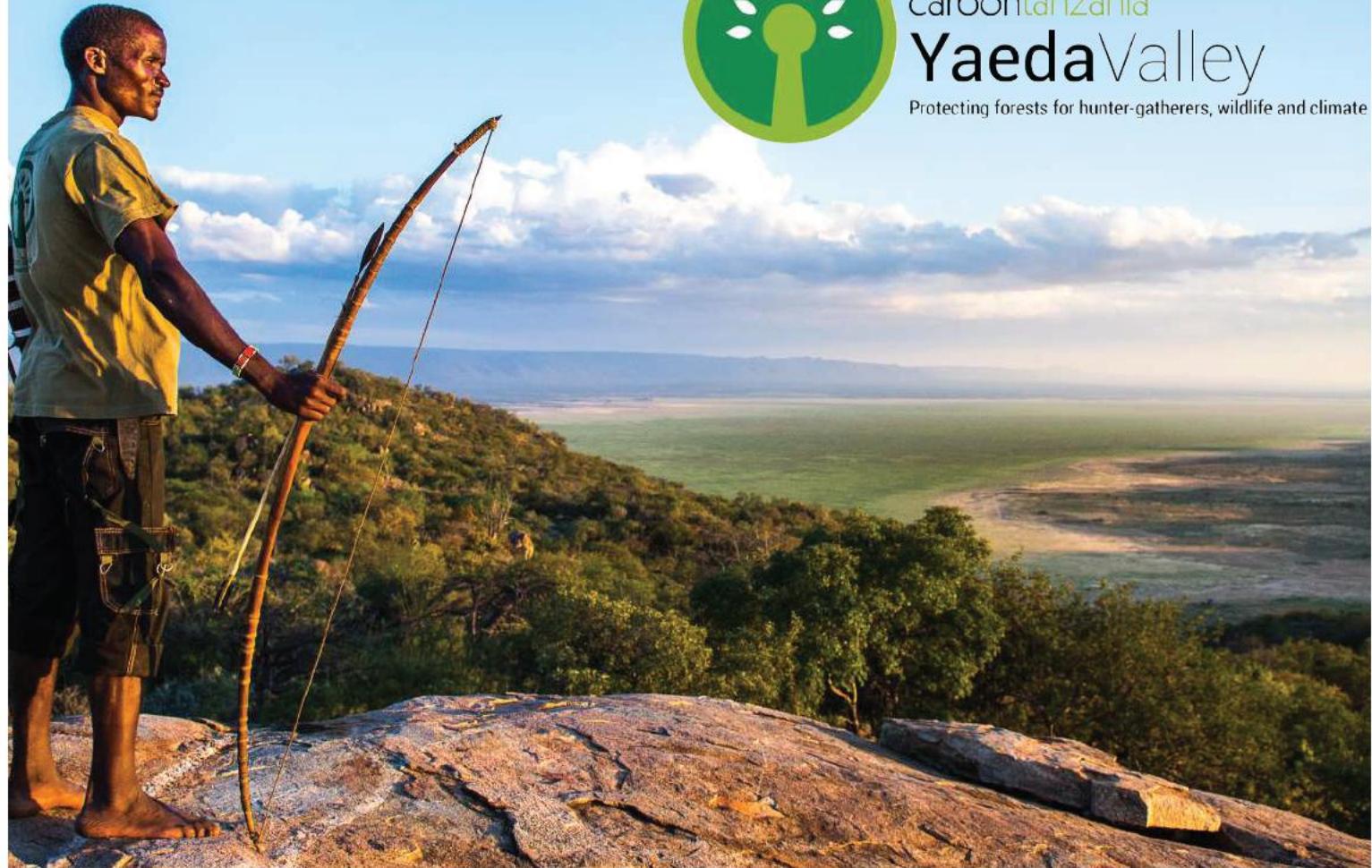




carbon**tanzania**

Yaeda Valley

Protecting forests for hunter-gatherers, wildlife and climate



Annual Report

01 FEB 2017 – 31 JAN 2018

Reducing Emissions from Deforestation and Forest Degradation in the Yaeda Valley, Northern Tanzania

Marc Baker
Coordinator, Carbon Tanzania
29th June 2018

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Our Vision and Theory of Change

Carbon Tanzania's vision is that forest communities value their environment because of the direct and global benefits they derive from it. The global community invests in intact tropical ecosystems that are a cornerstone of global ecological health.

Who We Are

Carbon Tanzania is an innovative conservation organisation, registered as a Tanzanian not-for-profit company based in Arusha, northern Tanzania. Founded by three dedicated conservation biologists, *Njano Mbilinyi, Marc Baker and St. John Anderson*, Carbon Tanzania's primary business focus is to provide unique skills, knowledge and experience-based services and interventions that lead to the production and delivery to market of forest-based carbon offsets. These offsets are generated through the actions of local Tanzanian communities conserving and managing their indigenous trees and forests.

Central to Carbon Tanzania's innovative conservation approach is a fundamental respect for local community land rights; this approach generates significant and sustained local economic benefits that incentivize and enable communities to conserve their immediate environment on which their way of life depends. It simultaneously contributes to preserving their traditional way of life and affords local communities increased options for how they manage their land.

Carbon Tanzania is a market leader in providing forest-based offsets to the Tanzanian tourism sector, as well as supplying an increasing number of offsets to the global voluntary carbon market. It provides a unique, tailored service to its clients including product support, institutional education and corporate social responsibility advice.

Our Track Record

Carbon Tanzania has proven its concept over the last 7 years through successfully developing its flagship community project in the Yaeda Valley in northern Tanzania. This avoided deforestation project focuses on an area of 20,790 hectares of dryland forest owned by the Hadzabe people. This project is now in its sixth year of generating internationally verified ex-post forest carbon offsets represented by 16,011 PVC (tCO₂e) per year in avoided emissions. In 2014 Carbon Tanzania expanded this project into the neighbouring village of Yaeda Chini to add a further 13,283 hectares, 4,600 PVC (tCO₂e) of dryland forest. The entire project area is now incorporated into a single Yaeda Valley REDD+ project covering 34,073 hectares. To date Carbon Tanzania has succeeded in selling the community-generated offsets at above average market price to both local and international buyers. This has resulted in approximately US\$215,000 being channelled to communities in the area in the first five years of the project, with annual income to communities from this single project set to exceed US\$70,000 going forward. Validated and Verified through the Plan Vivo Standard, this project is particularly noteworthy in that it is reinforcing the land and natural resource rights of two minority groups, the Hadzabe people, a unique hunter-gatherer community that has lived in the Yaeda Valley for some 40,000 years and the Barabaig, a semi-nomadic pastoralist tribe who utilise the Yaeda Valley grasslands.

Our Theory of Change

We view our role as linking global environmental concerns with local economic and livelihood needs. It is now widely accepted that we need to better manage the impact of greenhouse gas emissions on the global ecosystem in order to maintain and promote a healthy environment for human populations. Equally, rural communities in developing nations face daily challenges around managing their immediate environment that have wider consequences in the global context. Growing awareness of the critical role of tropical terrestrial ecosystems in regulating global climate systems means that there is a self-serving interest for actors in more developed countries (particularly in North America and Europe) to invest in the conservation of forest habitats in the tropics, predominantly located in

developing nations. Local communities often keenly appreciate the benefits that they can derive from their natural resources, but these benefits are often intangible, non-fungible and are realised over the long-term. Immediate economic needs can lead communities to accept short-term economic benefits that are too often realised through resource exploitation or donor funded initiatives, neither of which guarantees long-term sustainable returns or safeguards for tradition livelihoods.

Carbon Tanzania seeks to combine elements of conventional integrated conservation and development projects (ICDP) with a “payments for ecosystem services” (PES) approach. In some quarters, REDD+ has been conceived more narrowly as simply a system of conditional performance-based payments (PES)¹. Projects developed by Carbon Tanzania are similarly premised on performance based payments, but we have gone further in developing an approach to project implementation that recognizes the part that can be played by tried and tested interventions. These include participatory land use mapping, boundary determination, development of village land use plans, clarification of tenure, and introduction of alternatives to, or improved technology for, firewood and charcoal (e.g. energy efficient stoves).

Carbon Tanzania is the only private sector initiative in Tanzania that has successfully partnered with forest-adjacent communities to develop and implement an internationally accredited avoided deforestation project in natural forest, resulting in payments to communities from the voluntary carbon marketplace. In this regard, Carbon Tanzania has developed a clear understanding, well-regarded track record and proof of concept of how avoided deforestation projects can be successfully developed and implemented in Tanzania, despite the complexity of the operating environment. We have pioneered a business approach to meeting biodiversity conservation goals that simultaneously delivers reduced GHG emissions, improved livelihoods, localised economic development and support for traditional cultural values



¹ Sills *et al.* (2009), The evolving landscape of REDD+ projects.

² www.smartconservationtools.org

³ www.cybertracker.org

Summary of Yaeda Valley REDD project for 2017

In this project cycle, 1st February 2017 to 31st January 2018, we have successfully completed the third year of the Yaeda extension and have succeeded in keeping the entire Yeada Valley REDD project under a single management structure. The Project Development Document (PDD) remains under the newest version of the Plan Vivo standard (Version 2013) and incorporates two technical specifications, Yaeda I validated in 2012 and verified in 2017 and Yaeda II validated in 2017. We have continued to equip our community monitoring teams, improving data collection and increasing the use of technology such as the newly introduced SMART²/Cybertracker³ monitoring app, run on Caterpillar GPS/Camera/Phone units. Full training on SMART/Cybertracker will be undertaken and reported on in the next reporting period. Data collection and response has been improved by increased capacity among uniformed community guards (locally known as *walinzi wajadi*). In 2017 these guards have begun, in small groups, to attend the Community Based Conservation Training Centre (CBCTC), a government run training academy where they receive training and certification as official Village Game Scouts (VGS), granting them even more strength to enforce the village by-laws.



The activity-based monitoring system implemented in 2014 forms the basis for annual ex-post issuance of Plan Vivo Credits (see appendix) and was last updated in 2016 to include specific Sustainable Development Goal (SDG) targets that are being monitored and delivered by this project. This activity based monitoring system incorporates all the community monitoring data, tracks institutional arrangements, conflicts, land security as well as financial flows to communities, the latter being critical to ensure this payment for ecosystem service project continues to deliver on its promises. In 2017 we introduced the SMART monitoring system for the Yaeda Valley. This innovative software contains a module we designed specifically for our needs, including an app that incorporates all our monitoring requirements, is in Swahili, and is primarily pictorial, allowing for use even among illiterate team members who are some of the best community guards.

² www.smartconservationtools.org

³ www.cybertracker.org

Project summary and request for issuance

Project overview

Reporting period	1st February 2017 – 31st January 2018
Geographical area	Yaeda Valley, Mbulu Distict. 34.3E/03.30S
Technical specifications in use	Reducing Emissions from Deforestation and Forest Degradation in the Yaeda Valley. Updated June 2016.
Area under management (ha)	34,073ha Project area
<i>Areas put under management since last report (ha)</i>	<i>(13,283ha added under updated PDD June 2016)</i>
Project indicators to date	
Community groups with plan vivos and PES agreements (total)	Three village communities, Mongo wa Mono, Domanga and Yaeda Chini following the CCRO / land use plan outlined in the technical specifications of the PDD.
Total PES payments made to communities to date (USD)	189,002 USD
Total PES in trust to be paid in May 2018	32,500 USD based on sales commitments
Plan Vivo Certificates issued to date	84,655
Allocation to buffer to date	21,163
Unsold stock / vintage (at time of submission)	
2012	40
2013	16
2014	285
2015	11
2016/17	817
Project activity this reporting period	
Community groups with PES agreements signed	Three village communities, Mongo Wa Mono, Domanga and Yaeda Chini following the CCRO / land use plan outlined in the technical specifications of the PDD.
Approximate number of people	6,019 with seasonal variation
Area under management	34,073ha
PVCs Issued to Date	84,655
Saleable Emissions Reductions achieved in this reporting period	25,764
Allocation to PV buffer account in this reporting period	5,153
Submission for PVC Issuance (tCO2)	20,611
PVCs available for future issuance (REDD+ only)	0
Total PVCs issued (including this issuance)	105,266

Part A. Project updates

A.1. Key Events in chronological order from February 2017 to January 2018

February 2017 – Quality assurance visit to Yaeda which included creating video clips of community scouts for social media output. CT accompanies the BBC RADIO 4 Food Programme as they record a special two-part broadcast on the Hadza (<https://www.bbc.co.uk/programmes/b08wmmwq>)

March 2017 – Negotiation begins with Native Energy on a long-term buyers agreement for PVCs from Yaeda I. This agreement when completed will aim to secure purchase of PVCs for the next five years. 2016-2017 Annual report sent to Plan Vivo.

April 2017 – 2016-17 Annual report finalised with Plan Vivo.

May 2017 – Bi-annual finance meetings are conducted in Mongo Wa Mono, Domanga and Yaeda Chini villages. UCRT complete new boundary markers designating the land use plan zones in Yaeda Chini and Domanga villages.

June 2017 – Carbon Tanzania accompanies the board of The Nature Conservancy (TNC) Oregon on a trip to visit the Yaeda Project, this includes a member of the United States House of Representatives. Carbon Tanzania attends a general Hadza meeting at Umbeya, only the second time this has ever happened. Carbon funds are partially used to fund the meetings and the carbon project is identified as one of the primarily factors in Hadza survival. The first group of six community guards are sent to Community Based Conservation Training Centre (CBCTC) for a three-month course.

July 2017 – Carbon Tanzania presents on Yaeda to the final conference on Resilience in East African Landscapes (REAL) an interdisciplinary research network involving several research centers in Europe among other international partners.

September 2017 – Carbon Tanzania conducts an aerial fly-over of Yaeda project with a team from Asilia, a leading local offset buyer from the project who have expressed interest in large increases in their offsetting.

October 2017 – Carbon Tanzania conducts first financial review with community and village leadership in Mongo Wa Mono, Domanga and Yaeda Chini villages. Finalise satellite analysis for verification of Yaeda I.

November 2017 – Bi-annual finance meetings are conducted in Mongo Wa Mono, Domanga and Yaeda Chini villages. Carbon Tanzania visited the Yaeda project with two auditors from EPIC Sustainability who were conducted verification and validation visits respectively on Yaeda I and Yaeda II.

January 2018 - Carbon Tanzania conducts second and more in depth financial review with community and village leadership in Mongo Wa Mono, Domanga and Yaeda Chini villages. SMART/Cybertracker program introduced to the community and leadership and project manager. Leadership polled on and accepts Native Energy goals including upcoming clinics, and community scout apprentice program. Carbon Tanzania presents on Yaeda to a special meeting of the IUCN Connectivity Conservation Specialist Group (CCSG) and subsequently joins the group.

A.2. Successes and challenges

Project implementation activities

Land use and ownership rights to the forest resources remain secure. Ensuring by-laws are followed depends on project operations and revenue generated for communities and local governance structures by both this project and through the tourism products offered by Dorobo Tours and Safaris. Carbon Tanzania fully understands that this essentially means being able to continue the current sales trajectory and expand sales so that we can meet financial expectations and commitments (see sales section below). Ensuring some of the neighbouring pastoralist communities follow seasonal patterns within the overall land use plan continues to be a challenge however this does not lead to deforestation but does increase disputes between the Hadza and neighbouring cultural groups. In 2017 sparse rains meant that the area designated for grazing was depleted early so cattle grazing was displaced into the Hadzabe protected area. This created some conflict between the Hadza and Barabaig communities which was effectively resolved by intervention at the Ward level (Yaeda Chini).

We and our partners, including the Ujamaa Community Resource Team (UCRT), are constantly communicating and working with district government to ensure transparency. The Tanzanian Government takes the poaching of mega-fauna seriously but poaching in the region is a concern for communities. Due the distances involved and resource challenges, responses to poaching can be limited but Carbon Tanzania and its partner communities continue to work with district officials to meet these challenges. The manager for the Yaeda valley REDD project, the Yaeda project manager has already increased our capacity to be more responsive to community needs and improve our communication and information gathering from the communities. In 2017 we began the process of sending community scouts to the Community Based Conservation Training Centre (CBCTC) for further training on conducting patrols and wildlife management, this will continue with the aim that all scouts will be trained and certified.



Sales

Bringing credits to market at a value that reflects expectations and project operations means Carbon Tanzania has continued to work towards diversifying and increasing its sales of PVCs. We continue to sell directly to local Tanzanian clients, predominantly ecotourism operations, but also airlines and other small businesses, and we also sell PVC's in the form of gift certificates to individuals and small companies. For these sales we control the price and command between [REDACTED] per PVC.

Sales continue through several resellers in both Europe and America, where occasional orders for credits are received and processed. Prices for such sales vary [REDACTED].

A challenge faced by our sales team in the past has been selling all annual issued credits within the calendar year. This has meant that not all potential revenue has been realised for the project and the volumes sold year on year have fluctuated. The consequence is an unpredictable revenue flow to the communities which, while manageable, has been somewhat confusing to the members of the communities. This challenge has been largely mitigated through an agreement, signed in May 2017, with US-based reseller Native Energy to buy 20,000 PVCs, the vast majority of unsold stock at [REDACTED] per PVC. This means that we are able to realise the remaining revenue from issued PVCs, and pass on the requisite share to the communities. In order to satisfy the purchasing requirements of the end client in this deal, the revenue from this stock sale will be allocated to activities which have already been agreed by the communities, but which fall into the following three categories: 1) education provision both for school children, college students and adults, 2) increasing the capacity of the

walinzi wajadi (community scouts) through sending them to formal government ranger training courses, and 3) improving governance and financial management capacity in the community administrative structures through supporting training events, facilitating meetings and developing better systems for accountability.

In addition to this sale of stock PVCs, we have further agreed with the same reseller, Native Energy, a 5-year forward buying deal for PVCs generated by the project. This agreement will begin with the sale of 16,000 of the 2016 PVCs from the first phase of the Yaeda Valley REDD Project in March 2018, and will continue with the sale of 4 subsequent years of issuance. The agreement is expected to be signed in March 2018, after the current reporting period.

A.3. Project Developments

REDD in the Yaeda Valley

Since 2016, Yaeda I and Yaeda II have been under the same management structure as one greater Yaeda Valley REDD+ project area. Carbon Tanzania has continued to build its capacity to better manage the project, this includes the continued employment of the Yaeda valley manager, who lives in Yaeda Chini and manages a Carbon Tanzania office there as well. His role has expanded to include district level engagement, mentoring and working with community scouts conducting surveys, collecting and collating data, as well as organizing and leading trainings and meetings. The manager also provides the link between community and village governance structures. The manager has continued to improve in his management capacity and operational independence as well as his integration in the community at a leadership level. Improved mobile network development has also allowed for increased and easier communication between the manager and the core staff based in Arusha.

A.4. Future developments

Our future project developments are represented in Table 1. It describes the activities/areas we will be honing in on and as well as the future outcomes we expect to see. The baseline is included for comparison, though this is not a without project baseline, but a current baseline without new future initiatives. These future developments include measurable targets/indicators and a schedule for implantation will be reported on in the annual report.

Table 1. Future Activities

Activity	Outcome	Business-As-Usual (Baseline)	Target	Date
Activity Area 1: Education & Employment				
Community Scout Apprentice Program (Youth Employment)	50% increase in apprentices trained over the five year period 30% of which are female	Professional ranger training at community based conservation training centre continues: 6 in 2017, 12 in 2018, and 12 in 2019	4 youth per year (Youth Employment)	4 youth trained by November each year (2018-2022)
Fully implement SMART (Spatial Monitoring and Reporting Tool) data collection and monitoring technology SMART is a combination of software, training materials and patrolling standards used to monitor wildlife, threats, and generally make patrols more effective	All Community Scouts are patrolling and collecting data using SMART Yaeda Valley Natural Resource Management Monitoring Reporting and Verification is refined	Scouts conduct monthly patrols using low-tech paper reports as a monitoring method. This data is then manually entered into excel based database	All Community Scouts, apprentices, and management are familiar with and using SMART	Purchase of equipment, refining of platform and scouts fully trained by April 2018

Professional management training for field personnel	Increased capacity for local Yaeda based and sourced team to manage Yaeda Project Clear understanding of expected roles and responsibilities among management team	Trained local management team in place but much room for improvement in higher level management techniques and communication abilities	Management Team (8 people, 4 male / 4 female)	June – July (2018-2022)
<u>Activity Area 2: Health Care Services</u>				
Eye Clinics	Identification and treatment of trachoma and removal of cataracts where appropriate	Eye related issues prevalent with little recourse available to community	Hadza Community (1000 + People) & Neighbouring Groups (Tatoga)	One visit per year in April followed by treatment scheduled where needed
TB assessment and treatment	Identification and treatment of TB where appropriate	TB related issues prevalent with little recourse available to community	Hadza Community (1000 + people) & neighbouring groups (eg. Tatoga)	One visits per year in June followed by treatment scheduled where needed
<u>Activity Area 3: Economic Inclusion</u>				
Direct Cash Transfer (DCT) scheme	Introduction of DCT concept. Consensus building exercises to Design a system according to social context and applicability. Payments are linked to natural resource management (NRM)	All payments made at overall community level	20 "groups" (yet to be defined, but to be selected fairly) receiving increased economic inclusion through the DCT system, including access to savings and credit schemes	May 2018: introduce the concept and get community consent November 2018: Identification of 20 'groups' to test the DCT payments. Payments begin in December 2018 May 2019: Review of DCT 2019 -2022 Possible full scale implementation

Operational management and planning

Carbon Tanzania has continued its operational management and training exercises to clearly identify gaps and needs within the organisation. Carbon Tanzania has identified the need to engage with the Paris Agreement policy environment where it relates to REDD+ and is continuing to engage with the Tanzanian government through the National Carbon Monitoring Centre (NCMC) and other government agencies. Carbon Tanzania has conducted a strategy planning and human resource exercise. In 2017 Carbon Tanzania employed a monitoring and reporting manager who oversaw the development and introduction of the SMART/Cybertracker monitoring system across all of Carbon Tanzania's project areas and will oversee the continued implementation and training surrounding the system. The results of using SMART will be reported on in the 2018-2019 AR to the Plan Vivo Foundation and changes made to the PDD (section K) if needed. At this stage we do not perceive any changes to the monitoring as outlined in the PDD.

Sales and Marketing

As a business primarily dependent on revenue generated from the sale of PVCs and other verified offsets, Carbon Tanzania sees the marketing of its current inventory of PVCs as critical to project operations. Carbon Tanzania has developed its own market in Tanzania with tourism companies and has also developed international sales both direct to market and through re-sellers of VERs. In 2018

Carbon Tanzania has already secured the sale of 16,000 PVCs to Native Energy (see Sales section above) and the remaining credits (approx. 4600) will be sold to our local Tanzanian market as well as to some of our smaller re-seller partners in Europe and the US.

Part B. Project activities, total project size and participation

This project works with hunter-gatherer Hadza (or Hadzabe) and Barabaig pastoralist communities in Mongo Wa Mono, Domanga and Yaeda Chini villages. By working in conjunction with traditional leaders, the elected village governments and a team of community members, Carbon Tanzania has established a system of results-based payments for ecosystem services through the sale of *ex-post* Plan Vivo Certificates (PVCs). This REDD+ project strengthens land tenure, management capacity and local natural resource management, enhances and diversifies local incomes, and contributes to local, national and global environmental conservation aims.

Table 2. Project Activity Summary

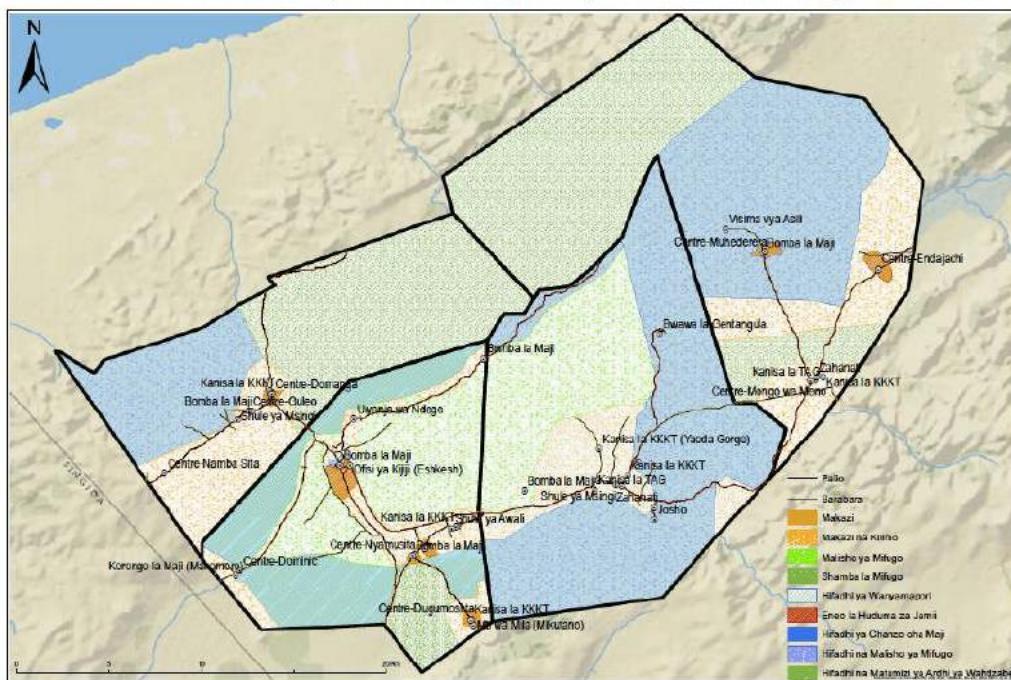
Name of Technical specification	Area (ha)	No households	No communities
REDD in Yaeda Valley updated June 2016	34,073 ha	n/a	3

Successful avoided deforestation is being achieved through a series of interventions including reinforcing the implementation of the approved village land use plan (see below) and associated village by-laws, improving forest conservation and management activities and addressing the primary driver of deforestation, slash and burn agriculture.

The community members are achieving these aims by patrolling and reporting any land use change and / or poaching activities, which are occurring illegally within the designated project area. This data, with support from external government agencies, is being used to tackle illegal land intrusion and resulting land conversion at both a local and district level.

Farmers are supported through designated areas within the villages that have been identified based on best fit for agriculture; analysis of aspect and soil type allow for improved agricultural conversion but are external to the project area (see Land use plan map B1) and any counted carbon.

B1. Land use plan for Mongo Wa Mono, Domanga and Yaeda Chini villages

MPANGO WA MATUMIZI BORA YA ARDHI (VIJIJI VYA: YAEDA CHINI, ESHKESH, MONGO WA MONO NA DOMANGA), WILAYA YA MIBULU


Part C. Plan Vivo Certificate Issuance Submission

C.1. Carbon Tanzania is applying for issuance of 20,611 PVC based on contractual agreements with the two Hadzabe communities, Mongo Wa Mono and Domanga, and the village of Yaeda Chini who have successfully carried out their obligations stated in the contractual agreements. This is reflected in the activity based monitoring results and collated in section Part E of this annual report.

Table 3. Statement of tCO2e reductions available for issuance as PVCs, based on activity for reporting period February 2017 – January 2018.

Area ID	Total area (ha)	tCO2e available from previous periods	Total tCO2e achieved this period	Non-permanence Risk % buffer	No of PVCs allocated to buffer account	No of PVCs requested from saleable carbon	tCO2e available for future issuances
Yaeda Valley	34,073	0	25,764	20%	5,153	20,611	0

Table 4. Allocation of issuance request

Buyer name / unsold stock	No of PVCs transacted	Registry ID if destined for unsold stock	Tech spec associated with issuance
Carbon Tanzania	20,611	103000000002262	REDD in Yaeda Valley
TOTAL	20,611		

C.4. Data to support issuance request

Data supporting issuance request is listed Part E. Monitoring Results and Annex 1.

Part D. Sales of Plan Vivo Certificates

D1. Sales of Plan Vivo Certificates

As described in detail in section A.2 above, we now have a buyer committed to purchasing 16,000 PVCs each year beginning with the sale in 2018 of the issuance from 2016. The issuance for 2017 that is being requested through this Annual Report will be transferred to the reseller (Native Energy) in late

2018 / early 2019 and payments will be made for this issuance in 2019 (two instalments to coincide with our annual revenue disbursement events in the project area).

The remaining credits will be sold to our local market of tour operators and small businesses, as well as used to satisfy smaller orders from our Europe and US based resellers who regularly submit orders for between 300 and 1000 PVCs for their clientele.

Historical sales data – 5-year consolidation

Annex 4 includes a chart that represents a consolidation of all Carbon Tanzania's historical sales data, organised into standardised reporting periods as per the Plan Vivo Standard that we have chosen. Due to earlier discrepancies between the agreed Plan Vivo reporting periods (1st of February of one year to the end of January of the following year) and the retirement periods used by Carbon Tanzania to aggregate their retirements on the Markit Registry (calendar years), aggregated data from previous Carbon Tanzania Annual Reports to Plan Vivo does not precisely agree with corresponding Markit retirement records. We have presented a table that adjusts for these discrepancies and which demonstrates that the total number of credits retired from Markit now matches to within a very small margin of error the number of credits sold to our clients, both direct and indirect.

A separate source of discrepancy in the historical retirement data when compared to the sales annually reported to Plan Vivo is the annual aggregation of client retirements that we have performed each year to date. When we sell small volumes to local and direct clients (often less than 100 tonnes per sale, sometimes as little as 10tCO2e), we do not retire each and every sale immediately from Markit. At year-end, we aggregate the sales to one client (for example 5 sales of less than 100 tonnes each throughout the year) together and make one retirement. In some cases these aggregates sales have been a combination of sales of different vintages. This means that year on year the declared sales of vintages as reported to Plan Vivo through the Annual Report process have not matched precisely with the Markit Registry retirements. However the full reconciliation below resolves these discrepancies when conducted over the lifetime of the project. Additionally, a portion of the sales reported in this report are to the local Tanzanian market and represent ex-ante sales of vintages yet to be issued.

Table 5. Consolidated figures for Carbon Tanzania “reported” sales and corresponding Market Registry retirements and transfers, project start to January 2018

Reporting period	Total tonnes sold in reporting period	Vintage on registry	Tonnes issued	Total retirements / transfers from vintage	Unsold stock (balance)
to Jan 2013	5,153	2012	18,012	17,972	40
2013	5,530	2013	14,010	13,994	16
2014	9,580	2014	16,011	15,726	285
2015	9,437	2015	16,011	16,000	11
2016	13,456	2016-17	20,611	2,060	18,551
2017	24,653				
Totals	67,809		84,655	65,752	18,903

The current ex-ante sales can be calculated as follows: total reported sales (= 67,809) minus all retirements and transfers to date from the IHS Markit registry (= 65,752) which gives a figure of 2,057. These units will be retired on behalf of the buyers (shown in the Table 6 below) on issuance of the next vintage of PVCs (2017-18) as requested in this Annual Report.

Currently Carbon Tanzania has two sales channels for its offsets: *direct sales and re-sellers*.

Direct Clients: Direct sales are the primary means of distribution with the highest retail price at [REDACTED] per PVC. Carbon Tanzania has developed a unique customer base in the Tanzanian tour operator sector that initially relied on the personal relationships of its founders with the target customers, and has subsequently evolved to include tourist outfitters and lodge and hotel owners seeking to enhance their eco-travel credentials. The local credibility of Carbon Tanzania combined with the relevance of the project activities to customer priorities means that new customers are being added in this segment regularly.

International Resellers: In 2017 four resellers have continued to sell offsets on behalf of Carbon Tanzania. Due to the large volumes requested by one individual reseller, a lower level of [REDACTED] per unit selling price was accepted on some of these sales, although [REDACTED] was obtained from one re-seller.



Domanga based walinzi wajadi or traditional scouts on patrol.

Table 6. Buyers and transaction volumes February 2017 to January 2018

Company	Tonnes offset	Price	Vintage	Total sale
The Map's Edge (total for year)	518.7		Yaedall 2017/18	
Carbon Tanzania	26		Yaeda1 2014	
Acacia Natural Resource Consultants	12.7		Yaeda1 2014	
Individual offset sales (total for year)	355.6		Yaedall 2017/18	
Native Energy	4,000		Yaeda1 2014	
Clevel	150		Yaeda1 2014	
Zero Mission (total for year)	1617		Yaeda1 2014	
Tarangire Safari Lodge	103		Yaedall 2017/18	
Duma Explorer	123		Yaedall 2016	
African Environments	345		Yaedall 2016	
Asilia Camps and Lodges	1061		Yaedall 2017/18	
Dorobo Tours and Safaris	128		Yaedall 2016	

Kisima Ngeda Tented Camp	36	Yaedall 2016
Lakeside School	48	Yaedall 2016
R and J Knocker	10	Yaeda
Wildlife Explorer	119	Yaedall 2016
Totals	8,653	

NB. Carbon Tanzania pays communities aggregated payments in May and November as shown in the project timetable Part H. This is done to balance financial needs, such as school fees that are paid at a specific time of year and with availability of natural food (May being end of wet season and November end of dry season).

Part E. Monitoring Results

E1. Ecosystem services monitoring - Activity based monitoring

Monthly community-based monitoring of the project area forms part of the activity-based monitoring schedule. The community monitoring reports on three potential threats; 1) Illegal land incursion resulting in habitat loss, thus loss of above ground biomass (this is within the project area and leakage area); 2) overgrazing or illegal cattle incursion and associated construction of cattle corals (known locally as a 'boma'); 3) poaching or illegal bush meat hunting, this being a socio-economic issue for the Hadzabe. In 2017, the system was updated through the SMART/Cybertracker program. Using the same parameters as before the monitoring forms were converted to a mobile app. This allows all incidents to be recorded with GPS locations and photos in a simple and secure system. This is invaluable for both project follow-up as well as internal community and legal uses.

The community-based monitoring aims to record events systematically to allow for presentation and discussion with the communities, village, project partners and district government. Importantly, the monthly community based monitoring also outlines how these issues were dealt with by local authorities so that UCRT and Carbon Tanzania can follow up in village and district meetings with recommendations of how potential issues can be resolved. Since 2015 the Mbulu District Council has ordered the police to station one officer in Yaeda Chini in response to reported issues of land incursion, an issue not just in the Yaeda Valley but nationwide. As of 2017, a full police station is under construction where a crew will be permanently stationed to deal with land incursion and conflict, and with the potential to support community scouts in their routine natural resource protection activities.

E.1 Activity-based monitoring results refer to the activity-based monitoring schedule in the appendix.

Green: Indicates that the project is on track to achieve the expected climate benefits and issuance continues as per the performance targets and contractual agreements with the communities.

Orange: Indicates some project activities are not on track to deliver the expected climate benefits. If one or more of these indicators are orange then corrective actions are needed and are to be reported in the annual report to Plan Vivo. Issuance may be withheld from Carbon Tanzania and revenue may be withheld from communities depending on the indicator or the performance

Red: Indicates that project activities are not on track to deliver the expected climate benefits. If the project has one or more red indicators, corrective actions are required and issuance is withheld from Carbon Tanzania and payments are withheld from communities until evidence is shown of corrective action being taken.

Table 7. Activity based monitoring results. (thresholds are shown in Annex 1)

Indicator	Thresholds			Means of verification / comment on threshold
	Green	Orange	Red	

Community user rights over forest-based resources			Land use plans are in place, no changes made to law or policy on user rights
Community tenure, ownership and rights over land			CCROs are in place, no changes made to law or policy on ownership
Management Institutions			All functioning
Effort spent on conflict resolution by UCRT			3 days have been spent in Yaeda by UCRT in Yaeda in 2017 related to pastoralist conflict and cattle enclosures in the project area.
Coverage by community guards			Monthly reports indicate approx. 65% of project area was covered during January 2018 in Mongo wa Mono and Domanga.
Land use change			Whilst there has been cattle enclosures built inside the project area and leakage area that requires some land clearance, this is minor (average size 25m in diameter) there has been no land use change related to agricultural clearing in either the project or leakage areas. All infringements of by-laws have been reported and acted upon. The verification has shown that land use change is decreasing compared to the baseline.
Payments to the community guards, communities and local government			All payment schedules have been met

Finance meetings in November 2017 – these meetings are always under a magnificent Baobab tree



E.2 Land use monitoring

Table 8. Results of land use monitoring

Threat	Occurrence / incident per community area	Reporting and action by community	Reporting and action by village / district
Unplanned agriculture	In Domanga there were 7 minor incidents of unplanned agriculture within the project area none of which exceeded .5 ha.	Reported to village government.	Agriculture was halted.
	In Mongo wa Mono there was 1 minor incident of unplanned agriculture within the project area which was less than .5 ha.	Reported to village government.	Agriculture was halted.
	In Yaeda Chini there were 5 minor incidents of unplanned agriculture within the project area none of which exceeded 1 ha.	Reported to village government.	Agriculture was halted.
Illegal hunting (poaching)	In Domanga there were 2 illegal hunting incidents recorded in the project area. The incidents did not involve Elephant poaching; and were reserved to illegal meat poaching.	Incident reported to village and district government. One incident resulted in the perpetrators being arrested and sent on to the District.	No arrest was made by the village.
	In Mongo wa Mono there were 3 illegal hunting incidents recorded, however several other times villagers reported hearing guns at night, all were related suspected illegal meat poaching.	All incidents are reported to village and district government.	No arrests were made in relation to these incidents.
	In Yaeda Chini there was one illegal hunting incident recorded.	-	-
Non-agricultural land conversion	In Domanga, the construction of bomas by Taatoga pastoralists continues to be recorded both on the edge and inside the project area.	Community scouts ask the Taatoga not to clear land within the project and report to the village chairman.	Reported to village chairman who orders the boma to leave and refrain from any habitat clearance in the project area.
	In Mongo wa Mono, the construction of bomas by Taatoga pastoralists continue to be recorded both on the edge and inside the project area.	Community scouts ask the Taatoga not to clear land within the project and report to the village chairman.	Reported to village chairman who orders the boma to leave and refrain from any habitat clearance in the project area.
	Whilst cattle are permitted in Yaeda Chini protected area. Boma construction is only allowed seasonally.	Community scouts record boma construction but these are gone by the onset of the rains in December.	-
Cattle incursion	Cattle incursions during the end of the dry season continue across the landscape. Whilst this has no impact on above ground biomass, and no land is cleared, cattle herds displace wildlife so is a socio-economic issue for the Hadzabe.	The community and UCRT continue to communicate the land use plan. In most cases the cattle are coming from outside of the area and people are simply unaware that land use planning is in place.	UCRT and Carbon Tanzania will continue to educate people about land use planning and UCRT have conducted an exercise remarking the boundaries of the land use plan.

E.4. Biodiversity monitoring

The Hadza are one of Tanzania's most distinctive and threatened human cultures, with a deep reservoir of indigenous knowledge pertaining to natural resource use. The Hadza are strict, almost obligate, hunter-gatherers and do not raise any livestock, although some do keep fields of domestic crops (indigenous African millet). Whilst famine might be part of the cultural history of neighbouring pastoralists or agriculturalists, this is not the case for the Hadza as they can survive on a rich diversity of foods. As the Hadza are able to exploit a wide range of seasonally available birds, mammals and plant species our biodiversity monitoring program is interested in what types of mammals are consumed (Figure 11.) on an annual basis.



The Yaeda Valley forest in Domanga village

Avifauna

Avifauna are good long-term indicators of ecosystem health. Monitoring is conducted by the external Carbon Tanzania team in conjunction with the *walinzi wajadi* due to the skills required to identify specific species. Timed Species Counts (TSCs) were completed in two locations set in the baseline, inside the project area (within undisturbed Acacia – Commiphora woodland) and outside the project area (within mixed woodland and agriculture). The use of TSC counts allows for comparative analysis of the frequency of specific bird species between the two areas shows no significant variation from the baseline which is expected.

Mammals

Mammals were monitored by the community teams as an indication of presence (*observed: Obs*) as well as consumption by Hadza (*eaten: eat*). Larger mammal species can be split into two classes, resident and migratory, in 2017 the following mammal species were observed within the project area. It should be noted than many of these large mammals range over large areas and data on movement is limited, we ensure that our data is passed into the Tanzania Mammal Atlas, which in turn informs better conservation management across the larger landscape.

Table 9. Mammal records for 2017, Obs: observed but not eaten, Eat: eaten. R: known resident, M: Possibly migratory, R/M?: Unknown resident / migratory status.

Species	Resident or migratory	Observed: Obs, Eaten: Eat												Notes
		Jan	Feb	Mar	Apr	Ma	Jun	July	Aug	Sep	Oct	Nov	Dec	
Giraffe	R	Obs	Obs	Obs	Obs	Obs	Obs	Obs	Obs	Obs	Obs	Obs	Obs	Resident populations with some migrant individuals
Elephant	M/R	Obs	Obs	Obs	Obs	Obs	Obs	Obs	Obs	Obs	Obs	Obs	Obs	Resident populations with some migrant individuals
Zebra	R	Obs	Obs	Obs	Obs	Obs	Obs	Obs	Obs	Obs	Obs	Obs	Obs	Common resident
Impala	R	Obs	Obs	Obs	Obs	Obs	Obs Eat	Obs	Obs Eat	Obs	Obs	Obs	Obs	Common resident
Kudu	R	Obs	Obs	Obs	Obs	Obs	Obs	Obs	Obs Eat	Obs	Obs	Obs	Obs	Common and highly prized by Hadza
Dikdik	R	Obs	Obs	Obs	Obs	Obs	Obs Eat	Obs	Obs Eat	Obs	Obs	Obs	Obs	Common resident
Eland	R/M?	Obs	Obs	Obs	Obs	Obs	Obs	Obs	Obs	Obs Eat	Obs	Obs	Obs	Known to range over large areas
Wildebeest	R/M	Obs	Obs	Obs		Obs	Obs		Obs	Obs	Obs	Obs	Obs	
Buffalo	R/M?	Obs	Obs											Possibly migratory from Ngorongoro highlands
Warthog	R		Obs	Obs	Obs	Obs	Obs	Obs		Obs	Obs	Obs	Obs	common
Lion	R/M?	Obs			Obs	Obs		Obs		Obs	Obs			Almost certainly not resident
Leopard	R													Obs
Baboon	R	Obs	Obs	Obs	Obs	Obs	Obs	Obs Eat	Obs	Obs	Obs	Obs	Obs	Common
Wild Dog	M	Obs	Obs							Obs	Obs			Wide ranging

Ripoti Kitu Gani		Mnyama Gani	
Kilimo Haramu		Twiga	
Ukataji Wa Miti		Tembo	
Ujangili		Punda Milia	
Mifugo Haramu		Swalapala	
Wanyamapori		Tandala	

Screenshots from recently introduced SMART/Cybertracker system to be used by scouts to monitor land use change and wildlife



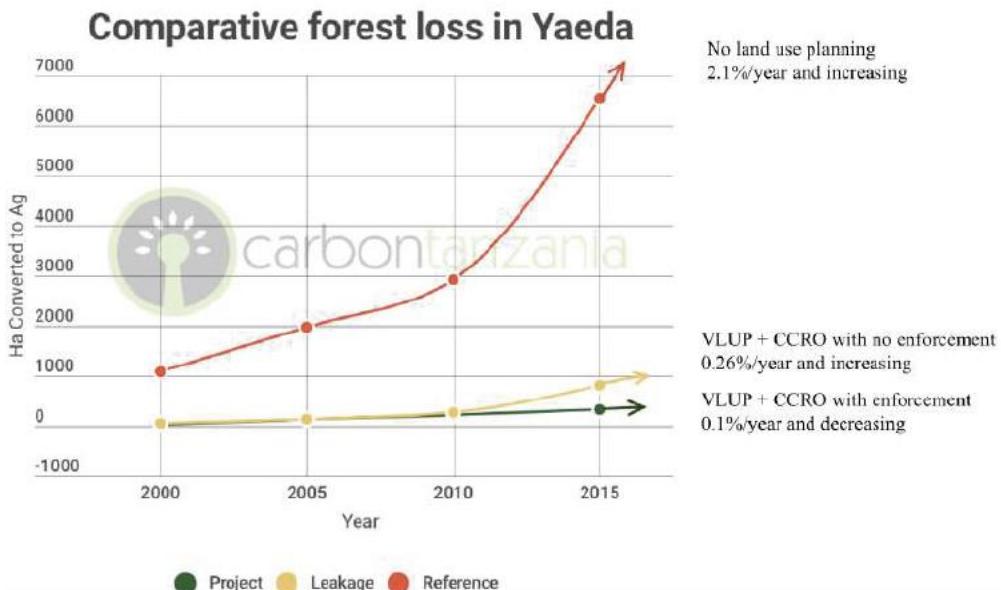
Giraffe are resident to the Yaeda area but rarely eaten by the Hadza communities.

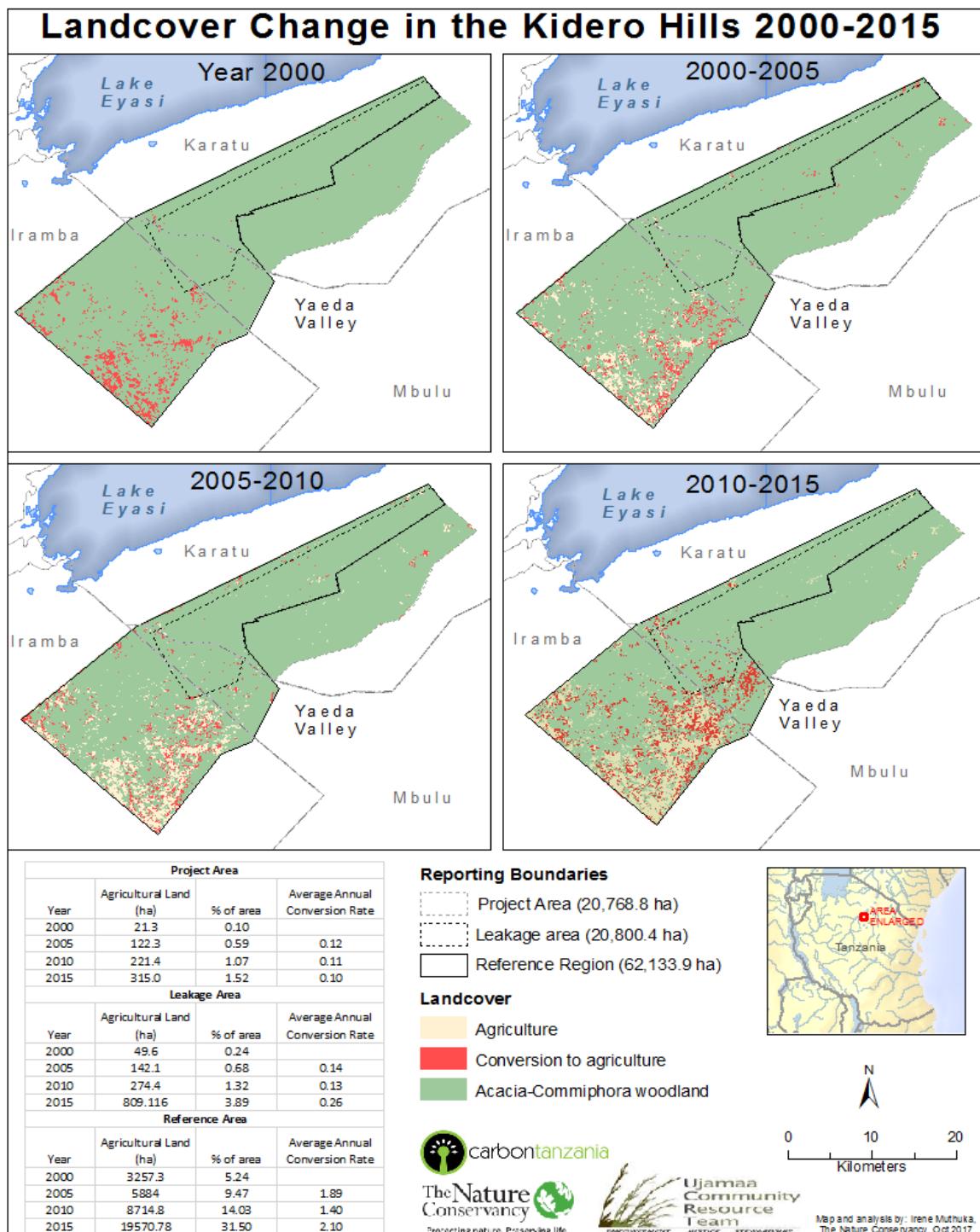
Issue identified during the survey	Action taken
Request more transparency of carbon selling process:	<ol style="list-style-type: none"> 1. Every six months at finance meetings the amount of carbon sold is communicated to community members and village government. Carbon Tanzania has requested that all community members attend such meetings so that they are aware. 2. AR translated into Swahili for circulation and Swahili training guide developed 3. The Yaeda manager will take a representative of the Hadza community to Mbulu so they can learn about the Markit registry.
Problem of transportation between villages was identified, specifically to travel faster between villages and to location of arising land use conflict. Gives the opportunity for guards to observe the area and react faster.	<ol style="list-style-type: none"> 1. A motorbike was purchased for the Yaeda project manager to address response to needs stated.
5% of the community fund from the carbon sale is paid to the local government (district) but they concluded that this is not useful as they didn't see any direct support for their issues (such as villagers from neighbouring wards entering the protected zone).	<ol style="list-style-type: none"> 1. This information is continuously communicated to the District Government. The District government have greatly increased their visits to Yaeda in support of the land use plans.

Part F. Impacts

F1. Evidence of outcomes

As part of the Validation and Verification exercise conducted in 2017, satellite based land cover change analysis was undertaken using LandSat and unequivocally corroborated our yearly monitoring that has continuously showed decreasing land-use change and incursion within the project area. The following map and chart (see below) show clear data-based evidence that the project is achieving its desired outcomes. This data is represented graphically showing an increasing deforestation rate in the reference region, 2.1% and increasing, whilst only 0.26% deforestation has occurred in the leakage area. Deforestation in the project area has declined to 0.1% per year.





In terms of social impacts and outcomes, the community benefits continue to function at a high-level as shown in our activity-based monitoring results (Table 7). The Haydom fund allowing for more advanced medical treatments for project participants continues to be project highlight and is frequently utilized, evidenced by that fact that available funds are always fully deployed by community members.

Part G. Payments for Ecosystem Service update

All payments made to producers in May and November 2018 are based on contractual agreements and communities meeting their monitoring targets. Revenue dispersal is informed by scheduled community meetings - these payment structures are outlined in detail in Annex 2. In all cases no payments have been withheld during this reporting period.

Table 10: Summary of payments made and held in trust

1. Reporting year	2. Total previous payments USD	3. Total ongoing payments USD	4. Total payments made (2+3) USD	5. Total payments held in trust until May 2018 USD	6. Total payments withheld USD
Feb 13 - Jan 14	29,674	-	29,674	0	0
Feb 14 – Jan 15	28,184	-	28,184	0	0
Feb 15 – Jan 16	30,937	-	30,937	0	0
Feb 16 – Jan 17	47,351	3,220	50,571	23,163	0
Feb 17 – Jan 18	49,636	0	49,636	7,520	
TOTAL	185,782	3,220	189,002	30,683	0

Part H. On-going Community Participation

Community participation has been on-going throughout the 2017 - 2018 project period. Carbon Tanzania has bi-annual financial planning and conflict resolution meetings with the community in May and October every year (see table 11). In addition to these meetings, quality assurance visits are made every trimester to collect monitoring data and carry out specific tasks. The dates of the financial planning meetings are chosen to coincide with project issuance, contractual agreements and peak needs of the community (see figure 9 below), which are usually related to seasonal conditions. Carbon Tanzania schedules payments to the communities to coincide with the annual meeting in the first week of May, which allows for a delivery of the annual report and monitoring data to the communities and the payments which reflects the results based payment plan.

Table 11. Time frame – meetings, data, seasonality and community needs. Green: wet season & brown: dry season.

Month & Season	Operational activities		Community revenue incoming / outgoing <i>Issues effecting communities</i>
	Carbon Tanzania role	Communities role	
January		Monthly patrols and reporting to project coordinator	Schools fees paid to government school
February	Quality Assurance visit trimester 1	Monthly patrols and reporting to project coordinator	<i>Availability of tubers and fruiting plants provides indigenous food.</i>
March		Monthly patrols and reporting to project coordinator	<i>Availability of tubers and fruiting plants provides indigenous food</i>
April		Monthly patrols and reporting to project coordinator	<i>Availability of tubers and fruiting plants provides indigenous food</i>
May	Bi-annual community/village	Bi-annual community/village	Revenue use is planned for the coming dry season

	government meetings Quality assurance trimester 2	government meetings Monthly patrols and reporting to project coordinator	-Haydom Medical Fund paid -allocation of revenue towards food purchase
June	Quality Assurance visit trimester 2	Monthly patrols and reporting to project coordinator	Maize crop becomes available at low cost so food can be bought in bulk and stored
July		Monthly patrols and reporting to project coordinator	Maize crop becomes available at low cost so food can be bought in bulk and stored
August		Monthly patrols and reporting to project coordinator	<i>Food scarcity begins, greater nomadic movement by communities – increased dependency on use of maize and agricultural output</i>
September	Quality assurance trimester 3.	Monthly patrols and reporting to project coordinator	<i>Food scarcity - dependency on use of maize and agricultural output</i>
October		Monthly patrols and reporting to project coordinator	<i>Undushibi berries become available – indigenous food begins end dry season (NB. This can vary)</i>
November	Bi-annual community/village government meetings	Bi-annual community/village government meetings	<i>Indigenous foods become more widely available reducing stress and increasing community cohesiveness. Revenue use is planned for the coming wet season (see section 8)</i>
December		Monthly patrols and reporting to project coordinator	

The main aim of these meetings is to discuss carbon sales and to inform the community as to how much money will be transferred into their accounts. This forum involves all community members and village government and allows for discussion on what money should be spent on and any problems arising from within the community (see section 5). These meetings are attended by Carbon Tanzania and UCRT.

Part I. Project operating costs

Table 12. Breakdown of Operational Costs 2017

Expense	Narrative	Cost (US\$)	Contribution from sales of Plan Vivo Certificates
Personnel	HR costs	2,710	No
Village/community payments	Scouts/field assistants / village	69,450	100%
	Scouts	8,451	100%
	Community Contribution	53,914	100%
	Others Payment	7,085	100%
Office/admin	Organizational Costs	11,205	100%
	Printing and communication	100%	
	Rent and utilities	100%	
	Other office costs	100%	
	Fuel and vehicle expenses	11,205	
	Travel and accommodation	100%	
Travel / field work	Vehicle hire, food and supplies in the field	10,622	100%
Consultancy	Professional fees	1,736	100%
Audits	Validation costs		
	PIN		
	PDD		
	Tech Spec		

	Issuance (2017)	4,095	100%
	Project visit		
Marketing	Consultant fees / website development / conferences		100%
Total project costs		99,818	

Annex 1. Activity monitoring indicators for issuance of annual ex-post credits (results are show in Part E.)

Green: Indicates that the project is on track to achieve the expected climate benefits and issuance continues as per the performance targets and contractual agreements with the communities.

Orange: Indicates some project activities are not on track to deliver the expected climate benefits. If one or more of these indicators are orange then corrective actions are needed and are to be reported in the annual report to Plan Vivo. Issuance may be withheld from Carbon Tanzania and revenue may be withheld from communities, depending on the indicator or the performance.

Red: Indicates that project activities are not on track to deliver the expected climate benefits. If the project has one or more red indicator, corrective actions are required and issuance is withheld from Carbon Tanzania and payments are withheld from communities until evidence of corrective action is taken.

Indicator	Sustainable Development Goals (SDG#)	Thresholds			Means of verification
		Green	Orange	Red	
Community user rights over forest based resources	SDG 2.3.1. Secure access to natural resources SDG 2.5.1. Plant and animal resources secured in conservation	User rights over forest based resources are enacted through national laws and acts governing natural resource use. Knowledge of these laws and acts is understood by participating communities.	User rights over forest based resources are enacted through national laws and acts governing natural resource use. These laws and acts are poorly understood by participating communities.	New acts governing resource use are proposed by the government removing ownership rights from participating communities that directly impact the legal basis of this project.	1. CT and UCRT and closely engaged in policy development with local and national government. 2. Training is continually being conducted on user rights with participating communities.
Community tenure and ownership over land	SDG 1.4.2. Secure Land rights for indigenous communities	Land use plan and associated by laws are documented and implemented. Boundaries are clear and well understood. Community rights over land is secure through Community Customary Rights of Occupancy (CCRO).	Conflict over land use zones, the land use plan or changes to village land planning laws create unplanned changes to the current land use plan and associated Community Customary Rights of Occupancy (CCRO).	Conflict over land use zones, the land use plan or changes to village land planning laws create unplanned changes resulting in voiding of current land use plan, management regime and CCRO.	1. CT and UCRT and closely engaged in policy development with local and national government. 2. Concrete boundary markers are in place and accompanied by clearly marked signs. 3. UCRT work to manage any potential land use conflicts
Coverage by community guards	SDG 8.3.1. Direct and sustainable employment	Community guards have covered and reported on >=50% of project area and leakage area that month.	Community guards fail to cover or report on >=30% of project or leakage area that month.	Community guards fail to patrol, collect data or report on project or leakage area.	1. Data loggers and GPS provide quantitative data on movement by community guards. 2. Monthly monitoring forms are collated and collected by CT and indicate activity.
Land use change	SDG 15.1.1. Protection of forest resources resulting in reduced deforestation SDG15.5.1. Protection of RED list species	Community guards reporting through the monthly monitoring system indicate no land use change occurred within the project area.	Community guards reporting through the monthly monitoring system indicate farming or land clearance within the leakage area or project area >=10% buffer. Village government immediately acts on information	Community guards reporting through the monthly monitoring system indicate farming or land clearance within the leakage area or project area >=10%. Village government fails to act on information and report to CT and UCRT.	1. Monitoring reports collated monthly by the local project coordinators are sent to CT and UCRT, these document and georeference all land use change and the response by village / district government. 2. By-laws enacted through the land use plan make it illegal to farm or clear land in the project area.

			and reports to CT and UCRT.		
Payments to the community guards, communities and local government	SDG 2.4.1. Sustainable agriculture. SDG 3.8.2. Coverage of community by health insurance SDG 3.B.1. Sustainable access to affordable medicines SDG4.1.1./4.6.1. Access to primary and secondary education	Monthly payments to the community guards provide the incentive to carry out project activities and community payments are realized to ensure all community members and local government parties benefit from carbon revenue.	Monthly payments to the patrol teams provide the incentive to carry out project activities however revenue to communities and local government parties is not paid so limited benefits may in result discontent in the project.	No payments are made to patrol teams, communities, or local government and no benefits are realized from carbon revenue.	<p>1. CT conducts its own sales and marketing to ensure revenue is available from sales of carbon offsets and is able to predict and manage payments to communities, village and district/government.</p> <p>2. CT pays the patrol teams directly using M-Pesa ensuring payments are always made</p>

Annex 2. Payment structure to communities

May 2017

Carbon Tanzania

Community Payments	Total funds available, (based on Sales, Nov 2016 to April 2017)
<i>May 2017</i>	

Tsh 49,900,000

<i>Domanga</i>	%	24,950,000	<i>Mongo wa Mono</i>	%	24,950,000
Hadza Community		22,202,500	Hadza Community		18,545,500
less Scout payments Nov 14 to Apr 15	15%	3,780,000	less Scout payments Nov 14 to Apr 15	17%	4,320,000
Other deductions - Walinzi Boots		200,000	Other deductions - Walinzi boots		240,000
less Haydom Fund	4%	1,000,000	less Haydom Fund	4%	1,000,000
Balance to Domanga Hadza May 2014	69%	17,222,500	Balance to Mongo Hadza May 2014	52%	12,985,500
Village Government	4%	1,000,000	Village Government	17%	4,126,000
Mbulu District	5%	1,247,500	Mbulu District	5%	1,247,500
Education fund	0%	0	Eduation Fund	0%	0
Kata ya Eshkesh	5%	500,000	Yaeda Chini Ward Gov.	5%	1,031,000
total		24,950,000	total		24,950,000

November 2017

Carbon Tanzania

Community Payments Yaeda I
Nov 2017

otal funds available,
(based on Sales, May 2017
to October 2017)

29,000,000

Domanga	%	14,500,000	Mongo wa Mono	%	14,500,000
Hadza Community		13,500,000	Hadza Community		11,500,000
less Scout payments previous 6 months	26%	3,780,000	less Scout payments previous 6 months	30%	4,320,000
less Haydom Fund	7%	1,000,000	less extra funds sent for Aug meeting	14%	2,000,000
Balance to Domanga Hadza Nov 2017	60%	8,720,000	Balance to Mongo Hadza Nov 2017	36%	5,180,000
Village Government	7%	1,000,000	Village Government	14%	2,000,000
Mbulu District	0%	0	Mbulu District	3%	500,000
Education fund	0%	0	Education Fund	0%	0
Kata ya Eshkesh	0%	0	Yaeda Chini Ward Gov.	3%	500,000
total		14,500,000		total	14,500,000

Annex 3. Retirements and transfers Markit registry 2017

Retirements

Vintage	Quantity	Serial Number	Retirement Date	Retirement Remarks
2013	90	PV-PVC-TZ-103000000004180-01012013-31122013-2950173-2950262-MER-0-P	13-4-17	2016 offsets for The Map's Edge
2013	70	PV-PVC-TZ-103000000004180-01012013-31122013-2950263-2950332-MER-0-P	13-4-17	2016 offsets for Dorobo Tours and Safaris
2013	93	PV-PVC-TZ-103000000004180-01012013-31122013-2950333-2950425-MER-0-P	13-4-17	2016 offsets for African Environments safari client departures
2013	25	PV-PVC-TZ-103000000004180-01012013-31122013-2950426-2950450-MER-0-P	13-4-17	Offsets for Feb 2016 Serengeti Safari
2013	414	PV-PVC-TZ-103000000004180-01012013-31122013-2950451-2950864-MER-0-P	13-4-17	Operational offsets for Friedkin Conservation Fund, for year 2015
2014	324	PV-PVC-TZ-103000000004180-01012014-31122014-3120855-3121178-MER-0-P	13-4-17	Offsets for The Map's Edge safari departures 2016
2014	84	PV-PVC-TZ-103000000004180-01012014-31122014-3121179-3121262-MER-0-P	13-4-17	Operational Offsets for Braeburn International School Arusha, for Sept 2015 to July 2016
2014	57	PV-PVC-TZ-103000000004180-01012014-31122014-3121263-3121319-MER-0-P	13-4-17	Dorobo Tours and Safaris offsets for 2016
2014	154	PV-PVC-TZ-103000000004180-01012014-31122014-3121320-3121473-MER-0-P	13-4-17	Offsets for African Environments safari clients 2016
2013	986	PV-PVC-TZ-103000000004180-01012013-31122013-2950865-2951850-MER-0-P	13-4-17	Operational offsets for Asilia Camps, Lodges and Hotels for June 2015 to May 2016
2013	41	PV-PVC-TZ-103000000004180-01012013-31122013-2951851-2951891-MER-0-P	13-4-17	Operational Offsets for Kisima Need Tented Camp for 2015
2012	38	PV-PVC-TZ-103000000004180-01012012-31122012-2658404-2658441-MER-0-P	13-4-17	Operational Offsets for Fair Travel Tanzania for year 2015
2014	103	PV-PVC-TZ-103000000004180-01012014-31122014-3121474-3121576-MER-0-P	13-4-17	Operational offsets for Tarangire Safari Lodge for 2015
2014	100	PV-PVC-TZ-103000000004180-01012014-31122014-3121577-3121676-MER-0-P	14-4-17	Edward McAlpine domestic offsets for 2016
2014	194	PV-PVC-TZ-103000000004180-01012014-31122014-3121677-3121870-MER-0-P	14-4-17	Nature Discovery climb offsets for 2015-16

Transfers 2017

Source Account ID	Source Account Name	Destination Account ID	Destination Account Name	Vintage	Quantity
103000000002262	Carbon Tanzania	10000000000805	Sustainable Travel International	2014	1004
103000000002262	Carbon Tanzania	10300000012330	Plan Vivo Ex-post Project Buffer	2012 - 2016	16010
103000000002262	Carbon Tanzania	100000000000298	NativeEnergy, Inc.	2014	4000
103000000002262	Carbon Tanzania	100000000000298	NativeEnergy, Inc.	2015	16000
103000000002262	Carbon Tanzania	100000000001034	CLevel	2014	150
103000000002262	Carbon Tanzania	100000000000432	ZeroMission AB	2016 - 2017	800
103000000002262	Carbon Tanzania	100000000000432	ZeroMission AB	2014	320

Annex 4: Historical Sales Data

Buyer	Tonnes	Price	Vintage	Total sale
Reporting period 1 (start to Jan 2013)				
JAS	35		Yaeda1 2012	
MBS	53		Yaeda1 2012	
Braeburn School	57.7		Yaeda1 2012	
Summits Africa	59.7		Yaeda1 2012	
Traveller's Philanthropy	80.9		Yaeda1 2012	
Sanjan	96.5		Yaeda1 2012	
ME	8.4		Yaeda1 2012	
Theobald Barber	147.2		Yaeda1 2012	
ME	20.2		Yaeda1 2012	
Braeburn School	132.9		Yaeda1 2012	
Regional Air Services	376.2		Yaeda1 2012	
ME	21.4		Yaeda1 2012	
ME	99.6		Yaeda1 2012	
ME	76.7		Yaeda1 2012	
Summits Africa	55.9		Yaeda1 2012	
ME	57.5		Yaeda1 2012	
GP	5.7		Yaeda1 2012	
ME	12.1		Yaeda1 2012	
ME	42.1		Yaeda1 2012	
Summits Africa	55.8		Yaeda1 2012	
ME	37.97		Yaeda1 2012	
Asilia	187.7		Yaeda1 2012	
ME	39.75		Yaeda1 2012	
GP	50.94		Yaeda1 2012	
ME	186.9		Yaeda1 2012	
GP	135.7		Yaeda1 2012	
ND	59.8		Yaeda1 2012	
ME	85.2		Yaeda1 2012	
ME	18.81		Yaeda1 2012	
ND	78.3		Yaeda1 2012	
Sanctuary Retreats	122		Yaeda1 2012	
A&K	222.1		Yaeda1 2012	
Summits Africa	95.2		Yaeda1 2012	
Asilia	342.2		Yaeda1 2013	
GP	74.06		Yaeda1 2012	
ME	31.9		Yaeda1 2012	
ND	40.8		Yaeda1 2012	
GP	127.96		Yaeda1 2012	
Braeburn School	72.8		Yaeda1 2012	
ME	42.96		Yaeda1 2012	
ME	17.96		Yaeda1 2012	
Sanjan	18.9		Yaeda1 2012	
ME	88.47		Yaeda1 2012	
ND	54.1		Yaeda1 2012	
Cap Conseil	54		Yaeda1 2012	
ME	67.03		Yaeda1 2012	

ME	40	Yaeda1 2012
GP	109.32	Yaeda1 2012
Summits Africa	180	Yaeda1 2012
Braeburn School	126.5	Yaeda1 2012
Sanjan	10.3	Yaeda1 2012
Honeyguide Foundation	55.6	Yaeda1 2012
Asilia	602.7	Yaeda1 2012
ND	180.9	Yaeda1 2012
Totals	5153.33	
Reporting period 2 (Feb 2013 to Jan 2014)		
GP	65	Yaeda1 2012
ME	89.23	Yaeda1 2012
A&K	856.3	Yaeda1 2012
ME	123.3	Yaeda1 2012
Kisima Ngeda	35.1	Yaeda1 2012
ME	48.3	Yaeda1 2012
Wildlife Explorer	150	Yaeda1 2012
GP	117.88	Yaeda1 2012
ND	120.8	Yaeda1 2012
ME	57.62	Yaeda1 2012
Fair Travel TZ	41	Yaeda1 2012
Native Energy	2500	Yaeda1 2012
GP	31.94	Yaeda1 2012
ME	83.98	Yaeda1 2012
Asilia	719.7	Yaeda1 2012
Braeburn School	129.5	Yaeda1 2012
ND	169.8	Yaeda1 2012
ME	95.8	Yaeda1 2012
ME	94.4	Yaeda1 2012
Totals	5529.65	
Reporting period 3 (Feb 2014 to Jan 2015)		
GP	68.3	Yaeda1 2012
Dorobo	18.7	Yaeda1 2012
Zero Mission	500	Yaeda1 2012
Dorobo	11.2	Yaeda1 2012
ME	26.1	Yaeda1 2012
Kisima Ngeda	43	Yaeda1 2012
Native Energy	4572	Yaeda1 2012
STI	512	Yaeda1 2012
AE	57	Yaeda1 2012
Fair Travel TZ	79.9	Yaeda1 2012
ME	134.1	Yaeda1 2012
Summits Africa	195.3	Yaeda1 2012
Dorobo	26.9	Yaeda1 2012
GP	134.6	Yaeda1 2012
ME	44.3	Yaeda1 2012
A&K	936.1	Yaeda1 2013
Sanctuary Retreats	190.6	Yaeda1 2013
STI	489.2	Yaeda1 2012

ME	216	Yaeda1 2012
Wildlife Explorer	128.7	Yaeda1 2013
Asilia	779	Yaeda1 2013
TSL	116.6	Yaeda1 2012
ME	97.5	Yaeda1 2012
Carbon Tanzania	23.8	Yaeda1 2012
ME	179.3	Yaeda1 2013
Totals	9580.2	
Reporting period 4 (Feb 2015 to Jan 2016)		
AE	174.5	Yaeda1 2013
Dorobo	39.2	Yaeda1 2013
ND	123.3	Yaeda1 2012
ME	24	Yaeda1 2013
Kate McAlpine	9.5	Yaeda1 2012
Native Energy	4000	Yaeda1 2013
Braeburn School	76.8	Yaeda1 2012
GP	131	Yaeda1 2013
AE	245	Yaeda1 2013
ME	242.5	Yaeda1 2013
STI	904	Yaeda1 2013
TNC	345.5	Yaeda1 2013
ME	222	Yaeda1 2013
ND	105.3	Yaeda1 2013
ME	30	Yaeda1 2012
Kisima Ngeda	35.7	Yaeda1 2013
TSL	116.5	Yaeda1 2013
Dorobo	37.1	Yaeda1 2012
Clevel	300	Yaeda1 2013
Zero Mission	165	Yaeda1 2013
Asilia	954.1	Yaeda1 2013
Braeburn School	76.8	Yaeda1 2013
ME	50.8	Yaeda1 2013
Duma Explorer	130.7	Yaeda1 2013
AE	232.5	Yaeda1 2013
Wildlife Explorer	114.5	Yaeda1 2013
ND	110.7	Yaeda1 2013
Acacia Natural Resource Cons	11.75	Yaeda1 2013
Tree Campaign	203	Yaeda1 2013
GP	183	Yaeda1 2013
Carbon Tanzania	17	Yaeda1 2012
East Africa Photo Safaris	25	Yaeda1 2013
Totals	9436.75	
Reporting period 5 (Feb 2016 to Jan 2017)		
Ker and Downey Safaris Ltd	25.2	Yaeda1 2013
SOI	29.9	Yaeda1 2013
Native Energy	4000	Yaeda1 2014
Fair Travel TZ	38.2	Yaeda1 2013
Dorobo	69.5	Yaeda1 2013
ME	9.24	Yaeda1 2013

Guiding Principles	44.2	Yaeda1 2013
AE	71.5	Yaeda1 2013
AE	21	Yaeda1 2013
ME	37	Yaeda1 2013
Matembezi	60	Yaeda1 2013
Regional Air Services	8.8	Yaeda1 2013
Zero Mission	1000	Yaeda1 2014
Native Energy	1000	Yaeda1 2014
ME	43.5	Yaeda1 2013
FCF	413.7	Yaeda1 2013
Clevel	300	Yaeda1 2013
Asilia	986	Yaeda1 2013
TSL	103.4	Yaeda1 2013
Kisima Ngeda	40.7	Yaeda1 2013
Dorobo	57.4	Yaeda1 2014
Native Energy	2000	Yaeda1 2014
STI	1236	Yaeda1 2014
Braeburn School	84.3	Yaeda1 2014
ME	89	Yaeda1 2014
ME	99.2	Yaeda1 2014
ME	136.3	Yaeda1 2014
STI	1004	Yaeda1 2014
AE	154	Yaeda1 2014
Edward McAlpine	100	Yaeda1 2014
ND	193.6	Yaeda1 2014
Totals	13455.64	
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Reporting period 6 (Feb 2017 to Jan 2018)		
ME	76.8	Yaeda 2014
Carbon Tanzania	26	Yaeda 2014
Acacia Natural Resource Cons	12.7	Yaeda 2014
DPO - Individual offset sales	29.2	Yaeda 2014
DPO - Individual offset sales	161.4	Yaeda 2014
ME	81.9	Yaeda 2014
DPO - Individual offset sales	25	Yaeda 2014
Native Energy	16,000 ⁴	Yaeda 2015
Native Energy	4,000	Yaeda 2014
Clevel	150	Yaeda 2014
Zero Mission	800	Yaeda 2014
DPO - Individual offset sales	18	Yaeda 2016
TSL	103	Yaeda 2016
Duma Explorer	123	Yaeda 2016
ME	43	Yaeda 2014

⁴ Please note that these credits have been transferred to the client, but under agreement the payments will be scheduled on an annual basis. Therefore there is no revenue associated with this sale as yet in the table.

ME	139	Yaeda 2014
Zero Mission	317	Yaeda 2014
AE	345	Yaeda 2016
Asilia	1061	Yaeda 2016
Dorobo	128	Yaeda 2016
Kisima Ngeda	36	Yaeda 2016
ME	133	Yaeda 2016
Lakeside School	48	Yaeda 2016
WE	119	Yaeda 2016
Zero Mission	500	Yaeda 2016
ME	45	Yaeda 2016
DPO - Individual offset sales	122	Yaeda 2016
R and J Knocker	10	Yaeda 2016
Totals	24652.6	
TOTAL SALES	67,809	