



## Darwin Initiative Main Project Annual Report

To be completed with reference to the "Writing a Darwin Report" guidance: (<http://www.darwininitiative.org.uk/resources-for-projects/reporting-forms>). It is expected that this report will be a **maximum** of 20 pages in length, excluding annexes)

**Submission Deadline: 30<sup>th</sup> April 2018**

### Darwin Project Information

Project reference	24 025
Project title	<b>Community reforestation for biodiversity, livelihood diversification and culture</b>
Host country/ies	Timor Leste
Contract holder institution	Charles Sturt University
Partner institution(s)	Group Training Northern Territory World Vision Timor Leste RAEBIA Australian Landcare International
Darwin grant value	£309,182
Start/end dates of project	1 July 2017 to 30 June 2020
Reporting period (e.g., Apr 2017 – Mar 2018) and number (e.g., Annual Report 1, 2, 3)	1 July 2017 to 30 April 2018 Annual Report 1
Project Leader name	Joanne Millar
Project website/blog/Twitter	<a href="https://communityreforestationtimorleste.wordpress.com/">https://communityreforestationtimorleste.wordpress.com/</a>
Report author(s) and date	Joanne Millar, Jorge Ramos, Alex Sarmento

### 1. Project rationale

The project is addressing forest decline, biodiversity loss, land degradation and agricultural livelihoods in Laclubar and Soibada administrative-posts of Manatuto municipality in Timor-Leste (T-L), one of the poorest countries in Southeast Asia (T-L NAPA, 2010). Increased demand for agricultural land, timber and annual shifting cultivation for subsistence crops has led to annual deforestation rates of 2.18% (T-L UNCFCC, 2014). Household income is less than US\$1,000 per year or \$2.70 per day (Baseline survey 2017). Income is mainly from coffee, palm wine, forest products and labouring so farmers are looking for more options to diversify income to fund children's education, better housing, investment in agriculture and cultural commitments (Baseline survey 2017).

Forest decline in Manatuto municipality is affecting populations of endangered species of birds such the Timor Imperial Pigeon (*Ducula cineracea*) and the Wetar Ground-Dove (*Alopecoenas hoedtii*) (Birdlife International 2015). No biodiversity surveys have been undertaken in the project area. Community awareness and indigenous knowledge of birds and reptiles is evident

but has not been formally researched. The project is facilitating an increase in community led reforestation started in 2011 by Skillset and later on in 2013 by project partner GTNT. The aim is to integrate agroforestry, farmer managed natural regeneration (FMNR), biodiversity conservation and carbon payments through an internationally recognised carbon accreditation scheme. Indigenous knowledge and Timorese customary law (*Tara Bandu*) will guide project activities to ensure alignment with community values and goals.



**Map of Timor Leste and Manatuto municipality**



**Location of Laclubar and Soibada in Manatuto.**

National Adaptation Programme of Action (NAPA) on Climate Change, (2010). Ministry for Economy and Development and Secretary of State for the Environment.

Timor-Leste Initial National Communication to the UNCFCC, (2014). Timor-Leste's State Secretariat for Environment.

Birdlife International (2015): <http://www.birdlife.org/datazone/species/factsheet/22691794>

## 2. Project partnerships

The major project partner is Group Training Northern Territory (GTNT) who are responsible for project implementation, community and government liaison in Timor Leste. The CSU team comprising of project leader, forest research officer, social researcher and biodiversity ecologist has formed an excellent working relationship with the GTNT team comprising of the CEO based in Darwin, Timorese Project Manager based in Dili and Project Advisor based at Bathurst. A sub agreement was signed between CSU and GTNT with payment schedule (copy available if required). We have regular Skype meetings to plan activities, make decisions and trouble shoot any issues arising. We also communicate daily via WhatsApp in a group known as the DI Team, and via email. This has enabled immediate reporting of meetings, on-ground activities and local community concerns or requests.

Alex Sarmiento, GTNT project manager in Dili has been the pivotal link between the project team, the farming community and other partners; World Vision TL, RAEBIA (Resilient Agriculture and Economy through Biodiversity in Action), new partner Conservation International and the Government of Timor Leste. For example, Alex developed strong collaboration with Jesuinho Gusmão from WVTL to organise farmer training in FMNR during December and has kept WVI involved in planning for the carbon accreditation process. He also engaged early on with Xisto Martins and Mateus Maia from RAEBIA to learn about conservation farming and organise farmer cross visits in March. See blog stories at <https://communityreforestationtimorleste.wordpress.com/>

An early challenge for the project was how to engage the Government of Timor Leste in supporting a carbon offset project, with several Departments involved and limited government understanding of the carbon certification process. GTNT CEO Kathryn Stenson, Advisor Ben Bardon, and CSU researcher Jorge Ramos held frequent meetings with the Department of Environment, Ministry of Commerce, Industry and Environment, National Directorate for Climate Change, Department of Forestry and project patron ex-President Jose Ramos Horta. Government partners were also invited to the first stakeholder consultation in September 2017. As a result, a Memorandum of Understanding has been signed between GTNT and the Timor

Leste Department of Environment. See most recent blog story at <https://communityreforestationtimorleste.wordpress.com>

Australian Landcare International will donate a small amount of funds towards reforestation efforts.

### **3. Project progress**

#### **3.1 Progress in carrying out project Activities**

Activities implemented over the last 10 months have focused on Output 1 (Expansion of tree plantations and agroforestry development), Output 2 (Establishment of farmer managed natural regeneration (FMNR) in degraded areas) and Output 3 (Forest carbon certification). Output 4 and Output 5 activities will mostly occur over the next year and beyond.

##### **1. Expansion of tree plantations and agroforestry development**

A total of 45 farmers in Laclubar and Soibada planted 47,000 trees over 15 hectares in January 2018 including 27,700 Mahogany and Casuarina at Laclubar, and 19,600 Mahogany and Teak at Soibada. These are the popular timber species for commercial sale and canopy cover for coffee. This has expanded the total viable 42ha plantation area by approximately 30% to 55 ha (to be confirmed by GPS/GIS mapping). All trees were raised in 20 farmer owned and managed nurseries (13 nurseries in Laclubar and 7 nurseries in Soibada). Trees for local biodiversity purposes will be planted in 2019 in consultation with Conservation International after the biodiversity survey is conducted in June 2018 on site. See blog story at <https://communityreforestationtimorleste.wordpress.com/>

The baseline survey of 45 households in October 2017 showed that farmers already grow a wide variety of food trees including Avocado, Banana, Candlenut, Mango, Orange, Breadfruit, Jackfruit, Pomelo, Lime, Coffee, Tangerine and Coconut. However, 95% of respondents want to grow more variety of food crops and timber trees including Rambutan, Durian, more orange and tangerine, sandalwood, black teak, sikote bean, soya bean, cabbage, tomato, eggplant, bitter gourd, watermelon, strawberry, and grape. (Draft report available in June). Investigations are underway to source potential new food crop seeds and seedlings.

In March 2018, 25 farmers (15 from Laclubar and 10 from Soibada) including 8 female participants were trained in soil conservation, food crop management and seedbanks by RAEBIA. Farmers learnt how to terrace land to grow crops and avoid erosion. Host farmers demonstrated how they use compost and mulch to nurture food crops, and how to save seeds to develop a community seed-bank to ensure food security from year to year. Selection of high performing crops, good quality seed and dry storage were emphasised. After the field visits, farmers had group discussions on what they had learnt and what might be feasible to adopt. See blog stories at <https://communityreforestationtimorleste.wordpress.com/>

##### **2. Establishment of farmer managed natural regeneration (FMNR) in degraded areas**

Farmers from Laclubar and Soibada had two opportunities to learn about Farmer Managed Natural Regeneration in December 2017 organised by Alex Sarmiento. Jesuinho Gusmão from World Vision TL visited the project area in early December to give an introductory presentation to the whole community and assess suitability of sites for FMNR. He then visited six sites and showed 17 farmers the basic elements of how to manage natural regeneration of eucalypts. A group of 21 farmers (7 women, 14 men) and the 5 project field staff were selected to go on a study tour to Aileu municipality where farmers have been practicing FMNR for several years. They learnt about terracing, coppicing, thinning, pruning and crop diversification. See blog story at <https://communityreforestationtimorleste.wordpress.com/>

Jorge Ramos and Jes Gusmão have identified potential areas for FMNR which will be mapped. The above ground biomass of these areas will not be included in the carbon certification due to constant use for firewood and fence posts, although the possibility of including soil organic carbon is being considered. Four farmers have elected to trial FMNR techniques on their land as demonstration areas.

### 3 Forest carbon certification

Work is progressing towards gathering information and forming partnerships to meet the Gold Standard Carbon Accreditation requirements. Stakeholder consultations were held in September 2017 to discuss expansion of community reforestation activities and requirements of the carbon certification process including sustainable development elements, a sustainability monitoring plan and a strategy for continuous consultation (Input & Grievance Mechanism). Meetings were held in Dili, Laclubar and Soibada. There were 24 attendees in Dili with representatives from the Ministry of Commerce, Industry and Environment, National Directorate for Climate Change, Department of Forestry, RAEBIA, World Vision International and Conservation International. Issues raised included more diversity of tree plantings (for biodiversity and food, not just timber); safeguards to reduce pressure on natural forests; potential extreme climate impacts, and use of participatory land use mapping for land use change planning.

Thirty two community members attended the Laclubar meeting and 24 local people attended the Soibada meeting. Laclubar farmers want to improve site selection, nursery management, seedling distribution, work scheduling and promotion of “working bees”. They are considering the creation of womens’ groups to encourage female participation, and introduction of water harvesting systems to deal with drought and tree mortality. They also thought there should be more variety of trees including fruit trees and plantings on communal land, awareness raising about grazing compliance by neighbours and use of the authority of the Chef du Suco (village chief) to reinforce compliance. Soibada’s farmers are worried about increasing landslides and want to plant trees on communal land but avoid areas that are currently contested. They also suggested providing trees to all households as a way of achieving general community participation.

In September 2017, the five field officers based in Laclubar and Soibada were trained in forest inventory methods and tools needed for forest carbon assessments. These methods included setting up circular plots in steep terrain and edge plots, tree diameter measurements (dbh) and tree heights. The measurements will assist in calculating carbon stocks for carbon certification and entering the carbon market. The field team was also trained in the use of hand held GPS for mapping, capture of waypoints, data downloads and storage of the information in electronic format. A manual of mapping and forest inventory procedures were drafted in both English and Tetum (files attached in email). Safety gear was also provided. Maps have now been developed for 80% of total household plantation areas to assist in determining boundaries, area size, potential connectivity and carbon calculations (see example in **Annex 4.1**). A carbon contract template has been developed and signed between GTNT and individual farmers on 6<sup>th</sup> April 2018 (see **Annex 4.2**).

### 4. Biodiversity information that informs forest management, education and policy.

The first biodiversity survey will be conducted in late May/early June 2018 at end of the wet season when wildlife is more abundant. It will survey small mammals including bats, reptiles, frogs, birds and vegetation. Conservation International (NGO based in Dili) have offered to do the survey as part of a training program with 8 government officers and 2 staff from the University of Timor Leste. Three areas will be surveyed- degraded, plantation and pristine (see Research Design in **Annex 4.3**).

Dr Joanne Millar conducted a biodiversity education session at the Laclubar elementary school in October 2017. After talking about Australian wildlife, students were asked what wildlife they observed in the surrounding forests. Mentioned were "Laku" (the Asian palm civet), "Monkey", "Nike" (Bat), and other species such as green tree frogs, Northern cuscus, snakes and coloured parrots. Children then enjoyed colouring in animal and bird pictures, and looking at picture books. Future biodiversity education activities will focus on integrating information on wildlife found in the biodiversity surveys and local ecological knowledge to encourage more interest in wildlife conservation. See blog story at <https://communityreforestationtimorleste.wordpress.com/>

## 5. Livelihoods impacts determined

The baseline household survey was conducted in Laclubar and Soibada from Sunday 22<sup>nd</sup> October to Friday 27<sup>th</sup> October 2017. A team of four enumerators from Laclubar were selected so the local dialect of IDATE could be used with farmers as their preferred language Alex Sarmiento organised the team and translated the questionnaire into Tetum. A pre-test was conducted with four farmers and several questions were modified. Drs Jennifer Bond and Joanne Millar accompanied the team over four days whilst they interviewed 43 farmers (including 9 women) who have been planting trees since 2011. Most of these farmers plan to continue planting trees in 2018 so the impacts of the project can be evaluated in coming years. Farmers were asked about land use, plantation management, income sources and expenditure, awareness of conservation farming/FMNR, and traditional ecological knowledge. Results have been analysed and a draft report will be completed by June 2018. Questionnaire is attached a separate file.

### 3.2 Progress towards project Outputs

#### Output 1 Expansion of tree plantations and agroforestry development

Land classification mapping of degraded, planted and natural forest areas has been completed (see **Annex 4.4**), with on-ground assessment. We initially estimated 260 hectares (ha) available for tree planting based on rough calculations, however our mapping and forest inventory research to date shows that this target is overestimated given the small, steep and fragmented nature of private land plots. Given there is approximately 42ha of one to five year old trees and 15ha recently planted (total 57ha), we can more realistically expect an annual increase of 20 ha per year with a total of 130ha by end of Yr3, providing more farmers join the program. About half the plantation areas include agricultural crops with additional agroforestry systems so an increase of 20ha is achievable. Tree survival is currently around 50% but with recent farmer training, we expect this to increase to 70% particularly with regular monitoring by field staff. Verification methods remain reliable.

There are currently 66 households registered with tree growing and receiving payments from GTNT. The limiting factors to supporting more households are nursery expansion to meet seedling demand and having carbon accreditation to enter the carbon market to allow more farmers to be paid for their trees. We are investigating supplementing seedling supply from other sources, and encouraging new farmers to establish nurseries. A more realistic target may be 100 households by end of Yr 3. Regarding income from agroforestry products, from the baseline household survey we found average annual incomes to be palm wine (\$526), nonfarm jobs (\$493), forest products (\$450), coffee (\$307), livestock (\$278), and timber (\$237). Less income was received from fruit crops (\$67), field crops (\$35), firewood (\$34) but important for food security. A 15% increase in annual household income and food security from agroforestry products by end of Yr 3 is still be feasible if farmers adopt the conservation farming techniques and specialise in high value crops with established markets. RAEBIA will assist our field staff to source seed material and mentor farmers in growing new products. A planned visit in June will determine what women are interested in growing or processing to increase household income from agroforestry. Progress will be monitored using annual household surveys and focus group discussions.

#### Output 2 Establishment of farmer managed natural regeneration (FMNR) in degraded areas

Areas suitable for FMNR have been identified and are currently being mapped. This is a new technique for farmers in the project area so may take a while to catch on. After the FMNR training and tour in December 2017(see blog story), Jes Gusmao from WVI and Jorge Ramos visited each farmer participant in April 2018. Four of these farmers have offered to use their forest sites as demonstration areas covering approx. four hectares. Monitoring methods and plans are shown in **Annex 4.5**. The target of 40ha area will be updated next year pending demonstration of first year results. Depending on the rate of natural regeneration/tree density we will also review the indicator of 60% increase in forest cover. We are confident of a 50% improvement in farmer's forest management skills which will be monitored via field

observations, training evaluations and interviews. Some of the quotes below show farmer reflections on what they learnt from the FMNR trip to Aieu.

*“Manuel’s (host farmer) trees are not only planted trees but also natural regrowth. My land is very suitable for FMNR. I have cut all trees in my field but in Manuel’s farm he keeps everything.”*

*“I like his long-term trees and short term trees so we need to increase the varieties of trees. Because if we do that, then our farm will be so diverse.”*

**Output 3 Forest carbon certification**

A preliminary carbon baseline has been estimated (Table 1) based on tree stock and mapping to date (80% completed) as described in section 3.1. Tree counts, growth measurements and areas will continue to be measured in sampling plots to calculate yearly carbon output.

**Table 1. Estimated Baseline Planted Sites (Laclubar TL)**

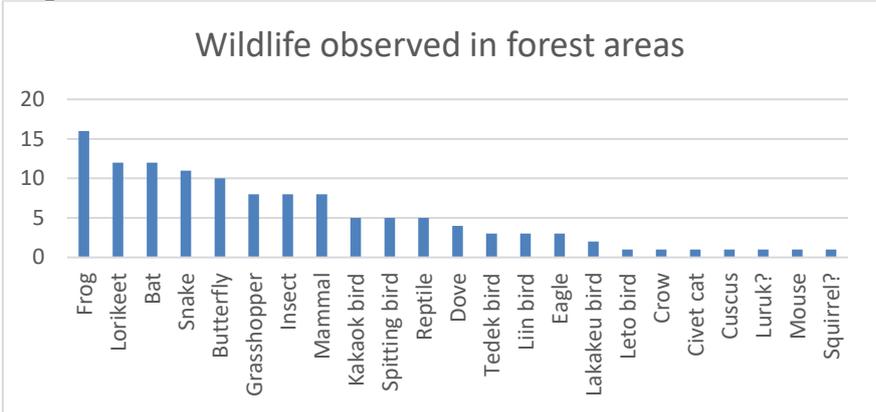
Planting Year	2011	2012	2013	2014	2015	2016	2017	2018
Area Planted (Ha/ Year)	10	3	9	12	10	3	4	15
Baseline (tCO2 e/ planted area)	225	58	212	265	231	72	88	345
Factors used in calculations:								
Carbon fraction				0.5				
Conversion factor: C to CO2 equivalent:	44 /12			3.67				
Estimated Baseline Factor (tCO2 e / Ha)				23				

Contact has been made with Gold Standard International to notify them of our pending application and seek advice. Jorge Ramos is developing the Project Design Document in which we will address three SDGs (Climate Action, No Poverty, Life on the Land). The Local Stakeholder Consultation process is underway with formation of a project steering committee. We are aiming to submit documents to Gold Standard during the second semester of 2018 as scheduled. An auditor will validate the site and information before assessment for certification which will occur by end of Year 2 as planned. The expected 25% increase in household income from carbon sales in Yr 3 still stands. All means of verification are unchanged.

**Output 4 Biodiversity information that informs forest management, education and policy**

The baseline biodiversity survey has not been conducted yet (scheduled for late May/early June 2018 post national election) as explained in section 3.1. The indicator of 70% increase in biodiversity information from annual surveys still stands as currently there are no surveyed records of wildlife in the project area, only in neighbouring Mt Diatuto protected area. The 2017 household survey revealed some local knowledge and customary beliefs regarding fauna. Figure 1 shows observations of different species with frogs, lorikeets, bats, snakes and insects being the most commonly mentioned. We will compare farmer responses with actual survey results regarding abundance of these species.

**Figure 1**



When asked if they had seen any changes in wildlife species since planting trees, 73% of 45 respondents said Yes and 27% said No. Here are some quotes from respondents;

*“The change is that in the past [when] not yet growing these plants there were not these animals but today the animals are starting to come a lot already and [they] play happily in the tops of the plants.”*

*“(We have seen) change because grow the seedlings and lots of plants already, therefore wild animals like wild birds and mice have decreased from the fields because they have their [own] place already.”*

Forty people or 89% of all respondents talked about various bird and animal calls signifying death or difficulty in family, coming rain or bad spirit nearby or need to do rituals in the house. The following quotes are examples;

*“Wild animals that touch our culture are kakuuk [bird]. This kakuuk calls in the morning therefore a small child has died, if it calls in the afternoon therefore an older person has died.”*

*“Kakuk bird signals some family are about to die. Laliun bird also signals some family death. Doa birds signifies it's about to be rainy time. Kakoak bird signifies presence of spirits.”*

We are confident that there will be a 70% increase in community interest in biodiversity conservation by end of Yr3 when survey results are shared with the community and more school sessions are held. We will capture this change in awareness and interest from indepth interviews, the annual household survey and student feedback sessions. However increasing awareness and knowledge does not necessarily lead to direct actions to conserve fauna and flora. War and poverty in Timor Leste led to killing and eating wildlife when opportunities arise, particularly if wildlife is damaging crops. Hence the importance of alleviating poverty to enable households to become more engaged in biodiversity conservation.

## **Output 5 Livelihoods impacts determined**

Livelihood impacts are yet to be determined. In terms of measuring family wellbeing and income, the baseline household survey shows that 96% of respondents have private land, 4% use communal land, and the average land area is 2.13ha (0.5 to 8ha). Farmers grow a wide variety of food crops and timber and most families have livestock. There is heavy reliance on forests for firewood and fence posts, with a few households making furniture and collecting medicine or honey. Men and women both provide significant labour input to tree plantations (women about two thirds of the time spent by men). Boys provide more labour than girls with planting, weeding, watering, pruning and keeping livestock out. Ninety eight per cent of respondents are satisfied with the reforestation program. Plans for using the trees after 30 years include- making house (65%), selling timber (33%), making furniture (15%), make fence (2%). As one respondent said *“We have trees to grow in our fields and money to spend on household necessities and children's future.”*

The annual income from tree payments ranged from US\$40 to \$2,000, average \$293 or 80c per day. Respondents said they spent this income on food (rice, oil), school items, and household items. A few households also use it for building materials, seed/fertiliser, livestock, cultural events (lia) or giving to relatives. Combined with income from other sources (see section 3.1), the total average income is \$1266 or \$3.45 per day. The annual household surveys and carbon credit register will enable us to track increases in household income. Indepth interviews and case studies will probe further into wellbeing impacts. Although women have participated in farmer training, meetings and planning to date, attendance is about a third compared to men and it is often difficult to capture women's opinions due to shyness in a group. For this reason, we will be holding indepth interviews and discussions with women on our next visit in June 2018 to explore their constraints, interests, needs and aspirations. The aim is to develop a gender sensitive approach to all project activities. Non-participating families interested in adopting reforestation and FMNR on their land will be included in the program over the coming year.

### 3.3 Progress towards the project Outcome

The Outcome Statement is “Biodiversity and livelihoods are enhanced through expansion of community reforestation that integrates agroforestry systems, farmer managed natural regeneration, biodiversity conservation, carbon payments and customary law.”

In the first 10 months of the project we have made some initial steps towards the project outcome by;

1. Expansion of tree plantations and farmer training in FMNR and conservation farming.
2. Started the process of gathering data for carbon certification and consulting stakeholders.
3. Conducted the baseline household survey to determine household income, resource consumption, plantation labour requirements, views on the carbon scheme, training needs and wildlife observations.
4. Planning the first biodiversity survey and engaging school students in wildlife education
5. Planning a gender sensitive approach to all activities, and further investigation of women’s interests and needs.
6. Planning for Tara Bandu laws and ceremony.

All the indicators are still adequate for measuring the overall project outcome, and the means of verification are proving reliable. However the target of 300 hectares reforested via planting and farmer managed natural regeneration may have to be reduced to 150 hectares.

### 3.4 Monitoring of assumptions

#### Outcome Assumptions

1. Free satellite imagery is available for project area.  
Comment: Satellite imagery was accessed freely via the Spatial Analysis Unit at Charles Sturt University.
2. Adequate safeguards are in place to ensure longevity of transactions.  
Comment: Still holds. Safeguards are addressed in the Project Design Document and discussed during stakeholder consultations.
3. Information is available to determine reliable socio-economic indicators to build a baseline.  
Comment: Baseline information is fairly general but enough to compare changes over time and avoid confusing farmers or expecting data they cannot provide.
4. Women are motivated and have time to participate.  
Comment: Still holds. Women are participating but motivation levels and time constraints needs further investigation
5. Baseline data on the presence of birds, bats, reptiles and amphibians is established in Yr 1 and expanded upon in the subsequent years.  
Comment: Still holds. To be determined.

#### Output Assumptions

- |   |
|---|
| <ol style="list-style-type: none"><li>1.1 Natural disasters and livestock will not impact the project. (Still holds. So far, OK)</li><li>1.2 The tree species selected are appropriate and weeds controlled. (Still holds, need more diversity of tree species and monitoring of weed control by field staff)</li><li>1.3 Farmers have land and are physically able to participate. (Still holds. So far, OK but may be an issue for non-participating farmers in which case we need to find alternatives for them)</li><li>1.4 Farmers have access to markets and include nutritious fruit and nuts in their family’s diet. (Still holds, local markets in each suco, wide variety of foods grown and sold but may vary between families).</li></ol> |
| <ol style="list-style-type: none"><li>2.1 Community members motivated to changing old land management practices such as slash and burning (Still holds. Conservation farming training slowly changing traditional practices)</li><li>2.2 Free satellite imagery is available for project area (freely available)</li><li>2.3 Farmers committed to good management practices. (Still holds. To be determined)</li></ol>  |

<p>3.1 Project staff, students and farmers willing to collaborate in forest carbon monitoring. (Still holds. Collaboration good so far).</p> <p>3.2 PDD is satisfactory (Still holds. To be determined).</p> <p>3.3 Safeguards regarding transaction costs, land tenure and accountability are in place. (Still holds. To be determined).</p> <p>3.4 Market conditions for carbon purchases exists and demand will continue. (Still holds. To be determined).</p>
<p>4.1 Community gives permission for biodiversity research in their plantations. (Still holds but low risk).</p> <p>4.2 Species can be readily identified including threatened species. (Still holds. Low risk as experts involved).</p> <p>4.3 Community members are willing to share customary beliefs and local knowledge. (Still holds but seem willing to share knowledge).</p> <p>4.4. Villagers and the schools actively participate in biodiversity education events. (Very enthusiastic!)</p>
<p>5.1 Information is available to determine reliable socio-economic indicators to build a baseline (Low risk)</p> <p>5.2 Women are motivated and have time to participate. (Still holds. Medium risk)</p> <p>5.3 Farmer to farmer exchange is facilitated well with non-participating farmers. (Still holds. Need to engage wider network of farmers over time).</p>

### 3.5 Impact: achievement of positive impact on biodiversity and poverty alleviation

Impacts on biodiversity conservation and human development/wellbeing have yet to emerge.

## 4. Contribution to the Global Goals for Sustainable Development (SDGs)

The project has contributed to the following Global Goals for Sustainable Development in the last 10 months:

1. *No poverty* through income generation and community livelihood diversification. [Not yet]
2. *Zero hunger* by introducing agroforestry systems (consumption and income) and promotion of organic soil fertility building activities. [Conservation farming training – see section 3.1]
3. *Quality education* through capacity building of local community members in natural resources management, biodiversity conservation basic forest inventory and carbon monitoring. It is expected that with higher incomes, parents are likely to be in a better position to afford education for their children. [FMNR training and tree payments used for school expenses]
4. *Gender equality* by encouraging female participation and roles in the project. [Women are participating in FMNR, Conservation farming, and planning meetings but not as much as men]
5. *Climate action* by reducing deforestation and associated emissions from increased carbon stocks through reforestation. Project activities will also reduce the impact of droughts and torrential rains [Continued expansion of tree plantations by 15ha, carbon measurements underway]
6. *Life on Land* by reversing soil erosion and degradation and reducing deforestation and biodiversity losses. [Continued expansion of tree plantations by 15ha, and conservation farming training]

## 5. Project support to the Conventions, Treaties or Agreements

The Ministry of Commerce, Industry and Environment – National Directorate for Biodiversity Protection and Restoration (MCIA–NDBPR) is the focal point for the CBD in Timor-Leste. Augusto Pinto, the National Director for Climate Change and João Carlos, the Director General for Environment attended the Stakeholder Consultation in Dili last September 2017. An MOU has now been signed between GTNT and the Department of Environment regarding support for Gold Standard carbon accreditation. Some progress has been made towards supporting the following strategic goals of the CBD;

*CBD SG A:* Farmer involvement in natural regeneration techniques, agroforestry, carbon incentives and biodiversity research will increase awareness of the value of reforestation across communities, local government and national organisations. [66 participating farmers are

already aware of the value of reforestation but will increase as more farmers get involved, and results become known at local and national government levels.]

*CBD SG B:* Pressure on forest and soil will be reduced by adoption of sustainable forestry and agricultural practices. [Forest plantations now cover 57ha with conservation farming being practiced in 3 out of 6 sucos]

*CBD SG C:* Biodiversity status will be improved through better knowledge of species and habitat requirements. [No contribution yet]

*CBD SG D:* Communities will benefit from healthier ecosystems, carbon income and climate change adaptation. [No major contribution yet]

*CBD SG E:* Local, indigenous and gender sensitive group training and mentoring will build long term confidence in land management and biodiversity conservation. [Confidence slowly building after FMNR and conservation farming training with visits by WVI and Raebia and Jorge Ramos]

## **6. Project support to poverty alleviation**

This project is working to alleviate poverty by establishing a long term carbon market and sustainable agroforestry systems for subsistence households in Laclubar and Soibada of Manatuto municipality. The baseline household survey revealed that tree payments are already contributing towards paying for school expenses, staple food items, agricultural inputs and building materials (see section 3.2). Carbon payments will continue to provide income for food security, education and wellbeing. Diversification of food crops via conservation farming will enhance nutrition and provide further income if sold to viable markets. We should start to see household progress towards poverty alleviation by Yr 3 in the form of more secure savings, and more confidence in investing in enterprises and their children's future.

## **7. Project support to gender equality issues**

The project aims to encourage equal participation and benefit sharing of men and women in farmer training, and project planning, implementation and evaluation. In the last 10 months, women have participated in all activities (see sections 3.1 and 3.2) but in fewer numbers than men and with less input and feedback, due to cultural expectations and gender roles in Timorese society. We are conscious of working sensitively within the cultural context to achieve direct gender equality impacts such as capacity building in tree selection and management, product marketing, income management and enterprise development. A gender sensitive approach has been designed with the following goals;

1. Establish a project steering group with equal gender representation
2. Ensuring equal opportunities for women and men in farmer training
3. Inclusion of at least one female as a member of each field crew. Currently there is a female working in Laclubar with another female to become part of the field team based in Soibada in mid-2018
4. Facilitating gender sensitive training events and follow up activities for staff and farmers
5. Facilitate gender sensitive meetings during the LSC process to allow men and women to express their views in oral, visual or written form.
6. Focus project impact evaluation on how outcomes have affected women and men and families.
7. Develop case studies that showcase how the project is benefiting women and men equally

## **8. Monitoring and evaluation**

Monitoring of Outputs 1, 2 and 3 is based on forest inventory and mapping techniques which are proving reliable methods. Field staff have been trained in these methods but need regular mentoring by the Project Manager and CSU researcher. A pilot inventory design has ironed out some issues with site identification, measuring tree survival and tree density. For example, there is considerable variability between sites. Four planting arrangements were identified

across all sites: 1: Single species only 2: mixed species and agroforest, 3; mixed species no agroforest 4: Single species and agroforest. We will use the dominant species and planted years as the base for stratification and final inventory design. Land use mapping will be used to determine areas under conservation farming. The final inventory design will be included in the Gold Standard Project Design Document and will provide the basis for reporting once carbon certification is achieved. Biodiversity research will be conducted by Conservation International with results and methods assessed by ecologists at Charles Sturt University. Biodiversity education has not started in earnest yet, hence no evaluation has been conducted. Monitoring and evaluation of livelihood impacts is yet to occur.

## **9. Lessons learnt**

The project has benefited from working with a non-government organisation with several years of experience and community credibility in the project sites. We were able to make a seamless start as administrative systems and staff were already in place. Having a dedicated manager in Dili and committed research officer in Australia with strong support from GTNT has proved invaluable. They quickly made the necessary links with all relevant government organisations and engaged the two project partners, World Vision and RAEBIA. Despite having a rather dispersed team geographically, we have managed to form a close team with regular skypes, emails, phone calls and face to face visits.

Field data collection has been challenging due to the difficult terrain and variability in forest condition. The project is introducing highly technical concepts and methods which challenges the field staff but they are learning steadily. Another challenge for the project team is the transition from a simple tree planting scheme to a more integrated and complex carbon certification scheme with sustainable development elements. We have to strike a balance between aiming high but being realistic in what farmers can implement given their time and economic constraints.

## **10. Actions taken in response to previous reviews (if applicable)**

## **11. Other comments on progress not covered elsewhere**

## **12. Sustainability and legacy**

The project has a high profile within the project area but fairly low profile in Dili. Government agencies are becoming more familiar with the project through regular meetings. There is potential to promote the project once we have achieved carbon certification and impacts are starting to emerge. We will start engaging media for newspaper, radio and TV stories in the coming year. The exit strategy is still valid.

## **13. Darwin identity**

The main avenue for publicising the project and the Darwin Initiative has been the website at [communityreforestationtimorleste.wordpress.com](http://communityreforestationtimorleste.wordpress.com). There have been 96 views from 56 visitors from nine countries with most views from Australia and Timor Leste. The website has been promoted via ILWS Facebook, Australian Embassy in Dili Facebook, Timor Academics Facebook, Australian Landcare International, Darwin newsletter and World Vision International. Articles have been published in the ILWS newsletter. The Darwin Initiative logo has been used and promoted at Local Stakeholder Consultation meetings and on reports. The Department of Environment and Conservation International are familiar with the Darwin Initiative from two previous projects. Other Departments are less familiar but will come to know more about the project as we promote outcomes.

## 14. Project expenditure

Table 1: Project expenditure during the reporting period (1 July 2017 – 31 March 2018)

Project spend (indicative) since last annual report	2017/18 Grant (£)	2017/18 Total Darwin Costs (£)	Variance %	Comments (please explain significant variances)
Staff costs (see below)			+10% -4%	CSU officer has worked some extra hours for carbon measuring.
Consultancy costs			- 100 %	Carbon auditors not engaged yet
Overhead Costs			-26%	Due to 10 month reporting period
Travel and subsistence			-9%	Due to 10 month reporting period
Operating Costs			-15%	Due to 10 month reporting period
Capital items Two Brand New Motorbike (Honda Revo CW) Forestry and nursery equipment			-10% -35%	Due to 10 month reporting period
Monitoring & Evaluation (M&E) (included in travel and operating costs)				
Others Biodiversity education material and activities Funds transfer costs Tree seedlings			- 100 %	Will be developed after biodiversity survey GTNT yet to claim Tree seedlings yet to be ordered.
<b>TOTAL</b>			<b>-31%</b>	Due to 10 month reporting period and no consultancy costs to date.

## Annex 1: Report of progress and achievements against Logical Framework for Financial Year 2017-2018

Project summary	Measurable Indicators	Progress and Achievements April 2017 - March 2018	Actions required/planned for next period
<p><b>Impact</b></p> <p>Biodiversity and livelihoods are enhanced through expansion of community reforestation that integrates agroforestry systems, farmer managed natural regeneration, biodiversity conservation, carbon payments and customary law.</p>		<p>Impacts on biodiversity conservation and human development/wellbeing have yet to emerge</p>	
<p><b>Outcome</b></p> <p>Biodiversity and livelihoods are enhanced through expansion of community reforestation that integrates agroforestry systems, farmer managed natural regeneration, biodiversity conservation, carbon payments and customary law.</p>	<p>0.1 300 Hectares successfully reforested via planting and farmer managed natural regeneration by end of Yr 3</p> <p>0.2 Carbon certification and payments achieved by end of Yr 2</p> <p>0.3 40% increase in household income of project participants from agroforestry products and carbon credits by end of Yr 3 compared to the baseline in Yr 1</p> <p>0.4 50% increase in women's participation and satisfaction in all activities by end of Yr 2 against baseline of Yr 1.</p> <p>0.5. 70% increase in biodiversity information and community interest in biodiversity conservation over 3 years.</p>	<p>15 hectares have been planted in January/February 2018</p> <p>Areas suitable for FMNR identified</p> <p>Carbon monitoring underway and project design document being developed.</p> <p>Baseline data gathered but no increase in income yet.</p> <p>Baseline information gathered but no increase yet.</p> <p>Not yet</p>	<p>Final forest inventory completed</p> <p>Tara Bandu ceremony for land use agreements</p> <p>Forest management and FMNR field days</p> <p>Conservation farming expansion</p> <p>Nursery expansion</p> <p>Project Design Document and Business Plan completed</p> <p>Third party audit/validation</p> <p>Application to Gold Standard</p> <p>Formalisation of carbon contracts</p> <p>Focus group discussions with women regarding aspirations and roles</p> <p>First biodiversity survey</p> <p>Second household survey</p> <p>Case study interviews</p> <p>School education events</p>

<p><b>Output 1.</b> Expansion of tree plantations and agroforestry development</p>	<p>1.1. 260 Hectares (ha) planted including 20 ha under an agroforestry system by end of Yr 3.</p> <p>1.2. 70% tree survival rate achieved after 1<sup>st</sup> year of new planting establishment</p> <p>1.3. 210 households participating in tree planting and maintenance with <i>Tara Bandu</i> in place by end of Yr 3</p> <p>1.4. 15% increase in annual household income and food security from agroforestry products by end of Yr 3</p>	<p>15 ha planted</p> <p>Conservation farming training completed</p> <p>Baseline established but no increase yet</p> <p>66 households planting trees and receiving payments</p> <p>Baseline household income from tree growing and other sources determined but no increase yet.</p>
<p>Activity 1.1 Community agreement on land use with regards to proposed activities is formalised through a <i>Tara Bandu</i> ceremony.</p>		<p>Community agreement on land use based on <i>Tara Bandu</i> has been postponed until after the national election in May 2018.</p>
<p>Activity 1.2 Registration of project participants for both planting and FMNR activities</p>		<p>45 farmers registered for tree planting in 2018 and 21 farmers (7 women, 14 men) attended the FMNR training trip to Aileu municipality in December 2017</p>
<p>Activity 1.3 Training of participants in tree propagation, planting and tree/fruit management.</p>		<p>21 farmers trained in natural regeneration/coppicing/pruning techniques (FMNR) and 40 farmers attended presentation by World Vision on FMNR in Laclubar and Soibada in December 2017</p> <p>25 farmers (15 from Laclubar and 10 from Soibada) including 8 female participants trained in tree propagation and fruit management by RAEBIA in March 2018.</p>
<p>Activity 1.4 Identification of sites, species selection for both reforestation and agroforestry systems, propagation of seedlings and tree nursery expansion, site preparation, planting etc.</p>		<p>Existing sites mapped.</p> <p>20 farmer run reforestation nurseries raised 50,000 seedlings (Mahogany, Casuarina, White Teak) for planting in January 2018.</p> <p>45 Farmers identified fruit crops they would like to grow (see section 3.1).</p> <p>25 Farmers learnt about conservation farming techniques for growing fruit crops (see section 3.1)</p>
<p>Activity 1.5 Monitoring of new plantings on a quarterly basis</p>		<p>Field staff at Laclubar and Soibada inspect all tree plantings every 3 months for survival rates and carbon measurements.</p>

<p><b>Output 2.</b> Establishment of farmer managed natural regeneration (FMNR) in eroded areas</p>	<p>2.1. 40 ha of eroded and low fertility land undergoing FMNR by end of Yr 3. 2.2. 60% increase in forest cover by end of Yr 3 2.3. 50% improvement in farmer's forest management skills including sustainable harvesting by end of Yr 2.</p>	<p>FMNR area being mapped Four demonstration areas identified.  FMNR training completed</p>
<p>Activity 2.1. Farmer tour to World Vision FMNR sites to talk directly to local farmers and WVI staff and see how FMNR is done.</p>		<p>Completed in December 2017 with farmer evaluation/feedback (see section 3.2)</p>
<p>Activity 2.2. Identification of project FMNR sites and establishment of a land use baseline through field assessments and map production.</p>		<p>In progress</p>
<p>Activity 2.3 Delivery of workshops in Laclubar and Soibada on FMNR techniques, which will include pruning, terracing, fertility building, mulching, tree thinning and basic silvicultural management.</p>		<p>Completed in December 2017</p>
<p>Activity 2.4 Monitoring of FMNR on a yearly basis through field inspections and regeneration surveys.</p>		<p>In progress</p>
<p><b>Output 3.</b> Forest carbon certification</p>	<p>3.1 Implementation of yearly carbon measurements. 3.2 A Project Design Document (PDD) for carbon mitigation is completed in the first year 3.3 Gold Standard Carbon certification is achieved before end of Yr 2 3.4 25% increase in household income from carbon sales by end of Yr 3.</p>	<p>3.1 Pilot inventory completed and carbon baseline calculated 3.2 Draft PDD to be completed by end of June 2018 3.3 On target 3.4 On target</p>
<p>Activity 3.1 Completion of a carbon project plan.</p>		<p>Plan completed. Available on request</p>

Activity 3.2 Procurement of free satellite imagery with suitable resolution and analysis to generate digital maps (also used in Outputs 1 and 2)		Imagery procured and used to generate site maps
Activity 3.3 Formalisation of contract arrangements pertaining to carbon rights with farmers.		Completed March 2018.
Activity 3.4 Design of a carbon baseline ("without project" scenario) to estimate changes in carbon stocks and emission reductions due to project activities		In progress
Activity 3.5 Design of community grievance and communication strategies with project participants and relevant stakeholders		Completed during local stakeholder consultation in September 2017 (see section 3.1)
Activity 3.6 Formal local stakeholder consultation as per selected certification methodology		Local stakeholder consultation completed in September 2017 (see section 3.1)
Activity 3.7 Submission of information and documents for project compliance checks conducted by the certifier (pre-feasibility assessment)		Scheduled for August 2018
Activity 3.8 Third party audit and issuance of carbon credits		Scheduled for October 2018 to March 2019
Activity 3.9 Forest carbon monitoring as part of monitoring of new plantings and regeneration on a yearly basis		In progress
<b>Output 4.</b> Biodiversity information that informs forest management, education and policy.	<p>4.1 Baseline information on birds, bats, amphibians and reptiles (including endangered species) within study sites is collected in the first year.</p> <p>4.2 70% increase in biodiversity information compared to pre project that contributes to government and NGO policies.</p>	<p>4.1 Scheduled for late May/early June 2018</p> <p>4.2 Indicator appropriate as no biodiversity information available pre project</p> <p>4.3 Baseline information on wildlife observations and customary beliefs gathered during household survey in October 2017 (see results in section 3.2 above)</p> <p>4.4 Indicator still appropriate.</p>

	<p>4.3 Information on indigenous knowledge and customary beliefs in fauna and flora interactions compiled by end of Year 2.</p> <p>4.4 70% increase in community interest in biodiversity conservation over 3 years.</p>	
<p>Activity 4.1 Gain animal ethics approval through CSU and permit through T-L Ministry of Agriculture, Forests and Fisheries to undertake survey work</p>		No longer needed as biodiversity survey being undertaken by Conservation International in Timor Leste
<p>Activity 4.2 Development of a community knowledge exchange program regarding biodiversity</p>		To be developed based on biodiversity survey results
<p>Activity 4.3 Annual sampling of reforestation and control sites for birds, bats, reptiles and amphibians with community members</p>		First survey to be completed in late May/early June.
<p>Activity 4.4 Development of materials – posters and brochures for use in school visits and community workshops</p>		To be developed based on biodiversity survey results
<p>Activity 4.5 School visits, community workshops and gender-sensitive discussions with adult women</p>		Visit to Laclubar primary school in October 2017. See section
<p>Activity 4.6 Meet with TL government officials to advise outputs of community biodiversity surveys and make policy recommendations</p>		To take place after biodiversity survey results.
<p><b>Output 5.</b> Livelihoods impacts determined</p>	<p>5.1 50% increase in family wellbeing and satisfaction from reforestation by end of Yr 3</p> <p>5.2 40% increase in household income from agroforestry and carbon credits by end of Yr 3</p> <p>5.3 50% increase in women's participation and benefits in all activities by end of Yr 2.</p> <p>5.4 35% of non-participating families interested in adopting reforestation and FMNR on their land.</p>	<p>5.1 Baseline results documented from household survey</p> <p>5.2 Baseline results documented from household survey</p> <p>5.3 Womens participation in project activities has been around 30% to date. Discussions with women scheduled for June 2018 to explore their needs and wants regarding project activities.</p> <p>5.4 To be investigated in the final year.</p>
<p>Activity 5.1 Recruitment of a female field officer for Soibada to encourage other female participation. Mentoring, if required to be provided by the current female field officer based in Laclubar</p>		Municipality administration initially appointed two male officers so we have requested additional female officer who will start in July 2018.

Activity 5.2 Completion of socio-economic baseline survey focusing on income and perceived well-being	Completed in October 2017 (see details in section 3.2)
Activity 5.3 Annual household surveys to assess project performance against the socio-economic baseline	Annual survey scheduled for October 2018
Activity 5.4 Indepth interviews with case study farmers (including women) to develop extension material on what works and doesn't work	Scheduled for 2019
Activity 5.5 Indepth interviews with women to determine benefits and limitations for them	Scheduled for June 2018
Activity 5.6 Semi-structured interviews with non-participating farmers in the same villages to determine spread of influence and impacts	Scheduled for 2020
Activity 5.7 Focus group interviews to gauge community attitudes to environmental and social change, including the effectiveness of integrating carbon markets and customary law.	Scheduled for 2020

## Annex 2: Project's full current logframe as presented in the application form (unless changes have been agreed)

Project summary	Measurable Indicators	Means of verification	Important Assumptions
<p><b>Impact:</b> Biodiversity and livelihoods are enhanced through expansion of community reforestation that integrates agroforestry systems, farmer managed natural regeneration, biodiversity conservation, carbon payments and customary law.</p>			
<p><b>Outcome:</b> Biodiversity and livelihoods are enhanced through expansion of community reforestation that integrates agroforestry systems, farmer managed natural regeneration, biodiversity conservation, carbon payments and customary law.</p>	<p>0.1 300 Hectares successfully reforested via planting and farmer managed natural regeneration by end of Yr 3 0.2 Carbon certification and payments achieved by end of Yr 2 0.3 40% increase in household income of project participants from agroforestry products and carbon credits by end of Yr 3 compared to the baseline in Yr 1 0.4 50% increase in women's participation and satisfaction in all activities by end of Yr 2 against baseline of Yr 1. 0.5. 70% increase in biodiversity information and community interest in biodiversity conservation over 3 years.</p>	<p>0.1 Forest inventory reports and Remote sensing/GIS and Photo points 0.2 records Gold Standard Carbon accreditation certificate and sales. 0.3 Annual household surveys and carbon sale 0.4 Attendance records and indepth interviews with women. 0.5 Annual biodiversity survey reports and annual household surveys.</p>	<p>0.1 Free satellite imagery is available for project area 0.2 Adequate safeguards are in place to ensure longevity of transactions. 0.3 Information is available to determine reliable socio-economic indicators to build a baseline 0.4 Women are motivated and have time to participate. 0.5 Baseline data on the presence of birds, bats, reptiles and amphibians is established in Yr 1 and expanded upon in the subsequent years.</p>
<p><b>Output 1:</b> Expansion of tree plantations and agroforestry development</p>	<p>1.1. 260 Hectares (ha) planted including 20 ha under an agroforestry system by end of Yr 3. 1.2. 70% tree survival rate achieved after 1<sup>st</sup> year of new planting establishment 1.3. 210 households participating in tree planting and maintenance with <i>Tara Bandu</i> in place by end of Yr 3 1.4. 15% increase in annual household income and food security from agroforestry products by end of Yr 3</p>	<p>1.1 Land use classification before project (baseline) and after project using GIS data, project database and ground assessment. 1.2 Annual tree and survival counts 1.3 Participants register and field observations. 1.4 Annual household surveys</p>	<p>1.1 Natural disasters and livestock will not impact the project 1.2 The tree species selected are appropriate and weeds controlled 1.3 Farmers have land and are physically able to participate. 1.4 Farmers have access to markets and include nutritious fruit and nuts in their family's diet.</p>

<p><b>Output 2.</b> Establishment of farmer managed natural regeneration (FMNR) in eroded areas</p>	<p>2.1. 40 ha of eroded and low fertility land undergoing FMNR by end of Yr 3. 2.2. 60% increase in forest cover by end of Yr 3 2.3. 50% improvement in farmer's forest management skills including sustainable harvesting by end of Yr 2.</p>	<p>2.1/2.2 Remote sensing/GIS and photo point/forest condition reports. 2.3 Training evaluations and field observations</p>	<p>2.2 Community members motivated to changing old land management practices such as slash and burning 2.3 Free satellite imagery is available for project area 2.3 Farmers committed to good management practices.</p>
<p><b>Output 3.</b> Forest carbon certification</p>	<p>3.1 Implementation of yearly carbon measurements. 3.2 A Project Design Document (PDD) for carbon mitigation is completed in the first year 3.3 Gold Standard Carbon certification is achieved before end of Yr 2 3.4 25% increase in household income from carbon sales by end of Yr 3.</p>	<p>3.1 Forest carbon monitoring through installation of sampling plots. 3.2 PDD completed. 3.3 Number of carbon certificates validated by third party and audit report 3.3 Carbon sales records and annual household surveys.</p>	<p>3.1 Project staff, students and farmers willing to collaborate in forest carbon monitoring. 3.2 PDD is satisfactory 3.3 Safeguards regarding transaction costs, land tenure and accountability are in place. 3.4 Market conditions for carbon purchases exists and demand will continue.</p>
<p><b>Output 4.</b> Biodiversity information that informs forest management, education and policy.</p>	<p>4.1 Baseline information on birds, bats, amphibians and reptiles (including endangered species) within study sites is collected in the first year. 4.2 70% increase in biodiversity information compared to pre project that contributes to government and NGO policies. 4.3 Information on indigenous knowledge and customary beliefs in fauna and flora interactions compiled by end of Year 2. 4.4 70% increase in community interest in biodiversity conservation over 3 years.</p>	<p>4.1 Baseline inventory of frogs, bats, birds, reptiles and insects in sample sites of planted and regenerated areas. 4.2. Annual biodiversity surveys and stakeholder workshop. 4.3 Indepth interviews with community members. 4.4 Annual household surveys and evaluation of school education sessions.</p>	<p>4.1 Community gives permission for biodiversity research in their plantations. 4.2 Species can be readily identified including threatened species. 4.3 Community members are willing to share customary beliefs and local knowledge. 4.4. Villagers and the schools actively participate in biodiversity education events.</p>
<p><b>Output 5.</b> Livelihoods impacts determined</p>	<p>5.4 50% increase in family wellbeing and satisfaction from reforestation by end of Yr 3</p>	<p>5.1/5.2 Annual household surveys and case study interviews.</p>	<p>5.1 Information is available to determine reliable socio-economic indicators to build a baseline</p>

	<p>5.5 40% increase in household income from agroforestry and carbon credits by end of Yr 3</p> <p>5.6 50% increase in women's participation and benefits in all activities by end of Yr 2.</p> <p>35% of non-participating families interested in adopting reforestation and FMNR on their land.</p>	<p>5.3 Attendance records and indepth interviews with women.</p> <p>5.4 Semi-structured interviews with non-participating farmers.</p>	<p>5.2 Women are motivated and have time to participate.</p> <p>5.3 Farmer to farmer exchange is facilitated well with non-participating farmers.</p>
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## Activities

### Output 1. Expansion of tree plantations and agroforestry development

- 1.1 Community agreement on land use with regards to proposed activities is formalised through a Tara Bandu ceremony
- 1.2 Registration of project participants for both planting and FMNR activities.
- 1.3 Training of participants in tree propagation, planting and tree/fruit management.
- 1.4 Identification of sites, species selection for both reforestation and agroforestry systems, propagation of seedlings and tree nursery expansion, site preparation, planting etc.
- 1.5 Monitoring of new plantings on a quarterly basis.

### Output 2. Establishment of farmer managed natural regeneration (FMNR) in degraded areas

- 2.1 Farmer tour to World Vision FMNR sites to talk directly to local farmers and WVI staff and see how FMNR is done.
- 2.2 Identification of project FMNR sites and establishment of a land use baseline through field assessments and map production.
- 2.3 Delivery of workshops in Laclubar and Soibada on FMNR techniques, which will include pruning, terracing, fertility building, mulching, tree thinning and basic silvicultural management.
- 2.4 Monitoring of FMNR on a yearly basis through field inspections and regeneration surveys.

### Output 3. Forest carbon certification

- 3.1 Completion of a carbon project plan.
- 3.2 Procurement of free satellite imagery with suitable resolution and analysis to generate digital maps (also used in Outputs 1 and 2)
- 3.3 Formalisation of contract arrangements pertaining to carbon rights with farmers.
- 3.4 Design of a carbon baseline ('without project' scenario) to estimate changes in carbon stocks and emission reductions due to project activities
- 3.5 Design of community grievance and communication strategies with project participants and relevant stakeholders
- 3.6 Formal local stakeholder consultation as per selected certification methodology
- 3.7 Submission of information and documents for project compliance checks conducted by the certifier (pre-feasibility assessment)
- 3.8 Third party audit and issuance of carbon credits
- 3.9 Forest carbon monitoring as part of monitoring of new plantings and regeneration on a yearly basis.

### Output 4. Biodiversity information that informs forest management, education and policy.

- 4.1 Gain animal ethics approval through CSU and permit through T-L Ministry of Agriculture, Forests and Fisheries to undertake survey work
- 4.2 Development of a community knowledge exchange program regarding biodiversity
- 4.3 Annual sampling of reforestation and control sites for birds, bats, reptiles and amphibians with community members
- 4.4 Development of materials – posters and brochures for use in school visits and community workshops
- 4.5 School visits, community workshops and gender-sensitive discussions with adult women
- 4.6 Meet with TL government officials to advise outputs of community biodiversity surveys and make policy recommendations

#### **Output 5. Livelihoods impacts determined**

- 5.1 Recruitment of a female field officer for Soibada to encourage other female participation. Mentoring, if required to be provided by the current female field officer based in Laclubar
- 5.2 Completion of socio-economic baseline survey focusing on income and perceived well-being
- 5.3 Annual household surveys to assess project performance against the socio-economic baseline
- 5.4 Indepth interviews with case study farmers (including women) to develop extension material on what works and doesn't work
- 5.5 Indepth interviews with women to determine benefits and limitations for them
- 5.6 Semi-structured interviews with non-participating farmers in the same villages to determine spread of influence and impacts
- 5.7 Focus group interviews to gauge community attitudes to environmental and social change, including the effectiveness of integrating carbon markets and customary law.

## Annex 3: Standard Measures

**Table 1 Project Standard Output Measures**

Cod e No.	Description	Gender of people (if relevant)	Nationalit y of people (if relevant)	Year 1 Total	Yea r 2 Total	Year 3 Total	Tota l to date	Total planne d during the project
6A	Forest inventory training	1 woman 4 men	Timorese	5				6
6B	Forest inventory training	1 woman 4 men	Timorese	3 weeks				10
7	Forest Inventory Manual			1				2
6A	FMNR training	7 women, 14 men	Timorese	21				40
6B	FMNR training	7 women, 14 men	Timorese	2 days				10
6A	Conservation farming training	8 women 17 men	Timorese	25				60
6B	Conservation farming training	8 women 17 men	Timorese	2 days				12
10	Fauna and flora survey guide							1
11A	Journal papers published							1
11B	Journal papers submitted							1
12A	Annual household survey databases to be <b>established</b> and handed over to the host country							3
13A	Fauna and flora reference collections to be <b>established</b> and handed over to the host country(ies)							3
14A	Number of conferences/seminars/ workshops to be <b>organised</b> to present/disseminate findings							1
14B	Number of conferences/seminars/ workshops <b>attended</b> at which findings from Darwin project work will be presented/ disseminated							2
20	Estimated value (£'s) of physical assets (motorbikes, tree nursery							6000

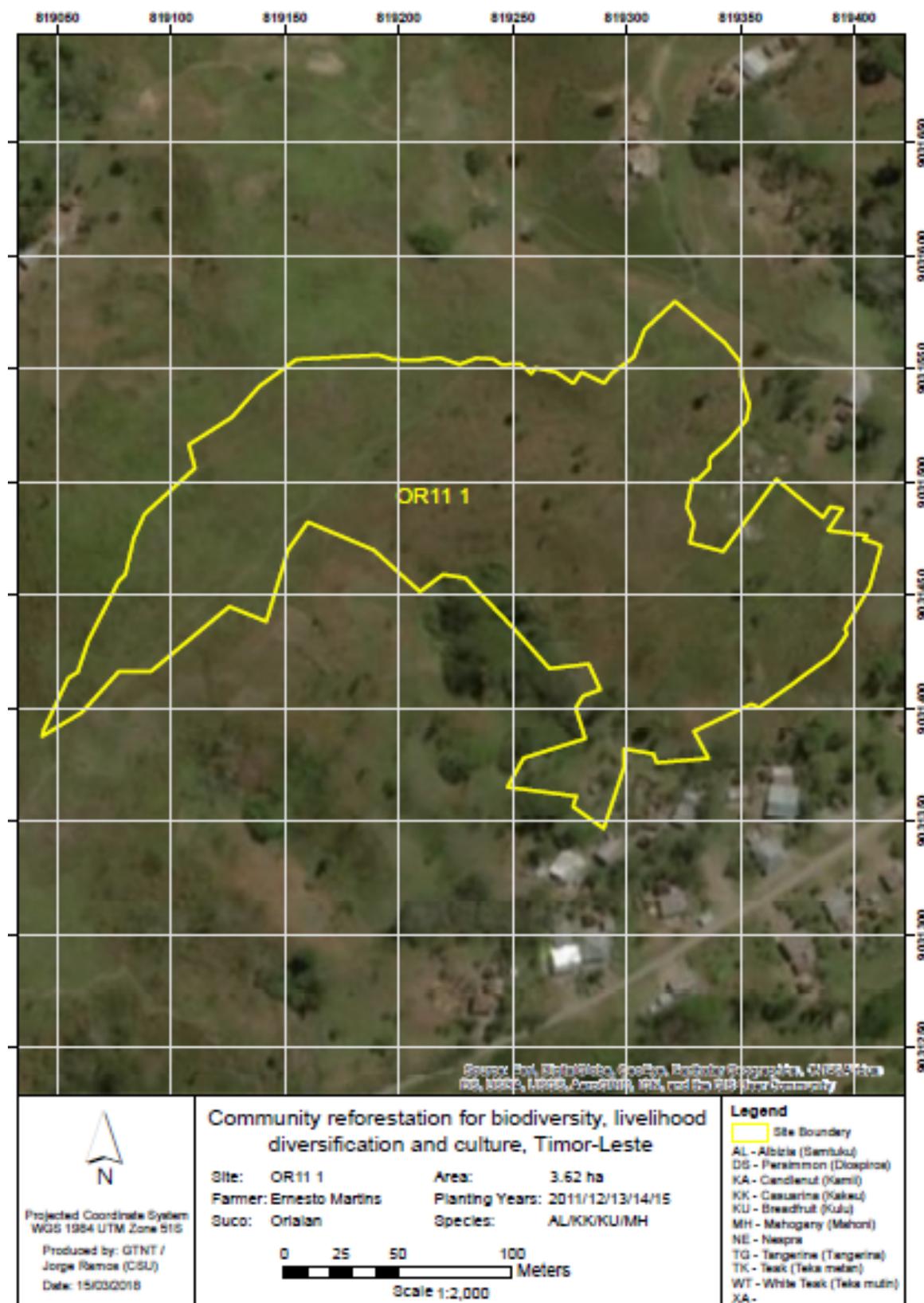
	equipment, forest inventory equipment) to be handed over to host country(ies)							
21	Number of organisations (steering committee) to be established and then continued after Darwin funding has ceased							1
22	Number of permanent field plots and sites to be established during the project and continued after Darwin funding has ceased							60
23	Value of resources raised from other sources (ALI) for project work							280

**Table 2 Publications**

<b>Title</b>	<b>Type</b> (e.g. journals, manual, CDs)	<b>Detail</b> (authors, year)	<b>Gender of Lead Author</b>	<b>Nationality of Lead Author</b>	<b>Publishers</b> (name, city)	<b>Available from</b> (e.g. weblink or publisher if not available online)

# Annex 4 Onwards – supplementary material

## 4.1 Example of mapped individual farmer plantation area



## 4.2 Carbon agreement template



### Voluntary Carbon Offset Project (VCOP)

#### **AGREEMENT WITH COMMUNITY**

This agreement is made between:

Group Training Northern Territory (GTNT), address: 38 Woods Street, Darwin Northern Territory 0800, represented by Kathryn Stenson, its CEO, Contact Number: \_\_\_\_\_ hereby referred to as the First Party

AND

Community Member: \_\_\_\_\_ address: \_\_\_\_\_ Contact Numbers: \_\_\_\_\_ hereby referred to as the Second Party

This agreement is about the Voluntary Carbon Offset Project being implemented in Timor-Leste in the Municipality of Manatuto and its administrative posts of Laclubar and Soibada. Two parties above, in good faith, enter into an agreement to abide and comply with the following:

#### **I. Rights and Responsibilities of the first party:**

##### A. Rights:

1. Reserve the right to purchase and to sell the carbon sequestration credits/rights generated by the project;
2. Reserve the right to retain fees for project management.

##### B. Responsibilities:

1. provide daily management services for the project by placing the staff and establishing an office in project sites;
2. Provide planting materials, seeds, establishment of nurseries and technical assistance;
3. Provide payment to the farmers and communities on agreed rates;
4. Provide technical assistance to the farmers and communities when deemed necessary such as site mapping, tree growth assessments, forest management and carbon monitoring;
5. Identify and manage conservation areas.

#### **II. Rights and Responsibilities of the Second Party:**

##### A. Rights:

1. Receive the payments for the trees in the nurseries and trees planted in sites;
2. Retain ownership of the land, ownership of the trees and corresponding carbon stored.

##### B. Responsibilities:

1. Provide sufficient land for tree planting and establish and maintain nurseries and trees;
2. Demonstrate the evidence of land ownership and ensure that the sites which the trees are planted are uncontested;
3. Weed the trees, establish fence and keep the animals away from the sites;
4. Ensure that the planting site is accessible by motored vehicles, close to water source and far from animal grazing area;
5. Transfer the trees from nurseries and plant them in sites that meet the above criteria;
6. Protect conservation areas identified by the first party
7. Address technical / forest management recommendations made by the first party

#### **III. Terms of Payment**

1. The First Party will pay the Second Party 20 cents per tree per year;
2. The second party will continue to own the trees but agree to sell to the first party the carbon sequestration rights for the next 30 years. The Second Party agree not to cut the trees during that period;
3. For the payment as mentioned in number 1 above, the first party will keep 30% as management fees if the carbon price is between \$7 or less and \$10 per tonne, 28% if it is between \$11 and \$15 per tonne and 25% if it is more than \$16 per tonne;
4. Payment to the second party is subject to the availability of funds and/or successful selling of the carbon in the voluntary carbon markets (local and/or international);

5. Both parties agree that the agreement duration is for 30 years starting from the date of the signature of this agreement;
6. Payment to the second party is to be carried out every year between January and December subject to the availability of funds and/or the successful selling of the carbon in the voluntary carbon markets (local and/or international)
7. In case of the death of the second party or his/her heir, his or her rights and responsibilities can be transferred to any of his or her immediate family members;  
In Case of death or physical disability of the second party, the second party agrees to transfer his/her rights contained in this agreement to: \_\_\_\_\_
8. This agreement is subject to change and modifications based on mutual agreement by both parties be it verbal or in writing.

**Signatories:**

1. First Party

\_\_\_\_\_ Date: \_\_\_\_\_

2. Second Party

\_\_\_\_\_ Date: \_\_\_\_\_

**Witnesses:**

1. Name: \_\_\_\_\_ Title: \_\_\_\_\_ Signature: \_\_\_\_\_ Date: \_\_\_\_\_

2. Name: \_\_\_\_\_ Title: \_\_\_\_\_ Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**4.3 Biodiversity component - Community Reforestation in Timor-Leste**

**Research Design (Alex Knight, CSU and Trudi Dale, Conservation International Training)**

***Sampling design and location***

2 sampling regions – Laclubar and Soibada

Sites – depends on who is doing it as to how many sites we can actually get through – also how close together they are. Minimum of 3 sites of each type.

1. GTNT Reforestation areas – stratified by vegetation type and time of planting (eg 2011-2013/2014-2018?)
2. Remnant vegetation areas- good areas in Soibada but not so much in Laclubar
3. Degraded areas- plenty of these around Laclubar

3 samples within each site. Total samples = 2 x 3 x 3 = 18 samples

***Animal suites surveyed***

Reptiles – active diurnal searching and catching, bagging for those not immediately IDed, release onsite within 2 hours.

Amphibians – active searching at dusk and night time. ID on site and return. Recording of calls.

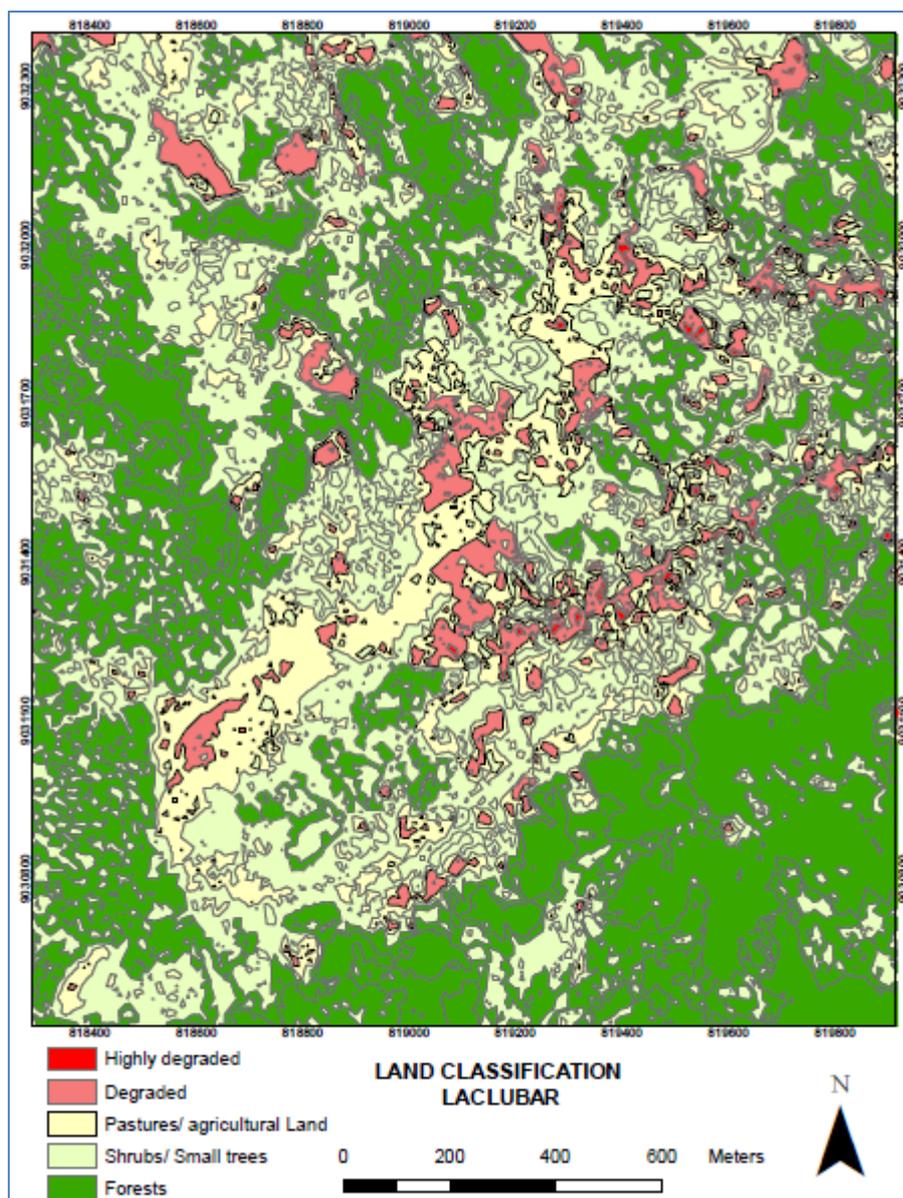
Birds- dawn bird surveys (20 minute, standard transect)

Bats – place call recorders and change batteries daily and possibly camera traps for blossom bats

Incidental records – all species

Vegetation survey of sites

#### 4.4 Example mapping of land classification in the project area at Laclubar



#### 4.5 FMNR Plan

The objective of FMNR is to encourage natural regeneration of vegetation and improve the productive capacity of degraded lands on farmers' lands. The work is based on WV's experience in TL with local farmers. FMNR activities will not be conducted on tree planting sites (present and future). The target is to have at least 40 ha undergoing FMNR by June 2020.

The monitoring component aims to assess vegetation changes as well as accounting for increments in carbon retention for potential inclusion in the project's total carbon pool post project. Monitoring of fauna and social components associated with FMNR to be included.

##### A. Site selection and activities:

1. Minimum area of each individual site (2000 m<sup>2</sup>)
2. Identification of areas where it is possible to encourage regeneration and growth of trees; ideally native species
3. Interest, willingness and capacity of farmers to implement activities

4. Exclusions / Restrictions in FMNR areas: grazing, slash and burning, harvesting of existing or future trees for a specified period of time agreed with farmers
5. Planting of trees is excluded from FMNR areas. Crops might be mixed with old remnant trees and saplings to form agroforestry systems.
6. Identification and implementation of suitable agricultural activities
7. Specific activities: Suppression of woody weeds, pruning of trees with multiple shoots to promote growth of a single stem, removal of understory invasive plants to promote seedling growth and soil scarification to promote germination .

**B. Monitoring Steps:**

1. Mapping of selected FMNR boundary sites using a handheld GPS
2. GPS points are processed to generate a map of the FMNR sites and area for inclusion in the GIS database
3. Inventory is designed with stratification depending on level of degradation, activities implemented and location of the sites under FMNR
4. Plot allocation is provided to field teams for installation of permanent random plots (circular shape).
5. From centre plot photographs are taken aimed at temporal comparisons ("before and after") for each bearing: one facing north, east, south and west.
6. To establish a baseline prior FMRN activities, the following information is collected within the plot:
  - Vegetation (woody and non woody) species
  - Diameter at breast height of each tree inside the sample plot (i.e. any trees > 2 cm in diameter). Trees will need to be clearly tagged
  - Tree basal area of each plot (our team has been trained on collection of this information)
7. Annual measurements of FMNR sites: In addition to steps 5 and 6:
  - Identification of new agricultural activities and size of the agricultural component (area inside FMNR areas)
  - Tree survival rate
  - Harvesting of non-timber forest products
  - Estimation of leakage (i.e. displacement of activities inside FMNR to other areas).

## Checklist for submission

	Check
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<b>Have you included means of verification?</b> You need not submit every project document, but the main outputs and a selection of the others would strengthen the report.	Yes
<b>Do you have hard copies of material you want to submit with the report?</b> If so, please make this clear in the covering email and ensure all material is marked with the project number.	No
Have you involved your partners in preparation of the report and named the main contributors	Yes
Have you completed the Project Expenditure table fully?	Yes
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