

Darwin Initiative Main Annual Report

To be completed with reference to the "Writing a Darwin/IWT Report" Information Note: (<https://www.darwininitiative.org.uk/resources-for-projects/reporting-forms-change-request-forms-and-terms-and-conditions/>).

It is expected that this report will be a **maximum** of 20 pages in length, excluding annexes)

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Darwin Project Information

Project reference	28-008
Project title	Restoring the Alaotra Ramsar Watershed - The Breadbasket of Madagascar
Country/ies	Madagascar
Lead organisation	Durrell Wildlife Conservation Trust
Partner institution(s)	Alaotra Rano Soa, DREDD, DRAE, Graine de Vie
Darwin grant value	£491,008.00
Start/end dates of project	01 October 2021 – 31 June 2024
Reporting period (e.g., Apr 2020 – Mar 2021) and number (e.g., Annual Report 1, 2, 3)	Oct 2021 – Mar 2022; Annual Report 1
Project Leader name	Fidy Ralainasolo
Project website/blog/social media	
Report author(s) and date	Fidy Ralainasolo

1. Project summary

Deforestation is one of the scourges that threatens different types of habitats in Madagascar. The Lake Alaotra watershed is a large habitat of several life forms (aquatic animal and plant species, local endemic lemur) and provides ecosystem services to the local population (source of irrigation of agricultural land, fishing, drinking water, basketry using aquatic plant species of the Lake). The Lake Alaotra watershed is currently a degraded, vulnerable, and threatened habitat. This contributes to the restoration activity of the marsh and the reforestation of the watershed.

The project not only works on the conservation of the endangered species and its habitat but also contributes to human development. All reforestation activities take place in the lean season of farmers, remuneration during reforestation activities (preparation, implementation, and monitoring) helps them a lot in the face of this most difficult season of the year. Helps them a lot in the face of this most difficult season of the year: the project has recruited 151 people per day during 7 days of reforestation, 7 to 9 organizing committees that benefit from capacity building (training) and allowances.

Women and men were involved in all activities without discrimination. The Lake Alaotra region and the target villages (Map 1) of the DARWIN reforestation project is part of the province of Toamasina, Alaotra Mangoro region, and Ambatondrazaka District, located between 048°30'00"

East longitude and 17°30'00" South latitude at an altitude of 750 m. This report focuses on the reforested land in Ambohidavakely which is 22 kilometres north of Ambatondrazaka by road and on the edge of the national road 44 (RN 44). (Map 2).

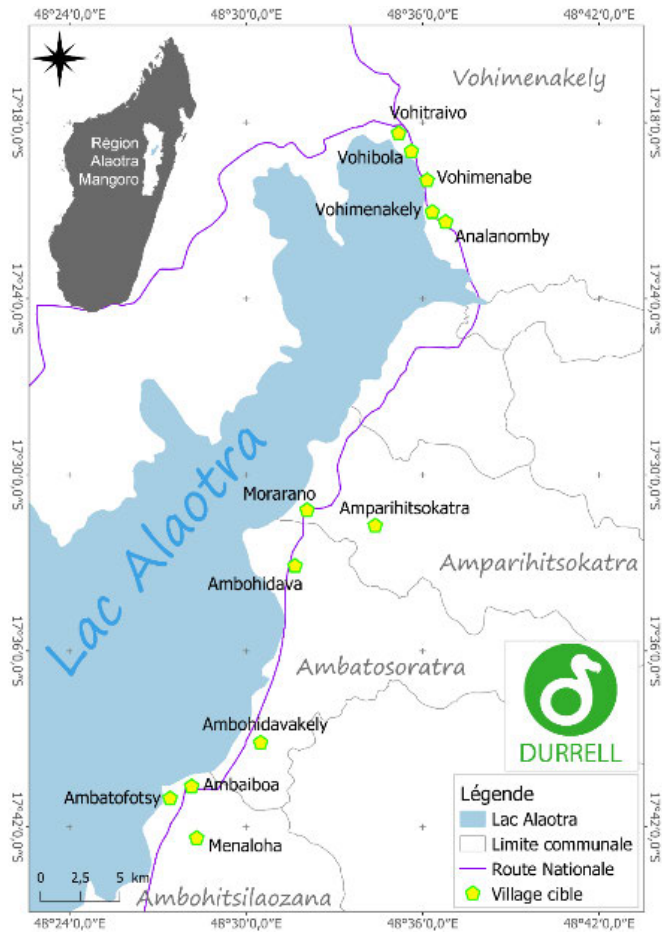


Figure 1: Darwin Project Intervention Villages in Alaotra

2. Project stakeholders/ partners

To achieve the objectives and facilitation of the activities of the DARWIN reforestation project, we collaborated mainly with four entities: The State, represented by the Regional Directorate of Environment and Sustainable Development Alaotra Mangoro (DREDD) and the Regional Director of Agriculture and Farming; The NGO Graine de Vie; The ARS (Alaotra Rano Soa) represented by the local population such as the Federations, the COBA (based Community) and the Fokonolona.

The Regional Directorate for the Environment and Sustainable Development (DREDD): party responsible for reforestation projects, and as a representative of the state in terms of the environment, we worked together from the planning, on the implementation of field work, as well as the monitoring evaluation of the reforestation project. For the monitoring and protection of the

planted area, the implantation of the “VNA” (Vaomeran'ny Afo) in the Fokontany around the planted area will be the responsibility of the DREDD, as well as their participation in the development of the “Dina” which must be tasked with the laws in force on environmental protection and the enforcement of laws on violations of the rules within the PA and community reforestation.

The DRAE (the Regional Director for Agriculture and Farming)

The DRAE of Alaotra supported the project on the implementation of the Climate Smart Agriculture (CSA). The DRAE team provided recommendations for the improvement of the CSA action plans and the technical guidance sheets adapted for Alaotra region. We also work closely with Regional Director of Fisheries for the implementation of a standardised fishing monitoring system (3.6).

The Association Graine de Vie (GdV) is one that has a wide expertise on reforestation works with DARWIN reforestation as a technical partner and seed supplier. GdV has provided expertise regarding the choice of species used and the determination of ecological preferences of the selected species. GdV has trained local committees as well as Durrell staff on seed processing techniques for the direct planting reforestation method. A memorandum of understanding (MoU) was signed this year between the NGO Graine de Vie and Durrell on the collaboration of the Darwin reforestation project, with GDV as a technical partner. It has an important responsibility in the formation of local committees, the choice of species used and the determination of ecological preferences of the selected species.

The local communities in the Alaotra Rano Soa (ARS) platform are the key partners of this project. The 12 villages concerned are active members of the ARS, among others, the 6 local communities of protective bases of the marshes, an association of fishermen, a federation of water users as well as the 4 associations protecting watersheds. Their main objective is restoring together the Ramsar Alaotra site because they feel concerned by the degradation of this place and their daily life and subsistence depend directly on the existing natural resource in the Ramsar site. Their efforts were not sufficient to tackle the conservation challenges of the site, but through this project, their goals of joining forces for a single goal of restoring the Ramsar site have relevant results. Indeed, the collaboration with village chiefs or mayors as well as the authorities and technical services concerned by these projects helps them to identify the necessary aid to the population during this project. They are aware that working alone cannot advance conservation.

3. Project progress

3.1 Progress in carrying out project Activities

Outcome level monitoring activities:

0.1 Undertake household surveys in FY1

Quantitative surveys were completed for 360 households across 12 villages between 24th January – 11th February 2022. A list of the villages can be found in Table 1. (Annex 6a). To provide additional context, qualitative interviews with administrative staff (School Director, Chief fokontany) of each village were also carried out. The next stages are to clean and pre-process the data with support from a Data Processing Consultant. These data will then be transferred to Rachael Gerrie, M&E Officer in the UK, for processing with R software, before being analysed in Excel. A full report will be included in the Y2 HY report later this year.

0.2 Undertake annual population surveys of key species Alaotra gentle lemur

A test of aerial counting of the population of Bandro using Mavic 2 Enterprise with a thermal camera was carried out in Bandro Park and in the South Andilana marsh, using a methodology developed with the LJMU team (Liverpool John Moore University). Bandro groups were first detected by a team on the ground observing from canoes. The video of the Bandro recorded by the thermal camera on the drone was compared with data collected visually on the ground. After analysing and processing images recorded by the drone, we found that the results of this new approach are inaccurate when compare with the ground surveys. One issue was the Mavic 2 Enterprise was forced to fly close to the marsh to detect lemurs due to the relatively low resolution

of the infra-red camera causing the lemurs to react to the noise from the drone. In line with our ethics permit, this led to the cessation of drone flights near the animals to prevent stress, and so this is not a viable technique for surveying the species. We will return to the original drone system with greater resolution for another attempt in Y2, with a visit from Liverpool John Moores University.

0.3 Undertake annual assessment of marsh quality and area reforested

The use of fixed-wing VTOL drone, which has a long duration of flyby capability, allowed us to collect a comprehensive photo library of the marsh and the areas to be reforested. These photos will now be processed using an imaging software called Pix4Dmapper or Agisoft Metashape. With the results we will develop a map showing the details and structure of the marsh in real time. Where possible we will use this map and future surveys to monitor progress of marsh and forest replantation efforts and to calculate area of marsh loss due to burning.

Figure 2: Map showing the current situation of the Andilana Sud marsh during the month of February 2022



Output 1: 12 community nurseries, together producing c.100,000 saplings annually to enable 120 Ha reforestation annually within priority zones by project end.

1.1 Produce a map of the Alaotra watershed and, together with key stakeholders, identify priority areas for marsh restoration and land reforestation

Field visits were carried out in the 12 villages to identify the reforestation zones. During these visits Durrell met with the communities to introduce the project and conduct surveys with local authorities to gather information on beneficiary villages and priority areas proposed for reforestation. In total seven priority areas were mapped covering a total of 3,832 ha (Annex 6b, Figure 1). With partners "Graine de Vie", we identified target areas within these priority areas where reforestation efforts were concentrated, which included areas suitable for direct planting tree planting methods for Y1. An approved list of species to be planted was also agreed and includes: *Intsia bijuka*, *Cannarium madagascariensis*, *Callophyllum inophyllum*, *Acacia mangium*, *Trachylobium verrucosum*, *Moringa oleifera* and *Melia azedarach* (Photo 3.4; photographic plate 3). These species were chosen as they are native to this region and will maximise efforts to repair the degraded ecosystem services which is an aim of the reforestation project. Table 2, (Annex 6b) shows the activities in the reforestation plan that have been completed and identify those that remain to be done in Y2. Areas of marsh where planting efforts

were focused were determined through community consultation and chosen due to the importance for fishing access and access for tourists and project staff to view and monitor Bandro and all occur within the mapped priority areas.

1.2 Establish nurseries in 15 villages in FY2 and 2 more villages in FY3

As agreed with Darwin in a change request, due to the delay in project start, we adopted the direct sowing method in Y1 and delayed establishing nurseries until Y2 (see approved change request).

1.3 Train local communities in the maintenance and care of nurseries

Planned Y2 onwards

1.4 Undertake weekly nursery maintenance

Planned Y2 onwards

1.5 Undertaking Annual Tree Planting

This was the first year Durrell has trialled the direct sowing technique with GdV in Q3. Ambohidavakely was chosen as the first target site for direct sowing based on the presence of fertile soil, proximity of the site to the village for rescue in case of fires and no land tenure issues. Durrell along with partners "Graine de Vie" and DREDD delivered training through reforestation committees established amongst the local community. Through these committees people were trained in the different techniques to pre-treat the seeds (soaking with cold water, boiling water and scarification) to facilitate the lifting of dormant of the seeds (180 kg of *Intsia bijuka*, 180 kg of *Cannarium madagascariensis*, 10 kg of *Callophyllum inophyllum*, 4 kg of *Acacia mangium*, 400 kg of *Trachylobium verrucosum*, 10 kg of *Moringa oleifera* and 30 kg *Melia azedarach* were pre-treated). After sowing, each hole containing seed was covered with dry straw to provide shade, prevent burning and wilting and maintain moisture following precipitation.

Over seven days, 151 people per day were hired from fokontany Ambohidavakely, meaning a total of 390 people were involved in the direct planting activity (Photo 5,6,7). In total 105 ha of land identified for reforestation was planted in Y1 (Figures 2 - 9, Annex 6b).

1.6 Monitor planted areas

12 Permanent Monitoring Plots (PPS) 40m X 40m were installed to evaluate the survival rate and growth rate of plants established using the direct planting method. Monitoring data was collected monthly by community groups (up to 25 people) from Ambohidavakely (see draft agreement Annex 4). The number of surviving individuals and the number of dead individuals were recorded by the community monitoring and evaluation committees. Early monitoring data indicates a survival rate of 73%. This is an early estimation of survival rate and it is anticipated that this will decrease as mortality of the seedlings increases over time. As this is a new method and has not yet been fully assessed we will continue to collect data on plant survival rates and compare this to areas reforested using the community nurseries to determine the most effective method (taking into account cost, time and successful reforestation of areas planted).

Regular patrols were deployed in Y1 at monitoring committee level to monitor the planted area against presence of pastoral activities, bushfires, and accidental fires (clearing of crop fields by fire and cooking in the open-air during agriculture and open livestock activities). In response to this, a fire break will be put in place in the dry season of Y2 when the savannah stops regenerating.

In support of the patrols and adherence to marsh regulations, 100 prohibition signs and two large visibility signs were made and installed to inform about anthropogenic pressures around the planted areas. An agreement between Durrell and the community of Ambohidavakely was made for the protection of the reforested area.

Output 2: 5km of channels in priority areas are cleared annually of invasive water hyacinth and 75Ha of reed-phragmites are planted by project end, to restore habitat, improve water quality, and increase access to the lake for fishing and ecotourism.

2.1 Planting 25 Ha phragmites reed each year

In Y1, 19.35ha of marsh was planted between Oct-Dec 2021 in the villages of Analanomby, Vohitsoa, Andreba Gare, Ambodimanga and Vohitsara. A total of 316 people from the VOIs and local authorities like Chiefs of Fokontany, the Mayors of the communes and the Chief Cantonment of Forest of Amparafaravola (as DREDD representative) participated in the marsh restoration activities. The aim to plant 25ha in Y1 was not achieved because of the delay of the start of the project (which started October 1) as the period for phragmites planting is between July and November during which the water level of the lake is still low. We hope to address this next year by starting the activity in July.

2.2 Carry out the annual removal of water hyacinth

A total of 5.2 km of canals were cleared of water hyacinth in priority areas in Y1. In Anororo, 2.5 km of canal was cleared by 11 villages reopening important access channels for local fishermen. In Andreba Gare, 24 members of the local guide association of Bandro Park and local community members cleared 2.7km of tourist circuits in Bandro Park.

Output 3: Local associations (COBAs) within Alaotra Rano Soa (ARS) are effectively managing 40% of the marsh area with c.300 people representing all 33 associations receiving training by end of project.

3.1 Undertake a capacity and training needs assessment across all COBAs

Competency assessments were carried out for 33 VOIs in Alaotra. In total of 98 board members were interviewed individually and 33 focus groups (i.e., one per VOI) were conducted with a total of 360 members participating to the survey. Members of the Local Forestry Committee (LFC) joined the focus group.

Based on the scoring of the VOIs competency levels for the board members and all the members, the priority knowledge/skills/attitudes for capacity development were proposed. Knowledge/skills/attitudes rated 1 out of 4 were given a very high priority and the ones rated 2 out of 4 were given either a very high or high priority according to the importance and the needs expressed by the VOIs members themselves.

For the board members at Alaotra, almost all the knowledge/skills/attitudes need to be strengthened and seven competences were prioritised as 'very high' priority, notably related to PA activities planning, financial resources management and communication. The prioritisation did not only depend on the scores obtained, but also on the needs expressed by the interviewees themselves. The board members felt that competences and skills that were not complete enough would affect their role in the management of the association and consequently in the PA management.

Table 1 (below) summarizes the priority competences to be strengthened. Two competences were rated as 'very high' priority, notably related to 'the information to PA users about laws, rights and regulations', and the 'avoidance, prevention, and reporting of dishonest and/or illegal practices. Even if the areas of intervention of the VOIs are concentrated on the lake and the marsh, they will have to contribute to the protection of the watersheds, so their competence on BIO 02 'Plan, lead and report on the care and use of cultivated plants' is necessary and to be reinforced (high priority). These findings will be used to inform the training plan for Y2 (3.2).

Table 1: The priority capacity needs for all the other VOI members at Alaotra (: 1: very high; 2: high; 3: medium)*

Rating of priority training needs (*)	Code	Competence	Main knowledge requirement for the competence.
1	LAR 02	Provide information to protected area users about	- Laws and rights affecting the PA, resources, users and stakeholders and PA personnel.

		laws, rights and regulations affecting a protected area.	- Basic techniques for verbal communication.
	FPC 04	Avoid, prevent and report dishonest and/or illegal practices.	- Laws and regulations and policy of the employer regarding illegal, dishonest and corrupt conduct. - Techniques for avoiding and preventing illegal behaviours. - Options for reporting illegal behaviour.
2	BIO 02	Plan, lead and report on the care and use of cultivated plants.	- Principles and practices of horticulture/ arboriculture. - Care of living plants. - Habitat restoration techniques using plants.
	BIO 03	Propose justified measures for sustainable use of natural resources.	- Scientific principles and practical aspects of sustainable use. - Ecology of focal species. - Local needs and practices for resource use.
	FPC 01	Maintain good relations with others.	- Techniques for effective and constructive communication, collaboration and teamwork.
	FPC 02	Communicate effectively verbally.	- Techniques and approaches for respectful, clear and effective interpersonal communication. - Awareness of different communication approaches required with different groups and individuals
3	FLD 01	Plan, lead and report on fire prevention and control activities.	- Fire risks to the PA. - Fire management/response plans and procedures of the PA. - Good knowledge of the terrain and waters of the PA. - Required techniques, equipment and procedures for fire prevention/control.

3.2 Deliver training to COBA members based on results of assessment (FY2)

Planned for Y2.

3.3 Undertake an evaluation on effectiveness of training to COBAs (FY3)

Planned for Y3.

3.4 Undertake assessment of infrastructural and equipment needs for ARS and COBAs in FY1

Sufficient infrastructure and equipment are very necessary for the proper management of a structure. Currently, only the platform SG has a local office already equipped to operate the current business of the ARS, thanks to the help of Co-Manager Durrell.

The Alaotra Ramsar site has an area of 722,500 ha established in 44 municipalities, 312 member associations across four zones. Infrastructure and equipment in these areas are necessary so that each office in the zones is independent and autonomous. An evaluation conducted by the Secretary General of the ARS, in need of infrastructure and equipment, was made at the level of the members of the four ARS offices.

A list of questions was asked by each member to find out the degree of need of each zone. The three main questions relate to the need for human resources, infrastructure, and equipment:

- Each zone needs at least one technician to help the zone presidents with day-to-day tasks. This person needs equipment (desktop computer, printer, desk table and chair, shelf as well as office supplies so that he can work on time on the activities of each area). This facilitates communication and the relationship between the permanent office and the offices of the ARS zones.
- Another identified need was a large room for the monthly and annual meetings along with equipment for the meeting room (table, chairs, video projector and projector board). It is important to note that currently, only the SG ARS has the means to go around the site. Thus, the means of travel such as the motorcycle is very important also for each area.
- For marsh federations, fishermen, watershed associations and water users' federations, their needs are focused on the tools corresponding to their daily work such as GPS, bicycle, canoes and vests.

3.5 Construct and equip 4 local association offices for ARS and COBAs

The presence of an office is an important indicator of autonomy so all members can access it if necessary. Since 2017, ARS have been hosted at Durrell's office and meets the infrastructure needs of the ARS currently and allowed ARS to have equipment necessary for office operation. At the end of Y1, two of the four offices funded by this project are under construction and should be ready to use in June 2022. The remaining two will also be built during Y2.

The building plots were donated by the municipality for the Imerimandroso area. For the Amparafaravola and Tanambe areas, the Regional Direction for environment and sustainable development Alaotra Mangoro (DREDD. This donation of land is included in the memorandum of understanding between the DREDD and ARS.

The four office designs are identical and comply with the standard required by the municipality. An estimated plan and specification of the infrastructure was made with the building technician. Each office has the length of 6 x 4 m and has a toilet. After identifying the office location, a tender is opened for local service providers.

A specialist supervisor for construction was recruited to monitor the construction with the ARS monitoring committee of each building. Some needs identified in the evaluation have now been purchased to equip the four offices, with some other equipment co-funded by Jersey Overseas Aid.

3.6 Develop a standardised system for monitoring fishing in conjunction with fishing federations

This activity is a collaboration between the Regional Directorate of Fisheries, Durrell, and ARS, represented by the members of the fishermen's federations around the AP Lac Alaotra.

This system will be developed in four stages:

1. Firstly a new census of fishermen is necessary make them aware of the need to enter the legal framework. The latest census shows us that they are 2816 in numbers and bring together in 89 associations and four federations.
2. Secondly, once they enter the legal framework i.e., membership in the association, it is easy to coordinate and supervise their work. Thus, two meetings with the offices of the federations were held to coordinate.
3. Thirdly, to help them follow fishing standards, a sub-project has been agreed with the federations to carry out the day-to-day monitoring of fishing activities, especially during the period of fisheries closure. Planning of fishermen's card distribution dates has been done. From that moment on, fishermen who do not have fishermen's cards do not benefit from any aid or support projects.
4. Finally, unannounced monitoring and spot checks carried out by the Regional Fisheries Direction is ongoing depending on the situation on the ground.

We are currently at Stage 1, with the census of fishers underway. We are awaiting the fisherman's cards to be issued and delivered by the Regional Directorate of Fisheries (this was delayed because the regional Director and Minister of Fisheries were appointed in Q4). Standard fishing monitoring will be established and rolled out in Y2.

3.7 Carry out regular monthly meetings with ARS

To operate the offices of the four ARS zones, the Secretary General and the President of the platform initiated a coordination meeting once a month with the members through Y1. The meeting was held in each capital of the ARS zone. The participants are members of the bureau of each zone and the federations from the associations. There are 10 to 15 of them per zone, i.e., numbers from 40 to 65 per month.

The objective of the monthly meeting is to report by each sector of activity (marshes, rice fields, the lake, and watersheds). The meeting is also the time when the President and the SG shared the information of the platform, such as an advance of an ARS project, lobbying, advocacy on the environmental problem.

The zone offices also carried out monthly planning of members' activities. This is a time to make necessary decisions based on the reports of the activity groups. Throughout Y1 (Oct-March), ARS held a meeting in each zone every month.

3.8 Undertake annual monitoring of fishing in the lake

Fifteen monitoring and control missions were carried out by the DRPEB (Regional director of fisheries) and with the fish Federation and the gendarme to fight against the harvesting of small fish and the use of illegal fishing equipment. As a result, **1.8 tons** of fish were seized during the closed fish season for the year 2021 including **0.5 tons** for the first quarter, **0.2 tons** second quarter, **0.7 tons** third quarter and **0.4 tons** in the fourth quarter.

3.9 Undertake annual assessments of management effectiveness of Alaotra PA

Each year, according to the statute of the ARS, the members of each zone held a General Assembly (GA), with the objective to make an annual assessment of the conservation activities of the Ramsar site including the AP Lac Alaotra (watersheds, water users, marshes as well as fishermen).

There were 157 participants in four zones. During the evaluation, each activity reported on the challenges and successes of Ramsar site conservation at the level of each member association. For 2021, Alaotra Rano Soa was able to renew the members of the offices of each zone (between 10 to 15 per zone). The new PTA 2022 for each activity is planned in each zone.

The main activities of the PTAs focus on five strategic axes: i) Strengthening community management and governance; ii) improving members' substances in the face of climate change; iii) use of communication strategies to engage LRA voices and environmental education iv) the enhancement of local culture related to the environment and v) the financial empowerment of the ARS.

3.10 Compile annual records of illegal activity from local associations and Government

28 raids were carried out by the DREDD team and the gendarme in the fight against the marsh fires and illegal seizure of land in the Lake Alaotra Protected Area. From these raids, twenty people are on a warrant of committal, some offenders went to prison with suspended sentences and penalty fines. There are some cases that still in the process of being processed.

Crime reports are written by patrollers and are sent to the office of the Regional Directorate of Environment, Forests and Development.

Output 4: Approximately 2500 people across 12 villages are supported to derive greater benefits from their agricultural and natural products whilst utilising natural resources more sustainably.

4.1 Identify, create and structure FFS groups in each association

In Y1, **39 FFS** groups composed of **411 beneficiaries** (including 259 men and 152 women) were created.

The process of creation of FFS group in 9 villages started in November 2021. The FFS group creation strategy for each village is the same. A mass meeting was held for each village for awareness-raising. Then a validation committee (composed of the Chiefs of Fokontany, Presidents of VOI, village patrollers, village elders, Community Health Volunteers, Lead Farmers) was created at each village to validate the list of beneficiaries.

Seven Lead farmers (LF) were also selected by the FFS groups and Durrell to strengthen the follow-up and supervision of the CSA techniques uptake by farmers, to promote the sustainable cropping techniques at village level and to facilitate communication between communities and the project.

4.2 Train and support FFS groups in techniques

In Y1, **371 FFS** members (with **105 women**) have been trained on the basic principles of Climate-Smart-Agriculture/Agroecology, which are mainly:

- soil fertility management
- Intercropping and crop rotation techniques
- organic fertilization (like composting, vermis-composting)
- Biological pest control
- Improved cropping techniques like sowing in rows, use of resistant seed varieties, crop maintenance, etc...

The 7 Lead Farmers (LF) received a 3 day training on CSA/CA principles and techniques and on FFS approach by the Durrell's technician.

An exchange-visit was also organised for the 7 LF in March 2022 to visit some successful agroecology practices in the Alaotra Region and to share experiences with other farmers. Two sites have been visited: the GSDM demonstration site in Ambotresana and the Ifafy agricultural colleges demonstration site. Some specific agroecological techniques were visited and discussed such as the vermicomposting techniques on rice crops, crop rotation with vegetable crops, the integration between agriculture livestock.

4.3 Implementation of agricultural techniques

Before the creation of the FFS groups, agricultural surveys were carried out to determine the favourable types of crops for each intervention village. The data from the surveys were combined with the pedo-climatic data and the main staple crops selected were irrigated and rainfed rice, and peanuts/ maize intercropping for cash crops and nutrition.

In Y1, **127.97 ha** was cultivated in Alaotra: Rice crops **82.52ha**, Peanuts/ maize intercropping **45.45ha**.

Technical and economic studies were carried out for each crop to demonstrate the profitability of the investment and to quantify the inputs and materials to be provided to the groups.

For the application of cultivation techniques during the training, the beneficiaries were provided with certified seed (Rice: X265, X1648, NERICA4. Peanuts: Valencia, Maize IRAT200). These certified seeds are adapted to the intervention area and are also resilient to climatic variability.

Beneficiaries were provided with organic fertilizer (compost) to reduce the use of chemical inputs (75 kg per farmer). For Y2, farmers will produce their own composts to meet the entire need for fertilizer. Beneficiaries were also supplied with agricultural equipment for the crop implementation and maintenance.

The total of agricultural inputs and equipment provided are summarised below:

- *Agricultural inputs:* rice seed X265(1,038kg), Rice seed X1648(2,096kg), Peanuts Valencia (3,724kg), Maize IRAT 200 (244,5kg), compost fertiliser (17660kg)
- *Agricultural equipment:* Weeders (524 units), Sprayers (157units), hoes (143 units),

4.4 Annual agricultural surveys

This was done as part of the baseline survey in January 2022.

4.5 Establish VSLA groups in target villages and train members in VSLA process

Five Durrell field staff members were trained on the 8 VSLA modules and financial education modules by Durrell's Agroeconomist in February 2022. This training provided participants with the knowledge and skills necessary to train, supervise, and mentor VSLA groups to ensure their success. After the training, the field staff will in turn sensitise, create, and train the VSLA groups at the village level.

To ensure that all village communities could access information about the VSLA system in an equitable manner (process, membership modalities and services offered in the VSLA), the socio-organiser carried out large-scale sensitisation campaigns in the 12 intervention villages.

This process started with local and traditional authorities and then with local communities. The process was spread over more than one meeting per village.

In total, **10 VSLA groups** including **185 members (with 96 women)** have been created in **5 villages** (Ambatofotsy, Morarano, Vohimenakely, Voh bola, Analanomby).

Organising module-based training for VSLA members:

The trained socio-coordinator oversaw training for the newly created VSLA groups. The training gave information on the entire VSLA process, from group creation to autonomy after a 12-month cycle. A training programme that considers the evolution of the group has been designed to guide the groups through the entire VSLA cycle (9 to 12 months).

The trainings are composed of eight foundational VSLA modules:

Group associative life; leadership and election; solidarity fund regulations; minimum and maximum savings and credit; elaboration of the group's internal regulations; first savings meeting; first loan disbursement meeting; first loan repayment meeting. The eight training modules in Malagasy were made available to the groups. To date, **8 VSLA** groups with **143 members (52% of them are women)** have received training up to module 8 and started saving. For the other two groups, training sessions will be completed in April 2021.

Each group was provided with a VSLA tool kit containing:

One large-format 200-page notebook (for accounting and meeting minutes), one metal box with three locks, one ruler, one blue pen, one red pen, one calculating machine, two plastic bowls.

4.6 Monthly meetings with VSLA groups to track progress through the full cycle

After the training, the VSLA groups were assisted during their weekly meeting, to ensure veracity of the account keeping.

4.7 Establish and run training for basket weaving (Y2) To be delivered in Y2.

4.8 Take members of the FFS and women's basket weaving associations groups to rural fairs around Alaotra (Y2) To be delivered in Y2.

4.9 Develop market value chains for locally produced products

The field survey on the study of the technical and economic feasibility of local value chains was carried out during Q4Y1. The survey is being conducted by a Masters intern from ESSA University of Antananarivo. During the study, individual surveys and focus groups were conducted targeting 242 households. The following value chains were pre-selected as priorities: short cycle breeding, Maize, Beans (leguminous), Handicraft, Fishing Groundnuts, vegetable cultivation. The deep analysis, i.e., the economic study of each value chain as well as the drafting of the report is in progress and will be finalized in May 2022.

Output 5: Understanding of carbon sequestration capacity of Lake Alaotra's watershed, including lake and marsh, is improved to inform development of external investment opportunities for sustainable habitat restoration

All activities under this output (5.1-5.7) are planned from Y2 onwards.

3.2. Progress towards project Outputs

Output 1: 12 community nurseries, together producing c.100,000 saplings annually to enable 120Ha reforestation annually within priority zones by project end.

Due to the delay in the start of the project (November 2021), we replaced the production of seedlings under nurseries by the adoption of the direct sowing method and the objective was to cut into 50 Ha which is worth 50,000 trees for the first year. With the strong contribution of the local population (151 people per day) and the effectiveness of this method, the reforested area doubled this year's target (**105 Ha**) which is currently showing a 73% seedling survival rate that is worth 70,960 individuals, **142%** of the expected result.

Output 2: 5km of channels in priority areas are cleared annually of invasive water hyacinth and 75Ha of reed-phragmites are planted by project end, to restore habitat, improve water quality, and increase access to the lake for fishing and ecotourism.

Priority areas for clearance and phragmites replanting were identified in Y1 (Annex 6b), and in response, **19.35ha** of phragmites was planted. We cleared **5.2 km** of lengths of the channels, including **2.5 km** (length) by 7m-10m (width) of public canal, east of the village of Anororo; 1.7km

for the public canal and 1.7km from the two tourist circuits in the Bandro Park to the west of the village of Andreba railway station.

Output 3: Local associations (COBAs) within Alaotra Rano Soa (ARS) are effectively managing 40% of the marsh area with c.330 people representing all 33 associations receiving training by end of project.

This year saw O3.1 and O3.2 completed with ARS and COBA's capacity and infrastructural needs identified. O3.4 is on course to be met, with the second two ARS offices to be built in June 2022. Capacity development training will start in Y2 (3.2) and the first steps towards a comprehensive standardised monitoring system for fishing compliance have been taken and this is due to be in place in the middle of Y2.

Key activities to support protected area management are contributing to the management effectiveness of Alaotra: monthly meetings with ARS are in place, monitoring of fishing compliance in the closed season has yielded 1.8 tonnes of confiscations (3.5) and the annual assessment of management effectiveness took place this year with key strategic priorities for improvement identified (3.6). Records of illegal activity will identify priorities for enforcement and also form a baseline and monitoring framework for compliance with PA regulations (3.7).

Output 4: Approximately 2500 people across 12 villages are supported to derive greater benefits from their agricultural and natural products whilst utilising natural resources more sustainably.

Y1's objective for target households (720) was not met, with 411 households in the 9 villages reached (57% of the objective). The reason for not achieving the goal is that we only implemented the project in 9 villages at in Y1 (and the project start was delayed by three months). However, in terms of surface area, the target of 120ha was exceeded (127.97ha reached in Y1). This was achieved because the beneficiaries have the capacity to cultivate on an area of more than 30ares. Of these 411 households, 371 were trained (90%) on sustainable agricultural techniques with 7/ out of the 7 Lead Farmers trained on CA/ACI techniques participating in the exchange visit.

Eight of the 48 planned VSLA groups have been created, trained, and equipped with VSLA kits, with two in the process of creation. All the community in the twelve target villages of the project have been informed about the VSLA approach. Of the VSLA groups created, about 51 members are women, a rate considered quite high for a rural community. Thus, we are witnessing the active participation of women in improving the daily incomes of households.

Output 5: Understanding of carbon sequestration capacity of Lake Alaotra's watershed, including lake and marsh, is improved to inform development of external investment opportunities for sustainable habitat restoration

Work towards this output will start in Y2.

3.3 Progress towards the project outcome

Three hundred hectares of priority reforestation areas in the Lake Alaotra watershed will be reforested by 2023 (maps included in Annex 6b), which will contribute to the mitigation of erosion and siltation towards the marsh and the Lake. The indicators (maps of priority areas for reforestation, no. of reforestation organizing committees, Ha of reforested area) that we use to measure progress will be key in showing progress towards achieving the project outcome.

0.1 250 Ha reforested by end of project: We are on track with this indicator as 105 ha of reforestation was completed in priority areas with the PA in Y1. This indicator remains appropriate.

0.2, 0.3 :Priority gentle lemur habitat increased to 6,000 Ha (from 4,100Ha 2019 baseline): No decrease in gentle lemur population during project (2019 baseline: 2,000-2,500 individuals). Although we have experienced issues this year with the methodology of the new drone survey technique, this indicator is still appropriate as we will be able to repeat surveys for Y2 and Y3 and we will be able to use this data to show any changes in lemur populations compared with the 2019 baseline.

0.4 Marsh burning does not exceed 500Ha/year in each year of the project (2014-2019 average 500Ha/year). Annual assessment will be processed using imaging software and the map showing the results from Y1 will be included in the Y2HYR.

0.5 Subjective well-being indicators improved by end of project.

0.6 Measures of food insecurity in intervention villages improved by end of project

0.7 The proportion of households who believe they have the power to influence decision making in their communities has increased by end of project cf. start

0.8 Improved economic independence and resilience; % of households using VSLAs to manage their savings and value of savings has increased by end of project cf. start.

Baseline survey results will be included in Y2HYR

3.4 Monitoring of assumptions

Assumption 1: No significant reduction in current level of political stability

Comments: The current political situation in Madagascar is quite stable despite the existence of opponents. They are mostly active in the media and social networks. The presidential elections scheduled for 2023 will risk changing the situation.

Assumption 2: Engagement with regional authorities continues to be productive.

Comments: Although the Head of Region is generally hostile to Durrell's interventions in relation to the zetra clearing ban, the Region team remains collaborative whether during meetings and workshops or during field visits. This assumption continues to be relevant when reflecting on Y1, because the representative of the region and the prefect are positive to Durrell's interventions in the watershed through reforestation, the team of the region and the district remain collaborative and gave support to reforestation and the protection of reforested areas.

Assumption 3: Continued community willingness to engage with and participate in project initiatives.

Comments: The commitment and participation of the community in the activities of the project made it possible to have the results for Y1 despite the organizational problems.

Comments: For reforestation, the commitment and participation of the community in the activities of reforestation made it possible to exceed Y1 results. 151 people per day were involved in the reforestation even this activity was done during the lean season. The local authorities were always present during all the days of reforestation despite their heavy task at the level of their community.

Assumption 4: The project is able to engage with the Government's RFR project and it is continued over the forthcoming years so that land tenure via reforestation can happen for rural communities and people.

Comments: The project complements the government's RFR field project. There is no land problem noted during the first year of implementation of reforestation activities.

Output 3

Assumption 5: Seed survival in nurseries is not compromised by external events beyond our control e.g. disease, extreme weather.

Comments: For this first year, the implementation team proceeded by direct sowing, with a germination rate of 73%, despite the attack of harmful insects. The second year will allow us to proceed with a more conventional approach that will use nurseries.

Assumption 6: Environmental conditions do not change drastically to negatively impact growing seasons and crop productivity e.g. increased cyclone activity, lack of rains/prolonged drought.

Comments: During the last cropping season, there was a delay in the onset of the rains but the rainfall was still good. The passage of cyclone BATSIRAI in January 2022 even brought a lot of rain to start the growing season.

Output 4

Assumption 7: Community members default on the commitments to the VSLA during the process.

Comments: The feasibility study concluded that VSLA can be implemented in Alaotra. Moreover, a project funded by JOA which had already been implemented since 2018 was a success on the VSLA part

Assumption 8: Theft of project savings occurs during implementation.

Comments: The feasibility study concluded that VSLA can be implemented even if it does not exclude minor theft risks.

Output 5:

Assumption 9: Academic partner for carbon content estimation remains committed to the project, or alternative partnership identified.

Comments: The start of the search for the implementation partner for the estimation of the carbon content begins for this second year.

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

The intended long-term impact of this project is that community-led management and restoration of the Alaotra Ramsar watershed are providing sustainable long-term benefits and services to people and wildlife, and helping mitigate impacts of climate change.

The intention is that this project will contribute to the reforestation of the Alaotra watershed will, in time, lead to reduced erosion on the surrounding hills and a reduction in siltation in the lake improving water quality for both people and biodiversity, including fish. The first year has made good progress through exceeding its Y1 reforestation goal planting 105ha (of 300) in Y1. The preliminary survival rate of seedlings is promising (73%). The intention is that erosion is estimated to decrease within 5 years and the pressures and threats to the habitat of wildlife species such as Bandro, birds and aquatic animal and plant species of Lake Alaotra will be reduced.

In addition to the ecological impact of reforestation, 151 people per day were hired during the 7 days of reforestation providing financial benefits for 390 people from fokontany Ambohidavakely. (Photo 5,6,7). This year saw financial tools rolled out to provide income and financial security to 9 of 12 villages (10 VSLAs were established: 01 in Ambatofotsy, 01 in Morarano, 04 in Analanomby, 02 in Vohimenakely and 02 in Vohibola). This model, which is designed to be replicated, can be rolled out across the landscape as a sustainable means of access to finance for community members. This project contributed to the food security of 411 members of Farmer Field Schools through training in agri-ecological techniques and farming methods which have contributed to the soil restoration and ecological recovery of degraded habitat through **127.97 ha** cultivated in Alaotra in conservation farming techniques.

This project will also play a key role in engaging communities around the Alaotra watershed in natural stewardship and management of their natural resources. Communities have been involved in all parts of the project activities such as seed pre-treatment, reforestation and monitoring and evaluation of the project and its results.

4. Project support to the Conventions, Treaties or Agreements

Lac Alaotra and surrounding watershed is a Ramsar site. This project promotes and enables the restoration and wise use of wetlands and its effectiveness will be assessed using an RMETT assessment. The sustainable management of natural resources in tandem with economic development for rural communities will be facilitated through training local association members in principles of good governance (output 3) and equipping them to manage fishing, agricultural practices and associated income sustainably with the support of functioning, well-resourced local management structures.

CBD, ABS and Ramsar (including CMS) focal points fall under Madagascar's Ministry of Environment. Durrell serves on the National Ramsar Committee. Project outputs will necessarily involve liaison, particularly output 1 (development of reforestation and restoration plan) and

conduct of an RMETT assessment at project-end. The mapping of marshland and reforestation both for priority areas and to monitor marsh burning (A0.3) will be key in feeding into the RMETT and to inform the management of ARS's protected area management. Durrell is also scientific coordinator for related AEWa convention. UNFCCC focal point is a separate part of Ministry of Environment, with which we will be liaising. ITPGRFA sits within DRAEP. At the national level, Durrell is a member of the GSDM agroecology association, and they have a direct partnership with the national Ministry of Agriculture.

This project will also improve understanding of the carbon storage capacity of Lac Alaotra marsh ecosystem and surrounding forest, informing the next stages of Durrell's Rewilding Carbon initiative and generating knowledge which is valuable to global understanding of wetland carbon storage.

5. Project support to poverty alleviation

The improvement of the living conditions of households in the intervention villages has already had an impact on the daily problems lives of beneficiaries through direct support to community members – 411 beneficiaries (152m, 259f) received agricultural inputs for the farming of climate resilient crops and highly nutritional varieties, leading to 127.97ha of climate resilient crops, providing potential for improved food security this year.

The results of the 21-22 crop yields (and comparisons to regional yields) are yet to be seen and will be reflected in the results of the annual agricultural survey, to be included in the Y2HYR. In addition to short term food security, the project has also raised awareness around the impact of climate change on both the environment and on agricultural productivity.

The project has provided short term employment to 151 community members through reforestation initiatives. By strengthening the capacity of ARS and COBAs to manage the watershed more effectively and enforce regulations which protect biodiversity. In addition, the installation of robust management practices, regular meetings with communities and training of community organisations along with physical infrastructure for governance, also raises the social and political capital of association members and their ability to be represented in the long term within the governance of the watershed.

6. Consideration of gender equality issues

Participation in agriculture and the sale of crops is roughly equal between men and women. Alaotra Rano Soa's leadership is mixed with both men and women participating in decision making. Membership of the local associations (COBA) favours men (60%) and only 4 of 33 COBAs having female Association Presidents. Alaotra is the only Durrell site, and only one known to us in Madagascar, that has female patrollers reflecting the strong sense of duty and agency among women in contributing to environmental protection.

Under this project, we planned to increase levels of female participation in Farmer Field Schools to 30% by project end and this has already been achieved in Y1 with 36% female membership.

Our approach is always designed to be accessible to all genders, which may include ensuring that training takes place at an appropriate time (of the day and season) to ensure that women particularly are able to attend and are not taken up with domestic or agricultural tasks which would prevent them from accessing project resources.

Co-funded work in the Alaotra landscape also includes providing access to all women in our focal communities with access to reproductive health, through quarterly visits by our partner, Marie Stopes Madagascar. Access to reproductive health provides women with increased choice about family size and their ability to plan this.

7. Monitoring and evaluation

Durrell Madagascar has an M&E system developed under our concurrent JOA-funded conservation livelihoods project. Since the two projects are very similar, this project's M&E

framework has been developed in line with the JOA project but adapted to suit the Alaotra context. To date, the systems and processes used internally to monitor and evaluate the project have been working as planned through Year 1 (5 months).

From the logical framework of the project, the main activities to achieve the expected results have been developed. Then, the achievement indicators were identified for these activities. This step is very important for the development of the annual Work Plan which will be the operational working tool for field staff. Achievement indicators (both qualitative and quantitative) are included in the Project Progress Tracking Table and Project Monitoring Plan.

Following the development of the Monitoring-Assessment Plan and to collect the achievement data, monitoring tools were developed from the main project indicators, both for objectives and for activities. At the outcome and output level, the data will be collected mainly during the initial evaluation by household surveys at the beginning of the project (complete) and at the end of the project. The tools used will therefore be the household questionnaires and the interview guides. We are confident of their efficacy having made some changes from the first survey of this kind that we undertook at Ambondrobe site in Madagascar in 2020. For the activity level, the data will be collected regularly by the field staff. The tools used will be the tracking sheets, which are sent quarterly to the Monitoring-Evaluation Manager.

One of the project's top priorities for 2021 was the implementation of the baseline household survey. Despite the COVID-19 pandemic, this assessment was completed in early 2022. The biggest evolution of the data collection method compared to conventional methods has been the development of the data collection tool on Android tablet which has significantly increased efficiency of data collection and analysis. Based on the project's agreed indicators, the methodological framework was refined ahead of the survey in November and December 2021. Four investigators were recruited to carry out the survey with 360 households in the twelve villages of Alaotra. Training on questionnaires and tablet use with the four investigators took place from 18-21 January 2021 at Durrell's office in Antananarivo.

Questionnaires were developed during December 2021, with questions being drawn largely from those used in the baseline JOA project study but adapted to suit Alaotra's context e.g., the types of produce and particular environment/social challenges. Rachael Gerrie, our Monitoring and Evaluation Officer in UK, developed this questionnaire under Epi Info 7 for Android mobile.

Improving collaboration with partners for information sharing among partners/stakeholders is an ongoing process and is central to the project so that its result can improve practice among other stakeholders in Alaotra and Madagascar more widely. We are in regular contact with The Regional Directorate of Sustainable Development (DREDD), the Regional Directorate of Agriculture, Livestock and Fisheries (DRAEP) and the various NGOs (GSDM, etc.) to exchange information on the progress of the project and the problems encountered, and the monitoring/reporting mechanisms in place for this appear to be working well as evidenced by the supporting documents attached to this report.

8. Lessons learnt

This year, due to the delay to project start which prevented nurseries from being established in time for the planting season, instead we engaged with partner GDV to undertake direct planting of seeds during the planting season in Q3/4. We have not used this approach before as survival rates are expected to be lower based on GDV's experience. However, currently the survival rates are promising (73%). They are expected to fall but we will continue to monitor this, and may revise project approaches to include a mix of seedlings and seed planting.

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

N/A

10. Other comments on progress not covered elsewhere

Whilst we have Alaotran gentle lemur (bandro) population estimates from the 2018 baseline survey (ground survey), we believe this will be an underestimate due to the density of the marsh which means counting was only be done on the population on the edge. We believe the bandro inside the marsh are in higher numbers, which is why surveys by drone were designed. The visit later in the year from our partners at LJMY (Liverpool John Moores University) will be critical in testing the drone IR method again and its viability for annual lemur surveys.

11. Sustainability and legacy

This project represents part of a larger programme of complementary conservation and rural development activities in Alaotra, to which Durrell is committed. Durrell's work in Alaotra began in 1990, leading to the designation of Lac Alaotra as a Protected Area in 2015 with Durrell as designated co-manager alongside ARS. Whilst Durrell anticipates working in Alaotra for a prolonged period, all our interventions are designed to find sustainable, locally applicable natural resource management solutions, the responsibility for which will ultimately fall to local management structures.

Durrell has recently successfully secured a new grant from Darwin for Capacity Building: *Realising the Durban Vision: Strengthening Madagascar's Protected Area management capacity*. This grant aims to build the Protected Area management capacity of professionals across Madagascar (60 to receive direct training over project period) along with long term mentoring. Whilst beneficiaries of the training have not yet been identified, this will play a vital role in building the capacity of the national PA management capacity, to be implemented far beyond the project period.

The Lead Farmer model is designed to embed climate smart agricultural skills within communities and have 'ambassadors' within our focal areas for climate smart approaches in the long term.

12. Darwin identity

This year (in Q4), we launched the project officially with our communities and partners with its own identity through a launch event (covered through Durrell Social media [here](#)), where this project was presented, with its title and the Darwin and UKAid logos were used throughout. Photos can be seen in the link above.

In general, the visibility of the financial support of Darwin and the British government, we put the logo of Darwin and UKAid on the attendance sheets of all Darwin activities (Patrol sheets, attendance sheets, UK government logo and Darwin as well as Durrell together on the VOI and fokontany desk). We also put these logos on the billboards in the communal areas of the FFS groups and roadside signs (as shown in Annex 4)

During the speeches of the local authorities, and the authorities at the district level during the opening and/or closing of the meeting at the level of the chief town of the commune and the villages, they are always thanked the British government and the NGO Darwin thanks financial support for grassroots communities.

13. Impact of COVID-19 on project delivery

Covid-19 had an impact on the project , primarily in the following ways:

- We have seen a change in people's response to general health issues. People are prioritising herbal medicines rather than seeking medical help through hospitals. This is of concern for the long term health of communities and their access to clinical medicine.
- In terms of Durrell's activities, we have continued to keep group sizes small for the safety of communities, partners and staff. Some of this includes no more than 15 people meeting at any one time – group meetings have been limited. Training has also been delivered to people planting in small groups (no more than 15 people).
- Staff members have been absent from their roles at various periods throughout the year. This has caused some project activities to be delayed or rescheduled at late notice. Where staff become ill, they are offered support for isolation and medical support where necessary;

- As mentioned in Section 14, we have also developed mechanisms for remote monitoring and support of community partners and activities where the team and partners are not able to visit.
- Over the course of the Covid-19 pandemic, Durrell Madagascar (and UK) have made a significant switch towards virtual meetings and this will be maintained. There are weekly calls between senior members of staff in Madagascar and UK, where project progress and any arising issues are discussed. Durrell's M&E officers in the UK and Madagascar have regular calls to discuss technical issues and operational issues around M&E, which has meant that an in-country visit has not been necessary to ensure that it is being carried out at the highest technical standards. Within Madagascar, where internet allows, remote project meetings take place between senior technical staff and field managers. However, there remains significant challenges with speed of internet and phone coverage and therefore field trips remain critical (and will do so in the future).

14. Safeguarding

Please tick this box if any safeguarding or human rights violations have occurred during this financial year.

If you have ticked the box, please ensure these are reported to ODA.safeguarding@defra.gov.uk as indicated in the T&Cs.

Durrell has updated the safeguarding policy, whistleblowing policy and Code of Conduct and this has been distributed to all staff. There have been no safeguarding concerns recorded during this project to date. Future concerns will be dealt with in accordance with our policies, and all concerns recorded on a register. Durrell will lead on this where the concern is for, or because of the actions of one of, our staff or project staff. The updated policies have also been provided to in-country partners. Where there is a concern relating to a staff member of one of our partners working on the project, Durrell will provide the safeguarding policy and request the partner organisation to respond according to our policy – and provide a written account to add to the register. Whilst Durrell supports community patrols and threat detection, we are not directly involved with law enforcement due to the delegated responsibilities in Madagascan Protected Areas.

In 2021 Durrell recruited a Human Resources Manager based in Antananarivo who is now responsible for overseeing the dissemination of all organisational policies to the team operating throughout Madagascar. In addition, Durrell has also hired a dedicated Global Safety and Risk Advisor (to commence in July 2022) who will be doing a complete review and update of all H&S policies and rolling out priority actions for the improvement of H&S for staff, partners and communities. A key part of their role will be updating safeguarding procedures and mechanisms to ensure they are contextually and culturally appropriate and rolling them out to all Durrell sites

15. Project expenditure

Table 1: Project expenditure during the reporting period (1 April 2021 – 31 March 2022)

Project spend (indicative) since last annual report	2021/22 Grant (£)	2021/22 Total Darwin Costs (£)	Variance %	Comments (please explain significant variances)
Staff costs (see below)	■	■	■	
Consultancy costs	■	■		
Overhead Costs	■	■	■	
Travel and subsistence	■	■	■	

Operating Costs	█	█	█	
Capital items (see below)	█	█	█	
Monitoring & Evaluation (M&E)	█	█	█	
Others (see below)	█ £	█	█	Reduced numbers of combined patrols this year so fewer patrol allowances paid
TOTAL	█	█		

Highlight any agreed changes to the budget and **fully** explain any variation in expenditure where this is +/- 10% of the budget. Have these changes been discussed with and approved by Darwin?

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.	
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 should not submit every project document, but the main outputs and a selection of the others would strengthen the report.	
Do you have hard copies of material you need 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. However, we would expect that most material will now be electronic.	
Have you involved your partners in preparation of the report and named the main contributors	
Have you completed the Project Expenditure table fully?	
Do not include claim forms or other communications with this report.	