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CLINTON DEVELOPMENT INITIATIVE

Trees of Hope Plan Vivo Annual Report

January 2018 – December 2018

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1.0 Background

The effects of climate change lead to decreasing food and water security, soil productivity, crop yields, forest cover, and biodiversity, all of which disproportionately affect smallholder farmers. These issues are further exacerbated by rampant deforestation and poor land management. As a result, these environmental changes are threatening the livelihoods for the majority of Malawians, who depend on subsistence agriculture.

The Clinton Development Initiative (CDI) established the Trees of Hope Project in 2007 in the Dowa and Neno districts of Malawi to reverse deforestation, mitigate the harmful effects of climate change, and bolster a self-sustaining marketplace by making tree farming profitable and attractive for smallholder farmers. The Trees of Hope project coordinated community led efforts in climate change mitigation and adaptation through agroforestry and reforestation activities, reducing the local community's vulnerability to climate change through benefits derived from tree-based land use systems, while also providing farmers with increased income from the sale of Plan Vivo carbon credits.

Trees of Hope is a certified Payment for Ecosystem Services (PES) project. Plan Vivo supports communities in managing their natural resources by quantifying ecosystem services. Through the Trees of Hope project, rural farmers in Malawi decide how they can best address threats to their local ecosystems by choosing one of five land-use systems that addresses threats to their local ecosystem. These systems represent responsible land management strategies that benefit the environment by reducing soil erosion and increasing soil fertility.

The following report presents a general state of the project during the indicated reporting period including events and challenges that occurred during the reporting period.

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Table 1: Summary

Project indicators	Historical (2010-2017)	Added/ Issued this period (2018)	Total
No. smallholder households with PES agreements	852	0	852
No. community groups with PES agreements (where applicable) by Dec 2018	24	0	24
Approximate number of households (or individuals) in these community groups	10	0	10
Area under management (ha) where PES agreements are in place	272 ha and 6,602.4 100 meter units	0	272 ha and 6,602.4 100 meter units
Total PES payments made to participants (USD)	$393,655.60 USD and €22,706.13		$393,655.60
Total sum held in trust for future PES payments (USD)	$22,007.41 USD	$11,783.27 USD	$33,790.68 USD
Plan Vivo Certificates (PVCs) issued	82,901	0	82,901
Allocation to Plan Vivo buffer to date (tCO2)	20,725	0	20,725
Unsold Stock at time of submission (PVC)	0	0	0
Vintage 2015 (after reported transfers/retirements)	0	0	0
Plan Vivo Certificates (PVCs) requested for issuance this reporting period			0

Summary Statistics	
Reporting Period	1st January, 2018 – 31st December, 2018
Technical Specifications in Use	1. Woodlot 2. Boundary Planting (BP) 3. Dispersed Systematic Inter-Planting (DSI) 4. Citrus Orchard 5. Mango Orchard

Payment for Ecosystem Services (PES) Agreements in Numbers			
	Total PES Agreements for Project	Agreements from Current Reporting Period	Agreements for New Certificate Issuance
Individual Smallholders	852 farmers	0	0
Farmer Groups	24 farmer groups	0	0
TOTAL	876 farmers and groups	0	0

2.0 Key Developments in the Project

2.1 Climate Change Impacts

Beginning in January 2018, some parts of Malawi had prolonged dry-spells while others had erratic rainfall. As a result, most farming communities living in the southern districts, and some in the central districts of the country faced acute food insecurity due to low yields. This also affected incomes, causing them to be very low, as most of the farming community incomes rely on agriculture, which depends on rainfall. Unfortunately, there was a spike in maize prices due to low supply which added to the vulnerability of most of the farming communities. The country's economy was affected too as agriculture contributes the most to the economy.

Trees of Hope farmers were impacted by the inconsistent rainfall patterns. Farmers living in Neno district who grow fruit trees, i.e. mango and citrus, were lucky to have some income from the fruit sales. They used the little money they made from selling fruit to buy food for their families, which did not last long as the fruit are seasonal, and the profits cannot be compared with other cash crops.

Trees of Hope saw this as an opportunity to encourage farmers to grow trees. Farmers were reminded of the effects of climate change, especially on their livelihoods, and the importance of reforestation. They were encouraged to protect the existing plantations and replant trees that were cut down in order to fight climate change. We realized that most farmers that are on PES were the ones taking care of their trees as they benefit from the payments. We decided to also encourage non-project farmers to integrate trees into their farming as there are many other environmental benefits that come from planting trees.

2.2 Pest & Disease Control for Fruit and non-Fruit trees

Pests and diseases remain at low levels . There were not many complaints received from the field regarding pests and diseases. Most trees look healthy and are in productive condition. Farmers are still using the necessary measures as advised by a Pathologist, in the years prior, on caring for their trees and managing pests and diseases. Where not always advised, it is important to note that in some cases pests are not able to be eradicated via-organic means, and in such cases, the Local Program Monitors (LPM) are there to provide alternative solutions, such as recommendations to farmers for non-organic means of pest and disease control, as well as proper handling and application of the materials. This is particularly true for the fruit tree farmers, who often face many challenges with pests and disease of their trees. The program made the decision that best-practice for pest-management is to use organic means to combat the pest, but in a case where the pest is persistent and organic means are not able to solve the problem, we give non-organic recommendations to farmers along with best-practices for applying those non-organic disease and pest control methods in a safe way.

2.3 Activating Farmers Bank Accounts and Opening New Accounts

Trees of Hope, with the support of CDI's finance team, worked with First Merchant Bank to verify activation of farmers accounts and open new accounts for some of the farmers who had not yet opened accounts. Most farmers hardly use their bank accounts as they only use them to receive their payments from Carbon Sales, as such, their banks were dormant and needed to be activated for them to access their payments. This is because most farmers don't save with banks, but rather across village community banks, which are more accessible and less administratively burdensome than the formal banks. Farmers were encouraged to develop a culture of saving as this would not only keep their bank accounts active, it would also enable them to save and make use of their income wisely. Farmers were encouraged to use their accounts to save money coming from other non-Trees of Hope tree sources. It was noted that farmers in Neno are far from the banks which requires them to spend money on transportation for them to get to the bank. Most of them preferred to keep their money in their homes as going to the bank takes time and money. CDI is more broadly supporting this message around savings, which had yielded positive results. Some of the CDI farmers have now opened accounts either as individuals or groups.

2.4 Payment for Ecosystem Services (PES)

Trees of Hope made payments to individual producers and community groups who met their monitoring targets in August, 2018. For farmers that joined the project in 2008, this meant that they were receiving their final payment. They are the second group of farmers to receive final payment, as Trees of Hope started tracking payments and work in 2007, despite not being verified until years later. This was a programmatic decision as payment targets are linked to tree growth, as outlined in the Technical Specification Document and the Project Design Document, and thus this was the only way to go forward with the farmers from the early days. They have now been paid 100% of the total money that they were supposed to receive over the course of the project. This development encouraged farmers that are still receiving their payments to continue to take care of their trees, aiming at meeting the monitoring targets for each year. There were some farmers who complained that they did not receive their payments. When we tracked those farmers, we found out that some of them did not meet their monitoring targets, while others did not even go to the bank to check their accounts despite the money having already been deposited in those accounts. For instance, some farmers in Neno heard from their friends that they did not get paid, so they lodged a complaint before even going to the bank to verify if their accounts had been credited or not. We also had some non-project farmers who have tree plantations, claiming to have not been paid. These farmers are not on PES as such, they have never been monitored or considered project farmers. They were opportunistic in hoping to get payments from the project regardless of participation. A list of

farmers on PES was shared with Neno to avoid this from happening again. Farmers who were not paid as a result of not meeting their monitoring targets were informed and asked to take action in order to quality for payment in the next payment period. Most of the farmers that did not meet their monitoring targets were from Neno and they were in their final year of payment. All of the producers that joined in 2007 and did not get paid last year because of an inability to meet the monitoring target for the final payment will be paid this payment period (one year later). This is their final payment. The project made the decision to pay these farmers, despite not meeting their targets, because of issues that we determined to be outside of the farmers ability to control. The responsibility was on Trees of Hope for not supporting the farmers with the right amount of training and support in 2007 and 2008 when the project was just starting.

2.5 Monitoring and Evaluation

Before farmers were paid in 2018, the Monitoring and Evaluation (M&E) Manager conducted field visits to all the project farmers to remind them of the reason the project exists and go through a refresher on how payment is made. It was noted that some producers did not understand the monitoring targets for each year even though the PES agreement they have with us clearly lays out management, monitoring, and reporting responsibilities of the producer. It was therefore, important for the M&E manager to share the monitoring protocols again with the producers to support their understanding of this. If the producers understand what is expected of them to receive their payment, then we will not have problems again when payment for those that did not meet their monitoring target happens the next time. This will be done on an annual basis moving forward.

The M&E manager also met with LPMs in both Dowa and Neno districts to encourage them to continue working with the producers involved in the program. LPMs were asked to attend to farmers concerns and share any arising issues with the central office for help. Trees of Hope, and CDI staff are based in Lilongwe, a fair distance from many of the farmers under the program, and thus the program relies on the LPMs to keep CDI staff up to date on the activities happening in the field. The LPMs have been good at working with farmers and attending to their problems. It is worth noting that LPMs were involved from the conception of the project, and the whole reason for involving them was to build their capacity and transfer most project management and operational roles to the community. This was a deliberate move that has helped the project to continue to progress and thrive.

Farmers that received their final payment were encouraged to continue to take care of trees and not to cut them down.

LPMs and enumerators were also re-trained on tree circumference (DBH) data collection. The training was conducted at CDI offices in Lilongwe where Malawi government Forestry Officers also attended to support the facilitation and long-term sustainability of the work. The training was done in order to enable payments to be processed. It was noted that DBH data was supposed to be collected for all the farmers that were due for payment. The only difference was in the diameter as they were from different years. Data was collected from a total of 337 farmers from both Neno and Dowa districts. Data for the exercise was kept both in hard copies and soft copy.

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During DBH data collection the M&E team made the following observations:

2.5.1 Some trees recorded larger diameters within short planting periods than the older stock. Others displayed differences, despite the planting years being the same. It was noted that the spacing in some fields between trees is not uniform. This is one factor seen to affect the DBH.

2.5.2 Some farmers, two in Dowa and one in Neno cut down their trees as they thought they will no longer be getting their payments. This prompted Trees of Hope to remind farmers of the environmental benefits that trees bring. Farmers were told not to look at only the financial benefits, but other benefits that they get from trees such as, restoring soil fertility and preventing soil erosion. Random interviews with farmers showed farmers appreciation of the project as they talked highly of it. There were others who are not part of the project but showed willingness to join. Some even planted trees, hoping that someday they will be considered to be on PES.

2.5.3 The producers shared how Trees of Hope has helped them to implement productive and sustainable forestry and agroforestry systems which have changed their environment for the better.

2.5.4 LPMs showed an understanding of their role in the program and helped to clarify to farmers who did not meet their monitoring targets why they did not meet them along with the steps they needed to take for them to qualify for payment. They showed to have the capacity needed to provide advice to farmers on how to manage their land-use systems and managing misunderstandings among producers.

2.5.5 It was observed that DBH measurements for citrus was smaller than mangoes and other tree species. This is believed to be the case because the trunk for citrus takes time to grow. There is need to consider other monitoring targets for farmers growing citrus to enable them to get paid once that is achieved.

2.6 Refresher Trainings

Trainings were not conducted in 2018 as most farmers were aware of the program and familiar with the activities that they need to carry out in each year. Trees of Hope continue to rely on the LPM to promote the program and provide support and technical assistance to producers whenever needed. It was planned at the beginning of the project, to build the capacity of LPMs and transfer project management to them for the sustainability of the project. Since we no longer have permanent staff working with us in the field, the LPMs have been the main link between producers and the central office. They are in constant communication with the central office, sharing any arising issues from the field.

2.7 Profile of Producers, Recruitment and Project Size

Trees of Hope did not recruit new farmers, but is currently working with CDI to expand tree growing in the other districts of Malawi where Trees of Hope is not operating. CDI is working with over 30,000 farmers in its Community Agri-business (CAB) approach in 8 districts of Malawi. Only one of these districts is currently where Trees of Hope operates. Farmers are encouraged to grow fertilizer trees in order to add nutrients to the soil and fruit trees for home consumption and as an additional source of income. We emphasize on the importance and benefits of trees to their livelihoods.

Trees of Hope saw it as wise to encourage farmers to grow trees but not focus on only the carbon finance, as it was observed that carbon finance was the main driver to growing trees. Since some of our farmers have graduated from the program and received their final payments, we did not want them to see their trees as less valuable. We wanted farmers to continue to take care of their trees so that they can enjoy the other benefits that come from having trees such as a source for firewood and timber, reduction of water loss through reduced evaporation due to canopy cover, reduction of soil erosion, improved soil fertility and many others.

3.0 Key Events in the Project

3.1 Visits to Trees of Hope Farmers

In October, the M&E manager together with Neno Macadamia Trust (NMT), visited Trees of Hope farmers in Upper Neno and Lower Neno. The parties are both concerned with the alleviation of poverty and the improvement of the conditions of life in socially and economically disadvantaged rural communities in Malawi. The purpose of the visit was to assess how Trees of Hope farmers can benefit from our partnership with NMT. NMT works with smallholder farmers in cooperatives to repair Malawi's ecosystems and help them to be aligned with climate-smart macadamia agroforestry. NMT would assist Trees of Hope farmers to develop a self-sustaining system with market interventions that are not detrimental to the farmers or their cooperatives. In addition, NMT will support Trees of Hope farmers who become members, through payment of membership fees, of the Highland Macadamia Cooperative. Developing macadamia production as an alternative income stream to their existing agroforestry enterprise. LPMs in Dowa have identified a nursery, and built a fence around it, where they hope to grow their first macadamia seedlings. NMT is willing to also work with Trees of Hope farmers in Dowa to create economic opportunities by using tree crops. The partnership is currently exploring funding opportunities to support the expansion of this work.

4.0 Key Challenges the Project Faces

4.1 Climate Change

Malawi was hit again by prolonged dry-spells in almost all the districts of the country. It was observed that most project trees survived the dry-spells even though some trees wilted, they got heathier again after the rains came. Farmers followed the tips given to them during refresher trainings on digging bigger planting holes in order to increase the water holding capacity within the root zone and to allow easier proliferation of roots. It was encouraging to see that project trees were well taken care of and farmers seem to have ownership of the project after seeing its benefits.

4.2 Delays in Payments to Farmers

Trees of Hope has delayed farmer payments again due to the untimely collection of data which resulted in the late submission of the report. Trees of Hope continues to rely on other CDI staff members to monitor progress on activities of the project.

Staff members are working with LPMs to ensure that farmers are kept updated on the progress the office is making on their payments. Farmers are assured to be paid until the 10th year as agreed in the PES contract.

4.3 Farmers Abandoning their Fields

At least one farmer in Dowa that was supposed to get his final payment this year, cut down his trees as he thought he had finished getting his payments. We also had some farmers in Neno who stopped taking care of their trees after they did not get paid last year. Most of them said they were told by people formally associated with the project that the project had closed, as such, payment would no longer be made. After we communicated to them through LPMs about our intention to pay farmers until the final year, as long as they meet the monitoring targets, they started caring for their trees again and most of them will be getting their final payment this year. It is our hope that farmers will continue to value the trees even after they get their final payment.

5.0 Project & Participant Overview

Producers in the program are engaged in one or more of the five land-use systems described in the table below. For more information please explore the Trees of Hope technical specification documents on the Plan Vivo website. The graphic below explains the environmental and potential income generating benefits of each of the land use systems.

Producers registered with the program, each with a single *plan vivo*, are either individual households or communal groups. Producers can opt for more than one land use system and this is common among individual producers, while communal groups are typically engaged in woodlot land use system. Table 5 below shows producers and community groups with registered PES agreements. These numbers have changed slightly since the last report as two farmers have consistently not met their targets.

Table 2: Profile of Producers with Registered PES Agreements

STATISTIC	VALUE
Total Number of Producers	876
Number of Community Groups	24
Number of Individual Producers	852

The total area coverage for the project is shown in Table 6 below, broken down by system, in addition to the total carbon sequestered by the land use systems.

Table 3: Area Coverage for the Land-Use Systems

LAND-USE SYSTEM	UNITS	AREA COVERAGE & CARBON TOTALS
Project Area	Woodlot	102.5
	DSI	154
	Mango	4.33
	Citrus	11.79
	100 meter units	6,602.4
Total tCO_2		**82,900.94**

5.1 Carbon Recalculation

As noted above, a revision of the carbon potentials with the auditors and verifying body has taken place. Below is a summary of the changes that occurred broken down by land use system.

Table 4: Updated Carbon Potentials

Technical Specification	Net benefits		
	Subtracting Baseline (tCO2/ha)	Contribution to PV Buffer (20%) (tCO2/ha)	Tradeable (80%) (tCO2/ha)
Woodlots	181.2984	36.2597	145.0387
Boundary Planting	*212.8167*	*42.5633*	*170.2534*
B. Planting (per 100m)	10.6408	2.1282	8.5127
Dispersed Interplanting	87.2276	17.4455	69.7821
Mango Trees	103.3753	20.6751	82.7003
Citrus Trees	67.1537	13.4307	53.7229

6.0 Sales & Issuances of Plan Vivo Certificates

Issuance Summary

Issuance One and Two (2010 Vintage) Total Number of Beneficiaries: 294 Certificates Issued for Issuance One: 20,000 Certificates Issued for Issuance Two: 2,550 Number of Farmers: 277 Number of Community Groups: 17 **Issuance Three (2013 Vintage)** Total Number of Beneficiaries: 205 Certificates Issued: 20,000 Number of Farmers: 201 Number of Community Groups: 4	**Issuance Four (2014 Vintage)** Total Number of Beneficiaries: 376 Certificates Issued: 36,852 Number of Farmers: 373 Number of Community Groups: 3 **Issuance 5 (2016 Vintage)** Impact: All beneficiaries Certificates Issued: 3,499 Rationale: Carbon Re-calculation

A full list of historic sales are provided in Appendix VII.

7.0 Summary of Monitoring Results

The current monitoring targets for farmers getting their payment this year are based on farmers meeting the required diameter at breast height of 4cm to 15 cm depending on the year they joined the project. The project does not experience serious challenges to the monitoring process because it has over the years built enough community-based capacity for this exercise through involvement of LPMs based in the communities. Enumerators worked with LPMs for the data collection exercise. It was the job of the LPMs to guide the enumerators to the fields of the farmers where data was supposed to be collected.

Table 6: Summary of Reasons for Target Failure and Recommended Corrective Actions

NUMBER	REASON FOR TARGET FAILURE	RECOMMENDED CORRECTIVE ACTIONS
1	Drought, where young seedlings perish due to water stress	• Digging planting holes of the recommended size for adequate water capture. • Use of compost manure to enhance water retention within the rooting zone of the tree. • Early planting to take advantage of the full rainy season. • Introducing tree species that are more tolerant to drought.
2	Termite attack, which kills young seedlings	• Application of inorganic termicides. • Use of organic termicides like *Tephrosia vogelii* extracts. • Keeping grass mulch clear of the tree base.
3	Late planting	• Early land preparation for tree plots to avoid competition for the limited labour with arable crops later in the season. • Timely establishment of nurseries to have seedlings ready for planting at the beginning of the rainy season.
4	Fire	• Clear brush during dry seasons. • In particularly prone regions, plant “fire breaks” of trees not particularly susceptible to burning.
5	Planted less than the target number of trees	• Early land preparation to avoid crisis planting • Establishment of enough seedlings for the planned planting
6	Passing on plot ownership to next of kin	• Criteria for who qualifies as a next of kin should be drafted by LPMs and farmers to avoid selection of unsuitable next of kins

2007 (ha)		100 meter segments	tCO2
woodlot	29.59	0	4,291.70
DSI	12.31	0	842.96
BP	0	202.23	1,721.51
Mango	0	0	0.00
citrus	0	0	0.00
total hectares	41.9	202.23	0.00
total carbon	0	0	6,856.17
total value	0	0	30,167.13
Individuals	42	0	0.00
Groups	11	0	0.00
Total	53	0	0.00

2008 (ha)		100 meter segments	tCO2
woodlot	27.2116	0	3,946.74
DSI	25	0	1,744.55
BP	0	581.25	4,947.97
Mango	3.47	0	286.97
citrus	9.8	0	526.49
total hectares	65.4816	581.25	0.00
total carbon	0	0	11,452.71
total value	0	0	50,391.94
Individuals	159	0	0.00
Groups	8	0	0.00
TOTAL	167	0	0.00

2009 (ha)		100 meter segments	tCO2
woodlot	19.05	0	2,767.20
DSI	16.36	0	1,125.58
BP	0	1371.08	11,671.51
Mango	0.86	0	71.12
citrus	1.99	0	106.91
total hectares	38.26	1371.08	0.00
total carbon	0	0	15,742.32
total value	0	0	69,266.21
Individuals	169	0	0.00
Groups	1	0	0.00
Total	170	0	0.00

2010 (ha)		100 meter segments	tCO2
woodlot	14.0408	0	2,036.46
DSI	50.305	0	3,499.55
BP	0	2088.41	17,777.88
Mango	0	0	0.00
citrus	0	0	0.00
total hectares	64.3458	2088.41	0.00
total carbon	0	0	23,313.89
total value	0	0	102,581.12
Individuals	226	0	0.00
groups	4	0	0.00
Total	230	0	0.00

2011 (ha)		100 meter segments	tCO2
woodlot	6.2028	0	899.65
DSI	21.72	0	1,515.67
BP	0	632.88	5,387.48
Mango	0	0	0.00
citrus	0	0	0.00
total hectares	27.9228	632.88	0.00
total carbon	0	0	7,802.79
total value	0	0	34,332.29
Individuals	78	0	0.00
Groups	0	0	0.00
Total	78	0	0.00

2012 (ha)		100 meter segments	tCO2
woodlot	1.0408	0	150.96
DSI	4.77	0	332.86
BP	0	652.62	5,555.52
Mango	0	0	0.00
citrus	0	0	0.00
total hectares	5.8108	652.62	0.00
total carbon	0	0	6,039.34
total value	0	0	26,573.08
Individuals	68	0	0.00
Groups	0	0	0.00
Total	68	0	0.00

2013 (ha)		100 meter segments	tCO2
woodlot	4.1516	0	602.14
DSI	12.725	0	887.98
BP	0	669.75	5,701.34
Mango	0	0	0.00
citrus	0	0	0.00
total hectares	16.8766	669.75	0.00
total carbon	0	0	7,191.46
total value	0	0	31,642.43
Individuals	78	0	0.00
Groups	0	0	0.00
Total	78	0	0.00

2014 (ha)		100 meter segments	tCO2
woodlot	1.2	0	179.11
DSI	10.25	0	731.13
BP	0	404.22	3,592.02
Mango	0	0	0.00
citrus	0	0	0.00
total hectares	11.45	404.22	0.00
total carbon	0	0	4,502.26
total value	0	0	19,809.92
Individuals	32	0	0.00
Groups	0	0	0.00
total	32	0	0.00

SUMMARY BY LAND USE SYSTEM									
Woodlot		**DSI**		**Mango**		**Citrus**		**BP**	
hectares	102.49	hectares	153.44	hectare	4.33	hectares	11.79	100m segments	6,602.44
tCO2	14,873.95	tCO2	10,680.27	tCO2	358.09	tCO2	633.39	tCO2	56,355.23

GENERAL SUMMARY	
Total farmers	852
Total groups	24
Total participants	876
Total hectares	272.05
100 m segments	6,602.44
PV Buffer Contribution	20,725.23
Total saleable tCO_2	**82,900.94**
Issuances to date	82,901
Available for issuance	**0**

8.0 Breakdown of Operational Costs

Expense		
Personnel		
	Total Personnel	$4,440
Program and COGS		
	Total Program and COGS	$6,032.43
Office		
	Total Office	$1,000
Travel		
	Total Travel	$0.00
	Total Expense	**$11,472.43**

9.0 Appendices

Appendix I: PES Agreement Form

CLINTON DEVELOPMENT INITIATIVE

TREES OF HOPE PROJECT

LILONGWE, MALAWI

PAYMENT FOR ECOLOGICAL SERVICES AGREEMENT

THIS AGREEMENT (the "**Agreement**") is made this_____day of_____in the year____ _____between the **Clinton Development Initiative** ("**CDI**"), an initiative of the Clinton Foundation, located off Chayamba Road on Kambuku Street, Area 43/2/24, Private Bag 68, Lilongwe, Malawi, hereinafter referred to as the "**Project Manager**."

AND

_____of Village Head_____ _____, Group Village_____Head Traditional_____ _____ Authority in_____district, hereinafter referred to as the "**Producer,**" which shall admit and include their respective successors in title and/or assignees.

WHEREAS the Clinton Foundation is a not-for-profit organization which operates CDI in Malawi to support the government in rural development, environmental rehabilitation and livelihood improvement, and runs the Trees of Hope Project, a Plan Vivo-certified project, to coordinate sales of carbon certificates;

AND WHEREAS the Producer is the owner of the piece of land described in Appendix I;

AND WHEREAS the Producer has agreed to produce the estimated volume of carbon credits by planting, using and maintaining the land herein described under the land use system(s) shown in Appendix II, Table A;

AND WHEREAS CDI has agreed to coordinate sales of carbon certificates generated by the Producer by way of the Carbon Emission Reduction Process under the Trees of Hope Project at the price and conditions herein appearing below, and based on meeting the monitoring targets annually as outlined in Appendix II, Table B;

AND WHEREAS both parties are committed to reforestation of rural Malawi through the promotion of tree species to improve the environment, the food security of rural communities and a source of income aside from traditional staple crop agriculture;

NOW THEREFORE it is agreed that the purpose of this Agreement is to provide terms and conditions between the parties for the sale of carbon under the Carbon Emission Reduction Process pursuant to the Plan Vivo project. It applies to all sites registered by the Producer with the Trees of Hope Project for the provision of carbon sales.

1. Producer shall:

a. *Meet monitoring targets*. Meet monitoring targets, as outlined in Appendix II, Table B, over the first ten year period of growth as set under the Plan Vivo standard.

b. *Maintain land use system.* Maintain the specified land use system(s) for 50 years (the "**carbon crediting period**") as described below:

i. Maintenance of the land use system is defined for the first ten years of tree growth by Appendix II Table B, and thereafter as at least 90% survival of mature trees past the ten year monitoring period and until the end of the 50 year carbon crediting period. Additional details regarding management of the tree systems are outlined in the technical specification documents on the Plan Vivo website.
ii. All payments, based on the projected carbon to be sequestered over the 50 year crediting period, are calculated to be paid out over a ten year period as shown in Appendix I.
iii. After ten years, Producer shall be held self-accountable for the survival of the trees.

c. *Rectify problem areas*. If Producer fails to meet monitoring targets, Producer shall be placed on probation and shall have one calendar year (12 months) to rectify problem areas, starting at the date of failure to meet set targets, during which time payment shall be withheld.

i. If the Producer has not yet taken steps to rectify the problem areas by the second year of being on probation, further payment may be withheld and the Producer will be evaluated by CDI to determine whether or not he or she will remain in the program.
ii. If the reason for tree-loss is deemed unacceptable by CDI, Producer shall be permanently removed from the Trees of Hope project, and shall forfeit all future payments.

2. **CDI shall**:

a. *Pay agreed purchase price*. CDI shall pay the agreed purchase price per ton at the rate described in Appendix I, after verification that monitoring targets as specified in Table B and described below have been met.

i. Monitoring shall take place during the years specified in Table B: Data will be collected by CDI field officers for each Producer. Thereafter, monitoring by CDI field staff shall stop. Details of the monitoring process are outlined in the Project Design Document on the Plan Vivo website.

b. *Pay in instalments.* CDI shall pay total amount due to Producer (see Appendix I) via instalments as detailed in Appendix II, Table B, following verification that corresponding monitoring targets have been met. Payment conditions are as follows:

i. CDI works with First Merchant Bank of Malawi ("**FMB**") to issue bank account cards to all producers under the Trees of Hope project. CDI submits annual payment summaries to FMB, which will distribute the funds into Producer's account if annual monitoring targets are met.
ii. If Producer fails to meet monitoring targets, payments shall be suspended, at which point the Producer will have one calendar year (12 months) to rectify problem areas, starting at the date of failure to meet set targets.
    1. Payment may be withheld for up to two (2) one-year payment periods (or 24 months) if Producer fails to rectify problem areas to meet monitoring targets by the end of their two year probation period. At that point, CDI will determine, based on the reason for tree-life loss, whether or not the Producer will remain in the project or if the Agreement shall terminate.
    2. If the reason for tree-loss is deemed unacceptable, Producer shall be permanently removed from the Trees of Hope project, and shall forfeit all future payments.

3. **Jointly, the Parties agree to the following:** *Risk Buffer*. The Producer agrees to allocate 20% of his/her total carbon sequestered into a risk buffer maintained by Project Manager (the remaining 80% shall be the basis for Producer's payments, or the saleable carbon). In extreme cases of tree-loss by any given Producer, the risk buffer will ensure that if any losses are incurred, the total sequestered carbon in aggregate for the project can remain stable.

4. **Term/Termination**. The term of this Agreement shall commence on and shall continue for an initial term of ten (10) years, provided however that (i) either party may terminate this Agreement if the other party fails to perform its obligations hereunder and such failure to perform is not cured within thirty (30) days or (ii) in accordance with sections

1.c and 2.b.ii above, following written notice from the complaining party of such failure to perform; and (iii) CDI may terminate this Agreement upon not less than sixty (60) calendar days prior written notice to Producer should the Clinton Foundation discontinue its work or make other significant programming changes requiring the termination of this Agreement.

Signatures Appear Below

Acknowledged and agreed to this day of_____, 2015.

[ ]

By:_____

WITNESSED BY:

_____

CLINTON FOUNDATION

By:_____

WITNESSED BY:

_____

Producer Identity and Carbon Credits Profile

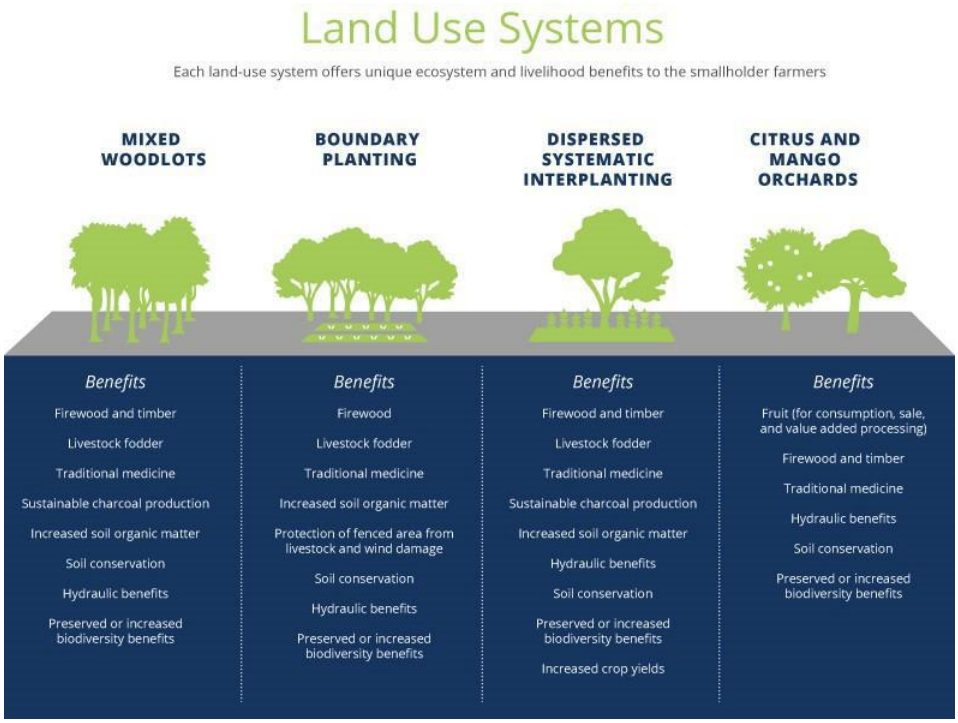
This form was computerized in 2016.

1.	**Name of Producer (Individual/Group and key point of contact)**	
2.	**Group Village Head**	
3.	**Traditional Authority**	
4.	**Project site (location)**	
5.	**Producer's Government ID number.**	
6.	**Total estimated size to be planted (Appendix II Table A)**	
7.	**Total carbon credits issued (tCO_2e for all land use systems implemented in the Producers field(s))**	
8.	**tCO_2 withheld as buffer (20% of total)**	
9.	**Total saleable tCO_2e**	
10.	**Total tCO_2e bought to date**	
11.	**Total unsold tCO_2e to date**	
12.	**Price per tCO_2e (euro)**	
13.	**Total amount (Euro and Kwacha) to be paid to the Producer for carbon sold over 10 year period**	

Appendix II: Training Module Components

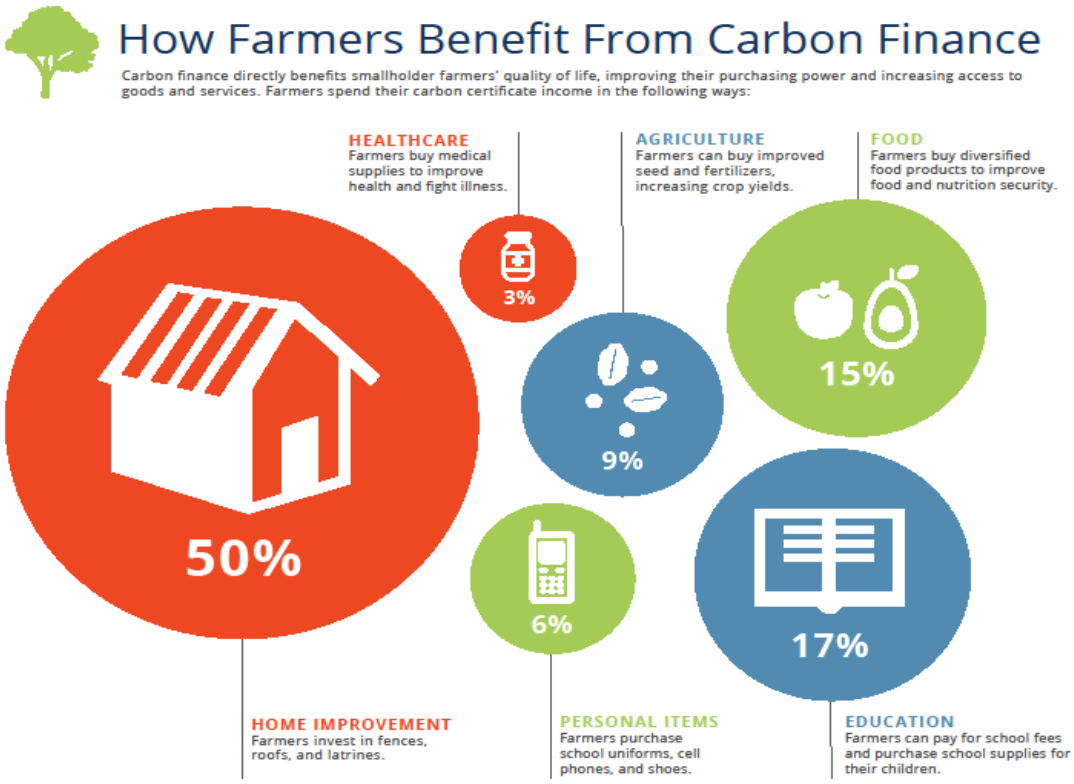
NUMBER	MODULE	BRIEF CONTENT AND RATIONALE
1	Climate change and rural livelihoods	Covers definition, causes and illustration of climate change effects with local indicators and its impact on rural livelihoods.
2	Climate change adaptation and mitigation	Presents possible strategies for avoiding further dangerous climate change and mechanisms to learn to live with the present effects. The role of trees in climate change management is discussed.
3	Trees of Hope Project: An Overview	Presents the objectives of the project and other building blocks of the program as a vehicle available to the communities to address climate change and safeguard and improve livelihoods.
4	The Plan Vivo System	Covers all tenets of the Plan Vivo system touching on all aspects from definition of a plan vivo to payment of carbon finance.
5	The concept of carbon trading	Introduces the new paradigm of carbon trading and carbon markets by defining the product to be produced by them as producers and outlining requirements of the market.
6	Tree nursery establishment and management	Looks at nursery techniques including choice of site, fencing, seed pre-treatment, media preparation, pot filling, sowing, development of root stocks, grafting, budding, root pruning, pest and disease management and hardening off.
7	Establishment and management	Covers selection of site, pegging and marking according to the technical specification, pitting, planting, mulching, pest and disease management, fire breaks, thinning and pruning.
8	Field monitoring	This outlines monitoring indicators and specifies what data are to be collected, highlighting the target for each monitoring period.
9	Receipt of carbon finance	Covers mainly the dividing criteria between eligibility and non-eligibility for receipt of carbon finance depending on monitoring results. Also covers issues about farmer payment procedures.
10	Group dynamics	Looks at advantages of working in groups, group formation, group leadership, team building, motivation and trust building.

Appendix III: Land Use System for Trees of Hope and Infographic



Land Use System	Description	Density/Spacing
Woodlots	This system involves the establishment of indigenous and/or naturalized tree species on a plot of land in a systematic manner.	2,500 trees per hectare
DSI (Dispersed Systematic Inter-Planting)	This systems involved inter-planting trees with arable crops to improve soil fertility over time through the addition of degradable organic matter to the soil and biological nitrogen fixation.	200 trees per hectare
Boundary Planting (BP)	This system involved the linear planting around amenities. It is commonly used around producers farms for boundary demarcation, but can also be used to protect fields from livestock damage	3 meters within rows (or 33.33 trees per 100 meter segment)
Citrus Orchard	This system involves the planting of high-value citrus varieties produced from local seedling rootstock through bud-grafting. These improved varieties not only produce high value fruit, but also reach fruiting age in 4 years, much earlier than local varieties.	400 trees per hectare
Mango Orchards	This system involves the planting of high-value mango varieties produced through grafting improved scion varieties on to local rootstock. These improved varieties produce less fibrous, more fleshy fruits, that reach fruiting age in 3-5 years, much earlier than local varieties.	200 trees per hectare

Appendix IV: How Farmers Benefit from Carbon Finance (2015)



Appendix V: Land Use System Chart

Land use system	Approved Tree Species	Check for Farmer Use	Planting density per hectare	Total Area to plant (ha/m)	Number of trees to be planted	Plot location (GPS)	Rotation and Harvesting period
Woodlot	*S. siamea, S. spectabilis and A. polyacantha.*		2500				**20 years**
Dispersed Systematic Inter-planting (DSI)	*Faidhelbia albida, Acacia polyacantha.*		200				**To be thinned progressively to 25 trees/ha at Year 50**
Boundary planting	*A. polyacantha, S. spectabilis*		34 trees/ 100m				**25 years**
Mango orchard	*Mangifera indica*		200				**50 years**
Citrus orchard	*Citrus sinensis*		400				**50 years**

Appendix VI: Monitoring and Payment Protocol

Monitoring period	Monitoring target to be met	Percentage (%) of total payment due	Number of payments
Year 1	**50%** of plot established	20 %	**1**
Year 2	**75%** of plot established	20 %	**1**
Year 3	Whole plot established with stand survival not less than **85%**	20 %	**1**
Year 4	Whole plot established with at least **90%** survival.	10 %	**1**
Year 5	Average DBH not less than 4cm	10 %	**1**
Year 7	Average DBH not less than 8cm	10 %	**1**
Year 10	Average DBH not less than 15cm	10 %	**1**

Appendix VII: Historical Sales Chart

DATE	PURCHASER	PVC	PRICE/PVC	Currency	Total	TOTAL USD
Reported in 2013 Annual Report						
	ZeroMission AB	1600				
	United Bank of Carbon	550				
	AECOM	600				
	COzero PTY Ltd	100				
	ZeroMissionAB - 46	6000				
Apr-13	ZeroMissionAB - 55	1999				
Jul-13	ZeroMissionAB - 55	1200				
Feb-13	COTAP - 1	468				
Dec-13	COTAP - 2	282				
subtotal		**12,799**				
Reported in 2014 Annual Report						
Jan-14	ZeroMissionAB -73	800				
Apr-14	ZeroMissionAB	300				
Apr-14	ZeroMissionAB	10000				
May-14	ZeroMissionAB	700				
Jun-14	COTAP - 3	524				
Jun-14	ZeroMissionAB	1500				
Aug-14	ZeroMissionAB	450				
Nov-14	ZeroMissionAB	1287				
subtotal		**15,561**				
Reported in 2015 Annual Report						
Feb-15	COTAP - 4	705				
Nov-15	COTAP - 5	229				
Jan-15	ZeroMissionAB -125	1500				
Feb-15	ZeroMissionAB -128	1000				
Jan-15	ZeroMissionAB -129	1100				
Apr-15	ZeroMissionAB -133	500				
Aug-15	ZeroMissionAB -140	34325				
Sep-15	ZeroMissionAB -149	1660				
Dec-15	ZeroMissionAB -158	1000				
subtotal		**42,019**				
Reported in 2016 Annual Report						
Feb-16	ZeroMissionAB -160	1000				
Jul-16	ZeroMissionAB -176 (replaced #175)	5169				
Sep-16	COTAP - 6	588				
Sep-16	United Bank of Carbon	840				
Dec-16	ZeroMissionAB	1426				
subtotal		**9,023**				
TOTAL		**79,402**				**$ 530,411.09**