/ha/y	Devi et al 2021	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7803772/										
AGB stock Ethiopia Oxytenanthera abys	305,07	15,25	83,200	83,2	83,200	tC/ha	Abebe et al 2021	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8447768/										
SOC stock Ethiopia Oxytenanthera abys	256,67	12,83	70,000	70	70,000	tC/ha	Abebe et al 2021	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8447768/										
AGB + SOC stock	561,73																	
Guadua Aculatea in Nicuragua		29,680 [1]					Ecoplanet Bamb	https://www.reddi	1375 ha, 20yr, annual credits expected 40815, so 30 /ha/y CO2e									
SOC average bamboo forest	495,00		70,000	200	135,000	tC/ha	Yuen et al (2017)	https://www.inbar.int/resources/inbar_publications/carbon-off-setting-with-bamboo/										
TEC Guadua and Moso	594,00		156,000	168	162,000	tC/ha	King, Van der Lu	https://www.inbar.int/wp-content/uploads/2021/03/Mar-2021_Integration-of-Bamboo-Forestry-into-Carbon-Markets-2.pdf										
TEC Total Ecosystem Carbon stock	891,00	44,55	94,000	392	243,000	tC/ha	King, Van der Lu	https://www.inbar.int/wp-content/uploads/2021/03/Mar-2021_Integration-of-Bamboo-Forestry-into-Carbon-Markets-2.pdf										
Average Guada-Moso and others	**742,50**	37,13																
Moso total carbon stock china (TEC)	380,11		87,830	119,5	103,665	tC/ha	Xu et al 2018	https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0193024										
	450,000	22,50			#DIV/0!			https://forest.kerala.gov.in/images/gwarm/17bmbopacs.pdf										
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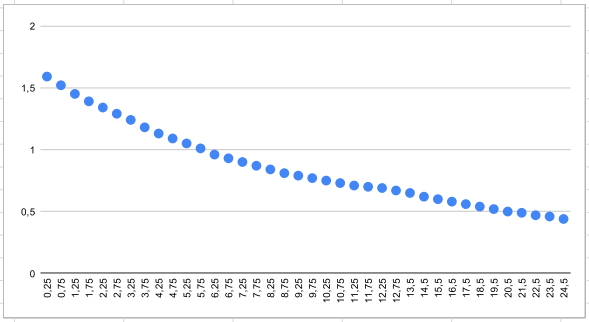
from C to CO2	3,666666667		
soil density	% organic matter	% organic carbon	soil density
1,59	0,5	0,25	1,59
1,52	1,5	0,75	1,52
1,45	2,5	1,25	1,45
1,39	3,5	1,75	1,39
1,34	4,5	2,25	1,34
1,29	5,5	2,75	1,29
1,24	6,5	3,25	1,24
1,18	7,5	3,75	1,18
1,13	8,5	4,25	1,13
1,09	9,5	4,75	1,09
1,05	10,5	5,25	1,05
1,01	11,5	5,75	1,01
0,96	12,5	6,25	0,96
0,93	13,5	6,75	0,93
0,9	14,5	7,25	0,9
0,87	15,5	7,75	0,87
0,84	16,5	8,25	0,84
0,81	17,5	8,75	0,81
0,79	18,5	9,25	0,79
0,77	19,5	9,75	0,77
0,75	20,5	10,25	0,75
0,73	21,5	10,75	0,73
0,71	22,5	11,25	0,71
0,7	23,5	11,75	0,7
0,69	24,5	12,25	0,69
0,67	25,5	12,75	0,67
0,65	27	13,5	0,65
0,62	29	14,5	0,62
0,6	31	15,5	0,6
0,58	33	16,5	0,58
0,56	35	17,5	0,56
0,54	37	18,5	0,54
0,52	39	19,5	0,52
0,5	41	20,5	0,5
0,49	43	21,5	0,49
0,47	45	22,5	0,47
0,46	47	23,5	0,46
0,44	49	24,5	0,44



x2	0,0024	1,403	Density for France
x	-0,1013		
b	1,544		

[1] in 20 years but INCLUDING avoided emissions + REDD+ so baseline is degradation?