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: 30th April 2017

Darwin Project Information

Project reference	24-009
Project title	Landscape approach to enhance biodiversity and livelihoods in the Comoros
Host country/ies	Comoro Islands
Contract holder institution	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 2016 – Mar 2017) and number (e.g., Annual Report 1, 2, 3)	Apr 2017 – Mar 2018 Annual Report 1
Project Leader name	Dr Fergus Sinclair
Project website/blog/Twitter	
Report author(s) and date	Hugh Doulton, Dr Emilie Smith Dumont, Misbahou Mohamed, Médéric Carpier, Dr Tim Pagella, Dr Gill Shepherd, Dr Fergus Sinclair

1. Project rationale

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^2 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.

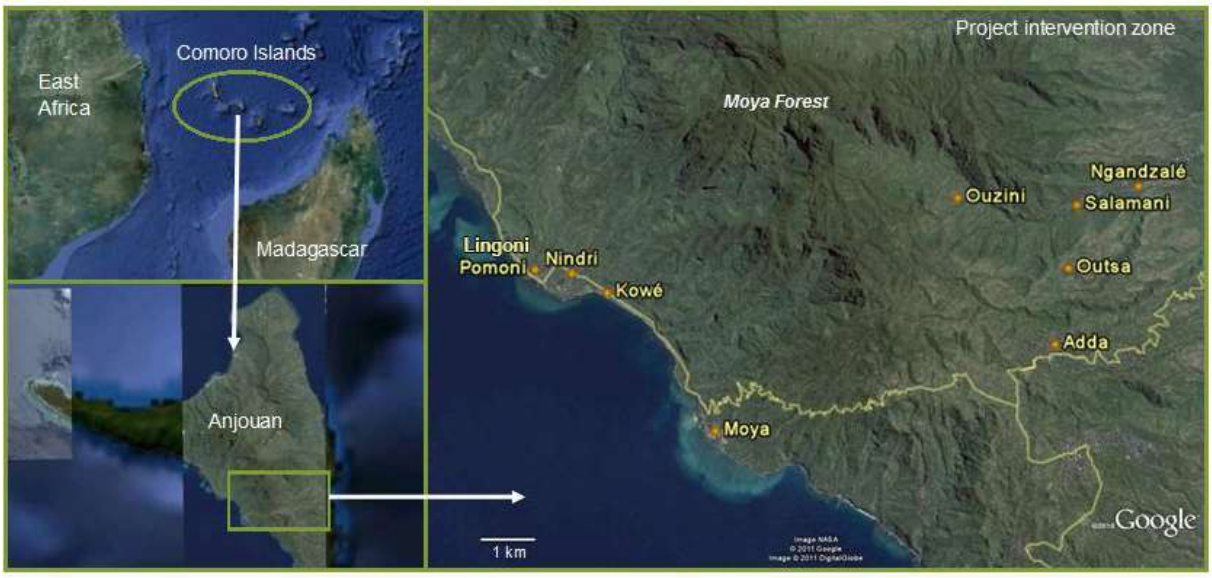


Image 1: Location of the Comoro Islands, the Moya forest on Anjouan, and the ten villages in which the project is working

2. Project partnerships

This project is the result of a collaboration between a team of researchers working between the 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 as lead researcher has made three trips to the Comoros in the first year of the project, with a fourth trip with Dr Tim Pagella planned in April. Prof Gill Shepherd working as a consultant but linked to the IUCN has made two trips to the Comoros working on the intervention strategy, social science elements, and the monitoring and evaluation system.

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 (Bangor/ICRAF) and Tim Pagella (Bangor University). The team uses the online management system Trello to support communication and project delivery and allow the team to efficiently monitor progress and flag up any problems areas (see Annexe 4). 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.

National workshops to advocate for the landscape approach, planned as the key activities for the IUCN and the government (Output 5), have been postponed to year 2 as agreed with Darwin in December 2017.

3. Project progress

3.1 Progress in carrying out project Activities

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

Four of the planned six water catchments were identified for intervention through initial mapping exercises, five tree nurseries were installed from Q2 holding 7558 seedlings (see the database in Annexe 5), and reforestation has started in water catchments covering 300 hectares within the target 400 hectares. The reforestation was undertaken in the fields of over 150 farmers with their collaboration, as well as in communal areas around water sources. A monitoring database of the trees planted is being finalised and will be ready in Q1 of Year 2.

A workshop was held in May 2017 with all four community groups to plan the year's work and improve the process, with Dr Emilie Smith-Dumont advising on improved nursery records and tree seedling/ monitoring methods (see report in Annexe 6). A system for monitoring water sources has been designed with support from Dr Tim Pagella and is in the process of being implemented for an initial six key sources.

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

The start of participatory research and knowledge acquisition on agroforestry packages has been pushed back until the start of Year 2 due to delays in finalising co-funding agreements with the FAO, though these have now been signed. Participatory monitoring of seedlings and establishing a livelihoods baseline will not be possible until agroforestry packages and beneficiary farmers have been identified in Year 3, and were erroneously inserted into the planning for the first two years.

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

The research into Dahari's current agricultural extension package has been completed, overseen by Dr Emilie Smith-Dumont (see Annexe 7). 576 farmers were trained in the existing package during Year 1, 214 of whom were female (37%). Work is now underway to integrate research results into an improved agricultural support programme for Year 2 onwards that will focus on poor and female farmers in degraded catchment areas. A method for monitoring impact on farmers has been developed, but the establishment of a baseline awaits the identification of beneficiaries of the improved programme.

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 already been signed with three farmers (see an example in Annexe 8). Biannual monitoring of the bat population has been undertaken (see Annexe 9) and databases set up to monitor tree cover around roost sites (see Annexe 10) and benefits to farmers.

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.

The first national workshop was put back to year 2 in an agreed change. Regular meetings with authorities, media outputs (see Annexe 11), and communication events were organised throughout the year.

3.2 Progress towards project Outputs

Output 1: Good progress has been made on reforestation in the targeted water catchments, with around 7000 of a targeted 20,000 trees planted in collaboration between community management groups and individual farmers (full database to be produced in Q1 of Year 2). A meeting was held bringing together the four community management groups to evaluate and improve the reforestation work, and a report is provided in annexe 6. During Year 2 work will start towards developing management rules for the catchments, supported by GIS mapping led by ICRAF (see annexe 12 for results of initial mapping work).

Output 2: Work on this output will move forwards in Year 2, following signature of co-financing agreements for Dahari and ICRAF with the FAO to support the initial stages of field research and local knowledge acquisition on agroforestry. No problems are anticipated in developing the agroforestry technical package and supporting adoption by 500 farmers in the project timeframe.

Output 3: Research into the efficacy and uptake of Dahari's existing agricultural package was completed as planned (see Annexe 7). The results will now be integrated into a plan for expansion of the agricultural programme from Year 2. In Year 1, 576 farmers were supported using Dahari's existing agricultural outreach package, a first step towards reaching 2000 farmers by the end of the project. The farmers supported is recorded in an Access database – see annexe 13 for screenshots showing some of the data recorded).

Output 4: Conservation agreements have already been signed to protect three of the targeted five roost sites of the Livingstone's fruit bat, with monitoring of roost populations, tree cover and benefits to landowners in place (see example agreement in annexe 8). The bat population continues to be monitored at all roost sites, with current data in annexe. Work towards protecting wider biodiversity hotspots will start in Year 2 with the publication of maps identifying key areas for different taxa and species.

Output 5: The key national advocacy workshop was postponed to Year 2. This change was justified by the need to better invest in partnership development with key stakeholders, in particular the UNDP-led Protected Areas Programme and to better position this project in preparation for facilitating the larger formal workshop involving the IUCN. To prepare for this, ten meetings were held with key figures in the Environment Ministry and the Environment Commissariat on Anjouan, advocacy meetings were held with local authorities, and local communications events organised over the course of the year. IUCN and the government have been regularly briefed on project progress in relation to this and this component will be a priority at the start of Year 2.

3.3 Progress towards the project Outcome

Even though we are at the beginning of this four-year project, significant progress towards the outcome has already been achieved. Reforestation has begun in 300 hectares of the 400 hectares of targeted water catchments, and monitoring of the impact on water provision is being implemented around six water sources. Three roost-site conservation agreements have been signed and *Pteropus livingstonii* population baselines established; wider biodiversity protection measures towards the target of 50 hectares will be implemented in Year 3. Dahari has supported 576 farmers (37% of which were female) through its agricultural extension package during Year 1. The baseline to demonstrate livelihood improvement will be put in place during Year 2 in combination with targeting farmers with the improved agricultural package developed on the back of the research undertaken in Year 1 (see part 8 for more details).

The outcome indicators remain adequate for measuring outcome and the project is on-track to achieve its outcome by the end of Year 4.

3.4 Monitoring of assumptions

The following assumptions have been impacted since the start of the project –

Assumption 1: Government continues to support landscape approach for the Moya forest Key Biodiversity Area (KBA)

Comments: Prior to the beginning of the project the government had engaged to leave the Moya forest KBA outside of their new protected areas programme and instead partner with Dahari to develop a landscape approach under this Darwin programme as per the Ministry support letter. However, the Moya zone was then included within the UNDP-led protected areas programme. This now requires careful discussion with the Ministry and the UNDP to avoid duplication and/or misalignment of activities and outcomes. Key meetings will be held during the next Bangor/ ICRAF mission in April to proactively address potential conflicts.

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

Comments: Dahari has started engaging the UNDP team in Anjouan to ensure collaboration in the Moya KBA, with two initial meetings held in year 1. These efforts will be followed up at the national level, starting during the next Bangor/ ICRAF mission.

Assumption 3: Funding obtained for expansion of lowland agricultural package

Comments: Financing for Dahari's agricultural programme has been obtained from the European Union until the end of 2019.

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

Three roost sites of the Critically Endangered *Pteropus livingstonii* are now under protection through conservation agreements signed with key local landowners, and a population baseline has been established to monitor impact towards the species' conservation. Further roost-sites will be brought under protection in Year 2, and maps highlighting other key biodiversity hotspots published towards the end of the year as the first step towards bringing 50 hectares under protection.

576 farmers (37% female) were supported to improve agricultural yields and revenues during Year 1. A baseline to monitor the impact of support on livelihoods will be established in Year 2 in line with the rollout of an improved extension programme based on participatory action research undertaken in Year 1. Research towards developing an agroforestry outreach programme will also start in Year 2. The overall aim is to reach 2500 households by the end of project and improve combined cash and non-cash benefits by 15%.

Reforestation began in four water catchments covering 300 of the targeted 400 hectares, and a baseline of the rivers and water sources is in the process of being created. 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 1 activities have concentrated on improving the pro-poor and gender transformative aspects of the agricultural outreach programme, starting reforestation to protect watersheds, and initial biodiversity protection measures.

5. Project support to the Conventions, Treaties or Agreements

This project is working to support the Comoros' commitments to the Convention on Biological Diversity. It responds directly to the highest on-going threats to biodiversity identified in the 5th national report to the CBD published in 2014. The national strategy is still being updated, but 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 tackles several of the key required conservation actions as outlined in the original biodiversity strategy and action plan.

6. Project support to poverty alleviation

The project is working to alleviate poverty directly both through supporting farmers to improve yields and revenues, and by securing water resources through reforesting water catchments and supporting the development of management regimes for the catchments. The project aims to improve agricultural yields for 2500 households, and secure water resources for 5000 beneficiaries.

During this first year 576 farmers have been supported to implement Dahari's existing agricultural extension package whilst research has been undertaken to improving it ahead of rollout in Year 2. Reforestation has also begun in four water catchments.

7. Project support to gender equality issues

The project is looking to develop gender-sensitive agricultural outreach packages and is putting an emphasis on engaging more women in Dahari's agricultural development programme. The goals in the logframe are that at least 30% of the 2500 farmers reached through agriculture and agroforestry support are women.

The Comoros Islands are a complex society in terms of gender roles and decision-making largely due to a mixed system of matrilineality and rules influenced by Islamic faith. Improving how women farmers and especially poor women farmers can be reached and supported during the scaling efforts of this project requires significant effort and focus.

Gender differential uptake of the different agricultural techniques currently proposed by Dahari was analysed during Year 1 (see Annexe 7). The project team identified the need to build the gender transformative capacity of Dahari as a priority through facilitated participatory learning and action. Dr Emilie Smith Dumont with the support of Dr Gill Shepherd facilitated two workshops with a strong gender focus to better understand how to tailor knowledge transfer mechanisms and outreach, access to seed and seedling and collective action for the agricultural program.

This upstream work is essential for setting the foundations necessary to scale interventions that are inclusive of the needs and conditions of women in this context and meet the gender targets of the project. Dahari is working on a gender strategy both internally and externally that includes human resources changes such as increasing recruitment of women facilitators in the villages of the Moya Forest landscape.

Dahari also aims to increase the representation of women in community management bodies to support watershed management as the current committees are heavily male-dominated. Work towards this will start in Year 2

8. Monitoring and evaluation

The project has been managed and monitored internally between the main partners Bangor University, ICRAF and Dahari via the implementation of a management system on Trello and regular meetings – at least every two months. These ensure that tasks are on track and flag up anything requiring urgent attention. The Trello system is currently being improved, with indicators from the logframe being integrated to make it more comprehensive.

There has been one important change to the monitoring and evaluation plan during Year 1: the partners realised that it would not be worthwhile creating a livelihoods baseline to measure the impact of the agricultural and agroforestry support until the beneficiaries of the new packages developed as part of the project had been identified and could be sampled.

During Gill Shepherd and Emilie Smith Dumont's first project visit to Anjouan in September 2017, brainstorming sessions identified as a priority the need to adapt the scaling strategy to better target the poorer and more deprived households as well as degraded catchment areas (which correlates with where the poorest farm). This is a significant change to Dahari's agricultural programmes which were previously concentrated on intensifying production in lowland fields, but will to greater impact both for biodiversity and the rural poor.

The project management team developed and is currently implementing a methodology for participatory learning action that involves elements of the Poverty Forestry Toolkit to assess household wealth levels and participatory mapping for identification of hotspot areas. This will serve to identify more vulnerable beneficiaries for year 2. The baseline was hence postponed to year 2 to allow for this improved targeting of beneficiaries to be captured in the baseline.

9. Lessons learnt

In general, field activities have progressed as planned during the first year of the project; Dahari's long establishment in the Comoros allowed for a prompt start to the majority of activities once notification of funding had been received from Darwin. Most of these activities were also building on existing programmes and thus allowed for a smooth start despite the first Bangor/ ICRAF mission having to be put back due to the delayed notification of funding.

Lengthy sick leave for the Dahari project manager and the need to reappoint the project administrative manager at Bangor led to some delays in implementing desk-based activities, including the late submission of the half-year report. As a result the project management team proactively took steps to streamline communication and planning between the partners (primarily through the Trello platform) to avoid repeating this in future.

Another area of improvement we will address from the start of year 2 will be project communications under Output 5. Communications were focused during year 1 primarily at local level to raise awareness of the field activities (such as reforestation campaigns) and delivered at national level though the media. However, we remained weak on the international communication front on publishing blogs and producing social media outputs. An important contributing factor was the loss of Dahari's communication manager. She was the main lead on drafting project communications but had to be repatriated and eventually leave her contract due to illness. It has taken a while to recruit a replacement, with a new recruit starting early May. The partners failed to flag up the potential impact of this between them, and communication targets have subsequently not been hit because the slack was not picked up. The partners recognise that communication is an essential component of this project and have taken collective responsibility to ensure that targets are met from Year 2 onwards.

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

In the project offer letter Darwin requested that 'the project logframe should be amended to include indicators capable of measuring the uptake of training by farmers'. Consequent modifications to the logframe have been included in Annexes 1 and 2, and highlighted in red in Annexe 2. Uptake of training will be measured from Year 2 in line with the roll out of the improved agricultural development package.

11. Other comments on progress not covered elsewhere

There have been no significant modifications to project design during Year 1.

The partners continue to struggle to recruit a full-time expatriate under Dahari to support fieldwork and project management, as discussed in the project change request and half-year report and subsequent email exchanges with Darwin. Three calls for candidates including one

recruitment were unsuccessful, with interviews subsequent to a fourth call for candidates ongoing. As agreed with Darwin through a change request, this problem was mitigated during Year 1 through additional support from Dr Gill Shepherd. However, the lack of this post could have increasing impacts during Year 2 if the post remains unfilled so the project partners are currently assessing other options.

The biggest risk to the project, discussed under 3.4, is the potential for the clash of conflicting approaches in the Moya forest zone in regards to the Protected Areas programme. Various meetings are being organised with the UNDP and the government over the next month to work towards more effective collaboration.

One final risk is the continued instability of the pound against other currencies. This will be monitored closely to ensure resources and activities are aligned.

12. Sustainability and legacy

The project as part of Dahari's intervention in the Moya forest KBA (see section 13) maintains a high profile within-country via media coverage and public communications events. The two major events during the year were the publication in October of an album involving several of the Comoros' most famous musicians to promote awareness of the deforestation problem and engage more parties in reforestation, and the launch of the reforestation campaign in February 2018. Both received wide media coverage (see Annexe 11), with funders acknowledged where possible.

The exit strategy and sustained legacy are based on developing Dahari's capacity to pursue the work into the future, and by building key potential funders into the advocacy component of the project. This strategy is still valid, with progress made in signing co-funding agreements for ICRAF and Dahari with the FAO. Meetings with other funders such as the AFD, EU and IFAD will be organised over the next year.

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 and posters as one of the NGO's three key funders.

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.

As previously discussed (section 9), project communications have been affected by the departure of the communications manager at Dahari due to illness, with a replacement starting in May 2018. The project partners are aware of the need to prioritise improving communications, including publishing blogs and maximising use of the Darwin logo.

14. Project expenditure

Table 1: Project expenditure <u>during the reporting period</u> (1 April 2016 – 31 March 2017)

Project spend (indicative) since last annual report	**2016/17 Grant (£)**	**2016/17 Total Darwin Costs (£)**	**Variance %**	**Comments (please explain significant variances)**
Staff costs (see below) Dahari staff Bangor staff			 +0.63% 0	 £9000 moved to consultancy and travel costs
Consultancy costs			-7.15%	Less expenditure on Gill Shepherd than planned £2600 for IUCN moved to Yr 2
Overhead Costs Dahari Bangor			 -2.39% 0	
Travel and subsistence Partners and consultants Bangor			 +7.68% +5.53%	 Increased number of missions £1400 for IUCN moved to Yr 2
Operating Costs				£1500 for workshops moved to Yr 2
Capital items (see below) 9 mini field laptops 3 laptops 1 smartphone			-9.30%	Mini laptops cheaper
Others (see below)				
TOTAL			**0**	

Annex 1: Report of progress and achievements against Logical Framework for Financial Year 2016-2017

Project summary	Measurable Indicators	Progress and Achievements April 2016 - March 2017	Actions required/planned for next period
Impact Anjouan's endemic biodiversity and remaining water resources are conserved, and the food security of the rural population is ensured		The project is on schedule with forest restoration, implementation of biodiversity conservation measures, and delivery of agricultural development packages. We expect the project to deliver its planned impact in subsequent years.	[redacted]
Outcome 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	1. 50 hectares of biodiversity hotspots are under conservation measures, maintaining population of the Livingstone's fruit bat and other forest-dependent endemics 2. 400 hectares of headwater catchment reforested – which buffer biodiversity hotspots and restore the supply of water in six catchments (5000 villagers affected) 3. 2500 households have 15% increase in combined cash and non-cash benefits from agriculture and agroforestry	Significant progress towards the outcome has already been reached. Dahari has supported 576 farmers (37% women) through its agricultural extension package during Year 1. Reforestation has begun in 300 hectares of targeted water catchments, and monitoring of the impact on water provision is being implemented around five water sources. Three roost-site conservation agreements have been signed and *Pteropus livingstonii* population baselines established.	The baseline for livelihood improvement will be put in place in combination with targeting of farmers with the improved agricultural package developed on the back of the research undertaken in Year 1 Reforestation work will be expanded The agroforestry study and work will be rolled out The first IUCN-led landscape restoration will be organised International communication outputs will be produced
Output 1. Community groups are supported to restore and manage water catchment areas	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 1b. 20,000 trees are produced from community tree nurseries, planted and monitored in priority water catchments 1c. Management rules and sanctions on tree-cutting are applied over 400	1.a. Preliminary maps have been developed and used for participatory assessments (see Annex 12) 1.b. Around 7000 of a targeted 20,000 trees planted in collaboration between community management groups and individual farmers (see Annex 5 tree nursery database). 1.c. Discussions were held with local authorities and the Director for the Environment of Anjouan to learn lessons from past tree-cutting regulations and prepare a workshop to develop rules and sanctions. 1.d. A meeting bringing together the four community management groups was held to evaluate and improve the reforestation work (Annexe 6).	

	hectares of water catchments conserving six water sources 1d. Five community groups with improved functioning	
Activity 1.1 GIS mapping of Moya landscape, prioritising areas for different activities		An initial landscape map was produced and four of the targeted six water catchments were mapped and characterised. An ICRAF mapping specialist will visit in Q2 of the next year to further mapping work.
Activity 1.2 Participatory discussions on reforestation with farmers in targeted water catchment areas		A workshop was held in May 2017 with all four community groups to plan the year's work and improve the process (Annexe 6), these groups then led the awareness work with farmers. Expansion to further farmers will be undertaken from Q1.
Activity 1.3 Installation and management of community tree nurseries		Five tree nurseries were installed from Q2 and produced 7558 seedlings (Annex 5). A monitoring database of the trees planted is being finalised and will be ready in Q1 of Year 2. New tree nurseries will be established in Q1.
Activity 1.4 Reforestation campaigns		The first reforestation campaign was held in February 2018 and took place in over 150 individual farmers' field and in communal areas around water sources. The second reforestation campaign will start in Q4.
Activity 1.5 Participatory work with community groups to develop, implement and monitor rules and regulations		Discussions were held with all four community groups, and a workshop is planned with village committees, local authorities, Anjouan director of Environment to put in place regulations on tree cutting Q1 of Year 2.
Activity 1.6 Participatory monitoring of water quality and flow of sources targeted for protection, and areas reforested		A system for monitoring water sources has been designed with support from Dr Tim Pagella and is in the process of being implemented for an initial six key sources. Tim Pagella will visit in Q1 to monitor this work.
Output 2. Customised agroforestry technical packages are developed for upland areas and adopted by farmers	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 2b. Customised decision-support tools for agroforestry development are produced and disseminated to promote tree diversity including native and endemic forest species 2c. 500 farmers (at least 30% women) receive at least 20 hours of training in agroforestry development optimising	The start of participatory research and knowledge acquisition on agroforestry packages has been pushed back until the start of Year 2 due to delays in finalising co-funding agreements with the FAO, though these have now been signed. Participatory monitoring of seedlings and establishing a livelihoods baseline will not be possible until agroforestry packages and beneficiary farmers have been identified in Year 3, and were erroneously inserted into the planning for the first two years.

	the choice of trees to plant for different purposes and conditions 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	
Activity 2.1 Participatory research and knowledge acquisition with farmers surrounding agroforestry practices, land and forest degradation, agroforestry opportunities		Planned to begin in Q1 of Year 2
Activity 2.2 Development of customised decision-support tools to drive agroforestry adoption		Planned for Q4 of Year 2
Activity 2.3 Training of farmers with the decision support-tools and in agroforestry practices towards increased tree-planting		Planned from Year 3
Activity 2.4 Participatory monitoring of trees planted and seedling survival		Planned from Year 2
Activity 2.5 Assessment of impact on livelihoods for a subset of agroforestry adopters using the forest poverty toolkit		Planned from Year 2
Output 3. A socially inclusive package of lowland climate-smart agriculture is streamlined, its impact proven, and rolled out to a further 2000 farmers	3a. Assessment of which agricultural techniques are appropriate for different zones and men and women farmers, feeding into plan for wider rollout 3b. 2000 farmers (at least 30% women) receive at least 40 hours of training in implementing lowland agricultural package	The research into Dahari's current agricultural extension package has been completed, overseen by Dr Emilie Smith-Dumont (see Annexe 7). 576 farmers were trained in the existing package during Year 1, 214 of whom were female (37%). Work is now underway to integrate research results into an improved agricultural support programme for Year 2 onwards that will focus on poor and female farmers in degraded catchment areas.
Activity 3.1 Participatory research into contextual variation in the uptake of Dahari's agricultural practices		Done and report produced and fed-back to technical and management teams (see Annexe 7)
Activity 3.2 Improvement of Dahari's agricultural outreach programme based on research results, and plan for expansion		Workshop facilitated by Emilie Smith Dumont and Gill Shepherd in March 2018, withon-going strategy revisions by Dahari's technical team with support of Emilie Smith Dumont
Activity 3.3 Training of additional farmers in climate-smart agricultural methods		576 farmers were trained in the existing package during Year 1, 214 of whom were female (37%) higher than our expected target of 30% (see Annexe 12 for database screenshots, more information can be supplied). 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		A method for monitoring impact on farmers has been developed, but the establishment of a baseline awaits the identification of beneficiaries of the improved programme. This will be implemented in Q3 of Year 2.
Output 4. 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 have already been signed to protect three of the targeted five roost sites of the Livingstone's fruit bat, with monitoring of roost populations (annexe 9), tree cover (annexe 10) and benefits to landowners in place (see example agreement in annexe 8). The bat population continues to be monitored at all roost sites. Work towards protecting wider biodiversity hotspots will start in Year 2 with the publication of maps identifying key areas for different taxa and species.
Activity 4.1 Discussions with landholders around targeted Livingstone's roost-sites surrounding protection schemes		Dahari's ecology team conducted at least five visits around each roost-sites to engage with landowners in protection schemes. This activity is on-going for the two remaining roost sites.
Activity 4.2 Development and signature of conservation agreement contracts with targeted landholders		Conservation agreements to protect roost-sites of the Critically Endangered *Pteropus livingstonii* have already been signed with three farmers (see example in annexe 8). We expect to sign the other two agreements in Year 2.
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) and guiding payments were received during visits. This will be scaled out to the other roost-sites and the neighbouring landowners during Year 2.
Activity 4.4 Publication of GIS maps highlighting other priority zones for conservation (finances through other funding)		Planned for Q4 of Year 2
Activity 4.5 Adaptation of scheme to highland areas critical for other endemic biodiversity, and application with farmers		Planned for Year 3
Activity 4.6 Participatory monitoring of roost site populations, other key biodiversity indicators, and benefits to farmers		Biannual monitoring of the bat population has been undertaken and databases set up to monitor tree cover around roost sites. Wider participatory biodiversity monitoring will start in Q3.
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	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 5b. Meetings and engagement with local, regional and national	The key national advocacy workshop was postponed to Year 2. This change was justified by the need to better invest in partnership development with key stakeholders, in particular the UNDP-led Protected Areas Programme and to better position this project in preparation for facilitating the larger formal workshop involving the IUCN. To prepare for this, ten meetings were held with key figures in the Environment Ministry and the Environment Commissariat on Anjouan, advocacy meetings were held with local authorities, and local communications events organised over the course of the year. IUCN and the government have

through social media and publications	environmental authorities 5c. 10 articles/ films promoting landscape approach published in local media 5d. At last one peer-reviewed paper is published about the landscape approach 5e. 5 blogs published by international partners highlighting progress and results in the Comoros 5f. Attendance at regular community communications events (music, football, traditional dances)	been regularly briefed on project progress in relation to this and this component will be a priority at the start of Year 2.
Activity 5.1 National workshops led by IUCN to advocate for the landscape approach and Forest Landscape Restoration		First workshop planned for Q3 of Year 2
Activity 5.2 Regular meetings with authorities and other key actors between all partners		Ten meetings were held with key figures in the Environment Ministry and the Environment Commissariat on Anjouan, advocacy meetings were held with local authorities, and two meetings with the UNDP Protected Areas team. This is a priority for Q1 and Q2 of Year 2, with important meetings planned involving Bangor and ICRAF during missions in Q1.
Activity 5.3 Regular media outputs in Comoros, and on partner social media accounts and blogs		Regular media coverage of Dahari's activities was achieved (Annexe 11). Wider communications will be a key priority in Q1 of Year 2.
Activity 5.4 Regular communications events in the villages		Regular events organised around agricultural and reforestation campaigns, will be stepped up in Year 2.
Activity 5.5 Peer-reviewed paper on the landscape approach published		Planned for 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
Impact: Anjouan's endemic biodiversity and remaining water resources are conserved, and the food security of the rural population is ensured			
Outcome: 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	1. 50 hectares of biodiversity hotspots are under conservation measures, maintaining population of the Livingstone's fruit bat and other forest-dependent endemics 2. 400 hectares of headwater catchment reforested – which buffer biodiversity hotspots and restore the supply of water in six catchments (5000 villagers affected) 3. 2500 households have 15% increase in combined cash and non-cash benefits from agriculture and agroforestry	1. Participatory population monitoring of Livingstone's fruit bat roost sites, and other key biodiversity indicators 2. GIS maps of biodiversity hotspots and water catchment areas under management 3. Baseline livelihood survey of 250 households using IUCN's forest poverty toolkit, repeated end of years 2 and 4 4. Database of flow and quality monitoring of water sources	Government continues to support landscape approach for the Moya forest KBA Other donor-funded projects working in the same domains and looking to work in Moya forest area engage constructively with Dahari 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
Outputs: 1. Community groups are supported to restore and manage water catchment areas	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 1b. 20,000 trees are produced from community tree nurseries, planted and monitored in priority water catchments 1c. Management rules and sanctions on tree-cutting are applied over 400 hectares of water catchments conserving six water sources 1d. Five community groups with improved functioning	1.1 GIS maps published locally and online 1.2 Database of trees planted (nursery records and annual monitoring records of in-situ seedling survival monitoring) 1.3 Maps of management zones and agreed rules and regulations developed with local people, and published locally and online 1.4 Reports of community group meetings and activities, evaluation of management decisions taken and implemented	Effective community groups for catchment management and restoration can be developed in all villages (currently developing well in 3) Farmers in new targeted catchment areas engage in restoration and management
2. Customised agroforestry technical packages are developed for upland areas and adopted by farmers	2a. Drivers of land degradation and tree cover change in upland areas identified, local knowledge about agroforestry practices, social analysis of tree	2.1 Report published locally and online 2.2 Technical guides and decision-support tools published locally and	Farmers in upland areas motivated to adopt improved agroforestry regimes

	preferences and opportunities for developing socially-inclusive agroforestry development assessed 2b. Customised decision-support tools for agroforestry development are produced and disseminated to promote tree diversity including native and endemic forest species 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 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	online 2.3 Database of farmers supported, training evaluation reports with record participants, and farmers records of uptake of agroforestry options 2.4 Database of trees planted (nursery records and annual monitoring records of in-situ seedling survival monitoring)	
3. A socially inclusive package of lowland climate-smart agriculture is streamlined, its impact proven, and rolled out to a further 2000 farmers	3a. Assessment of which agricultural techniques are appropriate for different zones and men and women farmers, feeding into plan for wider rollout 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	3.1 Technical report published locally and online 3.2 Plan for enlargement of lowland climate-smart agriculture package published, including priority geographical targets 3.3 Database of farmers receiving support and seed varieties distributed, lists of presence at trainings and participatory evaluation reports, field monitoring records of update of practices	Funding obtained for expansion of lowland agricultural package

4. 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	4.1 Signed agreements with landowners around roost-sites 4.2 Participatory population monitoring of Livingstone fruit bat roost sites and other key biodiversity indicators 4.3 GIS map of forest areas of high value for biodiversity are published 4.4 Map of areas under management published accompanied by rules and regulations 4.5 Database of cash and in-kind benefits received by participating farmers.	Newly-engaged landholders attracted to PES scheme for conserving Livingstone fruit bat roosts (currently 2) Upland farmers in areas with remaining old-growth natural forest engage in conservation management actions
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	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 5b. Meetings and engagement with local, regional and national environmental authorities 5c. 10 articles/ films promoting landscape approach published in local media 5d. At last one peer-reviewed paper is published about the landscape approach 5e. 5 blogs published by international partners highlighting progress and results in the Comoros 5f. Attendance at regular community communications events (music, football, traditional dances)	5.1 Workshop and meetings reports and attendance lists 5.2 Database of meetings and participatory evaluation reports 5.3 Database of media publications and blogs 5.4 Journal acceptance of paper 5.5 Database of local communication events held, including estimates of attendance	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 Local authorities in Moya forest area continue to engage constructively with Dahari
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

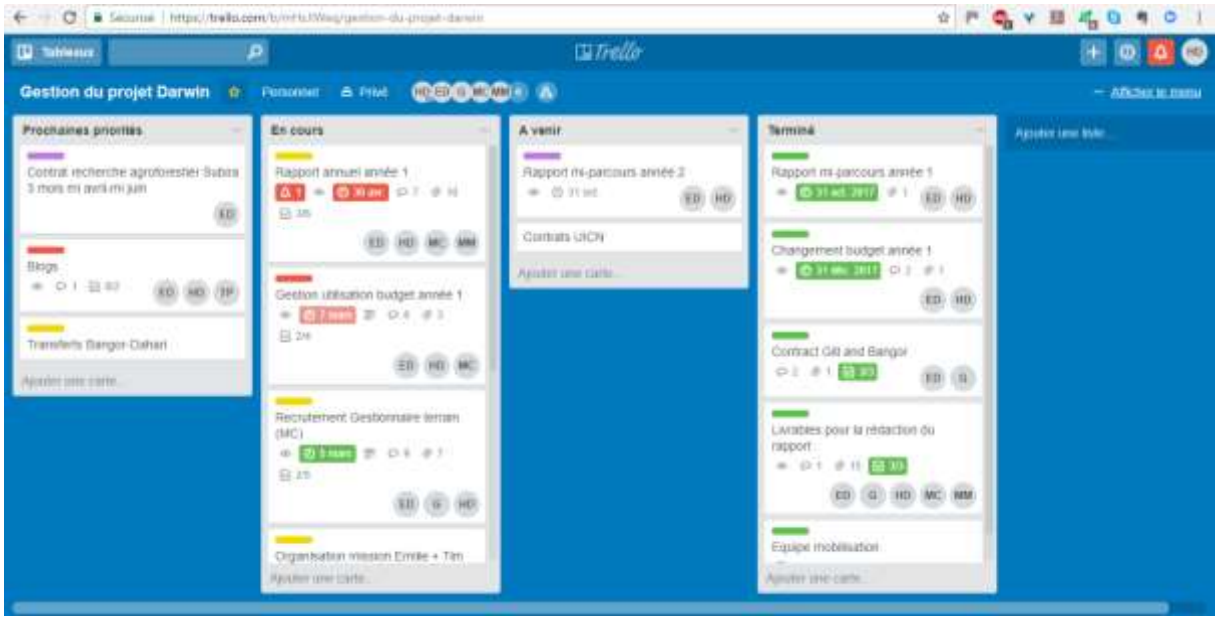
Code No.	Description	Gender of people (if relevant)	Nationality of people (if relevant)	Year 1 Total	Total planned during the project
4A 4B	Training in biodiversity monitoring techniques for undergraduate students	4 male, 2 female	Comorian	6 4	
6A 6B	Training in agricultural techniques for farmers	37% female	Comorian	576	2000 (30% female) 1 week
6A 6B	Training in agroforestry techniques for farmers		Comorian	0	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 1	20 10 weeks
7	Training guides for agricultural and agroforestry outreach			0	2
11B	Paper on landscape approach submitted to peer reviewed journal			0	1
14A	Two conferences on the landscape approach			0	2
20	Computers for Dahari				
23	Cofunding raised				

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)

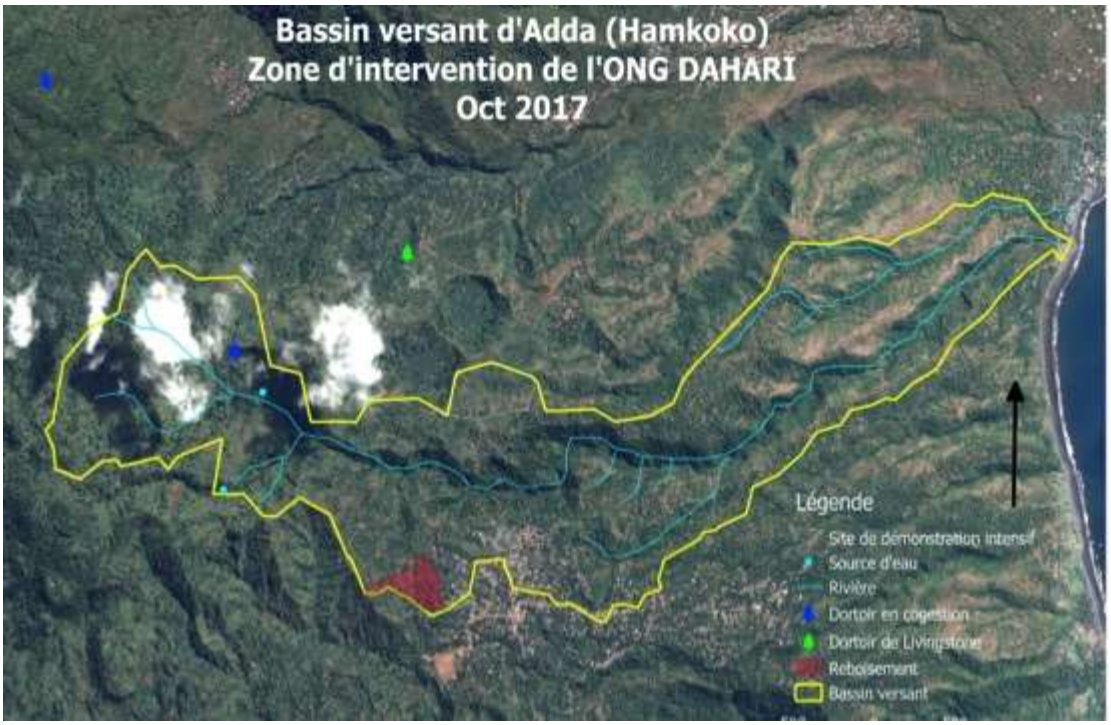
No publications during Year 1

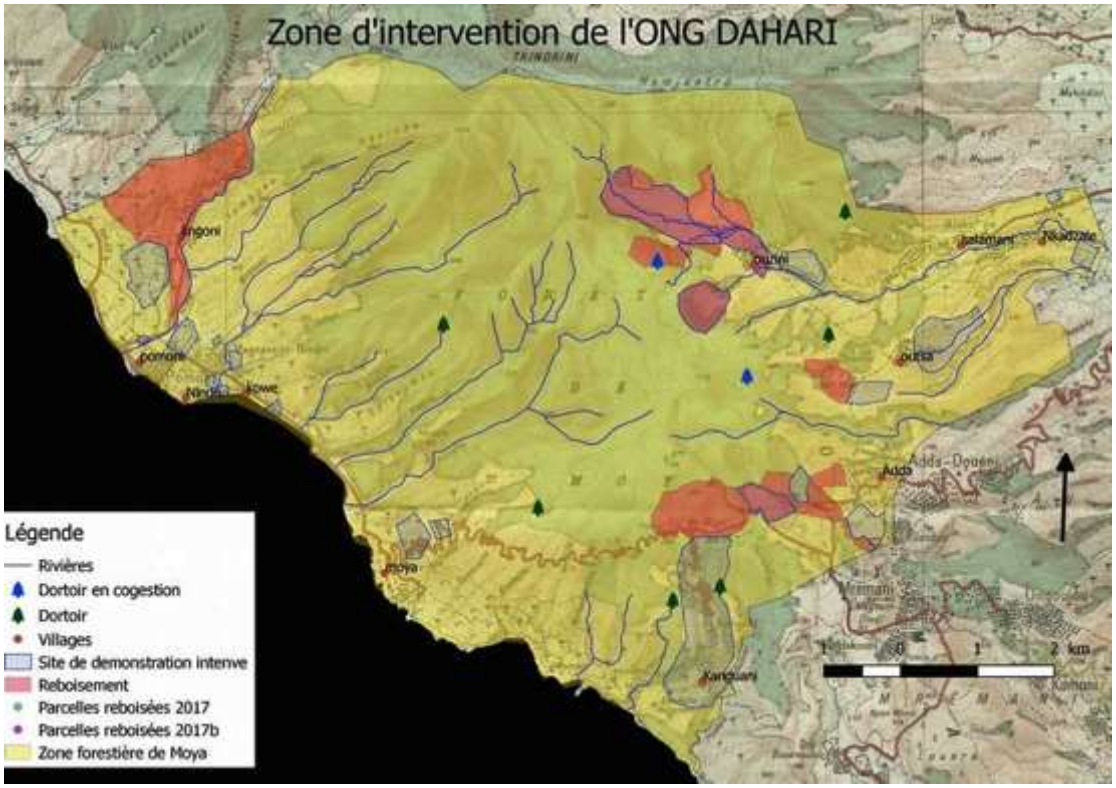
Annexe 4 – Screen shot of Trello Management tool



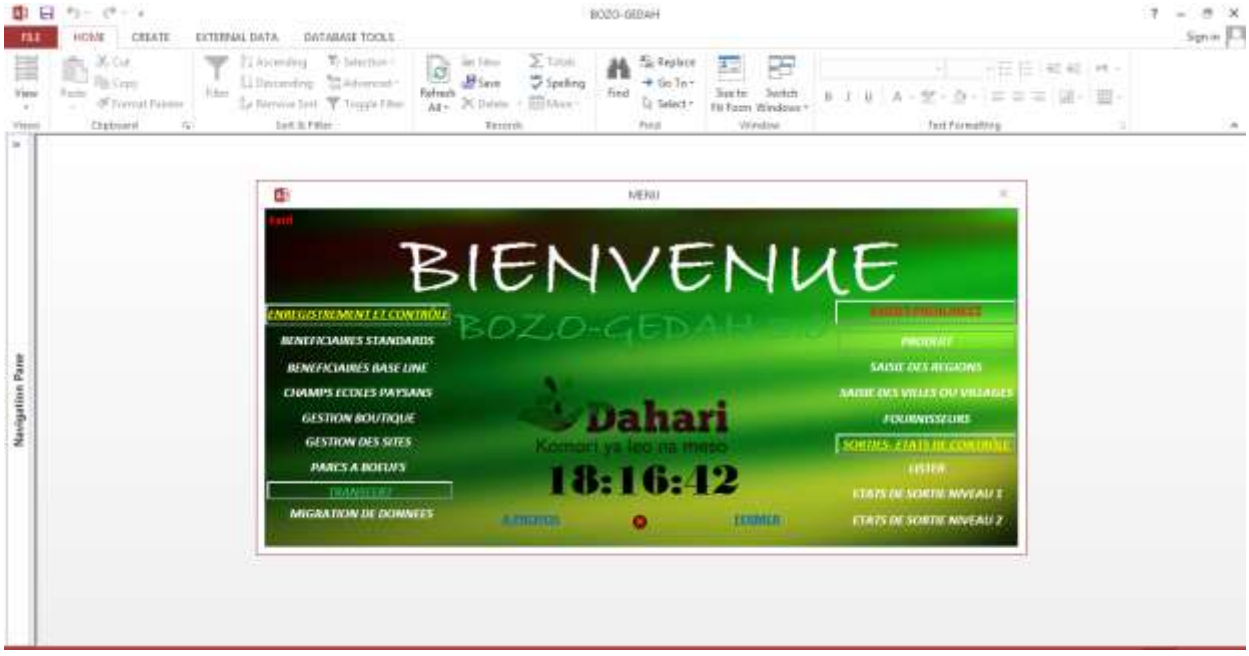
Annexes 5 to 11 – See attached documents

Annexe 12 – Examples of GIS maps produced by the project and used for participatory action learning and strategy





Annexe 13 – Screen shots of Access database monitoring farmer beneficiaries

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Checklist for submission

	Check
Is the report less than 10MB? If so, please email to Darwin-Projects@ltsi.co.uk putting the project number in the Subject line.	Yes
Is your report more than 10MB? If so, please discuss with Darwin-Projects@ltsi.co.uk about the best way to deliver the report, putting the project number in the Subject line.	
Have you included means of verification? You need not submit every project document, but the main outputs and a selection of the others would strengthen the report.	Yes
Do you have hard copies of material you want to submit with the report? 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
Do not include claim forms or other communications with this report.	