Darwin Initiative Main: Annual Report

To be completed with reference to the "Project Reporting Information Note":
(https://www.darwininitiative.org.uk/resources/information-notes/)

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

Submission Deadline: 30th April 2024

Submit to: BCF-Reports@niras.com including your project ref in the subject line

Darwin Initiative Project Information

Project reference	29-015
Project title	Valorising Malagasy protected areas as seed sources for forest restoration
Country/ies	Madagascar
Lead Partner	Missouri Botanical Garden
Project partner(s)	
Darwin Initiative grant value	£167,232
Start/end dates of project	01/06/2022 – 31/03/2025
Reporting period (e.g. Apr 2023 – Mar 2024) and number (e.g. Annual Report 1, 2, 3)	01/4/2023 – 31/3/2024 (Annual Report 2)
Project Leader name	Chris Birkinshaw
Project website/blog/social media	https://mobot.mg/conservation/analavelona-site/ @c_birkinshaw
Report author(s) and date	Chris Birkinshaw, Tefy Andriamihajarivo, Tabita Randrianarivony (30/04/24)

1. Project summary

Project summary

The conservation of Madagascar's remarkable biodiversity faces numerous challenges, including, importantly: the need for impoverished communities living close to protected areas to derive greater benefits from such reserves; and the lack of reliable supply chains for high quality seeds of native trees to enable such plants to contribute to the country's ambitious reforestation targets. We will work with parent-teacher associations (called FRAM) at local schools around the Analavelona protected area in SW Madagascar to develop lucrative supply chains for seeds of native trees: thereby addressing both these problems simultaneously. The income generated from the sale of seeds will help improve rural education and the seeds will contribute to reforestation efforts that seek to have a positive impact on biodiversity

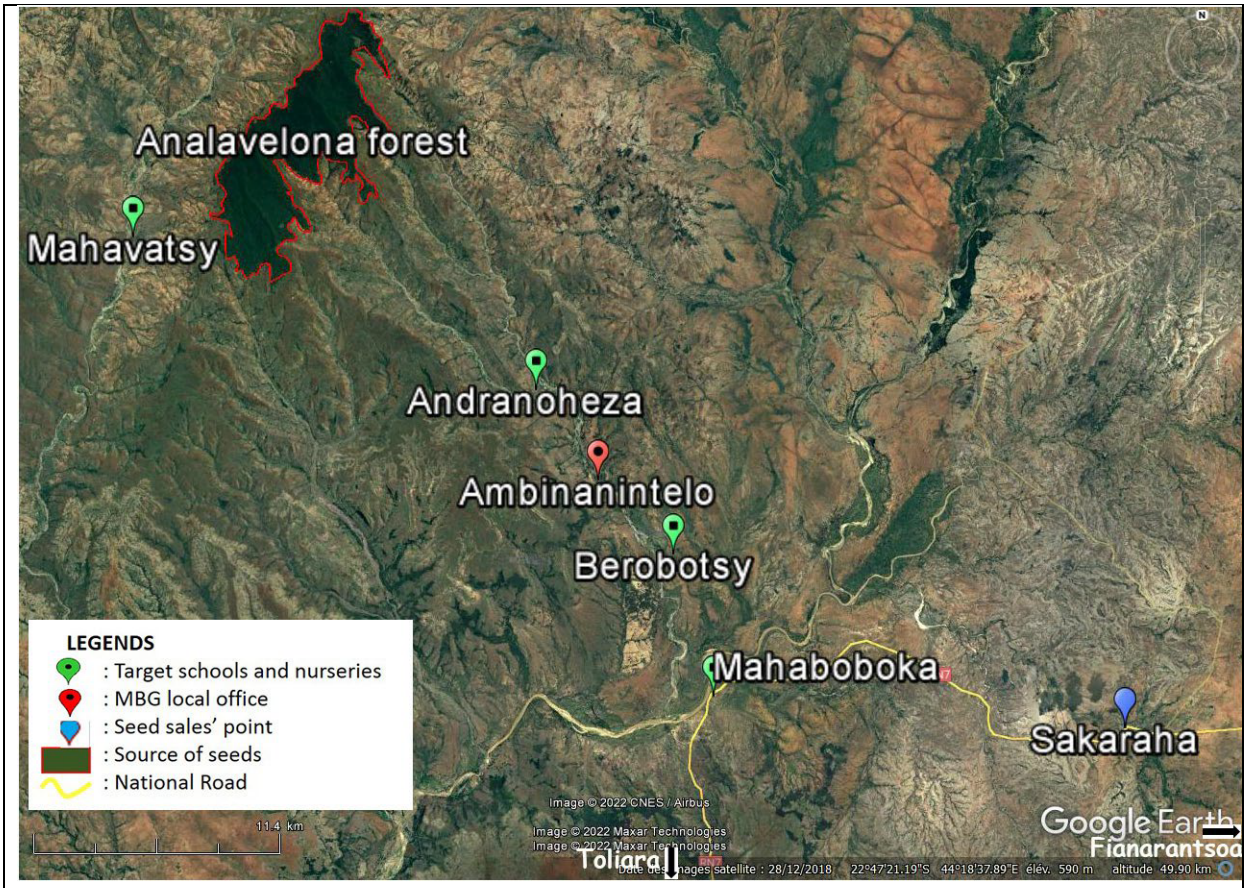

Figure 1. Location of the Analavelona Forest and locations mentioned in this report.

2. Project stakeholders/ partners

The main partners in this project are:

- the parents-teacher associations (Fikanbanany Ray Aman-dReny ny Mpianatra or FRAM) at the three target schools where we are working to support education;
- the Direction Régionale de l'Environnement et du Développement Durable (DREDD) Atsimo-Andrefana – Madagascar (Regional Representative of Ministre de l'Environnement et du Développement Durable or MEDD) (Evidence Activity 1.1); and
- the Silo National des Graines Forestières (SNGF) which is the national repository for seeds for forest trees (Evidence Activity 1.1).

At the three schools this project we have joined the FRAM to support 8 teachers (Evidence Output Indicator 1.1) and, in return, the parents contribute their labour to this project. Given the poverty in this area the labour is compensated (see Evidence Impact) but a condition of accessing this work is that the parents must send their children to school. Scanned images of the agreements between the local education authority (ZAP), the FRAM and MBG are provided in Evidence Activity 1.1.

We worked with DREED Atsimo-Andrefana to obtain a legal framework for the collection and sale of seeds. The first 12 month agreement finished in March 2024 and we are pleased to report that, following a review of our work, this has renewed for another 12 months (Evidence Output indicator 4.1)

Early in YR2 we discovered that to legally sell wild collected seeds in Madagascar, not only did we require the agreement of the DREDD but also that of the SNGF. Following protracted negotiations we were pleased to win the critically important support of this institution and sign a collaborative agreement (Evidence Activity 1.1). As part of this collaboration, our community

seed collectors have been trained in best practice by SNGF technicians who will also routinely conduct germination trials of samples of seeds that we collect to validate their quality.

3. Project progress

3.1 Progress in carrying out project Activities

Output 1. Improved education for children at three local schools that is understood by local people to be derived from the sale of seeds originating from the Analavelona Forest

1.1. Project Manager (PM) and Assistant Project Manager (APM) meeting with key stakeholders (FRAM, Mpanzaka and MEDD) to explain project, take feedback and conceive and sign collaborative agreements

In YR2 we reported on our first collecting agreement with DREDD and negotiated a new 12-year agreement. We also negotiated, and eventually signed, an agreement with the national seed bank (*Silo National des Graines Forestieres* or SNGF) for the first time (Evidence Activity 1.1). These two agreements provide the legal basis for our work to collect and sell seeds form wild trees.

1.2. PM and APM (and others) recruit teachers, seed collectors/rangers, and nurserywomen, with choice being validated by Mpanzaka

In YR2 there was some changes to the teachers, seed collectors and nursery staff that we support because some moved and had to be replaced. Currently we support 8 teachers, 12 seed collectors and 11 nurserywomen/men. These are listed in Evidence Activity 1.2.

1.3. APM organises meeting with FRAM members (in presence of Mpazaka and with his social framing) to develop a Manual of Procedures to promote good governance and then train and coach the committee of each FRAM in its use

Given the complexity of directing, managing and administering a legal seed collection business we have decided that this work needs to done a dedicated NGO, and hence the new NGO VIHY (which means “Seeds” in Bara dialect) was conceived, created and it is within this structure that we focused capacity building in YR2 (Evidence Activity 3.3).

1.4. APM (with audit by MBG’s Finance Officer) provides oversight for the receipt and use of funds received by FRAM from sale of seeds with annual restitution to parents

The funds received from the sale of seeds were retained in the VIHY bank account because we wanted that VIHY would be entirely legal before it began to use income. Hence there was no progress in Activity 1.4.

Output 2. High quality seeds of named and evaluated native tree species provided to reforestation projects

2.1. Research by PM and Project Director to identify 20 target tree species with attributes suggesting that potentially they could perform well when used to reforest degraded landscapes

This activity was completed in YR1, but in YR2, following additional observations in the field suggesting resilience in degraded conditions, two other species were added to the list of target species: *Stereospemum euphoriodes* and *Rhopalocarpus lucidus*.

2.2. Training of seed collectors/rangers x 12 and nurserywomen x 12

In YR2 no additional training was provided for the nursery staff, but the 12 seed collectors were trained in best practice for seed collection by two technicians from SNGF. Six MBG staff also attended this training. Photos from this training and the training report and provided in Evidence Activity 2.2.

2.3. Install of 3 nurseries (adjacent to partner schools) and provide equipment and material for seed collection and propagation of native trees (oversight by APM and inauguration of infrastructure by Mpanzaka)

During YR2 the three nurseries were maintained. There is one nursery at each of the following fokontany Mahabobaka, Mikobaka, and Andranoheza. Photographs of the nurseries are shown in Evidence Activity 2.3.

2.4. Coaching by APM of seed collection, seed preparation and storage, dispatch to Business Unit and the propagation of seedlings for trials

In YR3 the Assistant Project Manager, Patrice Antilahimena, worked full time to coach the nursery staff and seed collectors and facilitate their work.

2.5. Installation of trials (500 individuals per species under various conditions) by APM and FRAM members to monitor the performance of target tree species under various types of degraded conditions (including protection of trials with fire breaks with spiritual blessing of Mpanzaka)

During the brief wet season, trials of the performance of 15 different native woody plants out-planted in degraded conditions were conducted at three locations (Evidence Activity 2.5). In total 13,770 seedlings were out-planted. The microclimate at each site was monitored using a datalogger (a small device, like a USB stick, that is left on-site and automatically records temperature and relative humidity at intervals defined at set-up). The seedlings were plants propagated in the three nurseries.

2.6. Monitoring of trials by APM and seed collectors/rangers, analysis of results and sharing of species-specific outcomes on sales' website 2.7. Sampling and analysis to estimate wood density of target trees (this information is valuable to those seeking to sequester carbon

To date monitoring of 3-month species-specific survival and growth was conducted at just one of the three trial sites (Mahabobaka). This revealed high mortality due to the inundation of this zone during a period of very heavy rain combined with browsing by goats and trampling by cattle. The raw data for just one of the species planted at this site is shown in Evidence Activity 2.6.

Output 3. The creation of an effective self-sufficient business with capacity to continue operating the "community-based" seed supply chain, on a commercial basis, post-funding

3.1. With assistance of the association of Bara students "FIMPIBAMI", the PM and APM will identify and recruit business manager x 2 and administrator x 2 from graduates of University of Tulear

Completed in YR1.

3.2. The Project Director and PM will identify and recruit of two business mentors for the young staff of the Business Unit and with MBGs Finance Officer regularly review their progress

Given the complexity of the work required to legally collect and sell seeds of wild trees, we decided that the young entrepreneurs (Rado and Fabien) would have greatest chances of success if integrated within an NGO (VIHY) where they would be supported by an experienced board (Evidence Activity 3.2)

3.3. With oversight from the PM, the Business Unit will complete the process to be legally registered, and rent and equip a small office in the district capital Sakaraha from which they will work

In YR2 a major investment of time was required to legally create VIHY as the NGO that will manage this project and then to provide this organisation with the necessary management and governance tools including a bank account, interior rules, statutes, manual of procedures, and a safeguarding policy Consultants were engaged to complete some of this work including helping the VIHY team to develop a culturally appropriate safeguarding policy and training the team in its application. (Evidence Activity 3.3).

3.4. With support of mentors, MBG's Finance Officer, the Project Director, PM and APM, the Business Unit will conceive, create and maintain a webpage and other social media platforms as interfaces to share information about the project and the services available (i.e. services = knowledge of use of native trees and providing high-quality seeds of native trees), they will actively network to seek and engage potential clients, and manage resources to ensure that orders and payments are managed professionally (including payments to schools).

In YR2 a consult was engaged to create a new website dedicated to VIHY but with the aim of facilitating the purchase of seeds samples. This website can be accessed here: https://vihy.mg/. The VIHY team (7 people) were also trained in communication and marketing (Evidence Activity 3.4).

3.5. Annual audit of Business Unit

In YR2, given that the funds generated from seed sales remain untouched in the VIHY bank account, it was not necessary to invest in an audit.

Output 4. The managers of other protected areas in Madagascar are sufficiently aware of the methods and results of this model project that they can evaluate its relevance at the sites where they work

4.1. Project Director and PM organises workshop with representatives of MEDD and managers of Malagasy projected areas to launch project including sharing the website and social media tags where the progress of the project can be tracked

Completed in YR1.

4.2. PM maintains information flow concerning the project using social media and posts on website

In YR2, four social media posts were made (Evidence Activity 4.2)

4.3. Project Director and PM organises workshop with representatives of MEDD and managers of Malagasy projected areas to describe actual methodologies used by the project, issues arising, and outputs and outcomes.

Planned for YR3

4.4. From workshop described in 4.2., identify parties who are especially interested in this work and invite them to join an organised field trip to review the project

Planned for YR3

3.2 Progress towards project Outputs

Output 1. Improved education for children at three local schools that is understood by local people to be derived from the sale of seeds originating from the Analavelona Forest

1.1 By end of YR1 one additional high quality teacher installed at each of the three participating schools thereby improving the education of at least 400 children (57% female)

In YR2, we supported 8 teachers at 3 schools. These teachers taught a total of 219 students (45% female) (Evidence Output 1)

1.2. In each of YR2 and YR3 at least £500 income from sale of seeds received by the FRAM at each of the three participating schools and correctly used to support education

Currently seed sales equal 2,849,500 MGA (=£549). This sum is held in the VIHY bank account and will be used to support education in YR3 (Evidence Outcome O.4)

1.3. In YRs 2 and 3 pass rate at the "milestone" exam "BEPC" is 20% higher in the 3 participating schools compared to comparable non-participating schools

Exam results are only available from the Mahabobaka secondary school. Here the exam pass rates were 86% compared to 70% in the previous year. This is an improvement of 16% (Evidence Output 1.3).

1.4. In both YR2 and YR3 of project, 90% of parents report that they consider that the quality of education provided by the school has increased (compared to 2021-22) and attribute this improvement to the seed supply project.

In YR2 the results here were mixed. At Mahabobaka middle school, all the parents were pleased with the performance of the teachers that we support; at Andranoheza primary school, 7 out of a total of sample of 9 parents interviewed reported that they were pleased with the performance of "our" teachers while two complained that sometimes the teachers left early on Friday and returned late on Monday to go to town; while at Mikobaka all the parents complained about the teacher there being often absent. (Evidence Output 1.4).

Output 2. High quality seeds of named and evaluated native tree species provided to reforestation projects

2.1 In YR1 20 target species potentially performing well in reforestation endeavours are identified.

Two additional species, with high potential to survive and grow well in degraded habitats, were added to the list of target species in YR2.

2.2 By YR2 large seed samples (i.e. > 10,000 seeds) of high quality are collected and supplied for at least 12 target species, by YR3 large, high quality seed samples (i.e. > 30,000 seeds) collected and supplied for at least 15 target species.

In YR2 a total of 185 kg (containing more than 685,000 seeds) was collected from 14 of the target species. (Evidence Output 2.2)

2.3 By YR3 species-specific data-based "performance evaluations" available for 12 of the target species to help inform selection of species by potential buyers

In YR2 seedlings from 15 species were out-planted in trial plots located at 3 different locations (Evidence Activity 2.5). The results from these trials will be analysed in YR3 to provide performance evaluations.

Output 3. The creation of an effective self-sufficient business with capacity to continue operating the "community-based" seed supply chain, on a commercial basis, post-funding

3.2 In YR2 at least one business manager and one business accountant with the capacity to administer the business effectively with very little outside support

Given the complexity of the work to create a legally recognised business based on the community-based collection of seeds from wild native trees and the sale of these seeds to clients, with profits supporting local education, we decided it would be pragmatic to frame this work within a new NGO with this mission. This NGO is called VIHY, and all the documentation concerning its creation, management and governance is presented in Evidence Activity 3.3.

3.3 Progress towards the project Outcome

The Outcome for this project stated in the application was “A model project demonstrates that more people around Analavelona Forest value and cherish it, because of the educational benefits it generates by supplying native tree seeds to improve reforestation”

Five indicators of this outcome were provided of which three are relevant to YR2. These are as follows: .

0.1 Annually, during the project, the number of infractions in the PA due to local people falls by 10% over previous year thereby demonstrating their greater commitment to the conservation of the site.

There was a small fall in the number of infractions detected within the forest between 2022 (with 12 infractions) and 2023 (with 10 infractions).

0.3 Annually, during the project, local appreciation of protected area increases to attain asymptote in YR3 of 90% of local people saying they appreciate or very much appreciate the PA

In YR2 we completed the study of local perceptions of the MBG, the protected area and the project that is the subject of this report. This study should have been completed at the start of the project as a baseline. The approach used was semi-structured interviews of 32 project participants and 29 people who were not directly implicated in this project. The interviews were recorded suing a dictaphone and then transcribed. This work yielded a huge amount of information that has not yet been properly analysed. However, some initial findings are presented in the report presented in Evidence Outcome 3. In general it would seem that locals are aware that the traditional sacred status of the Analavelona forest has changed and is changing, and they are also appreciative of the interventions of MBG both to conserve the forest and to provide support for local livelihoods. More concerning perhaps is the perception that MBG now “owns” the forest and is responsible for managing it!

0.4 In YR2 seeds produced by project used by at least 5 national reforestation projects launching restoration with native trees over at least 75 hectares of degraded landscapes, increasing, in YR3, to at least 10 reforestation projects reforesting at least 150 hectares.

In YR2 seeds were sold to five different buyers but only two of these stated that they were using the seeds to produce seedlings for rehabilitation/restoration (Evidence Outcome 4). While these two projects were small scale (just a few hectares), we are hopeful that our relationship with PLAE will not just provide a lucrative market for our seeds but also an opportunity to integrate native tree species into a large scale and multi-site rehabilitation project (Evidence Activity 3.4)

3.4 Monitoring of assumptions

Assumption 1. Target landscapes and their human residents are not impacted by major social (e.g. insecurity, disease, arrival of large number of immigrants) or environmental calamities (e.g. drought).
Comments: Compared to YR1 of this project, in YR2, security, in terms of banditry, worsened, and while there were no major outbreaks of disease, little rain fell and harvests were poor. School attendance was negatively impacted by this situation as parents tasked their offspring to help with the household economy. It is difficult to know how to mitigate this situation: certainly school attendance would be much improved if meals could be provided for the students but the cost of such provision would be prohibitively high.

Assumption 2. With sufficient compensation high quality teachers are prepared to work in this remote part of the country.
Comments: This assumption has not been confirmed because some of the teachers we engaged take every opportunity to leave their remote schools and return to larger towns where with electricity and connectivity and where consequently their quality of life is better. It should be noted that two of the teachers who we supported in YR1 have been replaced for excessive absence from their work station.

Assumption 3. Some species of native tree species perform well in degraded habitats (i.e. where reforestation is required).
Comments: Certainly a number of native tree species grow well in degraded habitats. However, to be of value these species much also be easy to propagate, must tolerate being out-planted from a nursery into a harsh environment, must produce wood of some utility, and must grow quite quickly. As part of our work in YR2 we launched trials of the performance of

seedlings of a selection of the target species planted in degraded conditions. These experiments were only installed three months ago so it is largely premature to comment on the results. However, it is notable that, at one site, seedling mortality for all species was very high. Here the cause of death was flooding (the site was close to a water course) and trampling and grazing by livestock. The former of these threats is localised but the latter, is more widespread, and may often have a negative impact on reforestation in this landscape.

Assumption 4. Reforestation projects wish to use at least some native tree species (even if merely to compliment extremely tolerant eucalyptus trees)
Comments: Missouri Botanical Garden is in the fortunate position of hosting The Global Biodiversity Standard Hub in Madagascar (https://www.biodiversitystandard.org/), an initiative that is in receipt of a Darwin Extra Grant to Botanic Gardens Conservation International. As part of our work associated with this project we have become aware that a number of tree-planting projects are anxious to access seeds of native trees and are consequently ready to pay for this resource. Moreover, there are now strong signs that organisations in Madagascar involved in rehabilitation or restoration are attracted to TGBS certification, and if their applications are to be successful then they will need to plant at least some native tree species: thus TGBS will hopefully boost the market for seeds of native trees. Thus, we are optimistic that soon this assumption will be confirmed.

Assumption 5. Appropriate business mentors can be identified who are willing to invest their time and skills in developing business capacity local graduates in this remote part of Madagascar.
Comments: The closest significant town to Analavelona Forest is Sakaraha and it is here that the Business Unit will be established. Although this is the largest town in the area the only business that is flourishing here is trade in semi-precious stones: a business often associated with dubious practices. We judge that these business people would not make good mentors for the young entrepreneurs that we wish to nurture and would probably not engage appropriately with the concept of developing a value chain with benefits for the community. Therefore this assumption must be rejected and, as described in the YR1 annual report and alternative approach to mentoring was sought and has now been implemented. Specifically we have worked to create and legalise a new NGO called VIHY in which a board will guide are two entrepreneurs Rado and Fabien who constitute the executive team. This structure is presented on the VIHY website: https://vihy.mg/.

Assumption 6. Other protected area managers are as interested as ourselves in seeking to add value for local people of protected areas.
Comments: The effort required to obtain and maintain the legally-necessary collaborative relationships with DREDD and SNGF may constitute a barrier for others protected area managers to replicate our project at their site. However, optimistically, it could be that once those directing these two organisations are more familiar with this type of collaboration it may become easier for others to follow our lead.

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

The desired impact of this project, as stated in the application is “Some Malagasy protected areas provide immediate and tangible additional benefits to local people as sources of saleable seeds of native trees and are thus more appreciated and more secure.”

While it premature to claim that there is supportive evidence for this impact, we can at least demonstrate that: a) in general, the work of MBG in managing this protected area and providing livelihood support for the local community, is appreciated (Evidence Outcome 3); b) that the local community are gaining significant income from this project (Evidence Impact); and c) revenue is being generated from the sale of seeds (Evidence Outcome 4). However, to date, the conservation status of the protected area is best described as stable rather than improving (Evidence Impact).

4. Project support to the Conventions, Treaties or Agreements

CBD

This project is contributing to the CBD by reducing degradation and relieving human pressures on a very rare and threatened vegetation type (Malagasy western sub-humid forest) that is the habitat for a diverse and threatened fauna and flora. Specifically in 2023, despite frequent fires occurring in the landscape, the firebreaks that were installed as part of this project prevented these from entering the forest (Evidence Impact)

NBSAP

To date it is possible to claim a contribution only to Goal D of this Action Plan ("Enhance the benefits withdrawn to all from biodiversity and the services provided by ecosystems") due to the benefits associated with the extra compensated employment created by the project (Evidence Impact) and because of the support for education (teachers) in local schools (Evidence Output Indicator 1.1). While a total of £549 has been generated from the sale of seeds none of these funds have yet been used

UNFCCC

To date the project has sold seeds of native trees to 5 different buyers (Evidence Outcome 4). These are now being propagated and during the next wet season (starting in January) will contribute to reforestation efforts at multiple sites.

SDGs

(Goals 1/2) by providing paid employment (for 31 local people + 60 day labourers); (Goals 4/5/10) by supporting improved education for 219 children; (Goal 15) by conserving the Analavelona Reserve by threat reduction; and (Goal 17) by investing in diverse partnerships (rural people leading traditional lives, local Kings (Mpanzaka) university graduates, donors, and representatives of various state institutions).

5. Project support for multidimensional poverty reduction

The communities living around the Analavelona Sacred Forest protected area are among the poorest in Madagascar. With security compromised, annual climate unpredictable, access difficult and largely forgotten by the State and development organisations, life is hard and short. In YR2 this project contributed to poverty relief in four main ways

- By providing employment – a total of £15,194 of payments were made to the local community in return for the services they provide in collecting seeds, propagating seedlings, out-planting the seedlings and creating firebreaks to protect the forest (Evidence Impact)
- By improving access to education – we supported eight teachers at 3 different schools (Evidence Output 1). However, as reported elsewhere, the impact of this intervention was compromised for two of the schools because of frequent absences of some teachers. At the third school (the CEG at Mahabobaka) the three teachers that we support worked very well indeed as can be seen by their planning for lessons and exams shown in Evidence Output 1.1.
- By building capacity – by coaching 11 nursery staff and coaching and training 12 seed collectors (Evidence Activity 1.2)
- By conserving the Analavelona Forest (Evidence Impact) which is an important watershed and origin of many water sources that irrigate thousands of hectares of rice fields downstream. The contribution to local (and indeed regional) lives and livelihoods is certainly more important than the other types of contribution listed above but it is difficult to evaluate.

To date, seed sales have yielded £549. Currently these funds are destined to support education and are being held in the VIHY bank account (Evidence Outcome 4). However, until we are convinced that the teachers are working well these funds will not be mobilised.

6. Gender Equality and Social Inclusion (GESI)

Please quantify the proportion of women on the Project Board[1].	50% (VIHY)
Please quantify the proportion of project partners that are led by women, or which have a senior leadership team consisting of at least 50% women[2].	50% (Director DREDD = Male, Director SNGF = female)

GESI Scale	Description	Put X where you think your project is on the scale
Not yet sensitive	The GESI context may have been considered but the project isn't quite meeting the requirements of a 'sensitive' approach	
Sensitive	The GESI context has been considered and project activities take this into account in their design and implementation. The project addresses basic needs and vulnerabilities of women and marginalised groups and the project will not contribute to or create further inequalities.	X
Empowering	The project has all the characteristics of a 'sensitive' approach whilst also increasing equal access to assets, resources and capabilities for women and marginalised groups	
Transformative	The project has all the characteristics of an 'empowering' approach whilst also addressing unequal power relationships and seeking institutional and societal change	

On the GESI Scale we judge the project may be considered "Sensitive" because all employment opportunities have been explicitly offered equally to both genders or, in the case of the nursery staff, with positive discrimination to women. However, we acknowledge that despite this approach, overall, more employment (and more total compensation) was given to men than women. This result was due to two main factors: a) the best candidates for some posts were men; b) some posts did not attract female candidates. Concerning the latter, this was observed for the post of seed collectors which likely was unattractive to women because of security concerns of being a female and working away from the proactive embrace of the village. Here then GESI collides with Safeguarding/Health and Safety: in the current social context, women cannot have access to this employment because it would not be safe for them to do this work.

Apart from the employment opportunities, we encouraged the equitable participation of women in the meetings of FRAM. Although society here is distinctly patriarchal, we noted that at least within the sphere of children's education, women are not reticent in making their views known.

[1] A Project Board has overall authority for the project, is accountable for its success or failure, and supports the senior project manager to successfully deliver the project.

[2] Partners that have formal governance role in the project, and a formal relationship with the project that may involve staff costs and/or budget management responsibilities.

7. Monitoring and evaluation

In YR2, as previously, monitoring was generally conducted by those responsible for implementing an activity. However, in addition, a special study concerning local perceptions was supported. Concerning the former, the quality of the data was mixed depending on the person responsible for the work, and sometimes the results were not collected reliably and in a standardised manner. On reflection the leaders of this project should have provided more over-sight to this activity. In reality, as a DI project, pertinent information from a substantial number of diverse indicators is required, and it is challenging to keep all of these in mind. It is evident that a clear formal monitoring plan is required, that a standardised data collection interface would be beneficial and that a member of the team is required to ensure that monitoring protocols are respected. We will make these changes in YR3.

Concerning the special study on local perceptions. Although not given much prominence in this report (because the data has yet to be formally analysed), this research is significant in that it constitutes one of the very few such studies conducted in Madagascar. The insights that it provides are as many as they are relevant, and we anticipate spending whatever time is necessary (and it will be significant) to analyse and share this data.

8. Lessons learnt

Many aspect of this project are going well including: the creation and legalisation of the new NGO VIHY, the development of collaborations with DREDD and SNGF to allow the legal sale of wild-collected native tree seeds, the effective collection of high quality seed samples, and the identification of markets for these seeds, but one important aspect of this project is not going so well: the provision of improved education at rural schools. The crux of the problem is that competent teachers, while needing the pay, do not want to work in remote schools – and consequently, some are frequently absent. This is not a new nor isolated problem but one that is long-standing and that resonates the length and breadth of rural Madagascar. It is the reason why rural families, throughout the country, wishing to educate their children are forced to send them to towns where some education can be accessed. Hence we should have anticipated the high frequency of absence among some of the teachers that we support, and applied rigorous monitoring accordingly. However, we did not do this and must, belatedly, start now. Specifically, we will request the President of the FRAM at each of the schools where we support education, to daily monitor teacher presence, and we will be prepared to dismiss teachers who are absent without good reason.

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

Not applicable

10. Risk Management

Risk 1: New graduates in business recruited by this project will have endured considerable hardships during their study and therefore may be tempted to use project funds for personal gain with consequent loss of resources for project activities and causing erosion of trust among project participants and the donor. *Actual Mitigation in YR2: the "Business Unit" proposed in the application has been transformed into a NGO VIHY in which the young local entrepreneurs constitute the executive team who work under the scrutiny of the Board (Evidence Activity 3.3).* **Occurrence in YR2: Absent**

Risk 2: Opportunities to access paid employment with fair compensation are rare here therefore those selecting among candidates for posts may seek favours for access. Corruption of this type would compromise the integrity of the project and its potential to promote ethical best practice within the community. *Actual Mitigation in YR3: A consult was hired to help VIHY to develop a Safeguarding Policy and then train project staff in its application (Evidence Activity 3.3)* **Occurrence in YR2: Absent**

Risk 3: To be successful in the long-term this project requires that seeds collected locally are purchased by organisations supporting reforestation endeavours. If such markets cannot be accessed then the value chain will not exist and the project will fail. *Actual Mitigation in YR3:*

clients were sought by active outreach (bulk mailing of potential interested parties; attending events, and networking) as well as more passive approaches including the development of a web-site (https://vihy.mg/) and a facebook page. **Occurrence in YR2: we were concerned that this is a real and active risk because, during much of YR2, despite our efforts, the buyers we identified needed only small seed samples however, latterly we have begun a relationship with the staff of the KfW-funded Programme de Lutte Anti-Érosive (PLAE) PLAE, who potentially need large quantities of seeds for their ambitious reforestation work.**

Risk 4: Some tree species at Analavelona are very rare. If large numbers of seeds of these species were collected then their potential to regenerate might be reduced impacting he future survival of the species. Such an outcome would be in conflict with both MBG's and Darwin Initiative's mission. *Actual Mitigation in YR3: we have focused on collecting seeds of woody plant species that prosper in degraded conditions and as such they are not rare – hence this risk is not an issue*. **Occurrence in YR2: Absent.**

Risk 5: Currently two species of eucalyptus are used for nearly all reforestation work in Madagascar because they survive and grow well in degraded landscapes. Directors of reforestation projects are not likely to replace eucalyptus with native trees if the latter perform very poorly. No seed purchasers = no project. *Actual Mitigation in YR3: we have pursued our original strategy of focusing our seed collection efforts on woody plant species that grow well in degraded conditions in the hope that these, while not matching the remnarkable performance of eucalyptus, may still present as a reasonable alternative.* **Occurrence in YR2: Absent (but, this could still be an issue if the initial goodwill of organisations in endeavouring to use native trees for reforestation is frustrated by critically poor performance of the native species).**

Risk 6: Annual precipitation in the south west of Madagascar (where Analavelona is located) is notably variable and periods of drought may impact the availability of seeds. Also in this isolated part of Madagascar social conflict, often triggered by theft of cattle, may cause conflict between different villages implicated in the project. *Actual Mitigation in YR2: banditry and conflict between villages were elevated (probably related to poor rainfall and consequent poor harvests) meaning that our team avoided travelling at night and following the same routine (e.g. paying salaries on a specific day); and poor rainfall may have reduce the availability of seeds (although latterly more seeds have become available).* **Occurrence in YR2: present with some modest impact on the project.**

10. Sustainability and legacy

The idea on which this project is founded seems simple, reasonable and intuitive: improve livelihoods for local stakeholders who host Malagasy protected areas by using these sites as a source of seeds of native trees for sale to reforestation projects. However, this initiative is innovative for Madagascar and thus risky. The project could have been strangled before birth either by the vested interests within the Malagasy Government or by a flawed business model. However, now, at the end of YR2 we are delighted that we have found a way to work with the Government to implement this project and also have greater confidence that the market of seeds of native trees exists and can be accessed. If we can retain Government support and if significant markets materialise, and if VIHY is well governed and well managed, then this project has a good chance of being sustainable. If this outcome can be achieved then this project will provide a rare example of how Malagasy protected areas can provide sustainable and obvious tangible benefits for the local community. As such it will attract a lot of interest from conservation and development organisations. To date this interest is muted because, unsure of the legal status of our seed collection work, we have kept a low profile. Now, with VIHY legalised and with all necessary agreements in place for the legal collection and sale of seeds from wild trees, we can begin publicising our work with gusto.

11. Darwin Initiative identity

We have publicised this award and the associated project by:

a) using the DI logo to signpost the three project' nurseries and equipment purchased with DI funds
b) tweeted about project progress (Evidence Activity 4.1);
c) created a project website (https://vihy.mg/);

12. Safeguarding

Has your Safeguarding Policy been updated in the past 12 months?	Yes (in YR2 we invested in a consultant who worked with the VIHY team to develop a culturally appropriate safeguarding policy and a workplan for implementing this policy.
Have any concerns been reported in the past 12 months	No
Does your project have a Safeguarding focal point?	Yes
Has the focal point attended any formal training in the last 12 months?	Yes
What proportion (and number) of project staff have received formal training on Safeguarding?	Past: 100% [7] Planned: 100% [7]
Has there been any lessons learnt or challenges on Safeguarding in the past 12 months? Please ensure no sensitive data is included within responses. None	
Does the project have any developments or activities planned around Safeguarding in the coming 12 months? If so please specify. Following the work completed at the end of YR2, VIHY now has a pragmatic but effective Safeguarding policy. In YR3 this will be implemented.	
Please describe any community sensitisation that has taken place over the past 12 months; include topics covered and number of participants. None.	
Have there been any concerns around Health, Safety and Security of your project over the past year? If yes, please outline how this was resolved. In YR2, security seemed to deteriorate in the villages surrounding the Analavelona Forest. In general the insecurity came in the form of tit-for-tat cattle rustling between the men of different villages. If perpetrators of cattle theft are caught by the owners (and their friends and family) then violent and sometimes deadly retribution is dispensed. Cattle-rustling is long standing feature of society in this part of Madagascar, and our staff at Analavelona take it in their stride. To date, they have never been a direct or indirect victim of this activity, but nevertheless they take the precautions of travelling only during the day and paying salaries only in the town of Mahabobaka where the forces of law and order are present.	

13. Project expenditure

Table 1: Project expenditure during the reporting period (1 April 2023 – 31 March 2024)

Project spend (indicative) since last Annual Report	2023/24 Grant (£)	2023/24 Total Darwin Costs (£)	Variance %	Comments (please explain significant variances)
Staff costs (see below)	[redacted]			
Consultancy costs				We over-estimated reasonable compensation for day labour in the original application (we could pay more but it would be difficult to maintain exaggerated compensation post project)
Overhead Costs				
Travel and subsistence				
Operating Costs				Funds saved by using a bank at the nearby town of Sakaraha rather than at the more distant Tulear.
Capital items (see below)				
Others (see below)				
TOTAL	**67,048.5**	**58,740.26**		

Table 2: Project mobilised or matched funding during the reporting period (1 April 2023 – 31 March 2024)

	Secured to date	Expected by end of project	Sources
Matched funding leveraged by the partners to deliver the project (£)	£6000 (0.5 months salary per year for Chris Birkinshaw to direct the project)	[redacted]	Missouri Botanical Garden
Total additional finance mobilised for new activities occurring outside of the project, building on evidence, best practices and the project (£)	£50,000 + £4000 (for general conservation management at Analavelona)		Missouri Botanical Garden + Conservation Allies

11. Other comments on progress not covered elsewhere

In YR1 of this project, because we were seeking to recruit young entrepreneurs, we had some interactions with students at Tulear University. Through this exchange we became aware of an association called the *Plateforme des Cadres Musulmans de Madagascar* (PCMM). During YR2, we worked with the President of this association to conceive and submit a funding application for agroforestry around Analavelona that was submitted to the Critical Ecosystem Partnership Fund (CEPF). The proposal was not retained, in main part, because this association lacked a Manual of Procedures and Safeguarding policies. Hence, when the consultant worked with VIHY to develop these documents for them, we also invited 3 members of PCMM to participate so they could start the process of developing their own. We were pleased to support this grassroots association, at almost no cost, to develop their capacity and hence improve their ability to raise funds in the future.

12. OPTIONAL: Outstanding achievements or progress of your project so far (300-400 words maximum). This section may be used for publicity purposes.

I agree for the Biodiversity Challenge Funds to edit and use the following for various promotional purposes (please leave this line in to indicate your agreement to use any material you provide here).

File Type (Image / Video / Graphic)	File Name or File Location	Caption including description, country and credit	Social media accounts and websites to be tagged (leave blank if none)	Consent of subjects received (delete as necessary)
				Yes / No
				Yes / No
				Yes / No
				Yes / No
				Yes / No

Annex 1: Report of progress and achievements against logframe for Financial Year 2023-2024

Project summary	SMART Indicators	Progress and Achievements April 2022 - March 2023	Actions required/planned for next period
Impact Some Malagasy protected areas provide immediate and tangible additional benefits to local people as sources of saleable seeds of native trees and are thus more appreciated and more secure.		Contribution to local livelihoods: 219 students benefitting from access to teachers and 31 people gaining access to compensated employment and 60 people benefiting from compensation as day labourers (£15,194)	[redacted]
Outcome A model project demonstrates that more people around Analavelona Forest value and cherish it, because of the educational benefits it generates by supplying native tree seeds to improve reforestation.	0.1 Annually, during the project, the number of infractions in the PA due to local people falls by 10% over previous year thereby demonstrating their greater commitment to the conservation of the site 0.2 By YR3 estimated abundance of two key threatened diurnal lemur species in PA increase by at least 5% over current baseline (*Propithecus verreauxi* = 14 individuals/km²; *Eulemur rufifrons* = 49 individuals/km²) thereby demonstrating a reduction of lemur hunting in the site 0.3 Annually, during the project, local appreciation of protected area increases to attain asymptote in YR3 of 90% of local people saying they appreciate or very much appreciate the PA	0.1 The frequency of infractions within the PA was diminished in 2023 compared to 2022: area of forest burnt (2022/2023 = 45 ha/ 12 ha); number of lemurs hunted (2021/2022 = 0/0); number of trees cut (2022 = 25/6) (Evidence Impact) 0.2 The work required to provide this indicator is too time-consuming to complete annually and therefore this monitoring will be completed for the final year of the project only. 0.3 This survey has been completed but the data has not been fully analysed. 0.4 Not applicable for YR1 0.5 Not applicable for YR1	

	0.4 In YR2 seeds produced by project used by at least 5 national reforestation projects launching restoration with native trees over at least 75 hectares of degraded landscapes, increasing, in YR3, to at least 10 reforestation projects reforesting at least 150 hectares. 0.5 At the end of YR3, managers of at least three other protected areas state that they will integrate work to develop lucrative seed supply chains into their work plans		
Output 1. Improved education for children at three local schools that is understood by local people to be derived from the sale of seeds originating from the Analavelona Forest	1.1 By end of YR1 one additional high quality teacher installed at each of the three participating schools thereby improving the education of at least 400 children (57% female) 1.2. In each of YR2 and YR3 at least £500 income from sale of seeds received by the FRAM at each of the three participating schools and correctly used to support education 1.3. In YRs 2 and 3 pass rate at the "milestone" exam "BEPC" is 20% higher in the 3 participating schools compared to comparable non-participating schools 1.4. In both YR2 and YR3 of project, 90% of parents report that	1.1. 8 teachers are being supported at three schools, in total 219 students benefit from their presence (Evidence Output 1.1) 1.2. £556 was generated from the sale of seeds but this sum is still being held in the VIHY bank account 1.3. Data available from the Mahabobaka secondary school only where the student pass rate increased from 70% in school year 2022-2023 to 86% in 2023-2024 (Evidence Output 1.3)) 1.4. Parent's appreciation of the teachers supported by this project varied between the three schools: at Mahabobaka 100% of parents were appreciative, at Andranoheza 77% were appreciative (the others noted absences), while at Mikobaka 100% of the parents were dissatisfied due to the very frequent absences of the teacher at this site. (Evidence Output 1.4)	

	they consider that the quality of education provided by the school has increased (compared to 2021-22) and attribute this improvement to the seed supply project.		
Activity 1.1 Project Manager (PM) and Assistant Project Manager (APM) meeting with key stakeholders (FRAM, Mpanzaka and MEDD) to explain project, take feedback and conceive and sign collaborative agreements		Agreements signed with a) FRAM at three schools (in YR1); b) SNGF and DREDD (renewed) (Evidence Activity 1.1); c) District education authority (Evidence Activity 1.1).	Renew agreements as necessary
Activity 1.2. PM and APM (and others) recruit of new teachers/local animators x 3, seed collectors/rangers x 12 and nurserywomen x 12, with choice being validated by Mpanzaka		Completed: 8 teachers recruited and support maintained in YR2 (Evidence Output Indicator 1.1); 12 seed collectors recruited and maintained (Evidence Activity 1.2); 11 nursery women/men recruited and maintained (Evidence Activity 1.2)	Monitor performance, provide encouragement and coaching. Dismiss teachers who are frequently absent without explanation.
Activity 1.3. APM organises meeting with FRAM members (in presence of Mpazaka and with his social framing) to develop a Manual of Procedures to promote good governance and then train and coach the committee of each FRAM in its use		Not completed because the complexity of the project suggested that it would be better to create a NGO to manage the work and administer income. Documentation concerning the creation of VIHY are shown in Evidence Activity 3.3.	Continue to strengthen VIHY as the interface for the sale of wild-collected seeds and the use of funds received to improve local education.
Activity 1.4. APM (with audit by MBG's Finance Officer) provides oversight for the receipt and use of funds received by FRAM from sale of seeds with annual restitution to parents		Not completed because currently there are no funds to manage,	Implement activity when seed sales starts to generate income
Output 2. High quality seeds of named and evaluated native tree species provided to reforestation projects	2.1 In YR1 20 target species potentially performing well in reforestation endeavours are identified 2.2 By YR2 large seed samples (i.e. > 10,000 seeds) of high quality are	2.1. Two additional target species were added to the list of native3 woody plants potentially useful for rehabilitation and restoration. 2.2. Samples of seeds (a total of 184 kg) have been collected for 14 species (Evidence Output Indicator 2.2) 2.3. YR3 only	

	collected and supplied for at least 12 target species, by YR3 large, high quality seed samples (i.e. > 30,000 seeds) collected and supplied for at least 15 target species 2.3 By YR3 species-specific data-based "performance evaluations" available for 12 of the target species to help inform selection of species by potential buyers		
Activity 2.1. Research by PM and Project Director to identify 20 target tree species with attributes suggesting that potentially they could perform well when used to reforest degraded landscapes		Completed in YR1 but two additional species added in YR2.	Possibly add additional promising species or perhaps respond to special requests from buyers.
Activity 2.2. Training of seed collectors/rangers x 12 and nurserywomen x 12		Completed in YR1, but additional training provided to the seed collectors in YR2 by the technicians from SNGF (Evidence Activity 2.2).	Ongoing motivation and coaching. .
Activity 2.3. Install of 3 nurseries (adjacent to partner schools) and provide equipment and material for seed collection and propagation of native trees (oversight by APM and inauguration of infrastructure by Mpanzaka)		Completed in YR 1 but the nurseries were maintained in YR2 (Evidence Activity 2.3)	Maintain infrastructure
Activity 2.4. Coaching by APM of seed collection, seed preparation and storage, dispatch to Business Unit and the propagation of seedlings for trials		On-going: Patrice Antilahimena remains on site and works with the seed collectors on a daily basis	Continue coaching
Activity 2.5. Installation of trials (500 individuals per species under various conditions) by APM and FRAM members to monitor the performance of target tree species under various types of degraded conditions (including protection of trials with fire breaks with spiritual blessing of Mpanzaka)		Completed: trails installed at three locations in January 2024 (Evidence Activity 2.5).	
Activity 2.6. Monitoring of trials by APM and seed collectors/rangers, analysis of results and sharing of species-specific outcomes on sales' website		On-going: one trial monitored after 3 months (Evidence Activity 2.6)	Continue monitoring

Activity 2.7. Sampling and analysis to estimate wood density of target trees (this information is valuable to those seeking to sequester carb		Completed (for report see here: https://vihy.mg/uvihy/2024/04/Wood-density-report1.pdf)	Share data with potential buyers
Output 3. The creation of an effective self-sufficient business with capacity to continue operating the "community-based" seed supply chain, on a commercial basis, post-funding	3.1 In YR1 two young Malagasy business managers and two young Malagasy business accountants with desirable attributes (as identified by mentors) are recruited 3.2 In YR2 at least one business manager and one business accountant with the capacity to administer the business effectively with very little outside support 3.3 In YR3 income generated from project sufficient to cover 50% of project expenditure	3.1. Two business entrepreneurs were recruited in YR1 3.2. Capacity building within the context of VIHY shown in Evidence Activity 3.3 3.3. YR3 only	
Activity 3.1. With assistance of the association of Bara students "FIMPIBAMI", the PM and APM will identify and recruit business manager x 2 and administrator x 2 from graduates of University of Tulear		Completed in YR1	Continue to support the two business entrepreneurs
Activity 3.2. The Project Director and PM will identify and recruit of two business mentors for the young staff of the Business Unit and with		Support for the young entrepreneurs is now being provided by the Board of VIHY (see https://vihy.mg/)	Continue to support the functioning of VIHY
3.3. With oversight from the PM, the Business Unit will complete the process to be legally registered, and rent and equip a small office in the district capital Sakaraha from which they will work		Completed in YR1	
3.4. With support of mentors, MBG's Finance Officer, the Project Director, PM and APM, the Business Unit will conceive, create and maintain a webpage and other social media platforms as interfaces to share information about the project and the services available (i.e. services = knowledge of use of native trees and providing high-quality seeds of native trees), they will actively network to seek and engage potential		In progress: improved dedicated website active, VIHY team successfully engaging with clients (Evidence Outcome 4 and Activity 3.4)	Website elaborated further to better accommodate sales.

clients, and manage resources to ensure that orders and payments are managed professionally (including payments to schools).			
3.5. Annual audit of Business Unit		Not completed in because funds from sale of seeds have not yet been used.	Audit in YR3
Output 4. The managers of other protected areas in Madagascar are sufficiently aware of the methods and results of this model project that they can evaluate its relevance at the sites where they work	4.1. By end of YR1,representatives of the Ministry of the Environment and Sustainable Development (MEDD) and at least some of the management staff associated with 30 Malagasy projected areas are aware of the project, interested in how it proceeds, and aware of the social media sites and website where updates will be posted. 4.2. By end of YR3 representatives of the Ministry of the Environment and Sustainable Development and at least some of the management staff associated with 30 Malagasy protected areas are aware of issues arising during the implementation of the project and can evaluate its results on the basis of quantified information of inputs, outputs and outcome.	4.1. Malagasy government aware of project and now pleased to validate its work (see MoU with DREDD and SNGF in Evidence Activity 1.1) and 4 tweets made concerning the work (Evidence Activity 4.2) 4.2. YR3 only.	
4.1. Project Director and PM organises workshop with representatives of MEDD and managers of Malagasy projected areas to launch project including sharing the website and social media tags where the progress of the project can be tracked		See indicator 4.1 above	In YR3 present project at two more workshops including protected area managers.
4.2. PM maintains information flow concerning the project using social media and posts on website		Improved website conceived and activated (see https://vihy.mg/). Four tweets were made about the project (Evidence Activity 4.1)	Improve website. Continue social media communication

4.3. Project Director and PM organises workshop with representatives of MEDD and managers of Malagasy projected areas to describe actual methodologies used by the project, issues arising, and outputs and outcomes.	No progress	Implement in YR3
4.4. From workshop described in 4.2., identify parties who are especially interested in this work and invite them to join an organised field trip to review the project.	No progress	Implement in YR3.

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: Some Malagasy protected areas provide immediate and tangible additional benefits to local people as sources of saleable seeds of native trees and are thus more appreciated and more secure.			
Outcome: A model project demonstrates that more people around Analavelona Forest value and cherish it, because of the educational benefits it generates by supplying native tree seeds to improve reforestation.	0.1 Annually, during the project, the number of infractions in the PA due to local people falls by 10% over previous year thereby demonstrating their greater commitment to the conservation of the site 0.2 By YR3 estimated abundance of two key threatened diurnal lemur species in PA increase by at least 5% over current baseline (*Propithecus verreauxi* = 14 individuals/km²; *Eulemur rufifrons* = 49 individuals/km²) thereby demonstrating a reduction of lemur hunting in the site 0.3 Annually, during the project, local appreciation of protected area increases to attain asymptote in YR3 of 90% of local people saying they appreciate or very much appreciate the PA 0.4 In YR2 seeds produced by project used by at least 5 national reforestation projects	0.1 Analysis of patrol logs of seed collectors/rangers by Assistant Project Manager (APM) to provide a estimate of average number of infractions encountered per day of patrol 0.2 Trimestral counts of indicator lemur species along replicated transects by APM (analysed by Project Director) 0.3 Market day questionnaires every 3 months of a random sample of people in participating villages by Project' teachers 0.4 Analysis of sales accounts by Project Manager (PM) 0.5 Written statements of managers from other protected areas showing their commitment (or not) to integrate the development of a seed supply chain benefiting local communities into their work plans.	Target landscapes and their human residents are not impacted by major social (e.g. insecurity, disease, arrival of large number of immigrants) or environmental calamities (e.g. drought).

	launching restoration with native trees over at least 75 hectares of degraded landscapes, increasing, in YR3, to at least 10 reforestation projects reforesting at least 150 hectares. 0.5 At the end of YR3, managers of at least three other protected areas state that they will integrate work to develop lucrative seed supply chains into their work plans		
Outputs: **1**. Improved education for children at three local schools that is understood by local people to be derived from the sale of seeds originating from the Analavelona Forest	1.1 By end of YR1 one additional high quality teacher installed at each of the three participating schools thereby improving the education of at least 400 children (57% female) 1.2. In each of YR2 and YR3 at least £500 income from sale of seeds received by the FRAM at each of the three participating schools and correctly used to support education 1.3. In YRs 2 and 3 pass rate at the "milestone" exam "BEPC" is 20% higher in the 3 participating schools compared to comparable non-participating schools 1.4. In both YR2 and YR3 of project, 90% of parents report	1.1 Report from local education authority (ZAP) listing "project" teachers and evaluating their performance, and providing a list of the children attending the target schools desegregated by gender (analysed by Project Manager). 1.2 Financial reports showing the funding received by the FRAM of each school and the approved expense reports submitted by FRAM showing how the funds were used (received from Business Management Unit, audited by MBG's Head of Finance) 1.3. Official bulletin of exam results (analysed by Project Manager).	With sufficient compensation high quality teachers are prepared to work in this remote part of the country.

	that they consider that the quality of education provided by the school has increased (compared to 2021-22) and attribute this improvement to the seed supply project.	1.4. Survey of attitudes and opinions parents conducted by Assistant Project Manager following protocols proposed by experienced sociologist.	
2. High quality seeds of named and evaluated native tree species provided to reforestation projects	2.1 In YR1 20 target species potentially performing well in reforestation endeavours are identified 2.2 By YR2 large seed samples (i.e. > 10,000 seeds) of high quality are collected and supplied for at least 12 target species, by YR3 large, high quality seed samples (i.e. > 30,000 seeds) collected and supplied for at least 15 target species 2.3 By YR3 species-specific data-based "performance evaluations" available for 12 of the target species to help inform selection of species by potential buyers	2.1 Report researched and written by Project Manager (edited and approved by Project Director) listing target species and providing rationale for their selection as being of potential value for reforestation of degraded land in SW Madagascar 2.2 Business log of seed sales desegregated in terms of species and number (provided by Business Management Unit) 2.3 Active website detailing seeds available and also providing a species-specific profiles including performance information (germination success in nursery, and 12-month seedlings survival and % increase in height) from trials under different conditions – trials conceived by Project Director, installed by FRAM under direction of Assistant Project Manager and monitored by Assistant Project Manager).	Some species of native tree species perform well in degraded habitats (i.e. where reforestation is required). Reforestation projects wish to use at least some native tree species (even if merely to compliment extremely tolerant eucalyptus trees)

3. The creation of an effective self-sufficient business with capacity to continue operating the "community-based" seed supply chain, on a commercial basis, post-funding	3.1 In YR1 two young Malagasy business managers and two young Malagasy business accountants with desirable attributes (as identified by mentors) are recruited 3.2 In YR2 at least one business manager and one business accountant with the capacity to administer the business effectively with very little outside support 3.3 In YR3 income generated from project sufficient to cover 50% of project expenditure	3.1 cvs of candidates and interview notes + contracts with recruits 3.2 Report of evaluation by business mentors 3.3 Audit of accounts conducted by MBG's Finance Manager	Appropriate business mentors can be identified who are willing to invest their time and skills in developing business capacity local graduates in this remote part of Madagascar.
4. The managers of other protected areas in Madagascar are sufficiently aware of the methods and results of this model project that they can evaluate its relevance at the sites where they work	4.1. By end of YR1, representatives of the Ministry of the Environment and Sustainable Development (MEDD) and at least some of the management staff associated with 30 Malagasy projected areas are aware of the project, interested in how it proceeds, and aware of the social media sites and website where updates will be posted. 4.2. By end of YR3 representatives of the Ministry of the Environment and Sustainable Development and at least some of the management staff	4.1 List of participants at workshop to launch the project and copy of workshop agenda 4.2a List of participants at final workshop (YR3) to share results, copy of agenda, and copies of short questionnaire concerning participants perceptions of viability of project 4.2b Written evaluation of the project made by five protected area managers invited to complete a 5-day field trip to the project site to review the work and its results independently and	Other protected area managers are as interested as ourselves in seeking to add value for local people of protected areas.

	associated with 30 Malagasy projected areas are aware of issues arising during the implementation of the project and can evaluate its results on the basis of quantified information of inputs, outputs and outcome.	as they see fit. Reports compiled by Project Director.	

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. Project Manager (PM) and Assistant Project Manager (APM) meeting with key stakeholders (FRAM, Mpanzaka and MEDD) to explain project, take feedback and conceive and sign collaborative agreements
1.2. PM and APM (and others) recruit of new teachers/local animators x 3, seed collectors/rangers x 12 and nurserywomen x 12, with choice being validated by Mpanzaka
1.3. APM organises meeting with FRAM members (in presence of Mpazaka and with his social framing) to develop a Manual of Procedures to promote good governance and then train and coach the committee of each FRAM in its use
1.4. APM (with audit by MBG's Finance Officer) provides oversight for the receipt and use of funds received by FRAM from sale of seeds with annual restitution to parents

2.1. Research by PM and Project Director to identify 20 target tree species with attributes suggesting that potentially they could perform well when used to reforest degraded landscapes
2.2. Training of seed collectors/rangers x 12 and nurserywomen x 12
2.3. Install of 3 nurseries (adjacent to partner schools) and provide equipment and material for seed collection and propagation of native trees (oversight by APM and inauguration of infrastructure by Mpanzaka)
2.4. Coaching by APM of seed collection, seed preparation and storage, dispatch to Business Unit and the propagation of seedlings for trials
2.5. Installation of trials (500 individuals per species under various conditions) by APM and FRAM members to monitor the performance of target tree species under various types of degraded conditions (including protection of trials with fire breaks with spiritual blessing of Mpanzaka)
2.6. Monitoring of trials by APM and seed collectors/rangers, analysis of results and sharing of species-specific outcomes on sales' website
2.7. Sampling and analysis to estimate wood density of target trees (this information is valuable to those seeking to sequester carbon

3.1. With assistance of the association of Bara students "FIMPIBAMI", the PM and APM will identify and recruit business manager x 2 and administrator x 2 from graduates of University of Tulear
3.2. The Project Director and PM will identify and recruit of two business mentors for the young staff of the Business Unit and with MBGs Finance Officer regularly review their progress
3.3. With oversight from the PM, the Business Unit will complete the process to be legally registered, and rent and equip a small office in the district capital Sakaraha from which they will work
3.4. With support of mentors, MBG's Finance Officer, the Project Director, PM and APM, the Business Unit will conceive, create and maintain a webpage and other social media platforms as interfaces to share information about the project and the services available (i.e. services = knowledge of use of native trees and providing high-quality seeds of native trees), they will actively network to seek and

engage potential clients, and manage resources to ensure that orders and payments are managed professionally (including payments to schools).
3.5. Annual audit of Business Unit
4.1. Project Director and PM organises workshop with representatives of MEDD and managers of Malagasy projected areas to launch project including sharing the website and social media tags where the progress of the project can be tracked
4.2. PM maintains information flow concerning the project using social media and posts on website
4.3. Project Director and PM organises workshop with representatives of MEDD and managers of Malagasy projected areas to describe actual methodologies used by the project, issues arising, and outputs and outcomes.
4.4. From workshop described in 4.2., identify parties who are especially interested in this work and invite them to join an organised field trip to review the project.

Annex 3: Standard Indicators

Table 1 Project Standard Indicators

DI Indicator number	Name of indicator using original wording	Name of Indicator after adjusting wording to align with DI Standard Indicators	Units	Disaggregation	Year 1 Total	Year 2 Total	Year 3 Total	Total to date	Total planned during the project
DI-A01	Number of people from key national and local stakeholders completing structured and relevant training	Number of local people completing training in seed collection and best practice for tree nurseries	Number	Men/women	15/9	12/0 (second training for seed collectors, but same indviduals as were trained in YR1)		15/9	15/9
DI-A04	Number of people reporting that they are applying new capabilities (skills and knowledge) 6 (or more) months after training.	Number of people trained in best practice for seed collection and propagation of trees now employed by MBG	Number	Men/women	15/9	15/9 (same as in YR1)		15/9	15/9
DI-A06	Number of people with improved access to services or infrastructure for improved well-being	Number of students being educated by teachers provided by the project	Number	Boys/girls	142/145	121/98		263/243	250/250
DI-B10	Number of individuals / households reporting an adoption of livelihood improvement practices as a result of project activities.	Number of individuals gaining compensated employment from the project	Number	Men/women	20/14	20/14 (same people as in YR1)		20/14	22/14
DI-B10	Number of individuals / households reporting an adoption of livelihood improvement practices as a result of project activities.	Number of people gaining extra income from day labour	Number	Men/women	238/12	60/2		298/14	500/50
DI-C12	Social Media presence	Number of project-themed tweets	Number	None	3	4		7	25
DI-D02	Number of people whose disaster/climate resilience has been improved.	Number of people whose disaster/climate resilience has been improved with new employment opportunities	Number	Men/women	20/14	20/14 (same people as in YR1)		20/14	22/14

Table 2 Publications

Title	**Type** (e.g. journals, best practice manual, blog post, online videos, podcasts, 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)
None						

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

Checklist for submission

	Check
Different reporting templates have different questions, and it is important you use the correct one. Have you checked you have used the **correct template** (checking fund, type of report (i.e. Annual or Final), and year) and **deleted the blue guidance text** before submission?	√
Is the report less than 10MB? If so, please email to BCF-Reports@niras.com putting the project number in the Subject line.	√
Is your report more than 10MB? If so, please discuss with BCF-Reports@niras.com 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.	√
If you are submitting photos for publicity purposes, do these meet the outlined requirements (see Section 16)?	√
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.	