



Department  
for Environment  
Food & Rural Affairs



## Darwin Initiative Main Project Annual Report

**Important note:** *To be completed with reference to the Reporting Guidance Notes for Project Leaders: it is expected that this report will be no more than 10 pages in length, excluding annexes*

**Submission Deadline: 30 April**

### Darwin Project Information

Project Reference	21-006
Project Title	Balancing Conservation and livelihoods in the Chimanimani forest belt, Mozambique
Host Country/ies	Mozambique
Contract Holder Institution	Royal Botanic Gardens, Kew
Partner institutions	MICAIA Foundation
Darwin Grant Value	£291.180
Funder (DFID/Defra)	DFID
Start/end dates of project	1 <sup>st</sup> April 2014 to 31 <sup>st</sup> March 2017
Reporting period (e.g., Apr 2015 – Mar 2016) and number (e.g., Annual Report 1, 2, 3)	Apr 2015 – Mar 2016 Annual report 2
Project Leader name	Tiziana Ulian
Project website/blog/Twitter	
Report author(s) and date	Hercilia Chipanga



on the development and implementation of alternative livelihoods options and community managed conservation zones. MICAIA is responsible for day-to-day project implementation and communication with targeted communities. IIAM (Maputo and Sussundenga) supported RBG Kew in the delivery of Output 1 (forest inventories) this year.

The two lead partners complement each other well by focussing on their strengths relevant to different outputs of the project. RBG Kew's expertise is in global biodiversity conservation and analysis (Outputs 1 and 4) whilst MICAIA's is with livelihoods and development projects in Mozambique (Outputs 2-4).

Planning, monitoring and evaluation, and decision making has been completed by the lead organisations through scheduled management meetings between Andrew Kingman (MICAIA), Milagre Nuvunga (MICAIA), Tiziana Ulian (RBG Kew), Jonathan Timberlake (RBG Kew), Iain Darbyshire (RBG Kew) and Alex Hudson (RBG Kew) on 7<sup>th</sup> May 2015, at the Millennium Seed Bank and 14<sup>th</sup> October 2015 in the Herbarium at RBG Kew. These included discussions of the planning of the fieldwork trips. IIAM were not present at these because of the difficulties to travel to the UK and because of their role to support Output 1 only.

Further regular email communications between Jonathan Timberlake, Iain Darbyshire, Hercilia Chipanga, Milagre Nuvunga and Camila Sousa (IIAM) were used to finalise the logistics of the two trips in the month before each (May/June and October/November) - the inclusion of Camila Sousa ensured communication with IIAM has improved over the first year of the project. Email and Skype communications between all partners were used to plan for the mid-term review trip in November 2015.

The local communities are the key stakeholders and partners for the success of this project. They are active in project activities, and participate in all planned actions. The Project Manager, Hercilia Chipanga (MICAIA), has carried out regular visits to the community sites to build good relationships with them whilst the Field Officer, Joao Massunde, has also spent considerable time in the field supporting the communities with their activities and collecting seed for conservation at Ndzou camp.

Chimanimani TFCA is an important partner for implementation and success of all activities. The TFCA officers are invited to be part of fieldwork activities. Júlio Chironda, community officer for the community department at the TFCA, was part of Community Natural Resources Management Committees (NRM) training events. In addition, he was part of all discussion with community members to set the community conservation zones in Mpunga, Maronga and Mahate.

### **3. Project Progress**

A field officer to support the implementation of sustainable agriculture was recruited in the middle of the project in order to introduce the new approach for implementation of sustainable agriculture at the four community areas (Mpunga, Zomba, Mahate and Maronga). Progress has been made on all outputs.

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

**Output 1: Information collected on areas suitable for conservation within the communities of Mahate, Mpunga, Zomba and Maronga, and on plant species of conservation interest and potential economic value**

##### **Activities**

1.1 Carry out targeted plant surveys in each of the four forest areas, focussing on less-disturbed areas – **Completed in four project areas in two trips (Mpunga and Zomba from 23<sup>rd</sup> June to 6<sup>th</sup> July 2015 and, Maronga and Mahate from 4<sup>th</sup> to 21<sup>st</sup> November 2015).**

1.2 Identify (at IIAM and RBG Kew) botanical voucher specimens collected during survey work- **Completed.**

1.4 Compile summary botanical report for each of the four forest areas – **Completed.**

1.5 Establish forest sample plots in two forest areas [3-4 plots in each area] -**Completed.**

##### **Activities undertaken during reporting period:**

- *Investigation of selected conservation areas to highlight threats and opportunities:* eight forest areas were investigated with conservation recommendations made for each.
- *Collection of species for conservation or potential economic importance:* 616 plant specimens were collected with species of conservation (e.g. *Vepris drummondii* and *Ficus muelleriana*) and economic importance (e.g. *Ximenia cafra*, *Uapaca kirkiana*, *Dovyalis macrocalyx* and *Funtumia africana*) highlighted.
- *Botanical voucher specimens identified in IIAM herbarium:* Dr Iain Darbyshire visited IIAM Herbarium in August 2015 to identify specimens and to train local staff. Outstanding specimens were sent to RBG Kew and identified there.

- *Establishment of plots for vegetation characterisation:* 51 vegetation characterisation plots were established.
- *Establishment of plots to record species composition of trees:* twelve 25m x 25m tree diameter plots and nine 25m x 25m forest plots have been established in Mpunga, Zomba and Maronga.

**Output 2: Integrated Land Use plans created with communities and implemented by their Natural Resources Management Committees and Community Rangers in the four project areas (Maronga, Mpunga, Zomba and Mahate);**

**Activities**

2.1 Mobilize communities and facilitate the production of maps and land use plans (zones) using a variety of participatory methodologies - **On target.**

2.2 Organise the involvement of officials from the government's department of geography and mapping to demarcate officially the proposed conservation zones - **Postponed to 2016/ 2017.**

2.3 Work with each community, through a series of organised meetings, to prepare plans for access to forest resources (off-take), establish management committees for the conservation zones, and provide training to the members of these committees - **Ahead of agreed timetable.**

**Activities undertaken during reporting period:**

- *Facilitation of participatory zoning work in Mahate, Zomba (confirmation) and Maronga, including geo-referencing of agreed conservation boundaries and elaboration of participatory community maps:* In Mahate, Bhanha Mountains were chosen as their conservation area. Community conservation areas were confirmed and used for the botanical surveys in Mahate, Zomba and Maronga. Community maps were produced as a basis for geo-referencing the proposed conservation areas. These have been Geo-referenced and maps produced using GIS software and Google earth.
- *Capacity building of natural resources management committee's members and community forest rangers of Mpunga, Maronga, Mahate and Zomba:* 147 members attended training about the Chimanimani National Reserve Management Plan, as well as principles and rules for protection and sustainable use of forest and wildlife resources under Forest and Wildlife law and conservation law. Community rangers of Mpunga and Mahate are conducting regular patrols with TFCA rangers.

**Output 3: Appropriate and viable Natural Resource-based livelihoods strategies are developed and implemented by 1000 households in the four project areas (Maronga, Mpunga, Zomba and Mahate)**

**Activities**

3.1 Commission Eco-MICAIA Ltd to develop business plans for expanding livelihood activities (honey, tourism and forest fruits) and link these plans with resource management plans based on the inventories and land use planning exercises - **On target.**

3.2 On the basis of the studies present key recommendations to community leaders and mobilize local households around one (or more) of the proposed livelihood strategies, putting in place a package of training and organisational capacity building appropriate to the chosen strategy - **Ahead of agreed timeframe.**

**Activities undertaken during reporting period:**

**1. Natural Products/ new options for livelihoods opportunities**

- *Identification of local species of potential economic value:* A total of twenty three species have been highlighted with potential economic value as edible fruits, in high value timber products, as essential oils. A draft concept note is being developed for the harvest and sale of natural products.

**2. Tourism**

- *Identification of potentially valuable tourist sites:* five areas have been identified for potential tourism campsites. Viewpoint locations have been identified in Mpunga and Mahate. In Mpunga the viewpoint will be used for observing elephants, birds and other small animal's and in Mahate for observation of Mudzira river waterfalls and elephants as well. A draft concept note has been developed for tourism implementation in the project area.

**3. Sustainable agriculture**

- *Demonstration plots established in all community areas:* This activity has increased in relation to the first year. Vegetable plots have been established from whilst maize and bean plots have been established and seeds distributed to community members, as outlined in Table 1:

	<b>Mpunga</b>	<b>Maronga</b>	<b>Mahate</b>	<b>Zomba</b>	<b>Total</b>
<b># vegetable demonstration plots (April – Sept 2015)</b>	2	1	1	2	6
<b># households benefiting</b>	33	7	0	31	71
<b># maize and bean demonstration plots (Dec</b>	3	1	0	0	4

2015 – Mar 2016)						
Quantity of seeds (Kg)	Maize	162	15	11	15	203
	Beans	95	30	30	30	185 (15 used in demo plots)
# households benefiting		86	33	22	26	167

- Establishment of associations to lead demonstration plot activities (December 2015 to March 2016): Six associations have been established to lead demonstration plot activities, as outlined in Table 2:

Associations	Mpunga - Mutoe	Mpunga - Magabara	Mpunga - Mukuwaia	Mahate	Zomba - Mapira/ Muranga	Zomba - Centro	Totals
# of households per associations (# of women)	16	34 (22)	27 (14)	23 (3)	16 (6)	12 (7)	162 (65)
Students				196			196
Total nurseries established in all associations	49 Nurseries: 7 tomato, 7 onion, 7 cabbage, 7 green, 7 okra*, 7 cucumber*, and 7 of kale						49
Quantity of harvest per association (Kg)	Peppers - 429 Tomatoes - 65 Cucumber - 30 Okra - 114	-	-	-	-	-	938
Revenue (Metcais, MT)	3,830 (US\$68)	-	-	-	-	-	3,830 (US\$68)

\*okra and cucumber were planted directly into plots (no transplantation)

- Facilitation of training in sustainable agriculture methods: 184 households involved at the demonstration plots have been trained in land preparation techniques, seed bed preparation, seedling transplantation, irrigation and mulching, and bio-pesticide production. They have also been trained in intercropping techniques;

#### 4. Beekeeping (honey production)

- Beehives distributed to the beneficiaries in Maronga, Zomba and Mpunga areas: Beehives have been distributed to Mpunga, Zomba and Maraong, as outlined in table 3:

Regulados	Villages	# of hives delivered	# Households benefiting from hives (# of which are women)	Contracts signed (Beneficiaries, MHC and MICAIA)	Total amount of honey harvested	Revenue
Maronga	-	285	45 (29)	27		
Zomba	-	285	57 (29)	37		
Mpunga	Magabara	155	31 (14)	25		
	Mutoe	260	41 (13)	36	388 Kg	US \$ 347 for 26 households
	Mukwawaia	101	60 (54). 50 women are associated	5		
Total		1086	234 (139)	130		

- Selection and training of beekeeping promoters and lead beekeepers to provide assistance to other beneficiaries in their communities: 22 community members have been selected and trained as beekeeping promoters and 13 lead beekeepers.
- A business plan has been developed for the expansion of honey production across the Chimanimani Forest Belt communities (Mpunga, Zomba, Maronga and Mahate).

#### **Output 4: Improved tourism services, including community guides and education materials for tourists and local communities**

##### **Activities**

4.1 Work with communities to identify routes for trails and information points for visitors and organise working parties of local people to prepare the trails. **Identified in all community areas.**

4.2 On the basis of information gathered in the surveys and other research, commission a local consultant to draft content for display materials and other information. **Botanical Survey draft report completed by the end of March 2016. Activity postponed to 2016/ 2017.**

4.3 Translate all materials and publish. **This activity was postponed to Q2 Y3.**

**Activities undertaken during the reporting period:**

- *Identification of community forest trails in all areas:* 8 community forest trails have been selected
- Geo-referencing of all priority trails in Mpunga, Zomba and Maronga and inclusion at the maps.

**Other activities undertaken during the reporting period:**

The Project Manager, Hercilia Chipanga, attended two training programmes: (1) 'Leadership enhancement action plan' to build her capacity in leadership skills and (2) 'Effective management of conservation projects' to increase her capacity to develop and manage projects effectively, and to learn skills in strategic planning and effective communication.

**3.2 Progress towards project outputs**

Output 1:	Information collected on areas suitable for conservation within the communities of Mahate, Mpunga, Zomba and Maronga, and on plant species of conservation interest and potential economic value			Comments
	Baseline	Change recorded by 2016	Source of evidence	
Indicator 1.1	No consolidated list following a botanical survey available	List of species occurring in the area compiled	Annex 9 and 14	Ethnobotanical work in final year.
Indicator 1.2	No quantitative data related to forest structure and composition available	Data on forest structure and composition collected	Annex 9	
Indicator 1.3	Area maps do not show detail relating to vegetation types, conservation areas and the TFCA	First drafts of maps produced following field surveys	Annex 9	Ahead of agreed timeframe
Output 2	Integrated Land Use Plans created with communities and implemented by their NRM and Community Rangers in the four project areas (Maronga, Mpunga, Zomba and Mahate)			
	Baseline	Changes recorded by 2016	Source of evidence	Comments
Indicator 2.1	Data/maps show three degraded forest reserves (Zomba Forest Reserve 2700 ha, Maronga Forest Reserve 14500 ha and Moribane Forest Reserve 16200 ha)	Existing conservation area increased in Zomba to 3,855ha, and a new 14,562ha area established in Mahate	Annex 5 and 26	7,034ha selected in Mpunga is already part of Moribane Forest Reserve
Indicator 2.2	No zoning and land use plans at the communities of Mpunga, Zomba, Maronga and Mahate	15 participatory zoning meetings held with communities all areas (Mpunga, Zomba, Maronga and Mahate) Zoning maps produced indicating agriculture, habitation and conservation areas	Annex 5 and 6	Ahead of agreed timeframe (to be completed in Q2 Y3)
Indicator 2.3	Natural Resources management Committees members of all four project areas established and trained about the importance of Natural resources and biodiversity and now are part of discussion of Land use plans of their communities	The members of established and revitalized NRM meet regularly to discuss the conservation of forest areas and fire prevention. Mpunga and Zomba NRMCs are more active because they were already established	Annex 6 and 13	Ahead of agreed timeframe (To be completed on Q4 Y3)
Indicator 2.4	Community rangers were not part of patrols conducted by the TFCA	In Mpunga and Mahate, weekly/monthly patrols are	Annex 20	Ahead with agreed

	rangers or planned by them without the involvement of TFCA rangers and there was not any documentation of their tasks	being conducted by community rangers and TFCA rangers. One activity is to open fire breaks		timeframe
Output 3	Appropriate and viable natural resource based livelihood strategies developed and implemented by 1,000 households in the four project areas (Maronga, Mpunga, Zomba and Mahate)			
Indicator 3.1	No business plan for expansion of marked oriented livelihoods strategies (beekeeping, tourism and Non-Timber Forest Products – natural products)	One Business plan for expansion of honey production & two concept notes for tourism and Non-Timber Forest Product livelihoods developed	Annex 17-19	Drafts to be completed in Y3
Indicator 3.2	Households at the four project areas use shifting agriculture to produce crops for their subsistence and markets	8 % of the 2281 households (184 households) have adopted and are using new mulching and intercropping approaches to produce crops	Annex 8	To be completed on Q4Y3
Indicator 3.3	The traditional livelihood (subsistence) for the community members where only agriculture and with the males immigrating to South Africa to work. Communities use to produce honey by using trees bulk and there were no market for Honey. No women were part of beekeeping activity before.	234 households benefited from 1086 modern beehives; 26 households made US\$347 (19,400 Meticais) from honey. 17 households of Mutoe association made US\$68 (3,830 Mt) from sustainable agriculture. 184 households implementing conservation agriculture, 80 are women	Annex 4, 8, 10, 22, 23	To be completed on Q4 Y3. 196 students of Primary School of Mahate involved in sustainable agriculture
Output 4	Improved tourism services, including community guides and education materials for tourists and local communities			
Indicator 4.1	Traditionally used trails exist through the forest but without use for educational or tourist purposes	All 8 trails identified in three community areas, geo-referenced and included in the community maps	Annex 5	Trails were identified with communities and will be cleaned after rain season
Indicator 4.2	There are no community guides which take tourists of trips through the trails in the area	To be completed in Q1Y3		
Indicator 4.3	Booklets and maps are currently not available to be bought at Ndzou camp	To be completed by Q4Y3		This has been delayed because of delays to the field surveys

### 3.3 Progress towards the project Outcome

Outcome:	40+ communities will be engaged in a range of natural resource-based livelihoods options, increasing household incomes and reducing loss of biodiversity and carbon stocks across the Chimanimani forest belt			Comments (if necessary)
	Baseline	Change by 2016	Source of evidence	
Indicator 0.1	Households income for the area is <\$1/day (range from .55/day-\$1/day)	26 households gained additional US\$13 each from beekeeping and 16 gained US\$ 4.25 from sustainable agriculture	Annex 4, 7, 8, 10, 11, 22 and 23	
Indicator 0.2	No households are practicing sustainable agriculture activities in the area.	8% of 2281 households (184) are have been implementing sustainable agriculture. The food security and nutrition intake is being improved for at least 800 people.	Annex 7	Households are using mulching and intercropping techniques

Indicator 0.3	No honey is provided to MHC from the four communities involved in the project. Visitors to Ndzou camp are currently averaging 100/month. The only market for alternative NTFP sustainable activities in the area exists for honey production.	368lk of honey harvested in Mpunga. This is expected to increase at the next harvesting (1086 beehives assembled). Useful local plant species have been highlighted with four potential markets identified ( <i>Ximania americana</i> , <i>Uapaca kirkiana</i> , <i>Funtumia africana</i> and <i>Coffea salvatrix</i> )	Annex 4, 10 11, 21, 22 and 23	The number of tourists will not increase if the political tension continues.
Indicator 0.4	The buffer zone was comprised by 3 degraded forest reserves with extensive area opened for agriculture. Moribane Forest Reserve 16200ha, Zomba Forest Reserve 2700ha and Maronga Forest Resrve 14500ha. TOTAL 33,400ha	The total designated conservation area in the Chimanimani Forest belt (buffer zone) has increased from 33,400ha to 49,117ha.	Annex 5	Zomba added 1,155ha. Mahate added 14,562ha
Indicator 0.5		Community rangers trained and will contribute for monitoring of land use plans and will be a valuable agent for fire management; 8% of 2281 households are adopting conservation agriculture	Annex 7 and 8	Community rangers creating fire breaks during patrolling activities

### 3.4 Monitoring of assumptions

Assumption 1: Government, community members and the Administration of the Chimanimani TFCA remain committed to the project objectives.

Comments: Different stakeholders remain committed to the project. The Chimanimani TFCA supports community ranger patrols with its own rangers in most communities. Community members have taken part in all activities (conservation agriculture, beehive keeping, and field trip support) and have continued to use the skills learnt in training. MICAIA has been provided the opportunity to work on the Mozbio World Bank funded project to improve conservation areas in Mozambique, as a direct result of this project. This will require continued efforts and support from the government and Chimanimani TFCA administration to work together to support the project's objectives.

Assumption 2: The information collected by the botanical surveys provides practicable information for developing new livelihoods and conservation strategies.

Comments: the species lists from the surveys has been compiled and the information will be used to develop tourism walking trails and natural products based businesses. It will also be used to target NTFP activities and research in future for new conservation strategies.

Assumption 3: Honey produced in the project area meets the quality criteria set by Mozambique Honey Company.

Comments: So far honey produced not only met the quality criteria set by Mozambique Honey Company but is considered the best in the Province, if not in Mozambique.

Assumption 4: Beekeeping, tourism and sustainable agriculture contribute significantly to an increase in households' incomes.

Comments: Some income generation has been recorded towards the end of this year. With expected expansion of these activities in the third year the increase in household incomes as a result is expected to increase. The El Nino effect had a very negative impact on expected volumes of food production.

Assumption 5: The adoption of sustainable agriculture contributes to a reduction of forest loss and carbon emissions.

Comments: MICAIA has been in contact with Dr. Casey Ryan from the University of Edinburgh and he has agreed to provide satellite imagery data from 2007-2010 and 2013-2015 which will be used to monitor reduction in forest extent in different areas around the project areas. However, this being the first agriculture campaign, it is difficult to make accurate inferences about this assumption.

Assumption 6: Early benefits from tourism, beekeeping and sustainable agriculture activities are a sufficient incentive for communities to improve behaviour and actively engage in conservation activities.



Comments: This is expected to remain true and has been backed up by an increased sense of protection of forest by during the period of fires because of the presence of beehives in an area.

Assumption 7: Ndzou Camp is an attractive platform for the growth of tourism in the Chimanimani TFCA, additional services and active promotion will be provided to support an increase in visitor numbers.

Comments: This is currently acting as a draw for a variety of visitors which is still expected to increase with the development of improved facilities, such as the forest trails and trained guides for the area

Assumption 8: Participatory Community Land Use Plans lead to community ownership and empowerment and become therefore an important tool for sustainable management of natural resources

Comments: Lack of knowledge of community boundaries has fuelled unrestricted forest clearance and indiscriminate use of forest products. The participatory exercise brings people together to talk about their land and resources and enables people to be more aware of the main features of their land and their importance for sustaining their livelihoods. These are discussed at length during the community meetings enabling older people to share knowledge related to traditional forms of management and conservation. We will be able to verify this assumption with greater clarity at the end of the project.

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

The achievement of a positive impact to biodiversity and poverty alleviation is difficult to measure because the main activities are just beginning to provide returns to communities. There is evidence to suggest a greater impact in the future. The livelihoods packages implemented have started to provide incomes to some communities which has increased the number of households involved in the strategies. It is expected that the number of households involved in activities and members' abilities will increase adding to the amount of income generated. An increase in the yields of vegetables has been seen.

Beekeeping and conservation agriculture are important approaches to reducing fires and deforestation which in turn reduce carbon emissions and slow or halt the loss of biodiversity in the region. In addition, the development of the NRMCs and community rangers has instigated activities to open fire breaks and implement controls at the community sites to avoid accidental and illegal burning of forest areas. Rangers of two community areas are working with TFCA rangers to improve their impact. Ndzou Camp at the Chimanimani Conservation area is an income generating for the Mpunga community members through the sharing of income from tourism.

## **4. Contribution to SDG**

**Goal 2:** Conservation agriculture will improve nutritional intake and food security for participating communities. Adoption of these techniques is just beginning and wider adoption will improve soil fertility over time, enhancing productivity and food security.

**Goal 5:** Traditionally women have not taken part in decisions that affect the community in the project areas. Some activities are also out of bounds for womens (e.g. beekeeping). The project is working to change this through inclusion of women in the NRMC, helping to make decisions for the whole community and training events for improved livelihoods options so they can benefit from improved incomes (beekeeping and conservation agriculture).

**Goal 8:** The project has partnered with social enterprises (Mozambique Honey Company and Ndzou Camp Lda) that have created job opportunities in the formal economy with safeguards to ensure that the products are socially and environmentally responsible. These will provide economic opportunities to the communities beyond the lifetime of this project. Some community members have become traders in Mpunga representing an increase in formal paid jobs as a result of the project.

**Goal 15.** One of the project's goals is to conserve forest, by reducing deforestation and biodiversity loss. NRMCs have been strengthened and community rangers trained to work in coordination with government rangers to reduce fires and other deforestation and degradation activities. Conservation areas have been selected and validated or slightly altered by Kew.

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

The project is supporting the Convention on Biological Diversity (CBD), under the CBD programme of work on Forest Biodiversity and the CBD Cross-Cutting issue of Protected Areas. The Aichi targets the project is addressing are:

- Target 1 –botanical surveys have increased the knowledge of the value of biodiversity in the TFCA (indicators 1.1-1.2). This information, with previous knowledge, is being used to increase awareness of the values of biodiversity within the project communities (indicators 2.1-2.4). They are also being provided with means to conserve and use the resources sustainably (indicators 3.1-3.3).
- Target 4 – through the development of the Integrated Land Use Plans with local stakeholders the project is supporting the implementation of sustainable production and consumption of natural resources within safe ecological limits (indicators 2.1-4.3).

- Target 5 and 7 – the project is attempting to slow the rate of forest loss and degradation in the Chimanimani TFCA by providing communities with alternative, sustainable livelihoods options other than itinerant agriculture (3.1-3.3 and 4.2).
- Target 14 – through the designation of new conservation areas, ecosystems which provide essential services, such as water services provided by riverine systems, are being safeguarded (indicator 2.2)

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

There is evidence of the project beginning to contribute to poverty reduction through income generation through honey production, tourism and conservation agriculture activities. These incomes are likely to increase through the remainder of the project as the activities are undertaken by more members and members' capacities to produce honey and marketable foods improves. Community members from all project areas are expected to see improvements.

It is expected that households in communities with better access to markets will see the best direct economic returns from these activities whilst the communities further away will mostly have indirect benefits through improved environmental conditions (water, soil and air quality) as well as improved nutrition and health.

## **7. Project support to Gender equity issues**

The project has engaged more women in activities that the communities define as men's work, such as bee keeping. For example, over 60% of beekeeping beneficiaries are women with women in Mutoe and Mukwawia more active than men in harvesting honey. Attitudes have been changed to allow women to wear the full protective clothing to carry out the work. Women are also involved in NRMCS and have been involved in decision making resulting from the participatory mapping and zoning process.

It is worth noting that the communities are new for MICAIA to work in and that direct impacts on traditional views can progress slowly.

## **8. Monitoring and evaluation**

The partner organization (MICAIA Foundation) has hired an M&E officer in August 2015. The team developed a framework to monitor the project activities. The project officer is also to create a database of communities, villages, and households and to record the project relevant activities undertaken by these in order to monitor livelihood activity uptake across the project area. These will improve M&E in future.

## **9. Lessons learnt**

During the reporting period, some lessons have been learnt, such as:

1. For a good implementation of project and alignment of project outcome, output, activities and indicators, a technician is needed to undertake the monitoring and evaluation process. With this field officers have to be trained on how to track the project deliverables.
2. Women have displayed great courage with their involvement in beekeeping the honey harvesting process. Their enthusiasm will help ensure that the activity will continue after the Darwin Project.
3. Participation in the project activities is driven by evidence of improved incomes - after the first harvest of honey in Mutoe, benefiting 14 households, other community members requested hives. With conservation agriculture demand also increased after the Mutoe association started selling their yields. All community members would now like seeds, technical training and other supplies, but the project does not have the budget to cover all members.
4. Beehives are good strategy to protect the forests from the fires: 2015 were a very dry year, and many places suffered by fires. Team members noticed households that benefited from mounted hives worked hard to protect the areas from fires.
5. For the community mobilization and decision-making processes it is important to separate the groups of women from men. Women do not participate actively when the men or husbands are present. In future, land use plans will be developed with more active participation of women because they use natural resources most will be the most impacted by the Land Use Plans.
6. When considering natural resource based livelihoods it is important to include time for training and engaging with community members before benefits are seen. Three years may be too short a time span and at least five years implementation may be better.

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

See annex 12 for full response to the Mid-term review.

## 11. Other comments on progress not covered elsewhere

The Mid-term review has helped to redefine the project outputs and indicators to ensure that the progress of the project is more accurately reflected in the report's results.

## 12. Sustainability and legacy

The MICAIA team has raised the profile of the project in Mozambique through working with Chimanimani TFCA Administration and District Government officials and attending conferences, like the World Forestry Congress in Durban, 2015. This work has been rewarded by help securing the teams involvement in the future TFCA wide project (MOZBIO Project). This will contribute to the expansion and sustainability of this Darwin Initiative project. In addition funds have been secured from Critical Ecosystem Partnership Funds for a trans-boundary project in partnership with IIED which will support work with communities in Chimanimani.

Within the project communities, the community conservation zones have been identified which is evidence that they understand the importance of Biodiversity to their livelihoods. As noted above, initial results of income generation with the Mutoe association has caused an increase in interest in activities with other community members so that the project cannot provide for them all.

The project has facilitated links with some social enterprises, such as Mozambique Honey Company and Ndzou Camp Ida which provide a market for income generation for the communities into the future. This supports the exit strategy leaving continued improvement of economic livelihoods because there enterprises have the demand for those products. Lead agriculturalists and beekeepers will also provide support to other farmers in up taking the promoted activities after the project.

Those community conservation areas were the focus for botanical surveys and will be important part of Community Land Use Plans and Sustainable off take. The capacity building activities with the Natural Resources Management committees and community rangers, to improve their knowledge about the importance of natural resources, provides a body to monitor the implementation of the land use plants and the means to measure and maintain the activities beyond the length of the project.

## 13. Darwin Identity

The Darwin Initiative name as the project funder has been promoted during all activities and in communications with all stakeholders. At the meetings with community members, government representatives and other relevant stakeholders, the Darwin Initiative was explained to them as the source of funds for the project. The internal reports, working plans and the list of participants at the meetings also use the Darwin Initiative logo and MICAIA Foundation logo.

The Darwin initiative funding is very important to the households in the communities in the Chimanimani forest belt. There is a clear understanding about the purpose of this funding amongst the community members as outlined in the Mid-term review document. Members of the local community have expressed the importance of the project to give them the opportunity to implement sustainable livelihoods strategies and from this contribute to an increase in their household incomes.

This funding is well known at the National Government level because of its importance on supporting conservation efforts and sustainable livelihoods. Recognising the importance of the Darwin Initiative funds and the project's work with the communities in the forest belt, the Mozambican Government is funding the investments project evaluated in US\$1,200,000.

## 14. Project Expenditure

**Table 1 Project expenditure during the reporting period (1 April 2015 – 31 March 2016)**

Project spend (indicative) since last annual report	2015/16 Grant (£)	2015/16 Total Darwin Costs (£)	Variance %	Comments (please explain significant variances)
Staff costs (see below)			-1	
Consultancy costs			18	Incorrect claim on time made for Jonatha Timberlake
Overhead Costs			7	Due to above difference
Travel and subsistence			-8	
Funds sent to MICAIA			-0.01	

Capital items (see below)	0	0		
Others (see below)			80	Translation activities postponed until Y3
<b>TOTAL</b>			<b>4</b>	

**Annex 1: Report of progress and achievements against Logical Framework for Financial Year 2015-2016**

Project summary	Measurable Indicators	Progress and Achievements April 2015 - March 2016	Actions required/planned for next period
<p><b>Impact</b></p> <p>Effective and sustainable balance between biodiversity conservation, poverty alleviation and scaled development achieved in the Chimanimani Forest belt, Mozambique.</p>		<p>The project set out to implement its activities recognizing that the Chimanimani TFCA is one of the most populated conservation areas. Considering government's decision not to relocate these families, we set ourselves up to learn about the environment and its biological diversity; the communities and their interaction with the forest; and to use this knowledge to design sustainable livelihood approaches in full compliance with the management plan approved by the government for this area. The establishment of community conservation areas and the training of community structures to work with traditional chiefs on the sustainable management of biological resources helped in cementing conservation knowledge and practice among community members. Linking production to trade (e.g. Mozambique Honey Company), the project addressed critical sustainability issues.</p>	
<p><b>Outcome:</b> 40+ communities will be engaged in a range of natural resource-based livelihoods options, increasing household incomes and reducing loss of biodiversity and carbon stocks across the Chimanimani forest belt.</p>	<p>Indicator 1. Change in level of household incomes for 1000 households. Target: increase from &lt;\$1/day (range from .55/day-\$1/day) to an average of \$1.50/day by end of project</p> <p>Indicator 2. Change in farming practices. Target: a proportion of 20% of 2281 households adopts sustainable agriculture practices and contributes for</p>	<p>Indicator 1. Households have been involved in the implementation of economic activities and some have derived additional income from the sale of honey and agricultural products.</p> <p>Indicator 2. Sustainable agriculture in place and involving 184 households. This represents 8% of targeted number.</p>	<p>Work with each community to develop the Integrated Land Use plans</p> <p>Continue with implementation of Conservation Agricultures</p> <p>Continue with the training of beekeepers and assist them during the period of selling honey</p>

	<p>food security and improved nutrition of their households</p> <p>Indicator 3. Increased levels of sustainable forest product use. Target: 5 tons of honey sold to MHC annually by end of the project; new markets identified for at least two additional NTFP; tourist visitor numbers to the area increase from 100/mth to 300/mth.</p> <p>Indicator 4. Change in size of the area of designated conservation land within the Chimanimani forest belt. Target: increase from the three existing (though severely degraded) official reserves through establishment of two new areas in Zomba (5,000ha) and Mahate (5,000ha) with community management and government support by Yr3</p> <p>Indicator 5. Reduced rate of carbon emission in the forest belt. Target : no fires registered and no new fields opened in community conservation areas set under this project ; 20% of farmers adopt conservation agriculture</p>	<p>Indicator 3. The conditions have been created to increase the levels of sustainable forest products use. We have identified four species with commercial potential: <i>Ximenia americana</i>, <i>Uapaca kirkiana</i>, <i>Funtumia africana</i> and <i>Coffea salvatrix</i>. 388kg of honey has been harvested and sold by households to Mozambique Honey Company</p> <p>Indicator 4. Community conservation zones identified within each participating community:</p> <ul style="list-style-type: none"> <li>• Zomba with 3,855 ha;</li> <li>• Mahate with 14,562ha;</li> <li>• Mpunga has 7,034 ha (part of 16,200ha Moribane forest reserve already established);</li> <li>• Maronga with 13,566 ha (part of 14,500ha Maronga Forest Reserve)</li> </ul> <p>Indicator 5. Natural Resources Management Committees and community rangers are working in coordination with their communities to ensure reductions in the incidences of fires and the number of new fields opened up. The existence of hives at the forest belt is contributing to a reduction in forest loss as people value the forest more for honey production.</p>	<p>Establish at least 2 camp sites in Maronga and Zomba for tourism purposes and community income generation</p> <p>Establish at least 1 viewpoint for watching wildlife in Mpunga and Maronga</p> <p>Finalize the construction of trails and information points under the forest learning centre in Mpunga community</p> <p>Produce educational materials including botanical labels for plants on the trails (with symbols developed to represent uses), posters for display, a book of local indigenous plants to the Ndzou camp area, information of methods of propagation of important useful species for communities</p> <p>Demarcation of community conservation zones</p> <p>Use satellite imagery data from the University of Edinburgh to monitor the reduction of forest cover and fires inside and outside of the project communities' areas</p>
<p><b>Output 1.</b> Information collected on areas suitable for conservation within the communities of Mahate, Mpunga, Zomba and Maronga, and on plant</p>	<p>1a. List of plant species recorded with information on frequency, distribution, uses and threats for the most desired species (locally useful and those of</p>	<ul style="list-style-type: none"> <li>• List of plant species recorded for four project areas (Mpunga, Zomba, Maronga and Mahate)</li> <li>• Useful plants recorded with species of interest for conservation</li> <li>• Quantitative data on forest composition and structure for Maronga and</li> </ul>	

species of conservation interest and potential economic value	<p>conservation priority) produced by Q4 of Y2.</p> <p>1b. Quantitative data on forest structure and composition for two project areas (Maronga &amp; Mpunga) produced by end Q4 of Y2</p> <p>1c. Functional map of forest and other vegetation types, highlighting the distribution and extent of key areas for valued biodiversity in the four project areas, produced and available to be used by end of Q1 of Y3.</p>	<p>Mpunga produced</p> <ul style="list-style-type: none"> <li>• Functional maps in production at Kew to be completed in the first quarter of year 3</li> </ul>						
Activity 1.1 Carry out targeted plant surveys in each of the four forest areas, focussing on less-disturbed areas.	<p>Completed. Eight forest areas were investigated:</p> <ul style="list-style-type: none"> <li>• <b>Mpunga:</b> Mpunga Centro, Mbiquiza forest and Chikó Forest</li> <li>• <b>Zomba:</b> Muranga/Thekeza forest, Mapira Swamp, Zomba Centro Swamp</li> <li>• <b>Mahate:</b> Mahate community conservation area</li> <li>• <b>Maronga:</b> Comeni forest</li> </ul>							
Activity 1.2 Identify (at IIAM and Kew) botanical voucher specimens collected during survey work	<p>Completed. A total of 616 plant specimens collected and identified at IIAM and Kew:</p> <ul style="list-style-type: none"> <li>• <b>Mpunga:</b> 198</li> <li>• <b>Zomba:</b> 163</li> <li>• <b>Mahate:</b> 81</li> <li>• <b>Maronga:</b> 174</li> </ul>							
Activity 1.3 Map vegetation types and habitat quality using field survey data and available spatial imagery	Completed							
Activity 1.4 Compile summary botanical report for each of the four forest areas	Completed							
Activity 1.5 Establish forest sample plots in two forest areas [3-4 plots in each area]	<p>Completed. Detailed forest sample plots were established in Mpunga and Zomba. Tree diameter plots were established in Mpunga, Zomba and Maronga. Characterisation plots were established in all community areas.</p> <table border="1" data-bbox="1102 1315 2042 1439"> <tr> <td data-bbox="1102 1315 1294 1439" rowspan="2"><b>Community areas</b></td> <td colspan="2" data-bbox="1294 1315 1796 1359"><b>Tree composition plots</b></td> <td data-bbox="1796 1315 2042 1439" rowspan="2"><b>Vegetation characterisation plots</b></td> </tr> <tr> <td data-bbox="1294 1359 1550 1439"><b>Forest plots</b></td> <td data-bbox="1550 1359 1796 1439"><b>Tree diameter plots</b></td> </tr> </table>		<b>Community areas</b>	<b>Tree composition plots</b>		<b>Vegetation characterisation plots</b>	<b>Forest plots</b>	<b>Tree diameter plots</b>
<b>Community areas</b>	<b>Tree composition plots</b>			<b>Vegetation characterisation plots</b>				
	<b>Forest plots</b>	<b>Tree diameter plots</b>						

		Mpunga	4	6	17
		Zomba	5	3	13
		Mahate	0	0	11
		Maronga	0	3	10
		<b>Total</b>	<b>9</b>	<b>12</b>	<b>51</b>
<b>Output 2.</b> Integrated Land Use Plans created with communities and implemented by their Natural Resource Management Committees (NRMCS) and community rangers in the four project areas (Maronga, Mpunga, Zomba and Mahate)	<p>2a. Consensus on conservation zone boundaries reached by the communities in all four project areas by Q2 of Y3</p> <p>2b. Participatory Community Maps and Integrated Land Use Plans produced and in place for all four project areas with proposed conservation zones in each of them by Q2 of Y3</p> <p>2c. Members of the NRMCS from all four project areas to have met regularly (at least once a month) and decisions documented on allocation of land in line with the Integrated Land Use Plan by the end of Y3</p> <p>2d. Community rangers from all four project areas to have conducted regular patrols (at least once a week with or without TFCA rangers) and documented cases of carrying out their tasks (e.g. controlling fires and verifying land for opening <i>machambas</i>).</p>	<p>Community meetings held and consensus reached about the conservation zones' boundaries in 4 community areas (6 conservation areas selected in total)</p> <p>Meetings held for mapping and zoning process, including the indication of community conservation zones, held with households at all project areas. 4 community conservation zones identified.</p> <p>Community conservation zones have been geo-referenced using GPS, in Mpunga (Moribane), Mahate, Zomba and Maronga</p> <p>A total of 147 NRMCS members and community members not part of NRMCS have been trained to understand the Chimanimani National Reserve Management Plan, and the principles and rules for protection and sustainable use of forest and wildlife resources under Forest and Wildlife law and conservation law. The community officer of Chimanimani National Reserve, Mr. Júlio Chironda, was involved in these event:</p> <ul style="list-style-type: none"> <li>• <b>Mpunga:</b> 13</li> <li>• <b>Zomba:</b> 73</li> <li>• <b>Mahate:</b> 12</li> <li>• <b>Maronga:</b> 49</li> </ul> <p>A total of 29 community rangers have been trained across all communities. Community rangers in Mpunga (11) and Mahate (10) conduct regular patrols with Chimanimani TFCA rangers. Rangers in Maronga (4) and Zomba (4) have no support from TFCA rangers because the rangers do not currently patrol in those areas yet.</p>			
Activity 2.1. Mobilize communities and facilitate the production of maps and land use plans (zones) using a variety of participatory methodologies	On-going process. At least four meetings undertaken with community members to facilitate the zoning process.				
Activity 2.2 Organise the involvement of officials from the government's department of geography and mapping to demarcate officially the proposed conservation zones	Not completed. Postponed to 2016/ 2017				
Activity 2.3. Work with each community, through a series of organised meetings, to prepare plans for access to forest resources (off-take), establish management committees for the conservation zones, and provide training to the members of	4 training events have been undertaken with members of Natural Resources Management Committees and community rangers in all project areas				



these committees.		
<p><b>Output 3.</b> Appropriate and viable natural resource based livelihood strategies developed and implemented by 1,000 households in the four project areas (Maronga, Mpunga, Zomba and Mahate).</p>	<p>3a. At least three Business and Resource Management Plans produced by end of Y2 for expanding market oriented livelihood strategies</p> <p>3b. At least 20% of 2,281 households to have adopted at least one conservation agriculture practice by end of Y3</p> <p>3c. 60% of income for 1,000 households generated as a direct result of participation in at least one new or expanded livelihood activity supported by the project by end of Y3.</p>	<p>In order to ensure early adoption the project targeted conservation friendly business propositions with known markets that would have the potential to provide good livelihood opportunities. Beekeeping and tourism provide two good options for which Business plans have been developed. Resource management plans will be produced during the current fiscal year incorporating the results of the botanical survey.</p> <p>Though 8% of the 2281 households are implementing conservation agriculture (mulching and intercropping) in all four community areas, it is still too early in the project to accurately measure or predict the project's reach.</p> <p>Potential economic edible fruit species(e.g. <i>Sclerocarya birrea</i>, <i>Uapaca kirkiana</i>, <i>Ximenia caffra</i>, <i>Dovyalis</i> spp., <i>Azima</i> spp, <i>Vangueria infausta</i>, <i>Strychnos madagascariensis</i> and <i>Vitex doniana</i>)</p> <ul style="list-style-type: none"> <li>• <i>Funtumia africana</i> was found in Mpunga, Zomba and Maronga which could be used in the production process of high value paper. Four species with marketable edible fruits were highlighted; Three species were highlighted which are already used in the production of high value timber-based products, such as furniture and kitchen utensils. Thirteen species have potential use for essential oils. A potential coffee species, <i>Coffea salvatrix</i> was found in Zomba. Finally, papyrus (e.g. <i>Cyperus papyrus</i>) could be used for handcraft products in Zomba.</li> </ul> <p>Three areas have been identified in Zomba for potential community tourism camps:</p> <ul style="list-style-type: none"> <li>• Thekeza forest</li> <li>• Zichau povoado swamp area</li> <li>• Mukutuku river waterfalls</li> </ul> <p>Two areas have been identified in Comeni forest, Maronga, for potential community tourism camps</p> <ul style="list-style-type: none"> <li>• Murere River</li> <li>• Chiira River</li> </ul>
Activity 3.1 Commission Eco-MICAIA Ltd to develop business plans for expanding livelihood activities (honey, tourism and forest fruits) and link these plans with resource management plans based on the inventories and land use planning exercises		A market access strategy for honey production; an Eco-tourism development strategy for the Chimanimani TFCA; and a Market access strategy for natural products have been produced. Resource management plans to be produced.

<p>Activity 3.2 On the basis of the studies present key recommendations to community leaders and mobilize local households around one (or more) of the proposed livelihood strategies, putting in place a package of training and organisational capacity building appropriate to the chosen strategy.</p>	<p>234 households benefitted (women association) from 1086 beehives and required training for beekeeping</p> <p>22 bee promoters trained in skills to help them spread their knowledge of bee keeping with other community members:</p> <ul style="list-style-type: none"> <li>• <b>Mpunga:</b> 4</li> <li>• <b>Zomba:</b> 6</li> <li>• <b>Maronga:</b> 6</li> <li>• <b>Mahate:</b> 6</li> </ul> <p>13 lead beekeepers trained to support the bee promoters and other beneficiaries of beehives in all project area with management and administration activities.</p> <p>160 households involved at the conservation agriculture (seeds distributed and incomes started coming). Trainings undertaken in mulching and intercropping approaches.</p> <p>2 camp sites identified for Zomba and Maronga</p> <p>2 viewpoints identified for Mpunga (Moribane) and Mahate</p> <p>4 Non-Timber Forest Products, namely <i>Ximenia</i>, <i>Uapaca kirkiana</i>, <i>Funtumia africana</i> and <i>Coffea salvatrix</i> with confirmed market</p>
<p><b>Activity 3.3</b> Identify and work with established private companies and/or new investors to create a market access plan to include agreement on price, quality standards, input supply, and defining collection points.</p>	<p>Mozambique Honey Company (MHC) was the company identified for honey.</p> <p>Ndzou camp for tourism promotion, the one for community tourism.</p>
<p><b>Output 4.</b> Improved tourism services, including community guides and education materials for tourists and local communities</p>	<p>4a. Four 'Forest Learning Trails' linking community based and managed information stations created and used by tourists and communities by end of Q2 of Y3</p> <p>4b. At least 10 community guides trained in each of the four project areas and positive tourist reviews received</p> <p>4c. At least 200 items (e.g. booklets and maps) sold from Ndzou Camp by end of Y3</p> <p>8 Trails identified and geo-referenced in all four community areas:</p> <ul style="list-style-type: none"> <li>• <b>Mpunga:</b> 4</li> <li>• <b>Zomba:</b> 2</li> <li>• <b>Maronga:</b> 2</li> </ul>
<p><b>Activity 4.1</b> Work with communities to identify routes for trails and information points for visitors and organise working parties of local people to prepare the trails</p>	<p>Routes for trails identified and information points for visitors identified.</p>
<p><b>Activity 4.2</b> On the basis of information gathered in the surveys and other research, commission a local consultant to draft content for display materials and other information</p>	<p>This will be done in the current fiscal year</p>

<b>Activity 4.3</b> Translate all materials and publish	This will be done in the current fiscal year
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**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> Effective and sustainable balance between biodiversity conservation, poverty alleviation and scaled development achieved in the Chimanimani Forest belt, Mozambique.</p>			
<p><b>Outcome:</b> 40+ communities will be engaged in a range of natural resource-based livelihoods options, increasing household incomes and reducing loss of biodiversity and carbon stocks across the Chimanimani forest belt.</p>	<p>Indicator 1. <b>Change in level of household incomes for 1000 households.</b> Target: increase from &lt;\$1/day (range from .55/day-\$1/day) to an average of \$1.50/day by end of project</p> <p>Indicator 2. <b>Change in farming practices.</b> Target: a proportion of 20% of 2281 households adopts sustainable agriculture practices and contributes for food security and improved nutrition of their households</p> <p>Indicator 3. <b>Increased levels of sustainable forest product use.</b> Target: 5 tons of honey sold to MHC annually by end of the project; new markets identified for at least two additional NTFP; tourist visitor numbers to the area increase from 100/mth to 300/mth.</p> <p>Indicator 4. <b>Change in size of the area of designated conservation land within the Chimanimani forest belt.</b> Target: increase from the three existing (though severely degraded) official reserves through establishment of two new areas in Zomba (5,000ha) and Mahate (5,000ha) with community management and government support by Yr3</p> <p>Indicator 5. <b>Reduced rate of carbon emission in the forest belt.</b> Target : no fires registered and no new fields opened in community conservation</p>	<p>Indicator 1. Baseline and annual surveys within the project Local government data</p> <p>Indicator 2. Community-based surveys. Ministries of Agriculture and Tourism reports</p> <p>Indicator 3. Community-based surveys. Project reports</p> <p>Indicator 4. Official and community maps and agreements</p> <p>Indicator 5. Remote sensing studies and surveys undertaken by University of Edinburgh, UEM and partners</p>	<p>Assumption 1. Government, community members and the Administration of the Chimanimani TFCA remain committed to the project objectives</p> <p>Assumption 2. The information collected by the botanical surveys provides practicable information for developing new livelihoods and conservation strategies.</p> <p>Assumption 3. Honey produced in the project area meets the quality criteria set by Mozambique Honey Company.</p> <p>Assumption 4. Beekeeping, tourism and sustainable agriculture contribute significantly to an increase in households' incomes.</p> <p>Assumption 5. The adoption of sustainable agriculture contributes to a reduction of forest loss and carbon emissions.</p> <p>Assumption 6. Early benefits from tourism, beekeeping and sustainable agriculture activities are a sufficient incentive for communities to improve behaviour and actively engage in conservation activities.</p> <p>Assumption 7. Ndzou Camp is an attractive platform for the growth of tourism in the Chimanimani TFCA, additional services and active promotion will be provided to support an increase in visitor numbers.</p>

	areas set under this project ; 20% of farmers adopt conservation agriculture		Assumption 8. Participatory Community Land Use Plans lead to community ownership and empowerment and become therefore an important tool for sustainable management of natural resources
<b>Output 1.</b> Information collected on areas suitable for conservation within the communities of Mahate, Mpunga, Zomba and Maronga, and on plant species of conservation interest and potential economic value	<p>1a. List of plant species recorded with information on frequency, distribution, uses and threats for the most desired species (locally useful and those of conservation priority) produced by Q4 of Y2.</p> <p>1b. Quantitative data on forest structure and composition for two project areas (Maronga &amp; Mpunga) produced by end Q4 of Y2</p> <p>1c. Functional map of forest and other vegetation types, highlighting the distribution and extent of key areas for valued biodiversity in the four project areas, produced and available to be used by end of Q1 of Y3.</p>	<p>1a. Field survey reports and species list</p> <p>1b. Maps and species lists.</p>	<p>Assumption 1. Government and community leaders remain committed to the project agenda and, once established, to the conservation zones. Mitigated by working closely with the Administration of the Chimanimani TFCA and relevant government entities.</p> <p>Assumption 2. Honey produced in the project area meets the quality criteria set by Mozambique Honey Company. Mitigated by providing technical support and training to producers.</p>
<b>Output 2.</b> Integrated Land Use Plans created with communities and implemented by their Natural Resource Management Committees (NRMCs) and community rangers in the four project areas (Maronga, Mpunga, Zomba and Mahate)	<p>2a. Consensus on conservation zone boundaries reached by the communities in all four project areas by Q2 of Y3</p> <p>2b. Participatory Community Maps and Integrated Land Use Plans produced and in place for all four project areas with proposed conservation zones in each of them by Q2 of Y3</p> <p>2c. Members of the NRMCs from all four project areas to have met regularly (at least once a month) and decisions documented on allocation of land in line with the Integrated Land Use Plan by the end of Y3</p> <p>2d. Community rangers from all four project areas to have conducted regular patrols (at least once a week with or without TFCA rangers) and documented</p>	<p>2a. Maps</p> <p>2b. Maps, plans</p> <p>2c. NRMC meeting decisions documented in reports</p> <p>2d. Community ranger patrol reports produced</p> <p>Report from Chimanimani TFCA administration (or rangers) about the involvement of community rangers</p>	

	cases of carrying out their tasks (e.g. controlling fires and verifying land for opening <i>machambas</i> ).		
<b>Output 3.</b> Appropriate and viable natural resource based livelihood strategies developed and implemented by 1,000 households in the four project areas (Maronga, Mpunga, Zomba and Mahate).	<p>3a. At least three Business and Resource Management Plans produced by end of Y2 for expanding market oriented livelihood strategies</p> <p>3b. At least 20% of 2,281 households to have adopted at least one conservation agriculture practice by end of Y3</p> <p>3c. 60% of income for 1,000 households generated as a direct result of participation in at least one new or expanded livelihood activity supported by the project by end of Y3.</p>	<p>3a. Project reports, monitoring visit reports, evaluation studies;</p> <p>Business plans and concept notes for Tourism and NTFP processing</p> <p>3b. Number of households involved with sustainable agriculture</p> <p>3d. Households assets</p>	
<b>Output 4.</b> Improved tourism services, including community guides and education materials for tourists and local communities	<p>4a. Four 'Forest Learning Trails' linking community based and managed information stations created and used by tourists and communities by end of Q2 of Y3</p> <p>4b. At least 10 community guides trained in each of the four project areas and positive tourist reviews received</p> <p>4c. At least 200 items (e.g. booklets and maps) sold from Ndzou Camp by end of Y3</p>	<p>4a. Publications, photos, case studies</p> <p>4b. Training report and list of trainees</p> <p>4c. Number of booklets and maps produced and sold</p>	
<p><b>Activities</b></p> <p><b>Output 1</b></p> <p>1.1 Carry out targeted plant surveys in each of the four forest areas, focussing on less-disturbed areas.</p> <p>1.2 Identify (at IIAM and Kew) botanical voucher specimens collected during survey work</p> <p>1.3 Map vegetation types and habitat quality using field survey data and available spatial imagery</p> <p>1.4 Compile summary botanical report for each of the four forest areas</p> <p>1.5 Establish forest sample plots in two forest areas [3-4 plots in each area]</p> <p>2.1 Mobilize communities and facilitate the production of maps and land use plans (zones) using a variety of participatory methodologies</p>			

- 2.2 Organise the involvement of officials from the government's department of geography and mapping to demarcate officially the proposed conservation zones
- 2.3 Work with each community, through a series of organised meetings, to prepare plans for access to forest resources (off-take), establish management committees for the conservation zones, and provide training to the members of these committees.
- 3.1 Commission Eco-MICAIA Ltd to develop business plans for expanding livelihood activities (honey, tourism and forest fruits) and link these plans with resource management plans based on the inventories and land use planning exercises
- 3.2 On the basis of the studies present key recommendations to community leaders and mobilize local households around one (or more) of the proposed livelihood strategies, putting in place a package of training and organisational capacity building appropriate to the chosen strategy.
- 3.3 Identify and work with established private companies and/or new investors to create a market access plan to include agreement on price, quality standards, input supply, and defining collection points.
- 4.1 Work with communities to identify routes for trails and information points for visitors and organise working parties of local people to prepare the trails
- 4.2 On the basis of information gathered in the surveys and other research, commission a local consultant to draft content for display materials and other information
- 4.3 Translate all materials and publish

## Annex 3 Standard Measures

**Table 1 Project Standard Output Measures**

Code No.	Description	Gender of people relevant (if relevant)	Nationality of people (if relevant)	Year 1 Total	Year 2 Total	Year 3 Total	Total to date	Total planned during the project
6A	Conservation agriculture-meetings	162 Men 99 women	Mozambican		253			
	Seed distribution	80 men, 87 women	Mozambican		167			
22	Demonstration plots for maize and beans/ Horticulture (participants)/ trainings	104 men, 80 women	Mozambican		184			
6A	Conservation agriculture involving students		Mozambican		196			
21	Community meetings	114 men, 45 women	Mozambican		169			
6A	Training of Natural Resources Management Committees including singular community members	86 men, 61 women	Mozambican		147			
21	Beekeeping-meetings	33 men, 29 women	Mozambican		65			
21	Beekeeping beneficiaries	Men 95, 139 women	Mozambican		234			
21	Training of Lead Beekeepers	11 men, 2 women	Mozambican		13			
TOTAL				704	1428		2132	2600

**Table 2 Publications**

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





**Annex 4 Onwards – supplementary material (optional but encouraged as evidence of project achievement)**

Annex 4. Beekeeping database

Annex 5: Community maps with Conservation Zones and trails

Annex 6. Report on training of Natural Resources Management Committees and community rangers

Annex 7. Sustainable agriculture reports

Annex 8. Database of community members who have received seeds for sustainable agriculture (Lista de participantes nos CDRs e distribuição de sementes)

Annex 9. DRAFT: Darwin Chimanimani Botanical survey report

Annex 10. Reports on monitoring beekeeping activities

Annex 11. Scanned document of honey sales

Annex 12. Report on lead beekeepers training

Annex 13. Training programme for NRMC and Community rangers

Annex 14. Database of species from the botanical surveys

Annex 15. Response to mid-term reviewer

Annex 16. Database of structure and composition of forests in Mpunga and Zomba

Annex 17. Market access strategy for honey production

Annex 18. DRAFT: Eco-tourism development strategy for the Chimanimani TFCA

Annex 19. Report from selection of community conservation area -Maronga

Annex 20. Report from community ranger patrols, Mpunga

Annex 21. Record list from Ndzou camp lodge

Annex 22. Contracts to sell honey to MHC from communities

Annex 23. Mutoe association records

Annex 24. DRAFT: Monitoring and evaluation framework

Annex 25. Project Work Plan April 2016-March 2017

### Checklist for submission

	Check
<b>Is the report less than 10MB?</b> If so, please email to <a href="mailto:Darwin-Projects@ltsi.co.uk">Darwin-Projects@ltsi.co.uk</a> putting the project number in the Subject line.	Yes
<b>Is your report more than 10MB?</b> If so, please discuss with <a href="mailto:Darwin-Projects@ltsi.co.uk">Darwin-Projects@ltsi.co.uk</a> about the best way to deliver the report, putting the project number in the Subject line.	No
<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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