

## Darwin Initiative Main and Post 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 2020**

### Darwin Project Information

Project reference	24-009
Project title	Landscape approach to enhance biodiversity and livelihoods in the Comoros
Country/ies	Comoro Islands
Lead organisation	Bangor University
Partner institution(s)	Comorian government, Dahari, ICRAF, IUCN
Darwin grant value	£410,842
Start/end dates of project	01/04/17 to 31/03/21
Reporting period (e.g. Apr 2019 – Mar 2020) and number (e.g. Annual Report 1, 2, 3)	Apr 2019 – Mar 2020 Annual Report 3
Project Leader name	Dr Fergus Sinclair
Project website/blog/social media	Via Bangor, Dahari, and ICRAF social media
Report author(s) and date	Hugh Doulton, Dr Emilie Smith Dumont, Misbahou Mohamed, Médéric Carpier, Dr Tim Pagella, Dr Fergus Sinclair

### 1. Project summary

The island of Anjouan in the Comoros archipelago has lost 80% of its forests in the past 30 years, one of the highest deforestation rates in the world. Deforestation continues to threaten at least 30 known forest-dependent endemic species, including the flagship Critically Endangered Livingstone’s fruit bat, but also coastal biodiversity due to accelerated erosion and siltation of reefs. Deforestation also puts at risk present and future livelihoods: 40 of 50 rivers that flowed permanently on Anjouan 40 years ago have disappeared or now flow only intermittently, and agricultural yields are in sharp decline due to erosion.

The primary threats to the remaining natural forest are agricultural expansion and extraction of timber for construction. The underlying drivers include extremely high population pressure (over 550 people/km<sup>2</sup> in Anjouan), high poverty levels (over 50% of the population lives below the international poverty line), and over 80% dependency on agriculture for livelihoods. These factors are compounded by agricultural practices in need of innovation and intensification, and weak governance. The rural population is forced to expand cropland into fertile forest areas and cut remaining old growth trees for money to maintain livelihoods.

This project builds on the work of the Comorian NGO Dahari since 2008, and a developing partnership with Bangor University, the World Agroforestry Centre (ICRAF), and the International Union for the Conservation of Nature (IUCN) that was strengthened through a Darwin Scoping Award in 2016. The project seeks to upscale and outscale a transdisciplinary landscape approach integrating agriculture, agroforestry, forest management, and PES biodiversity interventions to protect the Moya forest in the south of Anjouan and improve Comorian livelihoods.

The project is working in 10 villages surrounding the Moya forest block. Anjouan is one of the four main islands of the Comoros, located between Madagascar and Mozambique in the southwest Indian Ocean.

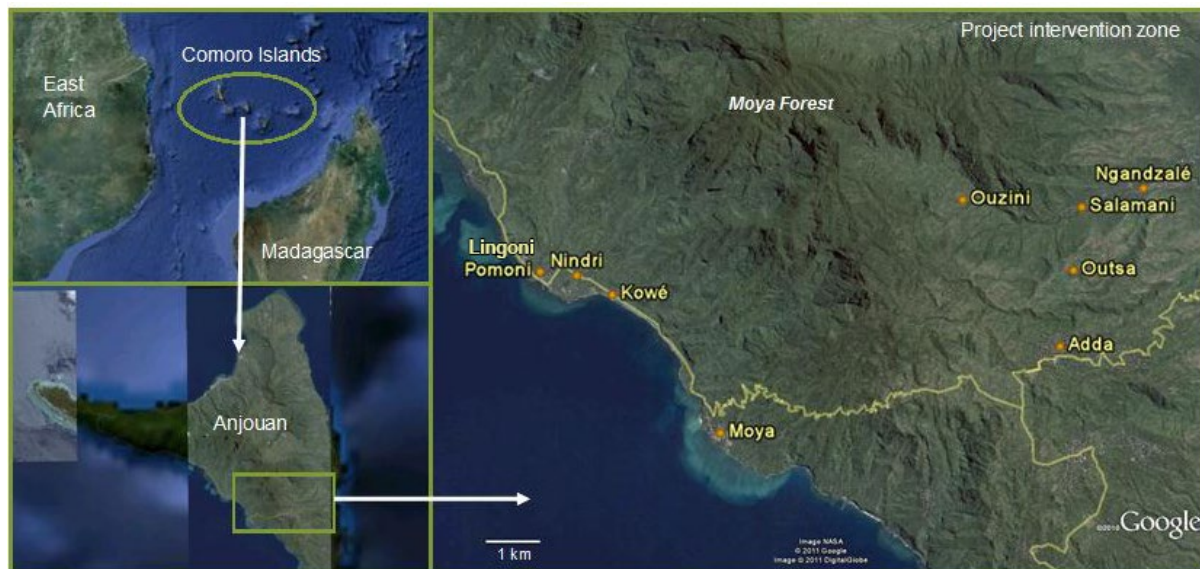


Image 1: Location of the Comoro Islands, the Moya forest on Anjouan, and the ten villages in which the project is working

## 2. Project partnerships

This project is the result of a collaboration between a team of researchers working between Bangor University and ICRAF, and the Comorian NGO Dahari. The relationship began in 2016 with preliminary visits and studies, including through a Darwin scoping project (DARSC170) proposed and developed by Dahari, which also engaged the IUCN. The IUCN are a project partner focusing on advocacy work for the landscape approach and forest landscape restoration with the Comorian government – the final project partner.

Project management is shared between Bangor/ ICRAF and Dahari, with frequent exchanges on key decisions. Dr Emilie Smith Dumont (ESD) as lead researcher made two trips to the Comoros during the third year of the project, Dr Tim Pagella (Bangor) made one trip. Prof Gill Shepherd working as a consultant but linked to the IUCN and Dr Fergus Sinclair (ICRAF – project leader) continue to provide input from afar, including through meetings in Nairobi between ESD and Dr Sinclair.

To address the inherent complications of managing the inputs of multiple institutions and individuals based in different countries, a project management team was set up, comprised of Hugh Doulton, Misbahou Mohamed and Mederic Carpier (Dahari), Emilie Smith Dumont (Bangor/ICRAF) and Tim Pagella (Bangor University). A Dropbox folder has also been set up to share project documents, literature and data. All partners regularly communicate through emails, Skype calls and Whatsapp messages.

Towards the end of the year a wide range of national actors were engaged in the landscape approach advocacy work led by the IUCN, including key individuals from the Ministry. A workshop was also run on Anjouan in January engaging technicians from government and NGO to train them on implementation of the agroforestry manual. At the local level, regular meetings are held

with the mayors' offices to keep them up-to-date with activities, and the mayors take part in communication events.

The project has also developed a strong partnership with the University of the Comoros via collaboration on certain biodiversity-focused research projects, and through hosting students on internships.

### **3. Project progress**

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

##### **Output 1: Community groups are supported to restore and manage water catchment areas.**

Significant progress was made in the GIS mapping of the Moya landscape despite difficulties faced over the acquisition of cloud-free images of high enough resolution. After analysing available historical image bases and options, the project team decided that procuring new satellite images would be the most effective approach to ensure the quality of the mapping output. A contract was run through ICRAF with a satellite company. Due to persistent cloud cover, it took over two months of weekly flights over Anjouan before acceptable imagery was procured. As a result of these delays, the second GIS consultant that had been hired was no longer available due to other commitments. A new recruitment process was re-initiated in Q3 and subsequent progress was made in processing the images, and in undertaking a ground-truthing field study to allow calibration of the predictive land cover model and distinguish notably exotic and indigenous tree cover. Preliminary maps and analysis is included in Annex 4 and the final output is expected in Q1 of Y4.

There are now six community groups leading reforestation efforts in the upper catchment (Adda Hamkamboui, Ouzini, Lingoni, Outsa, Anteniju, Nganzale sub-catchments). Participatory work to develop, implement and monitor rules and regulations for tree management has been ongoing with water committees and with farmer groups in three of these sub-catchments. To support these activities Dahari has strengthened the integration of its different technical teams, and increased their capacity to reinforce the governance of community groups. This has helped groups build a common vision, action plan and rules for these three sub-catchments (see activity report Annexe 5).

Five community-run tree nurseries were set up in Y3 and produced 14 981 seedlings from a diversity of 43 species (see tree nursery database in Annex 6). A total of 292 farmers (66 women and 226 men) participated in the annual reforestation campaign in Y3 and received seedlings (95% were new participants). Three committees also led communal tree planting around water sources. The updated monitoring database of planted trees is available in Annex 7) Participatory monitoring of survival is ongoing (see section 4).

The participatory system for monitoring spring discharge and rainfall designed with support from Dr Tim Pagella and initially piloted in one of the sub-catchments has been extended and now covers four springs (see spring monitoring data base Annex 8) Feedback sessions have been organised to present the analysis and structure discussions around seasonal variations and impact of trees presence or absence (see report on spring monitoring Annex 9).

##### **Output 2: Customised agroforestry technical packages are developed for upland areas and adopted by farmers.**

The technical manual and decision-support tools integrating local and scientific knowledge were completed (Annex 10) and a workshop was organised in July 2019 to validate information with

local experts (Annex 11). The material includes recommendations for 77 tree species. Emilie Smith Dumont subsequently delivered an agroforestry training in January 2020 with 27 participants working in rural development and natural resource management across the island. Dahari, other NGOs and government institutions took part in the training which covered key tree selection and management principles and a practical application of the toolkit (Annex 12). In Y4 an evaluation of the resources will be made with end-users and any final additions will be made before publication online. A further set of participatory field tools is also being developed to support field staff in facilitating discussions with farmers on tree products and services and tree selection.

In addition to a participatory tree selection diagnosis conducted with farmers groups to organise the tree planting campaign that involved 292 farmers (see output 1), an additional 108 farmers (53 women and 55 men) were trained specifically on live-fence agroforestry techniques and received 18712 cuttings distributed by Dahari (Annex 7)

**Output 3: A socially inclusive package of lowland climate-smart agriculture is streamlined, its impact proven, and rolled out to a further 2000 farmers.**

Research and support to improve the effectiveness and cost-effectiveness of Dahari's agricultural scaling strategy continued into Year 3 and culminated with a workshop organised in July 2019 to capitalize on the efforts made over the past two years (workshops, reflection, studies, etc.) The resulting changes to the scaling strategy (see Annex 13) broadly encompass: 1) outreach mechanisms that now target existing farmers' groups, including women's association and other community-based associations; 2) specific support packages tailored to farmers' needs and priorities, thereby reducing the weight of the extensive package of technologies and suite of crops that was rolled out across the intervention zones; 3) support to farmers groups' structure and governance.

The number of beneficiaries in Y3 continued to increase with a total of 1336 farmers receiving support (44% women and 56% men) and 1078 new beneficiaries recorded (Annexe 14). The RHoMIS monitoring and evaluation baseline data collected in Y2 which covered 280 farmers was analysed and a summary report is included (Annexe 15). The analysis covers general livelihood indicators (income value distribution and sources, Percentage of value of activities (sales vs consumption share), Percentage of calorific intake share, Farm management indicators (land area, crop diversity, production estimates, cash and food crops livestock, practices), gender control, baseline of tree species.

**Output 4: Status of at least one critically endangered species is secured and 50 hectares of biodiversity hotspots are conserved.**

Conservation agreements to protect roost-sites of the Critically Endangered *Pteropus livingstonii* have been signed with all five of the targeted farmers. Biannual monitoring of the bat population has been undertaken (Annex 16) and databases set up to monitor tree cover around roost sites and benefits to farmers (Annexes 17) as well as broader landscape ecological monitoring connected to output 1 (Annex 18). The map of other biodiversity hotspots taken from studies of birds, butterflies and reptiles has been produced as part of a PhD recently completed at the University of Antananarivo by a Dahari staff member, Dr Amelaid Houmadi Strategic planning is now underway to expand the protected areas around roost sites and to identify a mechanism for protecting other biodiversity and water hotspots in the highlands. This work has received a recent boost with the organisation of a partnership with Bat Conservation International, which is expected to provide expertise and funding for this work beyond this Darwin project.

**Output 5: The landscape approach and forest landscape restoration (FLR) are promoted locally and nationally through communications, advocacy and engagement with the authorities and other key actors, and internationally through social media and publications.**

Following further political disruption, the political advocacy component in collaboration with the IUCN was finally undertaken at the end of Q4. The two planned missions were merged into one, with three IUCN staff members participating led by the regional Technical Coordinator for Forest Landscapes and Livelihoods, Charles Karangwa. Meetings were held jointly with Dahari and representatives of the Ministry, the UNDP, the University, and the French Development Agency. A week of technical work was then undertaken with representatives of these organisations to start to develop a Forest Restoration Assessment for the Comoros. This culminated in a workshop at the Ministry with 30 representatives to present the preliminary results (see report in Annex 19). The work aimed to build support around a Forest Landscape Restoration approach, and assess appetite for wider engagement in the Bonn Initiative and for implication of the IUCN in the Comoros. Follow-up is planned in Y4 in collaboration with IUCN.

Regular meetings with local, regional and national authorities, media outputs and communication events (see question 12) were organised throughout the year.

### 3.2 Progress towards project Outputs

**Output 1:** The GIS maps of Moya forest landscape are being finalised and will be published in Q1 of year 4. On the tree planting targets, 292 farmers received 14086 seedlings this year bringing up to 33154 the total tree seedling numbers received and planted so far in the project (Annexe 7). We have therefore already achieved the expected tree targets (combining numbers for output 1 and 2 (20.000 + 10.000) see section (4). Reforestation activities in water catchments already cover an estimated 431 hectares of the target 400 hectares (map in Annex 20). The intensive participatory watershed management approach piloted in Anteniju in Y2 has been rolled out to two other catchments. The community groups in these catchments are being supported to lead collective actions for water catchment restoration including managing rules and sanctions on tree cutting. Dahari has invested in building the capacity of field staff in facilitation and participatory engagement to support this strategy.

**Output 2:** The technical manual and decision-support tools integrating local and scientific knowledge were completed and disseminated in January (Annex 11). Additional agroforestry training was delivered to 108 farmers (49% of which were women) on live-fencing and an additional 18712 tree cuttings were distributed for direct planting in fields (Annex 7). In terms of tree diversity, 43 different species were planted this year, a mix of indigenous and endemic as well as exotics with a new portfolio of species that included fruit trees which women had voiced particular interest in.

**Output 3:** Research and support to improve Dahari's agricultural scaling strategy continued into Year 3 and a workshop was organised between Dahari and Bangor University in July 2019 with two objectives: 1) evaluate progress and review plans for the last two agricultural campaigns of the project and 2) integrate learnings towards designing Dahari's rural development strategy including programs and operations for the next five years. On the back of this work Dahari obtained its largest ever grant of 890,000 euros to fund the expansion of its agricultural programme across the three islands of the Comoros until mid-2022. This will thus serve as co-funding during the last year of the Darwin project.

The number of beneficiaries in Y3 continued to increase through the new outreach method supporting a total of 1336 farmers (43% women and 57% men). With 1078 new beneficiaries recorded this year, we have reached a total of 2280 farmers (over 40% of women) exceeding both our overall target of 2000 farmers and of 30% women inclusion (Annexe 21) NB the annual total is lower than that reported in Y2 due to a reporting error which used the aggregate figure for the project.

**Output 4:** Conservation agreements have been signed to protect all five of the targeted roost sites of the Livingstone's fruit bat, with monitoring of tree cover and benefits to landowners in place (Annex 17). The bat population continues to be monitored biannually at all roost sites, with current data in Annex 16. The maps of other biodiversity hotspots have been produced and strategic planning for Dahari over the next few months will focus on the best mechanisms for protecting these as well as widening the bat roost site protection schemes.

**Output 5:** The key advocacy deliverable has been produced as described above in partnership with the IUCN (see report in Annex 19). Key decision-makers including the General Secretary at

the Ministry and the Resident Representative of the UNDP were engaged through this work, and have given initial commitments to pursuing commitments to the Bonn Challenge and to working with the IUCN in the Comoros. This will be taken forwards in Year 4.

Regular meetings were held throughout the year with key figures in the Environment Ministry and the Environment Commissariat on Anjouan, leading to meetings with the Minister and the President of the Comoros. Regular advocacy meetings were also held with local authorities, media outputs delivered, and local communications events continued to be organised over the course of the year.

### 3.3 Progress towards the project Outcome

Going into its final year, the project is on track to achieve most of its key outcome indicators: reforestation has been undertaken in 430 hectares of the 400 hectares of the six targeted water catchments, and participatory monitoring of impact on water flows has been set up with four community groups (see Annex 8 and 9); all five of the targeted *Pteropus livingstonii* roost-site conservation agreements have been signed and population baselines established, whilst planning is underway to exploit the biodiversity hotspot maps produced to implement wider conservation measures, and a participatory monitoring scheme of other biodiversity indicators has been trialled and is readying for expansion; meanwhile Dahari has supported 2280 farmers (44% of which were female) through its agricultural extension package which is undergoing continual improvement thanks to the research led by the international partners – the impact of this is now being monitored through a baseline established using RHoMIS methodology (Annex 14).

The outcome indicators remain adequate for measuring outcome and the project is in general on-track to achieve its outcome by the end of Year 4. Achieving 50 hectares of biodiversity hotspots under management and a 15% increase in farmer incomes by the end of project are likely to be challenging targets, however they are maintained at this stage.

### 3.4 Monitoring of assumptions

The following assumptions have proved relevant in Year 3 of the project –

**Assumptions on Government collaboration:** Government continues to support landscape approach for the Moya forest Key Biodiversity Area (KBA)

New national authorities show continued interest in engaging with IUCN

New national and regional authorities continue to support Dahari's long-term landscape management approach for the Moya zone

Comments: As reported in the Year 1 report, prior to the beginning of the project the government had engaged to leave the Moya forest KBA outside of their new UNDP-led protected areas programme and instead partner with Dahari to develop a landscape approach under this Darwin programme as per the Ministry support letter. However, during Year 2 the Moya zone was subsequently included within the protected areas programme.

Dahari has held regular meetings with the Protected Areas team, and with the Ministry to look to ensure alignment. During Year 2 a partnership proposal was solicited and elaborated by Dahari, including delegation of the zone to Dahari, but this has not moved forwards. The head of the terrestrial protected areas in Anjouan has not demonstrated cooperation with Dahari. However, in practice, the Protected Areas team has done little work in the Moya zone and does not have the resources to do so. Dahari continues its advocacy work in this regard, but it remains a concern.



The collaboration with the IUCN proved fruitful as hoped, facilitating engagement from high-level Ministry representatives as well as the UNDP. This work will be pursued during Year 4.

**Assumption 2:** Other donor-funded projects working in the same domains and looking to work in Moya forest area engage constructively with Dahari

Comments: Difficulties regarding collaboration with the UNDP-Protected Areas Programme and a UNEP-led water catchment project intervening in some of the same areas continue. Continued engagement by Dahari aims to ensure complementarity in the field. On the positive front, Dahari signed a partnership agreement with the IFAD-led agricultural development programme also targeting some of the same areas, taking on management of the intervention in the overlapping areas.

**Assumption 3:** Climate change and natural disasters do not outweigh positive impacts of livelihood field programmes; nor impact on forest areas and Livingstone's fruit bat roost sites targeted for protection

Cyclone Kenneth hit the Comoros in April 2019. Many fields on Anjouan were devastated, with bananas and cloves particularly hard hit. Dahari mounted a crisis response that support 2000 of the most vulnerable and most affected farmers to replant their fields. The impact on their livelihoods will be assessed through the final RHoMIS assessment. Meanwhile the population count of the Livingstone's fruit bat reduced by a third since the year before, further counts are awaited to assess if this is a long-term impact.

**Assumption 4:** Funding obtained for expansion of lowland agricultural package

Comments: Dahari won its largest ever grant of 890,000 euros from the EU to expand its agricultural development programme to all three islands of the Comoros. This will complete cofunding for the Darwin project during its last year.

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

Original impact: Anjouan's endemic biodiversity and remaining water resources are conserved, and the food security of the rural population is ensured

Five roost sites of the Critically Endangered *Pteropus livingstonii* are now under protection through conservation agreements signed with local landowners, and a population baseline has been established to monitor impact towards the species' conservation. Participatory monitoring of other key species and habitat indicators has also been implemented with two communities. Maps highlighting other key biodiversity hotspots have been produced and strategic planning is now underway towards bringing 50 hectares under protection.

2280 farmers (>40% female) have been supported to improve agricultural yields and revenues since the beginning of the project. A baseline to monitor the impact of support on livelihoods has been established using RHoMIS methodology, and an updated agricultural development strategy implemented. An agroforestry manual for Anjouan has been completed and 30 extension agents trained in its implementation. The overall aim is to reach 2500 households by the end of project and improve combined cash and non-cash benefits by 15%.

Reforestation has been undertaken in four water catchments covering 430 of the targeted 400 hectares, and monitoring of springs and rainfall implemented. The end goal is to ensure water security for 5000 villagers.

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

The project contributes contribute directly to SDGs 1 (no poverty – through agricultural and agroforestry development), 2 (no hunger – through agricultural and agroforestry development), 5 (gender equality – through developing gender-sensitive agricultural outreach packages and representative community management bodies), 6 (clean water and sanitation – through protecting watersheds) 13 (climate action – through reforestation and adoption of climate-smart agricultural methods), 15 (life on land – through biodiversity conservation measures).

During Year 3 contributions have including expanding the reach of the agricultural development programme, finalising research to produce an agroforestry manual for Anjouan, expanding the reach of the participatory watershed management approach to a further two sub catchments, and on expanding biodiversity protection measures to a fifth roost site.

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

This project is working to support the Comoros' commitments to the Convention on Biological Diversity. By looking to protect forest habitat and improve the sustainability of local agricultural practices through context-appropriate agricultural intensification and agroforestry interventions, thus reducing anthropogenic pressure on natural resources, the project contributes to all five of the overarching targets of the updated national biodiversity strategy and action plan.

Regular contact has been maintained by Dahari with contacts at the Agriculture and Environment Ministry during Year 3, including with the CBD focal point and the General Secretary. This culminated in their participation in the IUCN advocacy mission for the landscape approach, and in the closing workshop (see Annex 19).

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

The project is working to alleviate poverty directly through supporting farmers to improve yields and revenues, and indirectly by securing water resources through reforestation and improved water catchment management. The project aims to improve agricultural yields for 2500 rural households, and secure water resources for 5000 beneficiaries.

The revised agricultural strategy (see Annex 13) finalised during Year 3 targets staple food crops such as banana plantain and sweet potato, important for food security, as well as certain cash crops (potato, vegetables). Both improved plant material and management techniques promoted by the project aim to secure higher yields and therefore are expected to improve food security and income of the households.

Analysis of the household RHoMIS dataset has shown that 79% of people lived below the poverty line. With a continuous increase in the number of beneficiaries (1155 new records this year), a total of 2453 farmers (over 40% of women) have already benefited from the climate smart agricultural package. This is exceeding both our overall target of 2000 farmers and of 30% women inclusion.

Reforestation has also been undertaken in six water catchments; 33154 trees have been planted since the beginning of the project by 738 beneficiaries. This year marked a large increase in the production and distribution of tree seedlings (14086) due to improved social mobilisation and nursery management. Although most of the benefits from trees will be achieved after the end of the project, improved land use and tree cover around springs is expected to help protect and enhance water resources on which neighbouring and downstream communities rely on.

The monitoring system using RHoMIS methodology (for a subset of 280 beneficiaries) as well as qualitative participatory monitoring will be used to evaluate the impact on livelihoods at the end of Yr4.



## **7. Consideration of gender equality issues**

Gender equality and gender equity have been a key focus since the beginning of the project and a gender transformative strategy for the project and Dahari has evolved through discussions, workshops and training material support. Major changes to outreach mechanisms have been made since Year 2 including the recruitment of women outreach agents, working through existing women's associations in the villages, and supporting women's leadership and knowledge exchange between women. As shown in our database records (Annex 14), women now make up 44% of the beneficiaries of the climate smart agriculture package.

Another area of progress this year relates to innovations in sustainable seed /plant material systems developed in the villages with women's associations and leadership. Twenty women's groups produced vegetative propagules for key food crops (1280 taro, 4141 banana, 9760 cassava, 21310 sweet potato propagules) Three women's associations in Adda put in place saving mechanisms for the collective bulk purchase of vegetable crop seeds. They then developed an income generating activity for the group by marketing the seeds in the villages. Six women farmers established demonstration plots on their land and were active champions in exchanging knowledge and seeds with members in their groups.

Dahari continues working towards improving representation of women in community groups to support watershed management as the current committees are still male-dominated. This has created further biases in the social mobilisation of farmers for reforestation campaigns which reflects on the weak proportion of women involved overall in the reforestation program. Active steps have been taken to remedy this situation, by working through women's associations and engaging more women outreach agents. This has already shown positive results (the number of women involved this year was three times bigger than last year) and more efforts will continue to be deployed in the last year to achieve the 30% objective.

## **8. Monitoring and evaluation**

The project management team tracks progress and indicators on a quarterly basis and regular communication is ensured during key periods to follow up on seasonal activities such as agricultural and tree planting campaigns. We are using the log frame and indicators provided to evaluate progress and these have not required any adjustments. As evidenced in this report and the annexes, the means of verification are mostly consistent with the project proposal and data collection and analysis is taking place as planned.

The Rural Household Multi-Indicator Survey (RHoMIS) baseline for livelihoods assessment was analysed (Annex X). Qualitative and process tracking remain essential to the project monitoring and evaluation framework, and focus group discussions will be held with farmer groups to evaluate changes in knowledge, attitude, behaviour and adoption of practices before the end of project. The analysis covers general livelihood indicators (income value distribution and sources, Percentage of value of activities (sales vs consumption share), Percentage of calorific intake share, Farm management indicators (land area, crop diversity, production estimates, cash and food crops livestock, practices), gender control, baseline of tree species.

Following up on last year's recommendation, effort was invested to improve Dahari's data management. Training and support were provided on the agricultural and natural resource management components by ILRI and Bangor University. Data sets were cleaned, verified and updated figures have been provided in the evidence to this report. Training of Dahari's technical staff is ongoing.

One change relates to how the tree planting is monitored. Outputs 1 and 2 both involve tree planting in the highlands of water catchment areas (20.000 and 10.000 trees targeted respectively), and it is difficult to disaggregate the data since the distribution of material comes from the same five nurseries mostly located near headwaters. These targets have thus been merged.

## **9. Lessons learnt**

The key aim of this project, and the most important added value that the Darwin funding is bringing, is delivering international expertise to the improvement and implementation of Dahari's intervention strategy and activities. In this way the flexibility that has been provided through the agreed change to use the salary of the planned in-country social scientist – a profile that proved simply too hard to recruit with the budget available – for consultancy inputs and increasing the support of the expatriate staff, has proved critical to the successful development of the project.

In Year 2, this money has been used in particular to fund the mapping consultants to produce the habitat maps, and the support of an ex-agricultural manager of Dahari's to the roll out of the new agricultural strategy and the implementation of M+E. It has also supported an additional month of work by Dr Emilie Smith Dumont, the lead researcher on the programme.

The learning for this project and potentially other Darwin projects concentrated on delivering international expertise to local NGOs is that this flexibility has been invaluable in allowing a quick response to needs arising during the course of the project – where otherwise adaptive management would have been hindered and important constraints would have arisen to project delivery and potential impact.

One area where the Dahari team has required more significant support than anticipated relates to data management. Bangor University has continued to provide regular assistance to improve data collection, storage and analysis.

Communications has continued to be a struggle, but a new Dahari communications team recruited since the end of Y3 should reinforce this component during the last year of the project.

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

N/A

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

Improving the design of Dahari's interventions across all the outputs is an overall goal of the project, which is being achieved through a research-action approach via the support of the international partners. Particular evolutions this year are covered in the previous sections.

The political situation in the Comoros has been more stable during Year 3, finally allowing progress on the advocacy component.

The COVID-19 crisis is impacting as elsewhere, with missions put back and work in the field heavily reduced – even if key activities are ongoing whilst there is no confinement in the Comoros. This could impact even more heavily during the first six months of Year 4, depending on how the outbreak in the Comoros and repression measures play out.

## **12. Sustainability and legacy**

The project as part of Dahari's intervention in the Moya forest KBA maintains a high profile within-country via media coverage and public communications events. Dedicated media outputs this year included local TV and radio coverage of the agroforestry training workshop for 30 extension agents from Anjouan led by Emilie Smith Dumont.

The exit strategy and sustained legacy are based on developing Dahari's capacity to pursue the work into the future, by building up the capacity of community agents and management groups, and by building key potential funders into the advocacy component of the project. This strategy is still valid, with major grant issued to Dahari by the EU, and discussions about future funding

advancing with CEPF and the AFD. The AFD took part in the key advocacy workshop in Q4. The capacity of the Dahari team continues to evolve through trainings delivered by the partners on mission, as well as the development of management tools and databases (see previous sections and Annexes).

### **13. Darwin identity**

The Darwin Initiative support forms part of a larger intervention that encompasses funding from the European Union, the UN's Food and Agriculture Programme and the Critical Ecosystem Partnership Fund, as well as smaller contributions from other funders. The Darwin logo is publicised on Dahari's website, and figures on Dahari's communication materials such as t-shirts, panels, and posters.

Beyond this, understanding of the Darwin Initiative in the Comoros is likely to be limited to the project partners i.e. Dahari and the Ministry of the Environment.

Internationally, Dahari has published regular social media updates and blogs through the year covering the project activities that have cited the support of the Darwin Initiative. Dahari and the project partners have also published key tweets and Facebook posts (fans nearly 9000) in English copying Darwin, and these have been reposted regularly by the Darwin communications team. We contributed to the Darwin Initiative special edition *Fantastic Flora* with an article *Trees in the mist: domesticating local forest trees to restore the Comoros archipelago* and published a blog on the ICRAF website "Why tree diversity in agroforestry matters: perspectives from the Comoros archipelago" and disseminated through the CGIAR websites.

### **14. Safeguarding**

Bangor University has comprehensive safeguarding policies that were communicated to all partners and staff involved in the project from the start. The policies explicitly state the "zero tolerance for sexual exploitation and abuse, misconduct including harassment, exploitation or abuse of children and adults at risk or any kind of abuse amongst staff, board members, interns, students, consultants and other stakeholders".

Within the Comoros project context, Dahari has advised all project staff especially expatriates about social norms and sensitivity and appropriate code of conduct while in the field with communities. All Dahari staff members sign a code of conduct at the start of their contracts.

In addition, there are ethical reviews underpinning all research activities (consent, anonymity, feedback sessions) following Bangor University policies on the matter. All partners involved also have human resource teams with internal monitoring in place which, although not directly related to project activity, are useful mechanisms for identifying underlying problems that might fall under 'safeguarding'. To this date, there have been no safeguarding issues that have required us to roll out safeguarding protocols (investigation and disciplinary procedures) or document any allegations but there is a commitment from all partners to ensure effective action is taken if a problem occurs.

## 15. Project expenditure

**Table 1: Project expenditure during the reporting period (1 April 2019 – 31 March 2020)**

<b>Project spend (indicative) since last annual report</b>	<b>2019/20 Grant (£)</b>	<b>2019/20 Total Darwin Costs (£)</b>	<b>Variance %</b>	<b>Comments (please explain significant variances)</b>
Staff costs (see below) Dahari staff Bangor staff				
Consultancy costs				
Overhead Costs Dahari Bangor				
Travel and subsistence IUCN Dahari Bangor				
Operating Costs Conferences Transfer fees				
Capital items (see below) Laptop computers x 2				
Monitoring & Evaluation (M&E)				
Others (see below)				
<b>TOTAL</b>				

## Annex 1: Report of progress and achievements against Logical Framework for Financial Year 2019-2020

Project summary	Measurable Indicators	Progress and Achievements April 2019 - March 2020	Actions required/planned for next period
<p><b>Impact</b></p> <p>Anjouan's endemic biodiversity and remaining water resources are conserved, and the food security of the rural population is ensured</p>		<p>The project is on schedule with forest restoration, implementation of biodiversity conservation measures, and delivery of agroforestry and agricultural development packages. We expect the project to deliver its planned impact within the four years.</p>	
<p><b>Outcome</b></p> <p>Catchment restoration and management ensures water security of 5000 villagers in the Moya forest and enhances biodiversity management, whilst agroforestry and agricultural development improve livelihoods for 10,000 villagers</p>	<ol style="list-style-type: none"> <li>1. 50 hectares of biodiversity hotspots are under conservation measures, maintaining population of the Livingstone's fruit bat and other forest-dependent endemics</li> <li>2. 400 hectares of headwater catchment reforested – which buffer biodiversity hotspots and restore the supply of water in six catchments (5000 villagers affected)</li> <li>3. 2500 households have 15% increase in combined cash and non-cash benefits from agriculture and agroforestry</li> </ol>	<p>A number of key targets have already been achieved, including going beyond the number of households supported for agriculture (X in total, X% women), with the livelihoods baseline established to monitor impact, reforesting X trees in 430 hectares of six water catchments with monitoring of the impact on water provision implemented around four water sources. All five roost-site conservation agreements have been signed and <i>Pteropus livingstonii</i> population baselines established, and participatory monitoring of other biodiversity indicators established based on the finalisation of biodiversity hotspot analyses.</p>	<p>Critical actions remaining to achieve the outcome:</p> <p>The results of the agroforestry study will be applied to tree selection with 500 farmers trained</p> <p>A mechanism is being devised for expanding protected around roost sites and other biodiversity hotspots</p> <p>Communication outputs will be reinforced</p>
<p><b>Output 1.</b></p> <p>Community groups are supported to restore and manage water catchment areas</p>	<p>1a. GIS maps of Moya forest zone published delimiting target water catchments, priority remaining tracts of natural forest for biodiversity management, as well as zones suitable for agroforestry and agricultural intensification</p>	<p>Satellite images obtained and habitat maps nearing completion. 32984 trees have been planted in total, meeting the combined target from Outputs 1 and 2 (see Annex 7 and 21). Three community groups are being supported to put in place management regimes in three pilot water catchments.</p>	

	<p>1b. 20,000 trees are produced from community tree nurseries, planted and monitored in priority water catchments</p> <p>1c. Management rules and sanctions on tree-cutting are applied over 400 hectares of water catchments conserving six water sources</p> <p>1d. Five community groups with improved functioning</p>		
Activity 1.1 GIS mapping of Moya landscape, prioritising areas for different activities		Images bought and maps close to being completed by consultants	Final maps produced Q1
Activity 1.2 Participatory discussions on reforestation with farmers in targeted water catchment areas		A further 275 farmers were engaged in reforestation in the six targeted water catchments, bringing the total to 738	Continue
Activity 1.3 Installation and management of community tree nurseries		Six tree nurseries installed Q4 with about 24,000 seedlings	Finalisation of tree nurseries in Q1
Activity 1.4 Reforestation campaigns		A further 14,086 trees were planted in Q4	Final tree planting in Q4 of Y4
Activity 1.5 Participatory work with community groups to develop, implement and monitor rules and regulations		Support to three community groups for collaboration with mayors offices ongoing	Continue to pilot this work to explore feasibility
Activity 1.6 Participatory monitoring of water quality and flow of sources targeted for protection, and areas reforested		Monitoring of four water sources implemented	Continue
<p><b>Output 2.</b></p> <p>Customised agroforestry technical packages are developed for upland areas and adopted by farmers</p>	<p>2a. Drivers of land degradation and tree cover change in upland areas identified, local knowledge about agroforestry practices, social analysis of tree preferences and opportunities for developing socially-inclusive agroforestry development assessed</p> <p>2b. Customised decision-support tools for agroforestry development are produced and disseminated to promote tree diversity including native and endemic forest species</p> <p>2c. 500 farmers (at least 30% women) receive at least 20 hours of training in agroforestry development optimising</p>	<p>Agroforestry manual and decision-support tool to assist with selection of trees to plant validated (Annex 11). Tree nursery monitoring database in place (Annex 6). Analysis of livelihoods monitoring baseline of a subset of beneficiaries available (Annex 14).</p>	

	<p>the choice of trees to plant for different purposes and conditions</p> <p>2d. 10,000 trees of mixed species matched to the needs of farmers, adjusted to gender, are planted in strategic location on farms to improve food security and maintain ecosystem services</p>		
Activity 2.1 Participatory research and knowledge acquisition with farmers surrounding agroforestry practices, land and forest degradation, agroforestry opportunities		Completed Year 3	Activity complete, though learning on these subjects will continue
Activity 2.2 Development of customised decision-support tools to drive agroforestry adoption		Tools produced Q4, workshop with 30 Dahari and other extension agents for initial training	Further training planned Q1 ahead of application
Activity 2.3 Training of farmers with the decision support-tools and in agroforestry practices towards increased tree-planting			From Q1
Activity 2.4 Participatory monitoring of trees planted and seedling survival		All trees planted monitored as per annex	Ongoing
Activity 2.5 Assessment of impact on livelihoods for a subset of agroforestry adopters using the forest poverty toolkit		Analysis of RHoMIS baseline of 280 farmers undertaken	Re-application end of Year 4
<p><b>Output 3.</b></p> <p>A socially inclusive package of lowland climate-smart agriculture is streamlined, its impact proven, and rolled out to a further 2000 farmers</p>	<p>3a. Assessment of which agricultural techniques are appropriate for different zones and men and women farmers, feeding into plan for wider rollout</p> <p>3b. 2000 farmers (at least 30% women) receive at least 40 hours of training in implementing lowland agricultural package</p>	Workshop organised to assimilate all learning into 1336 farmers supported this year, 43% of whom were female (Annex 21). 2280 in total, meaning target already hit.	
Activity 3.1 Participatory research into contextual variation in the uptake of Dahari's agricultural practices		Research completed and integrated into workshop below	Further participatory research into uptake and appreciation of different techniques
Activity 3.2 Improvement of Dahari's agricultural outreach programme based on research results, and plan for expansion		Workshop held to assimilate learning into a new agricultural outreach strategy, funded for the next 2.5 years by EU	
Activity 3.3 Training of additional farmers in climate-smart agricultural methods		1078 farmers trained in Year 3, 43% of whom were female	Continued rollout of improved agricultural outreach programme



Activity 3.4 Assessment of impact on livelihoods for a subset of agricultural adopters using the forest poverty toolkit		Analysis of RHoMIS baseline of 280 farmers undertaken	Re-application end of Year 4
<b>Output 4.</b> Status of at least one critically endangered species is secured and 50 hectares of biodiversity hotspots are conserved	4a. PES agreements maintain the population of the Livingstone's fruit bat at five roost sites 4b. At least 50 hectares of forest areas of high-value for biodiversity conservation are under management by end of project 4c. Landowners around biodiversity hotspots improve livelihoods through conservation schemes	Conservation agreements signed to protect all five of the targeted roost sites of the Livingstone's fruit bat with monitoring of roost populations (Annex 16), and benefits to landowners in place (Annex 17). Strategic planning under way to develop mechanisms to expand protection around roost sites and other biodiversity hotspots.	
Activity 4.1 Discussions with landholders around targeted Livingstone's roost-sites surrounding protection schemes		Finalised in last targeted roost site	
Activity 4.2 Development and signature of conservation agreement contracts with targeted landholders		Conservation agreements to protect roost-sites of the Critically Endangered <i>Pteropus livingstonii</i> signed with five farmers	Target achieved, waiting for new strategy for next steps
Activity 4.3 Regular agricultural support and ecotourism contributions to targeted farmers, and reforestation using endemic species as per contracts		Regular support from the agricultural team has been provided to the farmers (seeds, tools, training)	Continue, mechanism for widening protection areas around roosts being explored with Bat Conservation International
Activity 4.4 Publication of GIS maps highlighting other priority zones for conservation (finances through other funding)		Dahari staff member qualified with PhD achieving this work	Publish papers, integrate maps into planning
Activity 4.5 Adaptation of scheme to highland areas critical for other endemic biodiversity, and application with farmers		Workshop with Bangor University and University of Oxford in Q2 started strategic reflection	Key component of Dahari's strategic planning Q1 to Q3
Activity 4.6 Participatory monitoring of roost site populations, other key biodiversity indicators, and benefits to farmers		Biannual monitoring of the bat population, tree cover, and benefits to farmers. Participatory monitoring scheme of other biodiversity and pressure indicators implemented in two villages	Continue. Expand participatory monitoring to one further village
<b>Output 5.</b> The landscape approach and forest landscape restoration (FLR) are promoted locally and nationally through	5a. Two multi-stakeholder workshops led by IUCN promoting the landscape approach and working towards FLR	The national advocacy workshop was held in Q4 and attracted key representatives from the Ministry, the UNDP and the University. Meetings continued to be held with key figures in the Environment Ministry and the	

<p>communications, advocacy and engagement with the authorities and other key actors, and internationally through social media and publications</p>	<p>commitments engage key decision makers at a national level</p> <p>5b. Meetings and engagement with local, regional and national environmental authorities</p> <p>5c. 10 articles/ films promoting landscape approach published in local media</p> <p>5d. At least one peer-reviewed paper is published about the landscape approach</p> <p>5e. 5 blogs published by international partners highlighting progress and results in the Comoros</p> <p>5f. Attendance at regular community communications events (music, football, traditional dances)</p>	<p>Environment Commissariat on Anjouan. Regular advocacy meetings were held with local authorities, and media outputs achieved (Annex 19).</p>	
<p>Activity 5.1 National workshops led by IUCN to advocate for the landscape approach and Forest Landscape Restoration</p>	<p>1<sup>st</sup> workshop held Q4 in conjunction with IUCN, including meetings with key actors, technical workshops and a final presentation with 30 representatives</p>	<p>Continued engagement towards FLR commitments, second IUCN mission planned if government and UNDP engage</p>	
<p>Activity 5.2 Regular meetings with authorities and other key actors between all partners</p>	<p>Meetings were increased with key figures in the Environment Ministry and the Environment Commissariat on Anjouan, advocacy meetings were held with local authorities, and three meetings with the UNDP Protected Areas team.</p>	<p>Continued in Y4</p>	
<p>Activity 5.3 Regular media outputs in Comoros, and on partner social media accounts and blogs</p>	<p>Regular media coverage of Dahari's activities was achieved, and international social media outputs strengthened</p>	<p>Regular international social media outputs planned for Year 4, and coverage in Comoros to close out project</p>	
<p>Activity 5.4 Regular communications events in the villages</p>	<p>Regular events organised around agricultural and reforestation campaigns, with further recruitment of dedicated outreach agents increasing engagement.</p>	<p>Increase output during Year 4 if COVID-19 allows</p>	

Activity 5.5 Peer-reviewed paper on the landscape approach published		Planned for end Year 4
--	--	------------------------

## 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
<b>Impact:</b> Anjouan's endemic biodiversity and remaining water resources are conserved, and the food security of the rural population is ensured			
<p><b>Outcome:</b></p> <p>Catchment restoration and management ensures water security of 5000 villagers in the Moya forest and enhances biodiversity management, whilst agroforestry and agricultural development improve livelihoods for 10,000 villagers</p>	<p>1. 50 hectares of biodiversity hotspots are under conservation measures, maintaining population of the Livingstone's fruit bat and other forest-dependent endemics</p> <p>2. 400 hectares of headwater catchment reforested – which buffer biodiversity hotspots and restore the supply of water in six catchments (5000 villagers affected)</p> <p>3. 2500 households have 15% increase in combined cash and non-cash benefits from agriculture and agroforestry</p>	<p>1. Participatory population monitoring of Livingstone's fruit bat roost sites, and other key biodiversity indicators</p> <p>2. GIS maps of biodiversity hotspots and water catchment areas under management</p> <p>3. Baseline livelihood survey of 250 households using IUCN's forest poverty toolkit, repeated end of years 2 and 4</p> <p>4. Database of flow and quality monitoring of water sources</p>	<p>Government continues to support landscape approach for the Moya forest KBA</p> <p>Other donor-funded projects working in the same domains and looking to work in Moya forest area engage constructively with Dahari</p> <p>Climate change and natural disasters do not outweigh positive impacts of livelihood field programmes; nor impact on forest areas and Livingstone's fruit bat roost sites targeted for protection</p>
<p><b>Outputs:</b></p> <p>1. Community groups are supported to restore and manage water catchment areas</p>	<p>1a. GIS maps of Moya forest zone published delimiting target water catchments, priority remaining tracts of natural forest for biodiversity management, as well as zones suitable for agroforestry and agricultural intensification</p> <p>1b. 20,000 trees are produced from community tree nurseries, planted and monitored in priority water catchments</p> <p>1c. Management rules and sanctions on tree-cutting are applied over 400 hectares of water catchments conserving six water sources</p> <p>1d. Five community groups with improved functioning</p>	<p>1.1 GIS maps published locally and online</p> <p>1.2 Database of trees planted (nursery records and annual monitoring records of in-situ seedling survival monitoring)</p> <p>1.3 Maps of management zones and agreed rules and regulations developed with local people, and published locally and online</p> <p>1.4 Reports of community group meetings and activities, evaluation of management decisions taken and implemented</p>	<p>Effective community groups for catchment management and restoration can be developed in all villages (currently developing well in 3)</p> <p>Farmers in new targeted catchment areas engage in restoration and management</p>
<p>2. Customised agroforestry technical packages are developed for upland areas and adopted by farmers</p>	<p>2a. Drivers of land degradation and tree cover change in upland areas identified, local knowledge about agroforestry practices, social analysis of tree preferences and opportunities for</p>	<p>2.1 Report published locally and online</p> <p>2.2 Technical guides and decision-support tools published locally and online</p>	<p>Farmers in upland areas motivated to adopt improved agroforestry regimes</p>

	<p>developing socially-inclusive agroforestry development assessed</p> <p>2b. Customised decision-support tools for agroforestry development are produced and disseminated to promote tree diversity including native and endemic forest species</p> <p>2c. 500 farmers (at least 30% women) receive at least 20 hours of training in agroforestry development optimising the choice of trees to plant for different purposes and conditions</p> <p>2d. 10,000 trees of mixed species matched to the needs of farmers, adjusted to gender, are planted in strategic location on farms to improve food security and maintain ecosystem services</p>	<p>2.3 Database of farmers supported, training evaluation reports with record participants, and farmers records of uptake of agroforestry options</p> <p>2.4 Database of trees planted (nursery records and annual monitoring records of in-situ seedling survival monitoring )</p>	
<p>3. A socially inclusive package of lowland climate-smart agriculture is streamlined, its impact proven, and rolled out to a further 2000 farmers</p>	<p>3a. Assessment of which agricultural techniques are appropriate for different zones and men and women farmers, feeding into plan for wider rollout</p> <p>3b. 2000 farmers (at least 30% women) receive at least 40 hours of training in implementing lowland agricultural package, and adopt at least two best-fit practices</p>	<p>3.1 Technical report published locally and online</p> <p>3.2 Plan for enlargement of lowland climate-smart agriculture package published, including priority geographical targets</p> <p>3.3 Database of farmers receiving support and seed varieties distributed, lists of presence at trainings and participatory evaluation reports, field monitoring records of uptake of practices</p>	<p>Funding obtained for expansion of lowland agricultural package</p>

<p>4. Status of at least one critically endangered species is secured and 50 hectares of biodiversity hotspots are conserved</p>	<p>4a. PES agreements maintain the population of the Livingstone's fruit bat at five roost sites</p> <p>4b. At least 50 hectares of forest areas of high-value for biodiversity conservation are under management by end of project</p> <p>4c. Landowners around biodiversity hotspots improve livelihoods through conservation schemes</p>	<p>4.1 Signed agreements with landowners around roost-sites</p> <p>4.2 Participatory population monitoring of Livingstone fruit bat roost sites and other key biodiversity indicators</p> <p>4.3 GIS map of forest areas of high value for biodiversity are published</p> <p>4.4 Map of areas under management published accompanied by rules and regulations</p> <p>4.5 Database of cash and in-kind benefits received by participating farmers.</p>	<p>Newly-engaged landholders attracted to PES scheme for conserving Livingstone fruit bat roosts (currently 2)</p> <p>Upland farmers in areas with remaining old-growth natural forest engage in conservation management actions</p>
<p>5. The landscape approach and forest landscape restoration (FLR) are promoted locally and nationally through communications, advocacy and engagement with the authorities and other key actors, and internationally through social media and publications</p>	<p>5a. Two multi-stakeholder workshops led by IUCN promoting the landscape approach and working towards FLR commitments engage key decision makers at a national level</p> <p>5b. Meetings and engagement with local, regional and national environmental authorities</p> <p>5c. 10 articles/ films promoting landscape approach published in local media</p> <p>5d. At least one peer-reviewed paper is published about the landscape approach</p> <p>5e. 5 blogs published by international partners highlighting progress and results in the Comoros</p> <p>5f. Attendance at regular community communications events (music, football, traditional dances)</p>	<p>5.1 Workshop and meetings reports and attendance lists</p> <p>5.2 Database of meetings and participatory evaluation reports</p> <p>5.3 Database of media publications and blogs</p> <p>5.4 Journal acceptance of paper</p> <p>5.5 Database of local communication events held, including estimates of attendance</p>	<p>New national authorities show continued interest in engaging with IUCN</p> <p>New national and regional authorities continue to support Dahari's long-term landscape management approach for the Moya zone</p> <p>Local authorities in Moya forest area continue to engage constructively with Dahari</p>

**Activities** (each activity is numbered according to the output that it will contribute towards, for example 1.1, 1.2 and 1.3 are contributing to Output 1)

- 1.1 GIS mapping of Moya landscape, prioritising areas for different activities
  - 1.2 Participatory discussions on reforestation with farmers in targeted water catchment areas
  - 1.3 Installation and management of community tree nurseries
  - 1.4 Reforestation campaigns
  - 1.5 Participatory work with community groups to develop, implement and monitor rules and regulations and seedling survival
  - 1.6 Participatory monitoring of water quality and flow of sources targeted for protection, and areas reforested
- 
- 2.1 Participatory research and knowledge acquisition with farmers surrounding agroforestry practices, land and forest degradation, agroforestry opportunities
  - 2.2 Development of customised decision-support tools to drive agroforestry adoption
  - 2.3 Training of farmers with the decision support-tools and in agroforestry practices towards increased tree-planting
  - 2.4 Participatory monitoring of trees planted and seedling survival
  - 2.5 Assessment of impact on livelihoods for a subset of agroforestry adopters using the forest poverty toolkit
- 
- 3.1 Participatory research into contextual variation in the uptake of Dahari's agricultural practices
  - 3.2 Improvement of Dahari's agricultural outreach programme based on research results, and plan for expansion
  - 3.3 Training of additional farmers in climate-smart agricultural methods
  - 3.4 Assessment of impact on livelihoods for a subset of agricultural adopters using the forest poverty toolkit
- 
- 4.1 Discussions with landholders around targeted Livingstone's roost-sites surrounding protection schemes
  - 4.2 Development and signature of conservation agreement contracts with targeted landholders
  - 4.3 Regular agricultural support and ecotourism contributions to targeted farmers, and reforestation using endemic species as per contracts
  - 4.4 Publication of GIS maps highlighting other priority zones for conservation (finances through other funding)
  - 4.5 Adaptation of scheme to highland areas critical for other endemic biodiversity, and application with farmers
  - 4.6 Participatory monitoring of roost site populations, other key biodiversity indicators, and benefits to farmers
- 
- 5.1 National workshops led by IUCN to advocate for the landscape approach and Forest Landscape Restoration
  - 5.2 Regular meetings with authorities and other key actors between all partners
  - 5.3 Regular media outputs in Comoros, and on partner social media accounts and blogs
  - 5.4 Regular communications events in the villages
  - 5.5 Peer-reviewed paper on the landscape approach published



## Annex 3: Standard Measures

**Table 1 Project Standard Output Measures**

Cod e No.	Description	Gender of people (if relevant)	Nationality of people (if relevant)	Year 1 Total	Year 2 Total	Year 3 Total	Total to date	Total planned during the project
4A 4B	Training in biodiversity monitoring techniques for undergraduate students	4 male, 2 female	Comorian	6 4wk	6 3wk	6 2wk	6 9wk	
6A 6B	Training in agricultural techniques for farmers	>40% female	Comorian	258	944	1078		2000 (30% female) 1 week
6A 6B	Training in agroforestry techniques for farmers	49% women	Comorian	0		108		500 (30% female) 1 week
6A 6B	Training in facilitation, agricultural outreach, research and mapping techniques for Dahari staff	15 male, 5 female	Comorian	2 1wk	20 3wk	25 3wk	25 7wk	20 10 weeks
7	Training guides for agricultural and agroforestry outreach			0	1	1	2	2
11B	Paper on landscape approach submitted to peer reviewed journal			0	0	0	0	1
12A	Monitoring databases as per annexes			0	4	4		
14A	Two conferences on the landscape approach			0	0	1	1	2
20	Computers for Dahari							
23	Cofunding raised							

**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)
Guide technique d'agroforesterie pour la sélection et la gestion des arbres aux comores	Book (62 pages)	Smith Dumont, Bonhomme Subira 2020	Female	French	Bangor	Will be online for version 2 in Y4
Toolkit	Interactive tool	Smith Dumont, Bonhomme Subira 2020	Female	French	Bangor	

## Supplementary material

### LIST OF ANNEXES

#### 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.	
<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.	X will send in 2 zipped folders clearly labeled
<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. However, we would expect that most material will now be electronic.	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
Do not include claim forms or other communications with this report.	