

The Carbon Benefits Project

Assisted natural regeneration

23 March 2023

SECTION 1: GENERAL INFORMATION ABOUT PROJECT

Project Name: Assisted natural regeneration

GEF co-financed project: YES / NO

Project ID: 29253

Funding Agency: N/A

Focal Area: N/A

Project Status: Proposal / Active / Completed

Project Start Date: 01/01/1992

Project Duration: 1 years

Project Countries: Niger

Project Region: Niger

Map 1. Project country: Niger



Map 2. Project Activity Area Locations



Period for this Report: 1992 - 2012

Project Area (ha): 500000

Area reported on: 500000 ha

Communities Involved: Regions of Tillabéri, Filingué, Ouallam, Téra and Tahoua

Project Activities: Assisted natural regeneration

Brief summary of project goal/aim:

Assisted natural regeneration (ANR) is an agroforestry technique, which consists in protecting and preserving tree seedlings growing naturally on cropland or forest/rangeland.

Summary of any C benefit goals (optional):

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 (1992 - 2012)

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): 0 t CO₂e over 20 years

Total carbon and greenhouse gas balance for report period for project scenario (with the project): -32543700 t CO₂e over 20 years

Total incremental difference¹ (Expected Carbon and Greenhouse Gas Benefit) for the report period: -32543700 t CO₂e over 20 years

Annual C change

Annual C change for the baseline scenario: 0 t CO₂e / year

Annual C change for the project scenario: -1627185 t CO₂e / year

Annual incremental difference: -1627185 t CO₂e / 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 1992 to 2012.

Table 3.1 Simple Summary Report following UNFCCC Common Reporting Guidelines.

| Greenhouse Gas Source and Sink Categories | Baseline Scenario (1992 - 1993) Emissions and Removals | | | | Project Scenario (1992 - 1993) Emissions and Removals | | | | Carbon Benefits | | |
|--|---|-----------------|------------------|------|---|-----------------|------------------|------|-----------------------------|----------------------------|--------------------------------|
| | CO ₂ | CH ₄ | N ₂ O | GHGs | CO ₂ | CH ₄ | N ₂ O | GHGs | Total tCO ₂ e | tCO ₂ e / ha | tCO ₂ e / ha /yr |
| | tonnes CO ₂ equivalent | | | | tonnes CO ₂ equivalent | | | | | | |
| Agriculture | | | | | | | | | | | |
| A. Enteric Methane | | 0 | | | | 0 | | | 0 | 0 | 0 |
| B. Manure Management | | 0 | 0 | | | 0 | 0 | | 0 | 0 | 0 |
| C. Rice Cultivation | | 0 | | | | 0 | | | 0 | 0 | 0 |
| D. Agricultural Soils | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 |
| E. Prescribed Burning of Savannas | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| F. Field Burning of Agricultural Residues | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| G. Other | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Land Use Change and Forestry | | | | | | | | | | | |
| A. Forest and other Woody Biomass | 0 | | | | -32543600 | | | | -32543600 | -65 | -3.3 |
| B. Forest and Grassland Conversion | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| C. Abandonment of Managed Lands | 0 | | | | 0 | | | | 0 | 0 | 0 |
| D. CO2 Emissions and Removals from Soil | 0 | | | | -100 | | | | -100 | 0 | 0 |
| E. Other | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 0 | 0 | 0 | -32543700 | 0 | 0 | 0 | -32543700 | -65 | -3.3 |

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_x, CO, VOC, SO₂.

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 1992 to 2012.

| | | Without Project (Baseline scenario) | | | With Project (Project scenario) | | | Incremental difference (Project scenario minus baseline scenario) | | |
|-----------------------------------|--|-------------------------------------|-----------------------|-----------------|---------------------------------|-----------------------|-----------------|---|-----------------------|-----------------|
| | | tCO ₂ e | tCO ₂ e/yr | | tCO ₂ e | tCO ₂ e/yr | | tCO ₂ e | tCO ₂ e/yr | |
| Source category | Source sub-category | Total | Annual | Uncertainty (%) | Total | Annual | Uncertainty (%) | Total | Annual | Uncertainty (%) |
| Total Enteric Methane | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Manure Methane | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Manure Nitrous Oxide | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Rice Methane | | 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 | 0 | 0 | 0 | 0 | 0 | 0 | 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 |
| Total Soil Nitrous Oxide | | 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 1992 to 2012.

| | | Without Project (Baseline scenario) | | | With Project (Project scenario) | | | Incremental difference (Project scenario minus baseline scenario) | | |
|---|----------------------|-------------------------------------|-----------------------|-----------------|---------------------------------|-----------------------|-----------------|---|-----------------------|-----------------|
| | | tCO ₂ e | tCO ₂ e/yr | | tCO ₂ e | tCO ₂ e/yr | | tCO ₂ e | tCO ₂ 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 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 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 | -32543600 | -1627180 | 35 | -32543600 | -1627180 | 35 |
| | 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 |
| Total Biomass Carbon Stocks | | 0 | 0 | 0 | -32543600 | -1627180 | 35 | -32543600 | -1627180 | 35 |
| Biomass Burning non-CO ₂ | 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 |
| Total Biomass Burning non-CO₂ | | 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 1992 to 2012.

| | | Without Project (Baseline scenario) | | | With Project (Project scenario) | | | Incremental difference (Project scenario minus baseline scenario) | | |
|---------------------------------------|---------------------|-------------------------------------|-----------------------|-----------------|---------------------------------|-----------------------|-----------------|---|-----------------------|-----------------|
| | | tCO ₂ e | tCO ₂ e/yr | | tCO ₂ e | tCO ₂ e/yr | | tCO ₂ e | tCO ₂ e/yr | |
| Source category | Source sub-category | Total | Annual | Uncertainty (%) | Total | Annual | Uncertainty (%) | Total | Annual | Uncertainty (%) |
| Soil Carbon Stocks | Mineral Soils* | 0 | 0 | 0 | -100 | -5 | 88 | -100 | -5 | 88 |
| | Organic Soils | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Soil Carbon Stocks | | 0 | 0 | 0 | -100 | -5 | 88 | -100 | -5 | 88 |
| Total Greenhouse Gas Emissions | | 0 | 0 | 88 | -32543700 | -1627185 | 42 | -32543700 | -1627185 | 42 |

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.