



**GROUPED PROJECT
PROTECTION OF A TASMANIAN
NATIVE FOREST**

JULY 2011

**REDD FORESTS' MONITORING REPORT
FOR VERIFICATION UNDER THE
VERIFIED CARBON STANDARD**

VERSION 1.7

General Information

The project activity instance is designed to protect 14,069.28 hectares of native Tasmanian forest which would, if not for the project, continue to undergo selective logging or be clear-felled and converted to pasture.

The Grouped Project is located in the Tasmania, Australia. This monitoring report is intended to verify the first three project activity instances, covering 14,069.28 ha of native Eucalyptus forest. All of the properties have a history of selective logging under Forest Practices Plans issued by the Forest Practices Authority of Tasmania. With no change in regulation since those harvests, the re-growth remains available for logging. A combination of selective logging and clearance and conversion to plantation or pasture is planned in the absence of finance from any carbon trade scheme.

The landowners are the project proponents.

Instance: Addition 1 – Connorville
Contact person: Roderic O'Connor
Title: Landowner
Address: 3943 Connorville Rd, Cressy, Tasmania, 7302
Telephone number: +61 (3) 6397 8291
Email: raoc@bigpond.com

Instance: Addition 2 – Charlton
Contact person(s): Eustace Allan Cameron and John Cameron
Title: Landowner
Address: 398 Mona Vale Road, Ross, Tasmania, 7209
Telephone number: +61 (3) 6381 5260
Email: monavaleestate@bigpond.com

Instance: Addition 3 – Beaufront
Contact person(s): Julian Edward Kenneth Von Bibra
Title: Landowner
Address: 395 Tooms Lake Road, Ross, Tasmania, 7209
Telephone number: +61 (3) 6381 5336
Email: beaufront@bigpond.com

Redd Forests Pty Ltd is acting as implementing partner on behalf of the project proponents, and is responsible for the development, validation and first verification of the Grouped Project. Redd Forests is a leading forestry carbon project developer in Australia.

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Contents

General Information.....	2
Contents	3
Monitoring Plan	4
Monitoring Period.....	5
Monitoring Activities.....	5
<i>Project area</i>	6
<i>Carbon stock</i>	6
<i>Natural disturbance</i>	7
<i>Illegal logging</i>	8
<i>Leakage:</i>	9
<i>Uncertainty</i>	11
Site visit and assessment.....	11
Ex post estimation of GHG emissions and removals.....	12
Appendix 1: Satellite images used to assess deforestation during the monitoring period	14
Appendix 2. Iso Cluster unsupervised classification of satellite images was used to assess deforestation during the monitoring period.....	16

Monitoring Plan

This Monitoring Report presents the findings of the first monitoring period for Redd Forests' Grouped Project: Protection of Tasmanian Native Forest (Additions 1–3). The project proponents and the implementing partner, Redd Forests, have undertaken site monitoring in accordance with the requirements of the Voluntary Carbon Standard and the validated Monitoring Plan

Site monitoring was completed in order to examine trends and changes in:

- Project area;
- Carbon stock;
- Illegal logging rates;
- Natural disturbance; and
- Leakage.

Under these headings, the following parameters are addressed as required in the methodology:

1. Illegal logging PRA;
2. Result of limited illegal logging survey;
3. Area potentially impacted by illegal logging in stratum i ($ADIST_IL, i$);
4. Total area of illegal logging sample plots in stratum i (APi);
5. Area burnt in stratum i at time t ($Aburn,i,t$);
6. Merchantable biomass as a proportion of total above-ground tree biomass for stratum i ($PMPi$);
7. Area covered by stratum i (Ai); and
8. Diameter at breast height of tree (DBH).

This project is located in Tasmania, Australia. The properties are uniquely identified with the PIDs listed in Table No. 01.

Table No. 01. Properties with forested areas owned by the project proponent.

Unique instance identification number:	Name of property	Name of owner	PID	Total Hectares
Addition 1	Connorville Estates	Connorville Estates Pty Ltd	2680134	2624
Addition 1	Connorville Estates	Connorville Estates Pty Ltd	67543046	129.74
Addition 1	The Little Run	Roderic Alan O'Connor	6751497	580.4
Addition 1	Connorville Estates	Roderic Alan O'Connor	6208670	212.1
Addition 1	Connorville Estates	Connorville Estates Pty Ltd	6753038	441.7
Addition 1	Connorville Estates	Connorville Station Pty Ltd	6751470	3200
Addition 1	Connorville Estates	Connorville Estates Pty Ltd	6752991	608.6
Addition 1	Connorville Estates	Connorville Estates Pty Ltd	6751489	3579
Addition 1	Connorville Estates	Connorville Estates Pty Ltd	2618138	4647
Addition 1	Connorville Estates	Connorville Estates Pty Ltd	6208881	395.6
Addition 2	Charlton	Eustace Allan Cameron Family Trust	7951124	9927.40

Addition 2	Racecourse	Eustace Allan Cameron Family Trust	6833222	2084
Addition 3	Beaufront	Kenneth D. & Julian E. K. Von Bibra	7951095	2518
Addition 3	Syndal	Jepka Nominees	7951108	2782
Addition 3	Gillices	Jepka Nominees	6831497	1633
Addition 3	Copper Alley	Jepka Nominees	7951220	1770
Addition 3	Red Hills	Julian E.K. Von Bibra	7951247	1170.7

Of the properties listed in Table No. 01, the forested areas which are available for logging and are therefore subject to Improved Forest Management activities are included in the project. This covers 3,249.65 ha on Addition 1, 5,871.29 ha on Addition 2 and 4,594.31 ha on Addition 3, i.e. a total of 13,715.25ha.

The instance boundaries are defined by KML and SHP files. The remaining areas consist of grazing areas, streamside buffers, conservation covenants and other land uses. All the land is under the ownership and management of the project proponents.

Monitoring Period

This document is intended to enable the verification of the project by an external party from the start date of each individual project activity instance to the period 30 June 2011. The duration of the monitoring event for each instance is specified in Table No. 02.

The Monitoring Plan prescribes annual monitoring events for instances in the Grouped Project. For this particular monitoring report, the monitoring period for the instances has exceeded a year. This deviation from the Monitoring Plan was required because of the lengthy establishment and validation process: future monitoring events will conform to the temporal specifications in the Monitoring Plan.

Table No. 02. Duration of the monitoring period for each project activity instance.

Unique instance identification number:	Start date	Duration of monitoring period
Addition 1	1 April 2010	1 year 3 months
Addition 2	1 May 2010	1 year 2 months
Addition 3	1 June 2010	1 year 1 month

This monitoring report will be based on the original fieldwork, a site visit, a comparison of satellite imagery and extrapolation of sequestration trends from FullCAM. Monitoring of the carbon stocks through fieldwork must be completed by the end of 2015, and thereafter at five year intervals until the project's conclusion on 31 March 2034.

Monitoring Activities

Project area

Task Number	Activity description	Indicator	Frequency
1	Determination of uncertainty in the project activity instance area. Calculated by assessing forested area in satellite images.	Change in instance area	Every year (if possible)

On 6 May 2011, the Redd Forests' Technical Consultant overlaid the original KML files outlining the forested area in the project on new satellite images. These were 10m, multispectral images obtained from SPOT and acquired midmorning local time: 29-Nov-2010, 00:06:09 UTC (see Appendix 1). This image provided a predominantly cloud-free view of the project activity instance. The original and recent images were examined and contrasted at a zoom level of 1:10 000 to confirm that there has been no change in the boundaries of the forested area.

The only recent satellite images of Addition 2 and Addition 3 date from August 2010, and were used in the initial stratification of the forested area. Therefore, Redd Forests was not able to use remote sensing data to evaluate changes to the aboveground biomass. Instead, the Redd Forests' Project Manager conducted a site visit to each instance on 14 July 2011 (Additions 2 and 3) to confirm that there has been no deforestation since the start dates.

Track logs of the site visits are available for review by the validator.

Carbon stock

Task Number	Activity description	Indicator	Frequency
2	Determination of uncertainty in the forest inventory. Calculated using the Winrock sampling calculator.	Sampling error	Every 5 years
3	Determination of carbon stock in aboveground trees per unit area per stratum. Calculated from plot data.	Carbon stock	Every 5 years
4	Determination of carbon stock change in aboveground trees. Extrapolated from FullCAM modelling and past plot data.	Carbon stock change	Annually
5	Determination of carbon stock change in aboveground trees. Calculated from plot data.	Carbon stock change	Every 5 years
6	Determination of uncertainty in carbon sequestration projections.	Difference (as a percentage) between FullCAM projections and field measurements	Every 5 years

A carbon stock review, based on a forest inventory, will not be conducted until the monitoring events including fieldwork in 2015, as detailed in the monitoring plan and PDD. Current projections of the carbon stock are based on the original field data (i.e. the parameters 'diameter at breast height of tree' and 'merchantable biomass as a proportion of total aboveground tree biomass', collected and calculated during the original fieldwork) and FullCAM projections for one year of growth. This extrapolation of trends between monitoring periods is consistent with the endorsed monitoring plan and GreenCollar IFM Methodology. At this point in the project's

lifetime, therefore, there is no difference between projected and actual emission reductions.

The original field data results, PLO files generated using FullCAM and the calculations of VCU are available for review by the validator.

Natural disturbance

Task Number	Activity description	Indicator	Frequency
7	Site visit to assess natural disturbances and illegal logging	Deforestation in hectares	Annually
8	Determination of carbon stock change in the carbon pools by natural disturbances and illegal logging	Carbon stock change.	Annually (if required)

The project proponents for each instance live on the property, and regularly visit the forested area included within the Redd Forests' Grouped Project. Fire (specifically the parameter 'area burnt in stratum i at time t '), pests and disease are therefore monitored through ongoing surveillance. The project proponents indicated that there has been no fire or natural disturbance since the instances' respective start dates.

On 6 May 2011, the Redd Forests' Technical Consultant compared the original satellite image of the project site (cloud free summer images acquired midmorning local time: 10-Jan-2010, 23:56:34 UTC) to the more recent images obtained from SPOT (acquired mid-morning local time: 29-Nov-2010, 00:06:09 UTC). The SPOT images from both timeframes were analysed for vegetation coverage with an [ISOCCLASS] unsupervised classification into 30 classes. The classification was based on a composite image formed from all four SPOT bands plus the digital elevation model (DEM), topographic aspect and topographic slope. The topography was included to counteract differentiation due to, for example, sun angle, while still allowing topographic effects on biomass or vegetation type to be differentiated through the SPOT radiances. Of the thirty classes, trees were typically in classes < 9 , bare soil in classes > 25 and grass cover between these two. Classes greater than nine were therefore removed from the data array for clarity. These images were examined and contrasted at a zoom level of 1:10 000 to confirm that there has been no perceptible deforestation during the monitoring period (see Appendix 2).

A recent, cloud-free image of the northern area of Addition 1 was unavailable. The areas of land obscured by cloud were identified and translated into KML files. The Redd Forests' Project Manager conducted a site visit on 19 May 2011 to confirm no change in forested area through disturbance.

As there were no recent satellite images available for Addition 2 and 3, the absence of fire was confirmed by the site visits by the Redd Forests' Project Manager on 14 July 2011 (Additions 2 and 3). Advice from the Tasmanian Fire Service provided further evidence of the absence of fires. There was therefore no need to further calculate deforestation and associated carbon stock changes from natural disturbance.

The track logs from all site visits are available for review by the validator.

The Redd Forests' Project Manager confirmed with each landowner that their fire plans, outlined in the project file, were maintained and updated for the upcoming year. This was completed on 19 May 2011 for Addition 1 (during the site visit), on 3 June 2011 for Addition 2 and on 14 July 2011 for Addition 3 (during the site visit).

Illegal logging

Task Number	Activity description	Indicator	Frequency
9	Participatory Rural Appraisal.	Risk of illegal logging	Every 2 years.

The threat to the project area from illegal logging is negligible within Tasmania, while the threat to native forests from legally permitted logging is significant.

This was confirmed by the completion of a Preliminary Rural Appraisal. Between 16 and 26 November 2010, key stakeholders in the timber industry were contacted (see the results in Table No. 03) and absolutely ruled out any risk of illegal logging. According to the Monitoring Plan, there is no further need for additional PRAs at future monitoring events.

Table No. 03. Key stakeholders' response to the question: *Is there potential for illegal extraction of trees from the project area?*

Name of participant:	Name of organisation:	Date:	Means of communication:	Response:
Mark Cornelius	Landowner TOG representative	24 – 11 – 2010	Face to face	None whatsoever – there is no illegal logging in Tasmania.
Peter Downie	Landowner Former Chairman of Private Forests Tasmania	20 – 06 – 2011	Telephone	No illegal logging in Tasmania
Lyell Dean	Certified Forest Practices Officer, under the Forest Practices Authority	20 – 06 – 2011	Telephone	No illegal logging in Tasmania
Bric Milligan	Forestry Tasmania	16 – 11 – 2010	Face to face	No illegal logging ever recorded
Andrew Morgan	Director, SFM	26 – 11 – 2010	Telephone	Unheard of in Tasmania – no potential

Site visits through the Grouped Project area with the landowners were completed on 19 May 2011 (Addition 1) and on 14 July 2011 (Additions 2 and 3). These showed no evidence of any timber extraction. Therefore, there was no need to determine an area potentially impacted by illegal logging or conduct any sample plots to quantify the figures. There will be no future monitoring of illegal logging parameters beyond comparison of satellite images to ensure that the forested area in the project remain intact.

Leakage:

For this project, leakage is not a significant risk. This is based on an assessment of both activity shifting and market leakage, in accordance with Step 5 of the methodology.

Activity Shifting:

The proponents do not hold any other forested properties in Australia that are threatened by logging, and therefore there is no opportunity for leakage through activity shifting.

Market Leakage:

Task Number	Activity description	Indicator	Frequency
10	Comparison of the annual extracted volume to the long-term average volume of extracted timber from private native forests in Tasmania.	Market leakage factor.	Annually

Using the annual report from the Tasmanian Forest Practices Authority, figures on extraction rates and harvesting methods can be attained and compared annually. Figure No. 01 shows a steady decline in extraction rates from native forests across Tasmania (i.e. excluding the first two treatments).

Figure No. 01. Forest area under different harvesting regimes (2000 – 2010)¹.

¹ Forest Practices Authority (2001-2010) Annual Reports <www.fpa.tas.gov.au> [accessed 11/3/2011]

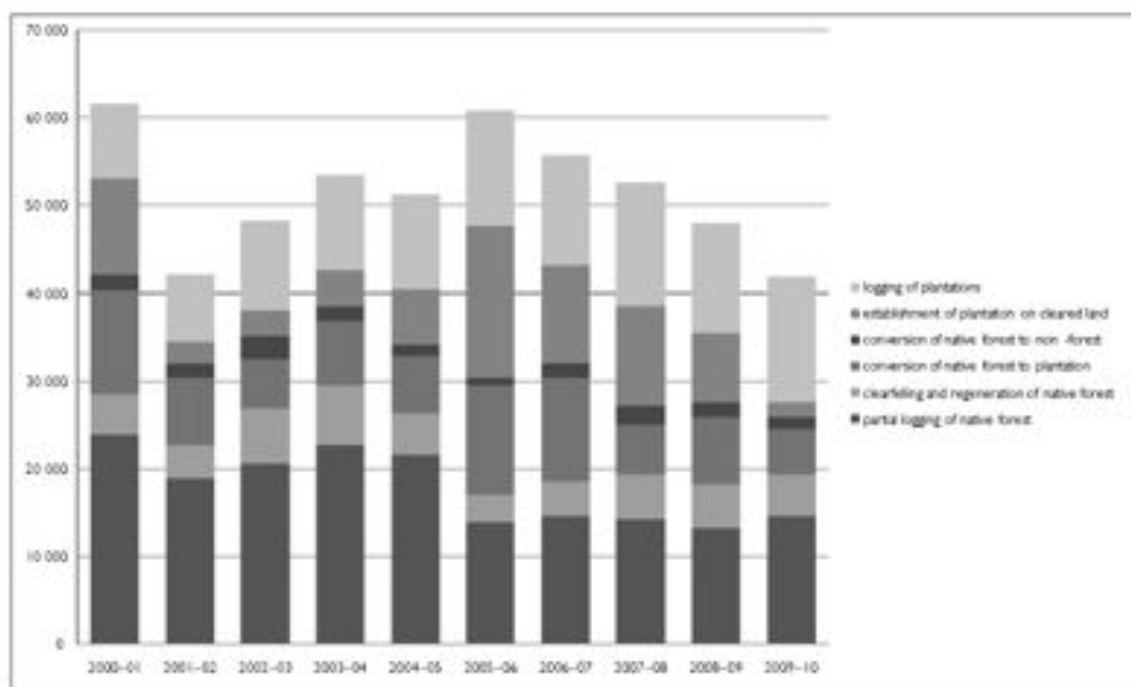


Figure 1.3.1 Area of forest (hectares) by various treatments from 2000-2010

Data from Private Forests Tasmania further confirms that there is a downward trend in harvested volumes from native forests on private land in Tasmania over recent years. This is the most likely area for market leakage from the project to occur, due to the quota-based harvesting on public land and the sawlog-oriented harvesting on the mainland (see PDD for more details). Figures No. 02 and 03 demonstrate and quantify the declining timber volume extracted from private native forests in Tasmania.

Using the data from the Tasmanian Forest Practices Authority, the average area of native forest subjected to 'partial logging' on private land was 9840 hectares per annum between 2000 and 2009.

Figure No. 02. The volume of native hardwood extracted per year declined by an average of 8% between 2000 and 2009 (logging on public land was disrupted by a six month moratorium imposed in 2010).²

Native Hardwood	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10
			No fuel wood	No fuel wood	No fuel wood	No fuel wood	No fuel wood	No fuel wood	No fuel wood	No fuel wood
Hardwood Sawlog, Veneer & Ply	125,923	140,972	100,970	119,551	96,816	69,837	48,765	51,980	39,435	52,343
Hardwood Pulpwood	1,912,616	1,669,348	1,792,636	1,668,762	1,628,739	944,096	955,879	1,134,116	891,641	260,343
Minor Log Products, including Fuelwood	14,550	2,551	591	814	446	5,412	470	416	912	2,420
Total	2,053,089	1,812,871	1,894,197	1,789,127	1,726,001	1,019,345	1,005,114	1,186,514	931,512	315,107

Using data from Private Forests Tasmania (Figure No. 02), the average harvest volume for native hardwood (including sawlog, veneer, ply, pulp wood and ‘minor log products’) on private land was calculated by adding the harvest volumes from Figure No. 02 and dividing this by the number of years. The average extraction rate over the 10-year period was 1,373,233 tonnes per annum, extracted from an average area of 9,840 ha.

Using the same data the harvest volume for the year 2009-2010 shows the total volume of extracted timber as 315,107 tonnes. This reflects a 77% decline from the average volume of 1, 373, 233t per annum for the last ten years. This volume of timber was extracted from an area 6 865ha, i.e. a 30% decline from the average harvested area of 9840 ha over the previous decade.

These figures demonstrate that there has been no shift in timber harvesting due to market leakage, and a leakage factor of zero was still considered appropriate.

This dramatic decline is in part a product of a moratorium on logging imposed on public forests, the temporary closure of the Triabunna woodchip mill (prior to its recent sale) and a growing interest in carbon-financed alternatives to logging from private landowners.

Uncertainty

Estimates of uncertainty have not changed during the first monitoring period.

The main source of uncertainty in the baseline scenario derives from uncertainty surrounding projected harvest levels. These vary between the project activity instances, according to the landowners’ understanding of forest management and capacity to develop a plausible baseline scenario. The main source of uncertainty in the project scenario derives from sampling error in measuring carbon stocks. This uncertainty is still based upon the original fieldwork, with the variance calculated by using the Winrock Sampling Calculator.

The total uncertainty for the project has not changed during this monitoring period, remaining within the permitted 15% parameters (within a 95% confidence interval) for all instances.

Site visit and assessment

Jarrah Vercoe, who holds the position of Project Manager with Redd Forests, has completed the following monitoring tasks on behalf of the project proponent:

Task:	Status:
The KML/KMZ files outlining the forested area were imposed on a recent satellite image and compared to the original files to ensure that forest boundaries and aboveground biomass have been maintained (subject to availability of a suitable image)	

OR The forest was surveyed from existing roads and access tracks to detect any natural disturbance in the forested area	Yes (19/05/2011 for Addition 1 and 14/07/2011 for Additions 2 and 3)
If natural disturbance was detected, the calculations were adjusted accordingly (Equations 17, 19, 20).	N/A
A forest inventory was developed to assess changes in carbon stocks within a 90% confidence interval (every five years). Any changes and uncertainty were incorporated in the calculations (Equation 1, 3, 4, 25 and 26).	N/A
Uncertainty estimates were revised based on fieldwork data (Equations 25-26).	N/A
The fire plan was checked and updated	Yes (19/05/2011 for Addition 1, 03/06/2011 for Addition 2 and 14/07/2011 for Addition 3).
Market leakage was assessed by comparing timber extraction rates from private native forests over time.	Yes (17/06/2011)

Ex post estimation of GHG emissions and removals

The project proponents are seeking to have GHG emissions and reductions verified for the period identified in Table No. 02, i.e. from the start date of each individual instance to 30 June 2011.

The avoided emissions and corresponding Verified Carbon Units from the Redd Forests' Grouped Project are detailed in Table No. 04.

Table No. 04. GHG emission reductions and VCU's for the Grouped Project.

Unique instance identification number:	Carbon emissions avoided by the establishment of an Improved Forest Management project (tCO₂-e):	Voluntary carbon units generated once uncertainty and the VCS buffer have been considered (VCUs):
Addition 1 – Connorville	31,531	26,801
Addition 2 – Charlton	44,267	37,627
Addition 3 – Beaufront	36,864	31,334

The Monitoring Report, related site visits and desktop assessments have been undertaken in accordance with the endorsed Monitoring Plan for the project area.

Signed: _____

Dated: _____

Name: Jarrah Vercoe

Position: Project Manager, Redd Forests

Signed: _____

Dated: _____

Name: Roderic O'Connor

Position: Project Proponent, Addition 1

Signed: _____

Dated: _____

Name: John Cameron

Position: Project Proponent, Addition 2

Signed: _____

Dated: _____

Name: Julian Von Bibra

Position: Project Proponent, Addition 3

Appendix 1: Satellite images used to assess deforestation during the monitoring period

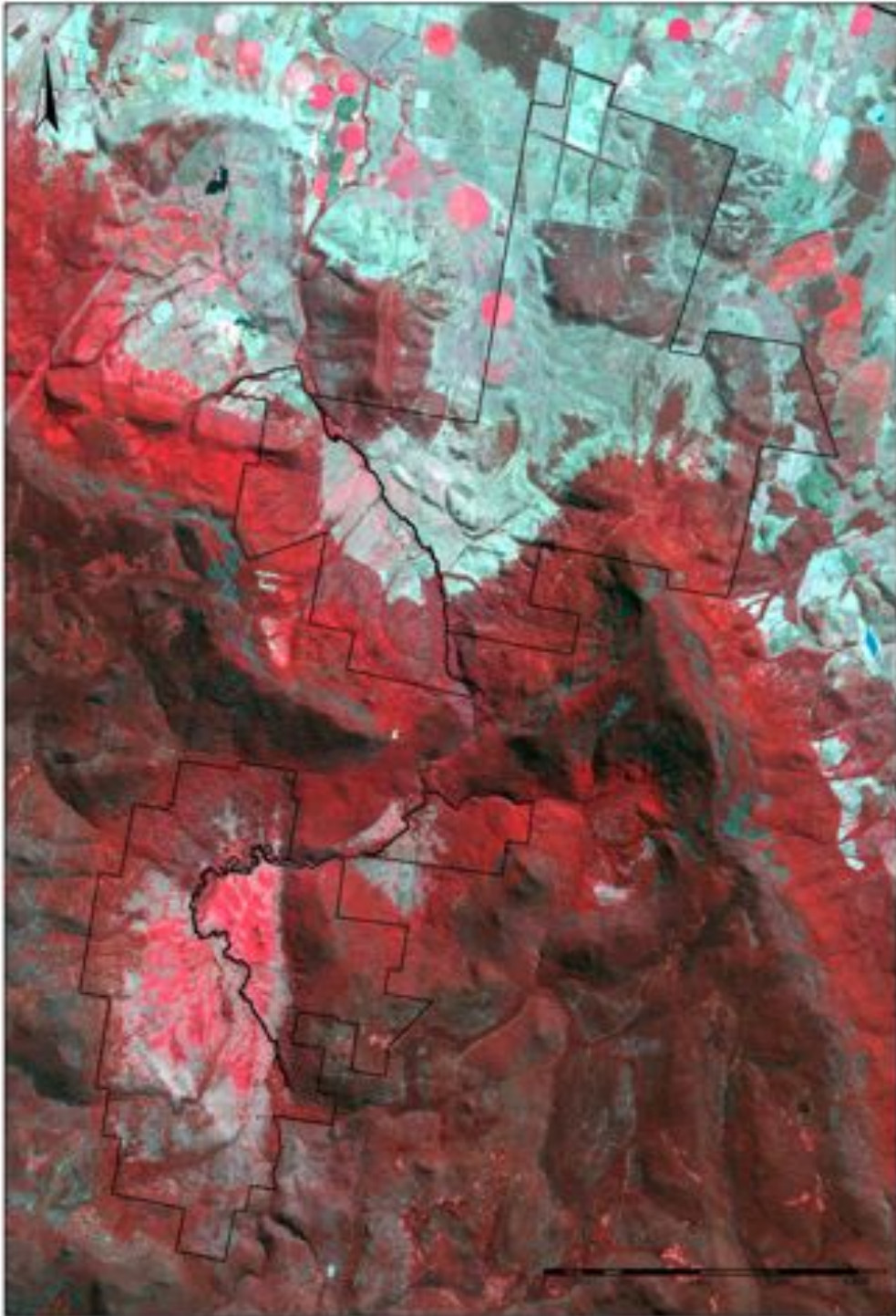
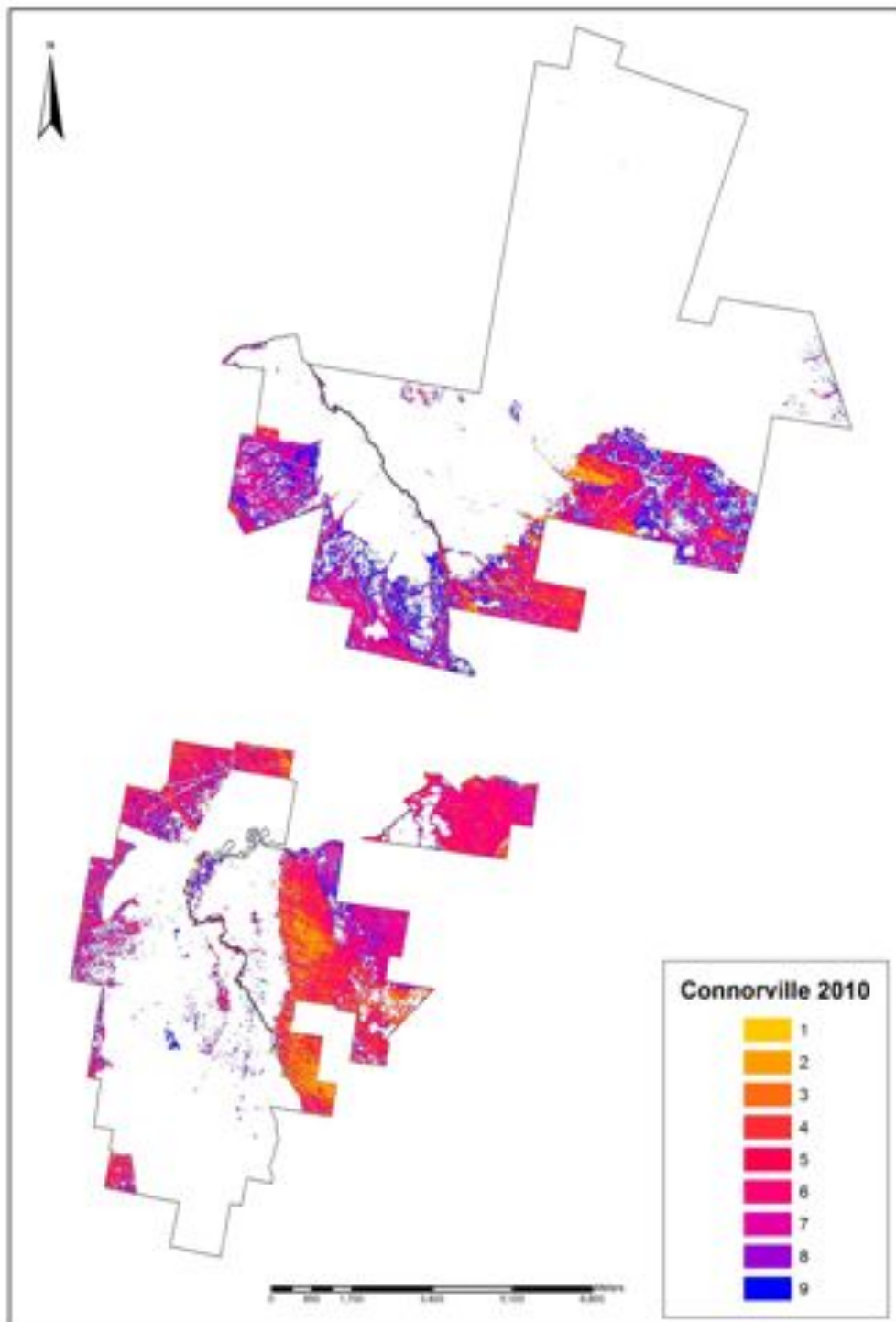




Figure No. 03. Satellite images taken on 10 January 2010 (above) and 29 November 2010 (below) confirming that there has been no change in the boundaries of the forested area.

Appendix 2. Iso Cluster unsupervised classification of satellite images was used to assess deforestation during the monitoring period



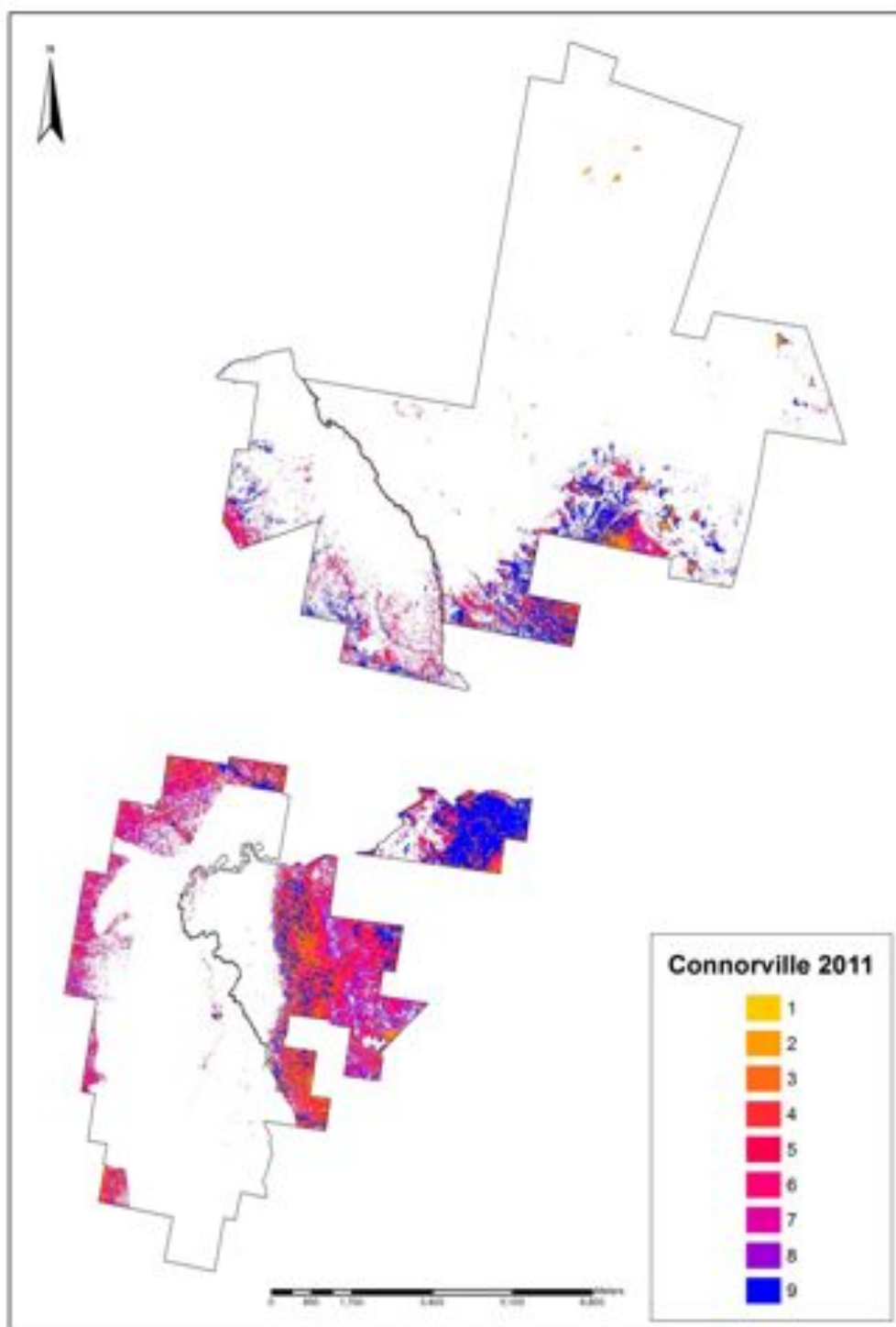


Figure No. 04. Satellite images taken on 10 January 2010 (above) and 29 November 2010 (below) were compared using vegetation classification systems, confirming that there has been no deforestation since the project's start date.