

**The Carbon Benefits Project**

Community-Based Closed Area Management

23 March 2023

## **SECTION 1: GENERAL INFORMATION ABOUT PROJECT**

**Project Name:** Community-Based Closed Area Management

**GEF co-financed project:** YES / NO

**Project ID:** 29251

**Funding Agency:** N/A

**Focal Area:** N/A

**Project Status:** Proposal / Active / Completed

**Project Start Date:** 01/01/2012

**Project Duration:** 1 years

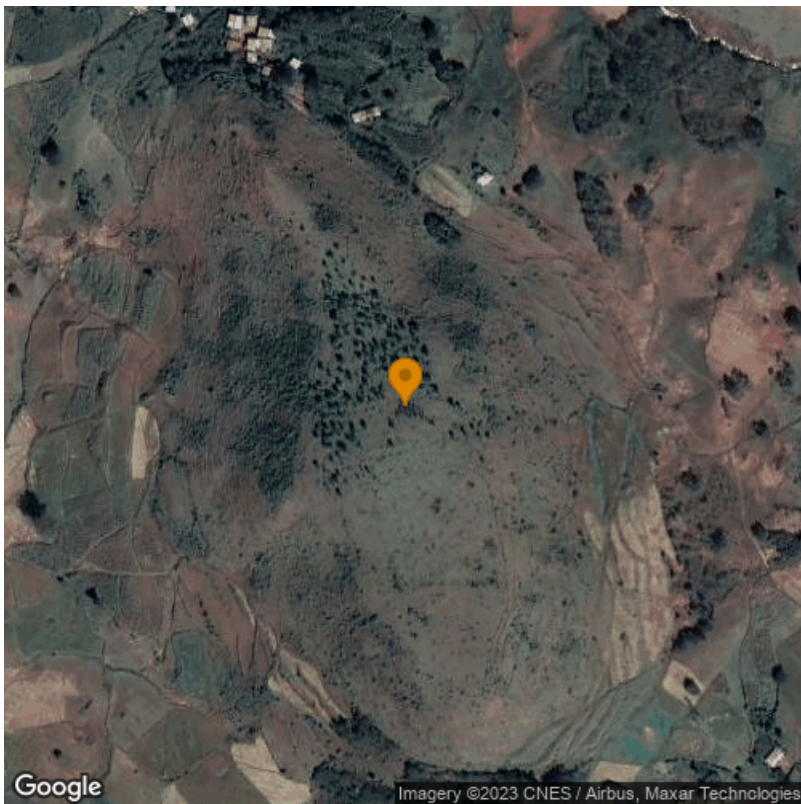
**Project Countries:** Ethiopia

**Project Region:** Amhara Region, West Gojam Zone, Bahir Dar Zurya

Map 1. Project country: Ethiopia



## Map 2. Project Activity Area Locations





**Period for this Report: 2012 - 2032**

**Project Area (ha): 10**

**Area reported on: 10 ha**

**Communities Involved:** near Bahirdar, the capital of Amhara region

**Project Activities:** Community-Based Closed Area Management

**Brief summary of project goal/aim:**

Area closure is a protection system to improve land with degraded vegetation and/or soil, by excluding livestock grazing and applying initial inputs and continuous maintenance. Once recovery is taking place through natural regeneration, area closures can become part of the agricultural system, thereby improving forage quantity and quality and also enhancing the fertility of land.

**Summary of any C benefit goals (optional):**

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## **SECTION 2: INFORMATION ABOUT THE REPORT**

**User Name of Reporter:** Eleanor Milne

**Component route chosen:** A / B

**Methodology used:**

Description	IPCC Tier level	Route used
Carbon Benefits Project, IPCC Simple Assessment	Tier 1	
Carbon Benefits Project, IPCC Detailed Assesment	Tier 2	X
Carbon Benefits Project, Dynamic Modelling	Tier 3	
Carbon Benefits Project, Modelling and Measurement	Tier 3	

**Report Period:** 20 years (2012 - 2032)

### **SECTION 3: C BENEFITS REPORT**

*Total carbon and greenhouse gas balance for the Report Period*

**Total carbon and greenhouse gas balance for report period for baseline scenario (without the project):** 25480 t CO<sub>2</sub>e over 20 years

**Total carbon and greenhouse gas balance for report period for project scenario (with the project):** 23131 t CO<sub>2</sub>e over 20 years

**Total incremental difference<sup>1</sup> (Expected Carbon and Greenhouse Gas Benefit) for the report period:** -2348 t CO<sub>2</sub>e over 20 years

*Annual C change*

**Annual C change for the baseline scenario:** 1274 t CO<sub>2</sub>e / year

**Annual C change for the project scenario:** 1157 t CO<sub>2</sub>e / year

**Annual incremental difference:** -117 t CO<sub>2</sub>e / year

*C benefits report Table and Figures*

Table 3.1 Simple Summary Report following UNFCCC Common Reporting Guidelines.

Table 3.2 Expanded Report showing Carbon Emissions by IPCC AFOLU Source Categories.

Projected report period used in calculations is 20 years, from 2012 to 2032.



Table 3.1 Simple Summary Report following UNFCCC Common Reporting Guidelines.

Greenhouse Gas Source and Sink Categories	Baseline Scenario (2012 - 2013) Emissions and Removals				Project Scenario (2012 - 2013 ) Emissions and Removals				Carbon Benefits		
	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	GHGs	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	GHGs	Total tCO <sub>2</sub> e	tCO <sub>2</sub> e / ha	tCO <sub>2</sub> e / ha /yr
	tonnes CO <sub>2</sub> equivalent				tonnes CO <sub>2</sub> equivalent						
<b>Agriculture</b>											
<b>A. Enteric Methane</b>		15345				15345			0	0	0
<b>B. Manure Management</b>		0	0			0	0		0	0	0
<b>C. Rice Cultivation</b>		0				0			0	0	0
<b>D. Agricultural Soils</b>	0	0	10135		0	0	10135		0	0	0
<b>E. Prescribed Burning of Savannas</b>		0	0	0		0	0	0	0	0	0
<b>F. Field Burning of Agricultural Residues</b>		0	0	0		0	0	0	0	0	0
<b>G. Other</b>	0	0	0	0	0	0	0	0	0	0	0
<b>Land Use Change and Forestry</b>											
<b>A. Forest and other Woody Biomass</b>	0				-2348				-2348	-235	-12
<b>B. Forest and Grassland Conversion</b>	0	0	0	0	0	0	0	0	0	0	0
<b>C. Abandonment of Managed Lands</b>	0				0				0	0	0
<b>D. CO2 Emissions and Removals from Soil</b>	0				0				0	0	0
<b>E. Other</b>	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	0	15345	10135	0	-2348	15345	10135	0	-2348	-235	-12

Notes:

GWP are 100-year time horizon based on estimates from the IPCC Second Assessment Report.

Signs for uptake are (-) and for emissions (+).

Other GHGs include NO<sub>x</sub>, CO, VOC, SO<sub>2</sub>.

Values not identified as 'stocks' are emissions.

A. Forest and other Woody Biomass includes biomass growth and losses from timber harvest and fuelwood gathering.

B. Forest and Grassland Conversion includes emissions from deforestation and shifting cultivation.

D. The change in mineral soil carbon is shown under the 'Project Emissions CO2' column as Baseline minus Project.

F. Other includes emissions from fire, wind, pest, and other natural disturbances.

Table 3.2 Expanded Report showing Carbon Emissions by IPCC AFOLU Source Categories. Projected report period used in calculations is 20 years, from 2012 to 2032.

		Without Project (Baseline scenario)			With Project (Project scenario)			Incremental difference (Project scenario minus baseline scenario)		
		tCO <sub>2</sub> e	tCO <sub>2</sub> e/yr		tCO <sub>2</sub> e	tCO <sub>2</sub> e/yr		tCO <sub>2</sub> e	tCO <sub>2</sub> e/yr	
Source category	Source sub-category	Total	Annual	Uncertainty (%)	Total	Annual	Uncertainty (%)	Total	Annual	Uncertainty (%)
<b>Total Enteric Methane</b>		15345	767	13	15345	767	13	0	0	0
<b>Total Manure Methane</b>		0	0	0	0	0	0	0	0	0
<b>Total Manure Nitrous Oxide</b>		0	0	0	0	0	0	0	0	0
<b>Total Rice Methane</b>		0	0	0	0	0	0	0	0	0
Soil Nitrous Oxide	Crop Residue N	0	0	0	0	0	0	0	0	0
	Manure N in Pasture/Range/Paddock	10135	507	62	10135	507	62	0	0	0
	Manure N Amendments	0	0	0	0	0	0	0	0	0
	Mineralization of Cultivated Organic Soils	0	0	0	0	0	0	0	0	0
	Synthetic N Fertilizer	0	0	0	0	0	0	0	0	0
<b>Total Soil Nitrous Oxide</b>		10135	507	59	10135	507	59	0	0	0

Table 3.2 Expanded Report showing Carbon Emissions by IPCC AFOLU Source Categories. Continued. Projected report period used in calculations is 20 years, from 2012 to 2032.

		Without Project (Baseline scenario)			With Project (Project scenario)			Incremental difference (Project scenario minus baseline scenario)		
		tCO <sub>2</sub> e	tCO <sub>2</sub> e/yr		tCO <sub>2</sub> e	tCO <sub>2</sub> e/yr		tCO <sub>2</sub> e	tCO <sub>2</sub> e/yr	
Source category	Source sub-category	Total	Annual	Uncertainty (%)	Total	Annual	Uncertainty (%)	Total	Annual	Uncertainty (%)
Biomass Carbon Stocks	Forest Land	0	0	0	0	0	0	0	0	0
	Grassland/Savanna	0	0	0	-2348	-117	75	-2348	-117	75
	Annual Cropland	0	0	0	0	0	0	0	0	0
	Perennial Cropland	0	0	0	0	0	0	0	0	0
	Agroforestry	0	0	0	0	0	0	0	0	0
	Settlements	0	0	0	0	0	0	0	0	0
	Deforestation	0	0	0	0	0	0	0	0	0
	Shifting Cultivation	0	0	0	0	0	0	0	0	0
<b>Total Biomass Carbon Stocks</b>		0	0	0	-2348	-117	75	-2348	-117	75
Biomass Burning non-CO <sub>2</sub>	Cropland Residue	0	0	0	0	0	0	0	0	0
	Forest Land	0	0	0	0	0	0	0	0	0
	Grassland/Savanna	0	0	0	0	0	0	0	0	0
	Perennial Crops	0	0	0	0	0	0	0	0	0
	Agroforestry	0	0	0	0	0	0	0	0	0
	Settlements	0	0	0	0	0	0	0	0	0
	Deforestation	0	0	0	0	0	0	0	0	0
	Shifting Cultivation	0	0	0	0	0	0	0	0	0
<b>Total Biomass Burning non-CO<sub>2</sub></b>		0	0	0	0	0	0	0	0	0

Table 3.2 Expanded Report showing Carbon Emissions by IPCC AFOLU Source Categories. Continued. Projected report period used in calculations is 20 years, from 2012 to 2032.

		Without Project (Baseline scenario)			With Project (Project scenario)			Incremental difference (Project scenario minus baseline scenario)		
		tCO <sub>2</sub> e	tCO <sub>2</sub> e/yr		tCO <sub>2</sub> e	tCO <sub>2</sub> e/yr		tCO <sub>2</sub> e	tCO <sub>2</sub> e/yr	
Source category	Source sub-category	Total	Annual	Uncertainty (%)	Total	Annual	Uncertainty (%)	Total	Annual	Uncertainty (%)
Soil Carbon Stocks	Mineral Soils*	0	0	0	0	0	0	0	0	0
	Organic Soils	0	0	0	0	0	0	0	0	0
<b>Total Soil Carbon Stocks</b>		0	0	0	0	0	0	0	0	0
<b>Total Greenhouse Gas Emissions</b>		25480	1274	24	23131	1157	23	-2348	-117	19

Notes:

GWP are 100-year time horizon based on estimates from the IPCC Second Assessment Report.

Signs for uptake are (-) and for emissions (+); for greenhouse gas flux, emissions reductions are (-) and emissions increases are (+)

\*The change in mineral soil carbon is shown under the 'With Project' column as Baseline minus Project.

\*Estimates for Mineral soil carbon stocks are not shown as this feature is still under development.

\*Estimates for Perennial Crop woody biomass carbon stocks are not shown as this feature is still under development.

\*Totals for each year are calculated as the annual value times the number of years in the report period.