Monitoring report form for CDM project activity
(Version 07.0)

Complete this form in accordance with the instructions attached at the end of this form.

MONITORING REPORT		
Title of the project activity	Ibi Batéké degraded savannah afforestation project for fuel-wood production (Democratic Republic of Congo)	
UNFCCC reference number of the project activity	4176	
Version number of the PDD applicable to this monitoring report	02.4	
Version number of this monitoring report	1.4	
Completion date of this monitoring report	04/06/2020	
Monitoring period number	1	
Duration of this monitoring period	01/07/2008 - 30/08/2018	
Monitoring report number for this monitoring period	1	
Project participants	- MUSHIETE & Compagnie SARL - Kingdom of Spain - Ministry for the Ecological Transition & Ministry of Economy and Business - Zeroemissions Carbon Trust, S.A. - International Bank for Reconstruction and Development (IBRD) as Trustee of the BioCarbon Fund (BioCF) - Government of Ireland, Department of Communications, Climate Action and the Environment	
Host Party	Democratic Republic of Congo (RDC)	
Applied methodologies and standardized baselines	Approved consolidated afforestation and reforestation baseline and monitoring methodology AR-ACM0001 "Afforestation and reforestation of degraded land" (Version 03)	
Sectoral scopes	14 – Afforestation and reforestation	
Amount of GHG emission reductions or net anthropogenic GHG removals achieved by the project activity in this monitoring period	Amount achieved before 1 January 2013	Amount achieved from 1 January 2013
		43,776 tCO2e
Amount of GHG emission reductions or net anthropogenic GHG removals	219,534 tCO2e	

estimated ex ante for this monitoring period in the PDD	

SECTION A. Description of project activity

A.1. General description of project activity

>> This Monitoring Report refers to an A/R Project activity registered under the UNFCCC as project Activity 4176 “Ibi Batéké degraded savanna afforestation project for fuel-wood production (Democratic Republic of Congo)”, PDD version 2 using the consolidated afforestation and reforestation baseline and monitoring methodology” (AR-ACM0001/version 03) “Afforestation and reforestation of degraded land”.

The A/R Project 4176 is to be implemented on the Batéké plateau in the Democratic Republic of Congo (DRC).

The Batéké plateau is comprised of 90% grassland and shrubby Savannah subject to repeated annual burning and 10 % forest gallery subject to progressive degradation and deforestation for subsistence farming (maize, cassava) and charcoal production.

The specific objectives of the project are as follows:

- sequester CO2 through fast growing forest plantations on savanna grassland with occasional scattered shrubs;
- supply the capital city of Kinshasa (8-10 million inhabitants) with charcoal through sustainable fuel-wood production;
- reduce soil erosion and water loss through run-off;
- reduce degradation and deforestation of remaining forest galleries;
- alleviate poverty through the introduction of long term income enhancement mechanisms for local communities.

To achieve these objectives, the A/R CDM project activity envisages establishing various types of forest plantation based on the four following silvicultural models:

1. Plots to be harvested: *Acacia sp, Eucalyptus sp*. and *Pinus sp*. inter-cropped with cassava (expected in PDD: 3106.33 ha);
2. Plots not to be harvested: mixture of local and exotic species inter-cropped with cassava (expected in PDD: 465.60 ha);
3. Plots not to be harvested: various local and exotic species (expected in PDD: 421.80 ha);
4. Enhancement of natural regeneration through fire control (expected in PDD: 232.80 ha)

Table 1: Subdivision of plantations by technique and species

Code for basic stratum	Stratum	Technique	Species
Ag_Ac	1	Agroforestry	Acacia
Ag_Eu	2	Agroforestry	Eucalyptus
Ag_Pin	3	Agroforestry	Pinus
Ag_LS	4	Agroforestry	Local & exotic species
Pp_Ac	5	Pure plantation	Acacia
Pp_Eu	6	Pure plantation	Eucalyptus
Pp_Pin	7	Pure plantation	Pinus
Pp_LS	8	Pure plantation	Local & exotic species
ENR	9	Natural Regeneration	Existing species

The project relies on plantation practices that were extensively tested in the near Mampu project. At the same time, extensive research is conducted under Project conditions to test alternatives that might improve efficient establishment of the forest and reduction of destructive wildfires. Protocols and instruction sheets are simultaneously put on paper to ensure that activities consistently conform to the best practices.

The A/R-CDM Project 4176 uses sustainable management practices and decreases environmental footprint, notably by avoiding irrigation (except – manually- in nurseries) and any kind of fertilizers. Research conducted in project Mampu nearby have demonstrated a noticeable improvement of biodiversity in plantations, as an important regrowth of local (woody) vegetation happens under the canopy of acacias as they grow older.

The Project entity started the implementation A/R-CDM Project 4176 on July 1st, 2008, which is adopted as the starting date for this Project Activity. Due to weather variations (dry period from july to end of September), plantation season extend from the 1st of July to the 30th of June.

A.2. Location of project activity

>>
The Democratic Republic of Congo
Province of Kinshasa
Municipality of Maluku, Mbankana village, Ibi estate.
The proposed A/R CDM project activity is to be implemented on the Ibi estate, located North of national highway n°1 from Kinshasa to Kenge, between the kilometer points (KP) 128 and 143 (Kinshasa being KP 1). The geographical coordinates of the boundary corners of the proposed A/R CDM project activity are:

Table 3: Geographical coordinates of the boundary corners of the proposed A/R CDM project

Point Nr	Longitude	Latitude	Position
1	16°6'7'' East	-4°19'54'' South	NW corner
2	16°6'37'' East	-4°20'9' South	
3	16°6'41'' East	-4°19'59'' South	
4	16°7'51'' East	-4°19'59'' South	NE corner
5	16°8'18'' East	-4°22'30'' South	Valley
6	16°9'14'' East	-4°25'29'' South	SE corner
7	16°4'36'' East	-4°23'7'' South	SW corner

The following areas are excluded from the boundaries of the A/R CDM project:

Table 4: Geographical coordinates of the areas to be excluded from the boundaries of the A/R CDM project activity

Point Nr	Longitude	Latitude	Position
I-1	16°8'15'' East	-4°22'56'' South	
I-2	16°8'15'' East	-4°22'52'' South	Musia Bikwi Workers' accommodation
I-3	16°8'8'' East	-4°22'56'' South	
I-4	16°8'8'' East	-4°22'52'' South	
II-1	16°8'3'' East	-4°23'1'' South	
II-2	16°8'2'' East	-4°22'54'' South	Old dipping tank
II-3	16°8'1'' East	-4°23'1'' South	
II-4	16°8'2'' East	-4°22'54'' South	
III-1	16°7'57'' East	-4°22'47'' South	House of Prof. Lejoly
III-2	16°7'54'' East	-4°22'48'' South	
III-3	16°7'55'' East	-4°22'51'' South	
III-4	16°7'58'' East	-4°22'50'' South	

The following zone (ZAVI) was planted before the project start date and is excluded from the project boundary:

Table 5: ZAVI excluded zone

Point Nr	Longitude	Latitude	Position
P-1	16°7'25,9'' East	-4°20'00,0'' South	NW corner
P-2	16°7'26,0'' East	-4°20'11,2'' South	
P-3	16°7'26,4'' East	-4°20'19,8'' South	
P-4	16°7'26,7'' East	-4°20'29,5'' South	
P-5	16°7'26,8'' East	-4°20'39,9'' South	
P-6	16°7'26,8'' East	-4°20'43,9'' South	
P-7	16°7'28,1'' East	-4°20'43,8'' South	
P-8	16°7'28,6'' East	-4°20'52,0'' South	SW corner
P-9	16°7'37,9'' East	-4°20'51,6'' South	SE corner
P-10	16°7'37,8'' East	-4°20'41,5'' South	
P-11	16°7'37,3'' East	-4°20'27,1'' South	
P-13	16°7'38,0'' East	-4°20'18,5'' South	
P-14	16°7'37,2'' East	-4°20'09,8'' South	
P-15	16°7'36,5'' East	-4°20'00,0'' South	NE corner

Project area structure

The Project area has been divided into square blocks of 100 hectares (1000m x 1000m) aligned on the national road (RN1) which follows a straight line along the Project limit.

The project limits away from RN1 follow existing tracks (Track 1 on the western boundary, Track 2 on the Eastern boundary). Because these tracks are not perpendicular to RN1, portions of squares are added to the west of the first column and to the most eastern columns (due to smaller angle, all columns do not have the same length. The 1 km² blocks are identified with a row letter and a column number (A01 being South-West corner).

The main blocks are then divided in 4 square sub-blocks with a theoretical stand surface of 23,28 ha (after subtraction of fire-breaks and inter-block tracks). Sub-blocks are identified with respect to their position with letters NW, NE, SW, SE after the block identification.

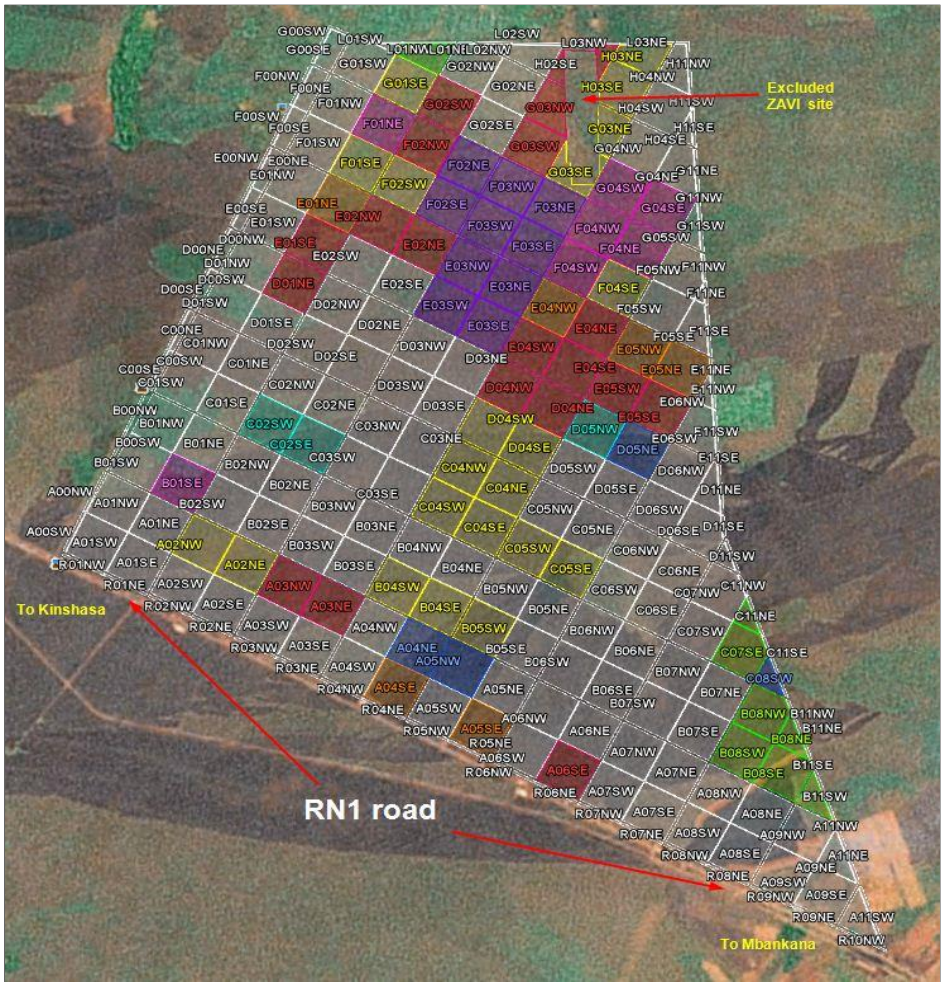
The actual positions of sub-blocks are based on a set or reference points for which the GPS position is known. These reference points are named as the sub-block for which they form the South-West corner. A complete list of reference points is given in Annex 1: List of Reference points.

Following the limit of the Project, a peripheral zone is planted on a width of 30m (10 trees with 3m spacing) with a 10m fire-break on external and internal sides. These small stands are identified with Rnn along the national road, Lnn at the northern boundary, The western side is X00xW and the eastern side is X11xE according to the sub-block from which it has been subtracted.

At the limit of the Project, the sub-blocks are cut to follow the actual border. This yields triangular or polygonal stands. Some of these stands, which extend on both sides of the ZAVI excluded zone, can become fairly complex (up to 14 corners for G03SE and H02SE) as shown here below on Illustration: Subdivision of project area into sub-blocks (500m x 500m).

All blocks are represented by a color that indicates their (planned) stratum:

- White: Acacia in agroforestry (Ag_Ac);
- Yellow: local species in agroforestry (Ag_LS);
- Red: Eucalyptus in agroforestry (Ag_Eu);
- Blue: Eucalyptus in pure forestry (Pp_Eu);
- Orange: Pinus sp. In agroforestry;
- Pink: Acacia in pure forestry;
- Cyan: Pinus sp. In pure forestry;
- Purple: Natural regeneration (ENR).



A.3. Parties and project participants

Parties involved	Project participants	Indicate if the Party involved wishes to be considered as project participant (Yes/No)
Democratic Republic of Congo (host)	MUSHIETE & Compagnie SARL	No
Ireland	Government of Ireland, Department of Communications, Climate Action and the Environment	Yes
Spain	Kingdom of Spain - Ministry for the Ecological Transition & Ministry of Economy and Business Zeroemissions Carbon Trust, S.A International Bank for Reconstruction and Development (IBRD) as Trustee of the BioCarbon Fund (BioCF)	Yes

A.4. References to applied methodologies and standardized baselines

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Consolidated afforestation and reforestation baseline and monitoring methodology (AR-ACM0001/version 03) “Afforestation and reforestation of degraded land”.

In compliance with the applied methodology, the latest versions of the following approved tools are used:

- Procedures to demonstrate the eligibility of lands for afforestation and reforestation CDM project activities (Version 1);
- Combined tool to identify the baseline scenario and demonstrate additionality in A/R CDM project activities (Version 1);
- Tool for the identification of degraded or degrading lands for consideration in implementing A/R CDM project activities (Version 1);
- Tool for estimation of GHG emissions due to clearing, burning and decay of existing vegetation attributable to a CDM A/R project activity (Version 3) ;
- Tool for estimation of GHG emissions related to displacement of grazing activities in an A/R CDM project activity (Version 2);
- Procedure to determine when accounting of the soil organic carbon pool may be conservatively neglected in CDM A/R project activities (Version 1);
- Calculation of the number of sample plots for measurements within A/R CDM project activities (Version 2.1);
- Tool for testing significance of GHG emissions in A/R CDM project activities (Version 1).
- Guideline on application of specified versions of A/R CDM methodologies in verification of registered A/R CDM project activities (version 01.1) – EB68 Annex 31
- Guidelines on accounting of specified types of changes in A/R CDM project activities from description in registered project documents (version 02.0) – EB66 Annex 24

More information on the selected methodology can be found at:
http://cdm.unfccc.int/methodologies/DB/X4VOLW3Y7IJCH9WXSBXBC2Q0JKG9UZ

A.5. Crediting period type and duration

>>
30 years (fixed) crediting period: 01/07/2008 – 30/06/2038

SECTION B. Implementation of project activity

B.1. Description of implemented project activity

>> The starting of A/R-CDM Project 4176 on July 1st, 2008 corresponds to the beginning of its preparation works on the agroforestry stands. This date corresponds to the dry season where no planting occurs, but is well adapted for

- slashing the existing trees in the agroforestry stands and evacuating the harvested wood to the borders of the stands along the tracks
- ploughing and harrowing the stands
- preparing the seedlings in nurseries

This allows to start effective plantations as soon as the first rains come back at the end of September.
The original planning envisaged to plant the full project area within 5 years (seasons 2008 to 2012, ending on June 30th, 2013). However, downtimes of tractors and transport equipments were higher than expected, putting hard challenges on the timing. During the summer of 2009, a large quantity of donated rice flour in RDC caused an unexpected and sharp drop in manioc prices on the Kinshasa retail market. This had a seriously negative effect on the economics of harvesting, transforming and transporting cassava, with revenues decreasing while costs remained at the same level. As cassava revenues are the main source of cash to finance tree planting, the situation resulted in an important slowdown in planting as shown by the following Table “Planning of plantations over the first years of the Project” according to the PDD showing the planned activities, to be compared to Table “Effective plantations prior to July 1st, 2012” :

Planning of plantations over the first years of the Project

Season	Ag_Ac	Ag_Eu	Ag_Pin	Ag_LS	Pp_Ac	Pp_Eu	Pp_Pin	Pp_LS	ENR	Total
2008	755.05	-	-	-	105.00	-	-	-	46.56	**906.61**
2009	582.00	46.56	46.56	93.12	-	46.56	-	46.56	46.56	**907.92**
2010	582.00	93.12	-	93.12	-	-	46.56	46.56	46.56	**907.92**
2011	582.00	93.12	46.56	93.12	-	-	-	46.56	46.56	**907.92**
2012	116.40	116.40	46.56	186.24	14.15	23.28	23.28	23.28	46.56	**596.15**
Total	**2,617.45**	**349.20**	**139.68**	**465.60**	**119.15**	**69.84**	**69.84**	**162.97**	**232.80**	**4,226.53**

The initial planting area was 4,226.53 ha. However, after comments from CDM validation an experimental area of plantation was removed from project area which is now 4,129.70 ha

Effective plantations prior to July 1st, 2012

Season	Ag_Ac	Ag_Eu		Ag_Pin	Ag_LS	Pp_Ac	Pp_Eu	Pp_LS	ENR	Total	Slashed
S2008	411.80					127.52			232.46	**771.77**	**715.33**
S2009	437.57	15.58		41.15	5.00	46.57		35.83		**581.70**	**896.14**
S2010	30.53						10.00			**40.53**	**99.83**
S2011	38.37					25.17				**63.54**	-
Total	**918.26**	**15.58**		**41.15**	**5.00**	**199.26**	**10.00**	**35.83**	**232.46**	**1,457.54**	**1,711.30**

The slashed area from biomass was 1,711.30 ha. However, the soil disturbance through ploughing was effective on 1,361.76 ha according to the table of activities below.

The timing for preparation and planting activities (as well as cross-cuttings of cassava) is summarized in the table below:

Planting activities and events during this monitoring period

Date	Season	Block	Rotation	Activity	Surface	Species	Stratum
July-08	S2008	E03NE	1	Plantation	23.25	Existing local species	ENR
July-08	S2008	E03NW	1	Plantation	23.25	Existing local species	ENR
July-08	S2008	E03SE	1	Plantation	23.23	Existing local species	ENR
July-08	S2008	E03SW	1	Plantation	23.24	Existing local species	ENR
July-08	S2008	F02NE	1	Plantation	23.27	Existing local species	ENR
July-08	S2008	F02SE	1	Plantation	23.24	Existing local species	ENR
July-08	S2008	F03NE	1	Plantation	23.24	Existing local species	ENR

Date	Season	Block	Rotation	Activity	Surface	Species	Stratum
July-08	S2008	F03NW	1	Plantation	23.24	Existing local species	ENR
July-08	S2008	F03SE	1	Plantation	23.25	Existing local species	ENR
July-08	S2008	F03SW	1	plantation	23.25	Existing local species	ENR
July-08	S2008	A09NE	1	grubbing	10.31		
July-08	S2008	A09SE	1	grubbing	25.17		
July-08	S2008	A09SW	1	grubbing	25.12		
July-08	S2008	A08NE	1	grubbing	24.81		
July-08	S2008	A08NW	1	grubbing	25.07		
July-08	S2008	A08SE	1	grubbing	24.91		
July-08	S2008	A08SW	1	grubbing	25.06		
July-08	S2008	A09NW	1	grubbing	24.77		
August-08	S2008	C07NE	1	grubbing	4.59		
August-08	S2008	C07SE	1	grubbing	23.40		
August-08	S2008	C08SW	1	grubbing	5.80		
August-08	S2008	A09SE	1	ploughing	25.17		
August-08	S2008	A10SW	1	grubbing	12.25		
August-08	S2008	A11SW	1	grubbing	3.64		
August-08	S2008	A08NE	1	ploughing	24.81		
August-08	S2008	A11NE	1	grubbing	3.38		
August-08	S2008	B11SW	1	grubbing	3.20		

Date	Season	Block	Rotation	Activity	Surface	Species	Stratum
August-08	S2008	A07NE	1	grubbing	24.80		
August-08	S2008	B11NE	1	grubbing	2.93		
August-08	S2008	B11NW	1	grubbing	0.73		
August-08	S2008	B11SE	1	grubbing	0.49		
August-08	S2008	A07SE	1	grubbing	24.85		
August-08	S2008	A08NW	1	ploughing	25.07		
August-08	S2008	C11NE	1	grubbing	2.40		
August-08	S2008	C11SE	1	grubbing	1.02		
August-08	S2008	C11SW	1	grubbing	2.67		
August-08	S2008	C07NW	1	grubbing	22.58		
August-08	S2008	A08SE	1	ploughing	24.91		
August-08	S2008	B08NW	1	grubbing	23.97		
August-08	S2008	B08SE	1	grubbing	24.40		
August-08	S2008	B09SW	1	grubbing	8.69		
August-08	S2008	C11NW	1	grubbing	1.27		
September-08	S2008	A09NE	1	ploughing	10.31		
September-08	S2008	B07NW	1	grubbing	24.97		
September-08	S2008	B07SE	1	grubbing	24.95		
September-08	S2008	B07SW	1	grubbing	24.95		
September-08	S2008	C07NW	1	ploughing	22.58		

Date	Season	Block	Rotation	Activity	Surface	Species	Stratum
September-08	S2008	A10SW	1	ploughing	12.25		
September-08	S2008	B07NE	1	grubbing	24.95		
September-08	S2008	C07SW	1	grubbing	24.89		
September-08	S2008	C07SW	1	ploughing	24.89		
September-08	S2008	C06NE	1	grubbing	24.97		
September-08	S2008	D06SE	1	grubbing	22.73		
September-08	S2008	D07SW	1	grubbing	3.48		
October-08	S2008	C06NE	1	ploughing	24.97		
October-08	S2008	D06SE	1	ploughing	22.73		
October-08	S2008	D07SW	1	ploughing	3.48		
October-08	S2008	A10SW	1	harrowing	8.00		
October-08	S2008	A09NE	1	harrowing	10.31		
October-08	S2008	C06SW	1	grubbing	24.99		
October-08	S2008	C06SE	1	grubbing	24.95		
October-08	S2008	A11NE	1	plantation	1.98	Acacia auriculiformis	Pp_Ac
October-08	S2008	A11NW	1	plantation	0.05	Acacia auriculiformis	Pp_Ac
October-08	S2008	A11SW	1	plantation	2.11	Acacia auriculiformis	Pp_Ac
October-08	S2008	B11NE	1	plantation	1.72	Acacia auriculiformis	Pp_Ac
October-08	S2008	B11SE	1	plantation	0.22	Acacia auriculiformis	Pp_Ac
October-08	S2008	B11SW	1	plantation	1.81	Acacia auriculiformis	Pp_Ac

Date	Season	Block	Rotation	Activity	Surface	Species	Stratum
October-08	S2008	A09SE	1	harrowing	23.17		
October-08	S2008	A09NE	1	grafting	0.50	RAV	
October-08	S2008	A09NE	1	grafting	5.60	Mbankana	
October-08	S2008	A09SE	1	grafting	2.12	Kingawa	
October-08	S2008	A09SE	1	grafting	3.72	Madibwata	
October-08	S2008	A09SE	1	grafting	4.25	RAV	
October-08	S2008	A09SE	1	grafting	6.09	Mbankana	
October-08	S2008	C06SE	1	ploughing	24.95		
October-08	S2008	C06SW	1	ploughing	24.99		
October-08	S2008	A10SW	1	grafting	0.50	Mbankana	
October-08	S2008	A10SW	1	grafting	7.25	Mao	
October-08	S2008	L03NE	1	plantation	1.63	Acacia auriculiformis	Pp_Ac
October-08	S2008	L03NW	1	plantation	0.74	Acacia auriculiformis	Pp_Ac
October-08	S2008	C06NW	1	grubbing	24.95		
October-08	S2008	C07NW	1	harrowing	22.58		
November-08	S2008	C07NW	1	grafting	9.65	Kingawa	
November-08	S2008	C06NE	1	harrowing	24.97		
November-08	S2008	C07NW	1	grafting	10.00	Mbankana	
November-08	S2008	C06NW	1	ploughing	24.95		
November-08	S2008	D06SE	1	harrowing	22.73		

Date	Season	Block	Rotation	Activity	Surface	Species	Stratum
November-08	S2008	C07NW	1	grafting	1.00	Nsansi	
November-08	S2008	C07NW	1	grafting	1.93	RAV	
November-08	S2008	C07SW	1	harrowing	24.89		
November-08	S2008	C07SW	1	grafting	4.83	Kingawa	
November-08	S2008	C07SW	1	grafting	12.00	Mbankana	
November-08	S2008	D06SE	1	grafting	1.10	Mao	
November-08	S2008	A10SW	1	plantation	5.29	Acacia auriculiformis	Ag_Ac
November-08	S2008	D07SW	1	harrowing	3.48		
November-08	S2008	C07NW	1	plantation	20.70	Acacia auriculiformis	Ag_Ac
November-08	S2008	C07SW	1	grafting	8.06	RAV	
December-08	S2008	C06NE	1	grafting	2.98	Kingawa	
December-08	S2008	D06SE	1	grafting	5.40	Kingawa	
December-08	S2008	D07SW	1	grafting	0.50	Mao	
December-08	S2008	D07SW	1	grafting	2.98	Kingawa	
December-08	S2008	C06NE	1	grafting	20.30	Madibwata	
December-08	S2008	A09SE	1	plantation	12.37	Acacia auriculiformis	Ag_Ac
December-08	S2008	D06SE	1	grafting	6.20	Mbankana	
December-08	S2008	C06NW	1	harrowing	24.95		
December-08	S2008	C07SW	1	plantation	23.17	Acacia auriculiformis	Ag_Ac
December-08	S2008	B08SW	1	grubbing	24.97		

Date	Season	Block	Rotation	Activity	Surface	Species	Stratum
December-08	S2008	A09NW	1	ploughing	24.77		
December-08	S2008	C06NE	1	plantation	24.65	Acacia auriculiformis	Ag_Ac
December-08	S2008	D06SE	1	plantation	11.24	Acacia auriculiformis	Ag_Ac
December-08	S2008	D07SW	1	plantation	2.50	Acacia auriculiformis	Ag_Ac
January-09	S2008	C06NW	1	grafting	13.97	Madibwata	
January-09	S2008	C06SE	1	harrowing	24.95		
January-09	S2008	B08NE	1	grubbing	7.18		
January-09	S2008	C06NW	1	grafting	10.98	Mao	
January-09	S2008	C06SE	1	plantation	25.49	Acacia auriculiformis	Ag_Ac
January-09	S2008	C06SW	1	harrowing	24.99		
January-09	S2008	C06SE	1	grafting	24.95	RAV	
January-09	S2008	C06SW	1	grafting	13.97	Madibwata	
January-09	S2008	A09SW	1	ploughing	25.12		
January-09	S2008	D11NE	1	plantation	1.71	Acacia auriculiformis	Pp_Ac
January-09	S2008	E11SE	1	plantation	0.26	Acacia auriculiformis	Pp_Ac
January-09	S2008	E11SW	1	plantation	1.39	Acacia auriculiformis	Pp_Ac
January-09	S2008	G00SW	1	plantation	2.02	Acacia auriculiformis	Pp_Ac
January-09	S2008	L01NE	1	plantation	1.63	Acacia auriculiformis	Pp_Ac
January-09	S2008	L01NW	1	plantation	0.93	Acacia auriculiformis	Pp_Ac
January-09	S2008	L01SW	1	plantation	0.59	Acacia auriculiformis	Pp_Ac

Date	Season	Block	Rotation	Activity	Surface	Species	Stratum
January-09	S2008	L02NW	1	plantation	0.48	Acacia auriculiformis	Pp_Ac
January-09	S2008	L02SE	1	plantation	1.61	Acacia auriculiformis	Pp_Ac
January-09	S2008	L02SW	1	plantation	1.00	Acacia auriculiformis	Pp_Ac
January-09	S2008	B07NW	1	ploughing	24.97		
January-09	S2008	B07SW	1	ploughing	24.95		
January-09	S2008	B07NE	1	ploughing	24.95		
January-09	S2008	B07SE	1	ploughing	24.95		
January-09	S2008	C06NW	1	plantation	21.96	Acacia auriculiformis	Ag_Ac
January-09	S2008	E11NE	1	plantation	0.19	Acacia auriculiformis	Pp_Ac
January-09	S2008	E11NW	1	plantation	1.37	Acacia auriculiformis	Pp_Ac
January-09	S2008	F11SE	1	plantation	1.70	Acacia auriculiformis	Pp_Ac
January-09	S2008	C06SW	1	grafting	11.02	Mao	
February-09	S2008	A09NE	1	grafting	4.21	Mao	
February-09	S2008	A09NW	1	harrowing	24.77		
February-09	S2008	A09NW	1	grafting	9.50	Madibwata	
February-09	S2008	A09NW	1	grafting	12.58	Mbankana	
February-09	S2008	C06SW	1	plantation	22.73	Acacia auriculiformis	Ag_Ac
February-09	S2008	F11NE	1	plantation	0.77	Acacia auriculiformis	Pp_Ac
February-09	S2008	F11NW	1	plantation	0.86	Acacia auriculiformis	Pp_Ac
February-09	S2008	G11NW	1	plantation	0.09	Acacia auriculiformis	Pp_Ac

Date	Season	Block	Rotation	Activity	Surface	Species	Stratum
February-09	S2008	G11SW	1	plantation	1.70	Acacia auriculiformis	Pp_Ac
February-09	S2008	H11SE	1	plantation	1.26	Acacia auriculiformis	Pp_Ac
February-09	S2008	A07NW	1	grubbing	25.01		
February-09	S2008	B11NW	1	plantation	0.36	Acacia auriculiformis	Pp_Ac
February-09	S2008	C11NE	1	plantation	1.40	Acacia auriculiformis	Pp_Ac
February-09	S2008	C11SE	1	plantation	0.54	Acacia auriculiformis	Pp_Ac
February-09	S2008	C11SW	1	plantation	1.49	Acacia auriculiformis	Pp_Ac
February-09	S2008	A09NW	1	grafting	0.50	RAV	
February-09	S2008	A09SW	1	harrowing	19.00		
February-09	S2008	A07SW	1	grubbing	25.12		
February-09	S2008	A09SE	1	grafting	1.50	Mbankana	
February-09	S2008	A09SE	1	harrowing	2.00		
February-09	S2008	A09SW	1	grafting	4.86	Madibwata	
February-09	S2008	A07NW	1	ploughing	25.01		
February-09	S2008	A09SW	1	plantation	18.40	Acacia auriculiformis	Ag_Ac
February-09	S2008	R08NE	1	plantation	1.45	Acacia auriculiformis	Pp_Ac
February-09	S2008	R09NE	1	plantation	1.18	Acacia auriculiformis	Pp_Ac
February-09	S2008	R09NW	1	plantation	1.38	Acacia auriculiformis	Pp_Ac
February-09	S2008	R10NW	1	plantation	1.28	Acacia auriculiformis	Pp_Ac
February-09	S2008	A09SW	1	grafting	14.58	Mbankana	

Date	Season	Block	Rotation	Activity	Surface	Species	Stratum
February-09	S2008	A10SW	1	grafting	1.00	Mbankana	
February-09	S2008	A09NW	1	plantation	19.18	Acacia auriculiformis	Ag_Ac
February-09	S2008	R07NE	1	plantation	1.45	Acacia auriculiformis	Pp_Ac
February-09	S2008	R08NW	1	plantation	1.44	Acacia auriculiformis	Pp_Ac
March-09	S2008	A09NE	1	plantation	8.90	Acacia auriculiformis	Ag_Ac
March-09	S2008	G11NE	1	plantation	1.46	Acacia auriculiformis	Pp_Ac
March-09	S2008	R06NE	1	plantation	1.44	Acacia auriculiformis	Pp_Ac
March-09	S2008	R07NW	1	plantation	1.45	Acacia auriculiformis	Pp_Ac
March-09	S2008	R07NE	1	Fire	1.45		
March-09	S2008	R07NW	1	Fire	1.45		
March-09	S2008	A07SW	1	ploughing	25.12		
March-09	S2008	B08SW	1	plantation	23.25	Acacia auriculiformis	Pp_Ac
March-09	S2008	C11NW	1	plantation	0.69	Acacia auriculiformis	Pp_Ac
March-09	S2008	B07NE	1	harrowing	24.95		
March-09	S2008	B08SE	1	plantation	22.85	Acacia auriculiformis	Pp_Ac
March-09	S2008	R04NE	1	plantation	1.45	Acacia auriculiformis	Pp_Ac
March-09	S2008	R05NE	1	plantation	1.45	Acacia auriculiformis	Pp_Ac
March-09	S2008	R05NW	1	plantation	1.44	Acacia auriculiformis	Pp_Ac
March-09	S2008	R06NW	1	plantation	1.45	Acacia auriculiformis	Pp_Ac
April-09	S2008	B07NE	1	grafting	24.50	Mao	

Date	Season	Block	Rotation	Activity	Surface	Species	Stratum
April-09	S2008	A07NE	1	ploughing	24.80		
April-09	S2008	R02NE	1	plantation	0.54	Acacia auriculiformis	Pp_Ac
April-09	S2008	R02NW	1	plantation	1.45	Acacia auriculiformis	Pp_Ac
April-09	S2008	R03NE	1	plantation	1.45	Acacia auriculiformis	Pp_Ac
April-09	S2008	R03NW	1	plantation	1.45	Acacia auriculiformis	Pp_Ac
April-09	S2008	R04NW	1	plantation	1.44	Acacia auriculiformis	Pp_Ac
April-09	S2008	B07NW	1	harrowing	24.97		
April-09	S2008	B08NE	1	plantation	6.81	Acacia auriculiformis	Pp_Ac
April-09	S2008	B07NW	1	grafting	24.97	Zizila	
April-09	S2008	R01NW	1	plantation	0.85	Acacia auriculiformis	Pp_Ac
April-09	S2008	R02NE	1	plantation	0.90	Acacia auriculiformis	Pp_Ac
April-09	S2008	B07NW	1	plantation	23.22	Acacia auriculiformis	Ag_Ac
April-09	S2008	B08NW	1	plantation	22.49	Acacia auriculiformis	Pp_Ac
April-09	S2008	R01NE	1	plantation	1.45	Acacia auriculiformis	Pp_Ac
April-09	S2008	B07SE	1	harrowing	24.95		
April-09	S2008	B07SE	1	grafting	24.95	Mao	
April-09	S2008	B07SW	1	harrowing	24.95		
April-09	S2008	A00SW	1	plantation	1.45	Acacia auriculiformis	Pp_Ac
April-09	S2008	B07SW	1	plantation	23.27	Acacia auriculiformis	Ag_Ac
April-09	S2008	B07SW	1	grafting	22.50	Mao	

Date	Season	Block	Rotation	Activity	Surface	Species	Stratum
April-09	S2008	A07SE	1	ploughing	24.85		
April-09	S2008	A07SW	1	harrowing	25.12		
April-09	S2008	B07NE	1	plantation	23.16	Acacia auriculiformis	Ag_Ac
April-09	S2008	B09SW	1	plantation	7.68	Acacia auriculiformis	Pp_Ac
April-09	S2008	C07SE	1	plantation	21.98	Acacia auriculiformis	Pp_Ac
April-09	S2008	D11SE	1	plantation	0.71	Acacia auriculiformis	Pp_Ac
April-09	S2008	D11SW	1	plantation	1.16	Acacia auriculiformis	Pp_Ac
April-09	S2008	H11NW	1	plantation	2.13	Acacia auriculiformis	Pp_Ac
April-09	S2008	H11SW	1	plantation	0.38	Acacia auriculiformis	Pp_Ac
April-09	S2008	R01NW	1	plantation	0.59	Acacia auriculiformis	Pp_Ac
April-09	S2008	B07SW	1	grafting	2.45	Zizila	
May-09	S2008	A07SW	1	grafting	5.00	Zizila	
May-09	S2008	B07SE	1	plantation	24.06	Acacia auriculiformis	Ag_Ac
May-09	S2008	C07NE	1	plantation	4.29	Acacia auriculiformis	Pp_Ac
May-09	S2008	A07NE	1	harrowing	24.80		
May-09	S2008	A07NE	1	grafting	5.00	Jaune	
May-09	S2008	A07NW	1	harrowing	25.01		
May-09	S2008	A07NE	1	grafting	17.50	Mao	
May-09	S2008	A00NW	1	plantation	1.44	Acacia auriculiformis	Pp_Ac
May-09	S2008	A07NE	1	grafting	2.30	RAV	

Date	Season	Block	Rotation	Activity	Surface	Species	Stratum
May-09	S2008	A07NW	1	plantation	22.20	Acacia auriculiformis	Ag_Ac
May-09	S2008	C08SW	1	plantation	4.98	Acacia auriculiformis	Pp_Ac
May-09	S2008	A07NW	1	grafting	10.01	Mao	
May-09	S2008	A07SW	1	plantation	22.51	Acacia auriculiformis	Ag_Ac
May-09	S2008	A07NW	1	grafting	15.00	Nsansi	
May-09	S2008	A07SE	1	harrowing	24.85		
May-09	S2008	A07SE	1	grafting	16.00	Butambu	
May-09	S2008	A07SE	1	grafting	8.85	Mao	
May-09	S2008	D11NE	1	Fire	0.50		
May-09	S2008	F11SE	1	Fire	1.69		
May-09	S2008	G11SW	1	Fire	1.70		
May-09	S2008	E11NE	1	Fire	0.19		
May-09	S2008	E11NW	1	Fire	1.37		
May-09	S2008	E11SE	1	Fire	0.26		
May-09	S2008	E11SW	1	Fire	1.39		
May-09	S2008	F11NE	1	Fire	0.77		
May-09	S2008	F11NW	1	Fire	0.86		
May-09	S2008	G11NE	1	Fire	1.46		
May-09	S2008	G11NW	1	Fire	0.09		
May-09	S2008	H11SE	1	Fire	1.26		

Date	Season	Block	Rotation	Activity	Surface	Species	Stratum
May-09	S2008	H11SW	1	Fire	0.38		
May-09	S2008	A07SW	1	grafting	20.12	RAV	
June-09	S2008	R09NE	1	Fire	1.18		
June-09	S2008	R09NW	1	Fire	1.38		
July-09	S2009	R04NE	1	Fire	1.45		
July-09	S2009	R04NW	1	Fire	1.44		
July-09	S2009	R05NE	1	Fire	1.45		
July-09	S2009	R05NW	1	Fire	1.44		
August-09	S2009	B06SE	1	grubbing	24.99		
August-09	S2009	A06NE	1	grubbing	24.80		
August-09	S2009	A06NW	1	grubbing	25.05		
August-09	S2009	A06SE	1	grubbing	24.86		
August-09	S2009	A06SW	1	grubbing	25.07		
August-09	S2009	A04SE	1	grubbing	24.87		
August-09	S2009	A05NE	1	grubbing	24.95		
August-09	S2009	A05NW	1	grubbing	24.91		
August-09	S2009	A05SW	1	grubbing	24.97		
August-09	S2009	B05NE	1	grubbing	24.80		
August-09	S2009	B05NW	1	grubbing	25.01		
August-09	S2009	B05SE	1	grubbing	24.79		

Date	Season	Block	Rotation	Activity	Surface	Species	Stratum
August-09	S2009	B05SW	1	grubbing	25.12		
August-09	S2009	B06SW	1	grubbing	24.89		
August-09	S2009	A03SE	1	grubbing	24.87		
August-09	S2009	A04NE	1	grubbing	25.06		
August-09	S2009	A04NW	1	grubbing	25.05		
August-09	S2009	A04SW	1	grubbing	24.78		
August-09	S2009	B04NE	1	grubbing	25.07		
August-09	S2009	B04SE	1	grubbing	24.85		
August-09	S2009	B04SW	1	grubbing	24.87		
August-09	S2009	H11NW	1	Fire	2.13		
August-09	S2009	L01NE	1	Fire	1.63		
August-09	S2009	L01NW	1	Fire	0.93		
August-09	S2009	L02NW	1	Fire	0.48		
August-09	S2009	L02SE	1	Fire	1.61		
August-09	S2009	L02SW	1	Fire	1.00		
August-09	S2009	L03NE	1	Fire	1.63		
August-09	S2009	L03NW	1	Fire	0.74		
September-09	S2009	A02SE	1	grubbing	24.86		
September-09	S2009	A03NE	1	grubbing	25.01		
September-09	S2009	A03NW	1	grubbing	24.97		

Date	Season	Block	Rotation	Activity	Surface	Species	Stratum
September-09	S2009	A03SW	1	grubbing	24.85		
September-09	S2009	A09SE	1	SurvivalTest	23.51		
September-09	S2009	B06NW	1	grubbing	24.89		
September-09	S2009	A05SE	1	grubbing	24.95		
September-09	S2009	A01SE	1	grubbing	24.95		
September-09	S2009	A01SW	1	grubbing	23.75		
September-09	S2009	A02SW	1	grubbing	24.87		
September-09	S2009	B06SE	1	ploughing	24.99		
September-09	S2009	A01NW	1	grubbing	24.56		
September-09	S2009	B01SW	1	grubbing	24.85		
September-09	S2009	B06NW	1	ploughing	24.89		
September-09	S2009	B06SW	1	ploughing	24.89		
September-09	S2009	B01NW	1	grubbing	25.06		
October-09	S2009	A06SE	1	ploughing	24.86		
October-09	S2009	A06SW	1	ploughing	25.07		
October-09	S2009	A05SE	1	ploughing	24.95		
October-09	S2009	A05SW	1	ploughing	24.97		
October-09	S2009	A08SW	1	ploughing	25.06		
October-09	S2009	B01NE	1	grubbing	25.05		
October-09	S2009	B04SW	1	plantation	12.70	Milletia laurentii	Pp_LS

Date	Season	Block	Rotation	Activity	Surface	Species	Stratum
October-09	S2009	B04SE	1	plantation	23.13	Milletia laurentii	Pp_LS
October-09	S2009	C07SW	1	SurvivalTest	23.17		
October-09	S2009	C07SW	1	SurvivalTest	23.17		
October-09	S2009	C07SW	1	SurvivalTest	23.17		
October-09	S2009	C07NW	1	SurvivalTest	21.23		
October-09	S2009	B06NE	1	grubbing	24.89		
October-09	S2009	A04NE	1	plantation	23.34	Acacia auriculiformis	Pp_Ac
October-09	S2009	A04SE	1	ploughing	24.87		
October-09	S2009	A04SW	1	ploughing	24.78		
October-09	S2009	B02NW	1	grubbing	24.99		
October-09	S2009	C07NW	1	SurvivalTest	21.23		
October-09	S2009	A08NW	1	harrowing	25.07		
October-09	S2009	A09SE	1	SurvivalTest	23.51		
October-09	S2009	B06NE	1	ploughing	24.89		
November-09	S2009	A08NE	1	harrowing	24.81		
November-09	S2009	A08NW	1	grafting	22.00	Mbankana	
November-09	S2009	A05NE	1	plantation	23.23	Acacia auriculiformis	Pp_Ac
November-09	S2009	A08SE	1	harrowing	24.91		
November-09	S2009	A08SW	1	harrowing	25.06		
November-09	S2009	A08SE	1	grafting	23.00	Mbankana	

Date	Season	Block	Rotation	Activity	Surface	Species	Stratum
November-09	S2009	A07NE	1	plantation	21.94	Acacia auriculiformis	Ag_Ac
November-09	S2009	A09SE	1	harvestCassava	1.50		
November-09	S2009	A09SE	1	harvestCassava	1.40		
November-09	S2009	A09SE	1	harvestCassava	1.30		
November-09	S2009	A08SW	1	grafting	22.00	Mbankana	
November-09	S2009	A09SE	1	harvestCassava	0.20		
November-09	S2009	A09SE	1	harvestCassava	0.50		
November-09	S2009	A10SW	1	harvestCassava	0.50		
November-09	S2009	A09SE	1	harvestCassava	2.10		
November-09	S2009	A07SE	1	plantation	22.11	Acacia auriculiformis	Ag_Ac
November-09	S2009	A09SE	1	harvestCassava	1.10		
November-09	S2009	A09SE	1	harvestCassava	1.30		
November-09	S2009	A09SE	1	harvestCassava	1.00		
November-09	S2009	A09SE	1	harvestCassava	0.30		
November-09	S2009	A09SE	1	harvestCassava	1.00		
November-09	S2009	A09SE	1	harvestCassava	1.50		
November-09	S2009	B06NW	1	harrowing	24.89		
November-09	S2009	A08NE	1	grafting	23.00	Mbankana	
December-09	S2009	B06NE	1	harrowing	24.89		
December-09	S2009	B06SE	1	harrowing	24.99		

Date	Season	Block	Rotation	Activity	Surface	Species	Stratum
December-09	S2009	A08NE	1	plantation	23.14	Acacia auriculiformis	Ag_Ac
December-09	S2009	A08SE	1	plantation	17.24	Acacia auriculiformis	Ag_Ac
December-09	S2009	B06NE	1	grafting	24.89	Madibwata	
December-09	S2009	B06SE	1	grafting	24.99	Mbankana	
December-09	S2009	B06SW	1	harrowing	24.89		
December-09	S2009	B06NW	1	grafting	2.00	Madibwata	
December-09	S2009	B06SW	1	grafting	2.38	Kingawa	
December-09	S2009	B06NW	1	grafting	12.50	Madibwata	
December-09	S2009	B06SW	1	grafting	12.00	Kingawa	
December-09	S2009	B05NW	1	ploughing	25.01		
December-09	S2009	A09SE	1	harvestCassava	0.30		
December-09	S2009	A09SE	1	harvestCassava	0.30		
December-09	S2009	B06NW	1	grafting	7.39	Madibwata	
December-09	S2009	B06SW	1	grafting	10.01	Kingawa	
December-09	S2009	A09NE	1	harvestCassava	1.80		
December-09	S2009	A09NE	1	harvestCassava	1.90		
December-09	S2009	B06NW	1	grafting	3.00	Mao	
December-09	S2009	A09NE	1	harvestCassava	1.70		
December-09	S2009	A09NE	1	harvestCassava	2.10		
December-09	S2009	A09SE	1	harvestCassava	1.40		

Date	Season	Block	Rotation	Activity	Surface	Species	Stratum
January-10	S2009	B06SW	1	Grafting	0.50	Kingawa	
January-10	S2009	A10SW	1	harvestCassava	1.10		
January-10	S2009	A10SW	1	harvestCassava	1.10		
January-10	S2009	A10SW	1	harvestCassava	1.30		
January-10	S2009	A10SW	1	harvestCassava	3.80		
January-10	S2009	B06NW	1	Plantation	22.40	Acacia auriculiformis	Ag_Ac
January-10	S2009	C07SW	1	harvestCassava	0.60		
January-10	S2009	C07SW	1	harvestCassava	0.90		
January-10	S2009	C07SW	1	harvestCassava	0.90		
January-10	S2009	C07SW	1	harvestCassava	0.80		
January-10	S2009	C07SW	1	harvestCassava	0.10		
January-10	S2009	A06SE	1	Harrowing	24.86		
January-10	S2009	C07SW	1	harvestCassava	0.90		
January-10	S2009	C07SW	1	harvestCassava	0.80		
January-10	S2009	C07SW	1	harvestCassava	1.10		
January-10	S2009	C07SW	1	harvestCassava	0.60		
January-10	S2009	A06NE	1	Ploughing	24.80		
January-10	S2009	B06NE	1	Plantation	22.62	Acacia auriculiformis	Ag_Ac
January-10	S2009	B06SW	1	Plantation	22.74	acacia crassicarpa	Ag_Ac
January-10	S2009	C07SW	1	harvestCassava	1.00		

Date	Season	Block	Rotation	Activity	Surface	Species	Stratum
January-10	S2009	C07SW	1	harvestCassava	0.80		
January-10	S2009	C07SW	1	harvestCassava	1.00		
January-10	S2009	C07SW	1	harvestCassava	0.90		
January-10	S2009	A06SE	1	Grafting	24.86	Madibwata	
January-10	S2009	B06SE	1	Plantation	23.49	Acacia Mangium	Ag_Ac
February-10	S2009	C07SW	1	harvestCassava	0.80		
February-10	S2009	C07SW	1	harvestCassava	2.30		
February-10	S2009	C07SW	1	harvestCassava	2.00		
February-10	S2009	C07SW	1	harvestCassava	2.00		
February-10	S2009	C07SW	1	harvestCassava	1.50		
February-10	S2009	A08NW	1	Plantation	18.93	acacia crassicarpa	Ag_Ac
February-10	S2009	A08SW	1	Plantation	18.57	Acacia auriculiformis	Ag_Ac
February-10	S2009	C07SW	1	harvestCassava	1.50		
February-10	S2009	C07SW	1	harvestCassava	0.80		
February-10	S2009	C07SW	1	harvestCassava	0.80		
February-10	S2009	C07SW	1	harvestCassava	0.80		
February-10	S2009	A06SE	1	Plantation	5.50	Eucalyptus urophila	Ag_Eu
February-10	S2009	A06SE	1	Plantation	6.80	Eucalyptus deglupta	Ag_Eu
February-10	S2009	A06SE	1	Plantation	0.53	Eucalyptus camaldulensis	Ag_Eu
February-10	S2009	C07SW	1	harvestCassava	1.50		

Date	Season	Block	Rotation	Activity	Surface	Species	Stratum
February-10	S2009	A06SW	1	Harrowing	25.07		
February-10	S2009	C07SW	1	harvestCassava	0.40		
February-10	S2009	C07SW	1	harvestCassava	0.09		
February-10	S2009	A06SW	1	Plantation	21.58	Acacia auriculiformis	Ag_Ac
February-10	S2009	C07NW	1	harvestCassava	1.50		
February-10	S2009	A06SW	1	Grafting	11.00	Nsansi	
February-10	S2009	C07NW	1	harvestCassava	1.70		
February-10	S2009	C07NW	1	harvestCassava	0.90		
February-10	S2009	C07NW	1	harvestCassava	1.50		
February-10	S2009	A06SW	1	Grafting	14.00	Kingawa	
February-10	S2009	C07NW	1	harvestCassava	1.70		
February-10	S2009	C07NW	1	harvestCassava	0.80		
March-10	S2009	C07NW	1	harvestCassava	1.00		
March-10	S2009	A03SW	1	Ploughing	24.85		
March-10	S2009	A05SE	1	Harrowing	24.95		
March-10	S2009	C07NW	1	harvestCassava	1.50		
March-10	S2009	C07NW	1	harvestCassava	1.70		
March-10	S2009	A04SW	1	Harrowing	24.78		
March-10	S2009	C07NW	1	harvestCassava	1.00		
March-10	S2009	A03SE	1	Ploughing	24.87		

Date	Season	Block	Rotation	Activity	Surface	Species	Stratum
March-10	S2009	B05NE	1	Ploughing	24.80		
March-10	S2009	A05SE	1	Grafting	24.95	RAV	
March-10	S2009	C07NW	1	harvestCassava	1.90		
March-10	S2009	B05SE	1	Ploughing	24.79		
March-10	S2009	C07NW	1	harvestCassava	2.00		
March-10	S2009	C07NW	1	harvestCassava	1.00		
March-10	S2009	C07NW	1	harvestCassava	1.00		
March-10	S2009	A05SE	1	Plantation	21.54	Pinus oocarpa	Ag_Pin
March-10	S2009	C07NW	1	harvestCassava	1.00		
March-10	S2009	A05SW	1	Harrowing	24.97		
March-10	S2009	C07NW	1	harvestCassava	0.70		
March-10	S2009	B05SW	1	Ploughing	25.12		
March-10	S2009	C07NW	1	harvestCassava	1.68		
March-10	S2009	A06SE	1	Plantation	2.75	Eucalyptus citriodora	Ag_Eu
March-10	S2009	A04SE	1	Harrowing	24.87		
March-10	S2009	A05SW	1	Plantation	23.16	Acacia mangium	Ag_Ac
March-10	S2009	A05SW	1	Grafting	24.97	RAV	
March-10	S2009	D07SW	1	harvestCassava	1.50		
March-10	S2009	D07SW	1	harvestCassava	1.50		
March-10	S2009	A02SE	1	Ploughing	24.86		

Date	Season	Block	Rotation	Activity	Surface	Species	Stratum
March-10	S2009	D07SW	1	harvestCassava	0.48		
March-10	S2009	A04SE	1	Plantation	19.61	Pinus caribbea	Ag_Pin
March-10	S2009	A04SW	1	Grafting	24.78	Zizila	
March-10	S2009	D06SE	1	harvestCassava	2.50		
April-10	S2009	D06SE	1	harvestCassava	1.50		
April-10	S2009	A03SW	1	Harrowing	24.85		
April-10	S2009	D06SE	1	harvestCassava	1.40		
April-10	S2009	D06SE	1	harvestCassava	1.00		
April-10	S2009	D06SE	1	harvestCassava	1.00		
April-10	S2009	A04SE	1	Grafting	24.87	Nsansi	
April-10	S2009	A04SW	1	Plantation	22.30	Acacia auriculiformis	Ag_Ac
April-10	S2009	A06NE	1	Harrowing	24.80		
April-10	S2009	D06SE	1	harvestCassava	2.00		
April-10	S2009	A03SE	1	Harrowing	24.87		
April-10	S2009	D06SE	1	harvestCassava	2.00		
April-10	S2009	D06SE	1	harvestCassava	1.10		
April-10	S2009	A02SW	1	Ploughing	24.87		
April-10	S2009	A06NE	1	Grafting	24.80	Madibwata	
April-10	S2009	B05NE	1	Harrowing	24.80		
April-10	S2009	D06SE	1	harvestCassava	1.20		

Date	Season	Block	Rotation	Activity	Surface	Species	Stratum
April-10	S2009	B05SE	1	Harrowing	24.79		
April-10	S2009	A03SE	1	Plantation	22.85	Acacia auriculiformis	Ag_Ac
April-10	S2009	B05NE	1	Grafting	24.80	Mao	
April-10	S2009	B05SE	1	Grafting	24.79	Madibwata	
April-10	S2009	C06SE	1	harvestCassava	1.90		
April-10	S2009	C06SE	1	harvestCassava	1.60		
April-10	S2009	B05SW	1	Harrowing	25.12		
April-10	S2009	C06SE	1	harvestCassava	1.60		
April-10	S2009	C06SE	1	harvestCassava	1.50		
April-10	S2009	B05SE	1	Plantation	21.35	Acacia auriculiformis	Ag_Ac
April-10	S2009	C06SE	1	harvestCassava	1.50		
April-10	S2009	A03SW	1	Grafting	24.85	Mao	
April-10	S2009	B05NW	1	Harrowing	25.01		
April-10	S2009	A03SE	1	Grafting	10.00	RAV	
April-10	S2009	C06NE	1	harvestCassava	1.50		
April-10	S2009	B05NW	1	Plantation	22.84	Acacia auriculiformis	Ag_Ac
April-10	S2009	A03SE	1	Grafting	5.00	Zizila	
April-10	S2009	B05SW	1	Plantation	5.00	Terminalia superba	Ag_LS
April-10	S2009	C06NE	1	harvestCassava	1.40		
April-10	S2009	C06NE	1	harvestCassava	1.40		

Date	Season	Block	Rotation	Activity	Surface	Species	Stratum
April-10	S2009	C06NE	1	harvestCassava	1.50		
April-10	S2009	C06NE	1	harvestCassava	1.50		
April-10	S2009	A03SE	1	Grafting	5.00	Lweki	
April-10	S2009	B05NE	1	Plantation	22.37	Acacia auriculiformis	Ag_Ac
April-10	S2009	C06NE	1	harvestCassava	1.00		
April-10	S2009	C06NE	1	harvestCassava	1.00		
April-10	S2009	A02SE	1	Harrowing	24.86		
April-10	S2009	A03SE	1	Grafting	4.87	Butambu	
April-10	S2009	C06NE	1	harvestCassava	1.00		
April-10	S2009	C06NE	1	harvestCassava	1.00		
April-10	S2009	B05NW	1	Grafting	25.00	Mao	
April-10	S2009	C06NE	1	harvestCassava	1.00		
April-10	S2009	A03SW	1	Plantation	22.69	Acacia auriculiformis	Ag_Ac
May-10	S2009	B05SW	1	Grafting	25.12	Mao	
May-10	S2009	C06NE	1	harvestCassava	1.00		
May-10	S2009	C06NE	1	harvestCassava	0.80		
May-10	S2009	A02SE	1	Grafting	12.00	Madibwata	
May-10	S2009	C06NE	1	harvestCassava	0.80		
May-10	S2009	C06NE	1	harvestCassava	1.00		
May-10	S2009	A02SE	1	Grafting	7.00	Zizila	

Date	Season	Block	Rotation	Activity	Surface	Species	Stratum
May-10	S2009	A02SW	1	Harrowing	24.87		
May-10	S2009	A06NE	1	Plantation	23.13	Acacia auriculiformis	Ag_Ac
May-10	S2009	C06NE	1	harvestCassava	1.00		
May-10	S2009	A02SE	1	Grafting	5.86	Nsansi	
May-10	S2009	C06NE	1	harvestCassava	1.00		
May-10	S2009	C06SE	1	harvestCassava	1.80		
May-10	S2009	C06SE	1	harvestCassava	1.60		
May-10	S2009	A02SE	1	Plantation	12.11	Acacia auriculiformis	Ag_Ac
May-10	S2009	A02SW	1	Grafting	24.87	Madibwata	
May-10	S2009	A02SW	1	Plantation	10.00	Acacia auriculiformis	Ag_Ac
May-10	S2009	C06SE	1	harvestCassava	1.50		
May-10	S2009	C06SE	1	harvestCassava	1.00		
May-10	S2009	C06SE	1	harvestCassava	1.00		
May-10	S2009	C06SE	1	harvestCassava	1.50		
May-10	S2009	C06SE	1	harvestCassava	1.00		
May-10	S2009	C06SE	1	harvestCassava	1.50		
May-10	S2009	A11NE	1	Fire	1.98		
May-10	S2009	A11NW	1	Fire	0.05		
May-10	S2009	B08SE	1	Fire	22.85		
May-10	S2009	B08SW	1	Fire	23.25		

Date	Season	Block	Rotation	Activity	Surface	Species	Stratum
May-10	S2009	B09SW	1	Fire	7.68		
May-10	S2009	C08SW	1	Fire	4.98		
May-10	S2009	C06SE	1	harvestCassava	1.50		
May-10	S2009	C06SE	1	harvestCassava	1.50		
May-10	S2009	C06SE	1	harvestCassava	1.50		
May-10	S2009	C06SE	1	harvestCassava	1.20		
June-10	S2009	C06SE	1	harvestCassava	0.25		
June-10	S2009	C06NW	1	harvestCassava	1.30		
June-10	S2009	C06NW	1	harvestCassava	1.50		
June-10	S2009	C06NW	1	harvestCassava	2.00		
June-10	S2009	C06NW	1	harvestCassava	1.50		
June-10	S2009	C06NW	1	harvestCassava	1.40		
June-10	S2009	C06NW	1	harvestCassava	1.80		
June-10	S2009	C06NW	1	harvestCassava	1.00		
June-10	S2009	C06NW	1	harvestCassava	0.60		
June-10	S2009	C06NW	1	harvestCassava	2.00		
June-10	S2009	C06NW	1	harvestCassava	1.30		
July-10	S2010	C06SW	1	harvestCassava	1.90		
July-10	S2010	C06SW	1	harvestCassava	1.00		
July-10	S2010	D04NE	0	Fire	23.35		

Date	Season	Block	Rotation	Activity	Surface	Species	Stratum
July-10	S2010	D04NW	0	Fire	23.34		
July-10	S2010	D04SE	0	Fire	23.15		
July-10	S2010	D04SW	0	Fire	23.13		
July-10	S2010	E02NE	0	Fire	23.23		
July-10	S2010	E02NW	0	Fire	23.23		
July-10	S2010	E02SE	0	Fire	23.25		
July-10	S2010	E02SW	0	Fire	23.24		
July-10	S2010	E04NE	0	Fire	23.23		
July-10	S2010	E04NW	0	Fire	23.24		
July-10	S2010	E04SE	0	Fire	23.18		
July-10	S2010	E04SW	0	Fire	23.27		
July-10	S2010	E05NE	0	Fire	23.06		
July-10	S2010	E05NW	0	Fire	23.25		
July-10	S2010	E05SE	0	Fire	23.29		
July-10	S2010	E05SW	0	Fire	23.26		
July-10	S2010	F01NE	0	Fire	23.23		
July-10	S2010	F01NW	0	Fire	23.25		
July-10	S2010	F01SE	0	Fire	23.25		
July-10	S2010	F01SW	0	Fire	23.23		
July-10	S2010	F02NE	0	Fire	23.27		

Date	Season	Block	Rotation	Activity	Surface	Species	Stratum
July-10	S2010	F02NW	0	Fire	23.23		
July-10	S2010	F02SE	0	Fire	23.24		
July-10	S2010	F02SW	0	Fire	23.26		
July-10	S2010	F04NE	0	Fire	23.23		
July-10	S2010	F04NW	0	Fire	23.27		
July-10	S2010	F04SE	0	Fire	23.25		
July-10	S2010	F04SW	0	Fire	23.23		
July-10	S2010	F05NE	0	Fire	0.90		
July-10	S2010	F05SE	0	Fire	12.47		
July-10	S2010	F05SW	0	Fire	23.24		
July-10	S2010	G01NE	0	Fire	11.71		
July-10	S2010	G01NW	0	Fire	1.25		
July-10	S2010	G01SE	0	Fire	23.24		
July-10	S2010	G01SW	0	Fire	22.27		
July-10	S2010	G02NE	0	Fire	23.24		
July-10	S2010	G02NW	0	Fire	22.26		
July-10	S2010	G02SE	0	Fire	23.23		
July-10	S2010	G02SW	0	Fire	23.25		
July-10	S2010	H11NW	1	Fire	2.13		
July-10	S2010	C06SW	1	harvestCassava	1.10		

Date	Season	Block	Rotation	Activity	Surface	Species	Stratum
July-10	S2010	C06SW	1	harvestCassava	1.20		
July-10	S2010	C06SW	1	harvestCassava	1.60		
July-10	S2010	C06SW	1	harvestCassava	1.00		
July-10	S2010	C06SW	1	harvestCassava	1.00		
July-10	S2010	C06NW	1	harvestCassava	1.30		
July-10	S2010	C06NW	1	harvestCassava	1.00		
July-10	S2010	C06NW	1	harvestCassava	2.50		
July-10	S2010	C06NW	1	harvestCassava	1.00		
July-10	S2010	C06NW	1	harvestCassava	2.00		
July-10	S2010	C06SW	1	harvestCassava	1.10		
July-10	S2010	C06SW	1	harvestCassava	0.70		
July-10	S2010	C06SW	1	harvestCassava	1.10		
July-10	S2010	C06SW	1	harvestCassava	1.60		
July-10	S2010	C06SW	1	harvestCassava	1.60		
July-10	S2010	C06SW	1	harvestCassava	1.00		
July-10	S2010	C06SW	1	harvestCassava	1.70		
July-10	S2010	C06SW	1	harvestCassava	2.00		
August-10	S2010	C06SW	1	harvestCassava	1.50		
August-10	S2010	C06SW	1	harvestCassava	0.80		
August-10	S2010	C06SW	1	harvestCassava	1.10		

Date	Season	Block	Rotation	Activity	Surface	Species	Stratum
August-10	S2010	C06SW	1	harvestCassava	1.00		
August-10	S2010	C06SW	1	harvestCassava	0.99		
August-10	S2010	A09SW	1	harvestCassava	1.70		
August-10	S2010	A09SW	1	harvestCassava	0.90		
August-10	S2010	A09SW	1	harvestCassava	3.90		
August-10	S2010	A09SW	1	harvestCassava	1.70		
August-10	S2010	A09SW	1	harvestCassava	1.30		
August-10	S2010	A09SW	1	harvestCassava	1.00		
August-10	S2010	A09SW	1	harvestCassava	0.80		
August-10	S2010	A01NE	0	Fire	23.21		
August-10	S2010	A01NW	0	Fire	23.18		
August-10	S2010	A02NE	0	Fire	23.29		
August-10	S2010	A02NW	0	Fire	23.27		
August-10	S2010	B01NE	0	Fire	23.33		
August-10	S2010	B01NW	0	Fire	23.34		
August-10	S2010	B01SE	0	Fire	23.15		
August-10	S2010	B02NE	0	Fire	23.33		
August-10	S2010	B02NW	0	Fire	23.28		
August-10	S2010	B02SE	0	Fire	23.15		
August-10	S2010	B02SW	0	Fire	23.09		

Date	Season	Block	Rotation	Activity	Surface	Species	Stratum
August-10	S2010	B03NE	0	Fire	23.21		
August-10	S2010	B03NW	0	Fire	23.35		
August-10	S2010	B04NW	0	Fire	23.35		
August-10	S2010	B04SE	1	Fire	23.13		
August-10	S2010	B04SW	1	Fire	23.15		
August-10	S2010	C01NE	0	Fire	23.26		
August-10	S2010	C01NW	0	Fire	23.26		
August-10	S2010	C01SE	0	Fire	23.17		
August-10	S2010	C01SW	0	Fire	23.25		
August-10	S2010	C02NE	0	Fire	23.37		
August-10	S2010	C02NW	0	Fire	23.39		
August-10	S2010	C02SE	0	Fire	23.07		
August-10	S2010	C02SW	0	Fire	23.15		
August-10	S2010	A09SW	1	harvestCassava	1.00		
August-10	S2010	A09SW	1	harvestCassava	1.50		
August-10	S2010	A09SW	1	harvestCassava	1.50		
August-10	S2010	A09SW	1	harvestCassava	1.60		
August-10	S2010	A09SW	1	harvestCassava	0.80		
August-10	S2010	A09SW	1	harvestCassava	1.30		
August-10	S2010	A09SW	1	harvestCassava	1.80		

Date	Season	Block	Rotation	Activity	Surface	Species	Stratum
September-10	S2010	A09SW	1	harvestCassava	1.30		
September-10	S2010	B06NE	1	harvestCassava	5.10		
September-10	S2010	A09SW	1	harvestCassava	1.20		
September-10	S2010	B06NE	1	harvestCassava	1.00		
September-10	S2010	A09NW	1	harvestCassava	0.80		
September-10	S2010	A09NW	1	harvestCassava	1.80		
September-10	S2010	A09NW	1	harvestCassava	1.50		
September-10	S2010	A09NW	1	harvestCassava	1.30		
September-10	S2010	A09SE	1	Fire	3.00		
September-10	S2010	A09SW	1	Fire	3.00		
September-10	S2010	A10SW	1	Fire	2.00		
September-10	S2010	A09NW	1	harvestCassava	1.30		
September-10	S2010	A09NW	1	harvestCassava	0.80		
September-10	S2010	A09NW	1	harvestCassava	1.80		
September-10	S2010	A09NW	1	harvestCassava	1.80		
September-10	S2010	A09NW	1	harvestCassava	1.00		
September-10	S2010	A09NW	1	harvestCassava	1.30		
September-10	S2010	A09NE	1	harvestCassava	1.50		
September-10	S2010	A09NW	1	harvestCassava	1.30		
September-10	S2010	B06NE	1	harvestCassava	0.60		

Date	Season	Block	Rotation	Activity	Surface	Species	Stratum
September-10	S2010	C05NE	1	Grubbing	25.07		
September-10	S2010	C05NW	1	Grubbing	25.06		
September-10	S2010	C05SE	1	Grubbing	24.85		
September-10	S2010	C05SW	1	Grubbing	24.85		
September-10	S2010	A09NW	1	harvestCassava	0.60		
September-10	S2010	A09NE	1	harvestCassava	1.20		
September-10	S2010	A09NE	1	harvestCassava	0.11		
September-10	S2010	C05NE	1	Ploughing	25.07		
September-10	S2010	A07SW	1	harvestCassava	2.50		
September-10	S2010	A07SW	1	harvestCassava	2.50		
September-10	S2010	A07SW	1	harvestCassava	1.50		
September-10	S2010	A07SW	1	harvestCassava	1.50		
October-10	S2010	A07SW	1	harvestCassava	1.50		
October-10	S2010	A07SW	1	harvestCassava	1.80		
October-10	S2010	C05NW	1	Ploughing	25.06		
October-10	S2010	A07SW	1	harvestCassava	1.80		
October-10	S2010	A07SW	1	harvestCassava	1.80		
October-10	S2010	A07SW	1	harvestCassava	1.80		
October-10	S2010	A07SW	1	harvestCassava	1.80		
October-10	S2010	C05SE	1	Ploughing	24.85		

Date	Season	Block	Rotation	Activity	Surface	Species	Stratum
October-10	S2010	A07SW	1	harvestCassava	1.60		
October-10	S2010	A07SW	1	harvestCassava	1.60		
October-10	S2010	A07SW	1	harvestCassava	1.80		
October-10	S2010	B07SE	1	harvestCassava	1.50		
October-10	S2010	B07SE	1	harvestCassava	1.50		
October-10	S2010	C05SW	1	Ploughing	24.85		
October-10	S2010	B07SE	1	harvestCassava	1.30		
October-10	S2010	B07SE	1	harvestCassava	1.30		
October-10	S2010	B07SE	1	harvestCassava	1.30		
October-10	S2010	B07SE	1	harvestCassava	1.30		
October-10	S2010	B07SE	1	harvestCassava	1.30		
October-10	S2010	B07SE	1	harvestCassava	1.30		
October-10	S2010	B07SE	1	harvestCassava	1.90		
October-10	S2010	A06NW	1	Plantation	10.00	Eucalyptus alba	Pp_Eu
October-10	S2010	B07SE	1	harvestCassava	1.90		
October-10	S2010	B07SE	1	harvestCassava	1.90		
October-10	S2010	B07SE	1	harvestCassava	1.90		
October-10	S2010	B07SE	1	harvestCassava	1.90		
November-10	S2010	B07SE	1	harvestCassava	1.90		
November-10	S2010	B07SE	1	harvestCassava	1.90		

Date	Season	Block	Rotation	Activity	Surface	Species	Stratum
November-10	S2010	B07NE	1	harvestCassava	2.50		
November-10	S2010	B07NE	1	harvestCassava	2.50		
November-10	S2010	B07NE	1	harvestCassava	2.20		
November-10	S2010	B07NE	1	harvestCassava	2.20		
November-10	S2010	B07NE	1	harvestCassava	2.20		
November-10	S2010	B07NE	1	harvestCassava	2.20		
November-10	S2010	B07NE	1	harvestCassava	0.80		
November-10	S2010	B07NE	1	harvestCassava	2.20		
November-10	S2010	B07NE	1	harvestCassava	3.00		
November-10	S2010	B07NE	1	harvestCassava	2.20		
November-10	S2010	B07NE	1	harvestCassava	2.20		
November-10	S2010	B07NE	1	harvestCassava	0.50		
November-10	S2010	B07NE	1	harvestCassava	0.25		
November-10	S2010	B07SW	1	harvestCassava	0.80		
November-10	S2010	B07SW	1	harvestCassava	0.70		
November-10	S2010	B07SW	1	harvestCassava	1.00		
November-10	S2010	B07SW	1	harvestCassava	5.00		
November-10	S2010	B07SW	1	harvestCassava	5.00		
November-10	S2010	B07SW	1	harvestCassava	4.10		
November-10	S2010	B07SW	1	harvestCassava	4.10		

Date	Season	Block	Rotation	Activity	Surface	Species	Stratum
December-10	S2010	B07SW	1	harvestCassava	4.25		
December-10	S2010	A07NW	1	harvestCassava	1.30		
December-10	S2010	A07NW	1	harvestCassava	0.30		
December-10	S2010	A07NW	1	harvestCassava	1.00		
December-10	S2010	A07NW	1	harvestCassava	1.00		
December-10	S2010	A07NW	1	harvestCassava	1.00		
December-10	S2010	A07NW	1	harvestCassava	1.00		
December-10	S2010	A07NW	1	harvestCassava	0.50		
December-10	S2010	A07NW	1	harvestCassava	1.00		
December-10	S2010	A07NW	1	harvestCassava	1.00		
December-10	S2010	A07NW	1	harvestCassava	0.50		
December-10	S2010	A07NW	1	harvestCassava	1.00		
December-10	S2010	A07NW	1	harvestCassava	1.20		
December-10	S2010	A07NW	1	harvestCassava	0.90		
December-10	S2010	A07NW	1	harvestCassava	0.90		
December-10	S2010	A07NW	1	harvestCassava	0.90		
December-10	S2010	A07NW	1	harvestCassava	0.90		
December-10	S2010	B08SE	2	Ploughing	24.40		
December-10	S2010	A07NW	1	harvestCassava	0.90		
December-10	S2010	A07NW	1	harvestCassava	0.70		

Date	Season	Block	Rotation	Activity	Surface	Species	Stratum
December-10	S2010	A07NW	1	harvestCassava	0.90		
January-11	S2010	A07NW	1	harvestCassava	1.00		
January-11	S2010	B09SW	2	Ploughing	8.69		
January-11	S2010	A07NW	1	harvestCassava	1.00		
January-11	S2010	A07NW	1	harvestCassava	1.00		
January-11	S2010	A07NW	1	harvestCassava	1.00		
January-11	S2010	A07NE	1	harvestCassava	1.50		
January-11	S2010	A07NW	1	harvestCassava	4.11		
January-11	S2010	A07NE	1	harvestCassava	0.80		
January-11	S2010	A07NE	1	harvestCassava	0.80		
January-11	S2010	A07NE	1	harvestCassava	0.80		
January-11	S2010	A07NE	1	harvestCassava	0.80		
January-11	S2010	B07NW	1	harvestCassava	0.50		
January-11	S2010	B07NW	1	harvestCassava	0.50		
January-11	S2010	B07NW	1	harvestCassava	0.40		
January-11	S2010	B07NW	1	harvestCassava	0.80		
January-11	S2010	B07NW	1	harvestCassava	0.50		
January-11	S2010	B07NW	1	harvestCassava	0.70		
January-11	S2010	B07NW	1	harvestCassava	0.70		
January-11	S2010	B07NW	1	harvestCassava	0.70		

Date	Season	Block	Rotation	Activity	Surface	Species	Stratum
January-11	S2010	B07NW	1	harvestCassava	0.70		
January-11	S2010	B07NW	1	harvestCassava	0.40		
January-11	S2010	B07NW	1	harvestCassava	0.80		
January-11	S2010	B07NW	1	harvestCassava	0.80		
January-11	S2010	B07NW	1	harvestCassava	0.80		
January-11	S2010	B07NW	1	harvestCassava	0.80		
January-11	S2010	B07NW	1	harvestCassava	0.80		
January-11	S2010	B07NW	1	harvestCassava	0.80		
January-11	S2010	B08NE	2	Ploughing	7.18		
January-11	S2010	B07NW	1	harvestCassava	0.80		
February-11	S2010	B07NW	1	harvestCassava	0.80		
February-11	S2010	B08SE	2	Harrowing	24.40		
February-11	S2010	B07NW	1	harvestCassava	0.80		
February-11	S2010	B07NW	1	harvestCassava	0.80		
February-11	S2010	B07NW	1	harvestCassava	0.80		
February-11	S2010	B07NW	1	harvestCassava	0.80		
February-11	S2010	B09SW	2	Harrowing	8.69		
February-11	S2010	B07NW	1	harvestCassava	0.80		
February-11	S2010	B07NW	1	harvestCassava	0.80		
February-11	S2010	B07NW	1	harvestCassava	0.80		

Date	Season	Block	Rotation	Activity	Surface	Species	Stratum
February-11	S2010	B08NE	2	Harrowing	7.18		
February-11	S2010	B07NW	1	harvestCassava	0.80		
February-11	S2010	B07NW	1	harvestCassava	0.80		
February-11	S2010	B07NW	1	harvestCassava	0.80		
February-11	S2010	B07NW	1	harvestCassava	0.80		
February-11	S2010	B09SW	2	Grafting	8.69	Zizila	
February-11	S2010	B07NW	1	harvestCassava	0.80		
February-11	S2010	B07NW	1	harvestCassava	0.80		
February-11	S2010	B07NW	1	harvestCassava	0.70		
February-11	S2010	B07NW	1	harvestCassava	0.80		
February-11	S2010	B07NW	1	harvestCassava	0.37		
February-11	S2010	A05NW	1	Ploughing	24.91		
February-11	S2010	B09SW	2	Plantation	7.68	Acacia auriculiformis	Ag_Ac
February-11	S2010	B07NW	1	harvestCassava	0.40		
February-11	S2010	A07NE	1	harvestCassava	0.90		
February-11	S2010	A08NW	1	harvestCassava	0.50		
February-11	S2010	B06NE	1	harvestCassava	0.60		
February-11	S2010	B06NE	1	harvestCassava	0.60		
February-11	S2010	B06NE	1	harvestCassava	0.60		
February-11	S2010	B06NE	1	harvestCassava	0.60		

Date	Season	Block	Rotation	Activity	Surface	Species	Stratum
February-11	S2010	B08SE	2	Grafting	8.11	Kingawa	
February-11	S2010	B08SE	2	Grafting	15.00	Zizila	
February-11	S2010	B08NE	2	Grafting	7.18	Madibwata	
February-11	S2010	B06NE	1	harvestCassava	0.30		
March-11	S2010	B06NE	1	harvestCassava	0.60		
March-11	S2010	B06NE	1	harvestCassava	0.80		
March-11	S2010	B06NE	1	harvestCassava	0.60		
March-11	S2010	B06NE	1	harvestCassava	0.60		
March-11	S2010	A04NE	2	Ploughing	25.06		
March-11	S2010	B06NE	1	harvestCassava	0.70		
March-11	S2010	B08SE	2	Plantation	22.85	Acacia auriculiformis	Ag_Ac
March-11	S2010	B06NE	1	harvestCassava	0.40		
March-11	S2010	A06SE	1	SurvivalTest	23.15		
March-11	S2010	A06SE	1	SurvivalTest	23.15		
March-11	S2010	B06NE	1	harvestCassava	0.70		
March-11	S2010	B06NE	1	harvestCassava	0.70		
March-11	S2010	B06NE	1	harvestCassava	0.70		
March-11	S2010	B06NE	1	harvestCassava	0.70		
March-11	S2010	A08NE	1	SurvivalTest	23.09		
March-11	S2010	B06NE	1	harvestCassava	0.40		

Date	Season	Block	Rotation	Activity	Surface	Species	Stratum
March-11	S2010	B06NE	1	harvestCassava	0.70		
March-11	S2010	B06NE	1	harvestCassava	0.60		
March-11	S2010	A05NE	2	Ploughing	24.95		
March-11	S2010	B06NE	1	harvestCassava	0.60		
March-11	S2010	B06NE	1	harvestCassava	0.70		
March-11	S2010	B06NE	1	harvestCassava	1.00		
March-11	S2010	B06NE	1	harvestCassava	0.80		
March-11	S2010	B06NE	1	harvestCassava	1.00		
March-11	S2010	B06NE	1	harvestCassava	0.60		
March-11	S2010	B06NE	1	harvestCassava	0.70		
March-11	S2010	B06NE	1	harvestCassava	0.70		
March-11	S2010	B06NE	1	harvestCassava	0.60		
March-11	S2010	A04NW	1	Ploughing	25.05		
March-11	S2010	B06NE	1	harvestCassava	0.50		
April-11	S2010	B06NE	1	harvestCassava	0.09		
April-11	S2010	B06NW	1	harvestCassava	0.50		
April-11	S2010	A04NE	2	Harrowing	25.06		
April-11	S2010	B06NW	1	harvestCassava	0.80		
April-11	S2010	B06NW	1	harvestCassava	1.20		
April-11	S2010	B06NW	1	harvestCassava	0.40		

Date	Season	Block	Rotation	Activity	Surface	Species	Stratum
April-11	S2010	B06NW	1	harvestCassava	1.30		
April-11	S2010	B06NW	1	harvestCassava	0.50		
April-11	S2010	B06NW	1	harvestCassava	0.80		
April-11	S2010	B06NW	1	harvestCassava	0.40		
April-11	S2010	B06NW	1	harvestCassava	1.20		
April-11	S2010	B06NW	1	harvestCassava	0.50		
April-11	S2010	A04NW	1	Harrowing	25.05		
April-11	S2010	B06NW	1	harvestCassava	0.50		
April-11	S2010	B06NW	1	harvestCassava	0.80		
April-11	S2010	A05NE	2	Harrowing	24.95		
April-11	S2010	B06NW	1	harvestCassava	0.80		
April-11	S2010	B06NW	1	harvestCassava	0.50		
April-11	S2010	B06NW	1	harvestCassava	0.40		
April-11	S2010	B06NW	1	harvestCassava	1.30		
April-11	S2010	A04NE	2	Grafting	2.40	Nsansi	
April-11	S2010	A04NE	2	Grafting	7.40	Zizila	
April-11	S2010	A05NE	2	Grafting	7.20	Zizila	
April-11	S2010	A05NE	2	Grafting	16.20	Nsansi	
April-11	S2010	A04NE	2	Grafting	15.26	Madibwata	
April-11	S2010	A04NW	1	Grafting	25.05	Madibwata	

Date	Season	Block	Rotation	Activity	Surface	Species	Stratum
May-11	S2010	A05NW	1	Harrowing	24.91		
May-11	S2010	B08NW	2	Ploughing	23.97		
May-11	S2010	A05NW	1	Grafting	24.91	Kingawa	
May-11	S2010	B08NW	2	Harrowing	23.97		
May-11	S2010	A06SE	1	harvestCassava	0.30		
May-11	S2010	A06SE	1	harvestCassava	0.60		
May-11	S2010	A06SE	1	harvestCassava	1.00		
May-11	S2010	A06SE	1	harvestCassava	0.80		
May-11	S2010	A06SE	1	harvestCassava	1.20		
May-11	S2010	A06SE	1	harvestCassava	1.80		
May-11	S2010	B08NW	2	Grafting	23.97	RAV	
May-11	S2010	A08SE	1	harvestCassava	0.50		
May-11	S2010	A08SE	1	harvestCassava	1.90		
June-11	S2010	A08SE	1	harvestCassava	2.00		
June-11	S2010	A08SE	1	harvestCassava	1.50		
June-11	S2010	A08SE	1	harvestCassava	1.80		
June-11	S2010	A08SE	1	harvestCassava	1.70		
June-11	S2010	A08SE	1	harvestCassava	0.80		
June-11	S2010	A08SE	1	harvestCassava	1.40		
June-11	S2010	A08SE	1	harvestCassava	0.90		

Date	Season	Block	Rotation	Activity	Surface	Species	Stratum
June-11	S2010	A08SE	1	harvestCassava	0.90		
June-11	S2010	A08SE	1	harvestCassava	1.20		
June-11	S2010	A06NE	1	harvestCassava	0.50		
June-11	S2010	A08SE	1	harvestCassava	0.90		
June-11	S2010	A08SE	1	harvestCassava	1.80		
June-11	S2010	A08SE	1	harvestCassava	4.51		
June-11	S2010	A08SE	1	harvestCassava	1.50		
June-11	S2010	A08SE	1	harvestCassava	1.60		
June-11	S2010	A08NE	1	harvestCassava	1.40		
June-11	S2010	A08NE	1	harvestCassava	1.00		
June-11	S2010	A08NE	1	harvestCassava	3.00		
June-11	S2010	A08NE	1	harvestCassava	1.70		
June-11	S2010	A08NE	1	harvestCassava	1.30		
June-11	S2010	A08NE	1	harvestCassava	0.50		
June-11	S2010	A08NE	1	harvestCassava	1.50		
June-11	S2010	A08NE	1	harvestCassava	0.20		
June-11	S2010	A08NE	1	harvestCassava	1.40		
June-11	S2010	A08NE	1	harvestCassava	0.70		
June-11	S2010	A08NE	1	harvestCassava	0.20		
July-11	S2011	A08NE	1	harvestCassava	0.20		

Date	Season	Block	Rotation	Activity	Surface	Species	Stratum
July-11	S2011	A08NE	1	harvestCassava	0.20		
July-11	S2011	A08NE	1	harvestCassava	0.30		
July-11	S2011	G00SW	1	Fire	2.02		
July-11	S2011	L01SW	1	Fire	0.59		
July-11	S2011	A08NE	1	harvestCassava	1.40		
July-11	S2011	A08NE	1	harvestCassava	1.30		
July-11	S2011	A08NE	1	harvestCassava	0.50		
July-11	S2011	A08NE	1	harvestCassava	1.30		
July-11	S2011	A08NE	1	harvestCassava	0.40		
July-11	S2011	A08NE	1	harvestCassava	4.01		
July-11	S2011	A08NE	1	harvestCassava	1.00		
July-11	S2011	A08NE	1	harvestCassava	1.30		
July-11	S2011	A11SW	1	Fire	2.11		
July-11	S2011	R10NW	1	Fire	1.28		
August-11	S2011	A08SW	1	harvestCassava	0.90		
August-11	S2011	A08SW	1	harvestCassava	1.90		
August-11	S2011	A08SW	1	harvestCassava	1.70		
August-11	S2011	A08SW	1	harvestCassava	0.80		
August-11	S2011	A08SW	1	harvestCassava	2.30		
August-11	S2011	A08SW	1	harvestCassava	1.20		

Date	Season	Block	Rotation	Activity	Surface	Species	Stratum
August-11	S2011	A08SW	1	harvestCassava	1.00		
August-11	S2011	A06SE	1	harvestCassava	1.90		
August-11	S2011	A06SE	1	harvestCassava	1.50		
August-11	S2011	A06SE	1	harvestCassava	1.20		
August-11	S2011	A06SE	1	harvestCassava	0.40		
August-11	S2011	A06SE	1	harvestCassava	1.10		
August-11	S2011	A06SE	1	harvestCassava	0.40		
August-11	S2011	A06SE	1	harvestCassava	1.20		
August-11	S2011	A08SW	1	harvestCassava	0.40		
August-11	S2011	A06SE	1	harvestCassava	1.20		
August-11	S2011	A06SE	1	harvestCassava	1.00		
August-11	S2011	A06SE	1	harvestCassava	1.10		
August-11	S2011	A06SE	1	harvestCassava	0.80		
August-11	S2011	A06SE	1	harvestCassava	0.50		
August-11	S2011	A06SE	1	harvestCassava	1.10		
August-11	S2011	B08SW	2	Ploughing	24.97		
August-11	S2011	A06SE	1	harvestCassava	1.00		
September-11	S2011	A06SE	1	harvestCassava	0.30		
September-11	S2011	B08SW	2	Harrowing	24.97		
October-11	S2011	A08SW	1	harvestCassava	0.70		

Date	Season	Block	Rotation	Activity	Surface	Species	Stratum
October-11	S2011	A06NE	1	harvestCassava	0.60		
October-11	S2011	A06NE	1	harvestCassava	0.20		
October-11	S2011	A06NE	1	harvestCassava	0.40		
October-11	S2011	A06NE	1	harvestCassava	0.60		
October-11	S2011	A06NE	1	harvestCassava	0.50		
October-11	S2011	C07NE	2	Ploughing	4.59		
October-11	S2011	A06NE	1	harvestCassava	0.30		
October-11	S2011	A06NE	1	harvestCassava	0.70		
October-11	S2011	A06NE	1	harvestCassava	0.50		
October-11	S2011	A06NE	1	harvestCassava	0.50		
October-11	S2011	A06NE	1	harvestCassava	0.30		
October-11	S2011	A08SW	1	harvestCassava	0.20		
October-11	S2011	A06NE	1	harvestCassava	0.60		
October-11	S2011	A06NE	1	harvestCassava	2.10		
October-11	S2011	A06NE	1	harvestCassava	0.60		
October-11	S2011	A06NE	1	harvestCassava	0.90		
October-11	S2011	A06NE	1	harvestCassava	0.30		
October-11	S2011	A05NE	2	Plantation	23.23	Acacia mangium	Ag_Ac
October-11	S2011	B08SW	2	Grafting	24.97	Mao	
November-11	S2011	C11SE	2	Ploughing	1.02		

Date	Season	Block	Rotation	Activity	Surface	Species	Stratum
November-11	S2011	C07NE	2	Harrowing	4.59		
November-11	S2011	C07SE	2	Ploughing	23.40		
November-11	S2011	C07NE	2	Plantation	4.29	Acacia mangium	Ag_Ac
December-11	S2011	A05NW	1	Plantation	12.10	Acacia mangium	Ag_Ac
December-11	S2011	C11SE	2	Harrowing	1.02		
December-11	S2011	C11NE	2	Plantation	1.40	Acacia mangium	Ag_Ac
December-11	S2011	C11SE	2	Plantation	0.54	Acacia mangium	Ag_Ac
December-11	S2011	C11SE	2	Grafting	1.02		
December-11	S2011	C07SE	2	Harrowing	23.40		
December-11	S2011	C07SE	2	Plantation	21.98	Acacia mangium	Ag_Ac
December-11	S2011	C07SE	2	Grafting	23.40		
May-15	S2015	A09-SW	1	Cutting allocation	16.49	Acacia sp	1
June-15	S2015	A09-SE	1	Cutting allocation	9.34	*Acacia sp*	1
June-15	S2015	C06-NE	1	Cutting allocation	24.96	*Acacia sp*	1
August-15	S2015	A10-SW	1	Cutting allocation	4.11	*Acacia sp*	1
October-15	S2015	C07-NW	1	Cutting allocation	20.98	*Acacia sp*	1
November-15	S2015	A09-SW	2	Realignment	21	*Acacia sp*	1
November-16	S2015	C07-SW	1	Cutting allocation	23.29	*Acacia sp*	1
January-16	S2016	B07-SW	1	Cutting allocation	23.06	*Acacia sp*	1
January-17	S2016	B07-NW	1	Cutting allocation	23.64	*Acacia sp*	1

Date	Season	Block	Rotation	Activity	Surface	Species	Stratum
April-16	S2016	A09-SW	2	Relining	8	*Acacia sp*	1
April-17	S2016	A10-SW	2	Realignment	12	*Acacia sp*	1
April-18	S2016	C06-NE	2	Realignment	20.78	*Acacia sp*	1
April-19	S2016	C07-NW	2	Realignment	20.78	*Acacia sp*	1
April-20	S2016	C07-SW	2	Realignment	20.78	*Acacia sp*	1
May-16	S2016	A07-NW	1	Cutting allocation	22.34	*Acacia sp*	1
May-16	S2016	A07-SW	1	Cutting allocation	21.69	*Acacia sp*	1
May-16	S2016	A07-NE	1	Cutting allocation	21.63	*Acacia sp*	1
july-16	S2016	B07-NE	1	Cutting allocation	23.15	*Acacia sp*	1
August-16	S2016	B07-SE	1	Cutting allocation	24.01	*Acacia sp*	1
October-16	S2016	C07-NW	2	Relining	10	*Acacia sp*	1
October-16	S2016	A07-SE	1	Cutting allocation	20.97	*Acacia sp*	1
November-16	S2016	A10-SW	2	Relining	7	*Acacia sp*	1
November-16	S2016	C06-NE	2	Relining	13	*Acacia sp*	1
November-16	S2016	C07-SW	2	Relining	11.5	*Acacia sp*	1
January-17	S2017	D06	1	Plantation	36	*Acacia sp*	1
January-17	S2017	B03-SE	1	Plantation	20	*Acacia sp*	5
January-17	S2017	A02-NE	1	Plantation	17	*Acacia sp*	5
January-17	S2017	A03-NE	1	Plantation	24	*Acacia sp*	5
January-17	S2017	A03-NW	1	Plantation	20	*Acacia sp*	5

Date	Season	Block	Rotation	Activity	Surface	Species	Stratum
January-17	S2017	A04-NE	1	Plantation	24	*Acacia sp*	5
January-17	S2017	A04-NW	1	Plantation	24	*Acacia sp*	5
January-17	S2017	A05-NW	1	Plantation	24	*Acacia sp*	5
January-17	S2017	B04-SE	1	Plantation	24	*Acacia sp*	5
January-17	S2017	B04-SW	1	Plantation	24	*Acacia sp*	5
January-17	S2017	B05-SW	1	Plantation	24	*Acacia sp*	5
January-17	S2017	A09-NW	1	Cutting allocation	19.03	*Acacia sp*	1
March-17	S2017	B07-NW	2	Realignment	20.78	*Acacia sp*	1
March-17	S2017	B07-SE	2	Realignment	23.28	*Acacia sp*	1
March-17	S2017	B07-SW	2	Realignment	20.78	*Acacia sp*	1
March-17	S2017	C05-NE	1	Plantation	22	*Acacia sp*	1
March-17	S2017	RN1/A1S	1	Plantation	10	*Acacia sp*	1
April-17	S2017	A09-NE	2	Realignment	18	*Acacia sp*	1
April-17	S2017	B07-NE	2	Realignment	23.28	*Acacia sp*	1
May-17	S2017	A09-NE	1	Cutting allocation	8.22	*Acacia sp*	1
August-17	S2017	A08-NW	1	Cutting allocation	15.17	*Acacia sp*	1
September-17	S2017	C05-NW	1	Plantation	23	*Acacia sp*	1
September-17	S2017	C05-SE	1	Plantation	22	*Acacia sp*	1
September-17	S2017	C05-SW	1	Plantation	23	*Acacia sp*	1
September-17	S2017	G01-SW	1	Plantation	13	*Acacia sp*	1

Date	Season	Block	Rotation	Activity	Surface	Species	Stratum
September-17	S2017	Piste 1 de A1SW à	1	Plantation	30	*Acacia sp*	1
September-17	S2017	Piste 3 sur 4,88 km x	1	Plantation	24	*Acacia sp*	1
September-17	S2017	E06-SW	1	Plantation	20	Local species and other exotic spicies	8
October-17	S2017	A08-SW	1	Cutting allocation	13.82	*Acacia sp*	1
October-17	S2017	A08-NE	1	Cutting allocation	22.57	*Acacia sp*	1
November-17	S2017	A09-NE	2	Relining	10	*Acacia sp*	1
November-17	S2017	B07-NE	2	Relining	18	*Acacia sp*	1
November-17	S2017	B07-NW	2	Relining	15	*Acacia sp*	1
November-17	S2017	B07-SW	2	Relining	17	*Acacia sp*	1
November-17	S2017	A07-NE	2	Realignment	23.28	*Acacia sp*	1
November-17	S2017	A07-NW	2	Realignment	20.78	*Acacia sp*	1
November-17	S2017	A07-SE	2	Realignment	23.28	*Acacia sp*	1
November-17	S2017	A07-SW	2	Realignment	20.78	*Acacia sp*	1
November-17	S2017	A09-NW	2	Realignment	23.28	*Acacia sp*	1
November-17	S2017	A09-SE	2	Realignment	23.28	*Acacia sp*	1
December-17	S2017	B07-SE	2	Relining	10	*Acacia sp*	1
Febuary-18	S2018	A08-SE	1	Cutting allocation	17.14	*Acacia sp*	1
March-18	S2018	B08-SW	1	Plantation	23	*Acacia sp*	1
March-18	S2018	A06-NE	1	Cutting allocation	16.03	*Acacia sp*	1
April-18	S2018	A07-NE	2	Relining	8	*Acacia sp*	1

Date	Season	Block	Rotation	Activity	Surface	Species	Stratum
April-18	S2018	A07-NW	2	Relining	10	*Acacia sp*	1
April-18	S2018	A07-SE	2	Relining	7.5	*Acacia sp*	1
April-18	S2018	A07-SW	2	Relining	13	*Acacia sp*	1
April-18	S2018	A09-NW	2	Relining	13.5	*Acacia sp*	1
April-18	S2018	A09-SE	2	Relining	18	*Acacia sp*	1
April-18	S2018	A08-NE	2	Realignment	23.28	*Acacia sp*	1
April-18	S2018	A08-SE	2	Realignment	23.28	*Acacia sp*	1
April-18	S2018	A08-SW	2	Realignment	23.28	*Acacia sp*	1
April-18	S2018	B04-NE	1	Plantation	23	*Acacia sp*	1
April-18	S2018	B04-NW	1	Plantation	23	*Acacia sp*	1
April-18	S2018	C04-SE	1	Plantation	10	*Acacia sp*	1
April-18	S2018	Piste 2 sur 4,9 km x 50 m	1	Plantation	10	*Acacia sp*	1
May-18	S2018	B06-NE	1	Cutting allocation	12.14	*Acacia sp*	1
August-18	S2018	C06-SE	1	Cutting allocation	20	*Acacia sp*	1
August-18	S2018	C06-NE	2	Thinning's	20.78	*Acacia sp*	1

Between 2012 and 2015, field activities were not recorded as they were minimum because a focus was made during that time on the restructuration of the Novacel company.

Following the monitoring of the proposed project activities, a new planting schedule was elaborated in order to achieve the objectives of the project, as it can be seen in the table below.

Planting & harvest monitoring and schedule

Year n°	Year	Planting (ha)	Existing vegetation	Type of stand	Tree species	Initial Id	Harvest (ha)	Id harvested	Remaining (ha)	Replanting (ha)	New Id after harvest and replanting
1	2008	355,00	Savannah	agroforestry	Acacia	S_Ag_Ac_08					
		184,34	Savannah	pure plantation	Acacia	S_Pp_Ac_08					
2	2009	437,56	Savannah	agroforestry	Acacia	S_Ag_Ac_09					
		15,58	Savannah	agroforestry	Eucalyptus	S_Ag_Eu_09					
		41,15	Savannah	agroforestry	Pinus	S_Ag_Pin_09					
		5,00	Savannah	agroforestry	Local species	S_Ag_LS_09					
		0,00	Savannah	agroforestry	Other exotic species	S_Ag_OES_09					
		46,57	Savannah	pure plantation	Acacia	S_Pp_Ac_09					
		0,00	Savannah	pure plantation	Eucalyptus	S_Pp_Eu_09					
		35,83	Savannah	pure plantation	Local species	S_Pp_LS_09					
3	2010	30,53	Savannah	agroforestry	Acacia	S_Ag_Ac_10					
		10,00	Savannah	Pure plantation	Eucalyptus	S_Pp_Eu_10					
4	2011	63,54	Savannah	agroforestry	Acacia	S_Ag_Ac_11					
		0,00	Savannah	pure plantation	Acacia	S_Pp_Ac_11					
5	2012										
6	2013							S_Ag_Ac_10	10,00		
7	2014							S_Ag_Ac_11	21,12		
8	2015	0,00	Savannah	agroforestry	Acacia		99,17	S_Ag_Ac_08	203,83	21	S_Ag_Ac_15
9	2016	0,00	Savannah	agroforestry	Acacia		180,49	S_Ag_Ac_08	23,34	74,34	S_Ag_Ac_16
10	2017	203,00	Savannah	agroforestry	Acacia	S_Ag_Ac_17	78,81	S_Ag_Ac_09	284,38	240,8	S_Ag_Ac_17
		225,00	Savannah	pure plantation	Acacia	S_Pp_Ac_17	0	S_Pp_Ac_08	0,00		
		20,00	Savannah	pure plantation	Local species	S_Pp_LS_17					
11	2018	89,00	Savannah	agroforestry	Acacia	S_Ag_Ac_18	65,31	S_Ag_Ac_09	219,07	93,12	S_Ag_Ac_18
		0,00	Savannah	agroforestry	Eucalyptus		0	S_Ag_Eu_09	15,58		

		0,00	Savannah	agroforestry	Pinus		0,00	S_Ag_Pin_09	34,57		
		0,00	Savannah	agroforestry	Local species		0	S_Ag_LS_09	0,00		
		0,00	Savannah	agroforestry	other exotic species						
		0,00	Savannah	pure plantation	Acacia		0	S_Pp_Ac_09	0,00		
		0,00	Savannah	pure plantation	Eucalyptus		0	S_Pp_Eu_10	0,00		
		0,00	Savannah	pure plantation	Pinus						
		0,00	Savannah	pure plantation	Local species		0	S_Pp_LS_09	0,00		
		0,00	Savannah	pure plantation	other exotic species						
		0,00	Savannah	Enhancement of natural regeneration							
12	2019	84,13	Savannah	agroforestry	Acacia	S_Ag_Ac_19	140	S_Ag_Ac_09	79,07	140	S_Ag_Ac_19
		28,47	Savannah	agroforestry	Eucalyptus	S_Ag_Eu_19					
		6,32	Savannah	agroforestry	Pinus	S_Ag_Pin_19					
		19,00	Savannah	agroforestry	Local species	S_Ag_LS_19					
		10,85	Savannah	agroforestry	other exotic species	S_Ag_OES_19					
		0,00	Savannah	pure plantation	Acacia						
		4,27	Savannah	pure plantation	Eucalyptus	S_Pp_Eu_19					
		4,64	Savannah	pure plantation	Pinus	S_Pp_Pin_19					
		4,01	Savannah	pure plantation	Local species	S_Pp_LS_19					
		3,09	Savannah	pure plantation	other exotic species	S_Pp_OES_19					
		15,50	Savannah	Enhancement of natural regeneration							
13	2020	84,13	Savannah	agroforestry	Acacia	S_Ag_Ac_20	23,34	S_Ag_Ac_08	0,00	23,34	S_Ag_Ac_20
		28,47	Savannah	agroforestry	Eucalyptus	S_Ag_Eu_20					
		6,32	Savannah	agroforestry	Pinus	S_Ag_Pin_20					
		19,00	Savannah	agroforestry	Local species	S_Ag_LS_20					
		10,85	Savannah	agroforestry	other exotic species	S_Ag_OES_20					
		0,00	Savannah	pure plantation	Acacia						
		4,27	Savannah	pure plantation	Eucalyptus	S_Pp_Eu_20					

		4,64	Savannah	pure plantation	Pinus	S_Pp_Pin_20					
		4,01	Savannah	pure plantation	Local species	S_Pp_LS_20					
		3,09	Savannah	pure plantation	other exotic species	S_Pp_OES_20					
		15,50	Savannah	Enhancement of natural regeneration							
14	2021	84,13	Savannah	agroforestry	Acacia	S_Ag_Ac_21	79,07	S_Ag_Ac_09	0,00	79,07	S_Ag_Ac_21
		28,47	Savannah	agroforestry	Eucalyptus	S_Ag_Eu_21					
		6,32	Savannah	agroforestry	Pinus	S_Ag_Pin_21					
		19,00	Savannah	agroforestry	Local species	S_Ag_LS_21					
		10,85	Savannah	agroforestry	other exotic species	S_Ag_OES_21					
		0,00	Savannah	pure plantation	Acacia						
		4,27	Savannah	pure plantation	Eucalyptus	S_Pp_Eu_21					
		4,64	Savannah	pure plantation	Pinus	S_Pp_Pin_21					
		4,01	Savannah	pure plantation	Local species	S_Pp_LS_21					
		3,09	Savannah	pure plantation	other exotic species	S_Pp_OES_21					
		15,50	Savannah	Enhancement of natural regeneration							
15	2022	84,13	Savannah	agroforestry	Acacia	S_Ag_Ac_22	10,00	S_Ag_Ac_10	0,00	10,00	S_Ag_Ac_22
		28,47	Savannah	agroforestry	Eucalyptus	S_Ag_Eu_22					
		6,32	Savannah	agroforestry	Pinus	S_Ag_Pin_22					
		19,00	Savannah	agroforestry	Local species	S_Ag_LS_22					
		10,85	Savannah	agroforestry	other exotic species	S_Ag_OES_22					
		0,00	Savannah	pure plantation	Acacia						
		4,27	Savannah	pure plantation	Eucalyptus	S_Pp_Eu_22					
		4,64	Savannah	pure plantation	Pinus	S_Pp_Pin_22					
		4,01	Savannah	pure plantation	Local species	S_Pp_LS_22					
		3,09	Savannah	pure plantation	other exotic species	S_Pp_OES_22					
		15,50	Savannah	Enhancement of natural regeneration							
16	2023	84,13	Savannah	agroforestry	Acacia	S_Ag_Ac_23	21,12	S_Ag_Ac_11	0,00	21,12	S_Ag_Ac_23

		28,47	Savannah	agroforestry	Eucalyptus	S_Ag_Eu_23					
		6,32	Savannah	agroforestry	Pinus	S_Ag_Pin_23					
		19,00	Savannah	agroforestry	Local species	S_Ag_LS_23					
		10,85	Savannah	agroforestry	other exotic species	S_Ag_OES_23					
		0,00	Savannah	pure plantation	Acacia						
		4,27	Savannah	pure plantation	Eucalyptus	S_Pp_Eu_23					
		4,64	Savannah	pure plantation	Pinus	S_Pp_Pin_23					
		4,01	Savannah	pure plantation	Local species	S_Pp_LS_23					
		3,09	Savannah	pure plantation	other exotic species	S_Pp_OES_23					
		15,50	Savannah	Enhancement of natural regeneration							
17	2024	84,13	Savannah	agroforestry	Acacia	S_Ag_Ac_24	21	S_Ag_Ac_15	0,00	21	S_Ag_Ac_24
		28,47	Savannah	agroforestry	Eucalyptus	S_Ag_Eu_24					
		6,32	Savannah	agroforestry	Pinus	S_Ag_Pin_24					
		19,00	Savannah	agroforestry	Local species	S_Ag_LS_24					
		10,85	Savannah	agroforestry	other exotic species	S_Ag_OES_24					
		0,00	Savannah	pure plantation	Acacia						
		4,27	Savannah	pure plantation	Eucalyptus	S_Pp_Eu_24					
		4,64	Savannah	pure plantation	Pinus	S_Pp_Pin_24					
		4,01	Savannah	pure plantation	Local species	S_Pp_LS_24					
		3,09	Savannah	pure plantation	other exotic species	S_Pp_OES_24					
		15,50	Savannah	Enhancement of natural regeneration							
18	2025	84,13	Savannah	agroforestry	Acacia	S_Ag_Ac_25	194,34	74,34 S_Ag_Ac_16 + 120 S_Ag_Ac_2017	120,80	194,34	S_Ag_Ac_25
		28,47	Savannah	agroforestry	Eucalyptus	S_Ag_Eu_25					
		6,32	Savannah	agroforestry	Pinus	S_Ag_Pin_25					
		19,00	Savannah	agroforestry	Local species	S_Ag_LS_25					
		10,85	Savannah	agroforestry	other exotic species	S_Ag_OES_25					

		0,00	Savannah	pure plantation	Acacia						
		4,27	Savannah	pure plantation	Eucalyptus	S_Pp_Eu_25					
		4,64	Savannah	pure plantation	Pinus	S_Pp_Pin_25					
		4,01	Savannah	pure plantation	Local species	S_Pp_LS_25					
		3,09	Savannah	pure plantation	other exotic species	S_Pp_OES_25					
		15,50	Savannah	Enhancement of natural regeneration							
19	2026	84,13	Savannah	agroforestry	Acacia	S_Ag_Ac_26	220,80	S_Ag_Ac_17	103,00	220,80	S_Ag_Ac_26
		28,47	Savannah	agroforestry	Eucalyptus	S_Ag_Eu_26					
		6,32	Savannah	agroforestry	Pinus	S_Ag_Pin_26					
		19,00	Savannah	agroforestry	Local species	S_Ag_LS_26					
		10,85	Savannah	agroforestry	other exotic species	S_Ag_OES_26					
		0,00	Savannah	pure plantation	Acacia						
		4,27	Savannah	pure plantation	Eucalyptus	S_Pp_Eu_26					
		4,64	Savannah	pure plantation	Pinus	S_Pp_Pin_26					
		4,01	Savannah	pure plantation	Local species	S_Pp_LS_26					
		3,09	Savannah	pure plantation	other exotic species	S_Pp_OES_26					
		15,50	Savannah	Enhancement of natural regeneration							
20	2027	84,13	Savannah	agroforestry	Acacia	S_Ag_Ac_27	103	S_Ag_Ac_17	0,00	103	S_Ag_Ac_27
		28,47	Savannah	agroforestry	Eucalyptus	S_Ag_Eu_27	15,58	S_Ag_Eu_09	0,00	15,58	S_Ag_Eu_27
		6,32	Savannah	agroforestry	Pinus	S_Ag_Pin_27	34,57	S_Ag_Pin_09	0,00	34,57	S_Ag_Pin_27
		19,00	Savannah	agroforestry	Local species	S_Ag_LS_27					
		10,85	Savannah	agroforestry	other exotic species	S_Ag_OES_27					
		0,00	Savannah	pure plantation	Acacia						
		4,27	Savannah	pure plantation	Eucalyptus	S_Pp_Eu_27					
		4,64	Savannah	pure plantation	Pinus	S_Pp_Pin_27					
		4,01	Savannah	pure plantation	Local species	S_Pp_LS_27					
		3,09	Savannah	pure plantation	other exotic species	S_Pp_OES_27					

		15,50	Savannah	Enhancement of natural regeneration							
21	2028	84,13	Savannah	agroforestry	Acacia	S_Ag_Ac_28	182,12	S_Ag_Ac_18	0,00	182,12	S_Ag_Ac_28
		28,47	Savannah	agroforestry	Eucalyptus	S_Ag_Eu_28					
		6,32	Savannah	agroforestry	Pinus	S_Ag_Pin_28					
		19,00	Savannah	agroforestry	Local species	S_Ag_LS_28					
		10,85	Savannah	agroforestry	other exotic species	S_Ag_OES_28					
		0,00	Savannah	pure plantation	Acacia						
		4,27	Savannah	pure plantation	Eucalyptus	S_Pp_Eu_28					
		4,64	Savannah	pure plantation	Pinus	S_Pp_Pin_28					
		4,01	Savannah	pure plantation	Local species	S_Pp_LS_28					
		3,09	Savannah	pure plantation	other exotic species	S_Pp_OES_28					
		15,50	Savannah	Enhancement of natural regeneration							
22	2029	84,13	Savannah	agroforestry	Acacia	S_Ag_Ac_29	224,13	S_Ag_Ac_19	0,00	224,13	S_Ag_Ac_29
		28,47	Savannah	agroforestry	Eucalyptus	S_Ag_Eu_29					
		6,32	Savannah	agroforestry	Pinus	S_Ag_Pin_29					
		19,00	Savannah	agroforestry	Local species	S_Ag_LS_29					
		10,85	Savannah	agroforestry	other exotic species	S_Ag_OES_29					
		0,00	Savannah	pure plantation	Acacia						
		4,27	Savannah	pure plantation	Eucalyptus	S_Pp_Eu_29					
		4,64	Savannah	pure plantation	Pinus	S_Pp_Pin_29					
		4,01	Savannah	pure plantation	Local species	S_Pp_LS_29					
		3,09	Savannah	pure plantation	other exotic species	S_Pp_OES_29					
		15,50	Savannah	Enhancement of natural regeneration							
23	2030	84,13	Savannah	agroforestry	Acacia	S_Ag_Ac_30	107,47	S_Ag_Ac_20	0,00	107,47	S_Ag_Ac_30
		28,47	Savannah	agroforestry	Eucalyptus	S_Ag_Eu_30					
		6,32	Savannah	agroforestry	Pinus	S_Ag_Pin_30					
		19,00	Savannah	agroforestry	Local species	S_Ag_LS_30					
		10,85	Savannah	agroforestry	other exotic species	S_Ag_OES_3					

						0					
		0,00	Savannah	pure plantation	Acacia						
		4,27	Savannah	pure plantation	Eucalyptus	S_Pp_Eu_30					
		4,64	Savannah	pure plantation	Pinus	S_Pp_Pin_30					
		4,01	Savannah	pure plantation	Local species	S_Pp_LS_30					
		3,09	Savannah	pure plantation	other exotic species	S_Pp_OES_30					
		15,50	Savannah	Enhancement of natural regeneration							
24	2031	84,13	Savannah	agroforestry	Acacia	S_Ag_Ac_31	163,20	S_Ag_Ac_21	0,00	163,20	S_Ag_Ac_31
		28,47	Savannah	agroforestry	Eucalyptus	S_Ag_Eu_31					
		6,32	Savannah	agroforestry	Pinus	S_Ag_Pin_31					
		19,00	Savannah	agroforestry	Local species	S_Ag_LS_31					
		10,85	Savannah	agroforestry	other exotic species	S_Ag_OES_31					
		0,00	Savannah	pure plantation	Acacia						
		4,27	Savannah	pure plantation	Eucalyptus	S_Pp_Eu_31					
		4,64	Savannah	pure plantation	Pinus	S_Pp_Pin_31					
		4,01	Savannah	pure plantation	Local species	S_Pp_LS_31					
		3,09	Savannah	pure plantation	other exotic species	S_Pp_OES_31					
		15,50	Savannah	Enhancement of natural regeneration							
25	2032	11,24	Savannah	agroforestry	Acacia	S_Ag_Ac_32	94,13	S_Ag_Ac_22	0,00	94,13	S_Ag_Ac_32
		3,80	Savannah	agroforestry	Eucalyptus	S_Ag_Eu_32					
		0,85	Savannah	agroforestry	Pinus	S_Ag_Pin_32					
		2,54	Savannah	agroforestry	Local species	S_Ag_LS_32					
		1,45	Savannah	agroforestry	other exotic species	S_Ag_OES_32					
		0,00	Savannah	pure plantation	Acacia						
		0,57	Savannah	pure plantation	Eucalyptus	S_Pp_Eu_32					
		0,62	Savannah	pure plantation	Pinus	S_Pp_Pin_32					
		0,54	Savannah	pure plantation	Local species	S_Pp_LS_32					
		0,41	Savannah	pure plantation	other exotic species	S_Pp_OES_3					

						2					
		2,07	Savannah	Enhancement of natural regeneration							
26	2033						105,25	S_Ag_Ac_23	0,00	105,25	S_Ag_Ac_33
27	2034						105,13	S_Ag_Ac_24	0,00	105,13	S_Ag_Ac_34
28	2035						278,47	S_Ag_Ac_25	0,00	278,47	S_Ag_Ac_35
29	2036						304,93	S_Ag_Ac_26	0,00	304,93	S_Ag_Ac_36
30	2037	0,00	Savannah	agroforestry	Acacia		187,13	S_Ag_Ac_27	0,00	187,13	S_Ag_Ac_37
		0,00	Savannah	agroforestry	Eucalyptus	S_Ag_Eu_37	28,47	S_Ag_Eu_19	0,00	28,47	S_Ag_Eu_37
		0,00	Savannah	agroforestry	Pinus	S_Ag_Pin_37	6,32	S_Ag_Pin_19	0,00	6,32	S_Ag_Pin_37

B.2. Post-registration changes

B.2.1. Temporary deviations from the registered monitoring plan, applied methodologies, standardized baselines or other methodological regulatory documents

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B.2.2. Corrections

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B.2.3. Changes to the start date of the crediting period

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B.2.4. Inclusion of monitoring plan

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B.2.5. Permanent changes to the registered monitoring plan, or permanent deviation of monitoring from the applied methodologies, standardized baselines, or other methodological regulatory documents

1. The applicable methodology and the PDD Version 2.0, indicate that stratification shall be updated considering unexpected disturbances occurring during the crediting period and forest management activities that may affect existing stratification. However, the “Guidelines on accounting of specified types of changes in A/R CDM project activities from the description in registered project design documents” (Version 2.0) specify that “Changes in stratification for sampling” are considered a minor change that do not require prior approval from the board. For the current monitoring period, the stratification criteria used has been the species planted as forest management regime and disturbances were not good predictors. The PDD has been revised in order not to prescribe any stratification.

2. The applicable methodology requires that a 10% precision level is achieved at the stratum level. However, according the guidelines on application of specified version of A/R methodologies, a maximum allowable relative margin of error of the mean, for estimation of above-ground tree biomass, of +10% at 90% confidence level is allowed. This is in line with most recent versions of the AR-ACM0001. Moreover, we would like to note that as indicated in the guidelines for sampling and surveys, stratification does not have an impact on the estimates but it serves to reduce standard errors of the estimate, so requiring a specific level of error at stratum level defies the purpose of stratifying. Not stratifying causes the estimate to be less precise or to require a higher sampling intensity to achieve the same level of precision. As shown in the report, estimates of tCERs has been achieved with a level of precision below the 10% at 90% required by the applicable methodology. The applied change falls into types of changes in registered A/R CDM project activities that does not require prior approval by the Board according the Guidelines on accounting of specified types of changes in A/R CDM project activities.

B.2.6. Changes to project design

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B.2.7. Changes specific to afforestation or reforestation project activity

A number of post-registration changes some approved by the Board and some others presented as part of this Monitoring report:

Changes approved by the Board (PDD Version 2.0, PRC-4176-001, approved 23 August 2018).

1. GHG emissions from site preparation were excluded as a result of the correct application of the applicable methodology ACM0001 Version 3.0.

2. The required confidence level for estimating carbon stocks was modified from 95% to 90% in line with the "Guidelines on application of specified versions of A/R CDM methodologies in verification of registered A/R CDM project activities" (EB68 Annex 31).

Changes presented as part of this monitoring report (PDD Version 2.4).

3. The plantation and harvesting cycle was revised. According to the "Guidelines on accounting of specified types of changes in A/R CDM project activities from the description in registered project design documents" (Version 2.0), "Changes in timing of harvest occurring before the third verification" and "Changes in year-wise areas planted, possibly resulting in a part of the project area not being planted" are considered minor changes and do not require prior approval from the Board. The PDD has been revised accordingly with updated schedules.

4. A post-registration change was made changing the size of sample plots from 250m2 to 324m2 as field tests have shown that measuring 36 tree locations on 250 m² might increase artificially the tree density above its nominal 1111 tree/ha value. Therefore, the plot size has been increased to remain conservative to 12m x 27m = 324m² with the same number of trees. This post-registration change has only impact on sample size. Therefore, in accordance with paragraph 4 of Guidelines on accounting of specified types of changes in A/R CDM project activities from the description in registered project design documents (EB66 Annex 24), this post-registration change is considered as minor change. The PDD has been revised accordingly.

SECTION C. Description of monitoring system

>> The Monitoring Plan designed with the PDD of A/R-CDM Project 4176 established monitoring procedures to calculate net anthropogenic GHG removals by sinks concerning the survey of the project boundary, stratification and sub-stratification, forest establishment and management, changes in carbon pools as well as project emissions. The Monitoring Plan also established rules for Quality Control and Quality Assurance that have been implemented in the Quality Manual of the Project.

Measurement and event data were recorded directly in the field on paper forms as instructed by the Quality Manual. The contents of these forms was then quickly transferred into spreadsheets, using specific keying aids (spreadsheet forms) wherever possible. The spreadsheet form performs elementary consistence and lookup checks and the sheets contain preliminary result and statistical calculations.

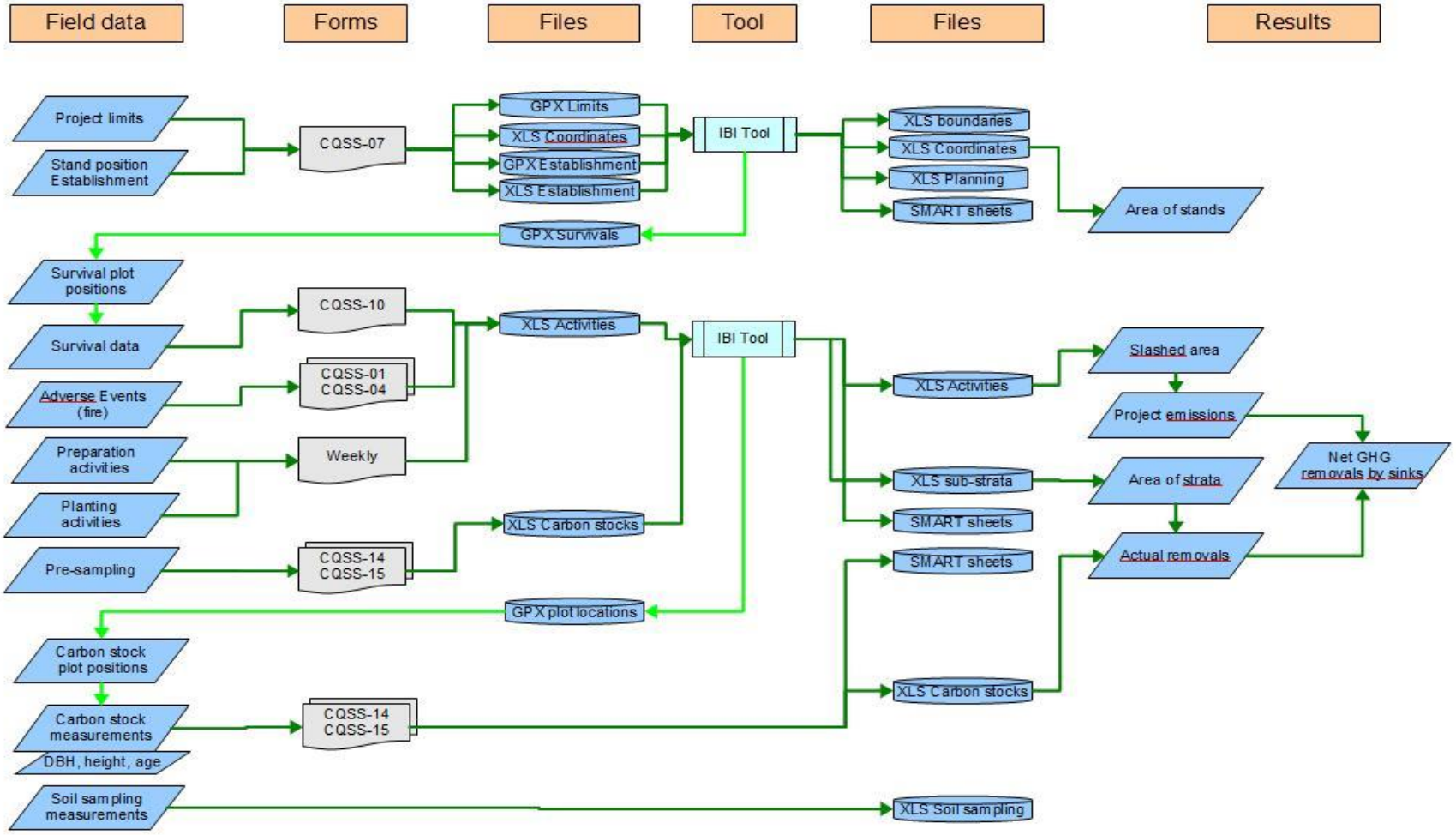
GPS data were collected in the field in the memory of the GPS and then electronically transferred into .GPX files without manual re-keying to ensure exactness of these important data.

Files containing the Monitoring data

Data	Spreadsheet	GPS coordinate files
Location of project limits		GPX Limits
Location of reference positions to construct stands, roads, fire-breaks	XLS Coordinates	GPX Coordinates

Data	Spreadsheet	GPS coordinate files
Location of stand corners, area of stands	XLS Coordinates	
Ex-ante stratification and planning	XLS Planning	
Preparation activities on the stands.	XLS Activities	
Planting activities on the stands	XLS Activities	
Events on the stands (wildfires)	XLS Activities	GPX Tracks to locate wildfire damage
Position of survival plots		GPX Survivals
Results of survival surveys	XLS Activities	
Survey of stand limits coordinates	XLS Establishment	GPX survey way-points and routes for Establishment
Carbon stock permanent plot positions	XLS Carbon Stocks	GPX Carbon stocks
Ex-post reallocation of stands to (sub)strata	XLS Carbon Stocks	
Carbon stock measurements (DBH, Height, Age)	XLS Carbon stocks	
Project emissions and leakage	XLS Activities	

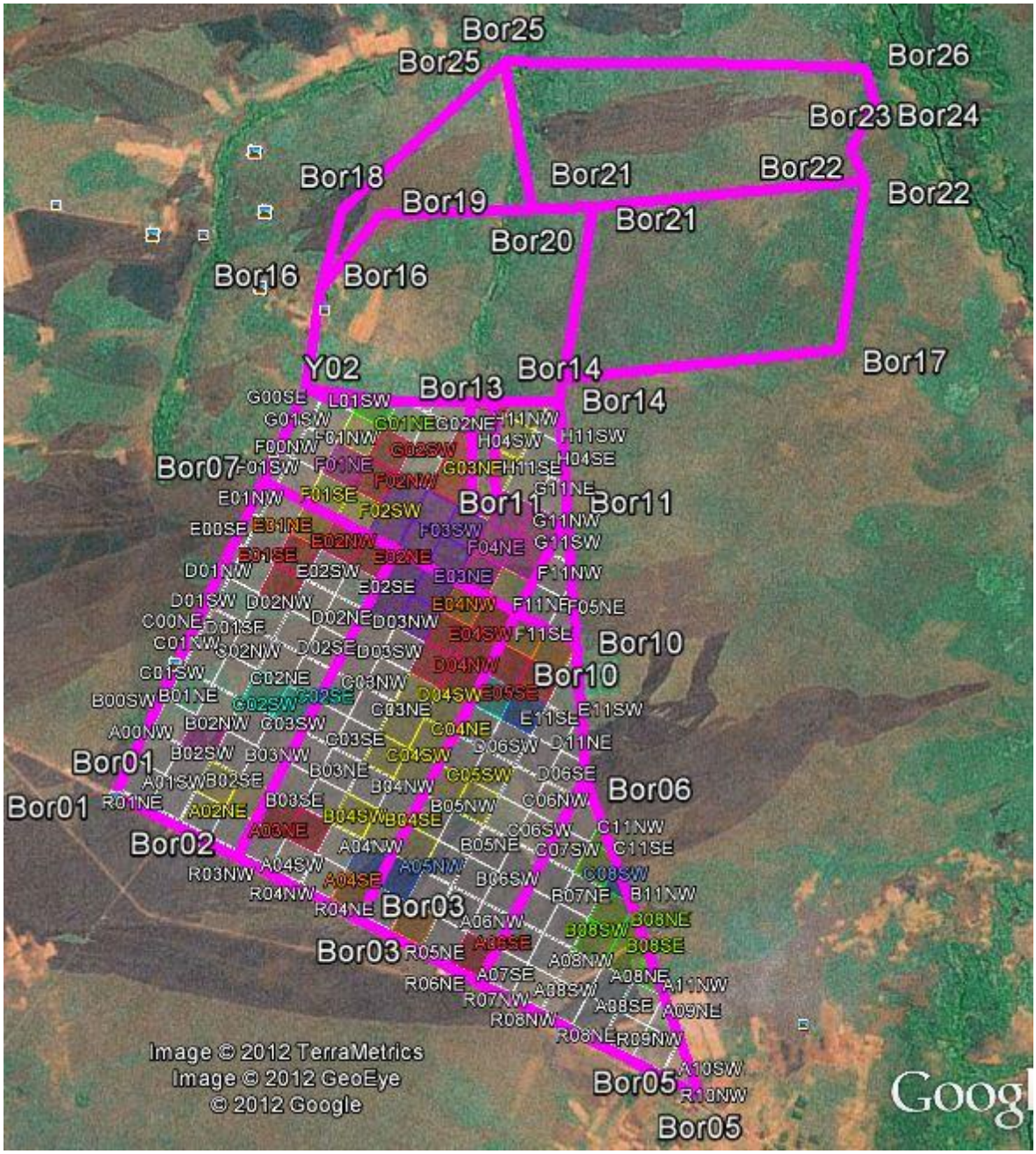
These files will be presented for inspection to the DOE at verification time.
The Project proponent has developed a specific tool (IBI-tool) to maintain, fully cross-check and calculate data related to surfaces, geographic locations, sub-stratification. The IBI-tool reads the spreadsheets and GPX files directly, performs full-scale coherence tests, does the necessary calculations and writes output into result spreadsheets, GPX files to guide further actions and KML files that can be immediately imported into Google Earth for visual inspection of all geographic and activity data. The IBI-tool will be demonstrated and explained in detail to the DOE at verifications time.
The monitoring of all relevant activities for this Project activity followed the Monitoring Plan presented with the PDD as shown in the illustration below


Field data
Forms
Files
Tool
Files
Results
Project limits
Stand position Establishment
CQSS-07
GPX Limits
XLS Coordinates
GPX Establishment
XLS Establishment
IBI Tool
XLS boundaries
XLS Coordinates
XLS Planning
SMART sheets
Area of stands
GPX Survivals
Survival plot positions
Survival data
Adverse Events (fire)
Preparation activities
Planting activities
Pre-sampling
CQSS-10
CQSS-01 CQSS-04
Weekly
CQSS-14 CQSS-15
XLS Activities
XLS Carbon stocks
IBI Tool
XLS Activities
XLS sub-strata
SMART sheets
SMART sheets
XLS Carbon stocks
Slashed area
Project emissions
Area of strata
Actual removals
Net GHG removals by sinks
GPX plot locations
Carbon stock plot positions
Carbon stock measurements
DBH, height, age
CQSS-14 CQSS-15
Soil sampling measurements
XLS Soil sampling

Project boundary

The Project boundary was delineated to correspond to the administrative Congolese Land Registry documents held by the Project proponent and covers all planted stands. These Land Registry documents will be submitted to the DOE at verification time.

Within the Project boundary, the position of stands was based on a set of GPS-defined reference points that form a 500m x 500m grid parallel to the RN1 national road. This grid is shown on Google Earth in illustration below: Land Registry demarcation and delimitation of stands, with the Land Registry demarcation points (Borxx). As can be seen, the land owned by Project proponent is larger than the Project boundary.



Land Registry demarcation and delimitation of stands

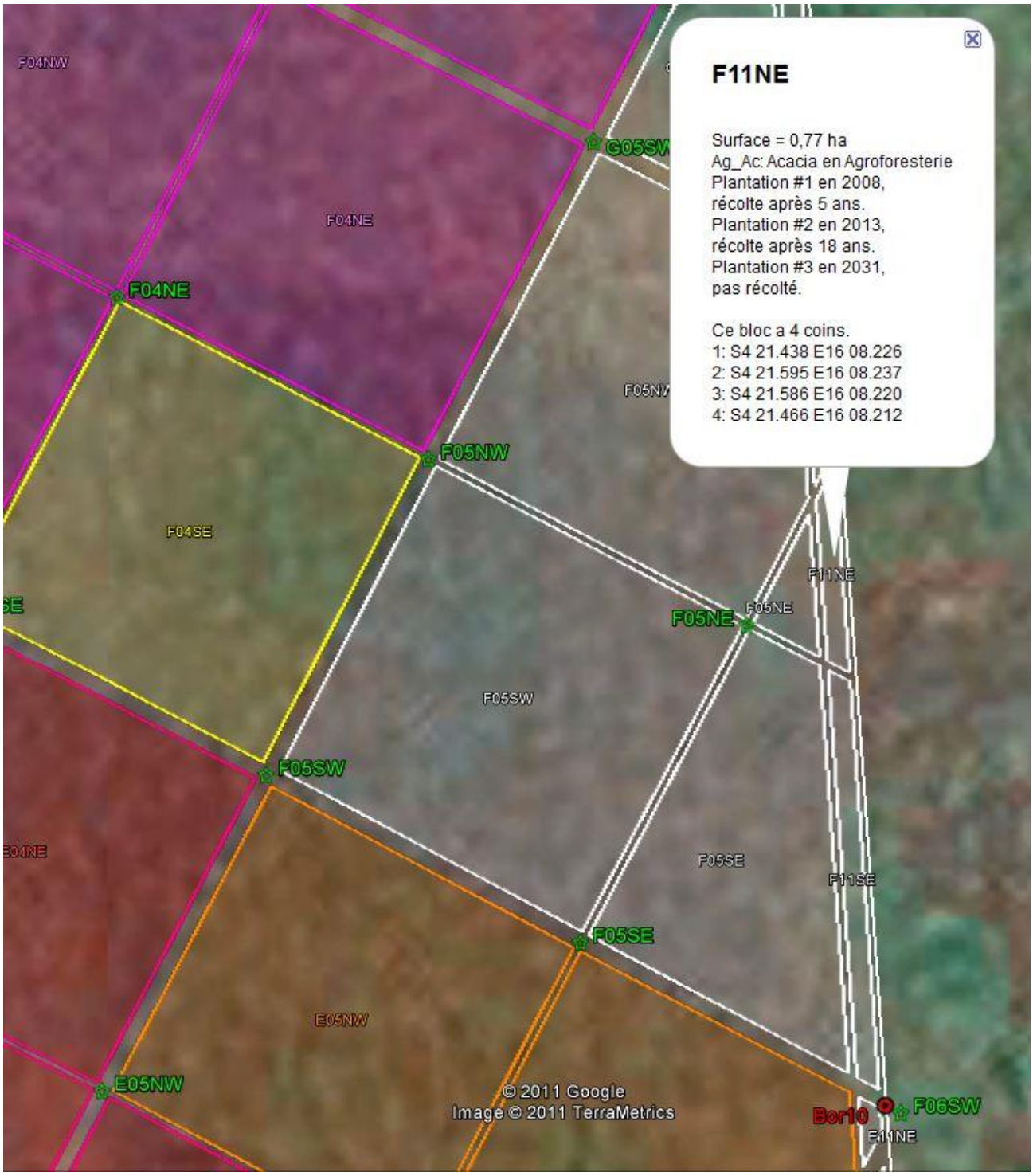
A list of all boundary points is presented in Annex 1 : List of Reference points.

From these reference points, the distance of inter-block spacing (one track + two fire-breaks) on intra-block fire-breaks were calculated by the IBI-tool to define the corners of the theoretical stands. These theoretical stands are those used in the ex-ante calculations and planning

spreadsheet. The construction of blocks and the planned plantations is shown in the Google Earth below as Reference points to delineate future stands, inter-block and intra-block free spaces.

Reference points to delineate future stands, inter-block and intra-block free spaces

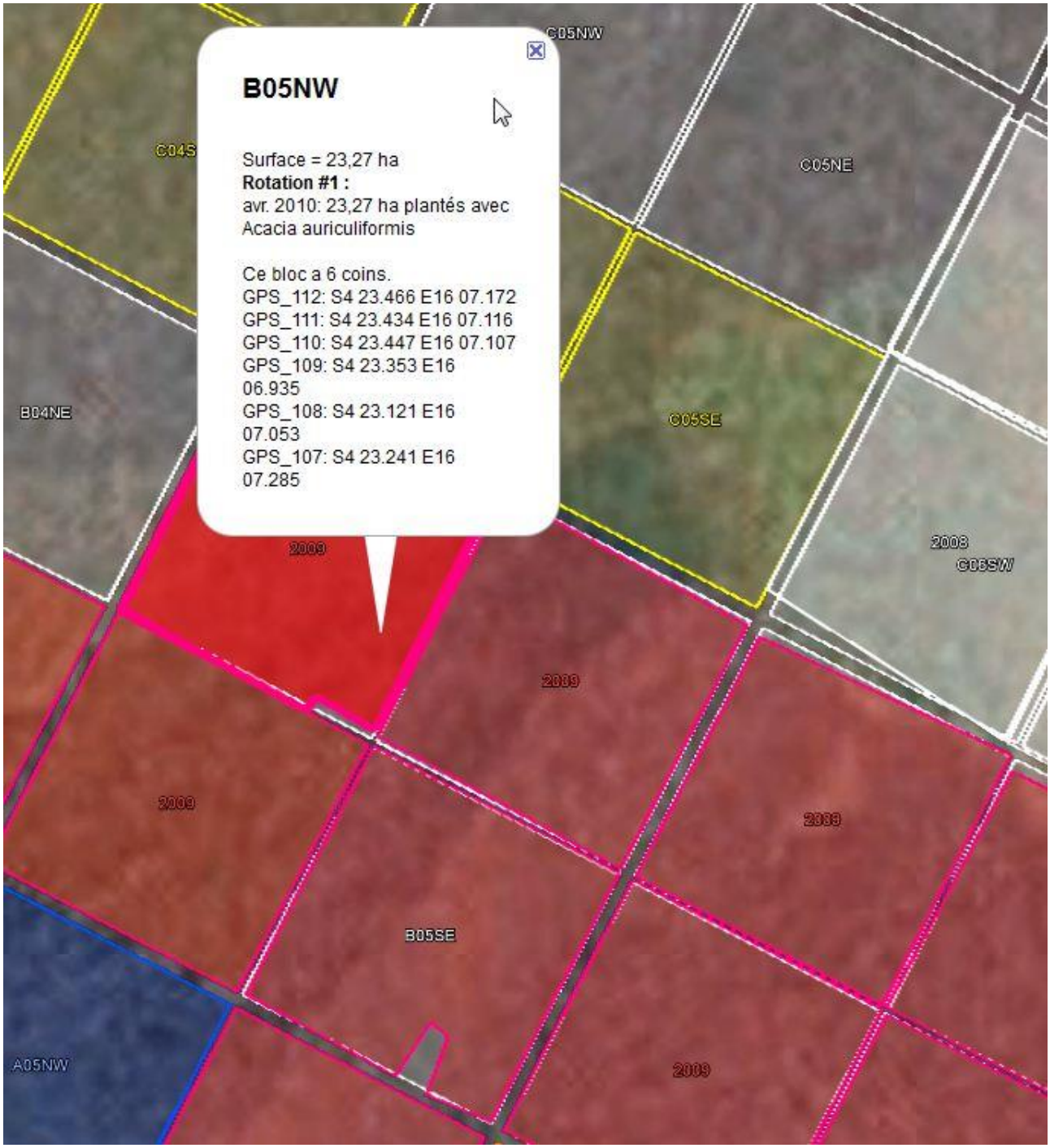
At the border of the Project domain, a peripheral zone of 50m width has been defined with a 10m fire-break, a 30m wide plantation of acacia in pure forestry and a second 10m fire-break to protect plantations, as shown on illustration Peripheral zone to be installed at the border of the Project.



Peripheral zone to be installed at the border of the Project

When the planted stands have reached significant growth, their actual boundaries were verified through field surveys. The actual plantation limits were taken as GPS points joined as GPS routes to ensure polygonal integrity. If needed, they were recorded on dedicated paper form (FOR CQSS-07 Relevé GPS des limites de plantation). The GPS coordinates were transferred electronically from the GPS memory into a GPX file and their connection to stands expressed as GPS routes that followed the stand boundary. In case of doubt or complicated situation, data were also input via the XLS coordinates spreadsheet. However, if coherence between both sources of information was not established, the GPX data had priority. The survey data were submitted to in-depth verification and rendering by the IBI-tool and the surfaces of stands were recalculated. The list of stands submitted to survey with adapted corner coordinates is listed in Annex 2 Position of stands and detailed survey data will be submitted to the DOE for verification. For stands that were not

planted, or stands where tree growth did not allow easy delimitation (too young or low growth), the theoretical limits were kept until submitted to carbon stock evaluation.
An example of corrected surfaces is given in illustration below Modified stand delimitation and surfaces after field survey.



Modified stand delimitation and surfaces after field survey

Stratification

The *ex ante* stratification outlined in the PDD is based on species categories (acacia, eucalyptus, pinus, local species and existing trees) and plantation technique (agroforestry, pure forestry and natural regeneration. These *ex ante* strata are summarized in the table below List of ex ante strata based on species and planting technique.

List of ex ante strata based on species and planting technique

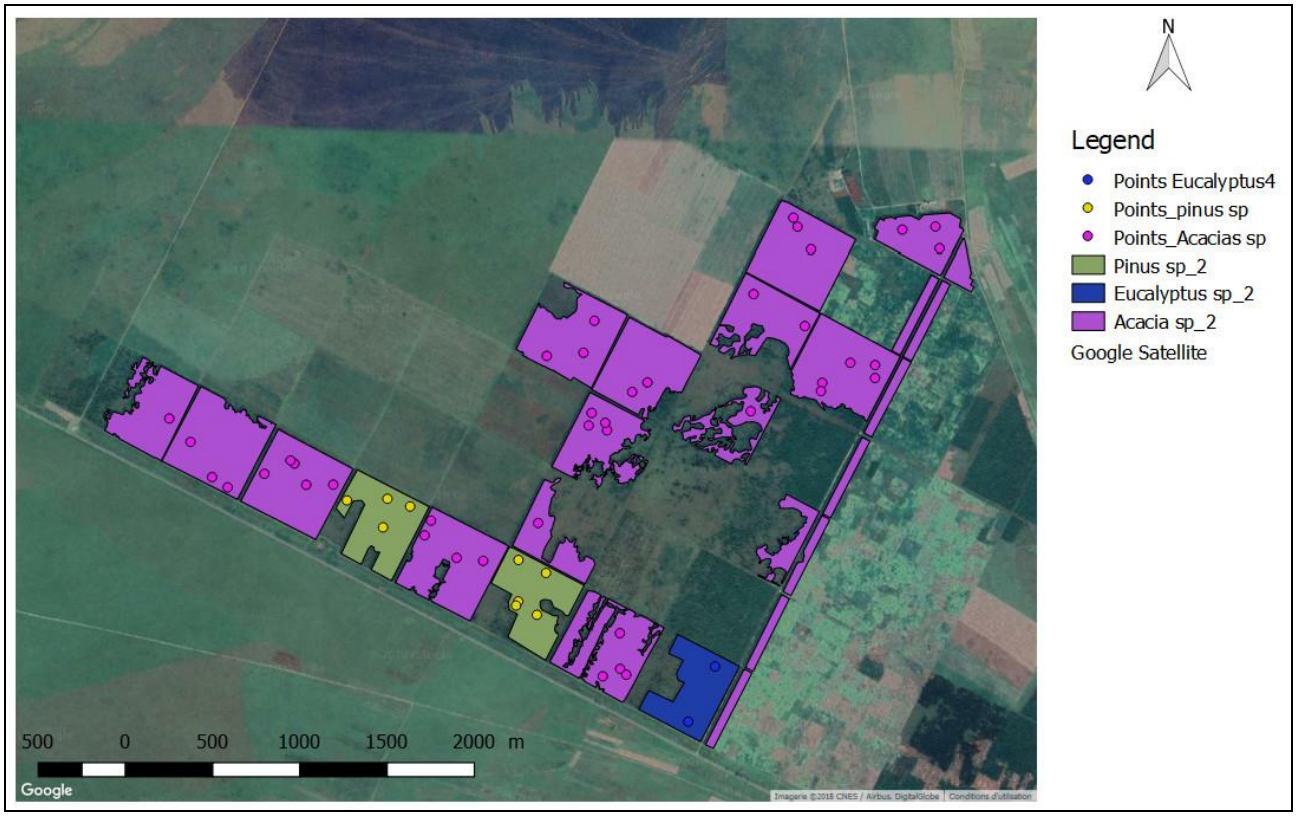
Code for basic stratum	Stratum	Technique	Species
Ag_Ac	1	Agroforestry	Acacia
Ag_Eu	2	Agroforestry	Eucalyptus
Ag_Pin	3	Agroforestry	Pinus
Ag_LS	4	Agroforestry	Local & exotic species
Pp_Ac	5	Pure plantation	Acacia
Pp_Eu	6	Pure plantation	Eucalyptus
Pp_Pin	7	Pure plantation	Pinus
Pp_LS	8	Pure plantation	Local & exotic species
ENR	9	Natural Regeneration	Existing species

As mentioned previously, the project suffered difficulties to implement the plantation schedule. Therefore only a part of the first three strata were planted and are summarized below

List of ex post strata based on species and planting technique

Code for basic stratum	Stratum	Technique	Species	Forested area (ha)
Ag_Ac	1	Agroforestry	Acacia	272.95
Ag_Eu	2	Agroforestry	Eucalyptus	16.16
Ag_Pin	3	Agroforestry	Pinus	34.57
Ag_LS	4	Agroforestry	Local & exotic species	0
Pp_Ac	5	Pure plantation	Acacia	0
Pp_Eu	6	Pure plantation	Eucalyptus	0
Pp_Pin	7	Pure plantation	Pinus	0
Pp_LS	8	Pure plantation	Local & exotic species	0
ENR	9	Natural Regeneration	Existing species	0

The stratification is presented in the illustration below. It must be noted that the Google Earth background was not up to date at monitoring time, showing some forested area that were harvested before monitoring event.



Ex-post stratification of the planted area within project area.

The rest of the project area not being planted was conservatively considered without carbon stock and therefore was not displayed in the ex-post stratification presented in the illustration above.

SECTION D. Data and parameters

D.1. Data and parameters fixed ex ante

Data/Parameter	R_j
Unit	kg d.m.yr^{-1} (kg d.m.yr^{-1})$^{-1}$
Description	Root-shoot ratio for species j
Source of data	(^)Table 3.A.1.8 IPCC 2003 + EB46 Annex 17 (*) Bernhard-Reversat et al., 1993. Biomasse, minéralomasse et productivité en plantation d'Acacia mangium et Acacia auriculiformis au Congo, Bois et Forêts des Tropiques, 238 : 35-44.
Value(s) applied	**Species** / **R_j** Acacia mangium / 0.159 (*) Acacia auriculiformis / 0.132 (*) Eucalyptus / 0.3 (^) Pinus / 0.25 (^) Local species / 0.29 (^) Regeneration stands / 0.29 (^)
Choice of data or measurement methods and procedures	
Purpose of data/parameter	
Additional comments	

Data/Parameter	P
Unit	Percent
Description	Desired level of confidence
Source of data	Fixed by project developer
Value(s) applied	90
Choice of data or measurement methods and procedures	
Purpose of data/parameter	
Additional comments	Value applied in accordance with Guidelines on application of specified versions of A/R CDM methodologies in verification of registered A/R CDM project activities (version 01.1) / EB 68 Report Annex 31

Data/Parameter	Dj
Unit	t d.m. m^{-3}
Description	Basic wood density for species j
Source of data	Default value from table 3.A.1.10 of IPCC (2006)
Value(s) applied	0.50
Choice of data or measurement methods and procedures	
Purpose of data/parameter	
Additional comments	

Data/Parameter	CFj
Unit	t C t^{-1} d.m.
Description	Carbon fraction of dry matter for species j
Source of data	Default value given by the methodology
Value(s) applied	0.50
Choice of data or measurement methods and procedures	
Purpose of data/parameter	
Additional comments	

D.2. Data and parameters monitored

Data/Parameter	A_s
Unit	Ha
Description	Area of the stratum slashed
Measured/calculated/ default	measured
Source of data	Measurement project specific with GPS
Value(s) of monitored parameter	The total area slashed mounts 1,711.32 ha and the results by block within strata are presented in the IBI tool (database of the project)
Monitoring equipment	Procedure : Protocole CQSS-10 « Suivi de l'implémentation du Puits de Carbone » Fiches d'Instructions FI CQSS-08 "Relevé des coordonnées géographiques"; FI CQSS-09 "Encodage des activités sur les parcelles »
Measuring/reading/recording frequency	Once before planting
Calculation method (if applicable)	
QA/QC procedures	Quality Manual : Section 8.1.4 "Suivi de l'implémentation du Projet"
Purpose of data/parameter	To confirm there is slash but no burning
Additional comments	

Data/Parameter	% disturbed A_i
Unit	Percent
Description	Proportion of soil disturbance of stratum i
Measured/calculated/ default	measured
Source of data	Measurement project specific with GPS
Value(s) of monitored parameter	the results by block within strata are presented in the IBI tool (database of the project)
Monitoring equipment	Procedure : Protocole CQSS-10 « Suivi de l'implémentation du Puits de Carbone » Fiches d'Instructions FI CQSS-08 "Relevé des coordonnées géographiques"; FI CQSS-09 "Encodage des activités sur les parcelles »
Measuring/reading/recording frequency	Each year
Calculation method (if applicable)	

QA/QC procedures	Quality Manual : Section 8.1.4 “Suivi de l’implémentation du Projet”
Purpose of data/parameter	
Additional comments	

Data/Parameter	A_i
Unit	Ha
Description	Area of stratum i
Measured/calculated/ default	measured
Source of data	Measurement project specific with GPS
Value(s) of monitored parameter	
Monitoring equipment	The area of stratum i is the sum of surfaces of all blocks planted within to stratum i. Procedure : Protocole CQSS-10 « Suivi de l'implémentation du Puits de Carbone » Fiches d’Instructions FI CQSS-08 “Relevé des coordonnées géographiques”; FI CQSS-09 “Encodage des activités sur les parcelles »
Measuring/reading/recording frequency	5 years
Calculation method (if applicable)	
QA/QC procedures	Quality Manual : Section 8.1.4 “Suivi de l’implémentation du Projet”
Purpose of data/parameter	
Additional comments	Only forested area was conservatively considered for all strata in order to facilitate calculations

Stratum		Area (ha)	Forested area (ha)
1	Agroforestry Acacia	2,440.65	272.95
2	Agroforestry Eucalyptus	442.62	16.16
3	Agroforestry Pinus	136.02	34.57
4	Agroforestry Local & exotic species	452.64	0
5	Pure plantation Acacia	119.26	0
6	Pure plantation Eucalyptus	74.11	0
7	Pure plantation Pinus	69.64	0
8	Pure plantation Local & exotic species	162.30	0
9	Natural regeneration Existing species	232.46	0

Data/Parameter	% A_i
Unit	Percent
Description	Survival rate for planting
Measured/calculated/ default	calculated
Source of data	Temporary sample plots
Value(s) of monitored parameter	the results by block within strata are presented in the IBI tool (database of the project)
Monitoring equipment	Procedure : Protocole CQSS-10 « Suivi de l'implémentation du Puits de Carbone » Fiches d’Instructions FI CQSS-11 “Contrôle du taux de survie dans les plantations»
Measuring/reading/recording frequency	Each year during the first 3 years after planting

Calculation method (if applicable)	
QA/QC procedures	Quality Manual : Section 8.1.4 “Suivi de l’implémentation du Projet”
Purpose of data/parameter	Parameter not specified in the methodology but necessary to assess the global performance of the project
Additional comments	

Data/Parameter	A_h
Unit	Ha
Description	Harvested area
Measured/calculated/ default	Calculated
Source of data	Annual recording of location, species and area harvested
Value(s) of monitored parameter	423.78 ha The value is presented and detailed in the table Plantation & harvest monitoring and schedule in section B.1 Description of implemented project activity
Monitoring equipment	Procedure : Protocole CQSS-10 « Suivi de l'implémentation du Puits de Carbone » Specific instructions will be elaborated when the harvesting operations are planned.
Measuring/reading/recording frequency	Each year
Calculation method (if applicable)	
QA/QC procedures	Quality Manual : Section 8.1.4 “Suivi de l’implémentation du Projet”
Purpose of data/parameter	Parameter not specified in the methodology but necessary to assess the global performance of the project
Additional comments	

Data/Parameter	V_h
Unit	$m^3.ha^{-1}$
Description	Harvested volume
Measured/calculated/ default	Calculated
Source of data	Calculated from parameters A_h and $C_{tree, i,t}$
Value(s) of monitored parameter	the results by block within strata are presented in the IBI tool (database of the project)
Monitoring equipment	NA
Measuring/reading/recording frequency	Each year
Calculation method (if applicable)	
QA/QC procedures	NA
Purpose of data/parameter	Parameter not specified in the methodology but necessary to assess the global performance of the project
Additional comments	

Data/Parameter	ID_{sp}
Unit	alphanumeric

Description	Sample plot ID
Measured/calculated/ default	NA
Source of data	Fixed before the first monitoring event
Value(s) of monitored parameter	
Monitoring equipment	NA
Measuring/reading/recording frequency	5 years
Calculation method (if applicable)	
QA/QC procedures	Quality Manual Section 7.6 “Suivi du Puits de Carbone”
Purpose of data/parameter	
Additional comments	The sample plot ID is composed of the block ID and the plot number

Block	Sample plot
C6-NW	PLA1
C6-NW	PLA2
C6-NW	PLA3
C6-SE	PLA1
C6-SE	PLA2
C6-SE	PLA3
C6-SE	PLA4
C6-SE	PLA5
D6-SE	PLA1
D6-SE	PLA2
D6-SE	PLA3
B5-NE	PLA1
B5-NE	PLA2
A3-SW	PLA1
A4-SW	PLA1
A4-SW	PLA2
A4-SW	PLA3
A4-SW	PLA4
A4-SW	PLA5
B5-NW	PLA1
B5-NW	PLA2
B5-NW	PLA3
C6-SW	PLA1
C6-SW	PLA2
A3-SE	PLA1
A3-SE	PLA2
A3-SE	PLA3
B5-SE	PLA1
B5-SE	PLA2
B5-SE	PLA3
B5-SE	PLA4
A6-SW	PLA1
A6-SW	PLA2
A6-SW	PLA3
A6-SW	PLA4
B6-NW	PLA1
A5-SW	PLA1
A5-SW	PLA2
A5-SW	PLA3
A5-SW	PLA4
A5-NE	PLA1
A6-SE	PLA1
A6-SE	PLA2
A4-SE	PLA1
A4-SE	PLA2
A4-SE	PLA3
A4-SE	PLA4
A5-SE	PLA1
A5-SE	PLA2
A5-SE	PLA3
A5-SE	PLA4
A5-SE	PLA5

Data/Parameter	n_i
Unit	dimensionless
Description	Total number of sample plots for stratum i
Measured/calculated/ default	Calculated
Source of data	Calculated
Value(s) of monitored parameter	Stratum i: Number of plots Stratum 1: 41 Stratum 2: 2 Stratum 3: 9
Monitoring equipment	NA
Measuring/reading/recording frequency	5 years
Calculation method (if applicable)	
QA/QC procedures	Quality Manual Section 7.6 “Suivi du Puits de Carbone”
Purpose of data/parameter	Parameter present in the tool “Calculation of the number of sample plots for measurements within A/R CDM project activities” Version 2 (EB46 Annex 19)
Additional comments	

Data/Parameter	AP
Unit	Ha
Description	Sample plot area for sample plot ID_{sp}
Measured/calculated/ default	Calculated
Source of data	Calculated
Value(s) of monitored parameter	0.0324
Monitoring equipment	NA
Measuring/reading/recording frequency	Before each monitoring event
Calculation method (if applicable)	
QA/QC procedures	Quality Manual Section 7.6 “Suivi du Puits de Carbone”
Purpose of data/parameter	Parameter present in the tool “Calculation of the number of sample plots for measurements within A/R CDM project activities” Version 2.1 (EB58 Annex 15)
Additional comments	

Data/Parameter	n_iAP, or A_{spi} in the methodology
Unit	Ha
Description	Total area of sample plots in stratum i
Measured/calculated/ default	Calculated
Source of data	Calculated from n_i and AP in the tool “Calculation of the number of sample plots for measurements within A/R CDM project activities” Version 2.1 (EB58 Annex 15)

Value(s) of monitored parameter	Stratum i / Total area of sample plots (ha) Stratum 1 1.3300 Stratum 2 0.05040 Stratum 3 0.2879
Monitoring equipment	NA
Measuring/reading/recording frequency	Before each monitoring event
Calculation method (if applicable)	
QA/QC procedures	Quality Manual Section 7.6 “Suivi du Puits de Carbone”
Purpose of data/parameter	Parameter used in the tool “Calculation of the number of sample plots for measurements within A/R CDM project activities” Version 2 (EB46 Annex 19)
Additional comments	

Data/Parameter	A
Unit	Ha
Description	Total area of all strata
Measured/calculated/ default	Calculated
Source of data	Calculated as the sum of the total area of each stratum
Value(s) of monitored parameter	323.68
Monitoring equipment	NA
Measuring/reading/recording frequency	5 years
Calculation method (if applicable)	
QA/QC procedures	Quality Manual Section 7.6 “Suivi du Puits de Carbone”
Purpose of data/parameter	Parameter used in the tool “Calculation of the number of sample plots for measurements within A/R CDM project activities” Version 2 (EB46 Annex 19)
Additional comments	

Data/Parameter	N
Unit	dimensionless
Description	Maximum number of sample plots in the project area
Measured/calculated/ default	Calculated
Source of data	Calculated from A and AP
Value(s) of monitored parameter	9,990
Monitoring equipment	NA
Measuring/reading/recording frequency	5 years
Calculation method (if applicable)	
QA/QC procedures	Quality Manual Section 7.6 “Suivi du Puits de Carbone”
Purpose of data/parameter	Parameter used in the tool “Calculation of the number of sample plots for measurements within A/R CDM project activities” Version 2 (EB46 Annex 19)

Additional comments	

Data/Parameter	N
Unit	Dimensionless
Description	Total number of sample plots in the project area
Measured/calculated/ default	Calculated
Source of data	Calculated
Value(s) of monitored parameter	51
Monitoring equipment	NA
Measuring/reading/recording frequency	5 years
Calculation method (if applicable)	
QA/QC procedures	Quality Manual Section 7.6 “Suivi du Puits de Carbone”
Purpose of data/parameter	Parameter used in the tool “Calculation of the number of sample plots for measurements within A/R CDM project activities” Version 2 (EB46 Annex 19)
Additional comments	

Data/Parameter	N_i
Unit	dimensionless
Description	Maximum number of sample plots in stratum i
Measured/calculated/ default	Calculated
Source of data	Calculated from A_i and AP
Value(s) of monitored parameter	N1: 8,425 N2: 499 N3: 1,067
Monitoring equipment	NA
Measuring/reading/recording frequency	5 years
Calculation method (if applicable)	
QA/QC procedures	Quality Manual Section 7.6 “Suivi du Puits de Carbone”
Purpose of data/parameter	Parameter used in the tool “Calculation of the number of sample plots for measurements within A/R CDM project activities” Version 2 (EB46 Annex 19)
Additional comments	

Data/Parameter	APloc
Unit	Ddmmss
Description	Sample plot location
Measured/calculated/ default	Measured
Source of data	Measurement project specific using GPS
Value(s) of monitored parameter	Please refer to GIS files of the IBI tool

Monitoring equipment	Procedure : Protocole CQSS-10 « Suivi de l'implémentation du Puits de Carbone » Fiches d'Instructions FI CQSS-08 "Relevé des coordonnées géographiques"; FI CQSS-09 "Encodage des activités sur les parcelles »
Measuring/reading/recording frequency	5 years
Calculation method (if applicable)	
QA/QC procedures	Quality Manual : Section 8.1.4 "Suivi de l'implémentation du Projet"
Purpose of data/parameter	Parameter not specified in the methodology but necessary to monitor the project activities
Additional comments	

Data/Parameter	J
Unit	Dimensionless
Description	Tree species
Measured/calculated/ default	NA
Source of data	Fixed at project start
Value(s) of monitored parameter	The list of species planted is presented in section B1 description of the implemented project activity
Monitoring equipment	Procedure : Protocole CQSS-10 « Suivi de l'implémentation du Puits de Carbone » Fiches d'Instructions FI CQSS-09 : Encodage des activités sur les parcelles
Measuring/reading/recording frequency	5 years
Calculation method (if applicable)	
QA/QC procedures	Quality Manual : Section 8.1.4 "Suivi de l'implémentation du Projet"
Purpose of data/parameter	
Additional comments	

Data/Parameter	DBH
Unit	Cm
Description	Diameter at breast height
Measured/calculated/ default	Measured
Source of data	Field measurements in sample plots IDsp
Value(s) of monitored parameter	Refer to xls files "FOR MAK-01 cubage par placette A_Août2018" and "FOR MAK-01 cubage par placette B_Août2018"
Monitoring equipment	Procedure : Protocole CQSS-10 « Suivi de l'implémentation du Puits de Carbone » Fiches d'Instructions FI CQSS-03 : « Mesure d'un arbre pour la biomasse existante »
Measuring/reading/recording frequency	5 years
Calculation method (if applicable)	
QA/QC procedures	Quality Manual Section 7.6 "Suivi du Puits de Carbone"
Purpose of data/parameter	

Additional comments	The RIT should note that Eucalyptus is a coppicing species that after the first cut it will grow in multiple stems. In forestry of Eucalyptus species it is common to consider these stems as separate trees. A different method which is common in coppicing is to consider the two stems as equivalent to a tree equal to the sum of squares of the two diameters. However, this approach provides a larger prediction, so the applied approach is conservative.

Data/Parameter	H
Unit	M
Description	Height of tree
Measured/calculated/ default	Measured
Source of data	Field measurements in sample plots
Value(s) of monitored parameter	Refer to xls files “FOR MAK-01 cubage par placette A_Août2018” and “FOR MAK-01 cubage par placette B_Août2018”
Monitoring equipment	Procedure : Protocole CQSS-10 « Suivi de l'implémentation du Puits de Carbone » Fiches d’Instructions FI CQSS-03 : « Mesure d'un arbre pour la biomasse existante »
Measuring/reading/recording frequency	5 years
Calculation method (if applicable)	
QA/QC procedures	Quality Manual Section 7.6 “Suivi du Puits de Carbone”
Purpose of data/parameter	
Additional comments	

Data/Parameter	f_j(DBH, H)
Unit	t d.m. tree^{-1}
Description	Allometric equation for species j linking diameter at breast height (DBH) and possibly tree height (H) to above-ground biomass of living trees
Measured/calculated/ default	NA
Source of data	In the beginning, using the equation as specified in the PDD. Acacia mangium: Bernhard-Reversat et al., 1993 Acacia auriculiformis: Bernhard-Reversat et al., 1993 Eucalyptus sp.: Saint-André L. and al., 2005 Pinus sp.: Brown, S. 1997 Other species: Brown, S. 1997 Later as additional approved equations become available, published an peer-reviewed, field measurements and elaboration of specific modelisation
Value(s) of monitored parameter	Acacia mangium: $AGB = 3.57 \times 10^{-4} \times (DBH \times \pi)^3 + 19.2 + 2.69 \times 10^{-5} \times (DBH \times \pi)^3 + 0.25$ $BGB = 0.159 \times AGB$ Acacia auriculiformis: $AGB = 4.16 \times 10^{-4} \times (DBH \times \pi)^3 + 11.22 + 2.02 \times 10^{-5} \times (DBH \times \pi)^3 + 2.36$ Eucalyptus sp.: $AGB = 2.08 + (150.9 + 0.28\ age) \times (DBH^2 \times H \times 10^{-4})^{(0.87 + 0.0012\ age)}$ Pinus sp.: $AGB = \exp^{[-1.170 + 2.119 \ln(DBH)]}$ Other species: $AGB = \exp^{[-2.134 + 2.530 \ln(DBH)]}$

Monitoring equipment	NA
Measuring/reading/recording frequency	5 years
Calculation method (if applicable)	
QA/QC procedures	Quality Manual Section 7.6 “Suivi du Puits de Carbone”
Purpose of data/parameter	
Additional comments	

Data/Parameter	$C_{BB\_tree,j,i,t}$
Unit	tC
Description	Mean carbon stock in above-ground biomass per unit area for species j, stratum i, at time t
Measured/calculated/ default	Calculated
Source of data	Calculated
Value(s) of monitored parameter	Refer to xls files “FOR MAK-01 cubage par placette A_Août2018” and “FOR MAK-01 cubage par placette B_Août2018”
Monitoring equipment	NA
Measuring/reading/recording frequency	5 years
Calculation method (if applicable)	
QA/QC procedures	Quality Manual Section 7.6 “Suivi du Puits de Carbone”
Purpose of data/parameter	Parameter not specified in the methodology, representing an intermediary calculation
Additional comments	

Data/Parameter	$\overline{C}_{AB\_tree,j,i,t}$
Unit	$tC.ha^{-1}$
Description	Mean carbon stock in above-ground biomass per unit area for species j, stratum i, at time t
Measured/calculated/ default	Calculated
Source of data	Calculated
Value(s) of monitored parameter	Refer to xls files “FOR MAK-01 cubage par placette A_Août2018” and “FOR MAK-01 cubage par placette B_Août2018”
Monitoring equipment	NA
Measuring/reading/recording frequency	5 years
Calculation method (if applicable)	
QA/QC procedures	Quality Manual Section 7.6 “Suivi du Puits de Carbone”
Purpose of data/parameter	Parameter not specified in the methodology, representing an intermediary calculation
Additional comments	

Data/Parameter	$\overline{C}_{BB\_tree,j,i,t}$
Unit	tC.ha^{-1}
Description	Mean carbon stock in below-ground biomass per unit area for species j, stratum i, at time t
Measured/calculated/ default	Calculated
Source of data	Calculated
Value(s) of monitored parameter	Refer to xls files “FOR MAK-01 cubage par placette A_Août2018” and “FOR MAK-01 cubage par placette B_Août2018”
Monitoring equipment	NA
Measuring/reading/recording frequency	5 years
Calculation method (if applicable)	
QA/QC procedures	Quality Manual Section 7.6 “Suivi du Puits de Carbone”
Purpose of data/parameter	Parameter not specified in the methodology, representing an intermediary calculation
Additional comments	

Data/Parameter	$\Delta C_{AG,i,t}$
Unit	tC.yr^{-1}
Description	Annual carbon stock change in above-ground biomass of trees for stratum i at time t
Measured/calculated/ default	Calculated
Source of data	Calculated
Value(s) of monitored parameter	Refer to xls files « Fichier_synthèse_Removals_PCI_Août2018 »
Monitoring equipment	NA
Measuring/reading/recording frequency	5 years
Calculation method (if applicable)	
QA/QC procedures	Quality Manual Section 7.6 “Suivi du Puits de Carbone”
Purpose of data/parameter	
Additional comments	

Data/Parameter	$\Delta C_{BG,i,t}$
Unit	tC.yr^{-1}
Description	Annual carbon stock change in below-ground biomass of trees for stratum i at time t
Measured/calculated/ default	Calculated
Source of data	Calculated
Value(s) of monitored parameter	Refer to xls files “FOR MAK-01 cubage par placette A_Août2018” and “FOR MAK-01 cubage par placette B_Août2018”
Monitoring equipment	NA
Measuring/reading/recording frequency	5 years

Calculation method (if applicable)	
QA/QC procedures	Quality Manual Section 7.6 “Suivi du Puits de Carbone”
Purpose of data/parameter	
Additional comments	

Data/Parameter	ΔC_{Pt}
Unit	tCO_2-e
Description	Sum of the changes in above-ground and below-ground tree biomass in the project scenario
Measured/calculated/ default	Calculated
Source of data	Calculated
Value(s) of monitored parameter	43,664
Monitoring equipment	NA
Measuring/reading/recording frequency	5 years
Calculation method (if applicable)	
QA/QC procedures	Quality Manual Section 7.6 “Suivi du Puits de Carbone”
Purpose of data/parameter	
Additional comments	

D.3. Implementation of sampling plan

>> Permanent sample plots are first used for the monitoring of aboveground biomass. Each plot has its coordinates recorded with a GPS. The plot corners are located with a non-extensible chain and their GPS coordinates are noted. Plot markers were established in order to be discreet, taking into account that no further treatment of plantations is due and that the plots are situated within stands that are not easy to walk in. A small piece of metal was nailed at the basis of the reference tree (at the SW corner of the plot).

The plot locations were determined in the following way :

(a) Permanent sample plots are located using the approach of the aligned systematic sampling. In this approach a grid was laid over the project area and the reference points of the permanent sample points were taken at those grid intersection points that fall within a sub-stratum. The grid had a random origin and was oriented North-South / East-West. This orientation does not correspond to the orientation of the stands (which follow the RN1 road 117° South-East).

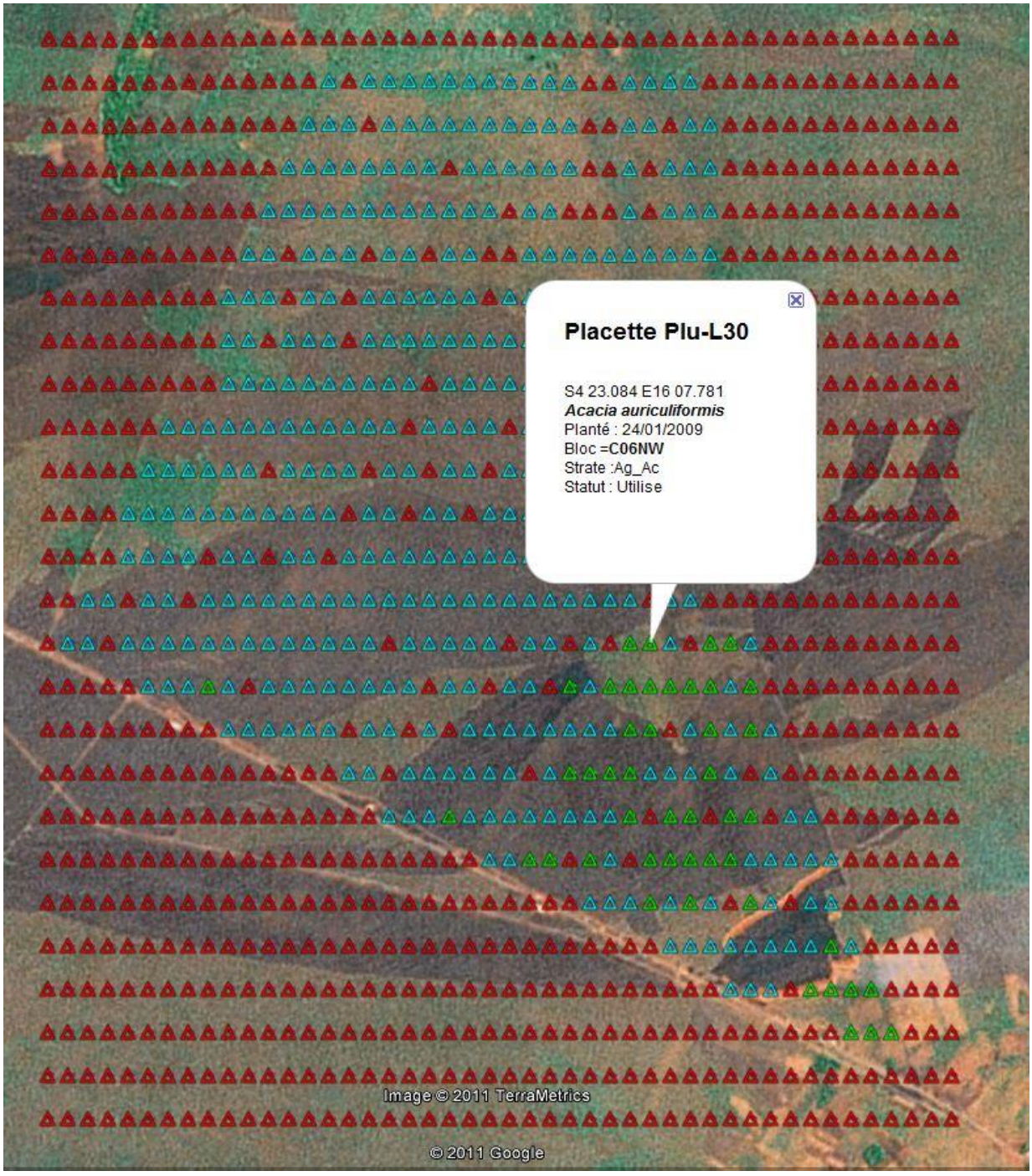
(b) To obtain the correct number of permanent sample plots in each stratum, the spacing of the grid was chosen small enough to ensure that the number of available grid points is always greater than the number of the needed plots as calculated ex-ante in PDD using the CDM Tool for “Calculation of the number of sample plots for measurements within A/R CDM project activities (Version 2)”. The sample plots in excess are eliminated and kept in reserve for the case that in the future more plots are needed. Excess plots are selected among all plots in the sub-stratum using a sequence of random numbers generated by the IBI-tool. All grid points have the same chance to be selected as permanent plot.

(c) Having assigned the reference point of the permanent sample plots using the above procedure, it is very uncertain that any plot should fall outside a planted stand. This has not been observed during this monitoring campaign.

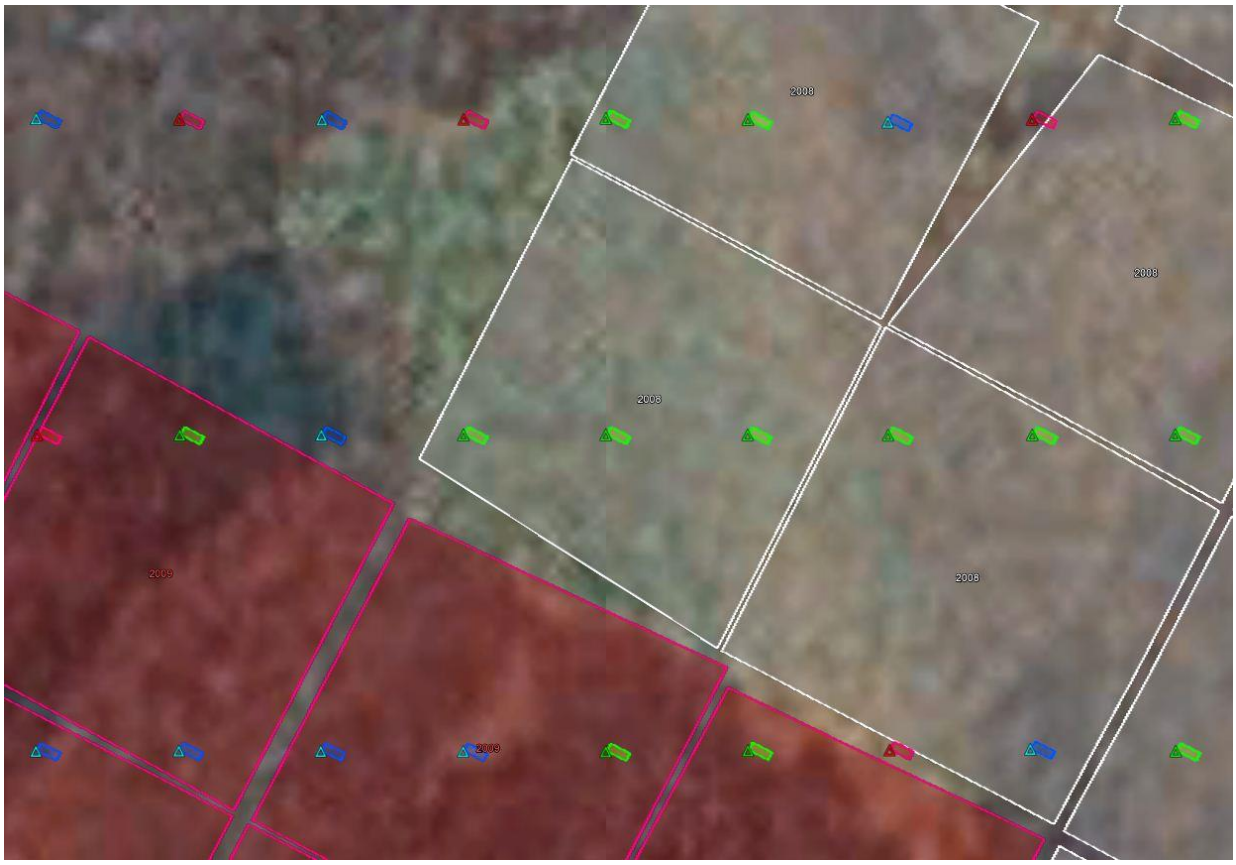
(d) Sufficient sample plots are allocated to ensure that inaccessible or irrelevant plots can always be replaced by another plot in the same sub-stratum.

During the measurement campaign of September 2011, a fixed grid of permanent plots was

established over the whole project area.
The grid of sample plots is shown in the illustration below Reference points of sample plots, : in RED : plots that are not fully contained in planted stands; in GREEN : plots used for this monitoring activity; in BLUE : plots reserved for future use. :



Reference points of sample plots



Close view on sample plot selection and rejection

Based on this grid and the ex-post stratification described in section C a number of sample plots was used for a pre-inventory process in order to estimate a coefficient of variation for each stratum. The sample plots used for the pre-inventory are listed in Annex 3.

Coefficient of variation per stratum

Stratum	Number of grid plots	Mean (tC/ha)	Standard deviation (tC/ha)	CV(%)
Stratum 1	67	31.44	13.0014862	41.35%
Stratum 2	4	21.05	8.321539863	39.52%
Stratum 3	8	55.21	22.22472162	40.25%

These coefficients of variation were then used with the CDM Tool for "Calculation of the number of sample plots for measurements within A/R CDM project activities (Version 2.1) in order to calculate the final number of sample plots required for the final inventory.

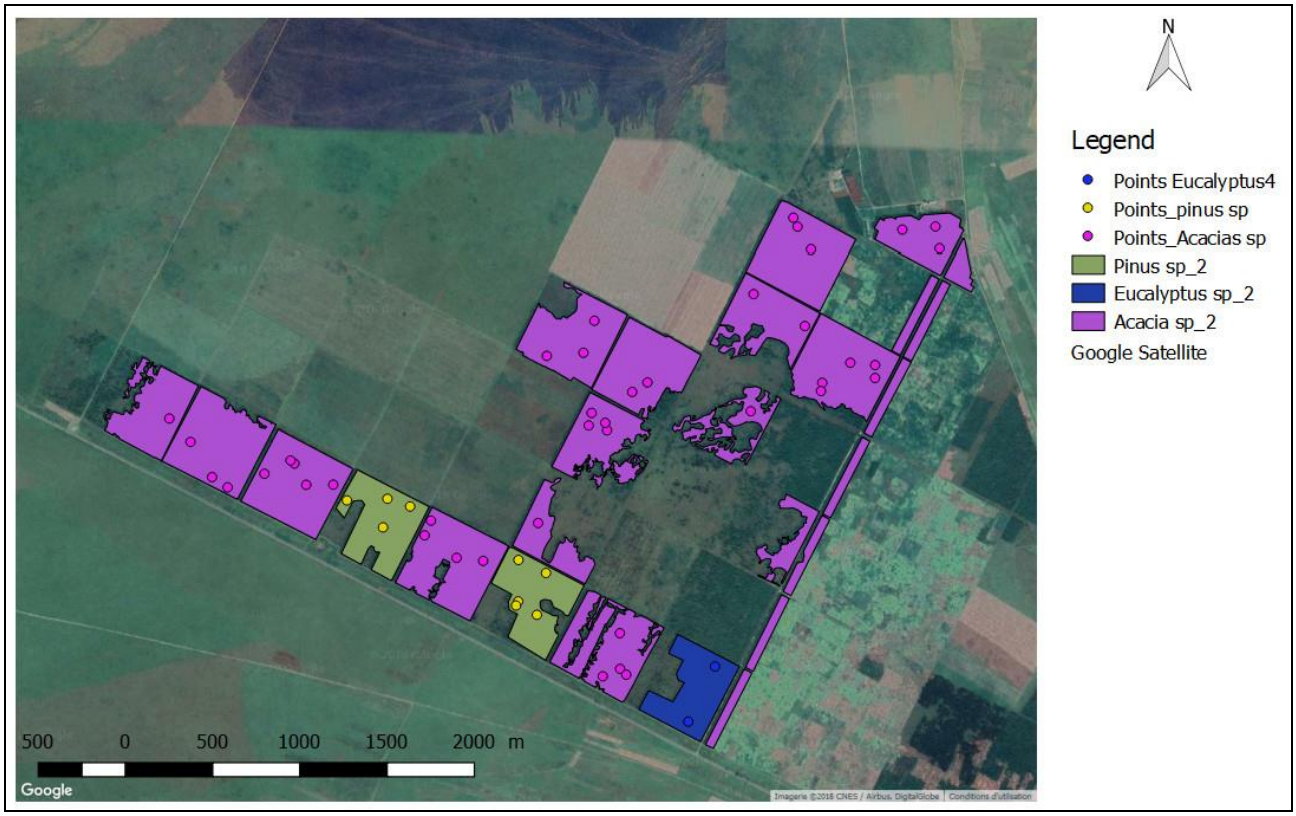
Calculation of the number of sample plots

	Strata	N°	1	2	3
	Area of stratum i	ha	272.95	16.16	34.57
	Mean Q1	0	31.44	21.05	55.21
	Sti	-	13.00	8.32	22.22
	Relative weight wi	-	0.84	0.05	0,11
	Coefficient of variation (CV)	%	41.35%	39.52%	40.25%
	N	integer	9 990	9 990	9 990
	P	%	10.00%	10.00%	10.00%
	E	0	3.14	2.11	5.52
	Z α/2	-	1.645	1.645	1.645
Plots per stratum	**Ni**	integer	**41**	**2**	**9**

plots TOTAL	**N**	integer	**51**

As the ex-post stratification was very different compared to the one initially planned because of the project difficulties, the final sample plots were established randomly to avoid any bias in relation with the initially grid in the new context of very few plantations. This could be done in accordance with the table 1 of the Guidelines on application of specified versions of A/R CDM methodologies in verification of registered A/R CDM project activities (EB68 Annex 31) to avoid any issue on the random lay-out of sample plots.

The illustration below shows the location of random sample plots generated by the GIS software QGIS.



Localization of sample plots per stratum

Size of permanent sample plots

The project designed square sampling plots of 250 m². However, field tests have shown that measuring 36 tree locations on 250 m² might increase artificially the tree density above its nominal 1111 tree/ha value. Therefore, the plot size has been increased to remain conservative to 12m x 27m = 324m² with the same number of trees.

Non-tree biomass

Non tree vegetation such as herbaceous plants, grasses and shrubs weree not measured nor accounted as per methodology applied.

Slope correction

While sample plots are established, the field crew identified if the slope was higher than 10%. Due to the inherent flat nature of the Bateke plateau, no sample plot was found to fall in this category.

Identification of individual trees

The order for measuring trees within a plot was fixed : from the reference point parallel to the RN1 road (South-East direction), then back on the second row, then forth and so on until the las one. Each tree location was recorded, the missing trees were identified. In this way it is possible to

permanently identify each tree within a plot from one monitoring activity to the next.

Tree biomass
Diameter at breast height (i.e. 1m30 above ground) of all trunks within each permanent sample above a minimum DBH (2 cm) were measured. Height was only measured for Eucalyptus trees. The allometric equation applicable to the tree species (see section D.6 data and parameters monitored) was separately applied to each trunk of each tree.

The root-to-shoot ratio was applied to each trunk and the total is multiplied by carbon fraction factor to obtain the carbon contents of the tree.
The CO2 contents of all trees in the plot is accumulated to obtain the total CO2 contents of the plot.

Carbon pools in stratum
The mean CO_2 density of the stratum is obtained by dividing the total CO_2 contents of the plots in the stratum by the total area of these plots. When multiplied by the stratum area, this gives the total CO_2 stock in the stratum.

Monitoring of project emissions
The GHG emissions that will occur during the implementation of the A/R-CDM Project 4176 were initially identified as the CO_2 losses from pre-existing vegetation removal.
However, in accordance with the post-registration change PRC-4176-001 approved by the Board on 22/08/2018, these emissions are no more considered and were accounted as zero.

SECTION E. Calculation of emission reductions or net anthropogenic removals

E.1. Calculation of baseline emissions or baseline net removals

>>
As of PDD of A/R-CDM Project 4176 we have :

$$\Delta C_{BSL} = 0{,}0$$

Where :

ΔC_{BSL}	[tonne CO_2 e]	Baseline net greenhouse gas removals by sinks.

E.2. Calculation of project emissions or actual net removals

>>
According to Methodology AR-ACM0001 v3 (eqn 12) The actual net greenhouse gas removals by sinks shall be estimated as

$$\Delta C_{ACTUAL} = \Delta C_P - GHG_E$$

Where :

ΔC_{ACTUAL}	[CO2 -e]	Actual net greenhouse gas removals by sinks
ΔC_P	[CO2 -e]	Sum of the changes in above-ground and below-ground tree biomass, dead wood,litter and soil organic carbon stocks in the project scenario
GHG_E	[CO2 -e]	Increase in GHG emissions as a result of the implementation of the proposed A/R CDM project activity within the project boundary

The carbon changes are not estimated on an annual basis, but since the beginning of the project.

As from PDD of the A/R-CDM Project 4176 and the PRC PRC-4176-001, the emissions are now accounted for zero. Therefore::

$$\Delta C_{ACTUAL} = \Delta C * \frac{44}{12}$$

Where :

ΔC_P	[t CO2 -e]	Sum of the changes in above-ground and below-ground tree biomass, dead wood,litter and soil organic carbon stocks in the project scenario
ΔC	[t C]	Change in carbon stock in all selected carbon pools since the beginning of the project activity
$44/12$	[t CO2 -e (t C)$^{-1}$]	Ratio of molecular weights of CO2 and carbon

To determine the sum of changes in carbon stocks from the start of the Project activity until the moment of monitoring, we use following equation :

$$\Delta C = \sum_{i=1}^{M_{PS}} \Delta C_{AG,i} + \Delta C_{BG,i} + \Delta C_{DW,i} + \Delta C_{LI,i}$$

Where :

ΔC	[t C]	Change in carbon stock in all selected carbon pools since the beginning of the project activity
$\Delta C_{AG,i}$	[t C]	carbon stock change in above-ground biomass of trees for stratum *i* since the beginning of the project activity
$\Delta C_{BG,i}$	[t C]	carbon stock change in below-ground biomass of trees for stratum *i* since the beginning of the project activity
$\Delta C_{DW,i}$	[t C]	change in the dead wood carbon pool in stratum *i* since the beginning of the project activity
$\Delta C_{LI,i}$	[t C]	change in the litter carbon pool in stratum *i,* since the beginning of the project activity
i		1, 2, 3, .. M_{PS} strata in the project activity

As of PDD of A/R-CDM Project 4176, we have

$$\Delta C_{DW,i} = 0.0 (\forall i)$$

$$C_{LI,i} = 0.0 (\forall i)$$

For trees the PDD uses the allometric method and so we have for a sample plot *j* of species *sp* the following relation :

$$C_{ABtree,j,sp} = \sum_{i=1}^{N_i} f_{sp}(DBH_i, H_i) * CF_{sp}$$

Where :

$C_{ABtree,j,sp}$	[t C]	Carbon stock in above-ground biomass of trees of species *sp* on sample plot *j*
$f_{sp}(DBH_i, H_i)$	[t d.m.]	Allometric equation for species *sp* linking diameter at

		breast height (*DBH*) and possibly height (*H*) of tree *i* to above-ground biomass of living trees (see Annex 6 : Allometric Equations)
CF_{sp}	[t C (t d.m.)$^{-1}$]	Carbon fraction of dry matter for species or type *sp*
i		*1, 2, 3, …Nj,* sequence number of individual trees of species *sp* in sample plot j
j		*1, 2, 3, …Nj,* sequence number of individual sample plots of species *sp* in stratum

The below ground biomass for a sample plot *j* of species *sp* is determined via the root-shoot ratio :

$$C_{BBtree,j,sp} = C_{ABtree,j,sp} * R_{sp}$$

Where :

$C_{ABtree,j,sp}$	[t C]	Carbon stock in above-ground biomass of trees of species *sp* on sample plot *j*
$C_{BBtree,j,sp}$	[t C]	Carbon stock in below-ground biomass of trees of species *sp* on sample plot *j*
R_{sp}	Dimensionless	Root-shoot ratio appropriate for biomass stock, for species *sp*

The Allometric equations and root-shoot ratios applicable to the tree species used in A/R-CDM Project 4176 are summarized in function of the species, respectively in section D.2 data and parameters monitored and section D.1 data and parameter fixed ex-ante and

The allometric equations are applied separately to each trunk of the living trees in the sample plots. The total carbon stock in tree biomass for stratum *i* is determined by averaging the biomass of all plots of that stratum and multiplying by the stratum area :

$$C_{tree,i} = A_{stratum,i} \frac{\sum_{j=1}^{N_i}(C_{ABtree,j,sp} + C_{BBtree,j,sp})}{\sum_{j=1}^{N_i} A_{plot,j}}$$

Where :

$C_{tree,i}$	[t C]	Carbon stock in above-ground biomass and below-ground biomass on stratum *i*
$C_{ABtree,j,sp}$	[t C]	Carbon stock in above-ground biomass of trees of species *sp* on sample plot *j*
$C_{BBtree,j,sp}$	[t C]	Carbon stock in below-ground biomass of trees of species *sp* on sample plot *j*
$A_{plot,j}$	[hectare]	Area of sample plot j
$A_{streatum,i}$	[hectare]	Area of stratum *i*
J		*1, 2, 3, …N_i,* sequence number of individual sample plots in stratum *i*

The surface of the stratum *i* is the sum of all stands belonging to that stratum :

$$A_{stratum,i} = \sum_{j=1} A_{stand,j}$$

Where :

$A_{streatum,i}$	[hectare]	Area of stratum *I*
$A_{stand,j}$	[hectare]	Area of stand *j* belonging to stratum *i*
J		*1, 2, 3, …N_i,* sequence number of individual stands in stratum *i*

And finally due to :

$$\Delta C_{AB,i} + \Delta C_{BB,i} = C_{tree,i}$$

Equation becomes :

$$\Delta C = \sum_{i=1}^{MPS} C_{tree,i}$$

Where :

ΔC	[t C]	Change in carbon stock in all selected carbon pools since the beginning of the project activity
$C_{tree,i}$	[t C]	Carbon stock in above-ground biomass and below-ground biomass on stratum *i*

Summarizing the results of Excel spreadsheets, we have:

Stratum	Stratum area (ha)	Wh	Number of sample plots	Mean carbon stock in above-ground and below-ground biomass (t C)	Total carbon stock in above-ground and below-ground biomass (t C)
1	272.95	0.84	41.00	35.22	9,613.30
2	16.16	0.05	2.00	15.49	250.34
3	34.57	0.11	9.00	60.03	2,075.26

Stratified estimator (tC/ha)	36.9
Total area (ha)	323.7
C to CO_2 ratio	3.7
Total CO_2 in first monitoring period (tCO2)	43,776

Allowing to apply immediately Equation.

$$\Delta C_{ACTUAL} = \Delta C_P$$

ΔC_{ACTUAL} = 43,776 t CO2e

In terms of uncertainty, the applicable methodology does not include provisions for estimating the uncertainty of the estimate, but the tool "Estimation of carbon stocks and change in carbon stocks of trees and shrubs in A/R CDM project activities" (Version 3.0.0) includes provisions for it in equations 10 and 11. Following these equations, the estimate of uncertainty would be 9% at 90% of confidence level as presented below:

Stratum	Stratum area (ha)	Wh	Number of sample plots	Variance	W2*Var/n
1	272.95	0.84	41.00	81.80	1.42
2	16.16	0.05	2.00	37.00	0.05
3	34.57	0.11	9.00	1,926.51	2.44

Stratified estimator (tC/ha)	36.9
Standard error stratified estimator (tC/ha)	1.976
t-student 90% confidence level	1.677
% Relative margin of error	9%

E.3. Calculation of leakage emissions

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E.4. Calculation of emission reductions or net anthropogenic removals

	Baseline GHG emissions or baseline net GHG removals (t CO_2e)	Project GHG emissions or actual net GHG removals (t CO_2e)	Leakage GHG emissions (t CO_2e)	GHG emission reductions or net anthropogenic GHG removals (t CO_2e)		
				Before 01/01/2013	From 01/01/2013	Total amount
Total	0	43,776	0	0	43,776	43,776

E.5. Comparison of emission reductions or net anthropogenic removals achieved with estimates in the registered PDD

Amount achieved during this monitoring period (t CO_2e)	Amount estimated ex ante for this monitoring period in the PDD (t CO_2e)
43,776	219,534

E.5.1. Explanation of calculation of "amount estimated ex ante for this monitoring period in the PDD"

>> The amount estimated ex ante for this monitoring period in the PDD is calculated through the equation proposed by the selected methodology as stated in the PDD:

$$C_{AB\_tree,j,i,sp,t} = V_{1,j,i,sp,t} * D_j * BEF_{2,j} * CF_j$$ **Equation (6)**

Where :

$C_{AB\_tree,l,j,i,sp,t}$	Carbon stock in above-ground biomass of tree *l* of species *j* in plot *sp* in stratum *i* at time *t*; t C tree^{-1}
$V_{l,j,i,sp,t}$	Stem volume of tree *l* of species *j* in plot *sp* in stratum *i* at time *t*; m^3 tree^{-1}
D_j	Basic wood density of species *j*; t d.m. m^{-3}
$BEF_{2,j}$	Biomass expansion factor for conversion of stem biomass to above-ground tree biomass for species *j*; dimensionless
CF_j	Carbon fraction of biomass for tree species *j*; t C t^{-1} d.m. (IPCC default value = 0.5 t C t^{-1} d.m.)
l	Sequence number of trees on plot *sp*
i	*1, 2, 3, ...* M_{PS} strata in the project scenario
j	*1, 2, 3, ...* S_{PS} tree species in the project scenario
t	*1, 2, 3, ...* t^* years elapsed since the start of the A/R CDM project activity

The calculations were made using the TARAM tool developed by the World Bank with the parameters presented in the table below and following the new planting schedule presented in section B.1 of this monitoring report after monitoring of project area and restratification.

Table 1: Values to be used for the *ex-ante* estimation of Tree Biomass

Data	Value	Source
Acacia sp		
V_{Acacia}	9.5 m^3/ha/year	Table 3.A.1.7. IPCC 2003 + EB46 –annex 17
D_{Acacia}	0.50 tdm/m^3	IPCC default value
$BEF_{2Acacia}$	2.7	Table 3.A.1.10. IPCC 2003, tropical broadleaf + EB46 – annex 17
CF_{Acacia}	0.50 tC/tdm	IPCC default value
R_{Acacia}	0.29	Table 3.A.1.8. IPCC 2003 + EB46 –annex 17
Eucalyptus sp		
$V_{Eucalyptus}$	17.5 m^3/ha/year	Table 3.A.1.7. IPCC 2003 + EB46 –annex 17
$D_{Eucalyptus}$	0.50 tdm/m^3	IPCC default value
$BEF_{2Eucalyptus}$	2.7	Table 3.A.1.10. IPCC 2003, tropical broadleaf + EB46 – annex 17
$CF_{Eucalyptus}$	0.50 tC/tdm	IPCC default value
$R_{Eucalyptus}$	0.3	Table 3.A.1.8. IPCC 2003 + EB46 –annex 17
Pinus sp		
V_{Pinus}	14.5 m^3/ha/year	Table 3.A.1.7. IPCC 2003 + EB46 –annex 17
D_{Pinus}	0.50 tdm/m^3	IPCC default value
BEF_{2Pinus}	1.3	Table 3.A.1.10.

		IPCC 2003, tropical pines + EB46 –annex 17
CF_{Pinus}	0.50 tC/tdm	IPCC default value
R_{Pinus}	0.25	Table 3.A.1.8. IPCC 2003 + EB46 –annex 17
Local species		
$V_{LocalSpecies}$	8.57 m^3/ha/year[30]	Calculated through equation 3.2.5 IPCC 2003 with data from Tables 3.A.1.6. and 3.A.1.10., IPCC 2003 + EB46 –annex 17
$D_{LocalSpecies}$	0.50 tdm/m^3	IPCC default value
$BEF_{2LocalSpecies}$	2.7	Table 3.A.1.10. IPCC 2003, tropical broadleaf + EB46 –annex 17
$CF_{LocalSpecies}$	0.50 tC/tdm	IPCC default value
$R_{LocalSpecies}$	0.29	Table 3.A.1.8. IPCC 2003 + EB46 –annex 17
Other Exotic Species		
$V_{OtherExoticSpecies}$	8.57 m^3/ha/year[30]	Calculated through equation 3.2.5 IPCC 2003 with data from Tables 3.A.1.6. and 3.A.1.10., IPCC 2003 + EB46 –annex 17
$D_{OtherExoticSpecies}$	0.50 tdm/m^3	IPCC default value
$BEF_{2OtherExoticSpecies}$	2.7	Table 3.A.1.10. IPCC 2003, tropical broadleaf + EB46 –annex 17
$CF_{OtherExoticSpecies}$	0.50 tC/tdm	IPCC default value
$R_{OtherExoticSpecies}$	0.29	Table 3.A.1.8. IPCC 2003 + EB46 –annex 17
Natural regeneration stand		
$V_{RegenerationStands}$	3.36 m^3/ha/year [30] (≤20 years) 1.71 m^3/ha/year [30] (>20 years)	Calculated through equation 3.2.5 IPCC 2003 with data from Tables 3.A.1.5. and 3.A.1.10., IPCC 2003[1] + EB46 –annex 17
$D_{RegenerationStands}$	0.50 tdm/m^3	IPCC default value
$BEF_{2RegenerationStands}$	2.7	Table 3.A.1.10. IPCC 2003, tropical broadleaf + EB46 –annex 17
$CF_{RegenerationStands}$	0.50 tC/tdm	IPCC default value
$R_{RegenerationStands}$	0.29	Table 3.A.1.8. IPCC 2003 + EB46 –annex 17

The amount estimated ex ante for this monitoring period in the PDD in then the sum of net anthropogenic removals from 2008 to 2017.

Year	Baseline net removals (t CO_2e)	Actual net removals (t CO_2e)	Leakage (t CO_2e)	Net anthropogenic removals (t CO_2e)	Cumulative anthropogenic removals (t CO_2e)
2008	0	16 356	0	16 356	16 356
2009	0	33 923	0	33 923	50 279
2010	0	35 412	0	35 412	85 692
2011	0	36 975	0	36 975	122 667
2012	0	36 984	0	36 984	159 651
2013	0	37 140	0	37 140	196 791
2014	0	5 002	0	5 002	201 793
2015	0	(10 611)	0	(10 611)	191 182

[1] For detailed calculations, please refer to file “calcul.xls”, speadsheet “BiomassGrowth”

2016	0	(7 204)	0	(7 204)	183 979
2017	0	28 324	0	28 324	212 302
2018	0	7 231	0	7 231	219 534
Total	**0**	**219,534**	**0**	**219,534**	**219,534**

E.6. Remarks on increase in achieved emission reductions

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E.7. Remarks on scale of small-scale project activity

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Annex 1: List of reference points

These points are the intersection points of the roads or firebreaks that limit the planted stands. Point names are the same as the stand names of which they are the South-West corner. Some of these points have been recalculated to adapt them to the latest survey of stands.

Reference point	Longitude	Latitude
A01NE	16.083350	-4.382650
A01NW	16.079350	-4.380583
A01SE	16.081267	-4.386650
A01SW	16.077283	-4.384583
A02NE	16.091317	-4.386833
A02NW	16.087333	-4.384733
A02SE	16.089267	-4.390800
A02SW	16.085267	-4.388717
A03NE	16.099300	-4.390983
A03NW	16.095333	-4.388867
A03SE	16.097250	-4.394933
A03SW	16.093250	-4.392867
A04NE	16.107283	-4.395133
A04NW	16.103317	-4.393017
A04SE	16.105233	-4.399083
A04SW	16.101250	-4.397017
A05NE	16.115300	-4.399233
A05NW	16.111300	-4.397167
A05SE	16.113217	-4.403233
A05SW	16.109233	-4.401167
A06NE	16.123317	-4.403400
A06NW	16.119283	-4.401317
A06SE	16.121217	-4.407383
A06SW	16.117217	-4.405300
A07NE	16.131317	-4.407550
A07NW	16.127283	-4.405450
A07SE	16.129200	-4.411517
A07SW	16.125200	-4.409450
A08NE	16.139300	-4.411700
A08NW	16.135267	-4.409600
A08SE	16.137183	-4.415667
A08SW	16.133200	-4.413600
A09NE	16.147250	-4.415817
A09NW	16.143250	-4.413750
A09SE	16.145167	-4.419850
A09SW	16.141183	-4.417767
A10SW	16.149167	-4.421917
B01NE	16.087467	-4.374717
B01NW	16.083500	-4.372600

B01SE	16.085417	-4.378667
B01SW	16.081417	-4.376600
B02NE	16.095450	-4.378850
B02NW	16.091483	-4.376750
B02SE	16.093400	-4.382817
B02SW	16.089417	-4.380750
B03NE	16.103450	-4.383000
B03NW	16.099467	-4.380900
B03SE	16.101383	-4.386967
B03SW	16.097400	-4.384883
B04NE	16.111433	-4.387150
B04NW	16.107450	-4.385033
B04SE	16.109383	-4.391100
B04SW	16.105383	-4.389033
B05NE	16.119483	-4.391283
B05NW	16.115450	-4.389183
B05SE	16.117367	-4.395250
B05SW	16.113367	-4.393183
B06NE	16.127417	-4.395400
B06NW	16.123433	-4.393333
B06SE	16.125350	-4.399400
B06SW	16.121367	-4.397317
B07NE	16.135417	-4.399550
B07NW	16.131417	-4.397467
B07SE	16.133333	-4.403533
B07SW	16.129350	-4.401467
B08NE	16.143400	-4.403700
B08NW	16.139400	-4.401617
B08SE	16.141333	-4.407683
B08SW	16.137333	-4.405617
B09SW	16.145317	-4.409750
C01NE	16.091633	-4.366700
C01NW	16.087633	-4.364617
C01SE	16.089567	-4.370683
C01SW	16.085567	-4.368617
C02NE	16.099600	-4.370883
C02NW	16.095617	-4.368767
C02SE	16.097550	-4.374833
C02SW	16.093550	-4.372767
C03NE	16.107583	-4.375017
C03NW	16.103617	-4.372917
C03SE	16.105533	-4.378983
C03SW	16.101533	-4.376900
C04NE	16.115567	-4.379167
C04NW	16.111600	-4.377050
C04SE	16.113517	-4.383117

C04SW	16.109517	-4.381050
C05NE	16.123567	-4.383317
C05NW	16.119583	-4.381200
C05SE	16.121500	-4.387267
C05SW	16.117517	-4.385200
C06NE	16.131567	-4.387417
C06NW	16.127567	-4.385350
C06SE	16.129500	-4.391417
C06SW	16.125500	-4.389350
C07NE	16.139550	-4.391567
C07NW	16.135567	-4.389500
C07SE	16.137483	-4.395550
C07SW	16.133483	-4.393483
C08SW	16.141483	-4.397633
D01NE	16.095767	-4.358700
D01NW	16.091783	-4.356633
D01SE	16.093700	-4.362700
D01SW	16.089700	-4.360633
D02NE	16.103767	-4.362850
D02NW	16.099767	-4.360783
D02SE	16.101683	-4.366850
D02SW	16.097700	-4.364767
D03NE	16.111733	-4.367033
D03NW	16.107750	-4.364917
D03SE	16.109683	-4.370983
D03SW	16.105683	-4.368917
D04NE	16.119717	-4.371183
D04NW	16.115750	-4.369067
D04SE	16.117667	-4.375133
D04SW	16.113667	-4.373067
D05NE	16.127767	-4.375317
D05NW	16.123733	-4.373217
D05SE	16.125650	-4.379283
D05SW	16.121667	-4.377217
D06NE	16.135717	-4.379450
D06NW	16.131717	-4.377367
D06SE	16.133633	-4.383433
D06SW	16.129650	-4.381350
D07SW	16.137633	-4.385500
E01NE	16.099917	-4.350717
E01NW	16.095917	-4.348650
E01SE	16.097850	-4.354717
E01SW	16.093850	-4.352633
E02NE	16.107900	-4.354867
E02NW	16.103917	-4.352783
E02SE	16.105833	-4.358850

E02SW	16.101833	-4.356783
E03NE	16.115900	-4.359017
E03NW	16.111900	-4.356933
E03SE	16.113817	-4.363000
E03SW	16.109833	-4.360933
E04NE	16.123883	-4.363150
E04NW	16.119883	-4.361083
E04SE	16.121817	-4.367150
E04SW	16.117817	-4.365083
E05NE	16.131867	-4.367300
E05NW	16.127867	-4.365233
E05SE	16.129800	-4.371300
E05SW	16.125800	-4.369217
E06NW	16.135867	-4.369383
E06SE	16.137783	-4.375450
E06SW	16.133783	-4.373383
F01NE	16.104067	-4.342733
F01NW	16.100067	-4.340667
F01SE	16.101983	-4.346733
F01SW	16.098000	-4.344650
F02NE	16.112050	-4.346883
F02NW	16.108050	-4.344800
F02SE	16.109983	-4.350867
F02SW	16.105983	-4.348800
F03NE	16.120033	-4.351017
F03NW	16.116050	-4.348950
F03SE	16.117967	-4.355017
F03SW	16.113967	-4.352950
F04NE	16.128033	-4.355167
F04NW	16.124033	-4.353100
F04SE	16.125950	-4.359167
F04SW	16.121967	-4.357083
F05NE	16.136017	-4.359317
F05NW	16.132017	-4.357233
F05SE	16.133933	-4.363300
F05SW	16.129950	-4.361233
G01NE	16.108217	-4.334750
G01SE	16.106133	-4.338733
G01SW	16.102150	-4.336667
G02NE	16.116200	-4.338883
G02NW	16.112200	-4.336817
G02SE	16.114117	-4.342883
G02SW	16.110133	-4.340817
G03NE	16.124183	-4.343033
G03NW	16.120183	-4.340967
G03SE	16.122117	-4.347033

G03SW	16.118117	-4.344950
G04NE	16.132167	-4.347183
G04NW	16.128183	-4.345100
G04SE	16.130100	-4.351167
G04SW	16.126100	-4.349100
G05NW	16.136167	-4.349250
G05SW	16.134100	-4.353250
H02SE	16.118267	-4.334900
H03NE	16.128333	-4.335050
H03SE	16.126250	-4.339033
H03SW	16.122267	-4.336967
H04NW	16.132317	-4.337117
H04SE	16.134250	-4.343183
H04SW	16.130250	-4.341117
B09SE	16.149317	-4.411817
A10NW	16.151267	-4.417867
B10SW	16.153317	-4.413867
A10SE	16.153183	-4.423967
A10NE	16.155233	-4.419967
C08SE	16.145467	-4.399700
B09NW	16.147417	-4.405750
C09SW	16.149467	-4.401750
B09NE	16.151367	-4.407817
D07SE	16.141617	-4.387567
C08NW	16.143567	-4.393617
D08SW	16.145617	-4.389617
C08NE	16.147517	-4.395700
D07NW	16.139733	-4.381500
E07SW	16.141783	-4.377500
D07NE	16.143667	-4.383567
F06SW	16.137933	-4.365383
E06NE	16.139883	-4.371433
F06SE	16.141933	-4.367433
E07NW	16.143850	-4.373500
G05SE	16.138083	-4.355317
F06NW	16.140033	-4.361367
G06SW	16.142083	-4.357367
H01SE	16.110283	-4.330750
H02SW	16.114267	-4.332817
G01NW	16.104217	-4.332667
H05SW	16.138233	-4.345250
G05NE	16.140183	-4.351300
H05SE	16.142233	-4.347300
H02NE	16.120333	-4.330900
H03NW	16.124333	-4.332967
H04NE	16.136333	-4.339167

H05NW	16.140283	-4.341250
H01SW	16.106267	-4.328667

Annex 2: Position of stands

Stand	Corner #	GPS name	Longitude	Latitude
A02SE	1	442-Sep2012	16.093269	-4.392658
A02SE	2	441-Sep2012	16.091949	-4.391969
A02SE	3	440-Sep2012	16.091366	-4.391123
A02SE	4	439-Sep2012	16.091760	-4.390319
A02SE	5	438-Sep2012	16.092091	-4.390127
A02SE	6	437-Sep2012	16.092280	-4.389833
A02SE	7	436-Sep2012	16.092154	-4.389495
A02SE	8	435-Sep2012	16.092436	-4.388822
A02SE	9	434-Sep2012	16.093346	-4.387887
A02SE	10	433-Sep2012	16.095220	-4.388911
A02SE	11	442-Sep2012	16.093269	-4.392658
A03SE	1	429-Sep2012	16.099351	-4.391059
A03SE	2	424-Sep2012	16.100548	-4.391684
A03SE	3	425-Sep2012	16.100721	-4.391899
A03SE	4	426-Sep2012	16.101016	-4.392132
A03SE	5	427-Sep2012	16.101423	-4.392419
A03SE	6	428-Sep2012	16.101553	-4.392215
A03SE	7	419-Sep2012	16.101900	-4.392371
A03SE	8	420-Sep2012	16.101851	-4.392538
A03SE	9	421-Sep2012	16.101960	-4.392652
A03SE	10	422-Sep2012	16.102266	-4.392919
A03SE	11	423-Sep2012	16.102394	-4.392622
A03SE	12	418-Sep2012	16.103226	-4.393018
A03SE	13	448-Sep2012	16.101231	-4.396870
A03SE	14	447-Sep2012	16.097322	-4.394896
A03SE	15	429-Sep2012	16.099351	-4.391059
A03SW	1	443-Sep2012	16.093509	-4.392773
A03SW	2	431-Sep2012	16.095337	-4.389185
A03SW	3	432-Sep2012	16.095545	-4.389104
A03SW	4	430-Sep2012	16.099219	-4.391023
A03SW	5	446-Sep2012	16.097297	-4.394884
A03SW	6	445-Sep2012	16.094448	-4.393354
A03SW	7	444-Sep2012	16.094346	-4.393202
A03SW	8	443-Sep2012	16.093509	-4.392773
A04SE	1	505-Sep2012	16.105850	-4.398167
A04SE	2	415-Sep2012	16.107437	-4.395353
A04SE	3	414-Sep2012	16.111146	-4.397253
A04SE	4	451-Sep2012	16.109192	-4.401057
A04SE	5	505-Sep2012	16.105850	-4.398167
A04SW	1	449-Sep2012	16.101401	-4.396968
A04SW	2	417-Sep2012	16.103345	-4.393269
A04SW	3	416-Sep2012	16.107213	-4.395305
A04SW	4	450-Sep2012	16.105282	-4.398939

Stand	Corner #	GPS name	Longitude	Latitude
A04SW	5	449-Sep2012	16.101401	-4.396968
A05SE	1	507-Sep2012	16.114400	-4.403717
A05SE	2	506-Sep2012	16.114350	-4.401183
A05SE	3	411-Sep2012	16.115282	-4.399333
A05SE	4	410-Sep2012	16.115473	-4.399372
A05SE	5	407-Sep2012	16.119159	-4.401299
A05SE	6	409-Sep2012	16.117162	-4.405156
A05SE	7	507-Sep2012	16.114400	-4.403717
A05SW	1	452-Sep2012	16.109395	-4.401162
A05SW	2	413-Sep2012	16.111384	-4.397322
A05SW	3	412-Sep2012	16.115258	-4.399279
A05SW	4	453-Sep2012	16.113257	-4.403130
A05SW	5	452-Sep2012	16.109395	-4.401162
A06NE	1	366-Sep2012	16.123372	-4.403398
A06NE	2	365-Sep2012	16.125361	-4.399505
A06NE	3	094-Sep2012	16.128922	-4.401435
A06NE	4	093-Sep2012	16.129146	-4.401624
A06NE	5	317-Sep2012	16.127219	-4.405392
A06NE	6	366-Sep2012	16.123372	-4.403398
A06SE	1	377-Sep2012	16.121980	-4.407687
A06SE	2	376-Sep2012	16.122496	-4.406708
A06SE	3	375-Sep2012	16.123746	-4.407292
A06SE	4	374-Sep2012	16.124339	-4.406306
A06SE	5	373-Sep2012	16.124016	-4.406169
A06SE	6	372-Sep2012	16.123935	-4.405827
A06SE	7	371-Sep2012	16.124409	-4.404966
A06SE	8	370-Sep2012	16.123639	-4.404596
A06SE	9	369-Sep2012	16.124000	-4.404186
A06SE	10	368-Sep2012	16.124647	-4.404505
A06SE	11	367-Sep2012	16.124775	-4.404216
A06SE	12	320-Sep2012	16.127194	-4.405474
A06SE	13	321-Sep2012	16.125179	-4.409350
A06SE	14	377-Sep2012	16.121980	-4.407687
A06SW	1	408-Sep2012	16.117373	-4.405251
A06SW	2	405-Sep2012	16.119349	-4.401574
A06SW	3	406-Sep2012	16.119686	-4.401628
A06SW	4	392-Sep2012	16.121821	-4.402713
A06SW	5	393-Sep2012	16.121725	-4.402934
A06SW	6	394-Sep2012	16.122087	-4.402860
A06SW	7	395-Sep2012	16.122365	-4.402977
A06SW	8	396-Sep2012	16.122344	-4.403205
A06SW	9	397-Sep2012	16.122594	-4.403395
A06SW	10	398-Sep2012	16.122599	-4.403609
A06SW	11	399-Sep2012	16.122368	-4.404107
A06SW	12	400-Sep2012	16.122166	-4.404194

Stand	Corner #	GPS name	Longitude	Latitude
A06SW	13	401-Sep2012	16.122169	-4.404538
A06SW	14	402-Sep2012	16.121918	-4.404602
A06SW	15	403-Sep2012	16.122116	-4.404728
A06SW	16	404-Sep2012	16.122413	-4.405013
A06SW	17	380-Sep2012	16.121706	-4.406388
A06SW	18	381-Sep2012	16.121518	-4.406203
A06SW	19	382-Sep2012	16.121510	-4.406101
A06SW	20	383-Sep2012	16.121651	-4.405995
A06SW	21	384-Sep2012	16.121748	-4.405694
A06SW	22	385-Sep2012	16.121815	-4.405554
A06SW	23	386-Sep2012	16.121865	-4.405240
A06SW	24	387-Sep2012	16.122042	-4.405108
A06SW	25	388-Sep2012	16.122060	-4.404938
A06SW	26	389-Sep2012	16.121892	-4.404851
A06SW	27	390-Sep2012	16.121355	-4.405911
A06SW	28	391-Sep2012	16.121188	-4.406038
A06SW	29	381-Sep2012	16.121518	-4.406203
A06SW	30	380-Sep2012	16.121706	-4.406388
A06SW	31	379-Sep2012	16.121232	-4.407240
A06SW	32	378-Sep2012	16.121103	-4.407310
A06SW	33	408-Sep2012	16.117373	-4.405251
A07NE	1	305-Sep2012	16.131374	-4.407544
A07NE	2	097-Sep2012	16.133289	-4.403865
A07NE	3	102-Sep2012	16.134558	-4.404531
A07NE	4	101-Sep2012	16.134546	-4.404694
A07NE	5	100-Sep2012	16.134604	-4.404735
A07NE	6	099-Sep2012	16.134687	-4.404572
A07NE	7	105-Sep2012	16.137142	-4.405830
A07NE	8	275-Sep2012	16.135241	-4.409571
A07NE	9	287-Sep2012	16.134313	-4.409104
A07NE	10	288-Sep2012	16.134341	-4.408840
A07NE	11	289-Sep2012	16.134218	-4.408734
A07NE	12	290-Sep2012	16.134006	-4.408683
A07NE	13	291-Sep2012	16.133991	-4.408845
A07NE	14	292-Sep2012	16.133801	-4.408812
A07NE	15	293-Sep2012	16.133661	-4.408751
A07NE	16	294-Sep2012	16.133841	-4.408445
A07NE	17	295-Sep2012	16.133922	-4.408217
A07NE	18	296-Sep2012	16.133762	-4.408298
A07NE	19	297-Sep2012	16.133602	-4.408680
A07NE	20	298-Sep2012	16.132860	-4.408356
A07NE	21	299-Sep2012	16.132882	-4.408026
A07NE	22	300-Sep2012	16.132934	-4.407821
A07NE	23	301-Sep2012	16.132868	-4.407736
A07NE	24	302-Sep2012	16.132607	-4.407933

Stand	Corner #	GPS name	Longitude	Latitude
A07NE	25	303-Sep2012	16.132306	-4.408036
A07NE	26	305-Sep2012	16.131374	-4.407544
A07NW	1	318-Sep2012	16.127500	-4.405509
A07NW	2	092-Sep2012	16.129372	-4.401776
A07NW	3	098-Sep2012	16.133174	-4.403809
A07NW	4	304-Sep2012	16.131284	-4.407526
A07NW	5	309-Sep2012	16.129207	-4.406462
A07NW	6	310-Sep2012	16.129184	-4.406417
A07NW	7	311-Sep2012	16.128915	-4.406273
A07NW	8	312-Sep2012	16.128959	-4.406178
A07NW	9	313-Sep2012	16.128950	-4.406118
A07NW	10	314-Sep2012	16.128904	-4.406102
A07NW	11	315-Sep2012	16.128776	-4.406205
A07NW	12	316-Sep2012	16.128670	-4.406190
A07NW	13	318-Sep2012	16.127500	-4.405509
A07SE	1	324-Sep2012	16.129496	-4.411338
A07SE	2	306-Sep2012	16.131280	-4.407754
A07SE	3	307-Sep2012	16.131457	-4.407654
A07SE	4	286-Sep2012	16.135185	-4.409642
A07SE	5	325-Sep2012	16.133368	-4.413309
A07SE	6	324-Sep2012	16.129496	-4.411338
A07SW	1	322-Sep2012	16.125428	-4.409506
A07SW	2	319-Sep2012	16.127437	-4.405606
A07SW	3	308-Sep2012	16.131223	-4.407588
A07SW	4	323-Sep2012	16.129344	-4.411277
A07SW	5	322-Sep2012	16.125428	-4.409506
A08NE	1	255-Sep2012	16.139359	-4.411719
A08NE	2	120-Sep2012	16.141287	-4.407892
A08NE	3	121-Sep2012	16.141417	-4.407877
A08NE	4	122-Sep2012	16.144963	-4.409739
A08NE	5	123-Sep2012	16.145123	-4.409914
A08NE	6	248-Sep2012	16.143167	-4.413706
A08NE	7	255-Sep2012	16.139359	-4.411719
A08NW	1	276-Sep2012	16.135911	-4.409902
A08NW	2	277-Sep2012	16.136868	-4.408221
A08NW	3	278-Sep2012	16.137306	-4.408445
A08NW	4	279-Sep2012	16.137860	-4.407260
A08NW	5	280-Sep2012	16.137631	-4.407162
A08NW	6	281-Sep2012	16.137391	-4.407562
A08NW	7	282-Sep2012	16.137177	-4.407487
A08NW	8	283-Sep2012	16.137081	-4.407661
A08NW	9	284-Sep2012	16.136597	-4.407464
A08NW	10	104-Sep2012	16.137329	-4.405912
A08NW	11	111-Sep2012	16.139040	-4.406773
A08NW	12	110-Sep2012	16.139000	-4.406876

Stand	Corner #	GPS name	Longitude	Latitude
A08NW	13	109-Sep2012	16.138942	-4.407011
A08NW	14	108-Sep2012	16.138979	-4.407133
A08NW	15	107-Sep2012	16.139197	-4.406998
A08NW	16	106-Sep2012	16.139290	-4.406908
A08NW	17	112-Sep2012	16.140176	-4.407311
A08NW	18	113-Sep2012	16.140232	-4.407363
A08NW	19	114-Sep2012	16.140256	-4.407504
A08NW	20	115-Sep2012	16.140283	-4.407615
A08NW	21	116-Sep2012	16.140327	-4.407692
A08NW	22	117-Sep2012	16.140479	-4.407481
A08NW	23	118-Sep2012	16.141103	-4.407794
A08NW	24	119-Sep2012	16.141171	-4.407890
A08NW	25	253-Sep2012	16.139313	-4.411652
A08NW	26	254-Sep2012	16.139233	-4.411659
A08NW	27	259-Sep2012	16.138517	-4.411301
A08NW	28	260-Sep2012	16.138790	-4.410780
A08NW	29	261-Sep2012	16.138852	-4.410747
A08NW	30	262-Sep2012	16.138842	-4.410563
A08NW	31	263-Sep2012	16.138960	-4.410491
A08NW	32	264-Sep2012	16.139362	-4.409718
A08NW	33	265-Sep2012	16.139529	-4.409392
A08NW	34	266-Sep2012	16.139598	-4.409261
A08NW	35	267-Sep2012	16.139478	-4.408910
A08NW	36	268-Sep2012	16.139205	-4.408737
A08NW	37	269-Sep2012	16.138867	-4.409004
A08NW	38	270-Sep2012	16.138815	-4.409387
A08NW	39	271-Sep2012	16.139192	-4.409659
A08NW	40	272-Sep2012	16.139002	-4.409960
A08NW	41	273-Sep2012	16.138725	-4.410420
A08NW	42	274-Sep2012	16.138378	-4.411182
A08NW	43	276-Sep2012	16.135911	-4.409902
A08SE	1	256-Sep2012	16.139307	-4.411787
A08SE	2	251-Sep2012	16.143104	-4.413739
A08SE	3	252-Sep2012	16.143114	-4.413853
A08SE	4	349-Sep2012	16.141200	-4.417490
A08SE	5	328-Sep2012	16.140042	-4.416768
A08SE	6	329-Sep2012	16.139880	-4.416585
A08SE	7	330-Sep2012	16.139637	-4.416466
A08SE	8	331-Sep2012	16.139829	-4.415813
A08SE	9	332-Sep2012	16.139781	-4.415117
A08SE	10	333-Sep2012	16.139425	-4.414802
A08SE	11	334-Sep2012	16.139499	-4.413996
A08SE	12	335-Sep2012	16.139199	-4.414163
A08SE	13	336-Sep2012	16.138482	-4.414241
A08SE	14	337-Sep2012	16.138317	-4.413966

Stand	Corner #	GPS name	Longitude	Latitude
A08SE	15	338-Sep2012	16.138209	-4.413900
A08SE	16	256-Sep2012	16.139307	-4.411787
A08SW	1	327-Sep2012	16.133564	-4.413197
A08SW	2	285-Sep2012	16.135417	-4.409756
A08SW	3	257-Sep2012	16.139266	-4.411695
A08SW	4	258-Sep2012	16.139200	-4.411862
A08SW	5	339-Sep2012	16.138093	-4.413936
A08SW	6	340-Sep2012	16.137773	-4.413918
A08SW	7	341-Sep2012	16.137283	-4.414504
A08SW	8	342-Sep2012	16.137020	-4.414085
A08SW	9	343-Sep2012	16.136846	-4.414005
A08SW	10	344-Sep2012	16.137071	-4.413566
A08SW	11	345-Sep2012	16.136674	-4.413142
A08SW	12	346-Sep2012	16.136287	-4.413249
A08SW	13	347-Sep2012	16.135817	-4.413950
A08SW	14	348-Sep2012	16.135617	-4.414350
A08SW	15	326-Sep2012	16.133638	-4.413362
A08SW	16	327-Sep2012	16.133564	-4.413197
A09NE	1	205-Sep2012	16.148269	-4.413643
A09NE	2	127-Sep2012	16.148994	-4.412258
A09NE	3	128-Sep2012	16.150762	-4.417100
A09NE	4	129-Sep2012	16.150608	-4.417122
A09NE	5	130-Sep2012	16.150640	-4.417155
A09NE	6	131-Sep2012	16.150576	-4.417253
A09NE	7	132-Sep2012	16.150646	-4.417287
A09NE	8	133-Sep2012	16.150814	-4.417224
A09NE	9	134-Sep2012	16.150983	-4.417859
A09NE	10	188-Sep2012	16.150197	-4.417382
A09NE	11	189-Sep2012	16.150287	-4.417239
A09NE	12	190-Sep2012	16.150269	-4.417075
A09NE	13	191-Sep2012	16.150289	-4.416911
A09NE	14	192-Sep2012	16.149740	-4.416744
A09NE	15	193-Sep2012	16.149221	-4.416900
A09NE	16	194-Sep2012	16.147663	-4.416118
A09NE	17	195-Sep2012	16.147693	-4.415935
A09NE	18	196-Sep2012	16.147495	-4.415904
A09NE	19	197-Sep2012	16.147355	-4.415670
A09NE	20	198-Sep2012	16.147621	-4.415491
A09NE	21	199-Sep2012	16.148311	-4.415354
A09NE	22	200-Sep2012	16.148638	-4.414957
A09NE	23	201-Sep2012	16.148463	-4.414631
A09NE	24	202-Sep2012	16.148423	-4.414497
A09NE	25	203-Sep2012	16.148494	-4.414341
A09NE	26	204-Sep2012	16.148241	-4.414119
A09NE	27	205-Sep2012	16.148269	-4.413643

Stand	Corner #	GPS name	Longitude	Latitude
A09NW	1	249-Sep2012	16.143479	-4.413810
A09NW	2	124-Sep2012	16.145338	-4.409946
A09NW	3	125-Sep2012	16.148829	-4.411715
A09NW	4	126-Sep2012	16.148970	-4.412094
A09NW	5	206-Sep2012	16.148211	-4.413611
A09NW	6	207-Sep2012	16.148025	-4.413643
A09NW	7	208-Sep2012	16.147722	-4.413833
A09NW	8	209-Sep2012	16.147578	-4.413866
A09NW	9	210-Sep2012	16.146963	-4.413405
A09NW	10	211-Sep2012	16.146151	-4.415155
A09NW	11	249-Sep2012	16.143479	-4.413810
A09SE	1	242-Sep2012	16.146569	-4.418410
A09SE	2	243-Sep2012	16.146339	-4.417249
A09SE	3	244-Sep2012	16.146868	-4.417101
A09SE	4	245-Sep2012	16.146700	-4.416273
A09SE	5	246-Sep2012	16.147240	-4.416414
A09SE	6	247-Sep2012	16.147610	-4.416149
A09SE	7	187-Sep2012	16.149200	-4.417012
A09SE	8	186-Sep2012	16.149328	-4.417393
A09SE	9	185-Sep2012	16.148858	-4.417646
A09SE	10	184-Sep2012	16.148686	-4.418020
A09SE	11	183-Sep2012	16.149192	-4.418200
A09SE	12	182-Sep2012	16.149810	-4.417607
A09SE	13	181-Sep2012	16.149890	-4.418030
A09SE	14	180-Sep2012	16.150109	-4.418057
A09SE	15	179-Sep2012	16.150205	-4.417880
A09SE	16	178-Sep2012	16.150313	-4.417577
A09SE	17	135-Sep2012	16.151028	-4.417957
A09SE	18	136-Sep2012	16.151044	-4.418057
A09SE	19	177-Sep2012	16.150176	-4.419713
A09SE	20	176-Sep2012	16.149812	-4.419651
A09SE	21	175-Sep2012	16.149283	-4.419699
A09SE	22	174-Sep2012	16.149269	-4.420391
A09SE	23	173-Sep2012	16.149244	-4.420755
A09SE	24	172-Sep2012	16.149212	-4.420936
A09SE	25	171-Sep2012	16.149117	-4.421089
A09SE	26	170-Sep2012	16.149237	-4.421347
A09SE	27	169-Sep2012	16.149223	-4.421473
A09SE	28	230-Sep2012	16.148827	-4.421326
A09SE	29	231-Sep2012	16.148575	-4.421220
A09SE	30	232-Sep2012	16.148485	-4.420797
A09SE	31	233-Sep2012	16.147873	-4.420398
A09SE	32	234-Sep2012	16.147883	-4.420167
A09SE	33	235-Sep2012	16.148089	-4.419179
A09SE	34	236-Sep2012	16.148264	-4.418868

Stand	Corner #	GPS name	Longitude	Latitude
A09SE	35	237-Sep2012	16.148534	-4.418584
A09SE	36	238-Sep2012	16.148383	-4.418268
A09SE	37	239-Sep2012	16.147976	-4.418057
A09SE	38	240-Sep2012	16.147575	-4.418077
A09SE	39	241-Sep2012	16.147281	-4.418029
A09SE	40	242-Sep2012	16.146569	-4.418410
A09SW	1	350-Sep2012	16.141409	-4.417811
A09SW	2	250-Sep2012	16.143420	-4.413941
A09SW	3	212-Sep2012	16.146053	-4.415340
A09SW	4	213-Sep2012	16.145940	-4.416128
A09SW	5	214-Sep2012	16.145742	-4.416111
A09SW	6	215-Sep2012	16.145711	-4.416584
A09SW	7	216-Sep2012	16.145756	-4.416825
A09SW	8	217-Sep2012	16.145563	-4.417096
A09SW	9	218-Sep2012	16.145614	-4.417204
A09SW	10	219-Sep2012	16.145827	-4.417195
A09SW	11	220-Sep2012	16.145929	-4.417894
A09SW	12	221-Sep2012	16.145382	-4.417810
A09SW	13	222-Sep2012	16.145205	-4.417034
A09SW	14	223-Sep2012	16.144935	-4.417312
A09SW	15	224-Sep2012	16.144941	-4.417907
A09SW	16	225-Sep2012	16.144793	-4.418316
A09SW	17	226-Sep2012	16.145097	-4.418304
A09SW	18	227-Sep2012	16.145543	-4.418633
A09SW	19	228-Sep2012	16.145110	-4.419396
A09SW	20	229-Sep2012	16.144831	-4.419488
A09SW	21	350-Sep2012	16.141409	-4.417811
A10SW	1	147-Sep2012	16.149271	-4.421574
A10SW	2	148-Sep2012	16.149308	-4.421452
A10SW	3	149-Sep2012	16.149377	-4.421395
A10SW	4	145-Sep2012	16.150012	-4.420510
A10SW	5	137-Sep2012	16.151167	-4.418232
A10SW	6	138-Sep2012	16.151613	-4.419513
A10SW	7	139-Sep2012	16.151642	-4.419568
A10SW	8	140-Sep2012	16.151613	-4.419790
A10SW	9	141-Sep2012	16.151334	-4.419981
A10SW	10	143-Sep2012	16.150900	-4.420164
A10SW	11	144-Sep2012	16.150737	-4.420113
A10SW	12	145-Sep2012	16.150012	-4.420510
A10SW	13	149-Sep2012	16.149377	-4.421395
A10SW	14	150-Sep2012	16.150640	-4.421808
A10SW	15	151-Sep2012	16.150675	-4.422083
A10SW	16	152-Sep2012	16.150412	-4.422145
A10SW	17	156-Sep2012	16.151358	-4.422825
A10SW	18	157-Sep2012	16.151535	-4.422371

Stand	Corner #	GPS name	Longitude	Latitude
A10SW	19	158-Sep2012	16.151462	-4.422186
A10SW	20	159-Sep2012	16.151500	-4.422072
A10SW	21	160-Sep2012	16.151993	-4.421880
A10SW	22	161-Sep2012	16.152006	-4.421783
A10SW	23	162-Sep2012	16.151562	-4.421704
A10SW	24	163-Sep2012	16.150984	-4.420496
A10SW	25	164-Sep2012	16.151279	-4.420410
A10SW	26	165-Sep2012	16.151905	-4.420531
A10SW	27	166-Sep2012	16.152645	-4.422293
A10SW	28	167-Sep2012	16.152632	-4.422329
A10SW	29	168-Sep2012	16.152143	-4.423258
A10SW	30	155-Sep2012	16.151437	-4.422890
A10SW	31	156-Sep2012	16.151358	-4.422825
A10SW	32	152-Sep2012	16.150412	-4.422145
A10SW	33	153-Sep2012	16.150067	-4.422068
A10SW	34	154-Sep2012	16.150006	-4.421938
A10SW	35	146-Sep2012	16.149302	-4.421593
A10SW	36	147-Sep2012	16.149271	-4.421574
B05NE	1	475-Sep2012	16.119554	-4.391217
B05NE	2	491-Sep2012	16.121496	-4.387497
B05NE	3	492-Sep2012	16.123411	-4.388519
B05NE	4	493-Sep2012	16.123471	-4.388444
B05NE	5	502-Sep2012	16.125283	-4.389483
B05NE	6	494-Sep2012	16.123307	-4.393274
B05NE	7	498-Sep2012	16.122419	-4.392802
B05NE	8	499-Sep2012	16.121751	-4.392387
B05NE	9	475-Sep2012	16.119554	-4.391217
B05NW	1	483-Sep2012	16.115667	-4.389137
B05NW	2	484-Sep2012	16.117580	-4.385371
B05NW	3	485-Sep2012	16.118060	-4.385652
B05NW	4	486-Sep2012	16.117573	-4.386613
B05NW	5	487-Sep2012	16.117604	-4.386666
B05NW	6	488-Sep2012	16.118123	-4.385691
B05NW	7	489-Sep2012	16.121403	-4.387368
B05NW	8	490-Sep2012	16.121414	-4.387428
B05NW	9	474-Sep2012	16.119531	-4.391145
B05NW	10	477-Sep2012	16.118600	-4.390588
B05NW	11	478-Sep2012	16.118482	-4.390752
B05NW	12	479-Sep2012	16.116032	-4.389443
B05NW	13	480-Sep2012	16.116053	-4.389352
B05NW	14	481-Sep2012	16.115929	-4.389258
B05NW	15	482-Sep2012	16.115859	-4.389278
B05NW	16	483-Sep2012	16.115667	-4.389137
B05SE	1	473-Sep2012	16.117514	-4.395205
B05SE	2	476-Sep2012	16.119508	-4.391386

Stand	Corner #	GPS name	Longitude	Latitude
B05SE	3	497-Sep2012	16.123271	-4.393333
B05SE	4	454-Sep2012	16.121315	-4.397151
B05SE	5	458-Sep2012	16.120722	-4.396881
B05SE	6	459-Sep2012	16.120728	-4.396655
B05SE	7	460-Sep2012	16.120455	-4.396475
B05SE	8	461-Sep2012	16.120751	-4.395870
B05SE	9	462-Sep2012	16.120416	-4.395632
B05SE	10	463-Sep2012	16.120412	-4.395530
B05SE	11	464-Sep2012	16.120313	-4.395555
B05SE	12	465-Sep2012	16.119914	-4.396307
B05SE	13	466-Sep2012	16.119822	-4.396342
B05SE	14	467-Sep2012	16.119714	-4.395957
B05SE	15	468-Sep2012	16.119421	-4.395649
B05SE	16	469-Sep2012	16.119455	-4.395486
B05SE	17	470-Sep2012	16.119283	-4.395394
B05SE	18	471-Sep2012	16.118941	-4.395864
B05SE	19	472-Sep2012	16.118746	-4.395841
B05SE	20	473-Sep2012	16.117514	-4.395205
B06NE	1	360-Sep2012	16.127461	-4.395376
B06NE	2	357-Sep2012	16.129417	-4.391738
B06NE	3	055-Sep2012	16.133333	-4.393590
B06NE	4	081-Sep2012	16.131353	-4.397399
B06NE	5	360-Sep2012	16.127461	-4.395376
B06NW	1	495-Sep2012	16.123506	-4.393367
B06NW	2	501-Sep2012	16.125350	-4.389717
B06NW	3	358-Sep2012	16.129334	-4.391685
B06NW	4	359-Sep2012	16.127399	-4.395361
B06NW	5	495-Sep2012	16.123506	-4.393367
B06SE	1	364-Sep2012	16.125428	-4.399315
B06SE	2	361-Sep2012	16.127430	-4.395454
B06SE	3	084-Sep2012	16.131321	-4.397503
B06SE	4	090-Sep2012	16.129285	-4.401350
B06SE	5	364-Sep2012	16.125428	-4.399315
B06SW	1	457-Sep2012	16.122046	-4.397538
B06SW	2	456-Sep2012	16.122153	-4.397225
B06SW	3	455-Sep2012	16.121804	-4.396741
B06SW	4	496-Sep2012	16.123491	-4.393443
B06SW	5	362-Sep2012	16.127361	-4.395398
B06SW	6	363-Sep2012	16.125327	-4.399272
B06SW	7	457-Sep2012	16.122046	-4.397538
B07NE	1	067-Sep2012	16.135415	-4.399651
B07NE	2	057-Sep2012	16.137407	-4.395713
B07NE	3	059-Sep2012	16.140940	-4.397576
B07NE	4	060-Sep2012	16.140888	-4.397679
B07NE	5	061-Sep2012	16.140931	-4.397733

Stand	Corner #	GPS name	Longitude	Latitude
B07NE	6	062-Sep2012	16.141033	-4.397634
B07NE	7	063-Sep2012	16.141240	-4.397736
B07NE	8	064-Sep2012	16.139319	-4.401536
B07NE	9	067-Sep2012	16.135415	-4.399651
B07NW	1	054-Sep2012	16.133539	-4.393673
B07NW	2	058-Sep2012	16.137304	-4.395657
B07NW	3	066-Sep2012	16.135341	-4.399548
B07NW	4	082-Sep2012	16.131494	-4.397622
B07NW	5	054-Sep2012	16.133539	-4.393673
B07SE	1	096-Sep2012	16.133325	-4.403662
B07SE	2	068-Sep2012	16.135401	-4.399706
B07SE	3	065-Sep2012	16.139282	-4.401651
B07SE	4	103-Sep2012	16.137257	-4.405634
B07SE	5	096-Sep2012	16.133325	-4.403662
B07SW	1	091-Sep2012	16.129453	-4.401621
B07SW	2	089-Sep2012	16.130174	-4.400142
B07SW	3	088-Sep2012	16.130481	-4.400078
B07SW	4	087-Sep2012	16.130492	-4.399896
B07SW	5	086-Sep2012	16.130544	-4.399813
B07SW	6	085-Sep2012	16.130496	-4.399548
B07SW	7	083-Sep2012	16.131463	-4.397701
B07SW	8	080-Sep2012	16.131952	-4.397962
B07SW	9	079-Sep2012	16.131777	-4.398384
B07SW	10	078-Sep2012	16.131635	-4.398477
B07SW	11	077-Sep2012	16.131712	-4.398538
B07SW	12	076-Sep2012	16.131587	-4.398741
B07SW	13	075-Sep2012	16.131605	-4.398778
B07SW	14	074-Sep2012	16.131689	-4.398739
B07SW	15	073-Sep2012	16.131804	-4.398879
B07SW	16	072-Sep2012	16.132188	-4.398058
B07SW	17	071-Sep2012	16.135143	-4.399560
B07SW	18	070-Sep2012	16.135142	-4.399673
B07SW	19	069-Sep2012	16.135273	-4.399656
B07SW	20	095-Sep2012	16.133277	-4.403638
B07SW	21	091-Sep2012	16.129453	-4.401621
C06NE	1	352-Sep2012	16.131431	-4.387245
C06NE	2	007-Sep2012	16.133338	-4.383612
C06NE	3	006-Sep2012	16.133974	-4.383945
C06NE	4	005-Sep2012	16.134119	-4.383736
C06NE	5	030-Sep2012	16.137512	-4.385541
C06NE	6	048-Sep2012	16.135505	-4.389450
C06NE	7	352-Sep2012	16.131431	-4.387245
C06NW	1	503-Sep2012	16.127517	-4.385167
C06NW	2	011-Sep2012	16.129331	-4.381582
C06NW	3	010-Sep2012	16.129419	-4.381559

Stand	Corner #	GPS name	Longitude	Latitude
C06NW	4	009-Sep2012	16.129691	-4.381648
C06NW	5	008-Sep2012	16.133204	-4.383545
C06NW	6	351-Sep2012	16.131346	-4.387188
C06NW	7	503-Sep2012	16.127517	-4.385167
C06SE	1	356-Sep2012	16.129347	-4.391281
C06SE	2	353-Sep2012	16.131406	-4.387303
C06SE	3	051-Sep2012	16.135512	-4.389519
C06SE	4	052-Sep2012	16.133462	-4.393423
C06SE	5	356-Sep2012	16.129347	-4.391281
C06SW	1	500-Sep2012	16.125650	-4.388900
C06SW	2	504-Sep2012	16.127517	-4.385217
C06SW	3	354-Sep2012	16.131351	-4.387292
C06SW	4	355-Sep2012	16.129282	-4.391188
C06SW	5	500-Sep2012	16.125650	-4.388900
C07NW	1	029-Sep2012	16.137688	-4.385610
C07NW	2	037-Sep2012	16.139517	-4.386613
C07NW	3	038-Sep2012	16.139604	-4.386726
C07NW	4	039-Sep2012	16.139545	-4.386918
C07NW	5	040-Sep2012	16.139760	-4.387060
C07NW	6	041-Sep2012	16.140365	-4.388653
C07NW	7	042-Sep2012	16.140279	-4.388805
C07NW	8	043-Sep2012	16.140545	-4.389000
C07NW	9	044-Sep2012	16.140314	-4.389518
C07NW	10	045-Sep2012	16.140467	-4.389567
C07NW	11	046-Sep2012	16.139421	-4.391545
C07NW	12	049-Sep2012	16.135650	-4.389516
C07NW	13	029-Sep2012	16.137688	-4.385610
C07SW	1	053-Sep2012	16.133630	-4.393447
C07SW	2	050-Sep2012	16.135634	-4.389581
C07SW	3	047-Sep2012	16.139387	-4.391607
C07SW	4	056-Sep2012	16.137404	-4.395544
C07SW	5	053-Sep2012	16.133630	-4.393447
D06SE	1	004-Sep2012	16.134196	-4.383545
D06SE	2	003-Sep2012	16.134371	-4.383118
D06SE	3	002-Sep2012	16.134202	-4.383019
D06SE	4	001-Sep2012	16.134178	-4.382935
D06SE	5	012-Sep2012	16.134462	-4.382464
D06SE	6	013-Sep2012	16.134666	-4.382590
D06SE	7	014-Sep2012	16.134714	-4.382451
D06SE	8	015-Sep2012	16.135093	-4.382406
D06SE	9	016-Sep2012	16.135260	-4.382511
D06SE	10	017-Sep2012	16.135311	-4.382395
D06SE	11	018-Sep2012	16.136040	-4.382319
D06SE	12	019-Sep2012	16.136475	-4.382544
D06SE	13	020-Sep2012	16.136680	-4.382292

Stand	Corner #	GPS name	Longitude	Latitude
D06SE	14	021-Sep2012	16.138070	-4.382186
D06SE	15	022-Sep2012	16.138642	-4.382508
D06SE	16	023-Sep2012	16.138555	-4.382899
D06SE	17	024-Sep2012	16.138797	-4.383046
D06SE	18	027-Sep2012	16.137587	-4.385359
D06SE	19	004-Sep2012	16.134196	-4.383545
D07SW	1	026-Sep2012	16.138825	-4.383516
D07SW	2	025-Sep2012	16.138766	-4.383486
D07SW	3	028-Sep2012	16.137754	-4.385448
D07SW	4	031-Sep2012	16.139186	-4.386200
D07SW	5	032-Sep2012	16.139311	-4.385943
D07SW	6	033-Sep2012	16.139142	-4.385831
D07SW	7	034-Sep2012	16.139265	-4.385580
D07SW	8	035-Sep2012	16.139092	-4.385469
D07SW	9	036-Sep2012	16.139170	-4.385233
D07SW	10	026-Sep2012	16.138825	-4.383516

Annex 3: Plots used for the pre-inventory

Stratum	Technique/stand	Species	Block	Sample plot	AGB+BGB (t d.m./ha)	AGB+BGB (t C/ha)
1	Agroforestry	Acacia auriculiformis	C6-NW	PLA1	46.88	23.44
1	Agroforestry	Acacia auriculiformis	C6-NW	PLA2	68.18	34.09
1	Agroforestry	Acacia auriculiformis	C6-NW	PLA3	53.45	26.73
1	Agroforestry	Acacia auriculiformis	C6-NW	PLA4	60.73	30.37
1	Agroforestry	Acacia auriculiformis	C6-NW	PLA5	102.50	51.25
1	Agroforestry	Acacia auriculiformis	C6-SE	PLA1	64.58	32.29
1	Agroforestry	Acacia auriculiformis	C6-SE	PLA2	54.20	27.10
1	Agroforestry	Acacia auriculiformis	C6-SE	PLA3	71.00	35.50
1	Agroforestry	Acacia auriculiformis	C6-SE	PLA4	64.28	32.14
1	Agroforestry	Acacia auriculiformis	C6-SE	PLA5	41.48	20.74
1	Agroforestry	Acacia auriculiformis	D6-SE	PLA1	75.57	37.78
1	Agroforestry	Acacia auriculiformis	D6-SE	PLA2	58.04	29.02
1	Agroforestry	Acacia auriculiformis	D6-SE	PLA3	85.02	42.51
1	Agroforestry	Acacia mangium	B6-SE	PLA1	80.36	40.18
1	Agroforestry	Acacia auriculiformis	B5-NE	PLA1	31.53	15.76
1	Agroforestry	Acacia auriculiformis	B5-NE	PLA2	43.83	21.91
1	Agroforestry	Acacia auriculiformis	B5-NE	PLA3	39.04	19.52
1	Agroforestry	Acacia auriculiformis	B5-NE	PLA4	59.18	29.59
1	Agroforestry	Acacia auriculiformis	B5-NE	PLA5	46.97	23.49
1	Agroforestry	Acacia mangium	A5-SW	PLA1	58.15	29.07
1	Agroforestry	Acacia mangium	A5-SW	PLA2	70.81	35.41
1	Agroforestry	Acacia mangium	A5-SW	PLA3	95.19	47.59
1	Agroforestry	Acacia mangium	A5-SW	PLA4	66.51	33.26
1	Agroforestry	Acacia mangium	A5-SW	PLA5	75.38	37.69
1	Agroforestry	Acacia auriculiformis	A3-SW	PLA1	45.12	22.56
1	Agroforestry	Acacia auriculiformis	A3-SW	PLA2	65.77	32.89
1	Agroforestry	Acacia auriculiformis	A3-SW	PLA3	44.37	22.19
1	Agroforestry	Acacia auriculiformis	A3-SW	PLA4	48.23	24.11
1	Agroforestry	Acacia auriculiformis	A4-SW	PLA1	53.49	26.75
1	Agroforestry	Acacia auriculiformis	A4-SW	PLA2	52.33	26.17
1	Agroforestry	Acacia auriculiformis	A4-SW	PLA3	50.38	25.19
1	Agroforestry	Acacia auriculiformis	A4-SW	PLA4	51.89	25.95
1	Agroforestry	Acacia auriculiformis	A4-SW	PLA5	50.97	25.48
1	Agroforestry	Acacia auriculiformis	B5-NW	PLA1	49.91	24.95
1	Agroforestry	Acacia auriculiformis	B5-NW	PLA2	51.77	25.89
1	Agroforestry	Acacia auriculiformis	B5-NW	PLA3	49.71	24.85
1	Agroforestry	Acacia auriculiformis	B5-NW	PLA4	53.65	26.83
1	Agroforestry	Acacia auriculiformis	C6-SW	PLA1	56.67	28.33
1	Agroforestry	Acacia auriculiformis	C6-SW	PLA2	80.15	40.07
1	Agroforestry	Acacia auriculiformis	C6-SW	PLA3	42.31	21.16
1	Agroforestry	Acacia auriculiformis	C6-SW	PLA4	30.71	15.35
1	Agroforestry	Acacia auriculiformis	C6-SW	PLA5	61.06	30.53
1	Agroforestry	Acacia auriculiformis	D7-SE	PLA1	73.19	36.60
1	Agroforestry	Acacia auriculiformis	A3-SE	PLA1	43.56	21.78

1	Agroforestry	Acacia auriculiformis	A3-SE	PLA2	59.92	29.96
1	Agroforestry	Acacia auriculiformis	A3-SE	PLA3	67.50	33.75
1	Agroforestry	Acacia auriculiformis	A3-SE	PLA4	68.02	34.01
1	Agroforestry	Acacia auriculiformis	A3-SE	PLA5	224.90	112.45
1	Agroforestry	Acacia auriculiformis	B5-SE	PLA1	61.12	30.56
1	Agroforestry	Acacia auriculiformis	B5-SE	PLA2	47.53	23.77
1	Agroforestry	Acacia auriculiformis	B5-SE	PLA3	51.43	25.72
1	Agroforestry	Acacia auriculiformis	B5-SE	PLA4	50.45	25.22
1	Agroforestry	Acacia mangium	A5-NE	PLA1	65.77	32.89
1	Agroforestry	Acacia mangium	A5-NE	PLA2	47.18	23.59
1	Agroforestry	Acacia auriculiformis	A6-SW	PLA1	54.63	27.32
1	Agroforestry	Acacia auriculiformis	A6-SW	PLA2	42.69	21.35
1	Agroforestry	Acacia auriculiformis	A6-SW	PLA3	55.65	27.82
1	Agroforestry	Acacia auriculiformis	A6-SW	PLA4	46.63	23.32
1	Agroforestry	Acacia auriculiformis	A6-SW	PLA5	59.14	29.57
1	Agroforestry	Acacia auriculiformis	B7-SW	PLA1	67.76	33.88
1	Agroforestry	Acacia auriculiformis	C6-NE	PLA1	82.19	41.10
1	Agroforestry	Acacia auriculiformis	B6-NW	PLA1	123.04	61.52
1	Agroforestry	Acacia auriculiformis	C7-SW	PLA1	74.12	37.06
1	Agroforestry	Acacia auriculiformis	A7-NW	PLA1	54.09	27.05
1	Agroforestry	Acacia auriculiformis	C7-NW	PLA1	74.12	37.06
1	Agroforestry	Acacia auriculiformis	B7-NW	PLA1	73.78	36.89
1	Agroforestry	Acacia auriculiformis	A7-SW	PLA1	93.38	46.69
2	Agroforestry	Eucalyptus sp.	A6-SE	PLA1	38.55	19.27
2	Agroforestry	Eucalyptus sp.	A6-SE	PLA2	36.38	18.19
2	Agroforestry	Eucalyptus sp.	A6-SE	PLA3	27.49	13.75
2	Agroforestry	Eucalyptus sp.	A6-SE	PLA4	66.02	33.01
3	Agroforestry	Pinus sp.	A4-SE	PLA1	134.80	67.40
3	Agroforestry	Pinus sp.	A4-SE	PLA2	25.75	12.87
3	Agroforestry	Pinus sp.	A4-SE	PLA3	158.72	79.36
3	Agroforestry	Pinus sp.	A4-SE	PLA4	77.88	38.94
3	Agroforestry	Pinus sp.	A5-SE	PLA1	86.98	43.49
3	Agroforestry	Pinus sp.	A5-SE	PLA2	113,83	56.91
3	Agroforestry	Pinus sp.	A5-SE	PLA3	146.41	73.20
3	Agroforestry	Pinus sp.	A5-SE	PLA4	139,.5	69.53