

General information

Remover name	Bamboe Boeren		
Project code	BVUL004		
Project name	Masaka 1		
Location	Masaka, Uganda		
Area	190.94	ha	
Starting year	2025		year of planting
Duration	20	years	project duration
Holding pool	20%		freed up when measurements confirm projection pathways
Project emissions	152	tCO2-eq	LCA estimate, or specified when >20%

Per hectare

Baseline TEC	254	tCO2/ha	Soil Organic Carbon and Above Ground Carbon, following CDM AR-ACM0003
Reference capacity	1,006	tCO2/ha	Using CEDA and Soil sample data
Storage potential	752	tCO2/ha	Projection +/- baseline

Per project

Projected storage	143,624	tCO2	storage potential per ha x area
Storage in fence	23,164	tCO2	
Storage in fruit trees	272	tCO2	
LCA emissions	152	tCO2	project related emissions
Net storage potential	166,907	tCO2	project storage +/- emissions over 20 years

Potential Carbon Removal Units

Units first 12 years	100,144	units	12/20 x net storage potential
Holding Pool	20,029	units	20% of the first 12 years
Potential units issued	80,115	units	

Field Code	Field name	Size (ha)	Owner		
BVUL004-1	Masaka 30 HA	30.7	Bamboo Community renting to Bamboe Boeren		
BVUL004-2	Masaka 160 HA	160.24	Bamboo Community renting to Bamboe Boeren		

Carbon Calculation for		BVUL004							
Surface	30.7	ha	Fields tab						
Capacity SOC	495	tCO2/ha	References tab						
Capacity AGB	511	tCO2/ha	References tab						

Sources									
value	source	URL	Notes						
CEDA aboveground biomass carbon	https://climatee	https://dataceda	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 Ur	https://edepot.wu	We've added these soil density levels to the calculation factors tab						
Reference data for capacity									
SOC	495	tCO2e/ha							
SOC reference	135	tC/ha	Yuen et al. (2017), Max. based on 70 species from 184 studies [Max 200, min 70, Average 135]						
AGB	511	tCO2e/ha							
	398	tCO2/ha	Yuen et al. 2017; Hermis et al. 2014; Deepika et al. 2022						
	1.461								

Overview of assessed categories - on plant level (1/2)			Carbon Footprint assessment (ecoinvent 3.10, EF 3.1)			Overview of assessed categories - activities of 20 years (2/2)		
Nursery - Starting material			On plant level (1/2)			Land preparation, planting, maintenance		
Description	Nursery-grown bamboo		Category	CF in kg CO2-eq.	Remarks	Process - land preparation, planting,	by hand	
Average weight per starting material [gr]	0.16		Soil	0.002		Transport of workers	Employment of local farmers in	
Process - propagation	by hand		Pots (Material, Transport)	0.024				
Defined as cut-off: impact of cuttings itself			Transport to field	0.152	-	Maintenance - soil measurement		
Nursery - Soil			Per young plant	0.03	incl. 5% loss	Transport distance (Kampala - field)	190	
Description	Common Ugandan ground,		Per plant in field	0.216	incl. 20% loss	Transport vehicle	Large car, Diesel, EURO 4	
Average weight per soil plug [kg]	0.9		All plants in field	29511	625 plants/ha for total	Occurring amount (in 20 years)	7	
Transport distance (Natabulirwa - Seeta) [km]	4					Maintenance - travelling (to the field)		
Transport vehicle	Small truck, 3.5-7.5 tons,		Activities of 20 years (2/2)			Bamboo Village / Bamboe Boeren	Visiting field, maintaining the	
Process - soil extraction	by hand		Category	CF in kg CO2-eq.	Remarks	Transport distance (Kampala - field)	190	
Defined as cut-off: impact of land use change due soil extraction from the ground; impact of soil itself			All plants in field	29511	Plantation and fence	Transport vehicle	Large car, Diesel, EURO 4	
Nursery - Pots			Fruit trees in field	10.05	Transport to field, allocated	Occurring amount (in 20 years)	282	
Description	Polyethylene (PE) grow bags		Maintenance - fertiliser	19305	allocated to 192.7 ha	Bamboo Village / Bamboe Boeren	Business Trips	
Average weight per PE pot [gr]	6.11		Maintenance - fertiliser	12143	allocated to 192.7 ha	Transport distance (Netherlands - Uganda)	6335	
Transport distance (Kampala - Seeta) [km]	19		Maintenance - soil	1111	Forth and back (Masaka),	Transport vehicle	Plane	
Transport vehicle	Pick-up truck, Diesel, Euro 4		Maintenance - travelling (BV)	44750	allocated to 192.7 ha	Occurring amount (in 20 years)	35	
Nursery - Cultivation of young plants			Maintenance - Business trips	45479	Forth and back (Masaka),	Maintenance - fertiliser usage		
Description	Planting of 1 cutting per pot		Total CF of 20 years	152309	kg CO2-eq.	Amount used - CalcGrow [kg/ha]	8	
Process - planting (nursery)	by hand		Total CF of 20 years	152	t CO2-eq.	Amount used - 25-5-5 [kg/ha]	8	
Growth loss	5%					Amount used - Coffee Husk [kg/ha]	125	
Defined as cut-off: water usage						Transport distance (Kampala - field) [km]	190	
Transport from nursery to field						Transport vehicle	Small truck, 3.5-7.5 tons, EURO 4	
Average weight of a young plant [kg]	1.45					Occurring amount fertilizer usage (twice	5	
Transport distance (Seeta - field (Masaka)) [km]	178					Occurring amount transport (per year of	4	
Transport vehicle	Tipper truck, 3.5-7.5, EURO 4							
Field - Cultivation of plantation								
Total amount of growing plants - field and fence	136926							
Growth loss	20%							
Process - planting (field)	by hand							
Transport fruit trees to plantation								
Average weight of a young cocoa/mango plant [kg]	1							
Average weight of a young avocado plant [kg]	2.5							
Total weight of bean seeds [kg]	2.5							
Average weight of a young coffee/pineapple plant [kg]	0.5							
Average weight of a young banana plant [kg]	2.5							
Average weight of a young orange/pomegranate/guava	1							
Average weight of a young jackfruit/strawberry crop [kg]	2.5							
Total weight of watermelon seeds stored in two tins [kg]	0.3							
Transport distance (Malembo, Masaka - field (Malembo,	3							
Transport distance (Masaka town - field (Malembo, Masaka))	20							
Transport vehicle	Small truck, 3.5-7.5 tons,							
Defined as cut-off: impact of young trees itself (grown naturally)								

