

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	30-013
Project title	Better livelihoods for shifting-cultivators from conserving and restoring Malagasy forests
Country/ies	Madagascar
Lead Partner	Missouri Botanical Garden
Project partner(s)	Fikambanana Bongolava Maitso
Darwin Initiative grant value	£304,036
Start/end dates of project	Apr 2023 – March 2026
Reporting period (e.g. Apr 2023 – Mar 2024) and number (e.g. Annual Report 1, 2, 3)	Apr 2023 – Mar 2024 (YR1)
Project Leader name	Chris Birkinshaw
Project website/blog/social media	Twitter: @c_birkinshaw
Report author(s) and date	Chris Birkinshaw, Cyprien Miandrimanana, Marie Waï Line, 4 th May 2024

1. Project summary

Madagascar’s dry-deciduous forests are now being destroyed rapidly through slash-and-burn agriculture for maize and beans for export/industry. Profits are mainly kept by entrepreneurs and farmers gain little. In the short term we will combat this destructive and abusive relationship by enabling farmers close to Bongolava Forest to gain better income from conserving and restoring their traditional lands and, in the longer term, access viable livelihoods from the propagation and sale of native trees in support of Madagascar’s ambitious reforestation targets

2. Project stakeholders/ partners

Missouri Botanical Garden’s Madagascar Research and Conservation Program (MBG) is committed to maximising our impact by facilitating the work of reputable partners in the domains of botanical discovery and plant conservation. In the context of this Project, we used our proven financial track record and administrative credibility to help the small, struggling but brave and committed grassroots NGO *Fikambanana Bongolava Maitso* (FBM) to access a significant grant from the Darwin Initiative. Specifically, MBG staff manage the grant for FBM and also provide technical assistance and help with reporting at no cost to the donor. Thus almost 100% of the grant is used by FBM for project implementation. MBG accesses small

amount for funding for travel to the site and for subsistence costs during work to provide monitoring and training and, recently, support during a key meeting between FBM and government partners (to discuss conflicts concerning the delimitation of the Bongolava (protected area).

3. Project progress

3.1 Progress in carrying out project Activities

The project activities listed in the Application are listed below – each with information concerning progress in YR1.

1.1. Research by Project Manager to identify the project zone where local farming families are concerned about the loss of the forest and are willing to engage with an alternative greener vision of their landscape

Completed: A 19,000 ha zone was selected for this project. This is one of the zones of “strict conservation” within the Protected Area. This area is shown in Evidence Output 1.1.

1.2. 60 farmers in the host landscape identified and recruited as community rangers by local radio broadcasts and individual interviews

Completed: The list of rangers is shown in Evidence Activity 1.2.

1.3. 60 local farmers trained by Assistant Project Manager- Patrols in community patrolling and the recording and reporting of infractions

Completed: The newly recruited community rangers have been organised into four teams and each team works under the direction and coaching of one of four experienced rangers who have long worked for FBM.

1.4. Local rangers systematically patrol ca. 500 ha target zone to detect and report infractions under the direction of the Assistant Project Manager (patrols)

Ongoing: We realised that, with a capacity of 58 community rangers and 4 head rangers, a much larger area could be patrolled effectively. Hence these people are responsible for patrolling an area of 19,000 ha.

1.5. Infractions treated by the local management committee or the Forest Service (depending on severity)

Ongoing: In YR1, 6 infractions were detected and reported to the Forest Service whose staff deleted with them efficiently (Evidence Output 1.2)

2.1. 60 farmers (mostly women) identified and recruited as nurserywomen by local radio broadcasts and individual interviews

Completed: The list of nursery staff is shown in Evidence Activity 2.1.

2.2. 60 women trained by the Assistant Project Manager-Nurseries in best practice for the collection of seeds and the propagation and nurturing of seedlings of native woody plant species

Completed: Four already experienced Head Nurserymen/women were recruited and given extra training at Parc Ivoloïna (a leader in the propagation of native trees, located in central eastern Madagascar) and then tasked with directing, training and coaching the nurserywomen working at their respective nurseries (Evidence Output 2.2)

2.3. 5 village nurseries installed in the target landscape by nursery women assisted by rangers, under the guidance of a consultant

Incomplete: In YR1 three nurseries were installed and two of these are now operational. We propose that no more nurseries will be installed because of the unexpectedly high cost of this work.

2.4. Under the guidance of the Assistant Project Manager-Nurseries, each nursery propagates 40,000 seedlings of native woody plants

On-going: In YR1 23,787 seedlings of 42 species of native woody plants were propagated (Evidence Activity 2.4). In YR2 this activity will be intensified so that the target of 200,000 seedlings are produced by the end of the year.

2.5. Under the guidance of the Assistant Project Manager-Nurseries and direction of the Project Manager, the nurserywomen out-plant 200,000 seedlings of native woody plants (some being planted within the framework of experiments to identify best practice)

Not applicable to YR1.

2.6. Out-planted seedlings provided with post plantation care by nursery women

Not applicable to YR1.

2.7. Samples of the out-planted seedlings monitored to determine survival and growth.

Not applicable to YR1.

None of the remaining activities, classified under Outputs 3 and 4 were applicable in YR1.

3.2 Progress towards project Outputs

1. Infractions in target forest rapidly detected and controlled by local farmers with help of forest service

1.1 Annually all 0.1 km² cells within target zone visited by local rangers bimonthly and infractions noted and reported

Policing of the 19,000 ha zone of Strict Conservation is ensured by 58 rangers under the direction of 4 policing coordinators (Evidence Activity 1.2). The trajectories taken by the rangers during a typical month are shown in the map presented in Evidence Output 1.1. It should be noted that the target zone is much larger than that proposed in the application (750 ha) because we realised that with the person-power available it was possible to adequately patrol a much larger area.

1.2 All infractions treated either by local management committee or, for more serious offenses, by Forest Service

In YR1 six infractions were detected within the target zone and all these were reported to the Forest Service. One case has already been treated by the courts while the remainder are currently being treated (in the meantime the accused is being held in prison) (Evidence Output 1.2)

2. Farmers launch reconstructive restoration on old fields within protected area

2.1 At end of 6 months 5 village nurseries have been installed, equipped and are functional.

In YR1, three nurseries were installed and of these two are already producing seedlings (Evidence Output 2.1). No more nurseries will be installed because of the high cost of providing this infrastructure.

2.2 At the end of 6 months 60 local people have the knowledge, skills and motivation to work as effective nursery staff

For efficacy we recruited 4 people who already had experience of propagating plants and sent them to Parc Ivoloлина (on the central east coast of Madagascar) for top-up training in best practice for the propagation of trees (Evidence Output 2.2). These four were then responsible for recruiting and training 62 nursery staff (mostly women) (Evidence Activity 2.1)

2.3 During YR2 200,000 plants of native species are available in 5 village nurseries for out-planting

To date a total of 23,787 seedlings of 42 different native species have been produced. Therefore in the next two months around 174,000 seedlings will need to be produced from the three nurseries: around 58,000 for each nursery. This will only be possible if the capacity of the nurseries can be increased and/or if two production cycles can be accommodated in one year. This will be a major challenge for the next year.

2.4 By YR2, 75 hectares of land that was formerly forest but recently cut and burnt for maize/bean cultivation have been planted with a total of ca. 200,000 young plants of (i.e. a mean of 2800 plants per hectare).

Four restoration zones with a total area of 130 ha have been identified (Evidence Output 2.4). Out-planting will begin within these zones at the start of the wet season, likely in January 2025.

2.5 In YR3 out-planted plants have a mean 12-month survival rate of 80% and a mean annual growth rate of 25 cm.

No progress at present.

3. Best practices for the restoration of degraded dry deciduous forest defined and shared

3.1 By YR3, the knowledge of the project participants combined with the results of trials exploring best practice for reconstructive restoration of dry deciduous forest is summarised into a well-illustrated booklet that is shared with others endeavouring to restore this vegetation type

No progress at present

4. Local farming families gain improved livelihoods through engagement with the project

4.1. In YR1, YR2 and YR3 60 farming families (60 men and 60 women) gain average compensation of £80 per month for their participation in the project including work as rangers, and for the propagation, out-planting and nurturing of young trees, and monitoring
In YR1, on average each of the 129 participants in this project gained £46 per month. Thus a married couple would benefit from £92 extra income per month. In rural Madagascar this is a potentially a life changing amount and it will be important in YR2 to encourage reflection among the beneficiaries about how best they can use this sum.

4.2. In YR3 farmers are able to generate an extra mean income of at least £25 per month through the sales of native tree seedlings for other restoration projects.

No progress at present.

3.3 Progress towards the project Outcome

The Outcome of this project, as stated in the application, was: *Local farming families at Bongolava mobilised to effectively conserve and restore their forest and thereby access improved livelihoods.* It was further proposed that progress towards achieving this outcome would be monitored using five indicators. Of these three are relevant to YR1, and these are listed below.

0.1 In YR1, YR2 and YR3 of the project the annual number of infractions within the 500 hectare target zone falls respectively by 50%, 75% and 90% from baseline.

Compared to 2022, with 21 infractions, the number of infractions detected in 2023 was just 6: this is a decline of 71% (Evidence Outcome 1.1, and Activity 1.2)

0.4 In YR1, YR2 and YR3 the average annual income received by the farming families participating in this project increased by at least 25% over pre-project baseline

In YR1, 129 people shared compensation amounting to £53,675 or, on average £416 for the 9 month period when they were employed. This is equivalent to a mean of £46 per month. Given that most of these people are subsistence farmers it is difficult to define what their average monthly salary would be but it is reported that \$44 (or £35) per month is an average compensation for agricultural workers in Madagascar as a whole (<https://wagecentre.com/salary/africa/madagascar>). Given all the project participants work part-time (and continue their farming activities) the project' compensation contributes to a doubling of monthly income.

3.4 Monitoring of assumptions

Assumption 1: Local farming families trust FBM sufficiently to engage in this process

Comments: To date this assumption is confirmed: without exception local people have been highly motivated to gain compensated employment, however, we still need to test whether this engagement is entirely based on accessing employment or whether there are deeper levels of satisfaction with this work. The social survey will help to illuminate this issue.

Assumption 2: Local office of Forest Service have sufficient resources and motivation to fulfil their responsibilities concerning the treatment of infractions

Comments: This assumption can be confirmed (see Output 1.2)

Assumption 3: native tree species can be identified that can be propagated easily and that survive and grow well in the challenging conditions (poor soils, high exposure to wind and sun) of former fields

Comments: This assumption is not yet relevant and can only be tested once the performance trials have been launched.

Assumption 4: wild fires can be controlled with firebreaks so they do not burn restoration plots nor regenerating forest

Comments: This assumption is not yet relevant

Assumption 5: free ranging cattle can be controlled by project participants by soliciting collaboration of the neighbours, so that they do not trample or browse the newly out-planted young plants

Comments: This assumption is not yet relevant

Assumption 6: at least some of the principles of best practice identified at Bongolava will be applicable to the restoration of dry deciduous forests elsewhere.

Comments: This assumption is not yet relevant

Assumption 7: by YR2 of the project robust markets exist in the region to young plants of native trees can be sold for landscape restoration

Comments: This assumption is not yet relevant however, we are encouraged that our model nursery, that is located next to the main Tana-North road has attracted much interest including by potential buyers.

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

The anticipated impact of this project as stated in the application was: *“A model project shows how Malagasy ecosystems can be successfully conserved and restored by the large-scale mobilisation of local people through creation of new “green” employment opportunities”*. While a large number of “green” jobs have been created by this project (Evidence Impact) and while this intervention has coincided with a reduction of threats (Evidence Impact), the real challenge of this project that is to maintain this impact with a new value chain based on the production and sale of seeds. It is premature to evaluate our chance of succeeding, but suffice to say that no additional risks have materialised during YR1 that could derail this innovative endeavour. If we succeed, this success will be very significant as to how conservation organisations conceive their work.

4. Project support to the Conventions, Treaties or Agreements

In YR1 this project responded to one of the CBD main goals i.e. ‘the conservation of biological diversity’ by reducing degradation of the dry-deciduous forest at Bongolava including, compared to previous years, reducing the area lost to shifting cultivation and wild fires, reducing incidents of charcoal production, while maintaining a low level of timber exploitation (although somewhat higher than 2022) (Evidence Impact)

The vision of Madagascar’s NBSAP 2015-2025 (<https://www.cbd.int/doc/world/mg/mg-nbsap-v2-en.pdf>) is « By 2025, effective measures are set-up to effectively reduce the loss of biodiversity, to ensure the provision of essential ecosystem services and equitable sharing of benefits from biodiversity, for social welfare, economic and environmental development of current and future generations ». In YR1 this project responded to this by reducing threats to the forest (Evidence Impact) while providing both compensated employed for 129 local people of total value £53,675

Madagascar has pledged to reforest 4-million hectares of land by 2030 under its Bonn Challenge/AFR100 commitment. This project will make a minor direct contribution to this goal with the reconstructive restoration of 75 hectares. In YR1 we identified the restoration zones (Evidence Output 2.4) and produced 23,787 seedlings that when sufficiently large will be used for this restoration (Evidence Activities 2.4).

In YR1 The project made direct contributions to the following SDGs: (Goals 1/2) by providing paid employment (129 vulnerable local people provided with total compensation of £53,675); (Goal 3) by starting the restorative process by identifying areas to be restored and producing 23,787 seedlings; (Goals 5) by providing and employment to 64 women; (Goal 8) by installing high quality nurseries that ultimately will sustain a value chain based on the sale of seedlings of native trees (Evidence Output 2.1); (Goal 13) by identifying areas for restoration (Evidence Output 2.1); (Goal 15) by conserving the highly biodiverse Bongolava Forest by reducing threats (Evidence Impact); and (Goal 17) by MBG supplementing and building FBM's capacity in key areas.

5. Project support for multidimensional poverty reduction

We are proud that all of the financial support provided by the Darwin Initiative for this project are spent in Madagascar (excepting a small proportion used for equipment), and of this, in YR1, £53,675 was used to compensate 129 local people for the services they provide to the project as nursery staff or rangers. Nearly all these people are from farming families and the extra income will, to them, be very significant.

Ultimately we expect that this project will have an enduring impact on the well-being of a significant number of rural people living around the Bongolava Forest Corridor Protected Area by enabling them to access a lucrative market for young plants of native trees. In YR1 we made good progress in developing the infrastructure (in the form of 3 nurseries) that is a prerequisite for the value chain (Evidence Output 2.1).

6. Gender Equality and Social Inclusion (GESI)

Please quantify the proportion of women on the Project Board ¹ .	50%
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 .	FBM – 50%

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	

Typically in Madagascar nursery staff are male and therefore it is empowering of women that in this project 63 of the 66 nursery staff are female. This gender imbalance is the result of a decision taken by the project managers to select women preferentially for this post. However, three of the nursery managers are male and just one female. This bias is because the male candidates for the post had greater past experience of related work than the female candidates (with one exception). All the rangers are male because of the risk of physical conflict associated with this work. Also, because the work of rangers is much more arduous than the work of a nursery women, the compensation is higher for the former post, and therefore the overall compensation, received by male beneficiaries of this project is higher than the total amount received by females. Thus while we have tried to conceive and implement a project that is equitable for the two genders, we have only partly succeeded.

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 YR1, MEL was not given the prominence that it deserved. While a reasonable amount of evidence was collected, and is presented in Appendix 4, weaknesses were evident. Most important amongst these was the monitoring of forest patrols which lacks the necessary detail. While the team endeavoured to introduce SMART monitoring during patrols we admit that its application is unreliable and partial. The reasons for this need to be reviewed. Probably MEL will only be implemented in an exemplary manner at this site when there is a MEL policy and a dedicated person to ensure that it is applied. This will be discussed in the team meeting in June and a change request made if everyone agrees that this is a desirable modification to the project.

8. Lessons learnt

In the original proposal it was conceived that rangers would be responsible for collecting the seeds of the native trees required for propagation. However, it soon became evident that, with this approach, too few seeds were being collected if our ambitious target for the production of seedlings was to be met: the rangers were focused on what they considered their real work. Hence, we sought the service of an experienced seed collector (Tahiry Rivocharison) who had worked with MGB previously to collect seeds for a forest restoration project at another site. Tahiry joined the patrols but with the sole objective of locating trees with ripe seeds and then either alone or with the help of rangers collecting these propagules. Tahiry was also responsible for identifying the species from which seed samples were made and for maintaining the seeds in good condition until they were handed over to the nursery staff. We learnt from this that a dedicated seed collector is essential for projects aiming to propagate large numbers of a diversity of native trees. It will be necessary to retain the services of Tahiry for longer and a change request will be made accordingly.

The other mistake that we made was to under budget for the installation of the nurseries. For best results and to facilitate marketing, we had always planned to build nurseries of high specifications (for Madagascar) i.e. using shade netting and concrete propagation tables. The original budget was based on the cost of materials in Antananarivo and did not take into account the much higher cost of these supplies outside of the capital. Thus the budget line for this work was significantly overspent.

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

Several comments were received as feedback to the application. These comments are listed below along with our response at the time. In italics we now elaborate our initial response as necessary.

Reviewer Feedback 1. Some of the project interventions do not really get to the root cause of the threats. The project identifies that maize and bean production are the main drivers of habitat degradation. It further identifies the drivers of this production (big corporates). How does the project intend to address some of these big drivers?

Original Response 1. As you correctly comment, the threat to dry deciduous forest in Madagascar is the conversion of forest to fields for the production of maize and beans – a transformation being driven by powerful business and political interests. Ambassadors from several countries and diverse conservation organisation have used their influence with politicians to advocate for change, and 2022 the threat to this vegetation from this source was somewhat reduced. FBM (at some risk to their staff) already pursues advocacy at the Regional Level, and will continue to do so. This project will provide more power to this grassroots NGO to express its concerns and seek change at a national level. This project will also have some impact, at least locally, by providing a financially compelling livelihood alternative to impoverished local farmers from the destruction of their forests for maize and beans.

YR1 Additional Comments. With the support of the Darwin Initiative, FBM has been able to “up their game”, launch new activities and support scores of new posts for members of the local community. This change had the immediate impact of winning respect from local and regional leaders and enabled FBM to host a well-attended workshop with stakeholders (including

government technicians and politicians) to discuss some chronic issues concerning the delimitation of the protected area.

Reviewer Feedback 2. It would provide reassurance if you are able to strengthen your case for future scaling of this work

Original Response 2. In Madagascar, unlike many other African countries there are no professional large-scale producers of native trees for use in tree planting projects. With the Malagasy government's commitment (as part of AFR100) to reforestation of its vast degraded landscapes, we believe that there is an expanding market for this product. To successfully scale our work it will be essential to develop a sustainable business that aims to access this market while providing improved livelihoods for rural Malagasy from the production of seedlings. Among the different stated outputs of this project, the development of this business interface will be the most challenging – for all the reasons that launching a new business is always difficult, but also because, as biologists, we have little capacity in this domain. For this reason it will certainly be necessary to a) recruit a consultant to research the market and provide a business plan; and b) recruit someone to manage this work who is experienced in business but who also has a social conscience.

YR1 Additional Comments. We now believe that local communities alone would not be able to sustain a business producing and selling seedlings: among other issues, some complex negotiations with different parts of the Malagasy government will be necessary to legally operate such a business. Thus we now propose that the most viable approach to developing such a business would be within the organisational framework of FBM, and accordingly a change request will shortly be submitted. While developing this business will certainly be challenging, we are reassured that markets for young plants of native trees exist and are growing. Our strengthened belief is based on the number of people who are stopping at one of our nurseries, located next to the main road, and requesting to purchase seedlings, and also the launch of The Global Biodiversity Standard in Madagascar that promotes the use of native plants in rehabilitation and restoration projects.

Reviewer Feedback 3. The importance of the value chain for local trees for forest restoration is clear, but has not been investigated. Developing the value chain is not set to begin until year 3 of the project. Ideally, this should have been done as part of the feasibility study for the proposal, but should at least begin in year 1

Original Response 3. It was proposed to develop the value chain in YR3 because it is only at that time when young trees will be available for sale and that knowledge about which native tree species perform well under degraded conditions. It is important to remember that we are not just trying to sell young trees but also the necessary knowledge about how these can be grown with success. However, the point is well taken and we will make a Change Request to advance the study of value chain and the associated business plan.

YR1 Additional Comments. The development of the business plan will begin in the first semester of YR2. It is now clear that FBM, rather than a newly created structure based in the local community, will need to host this business.

Reviewer Feedback 4. What will be the implications for livelihoods on establishing no-grazing zones?

Original Response 4. It will be necessary to protect the newly out-planted trees from grazing and browsing from more or less free-ranging livestock. The local staff of FBM inform us that grazing of cattle and sheep and browsing of goats is extensive and that the removal of the restoration zones from areas that can be accessed by these animals would have negligible impact. However, during the selection of restoration zones we will consult with those potentially impacted by this restriction to ensure that there would be no negative impacts of this type.

YR1 Additional Comments. The selected restoration zones are shown in Evidence Output 2.4. As part of the selection of these sites we interviewed people who are local to these areas to enquire whether these areas are important for grazing and browsing livestock. They were not.

Reviewer Feedback 5. If forest protection can be achieved to allow restoration, why not focus on regeneration? What is meant by the “blocking” of restoration

Original Response. Yes, reconstructive restoration (i.e., in this case, the production and planting of native trees) is expensive and should only be done when natural regeneration is very slow. At this site natural regeneration can occur in situations where seeds of native trees are dispersed into the degraded zone and when conditions favour their germination and growth. Natural regeneration is blocked when the degraded zone is far from seed sources and when the environmental conditions are challenging (highly impoverished soil - perhaps due to repeated cycles of cultivation and burning, frequent fires, strong desiccating winds and high exposure to sunlight), and in such locations restorative interventions are required.

YR1 Additional Comments. It is rare, even in the most degraded ecosystems, that natural regeneration is entirely blocked. However, in each of the four restoration zones we have selected conditions are so harsh that only a few woody plant species are naturally regenerating. This process is not only very slow but it has been derailed by the abundance of alien species. Reconstructive restoration is thus required if vegetation resembling that originally occupying these areas is to be recreated in a human life span.

Reviewer Feedback 6. Farmers will need to produce and sell c.150 plants per month to match the compensation they currently obtain from the cultivation of beans/maize. It would be useful to have an indication (even an educated guess) as to how long it might take for some farmers to achieve this.

Original Response 6. Once the nurseries are installed, the materials (compost, pots etc) are available, the nurserywomen trained in best practice for the propagation of native trees, and seeds being regularly delivered in the required quantities to the nurseries, then a nurserywomen can produce a minimum of 3500 seedlings in 12 months. So, if the start-up phase (outlined above) is six months, then it is reasonable to predict that the each nursery women will have produced 3,500 seedlings after 18 months. However, initially these seedlings will be used by the project for restoration and will not be for sale. The production of plants for sale will only begin at the start of the second semester of YR2.

YR1 Additional Comments. In reality the sale of seedlings, at a significant level, is only likely to begin in the first Semester of YR3 because all seedlings produced will be required by this project to satisfy the ambitious YR2 target of 200,000 young plants out-planted in the restoration zones..

Reviewer Feedback 7. The sole source of incentive during the project life for community participation is direct payments for patrolling and restoration. Ensure you consider the risk that once these funds and occupations end, replaced by tree seedling sales, previous unsustainable use of forest area will be reverted to with any revenue from seedling sales being additive rather than alternative income. It should also be clear how families are selected and how potential conflicts will be avoided.

Original Response 7. The scenario that you describe is indeed a real risk and all conservationists working in Madagascar will have experience of supposed “alternative” projects actually being additive. Probably the best approach for discouraging participants from both producing tree seedlings for sale while also continuing shifting cultivation would be to incorporate an exclusionary clause within the internal rules of the association of seedling producers.

YR1 Additional Comments. The huge increase in patrolling that was made possible by this grant has had a clear positive impact on the number of infractions occurring within the forest. This suggests that, if high levels of policing, can be maintained post-project then this would be a major deterrent to a resumption of the non-sustainable exploitation of natural resources through shifting cultivation, charcoal production and timber exploitation.

10. Risk Management

The following risks were listed in the application. No new risks were identified in YR1.

a) Very few Malagasy are truly financially secure and thus there is a tendency to seek to maximise personal benefits. Those leading proposed association of nursery women may seek to maximise their own income from the sale of tree seedlings while minimising the benefits for the farming families who produced them

Presence of risk in YR1: not apparent because this risk is associated with a later stage of the project.

b) Not all local farming families can be beneficiaries of the proposed project. Those who are not selected may well be jealous of those who are thereby creating new tensions and divisions in communities.

Presence of risk in YR1: this certainly is a risk and may have been present but, if it was then this was not apparent. In particular no complaints were received concerning the recruitment process.

c) To be successful in the long-term this project requires that plants of native trees propagated by local farming families 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.

Presence of risk in YR1: not apparent because this risk is associated with a later stage of the project. However, given the launch of The Global Biodiversity Standard in Madagascar, we are hopeful that more tree-planting projects in the country will endeavour to integrate native trees in their work and thereby promote benefits for biodiversity.

d) Currently 3 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.

Presence of risk in YR1: not apparent because this risk is associated with a later stage of the project when we have data available about the performance of native trees from the trials.

e) Annual precipitation in the west of Madagascar is variable and periods of drought may impact the success of reconstructive restoration.

Presence of risk in YR1: not apparent because this risk is associated with a later stage of the project.

f) The destruction of dry deciduous forest is being driven by markets for beans and corn. If this project successfully engages farming families in conservation and restoration, then these markets will merely be accentuated elsewhere - and the problem will have been transferred

Presence of risk in YR1: within the Country, presumably as a result of concerted efforts of concerned conservation organisations, ambassadors and concerned members of the Malagasy government, rates of destruction of deciduous forest for the cultivation of beans and maize was less in 2023 compared to previous years.

10. Sustainability and legacy

In YR1 this project only attracted local and regional interest, but at these levels the interest was significant. Suddenly, through the major interventions made possible through the DI grant, representatives of the local and regional government started to take FBM seriously as the manager of this protected area. FBM's improved credibility allowed its staff to hold a stakeholder meeting, including government representatives, to discuss a long standing unresolved issue concerning the delimitation of the protected area. The minutes of this very important meeting are included in Evidence Impact.

11. Darwin Initiative identity

All equipment purchased by this project was labelled with the Darwin Initiative logo (see Evidence Communication and Identity). During YR1 four tweets were made concerning this project on @c_birkinshaw (Evidence Communication and Identity) however these did not seem to gain much traction – presumably because, at present, the project cannot report any especially innovative or surprising results. However, as reported in the previous section, while the project may not have garnered much interest nationally, the ramping up of activities thanks to the DI grant, attracted much local and regional kudos and won FBM improved credibility.

12. Safeguarding

Has your Safeguarding Policy been updated in the past 12 months?	Yes
Have any concerns been reported in the past 12 months	No
Does your project have a Safeguarding focal point?	Yes (Vola Raharijaona)
Has the focal point attended any formal training in the last 12 months?	Yes (the focal point at MBG was responsible for working (part time over 6 months) with an expert consultant to develop MBG's first Safeguarding policy and procedures.
What proportion (and number) of project staff have received formal training on Safeguarding?	Past: 25% [1] Planned: 100% [4]
Has there been any lessons learnt or challenges on Safeguarding in the past 12 months? Please ensure no sensitive data is included within responses.	
The term "Safeguarding" was unknown by MBG (a US organisation, where such issues are handled as in element within the "Staff Manual") until the receipt of DEFRA funding obliged the staff to develop a Safeguarding policy.	
Does the project have any developments or activities planned around Safeguarding in the coming 12 months? If so please specify.	
Yes, MBG's new Safeguarding policy will be rolled out across the Program in Madagascar. This roll-out will include the training of all staff and also the implementation of the complaints process.	
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.	
There is an on-going concern about the safety of rangers if they encounter belligerent authors of infractions within the PA. The procedure that they should follow is not to try to apprehend those suspected of conducting an infraction but merely ask for their name and record the nature of the infraction (including taking photographic evidence). Rangers have been instructed to withdraw when faced with belligerence, but in one very recent case (in April 2024, and still being investigated) the situation nevertheless escalated to threats (but fortunately there was no physical violence).	

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)	██████	██████	██████	
Consultancy costs	███	███	██████	Over-expenditure was due to the recruitment of a professional seed collector to ensure that

				the nurseries had enough seeds to propagate.
Overhead Costs				
Travel and subsistence				
Operating Costs				
Capital items (see below)				
Others (see below)				Over expenditure was due to the greater than expected cost of purchasing materials (especially cement) to make model tree nurseries outside of the capital.
TOTAL	101,608	101,608		

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 (£)			Conservation Allies (for Policing) MBG (time of administrative and technical staff)
Total additional finance mobilised for new activities occurring outside of the project, building on evidence, best practices and the project (£)			Stiftung Artenschutz + Varuna

11. Other comments on progress not covered elsewhere

None

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

None.

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

Project summary	Progress and Achievements April 2023 - March 2024	Actions required/planned for next period
<p>Impact: Model project shows how Malagasy ecosystems can be successfully conserved and restored by the large-scale mobilisation of local people through creation of new “green” employment opportunities.</p>	<p>The project is not yet functioning as a “model” because the value chain for the sale of seedlings is not yet functional. However, as a result of the DI-supported intervention, the threats to the PA were clearly reduced, the credibility of FBM increased and over a hundred “green” employment posts created.</p>	
<p>Outcome: Local farming families at Bongolava mobilised to effectively conserve and restore their forest and thereby access improved livelihoods</p>		
<p>Outcome indicator 0.1 In YR1, YR2 and YR3 of the project the annual number of infractions within the 500 hectare target zone falls respectively by 50%, 75% and 90% from baseline.</p>	<p>Reduced from 21 infractions in 2022 to 6 in 2023: decline of 71% (Evidence Outcome 1.1, and Activity 1.2)</p>	<p>Continue patrolling but with improved monitoring of trajectories</p>
<p>Outcome indicator 0.2 In YR2 and YR3 no forest is lost to agriculture within the 500 hectare target zone.</p>	<p>Forest lost due to shifting cultivation in 19,000 ha target zone was 12 ha in 2023, compared to 145 ha in 2022 (Evidence Impact)</p>	<p>Continue patrolling but with improved training of rangers to help them deescalate potentially violent arguments with those responsible for infractions.</p>
<p>Outcome Indicator 0.3 By YR3 all old fields in the 500 ha target zone are regenerating forest</p>	<p>Not applicable in YR1</p>	
<p>Outcome Indicator 0.4 In YR1, YR2 and YR3 the average annual income received by the farming families participating in this project increased by at least 25% over pre-project baseline</p>	<p>129 people accessed a mean compensation of £46 per month, more than doubling total income (£35 from farming) (Evidence Impact)</p>	<p>Provide training/reflection to beneficiary families to promote wise use of extra revenue and also seek new funds to launch a village savings and loan scheme.</p>
<p>Outcome Indicator 0.5. By YR3 the project participants value their forest more than at baseline</p>	<p>Not applicable in YR1</p>	<p>Baseline study of local perceptions needs to be completed urgently</p>

Output 1 Infractions in target forest rapidly detected and controlled by local farmers with help of forest service		
Output indicator 1.1. Annually all 0.1 km ² cells within target zone visited by local rangers bimonthly and infractions noted and reported	109 patrols were made that covered a total of 327 km	Analyse data to present in form of grid cells visited
Output indicator 1.2. All infractions treated either by local management committee or, for more serious offenses, by Forest Service	6 infractions detected all treated satisfactorily by Forest Services (Evidence Output 1.2)	Continue
Output 2. Farmers launch reconstructive restoration on old fields within protected area		
Output indicator 2.1. At end of 6 months 5 village nurseries have been installed, equipped and are functional	Three nurseries installed and two functional (Evidence 2.1)	Launch production at the third nursery.
Output indicator 2.2. At the end of 6 months 60 local people have the knowledge, skills and motivation to work as effective nursery staff	Four head nursery staff given additional training and they then trained 62 nurserywomen/men (Evidence 2.2)	
Output indicator 2.3 During YR2 200,000 plants of native species are available in 5 village nurseries for out-planting	23,787 seedlings of 42 woody plant species already produced. (Evidence 2.3)	Out-planting in YR2
Output indicator 2.4. By YR2, 75 hectares of land that was formerly forest but recently cut and burnt for maize/bean cultivation have been planted with a total of ca. 200,000 young plants of (i.e. a mean of 2800 plants per hectare).	Restoration zones (and reference zones) selected (Evidence 2.4)	Prepare zones ready for out-planting
Output indicator 2.5. In YR3 out-planted plants have a mean 12-month survival rate of 80% and a mean annual growth rate of 25 cm	Not applicable	Out-planting begins in YR2
Output 3. Best practices for the restoration of degraded dry deciduous forest defined and shared		
Output indicator 3.1. 3.1 By YR3, the knowledge of the project participants combined with the results of trials exploring best practice for reconstructive restoration of dry deciduous forest is summarised into a well- illustrated booklet that is shared with others endeavouring to restore this vegetation type	Not applicable	
Output 4. Local farming families gain improved livelihoods through engagement with the project.		
Output indicator 4.1. In YR1, YR2 and YR3 60 farming families (60 men and 60 women) gain average compensation of £80 per	Annual individual compensation received is £46 per person (Evidence Impact)	Continue

month for their participation in the project including work as rangers, and for the propagation, out-planting and nurturing of young trees, and monitoring		
Output indicator 4.2. In YR3 farmers are able to generate an extra mean income of at least £25 per month through the sales of native tree seedlings for other restoration projects	Not applicable until YR3	

Annex 2: Project’s full current logframe as presented in the application form (unless changes have been agreed)

Project Summary	SMART Indicators	Means of Verification	Important Assumptions
Impact: Model project shows how Malagasy ecosystems can be successfully conserved and restored by the large-scale mobilisation of local people through creation of new “green” employment opportunities.			
Outcome: Local farming families at Bongolava mobilised to effectively conserve and restore their forest and thereby access improved livelihoods	<p>0.1 In YR1, YR2 and YR3 of the project the annual number of infractions within the 500 hectare target zone falls respectively by 50%, 75% and 90% from baseline.</p> <p>0.2 In YR2 and YR3 <u>no</u> forest is lost to agriculture within the 500 hectare target zone.</p> <p>0.3 By YR3 all old fields in the 500 ha target zone are regenerating forest</p> <p>0.4 In YR1, YR2 and YR3 the average annual income received by the farming families participating in this project increased by at least 25% over pre-project baseline</p> <p>0.5. By YR3 the project participants value their forest more than at baseline</p>	<p>0.1 Analysis of log books of forest rangers</p> <p>0.2 Analysis of “forest watch” images</p> <p>0.3 Audit of young trees that are produced and out- planted, and monitoring of samples of young trees of each species, under each condition, to estimate survival and growth rates.</p> <p>0.4 Household surveys among project’ participants at baseline and then annually</p> <p>0.5 Analysis of open interviews with a sample of participants at baseline and again at end YR3.</p>	- Local farming families trust FBM sufficiently to engage in this process
Outputs: 1. Infractions in target forest rapidly detected and	1.1. Annually all 0.1 km ² cells within target zone visited by local rangers bimonthly and infractions	1.1 Analysis of observations and GPS readings recorded in log books of rangers	- Local office of Forest Service have sufficient resources and motivation

controlled by local farmers with help of forest service	noted and reported 1.2. All infractions treated either by local management committee or, for more serious offenses, by Forest Service	1.2 Reports from Management Committee and Forest Service concerning treatment of infractions	to fulfil their responsibilities concerning the treatment of infractions
2. Farmers launch reconstructive restoration on old fields within protected area	2.1 At end of 6 months 5 village nurseries have been installed, equipped and are functional 2.2 At the end of 6 months 60 local people have the knowledge, skills and motivation to work as effective nursery staff 2.3 During YR2 200,000 plants of native species are available in 5 village nurseries for out-planting 2.4 By YR2, 75 hectares of land that was formerly forest but recently cut and burnt for maize/bean cultivation have been planted with a total of ca. 200,000 young plants of (i.e. a mean of 2800 plants per hectare). 2.5 In YR3 out-planted plants have a mean 12-month survival rate of 80% and a mean annual growth rate of 25 cm	2.1 Photos of nurseries 2.2 Evaluation of competence of nursery staff 2.3 Analysis of nursery log books with photographic proof of condition of nurseries 2.4 Use of GPS units to map areas of deforested land where natural regeneration is adequate to ensure restoration and areas where reconstructive restoration (i.e. tree planting) has been launched. 2.5 Monitoring of survival and growth of samples of out-planted plants representing different species planted under different conditions following protocol described here: https://mobot.mg/conservation/ecological_restoration/	- native tree species can be identified that can be propagated easily and that survive and grow well in the challenging conditions (poor soils, high exposure to wind and sun) of former fields - wild fires can be controlled with firebreaks so they do not burn restoration plots nor regenerating forest - free ranging cattle can be controlled by project participants by soliciting collaboration of the neighbours, so that they do not trample or browse the newly out-planted young plants
3. Best practices for the restoration of degraded dry deciduous forest defined and shared	3.1 By YR3, the knowledge of the project participants combined with the results of trials exploring best practice for reconstructive restoration of dry deciduous forest is	3.1 Number of booklets distributed to named recipients 3.2 Feedback from recipients concerning the value of booklet	- at least some of the principles of best practice identified at Bongolava will be applicable to the restoration of dry

	summarised into a well- illustrated booklet that is shared with others endeavouring to restore this vegetation type		deciduous forests elsewhere.
4. Local farming families gain improved livelihoods through engagement with the project.	<p>4.1. In YR1, YR2 and YR3 60 farming families (60 men and 60 women) gain average compensation of £80 per month for their participation in the project including work as rangers, and for the propagation, out-planting and nurturing of young trees, and monitoring</p> <p>4.2. In YR3 farmers are able to generate an extra mean income of at least £25 per month through the sales of native tree seedlings for other restoration projects</p>	<p>4.1 Accounts of payments made to participating faming families</p> <p>4.2 Accounts of sales of young trees</p>	- by YR2 of the project robust markets exist in the region to young plants of native trees can be sold for landscape restoration

Activities

- 1.1. Research by Project Manager to identify the project zone where local farming families are concerned about the loss of the forest and are willing to engage with an alternative greener vision of their landscape
- 1.2. 60 farmers in the host landscape identified and recruited as community rangers by local radio broadcasts and individual interviews
- 1.3. 60 local farmers trained by Assistant Project Manager- Patrols in community patrolling and the recording and reporting of infractions
- 1.4. Local rangers systematically patrol ca. 500 ha target zone to detect and report infractions under the direction of the Assistant Project Manager (patrols)
- 1.5. Infractions treated by the local management committee or the Forest Service (depending on severity)
- 2.1. 60 farmers (mostly women) identified and recruited as nurserywomen by local radio broadcasts and individual interviews
- 2.2. 60 women trained by the Assistant Project Manager-Nurseries in best practice for the collection of seeds and the propagation and nurturing of seedlings of native woody plant species
- 2.3. 5 village nurseries installed in the target landscape by nursery women assisted by rangers, under the guidance of a consultant
- 2.4. Under the guidance of the Assistant Project Manager-Nurseries, each nursery propagates 40,000 seedlings of native woody plants

- 2.5. Under the guidance of the Assistant Project Manager-Nurseries and direction of the Project Manager, the nurserywomen out-plant 200,000 seedlings of native woody plants (some being planted within the framework of experiments to identify best practice)
- 2.6. Out-planted seedlings provided with post plantation care by nursery women
- 2.7. Samples of the out-planted seedlings monitored to determine survival and growth.
- 3.1. The Project Manager analyses results of monitoring to inform best practice for the reconstructive restoration of degraded dry deciduous forest
- 3.2. The Project Manager and Assistant Project Manager-Nurseries organises a workshop with project participants (and representatives from other organisations working to restore this habitat elsewhere) to present the results of monitoring of the survival and growth of out-planted seedlings and, partly informed by this information, to debate their perceptions on best practice for reconstructive restoration in the vegetation type
- 3.3. The Project Manager conceives and drafts a publication (could be booklet or perhaps poster) describing the principles for best practice for the restoration of dry deciduous forest, then shares this publication with others engaged in this activity
- 4.1. Project staff and business consultant develop business plan for a native tree value chain
- 4.2. Business plan implemented including development of webpage to attract potential buyers of young plants of native trees and to enable express interest in placing an order
- 4.3. Nursery women organised and legalised as an association and helped to develop a manual of procedures
- 4.4. Assistant Project Manager-Nurseries coaches the association of nurserywomen in the application of their manual of procedures
- 4.5. Assistant Project Manager-Nurseries places potential buyers in contact with one or more groups of nurserywomen where the buyer can seek their advice about which species may best satisfy their needs and then directly negotiate the purchase of these plants
- 4.6. Assistant Project Manager-Nurseries facilitates communication between buyers and the association of nurserywomen.

Annex 3: Standard Indicators

Table 1 Project Standard Indicators

DI Indicator number	Name of indicator	Units	Disaggregation	Year 1 Total	Year 2 Total	Year 3 Total	Total to date	Total planned during the project
DI-A01	E.g. Number of people in eligible countries who have completed structured and relevant training	People	Men	3				3
DI-A01	E.g. Number of people in eligible countries who have completed structured and relevant training	People	Women	1				1
DI-A03	Number of local/national organisations with improved capability and capacity as a result of project.	Number of organisations	Local NGO (FBM)	1				1
DI-A05	Number of trainers trained reporting to have delivered further training by the end of the project.	people	Men	3				3
DI-A05	Number of trainers trained reporting to have delivered further training by the end of the project.	people	Women	1				1
DI-B05	Number of people with increased participation in local communities / local management organisations (i.e., participation in Governance/citizen engagement).	people	Men	69				69
DI-B05	Number of people with increased participation in local communities / local management organisations (i.e., participation in Governance/citizen engagement).	people	Women	60				60
DI-C12	Social Media presence	Number/year	tweets	4				20
DI-D01	Hectares of habitat under sustainable management practices	Area (ha)	Protected area	19,000				19,000

DI Indicator number	Name of indicator	Units	Disaggregation	Year 1 Total	Year 2 Total	Year 3 Total	Total to date	Total planned during the project
DI-D16	Number of households reporting improved livelihoods	households	Assuming no households with two participants	129				129
DI-D17	Income derived by local communities from new/enhanced Payment for Ecosystem Services.	GBP for local employment						
DI-D18	Drivers of biodiversity loss assessed to have been reduced or removed	Number of types of threat assessed	4					4
DI-E01	Ecosystem Degradation Avoided (ha) (DEFRA / ICF KPI 8)	Area in hectares (ha)	Dry deciduous forest	19,000				19,000

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)

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.	