

## Darwin Initiative Capability & Capacity: 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: 30<sup>th</sup> April 2025**

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### Darwin Initiative Project Information

|   |  |
|---|--|
| Project reference   | DARCC042   |
| Project title   | Strengthening conservation organisations' capacity to drive Eastern Malagasy Forest restoration                            |
| Country/ies   | Madagascar   |
| Lead Organisation   | Chester Zoo  |
| Project partner(s)  | Madagasikara Voakajy, Missouri Botanical Gardens, Madagascar Fauna & Flora Group.  |
| Darwin Initiative grant value   | £98,340.00   |
| Start/end dates of project  | 01 April 2024 / 31 <sup>st</sup> March 2026  |
| Reporting period (e.g. Apr 2024 – Mar 2025) and number (e.g. Annual Report 1, 2, 3) | April 2024- March 2025 , Annual Report 1   |
| Project Leader name   | Charles Wheeler  |
| Project website/blog/social media   | <a href="#">Nursery Exchange Project - YouTube</a><br><a href="#">(9) Madagasikara Nursery Exchange Network   Facebook</a> |
| Report author(s) and date   | Charles Wheeler (Chester Zoo) & Sydonie Rabarison (Madagasikara Voakajy), April 2025.                                      |

### 1. Project summary

This project aims to significantly enhance the capability and capacity of nursery workers and community members engaged in ecological restoration across Eastern Madagascar. It addresses the critical need for structured training, standardised best practice guidelines, and sustainable inter-organisational collaboration within Madagascar's restoration sector. This project is highly relevant to rural Malagasy communities, who depend on these forests for their livelihoods, and to local nursery workers staff who have historically worked in isolation, lacked access to professional development and peer networks. Many of these individuals also face socioeconomic challenges, including limited education and financial insecurity. The project directly responds to the urgency of reversing biodiversity loss in Madagascar, one of the world's most important biodiversity hotspots. The country's forests are home to exceptionally high levels of endemism and are vital for delivering essential ecosystem services such as climate regulation, water purification, and habitat provision. However, they are severely threatened by shifting agriculture, logging, and wildfire. For example, since 2021, the Mangabe Protected Area has lost a staggering 3,760 hectares of forest cover, 2,550 hectares of which were lost in 2023 alone. At this rate, the entire remaining

forest could vanish within the next 10 years. This underscores the urgent need for efficiently trained restoration workers to replenish and protect important at-risk areas like this. By building a network of skilled restoration practitioners, the project tackles both biodiversity and human development challenges. It aims to:

- Upskill nursery workers, improving restoration outcomes and supporting Madagascar's Bonn Challenge commitment to restore over 4 million hectares.
- Promote inclusive economic development, especially for women, youth, and underemployed community members, by increasing access to sustainable employment and income-generating opportunities (e.g., through the local production of restoration equipment).
- Empower local leadership and collaboration, with training and peer-exchange led by Malagasy experts in culturally accessible formats.

The problems and needs addressed by this project were identified through a successful pilot workshop involving nursery teams from the three key project partners (Madagasikara Voakajy, Madagascar Fauna and Flora Group, and Missouri Botanical Gardens), with support from Chester Zoo. The pilot revealed a strong demand for peer-led learning, regional collaboration, and practical training resources. It also demonstrated the effectiveness of Malagasy-to-Malagasy training models, which have been scaled up within this project. By focusing on structured, peer-driven training, the creation of regional hubs, and accessible educational resources, this project provides a scalable model for ecological restoration and sustainable development that can be adapted across other regions of Madagascar and beyond. The project addresses urgent biodiversity challenges by supporting the restoration of degraded forest ecosystems in Eastern Madagascar. Activities within this project will support the delivery of existing goals for the reforestation of 5,000 ha at Mangabe by 2025 (with a goal of 16,000 ha by 2030) and 100 ha at Parc Ivoloïna, helping to restore critical habitat for species such as the golden mantella frog, indri, diademed sifaka, aye-aye, and black and white ruffed lemur. In terms of human development and poverty reduction, the project offers practical training and job opportunities for local nursery workers, including youth and women who have limited access to such resources. It supports 90 households through income-generating activities linked to women-led cooperatives producing nursery consumables. By establishing Mangabe and Parc Ivoloïna as restoration training hubs, the project fosters long-term employment, capacity building, and economic empowerment in underserved rural areas.

**Project location:** Evidence\_1 in annex 4.

## **2. Project stakeholders/ partners**

The Nursery Exchange Project (NEP), launched in 2024 under the Darwin Initiative, is built on a collaborative and inclusive framework shaped by local demand and contextual needs. The inception of the project stemmed from a clearly identified gap in technical skills and experience in nursery management and ecological restoration. It was expressed among community members, particularly those affiliated with Madagascar Voakajy (MV). This gap was highlighted through ongoing discussions with local stakeholders and partners, demonstrating a need for practical knowledge sharing and peer learning among nurserymen and restoration technicians.

In response, the project was designed to foster collaboration across multiple partners, notably Missouri Botanical Garden (MBG), Madagascar Fauna & Flora Group (MFG), Chester Zoo (CZ), and MV. These institutions were all actively involved from the early planning phase. A project launch meeting was held to bring all partners together and collectively define the vision, objectives, and thematic content for the workshops. A follow-up meeting was organized specifically to decide on workshop themes and share responsibilities for delivery. Throughout the year, all partners have remained engaged, contributing to both the design and delivery of training content, and advising on the technical focus based on their respective strengths. Previous British Ambassador to Madagascar, David Ashley was aware of the project and gave his support. The actual British Ambassador to Madagascar Patrick Lynch is due to visit one of the project sites, Parc Ivoloïna. He is going to visit the project 1st of May, it is an occasion to see the success of the project, and highlight his interest into the link of conservation and social benefits

Monitoring and evaluation mechanisms have also been developed collaboratively. While in-person follow-up is limited due to geographical constraints, an online network was created via Facebook to maintain regular communication, exchange photos and updates, and support peer learning. MV is planning a formal assessment of participant progress and knowledge application between May and June 2025, which will involve both quantitative and qualitative feedback from participants.

One of the strengths of this partnership lies in the diversity of experience each organization brings. MV contributes extensive experience in field data collection and community engagement; MBG and MFG offer high technical expertise in nursery and restoration practices, and their ability to replicate techniques in different regions has enriched the content of the workshops. CZ brings a valuable perspective in science-based restoration and agroforestry approaches .

Several key lessons have emerged from this collaboration. Firstly, the workshops needed to be adapted to address the varying levels of expertise among participants. While MBG and MFG teams were more advanced in nursery techniques, MV staff and community nurserymen were relatively new to the field. As a result, additional efforts were made to ensure knowledge sharing was balanced and inclusive. Interactive methods such as games, role-play, and practical exercises were introduced to accommodate different learning levels. A "Train the Trainer" session emerged as a highlight of the program, allowing more experienced participants to mentor others. To enhance ownership and motivation, participants were grouped strategically, and a friendly competition was held. Practical tools and materials (including trowels, grafting knives, and fruit tree seeds) were distributed. T-shirts were also given out to create a sense of belonging and identity among the network of nurserymen. (Evidence.2a)

Challenges due to differences in background knowledge were overcome by promoting mentorship within the group and carefully selecting facilitators who could adapt to the needs of both advanced and beginner participants. For example, MFG and MBG requested support on developing leadership skills and advanced mapping tools like ArcGIS, which will be considered in the planning of future projects. This mutual recognition of gaps and strengths has enriched the partnership.

In terms of stakeholder engagement beyond formal partners, local authorities and community leaders have been consistently involved. Before each workshop, MV extended formal invitations to local representatives, including the President of the Fokontany, Tangalamena, and community-based organization (VOI) leaders. They were invited to open the sessions and express support, ensuring alignment with local governance and reinforcing community ownership.

In Mangabe, the selection was more targeted due to the technical complexity of the themes, with two participants from the local community and two youth representatives attending. Notably, the UEBT (Union for Ethical BioTrade), although not a formal partner, requested to join after hearing about the project. Two forestry technicians from UEBT participated and were fully integrated into the sessions, treated as equal contributors and learners. The Royal Botanic Gardens, Kew, having learned of our project through the Biodiversity Landscapes Fund consortium, expressed a strong interest in collaborating. Unfortunately, their formal expression of interest arrived too late to accommodate the necessary logistical preparations. We have since held further discussions and now anticipate organizing a joint knowledge-sharing session between July and September 2025.

Participant selection for capacity building activities has been based on relevance to their current or potential role in nursery management and restoration. MV worked closely with Fokontany and VOI leaders to identify motivated individuals, ensuring gender balance and the inclusion of young people where possible. Most MV-affiliated nurserymen had limited prior experience, and the project intentionally created a space for learning and growth through exposure to more seasoned practitioners from MBG and MFG.

The overarching aim of the NEP has been to break the isolation of nurserymen by building a learning community, combining field-based expertise with strong local commitment. By embedding local leadership, promoting mutual learning, and addressing individual and institutional capacity needs, the project has laid strong foundations for continued collaboration and impact. (Evidence 2 , on annexe 4)

### 3. Project progress

#### 3.1 Progress in carrying out project Activities

**Output 1:** (Capacity) Improved access to standardised vocational resources for nursery management and restoration training throughout three Malagasy NGOs to increase capability and capacity development within the forest restoration workforce

##### *1.1.1. Develop and deliver workshop knowledge & skill assessment survey & task at each workshop:*

Eight surveys were developed using KoboToolbox (<https://www.kobotoolbox.org/>) and collected data for pre and post surveys at each location and workshop using either GIC collect app or the KoboCollect app. All survey results were centralised to one server platform. All eight surveys were carried out at all workshops in each location (four pre-workshop surveys and four post-workshop surveys). Workshop 1 assessed 29 participants and workshop 2 assessed 38 participants (Evidence.2). For each workshop there was one task assessment; the first workshop was a biological pot making assessment and the second workshop was a “train-the-trainer” exercise which involved delivering a short 5-minute training session on a unique chosen subject. Both task assessments were peer evaluated

##### *1.1.2. Gather results into one centralised database.*

All raw survey data collected from the surveys is backed up on server platform, KoboToolbox. The data from all surveys has been cleaned, anonymised and stored in one excel sheet backed up on the Chester Zoo OneDrive. The evaluations from each task assessment have been filed in to scoring tables. Analysed data is kept within a Chester zoo data dashboard (Evidence 1.1.2.)

##### *1.2.1. Project team meetings to plan and design content for vocational resources (videos & guide).*

Carried out in manner and time planned – All project meetings included the key partners and support staff from each organisation. Before each workshop, we held at least three full team meetings to go over the training topics, equipment and materials needed, and scheduling. Two videographers, one Malagasy and one British, were brought on board, and several meetings were held to give them a clear brief for the training video series. The training guide was a team effort, with input and feedback from project partners shared via email and follow-up meetings. Evidence 1.2.1. Annex 4

##### *1.2.2. CZ nursery videos filmed with help from plant team:*

Filming at the zoo took place over three days. On June 12–13, 2024, footage was captured for five training topics, air layering, pH testing, cutting, safe knife handling, and chip budding, with support from two CZ nursery staff members. A third day of filming was added following an agreement to adopt a similar filming approach used in the Madagascar workshop videos, which included interviews. On February 26, 2025, interview content was recorded with CZ staff. (Evidence 1.2.2)

##### *1.2.3. Madagascar videographer contracted and film videos for WS1 & WS2:*

An independent Malagasy videographer and sound technician were contracted to produce 10 training videos over the course of both workshops. The videographer signed an outlined Terms of Reference for the workload and deadlines agreed for this project. There were ten training topics were recorded at both workshops: Analysis of soils, Biochar production, CAM, compost, biological pots, phenological survey, living fences.

Interviews played a crucial role in capturing the essence of the workshop. Each day, specific themes were addressed during the sessions, and relevant participants were selected for interviews. These interviews focused on explaining the theme, best practices, and lessons learned. A total of eleven interviews were conducted, alternating between participants from MV, MGB, and MFG.

These interviews helped provide more detailed explanations on the workshop topics and are aligned with the objectives of the videos produced during this project. Through each interview, the audience will gain knowledge on topics such as nursery management, forest restoration, and the use of biodegradable pots. (Evidence 1.2.1 & 1.2.3)

#### *1.2.4. Training video series edited and created:*

The training videos were collaboratively edited by both videographers, using a familiar filming and editing format designed to maximize engagement and deliver clear, step-by-step instructions. The complete series has been uploaded to the project's dedicated YouTube channel. Although the upload occurred later than originally planned, this delay was due to competing deadlines and workload constraints faced by the videographers. We anticipate strong engagement with the videos, measured through views, likes, and subscriptions to the channel. (Evidence 1.2.4)

#### *1.2.5. All organisations agree and endorse techniques to be used in standard guide of best practice:*

The guide document was drafted using simple, easy-to-follow descriptions of training topics presented in a step-by-step format. Brief explanations for each training topic and its segments were drawn from reports from Workshop 1 and Workshop 2. The draft document was shared with all partner organisations for feedback and comments, and amendments were made based on the feedback received. Additionally, the videos involved contributions from all partners: Biochar MFG focused on biochar production, MV contributed on data collection, and MBG provided input on the biopot and natural fencing techniques. – Evidence 1.2.1

#### *1.2.6. Create standard best practice guidelines for forest restoration in Malagasy, French, and English with visual aids:*

This was created in the manner and time planned. The document “Malagasy Forest Restoration Guidebook” was developed collaboratively by both lead partners (CZ and MV). The guidebook's main purpose was to be an accessible resource for nursery and restoration workers based in Madagascar with varied experience and literacy levels. Thus, the guide has a strong visual aid focus and limited text and use of technical terms. We wanted the visual aids to be efficient enough so that the learner could follow solely using the illustrations. The document has been produced in Malagasy and English. The decision to not translate into French was made based on the understanding that many rural community members who would use this book would not be capable of reading French. The justification for an English document is for using the document to share in reports, and to accurately translate into other languages in the future if needed. (Evidence 1.2.6)

#### *1.2.7. Print and prepare all vocational resources to be accessible and sharable during y2 workshops:*

This activity is due to take place in Y2.

#### *1.3.1. CZ and partner organisation staff receive Train-The-Trainer training:*

On 26<sup>th</sup> September & 3<sup>rd</sup> October Sydonie Rabarison (MV), Charles Wheeler (CZ) and two CZ plant team members received the full Train-The-Trainer course delivered by Liz Web, Conservation Training Academy Manager (CZ). Training was received well and included an evaluation at the end of the course involving preparing and delivering a short training session that was then peer evaluated. This inspired the skill assessment for Workshop 2.

#### *1.3.2. CZ and partner staff deliver Train-The-Trainer training to workshop participants in-country during WS2 Y1:*

Sydonie Rabarison (MV) led the Train-The-Trainer course during workshop 2 in Malagasy with support from CZ staff. The course was only delivered during the Mangabe section of workshop 2. A

bespoke Train-The-Trainer document was created and translated for the delivery of the course during the workshop. This included training activities and case studies that were relevant to the Malagasy forest restoration and cultural context. The training was delivered over two afternoons of the workshop 10<sup>th</sup> November & 13<sup>th</sup> November. (Evidence 1.3.2 & 1.3.2a)

#### *1.3.3. Issue trainer certificates to trained participants:*

Certificates were issued to all 33 participants of the Mangabe workshop upon completion of their group task evaluation. (Evidence 1.3.3)

#### *1.3.4. Promote Y2 workshops to community groups & Identify community members interested in Y2 workshop and create register:*

The nurserymen from Mangabe who attended the workshops in Y1 have promoted the workshops for Y2 during their biopot training sessions with community members. Nurserymen used their new trainer skills to disseminate the art of creating biological plant pots to large community groups. This, alongside efforts from the MV team to encourage known members and groups within the community, such as women cooperative groups, youth groups, and local patroller teams. There has been a good amount of interest for Y2 workshop 1 which is due to take place between 10<sup>th</sup> May 2025 – 21<sup>st</sup> May 2025 across three villages within Mangabe Protected Area and an estimated 250 participants registered to take part. (Evidence 1.3.4)

**Output 2: (Restoration) All three organisations have adopted improve standardised nursery & restoration techniques from the training workshops at two NGO priority sites leading to more efficient and resilient restoration initiatives.**

#### *2.1.1. Register NGO staff interest and availability for workshops.*

All project partners were encouraged to inform their staff about the upcoming workshops in 2024. The project designed two invitations that were sent out all project partners to distribute amongst their nursery teams and community nursery workers. This was an initial save the date followed up with a leaflet that contained a detailed breakdown of what each workshop would cover. This enabled the project teams to estimate how many nursery staff from each of the organisations were available to attend and to arrange all the suitable travel and logistics for the workshop. The detailed workshop invitation was also shared with external organisations such as UEBT, who were able to attend the second workshop in November. (Evidence 2.1.1)

#### *2.1.2. Design and develop two core workshops with structure, content, and logistics. (WS1 nursery management, WS2 out planting and restoration).*

Initial project team meetings were held to plan what topics each organisation would like to see included in both workshops. The first workshop, which was to focus on “Nursery Management” was planned using an online interactive whiteboard, Jambaord.com, (now discontinued) where all project partners could add topics they had expertise that they could deliver training for (Evidence 2.1.2). This generated enough content to begin planning each workshop. Both workshops for Y1 were designed using a 3-day template for each site from the pilot project that took place in 2023. This template was circulated to all partners to populate with training session they could lead on at both sites.

To ensure that all proposed themes were covered during the workshop, the workshops lasted 10 days, including travel between Moramanga and Ivoloia.

For workshop 1, participants included Madagasikara Voakajy (MV) team members from four regions: Diego, Tana, Morondava, and Ambatondrazaka. The restoration leaders from each of these sites were invited to exchange knowledge and experiences. In addition, two teams from Missouri Botanical Garden (MBG) based in Agnalazaha participated. Due to the remote location of Agnalazaha, it took these participants three days to travel to Moramanga. Six teams from Madagascar Fauna and Flora Group

(MFG), based in Ivoloïna, travelled to Mangabe to join the workshop. Nurserymen from both MV and MFG participated in the sessions held at both Mangabe and Ivoloïna.

A common theme of feedback from the pilot project was the addition of more practical elements to the workshops. This was considered in the design of the current workshops maintaining a good balance of practical and theoretical training.

#### *2.1.3. Develop workshop knowledge & skill assessment survey & task for each workshop.*

Once the content for each workshop had been agreed upon a pre and post survey was created based on the training topics to be delivered at each site. For both workshops the Mangabe and Parc Ivoloïna sessions had separate surveys, this was due to the different topics covered at each site but also to ensure all participants were able to be evaluated as not all participants travelled to both sites. Each survey was made up of three parts, a) participant information, b) questions on participants knowledge level, and c) questions on participants confidence at performing a skill / technique. The questions were formed in the Likert scale, to measure how confident or capable someone feels about their skills or understanding before and after the workshops. The participant would be asked to rate their confidence at performing a skill or what level of knowledge they have for a list of topics; for example, *“Please select how confident you feel at performing each skill / technique - Composting & creating CAM”*. For each skill or technique, they were given a list of answer options that would best represent their confidence level; Not confident, slightly confident, confident, very confident. Or for a knowledge question *“Please select which level of knowledge you feel you have for each topic - liquid fertilisers & biopesticides”* with answer options of; No knowledge or understanding, basic knowledge & understanding, intermediate knowledge & understanding, advanced knowledge & understanding, and expert knowledge & understanding. This helps see if learners feel more skilled or knowledgeable after the learning experience. It doesn't test what they know directly, but it shows their self-perception of growth, which is useful for evaluating the impact of training.

Workshop task assessments were developed to accurately demonstrate the skills that had been learnt during a part of the workshop. For workshop 1, the task assessment was based on the skill of building biological pots made from banana bark. This process was demonstrated to the group on the first day of workshop 1 at the Mangabe site by MV staff. During a 15-minute period, 7 groups of 3 to 4 persons, were challenged to produce bio pots from banana bark. The group was composed of those who had already done the biopot making before and those who had not. The groups would then peer evaluate the pots made by other groups based on number of pots produced and the five quality criteria: longevity, aesthetics, efficient use of materials, stability, and strength. (Evidence 2.1.3)

The Workshop 2 task assessment was aligned with the Train-the-Trainer program delivered to participants at the Mangabe site. On the second day of the course, participants were randomly divided into teams of 3–4 members. Each team selected a topic or technique and prepared a five-minute training pitch to present to the rest of the group. This task is an integral part of the official Train-the-Trainer course, designed to assess participants' abilities as trainers. It allowed them to demonstrate the impact of the training by delivering effective and engaging sessions, as well as providing constructive and appropriate feedback to trainees. This approach successfully integrated both key elements of the course. (Evidence 2.1.3a)

#### *2.1.4. Deliver workshop 1*

Workshop 1 was delivered between 27<sup>th</sup> August 2024 and 4<sup>th</sup> September 2024 at Mangabe Protected Area and Parc Ivoloïna. Project partners present for this workshop were Madagasikara Voakajy, Missouri Botanical Gardens, and Madagascar Fauna & Flora Group with 29 participants. Please see *evidence 2.1.4* for the itineraries for Mangabe site and Parc Ivoloïna site. This workshop focused on nursery management and delivered sessions on the following subjects:

| Topic  | Evidence |
|--|----------|
| <b>Presentation of MV sites of restoration.</b> This session was conducted to initiate conversations and discussions around restoration protocol and recommendations. Each restoration leader from different MV sites, Diego, Ambatondrazaka , Morondava and Mangabe exposed their context and their challenges . This prompted a questions and answer session where participants were asked to provide feedback   | 2.1.4    |
| <b>Phenological surveys and selections of mother trees.</b> During this exchange, MV, MFG and MBG monitored the species targeted for restoration within MV moramanga. We divided the group according to their responses to the checking into 4 groups (root, leaf, stem, other parts). There were 4 species inventoried. It was a selection of mother plants of 4 species: Dalbergia , Diospyros sp. Cryptocarya sp. Chrysophyllum boivinianum. From the full meeting, these challenges and recommendations were noted |          |
| <b>Pretreatment of the seeds: Viability test</b>   |          |
| <b>Collecting wildings and transplanting</b>   |          |
| <b>Filling pots and direct seed sowing</b>   |          |
| <b>CAM</b>   |          |
| <b>Soil testing</b>  |          |
| <b>Liquid fertilisers and biopesticides</b>  |          |
| <b>Air Layering &amp; Grafting</b>   |          |
| <b>Land preparation and restoration practice.</b> During the team discussions, several key topics were covered to improve the restoration process on sloped land and optimize the planting of seedlings  |          |
| <b>Biosecurity and Biocontrol in Biodiversity and Ecosystem Protection</b>   |          |
| <b>Biochar production</b>  |          |
| <b>Living fences.</b> This session was delivered by the MBG team. This horticultural technique was delivered to the MBG team during another Darwin Project “Stock-proof hedges to improve farming livelihoods and conserve Malagasy forests”.  |          |
| <b>Beer can tagging.</b> From the NEP, we learned how to create tags from aluminum beer cans for use in nurseries or restoration sites.  |          |
| <b>Melaleuca Biological pots</b>   |          |

#### 2.1.5. Deliver workshop 2

Workshop 2 took place between 8th and 19th November 2024 with a total of 38 participants. Participants included the three main in-country project partners, three staff members from Chester Zoo, and representatives from the external organisation UEBT. The workshop focused on restoration management, incorporating visits to restoration nurseries and sites managed by external organisations. These visits provided participants with first-hand insight into a variety of restoration protocols and challenges encountered across different sites and organisational levels.

During the journey from Mangabe to Parc Ivoloïna, the group stopped at Analamazaotra Andasibe National Park, where they received a presentation on both modern and traditional nursery practices. Mitsinjo Association is the promoter of the park and they were the initiators of restoration in the Eastern . They trained MFG teams . This visit also included a tour of a successful five-year-old restoration site, where the local Andasibe team shared their experiences, challenges, and successes. The session inspired a lively hour-long discussion among the group members.

This workshop covered the following topics at Mangabe, Andasibe, and Parc Ivoloïna sites:



| Topic  | Evidence |
|--|----------|
| <b>Train- The -Trainer course delivery</b> (2 half days)   | 2.1.5    |
| <b>Degradation study.</b> This is a study to evaluate the degradation of restoration sites to determine the approaches applied to ecological restoration                               |          |
| <b>Monitoring of PSRRE</b> (Monitoring and Research Plots on Ecological Restoration)   |          |
| <b>Soil preparation</b>  |          |
| <b>Planting Plans</b>  |          |
| <b>Mulching</b> – Chester Zoo led  |          |
| <b>Safe knife handling</b> – Chester Zoo led   |          |
| <b>Analamazaotra Andasibe National Park-</b> Nursery and restoration site visit.   |          |
| <b>Parc Ivoloïna classroom talks</b> - Degradation study: data collection & choosing species to produce, Creation of the nursery, Production of young plants, Phenological monitoring. |          |
| <b>Visit Parc Ivoloïna restoration demonstration plots</b> - Treatments applied: biochar, tree guard, biochar.   |          |
| <b>Agroforestry</b>  |          |
| <b>Collecting Seeds</b>  |          |
| <b>Database &amp; data sheets</b> – Classroom lesson & discussion  |          |

### 2.2.1. Year 1 both workshops delivered to 30 participants (Existing nursery staff) at Mangabe & Parc Ivoloïna.

Workshop 1 was delivered to 29 participants, falling short of the target due to some nursery staff being unable to leave their commitments related to ongoing restoration projects. Workshop 2, on the other hand, exceeded expectations with 38 participants, including existing staff from partner organisations and two external representatives from UEBT. The higher turnout for Workshop 2 may be attributed to the earlier distribution of invitations, which allowed participants more time to plan. Kew Madagascar also expressed interest in attending; however, their request came during the week of the workshop, and it was not feasible to accommodate them at that stage due to logistical constraints (Evidence 2.1.5)

### 2.3. Deliver workshop knowledge & skill assessment survey & task at each workshop.

To streamline the process and save time, four teams from MV were responsible for entering responses into KoboCollect while conducting the surveys. The questionnaire, which consisted of 17 questions, took approximately 5–10 minutes for each participant to complete.

The pre- and post-training survey data across both workshops and sites show a clear and consistent increase in self-reported knowledge, understanding, and confidence among participants after the training from the workshops. Before training, most participants reported having no or only basic knowledge in all topic areas, with only a few who stated having more advanced levels. After training, a large shift occurred toward intermediate, advanced, and expert levels across all topics. For example: For the biopot making, all the participants know how to make it. The winner of the challenge give their tips on how to have the best biopot.

For WS1 at Mangabe, notable increases were observed in Cutting and seedling aftercare, majority shifted to intermediate (61.9%) and expert (75%) levels; Liquid fertilizers and bio-pesticides, Post-training, 100% rated themselves as expert; Tree species phenology, moved from 100% "no knowledge" to 100% "expert" level. All practical skill areas (e.g., composting, grafting, testing soils) saw significant confidence increases. Participants who were previously "not confident" decreased notably, while those reporting "very confident" increased to around 70% in most areas. For example, grafting, cutting, and air layering: "Very confident" rose from 33% to 67%, and Testing soils and making bio-pots, "Very confident" increased to 70% post-training.

For WS1 at Parc Ivoloïna, significant increases were observed in Bio Security, where participants shifted from 100% "no knowledge" pre-training to 70% at the "advanced" level post-training; Seedling Production, with a jump to 75% "expert" level post-training from 0% pre-training; and Monitoring and Protection of Plants, where "expert" knowledge rose from 0% to 67% post-training. All knowledge areas showed clear progression, particularly in moving from "no knowledge" to "intermediate" and above. Confidence also improved across all practical skill areas. For example, in BioChar Production, "Very confident" responses rose from 0% pre-training to 75% post-training; and in Using Natural Pesticides, "Very confident" increased from 0% to 50% post-training, while "Not confident" dropped from 75% to 25%.

The training had a strong positive impact on participants' self-assessed knowledge and confidence. Results indicate improved readiness and ability to apply the skills and knowledge covered in the sessions, supporting the effectiveness of the workshops (Evidence 1.1.2)

Workshop task assessments were delivered at both workshops during the sessions at the Mangabe site. Workshop 1 tasks assessment tested the biological pot made from banana bark, a technique first introduced in Ranomafana during the NEP project in 2023. The nurserymen were tasked with testing the method and sharing their experiences in a friendly competition. We organized 7 groups consisting of 3–4 participants, mixing those who attended last year with newcomers. After distributing the raw materials (two bottles and three banana barks per group), each team was given 15 minutes to create as many pots as possible.

The evaluation criteria were based on five key factors used to judge the quality of the pots produced. Audience members were responsible for scoring each pot, while the groups that created the pot were not allowed to vote or influence the results. The voting was made orally. After the voting, the group with the highest score shared their techniques and insights with the rest of the participants. This activity took place both before and after the sessions in Mangabe, offering valuable insights into the participants' progress and practical application of the knowledge shared during the workshop (evidence 2.1.3).

Workshop 2 task assessment aligned with the Train-The-Trainer end evaluation. The workshop was divided into multiple groups of 4 to decide on a topic to train the rest of the workshop in a short five-minute session using the skills they had learnt during the training. The workshop group then evaluated each groups training session based on 1) what did they like, 2) what caught their attention, 3) what could be improved, 4) was there a key learning message. The evaluation was given orally and every group received positive feedback and areas to improve on their delivery. (evidence 2.3 & 2.1.4)

#### *2.4. WS implementation evaluation survey (gather data on WS participant success at home sites)*

An evaluation of the Mangabe nurserymen who participated in the workshops was conducted in early 2025 over a two-month period. The assessment focused on the extent to which training themes delivered during the Year 1 workshops had been implemented at the participants' home nursery sites. All six villages within the Mangabe Protected Area were represented at one or both workshops, with two nurserymen attending from each village. Findings show that five out of the six nurseries are actively implementing the majority of the training topics covered during the workshops. The sixth nursery, established in late 2024, has only adopted three practices. This limited implementation is attributed to the fact that the nurserymen there were recruited after the first workshop had already taken place.

Despite this, all 12 nurserymen have successfully applied their "trainer of trainers" training and the new skill of biological pot making. Collectively, they have trained a total of 527 community members in the production of biological pots, demonstrating strong outreach and knowledge transfer within their communities. (Evidence 2.4)

#### *2.5. At the end of Y1 & Y2 conduct restoration and nursery yield success assessment*

In the case of Mangabe Protected area, the combined assessment of all six nurseries has demonstrated that there is a 70% germination rate within nursery raised seedlings, 12,600 seedlings produced, and an average survival rate of 89% in the nursery. Yield assessments for MFG, MBG, and UEBT sites are yet to be conducted and reported.

##### *2.5.1. Collect forest cover & satellite imagery*

This activity will be carried out in May 2025.

#### *2.6. Final project assessment write up final reports.*

A workshop report was formally written up summarising all the activities, achievements and challenges faced at each workshop. Workshop 1 report, author Sydonie Rabarison (Evidence 2.1.4), workshop 2 report, authors HERILALA Nirina Maxime Prosper & RANDRIANATOLOTRA. N. Heriji Fidèle, Mangabe nurserymen. (evidence 2.1.5).

**Output 3:(Legacy) Nursery Restoration Exchange Network (NREN) established and coordinated by trained individuals to increase regional Malagasy capacity in the long-term and provide community support for future restoration projects.**

#### *3.1.1. Create and/ or upgrade the NREN platforms (Facebook & WhatsApp, tiktok)*

The Facebook group “Madagasikara Nursery Exchange Network” was upgraded in its appearance by adding in a group photo from the Pilot NEP in 2023 as a cover photo and a post explaining the purpose of the group for all members to see and understand was pinned to the top of the group feed preparation for new members joining after the first workshop in August 2024.

A WhatsApp group was created; however, this app is rarely used amongst the participants of the workshops and had only a small number of people joined and so has been discontinued.

A YouTube channel has been created for the project to house the training video series and project documentary. This platform will aim to engage with a wider audience interested in restoration and nursery management techniques.

### *3.1.2. Encourage WS participants to join platforms whilst on WS*

Throughout the workshops, participants were encouraged to join the Facebook group to share their post-training nursery achievements as an optional “homework” task. Between April 17, 2024, and April 16<sup>th</sup>, 2025, members shared a total of 102 posts in the group. (Evidence 3.1.2)

### *3.1.3. Gather emails / numbers of form participants register to send network invitations*

At the end of each workshop a document was passed round for each participant to fill in with their details, Name, organisations, telephone number, and email. All participants that did have emails were invited to join the Facebook group. (Evidence 3.1.3)

### *3.2.1. Make training resources open source and upload to platforms.*

The Malagasy version of the best practice guide, all the training videos, and workshop reports have been shared on the Facebook group. The training videos have been uploaded to the Project’s YouTube channel along with a video version of the guidebook. (Evidence 1.2.4)

### *3.2.3. Run social media engagement analysis for reporting.*

A social media engagement analysis was conducted for the Facebook group. The analysis reveals that the group comprises 43 members, 35 of whom are active participants who regularly post and engage with content (Evidence 3.2.3). Between 17 April 2024 and 16 April 2025, members made 102 posts, received 761 reactions, and contributed 190 comments (Evidence 3.2.3). This high level of engagement reflects the members' positive attitude and pride in their work, as well as their enthusiasm for sharing lessons learned and knowledge. It also highlights the workshop’s impact in fostering a strong, connected network among Malagasy nursery teams (Evidence 3.2.3).

### *3.3. Develop and share quarterly newsletters, restoration champion case studies, and videos.*

This activity did not take place. Although these activities did not take place this year, the high level of activity and engagement within the project’s Facebook group provided an effective alternative. Community members regularly shared updates, achievements, and restoration efforts directly through the platform, offering real-time visibility of the work being carried out. As a result, the intended purpose of the newsletter, to highlight and celebrate project activities, was successfully achieved through social media, making a formal newsletter unnecessary during this reporting period. (Evidence 3.2.3).

### *3.4.1. Identify NGO staff and nursery workers to receive comms training and manage platforms*

Sydonie Rabarison has been selected to receive communications training and to manage the platforms associated with this project network. She is due to visit the UK in June 2025 for a separate project, and during this visit, time has been allocated for CZ communications staff to provide targeted training. This training will focus on managing and curating content within project groups, promoting community engagement, and overseeing administrative reporting to support improved engagement tracking and analysis. This activity is justified as it strengthens in-country communications capacity, ensures more consistent and effective platform management, and enhances the project’s ability to monitor and respond to network activities in real time.

### *3.4.2. CZ staff deliver short tutorial on how to manage online social platforms.*

See section 3.4.1

### *3.4.3. Identify 1 person as NREN manager to pull together and manage admin reports / content.*

See section 3.4.1

**Output 4: (Poverty reduction) Increased restoration activity promotes development of the production and supply of natural consumables, resulting in increased sustainable livelihoods in local communities**

***4.1.1. Design and deliver income & forest dependency (agriculture, sustainable product production, and income generation from this project) surveys.***

The survey was designed by Charles Wheeler and Sydonie Rabarison using the online platform KoboToolbox. It was structured to capture perceptions on climate change, forest conservation, and additional training needs, alongside proxy questions related to household income and forest dependency. To balance depth and efficiency, the survey included a mixture of open-ended and multiple-choice questions, allowing for accurate data collection while enabling simple and efficient comparisons between baseline and follow-up surveys. The survey covered nine sections: contact with the project; personal and household information; household income; agriculture and livestock; markets; forest dependency; financial management; climate change; and personal requirements and perceptions. Branching logic was incorporated throughout, prompting follow-up questions based on initial responses—for example, a participant who indicated involvement as a nursery worker in the nursery exchange project would receive a specific follow-up asking how many months per year the nursery staff are employed. This approach allowed a single survey form to be used across all participants while still gathering relevant, targeted information based on their individual answers. The survey helped MV in developing their restoration plan because it gave details on what agroforestry plant they want and what is their basic needs according to their forest dependency.

***4.1.2. ID products & demand***

The project identified five key products that could be produced and supplied to support both the project's own activities and potential external restoration nurseries. These products are biological pots, fabric seed bags, seedlings, compost, and uniforms. Following detailed discussions with Madagasikara Voakajy staff and nursery workers, it was agreed that certain products should be prioritized based on their perceived demand and importance to nursery operations. Biological pots were identified as the highest priority due to their essential role in sustainable seedling cultivation, followed by fabric seed bags, which are crucial for the collection and storage of seeds, and then seedlings themselves, which are central to restoration efforts. To better understand and plan for production needs, each of the six nurseries operating within the Mangabe Protected Area estimated the quantity of each product they would require annually. These estimates provided a clearer picture of the likely demand across the nurseries, helping to inform production targets and ensure that resources would be allocated efficiently to meet the needs of ongoing and future restoration activities. – Evidence 4.1.2 pictures of products.

***4.1.3. Run feasibility assessment of products for community groups production.***

Based on the demand outlined by nursery workers within the Mangabe Protected Area for products needed to support nursery operations, a feasibility study was conducted specifically for the production of biological pots and seed bags. This focus was chosen because seedlings are typically propagated directly within the nurseries and are rarely purchased externally by nursery staff. The feasibility study assessed several factors, including the volume of activity for each nursery, the specific skills present within each community, and the number of individuals interested in participating in the production initiative.

The study carefully considered all associated production costs and labor time, ultimately determining fair purchase prices for each product that would ensure producers earned a reasonable and motivating profit from each sale. It was decided that women within each community, where the nurseries are based, would lead the production efforts. For biological pots, the purchase price was calculated at 300 Ariary, based on the assumption that one individual could produce approximately 50 pots in a single working day, generating a daily income of 20,000 Ariary per person. For seed bags, the price was set at 5,000 Ariary per bag, reflecting the additional materials and time required for their production.

To distribute the production workload equitably, each village divided the required number of biological pots among the women available to participate. This distribution was carefully calculated to ensure efficiency and fairness in production targets. A detailed breakdown of the number of pots required per village and the corresponding distribution among community members is provided in Evidence 4.1.3, which outlines the production calculations.

***4.1.4. Hold community meetings and share feasibility assessment.***

This was carried out by the nursery men within Mangabe after the training of biological pot production was carried out. (Evidence 4.1.4)

*4.1.5. Create product quality control and have community groups sign quality agreement.*

Quality control procedures were introduced during the training sessions on biological pot production, delivered by the nursery staff to the participating community groups. To ensure consistent standards, community groups that committed to producing the pots entered into a terms of reference and agreement with their local nurserymen, outlining expectations around product quality, production timelines, and responsibilities. These agreements helped formalize the production process and ensure accountability across all participating groups.

*4.1.6. Assist community groups with creating business and production plans*

Due to limited time and the need to complete the product analysis first, this activity could not be carried out in Year 1 as planned. It has been rescheduled for the first quarter of Year 2 to ensure it is delivered effectively and in line with the project's overall timeline.

*4.1.7. Promote sale of products at the end of each workshop in Mangabe with a stall in the camp.*

Planned to be delivered in Y2.

*4.2. Deliver income & forest dependency (agriculture, sustainable product production, and income generation from this project) surveys to larger groups in the community including nursery workers.*

This activity was completed within the scheduled timeframe and according to the original plan. The baseline survey was conducted over a period of 15 days, from 10th March to 25th March 2025, and successfully surveyed 275 households across 58 villages within the Mangabe Protected Area. Preliminary analysis of the data indicates that the majority of respondents demonstrate low dependency on forest resources. Additionally, 19% of participants reported being engaged with the project in some form. The survey further highlighted that January, February, and March are the months during which most households experience their lowest income levels. Notably, 60% of households surveyed indicated that they are currently unable to save any money, underlining a significant economic vulnerability across the surveyed communities.

*4.3. Continue to deliver income & forest dependency surveys at 6-month intervals, collecting data in a centralised database.*

Planned to be delivered in Y2.

*4.4. Conduct final nursery consumables products feedback evaluation with community group meetings.*

Planned to be delivered in Y2.

*4.5. Evaluate the data collected from the climate resilience proxy questions in the income & forest dependency surveys and summarise results into final report along with forest cover imagery.*

This Activity will be delayed until Y2 once the follow up income & forest dependency surveys are deployed.

### **3.2 Progress towards project Outputs**

**Output 1: (Capacity) Improved access to standardised vocational resources for nursery management and restoration training throughout three Malagasy NGOs to increase capability and capacity development within the forest restoration workforce**

*1.2 [DI-C01] By end of Y1, standardised best practice guidelines for forest restoration in Madagascar have been produced and endorsed by MV, MBG, MFG. Guidelines and training videos have been produced and disseminated to all nursery staff and participants.*

Significant progress has been made toward achieving this output, fully meeting Indicator 1.2. A standardized best practice guidebook was developed based on content generated during Year 1 workshops, incorporating visual diagrams to clearly illustrate each step of the techniques covered. This guidebook and training videos were distributed to all project partners for sharing with their staff and community groups and is also available via the project's Facebook group and YouTube channel. Initially, most workshop participants had inconsistent access to training resources, ranging from theory-heavy textbooks to personal notes from earlier practical sessions. The new guidebook now offers a clear, accessible overview of best practices in nursery techniques and restoration management, tailored for

nursery workers and community growers in Madagascar. Designed to be easily understood by individuals across varying levels of skill and knowledge, these resources will continue to support training efforts during Year 2 workshops. Evidence 1.2.6.

### *1.3 By end of Y1 at least 10 nursery staff trained as trainers.*

This indicator was fully achieved. By the end of the Year 1 workshops, a total of 33 nursery staff were trained as trainers and awarded certificates. Prior to this, none of the participants held certification as trainers. Progress toward this indicator was measured by the number of workshop participants who successfully completed the two-day training and received certification following their trainer assessment.

**Output 2: (Restoration) All three organisations have adopted improve standardised nursery & restoration techniques from the training workshops at two NGO priority sites leading to more efficient and resilient restoration initiatives.**

### *2.1 [DI-A01] Four workshops successfully delivered (two per year)*

The project is on track to meet this indicator for this output. Y1 saw the delivery of two workshops, first focusing on nursery management and the second on restoration management, with an audience of current nursery staff of project partners. The further two workshops will be delivered in Y2.

### *2.2 By end of Y1 80% of MV, MFG, MBG nursery staff at Mangabe & Parc Ivoloïna have completed workshops 1 & 2 (increasing to 100% by end of Y2)*

This indicator was fully met for Year 1 (Y1) participant targets. All of MV's mangabe staff (100%) attended the Y1 workshops, along with four restoration managers from other MV sites. Over 80% of Parc Ivoloïna's nursery staff participated, in addition to community nursery workers from the Betampona Reserve. While attendance at Workshop 1 (WS1) fell short of expectations, we successfully increased participation for Workshop 2 (WS2) by sharing dates and workshop details well in advance and by including two participants from an external organization (UEBT). A detailed participant evidence table is available.

### *2.6 [DI-A04 Core] By end of Y1, at least 28 nursery staff have completed both training workshops.*

This indicator was fully achieved by the end of Year 1, with a total of 47 nursery staff, well exceeding the target of 28 successfully completing both training workshops across five organisations (Chester Zoo, Missouri Botanical Garden, Madagasikara Voakajy, Madagascar Fauna and Flora Group, and UEBT). This strong participation will likely demonstrate a broad uptake of the improved, standardised nursery and restoration techniques promoted during the sessions, directly contributing to more efficient and resilient restoration efforts in line with the stated output.

**Output 3:(Legacy) Nursery Restoration Exchange Network (NREN) established and coordinated by trained individuals to increase regional Malagasy capacity in the long-term and provide community support for future restoration projects.**

### *3.3 [DI-C10] 4 quarterly newsletters communicating community nursery case studies will be published on the Nursery networks annually.*

While the indicator of publishing four quarterly newsletters featuring community nursery case studies was not met during this reporting period, the objective of fostering knowledge exchange and community engagement, as outlined in Output 3, was actively achieved through alternative means. The project's Facebook group became a highly effective platform for peer-to-peer learning and real-time communication, with community members consistently sharing updates, restoration milestones, and case studies from their own nurseries. This dynamic, interactive space supported the core goals of the Nursery Restoration Exchange Network (NREN) by strengthening connections between trained individuals and promoting regional collaboration. As a result, despite the absence of formal newsletters, the spirit and function of the NREN were upheld, contributing to long-term capacity-building and sustained community support for restoration efforts in Madagascar. Actions to be taken going forward are to monitor the engagement online and in the case of a drop in postings and sharing then a newsletter or gathering of information shared by the group could be conducted and published (Evidence 3.2.3)

**Output 4: (Poverty reduction) Increased restoration activity promotes development of the production and supply of natural consumables, resulting in increased sustainable livelihoods in local communities**

### *4.3 By the end of year 1, 10 local community group enterprises established*

This output has shown solid progress toward achieving Indicator 4.3. Currently, 6 out of the 10 local women's cooperative groups are actively engaged in the project through the production and supply of nursery-related products, such as biodegradable plant pots and fabric seed bags, for use across nurseries in the Mangabe Protected Area. While the project did not directly establish these cooperatives, it has played a key role in supporting their ongoing operations and enhancing their business viability. This support has included conducting feasibility studies, providing training for the development of new products, and both purchasing and committing to future purchases of their goods. These activities contribute meaningfully to Output 4 by stimulating local enterprise, promoting the production of natural consumables, and ultimately advancing sustainable livelihood opportunities linked to restoration efforts in the region. (Evidence 4.1.3)

### 3.3 Progress towards the project Outcome

*Outcome: Strengthening collaborative training for nursery workers across three Malagasy NGOs to implement standardised best practice, drive effective forest restoration actions, and promote sustainable economic alternatives in local communities.*

The project has made strong progress toward achieving its Outcome of strengthening collaborative training across three Malagasy NGOs to implement standardised best practices, improve forest restoration outcomes, and promote sustainable livelihoods in local communities. At baseline, the majority of nursery workers in Eastern Madagascar, many of whom are individuals with limited education and financial resources, had little to no access to professional development, operated in isolation, and lacked exposure to structured, peer-led training or consistent best practice guidelines. There was also an absence of sustained inter-organisational collaboration within the country's restoration sector. In response, the project developed and disseminated a standardised best practice guidebook and training videos, trained 33 nursery staff as certified trainers (surpassing the target of 10), and supported 47 individuals to complete both Year 1 workshops (exceeding the target of 28). Though the quarterly newsletter target was not met, the project's Facebook group has emerged as a dynamic and inclusive platform for knowledge sharing and case studies, fulfilling the core intent of community exchange. Furthermore, six women-led cooperatives are now supplying restoration-related materials to nurseries, supported by feasibility studies, training, and direct procurement—advancing sustainable livelihoods and economic empowerment. These achievements directly contribute to restoring key biodiversity hotspots like Mangabe, where forest loss has accelerated in recent years, and to building local capacity to implement Madagascar's national restoration targets. Based on current momentum and outcomes to date, the project remains on track to fully meet its Outcome indicators by the end of the funding period, with ongoing efforts to engage additional cooperatives, monitor digital participation, and sustain training efforts across both project sites.

### 3.4 Monitoring of assumptions

**Assumption 1:** *Continued forest restoration activities provide ongoing demand for nursery products.*

Comments: This assumption has been validated to date. Ongoing forest restoration activities in the Mangabe Protected Area have demonstrated consistent demand for nursery products, including biological pots—approximately 12,500 units required annually.

**Assumption 2:** *A suitable proportion of nursery workers will be willing and able undertake the train-the-trainer training.*

Comments: This assumption has been validated as there were 33 nursery workers who were able to undertake the train-the-trainer training.

**Assumption 3:** *Unpredicted major severe weather events do not impact nursery yields.*

Comments: This assumption has been confirmed as no major disruptions due to extreme or unpredicted weather has affected nursery yields.

**Assumption 4:** *Nursery workers and workshop participants will continue to engage via the WhatsApp and Facebook platforms sufficiently to establish a sustainable platform for ongoing skills exchange and access to best practise resources.*

Comments: This assumption has been partially confirmed, as workshop participants have been very actively engaging with the Facebook group network, sharing skill exchanges and accessing best practice resources. However, the WhatsApp group failed to engage participants and has been abandoned as a platform for exchanging.

**Assumption 5:** *Best practice guidelines and supporting videos will be valued by nursery workers and be utilised to result in changes that reflect best practice.*



Comments: This assumption cannot yet be confirmed as the guidebook and training videos have not yet been put into practice with the nursery workers or community participants during the Y2 workshops. This assumption can be validated at the end of Y2.

### 3.5 Achievement of positive impact on biodiversity and multidimensional poverty reduction

At the Mangabe Protected Area project site, women's groups in six participating villages are engaged in producing nursery consumables. On average, each woman generates an additional income of 135,000 Ar (approximately £23) over six days of production, benefiting 80 households. 13 additional households producing seedbags. This represents a short-term gain resulting from the project's training initiatives. As demand for these products grows, this average income is expected to increase over the long term.

The project's high-level impact on biodiversity is primarily achieved through capacity-building training provided to nursery workers, enhancing their effectiveness at restoration sites and in seedling nurseries. In Year 1, seedling survival rates in Mangabe nurseries increased significantly—from 30–50% to 89%. These improved practices are expected to support the long-term success of restoration plots in this high-priority conservation area. In turn, this contributes to the protection of endemic species, the development of climate-resilient habitats, and the provision of essential ecosystem services for both people and wildlife. Restoring forest cover in Mangabe Protected Area directly benefits key target species, including the golden mantella frog (*Mantella aurantiaca*) and several lemur species: the indri (*Indri indri*), diademed sifaka (*Propithecus diadema*), aye-aye (*Daubentonia madagascariensis*), and black-and-white ruffed lemur (*Varecia variegata*).

The short-term target of training 10 nurserymen as trainers has been significantly exceeded, with 33 individuals now trained. Of these, 12 have already applied their skills to deliver tailored training to 47 communities, reaching a total of 527 individuals, including 122 women. This early success has empowered the 12 nurserymen to pursue long-term goals, including certification as SER-certified restoration practitioners. Achieving this will further enhance professional development, support poverty reduction, and improve restoration practices in critical biodiversity hotspots

Project Phases, Expected Changes, Beneficiaries, and Progress (as of Feb 2025)

| Phase                          | Expected Changes  | Outputs / Beneficiaries   | Update (to Feb 2025)  |
|--------------------------------|---|---|---|
| Short-term                     | <ul style="list-style-type: none"> <li>1 best-practice guide (video + paper)</li> <li>5,000 ha restoration in Mangabe</li> <li>100 ha restoration in Parc Ivoloïna</li> <li>10 nurserymen trained as trainers</li> <li>30 local participants trained</li> </ul> | <ul style="list-style-type: none"> <li>10 trained nurserymen (Train-the-Trainer cadre)</li> <li>30 community members (50% women/youth)</li> </ul>   | <ul style="list-style-type: none"> <li>15 mini-tutorial videos produced &amp; 2 Guides of best practice (Adults &amp; child version)</li> <li>47 community trainings delivered in Mangabe</li> <li>Seedling survival in nurseries increased from 30–50% to 89%</li> </ul> |
| Long-term                      | <ul style="list-style-type: none"> <li>Seedling survival rate sustained at +70%</li> <li>10 youth SER-certified</li> <li>100 ha restored per year in Ivoloïna</li> <li>Training centres established in Mangabe &amp; Ivoloïna</li> </ul>                        | <ul style="list-style-type: none"> <li>10 new youth trainers</li> <li>Long-term hubs in Mangabe &amp; Ivoloïna</li> </ul>                           | <ul style="list-style-type: none"> <li>Nursery survival maintained at 89% (baseline for future evaluation)</li> </ul>   |
| Short-term (Household Support) | <ul style="list-style-type: none"> <li>90 households receive biodegradable pots &amp; seed bags</li> <li>50% participation by women and youth</li> </ul>  | <ul style="list-style-type: none"> <li>93 households supported (80 with biopots, 13 with seed pouches)</li> <li>50% women-led households</li> </ul> | <ul style="list-style-type: none"> <li>100% of women-led households continue nursery work using biopots</li> </ul>  |

## 4. Project support to the Conventions, Treaties or Agreements

This project has contributed to the strategic goals and objectives of Madagascar's National Biodiversity Strategy and Action Plan in the following ways:

*Goal B: "Reduce the direct pressures on biodiversity and promote sustainable use of natural resources" - Providing training in relevant restoration techniques will result in reduced pressure on and better management of forest ecosystems (Objectives 5 and 7).*

During this reporting period, the project contributed to the biodiversity strategy goal by providing training



that supports habitat restoration through the sustainable use of natural resources. Two key examples illustrate this contribution:

1. Participants were trained to produce biodegradable planting pots for nurseries using banana tree bark—repurposing a natural material that would otherwise be discarded. This practice encourages the sustainable use of resources while reducing reliance on plastic planting bags, which often end up in the environment during planting seasons.
2. In Workshop 1, the MBG team provided training on cultivating and shaping endemic plant species to create hedgerows and living fences. This knowledge, shared from the successful practices of one restoration organization, helped others learn the technique of hedge laying. The approach supports nurseries and communities by offering a natural fencing alternative, thereby reducing pressure on forests for wood.

*Goal C: “Improve the biodiversity status by safeguarding ecosystems, species and genetic diversity” – Developing the capacity of nursery staff in protected areas in Eastern Madagascar will contribute to the safeguarding of forest ecosystems through habitat restoration (Objective 11).*

During this reporting period, by equipping nursery staff with techniques such as air layering, cuttings, seed collection and preservation, and conducting phenological surveys, the project strengthens efforts to prevent the extinction of critically endangered and endemic plant species.

These practices support the maintenance of genetic diversity by ensuring that rare species are propagated effectively and sustainably. The ability to grow and manage these plants enhances in situ conservation efforts, particularly through habitat restoration. Trained nursery staff become stewards of native flora, increasing the availability of plant material for restoration and reinforcing the resilience of forest ecosystems. This not only safeguards individual species but also the broader ecological networks they support.

*Goal D: “Enhance the benefits withdraw[n] to all from biodiversity and the services provided by ecosystems” – Equipping community members with the skills and training required to effectively contribute to, and receive compensation for, restoring forest habitats in Eastern Madagascar (Objectives 14 and 15).*

Through training in the production of biodegradable pots, seed bags, and other nursery consumables, community members are gaining valuable, marketable skills. These products support restoration efforts while also generating additional income for local groups, creating a sustainable link between conservation and livelihoods. By engaging in these activities, communities are not only contributing to biodiversity conservation but also receiving tangible economic benefits.

Furthermore, restored habitats improve ecosystem services that directly support communities such as improved water regulation, soil stability, and climate resilience. This project also aims to assess the broader impact of these benefits through baseline surveys measuring income, climate change vulnerability, and forest dependency. These insights will help capture how biodiversity conservation can enhance community quality of life over the project timeline.

## 5. Gender Equality and Social Inclusion (GESI)

| GESI Scale               | Description  | Put X where you think your project is on the scale |
|--------------------------|--|--|
| <b>Not yet sensitive</b> | The GESI context may have been considered but the project isn't quite meeting the requirements of a 'sensitive' approach   |  |
| <b>Sensitive</b>         | 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. |  |
| <b>Empowering</b>        | 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  | <b>X</b>   |

|                       |  |  |
|-----------------------|--|--|
| <b>Transformative</b> | The project has all the characteristics of an ‘empowering’ approach whilst also addressing unequal power relationships and seeking institutional and societal change |  |
|-----------------------|--|--|

We assess our NEP project as empowering, going beyond GESI sensitivity to actively increase equitable access to assets, resources, and capabilities for women and marginalized groups. For example, across five nursery sites, we have trained 527 community members in restoration and nursery techniques. Among them, 122 women representing 80 households have been trained in the production of biodegradable pots, creating new livelihood and leadership opportunities. (Evidence 2.4)

Our project design and implementation are fully aligned with the six GESI core principles:

- **Rights:** Every workshop and community meeting includes clear explanations of local laws on land use, natural resource management, and participation rights—all delivered in Malagasy. During Workshop 2, translation support was provided to ensure all participants understood their legal entitlements, including the right to consent to being filmed.
- **Practice:** We integrate traditional methods of seed collection and wilding with modern techniques such as CAM/VAM and biological pest control in all training modules. This approach honors local knowledge while enhancing technical skills.
- **Environment:** To address environmental stressors like drought and fire, we teach agroecological practices and biological pot production to strengthen community resilience. Trainings are scheduled outside peak livelihood activity periods to ensure accessibility; the first and second workshops were held in August and October 2024, respectively.
- **Representation:** Our "train-the-trainer" model empowers local leaders, such as Sydonie—our lead facilitator—to mentor others and ensure inclusive decision-making spaces that involve women, youth, and elders. By tracking disaggregated attendance data, we continuously adapt our outreach to address participation gaps.
- **Resources:** We ensure fair distribution of tools, seeds, pots, and training manuals. These are monitored through inventory logs and implementation reports to ensure no group is excluded.
- **Social Inclusion:** We tailor our communication and learning materials to reflect the diversity of social identities in our communities. Ethnic inclusion is fostered by involving local elders in opening and closing ceremonies. Age and class diversity are addressed through peer-learning exchanges between youth and experienced nurserymen. Gender is a central focus—122 women across five sites have been trained in biological pot production to date. Feedback surveys and focus group discussions offer safe spaces for all voices, and our curriculum is adjusted in real-time—for example, simplifying technical terms into everyday Malagasy to ensure clarity and engagement. (Evidence 4.1.4)

## 6. Monitoring and evaluation

The project logframe, initially submitted with the application and later revised through a change request to BCF, outlined the indicators for both outcomes and outputs. These indicators, along with their associated methods of verification, formed the basis of our Monitoring and Evaluation (M&E) plan. This plan was developed collaboratively by the project lead, Charles Wheeler (Chester Zoo), and the in-country lead, Sydonie Rabarison (Madagasikara Voakajy).

Throughout Year 1, regular meetings were held to review progress against the indicators in the M&E plan. Sydonie was responsible for overseeing and tracking the progress of in-country activities, particularly those involving fieldwork and logistical coordination. Charles focused on activities that could be managed from the UK, such as resource development, survey design, and data analysis.

To support effective implementation, project activities were broken down into pre- and post-workshop phases, enabling consistent monitoring. Online meetings before and after each workshop provided a platform for partners to report against the logframe, share progress, and discuss any challenges encountered. These sessions encouraged collaboration and adaptive learning. Additionally, Sydonie

conducted field visits to monitor implementation on the ground, address issues as they arose, and contribute to planning for future phases.

## **7. Lessons learnt**

Over the past year, our two NEP workshops successfully combined animation and interactive techniques with practical instruction. It was ensuring that learning was both memorable and immediately applicable. Participants did not simply absorb theory. They practiced restoration methods in the field and later reported their experiments, complete with photographic documentation, through our dedicated Facebook group . (Evidence 3.2.3). This peer learning network spanned all six nursery sites and, according to our workshop surveys. Staff demonstrated significantly stronger understanding of core topics and began to innovate local adaptations, such as biopot production techniques tailored to specific site conditions. This year the challenges were: participants indicated that the schedule allocated too much time to lectures at the expense of practical sessions. The large breakout groups limited the opportunity for quieter individuals to contribute. We also missed the chance to visit another restoration plots within Mangabe due to time and the remote area. Some participants with advanced skills expressed a need for dedicated forums in which to exchange technical insights.

Should we organise these workshops again, we would reverse the ratio of theory to practice by dedicating extended periods to field sessions. We will integrate succinct refresher presentations on technical terms that have been validated by local trainers. We would arrange visits to at least two additional restoration sites in Mangabe. We would ensure that women, young people, and elders are specifically invited to contribute, thereby providing more balanced representation.

For those undertaking similar initiatives, we recommend prioritising interactive, hands on modules over slide presentations, translating specialised terminology into colloquial Malagasy, identifying and appointing advanced participants as peer mentors. Furthermore, adapting content to local cultural norms, sustaining an online community exchange through platforms such as our NEP Facebook group, and varying the locations of field visits will enrich the experiential learning process.

We have already begun to incorporate these lessons into our forthcoming plans. From May 2025, each nurseryman will conduct a comprehensive train the trainer session within their community, applying techniques ranging from biopot production to agroforestry management. Concurrently, we will conduct community workshops with simplified curricula for schoolchildren presented in Malagasy. For the last workshop, we will convene a concluding forum in which participants will present their experiences as trainers. As these adjustments do not alter our original objectives but merely redistribute our emphasis, a formal change request will not be necessary. Instead, we will closely monitor implementation, document outcomes through attendance records, workshop evaluations, and social media evidence, and continuously refine our approach to ensure the NEP remains adaptive and effective.

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

Not applicable.

## **9. Risk Management**

Over the past 12 months, one new risk has emerged that was not previously accounted for: the removal of illegal migrant settlers from within the Mangabe Protected Area forests. Throughout the reporting period, local authorities were engaged in discussions with MV regarding a planned operation to remove these settlers from the core zone of the protected area. This operation was carried out in November and December 2024.

The primary impact of this risk relates to the social climate in the aftermath of the operation. As a precautionary measure, the deployment of the Income, Climate, and Forest Dependency Survey was delayed by three months to allow tensions to ease and ensure more reliable data collection. This situation poses a delivery risk, as the delay and the context in which the survey was eventually deployed may have affected the accuracy of the baseline data, particularly regarding questions on forest dependency and frequency of forest use. However, while reported frequencies of forest foraging may have been affected, the data on the types of forest resources collected can still provide a useful indication of household-level forest reliance.

All other current risk mitigation strategies remain effective and appropriate in relation to the project's scope and objectives. The risk register has been updated accordingly to reflect the new risk. Additionally, one

previously identified risk, low uptake for qualification training, has now been closed, as it did not materialise. In line with Darwin Initiative requirements, the most recent version of the risk register has been submitted with this Annual Report, using the prescribed template.

## 10. Scalability and durability

Our stakeholders first heard of the NEP through MV's internal communications and the personal invitations extended to restoration leads across MV reserves. Restoration managers from Ambatondrazaka, Diana/Diego, Morondava, attended our first workshop. In sum with mangabe, the initiative impacted on more than 89 168 ha. They experienced low-cost nursery methods, CAM/VAM inoculation, and biopot fabrication first hand.

Evidence of the NEP's appeal is clear and participating sites have since recorded a 39 % uplift in seedling survival projections. Peer mentors cite potential income as key motivators for adoption.

We aligned incentives by bringing UEFT into the partnership mid-project, leveraging their credibility to attract civil-society interest.

Since the inception of NEP, we have observed concrete shifts in how communities approach restoration, reflecting deeper changes in attitudes, norms and practices:

- Adoption of new nursery practices: All six nurseries now maintain dedicated CAM-inoculation benches and compost and biochar. This uniform uptake demonstrates a collective endorsement of more resilient, soil-enhancing techniques.
- Community-wide biopot training: Beyond nurserymen, they delivered biopot fabrication workshops to broad community groups. It was the application of the "train-the-trainer" (TTT) sessions for local leaders and separate. It shows their confidence to share the knowledge.
- Willingness of sharing : Nurserymen share techniques of agroecology with local communities . They provided training to children of the primary schools in Avolo nursery on their own initiative . 30 children receive training on compost and were encouraged to replicate at home. (Evidence 10.)
- Empowerment through peer sharing: Advanced trainees took the lead in peer-to-peer exchanges, facilitating group demos, mentoring neighbours, and spearheading village-level restoration days. This initiative has fostered a strong sense of pride and ownership. They exchange seeds between them to have different variety . On their own initiatives , they visit each other nursery , and exchange on the phone for the techniques and news.
- Confidence and independence: Participants increasingly compare and refine techniques on their own. Our NEP Facebook group features that community members feel confident to innovate and share their results (Evidence 3.2.3)

This has laid the groundwork for recognition under the Society for Ecological Restoration (SER), with the goal of qualifying Madagascar's first certified restoration practitioners, who will then lead training activities at the proposed hubs in Mangabe and Parc Ivoloïna.

The work carried out during the first year has demonstrated a clear demand among other organisations for the type of collaborative, peer-supported restoration training offered by the project. Four additional MV team members joined from four different protected area sites, expanding the project's reach and impact. This addition has significantly scaled up the potential biodiversity benefits, increasing the total area influenced by the project to 89,000 hectares. Many groups currently lack access to a professional network of restoration practitioners, and to training that combines practical skills with theoretical learning and shared experiences across diverse landscapes. Notably, an additional organisation—UEFT—participated in Workshop 2 this year, and the Royal Botanic Gardens Kew Madagascar has expressed strong interest in attending future workshops. Both organisations independently recognised the value of the training and offered to cover their own costs, highlighting both demand and the potential commercial value of these training workshops. (Evidence 10a).

Although the current project has a defined end point, the long-term objectives of sustainable skills development and capacity building will continue. Chester Zoo (CZ) and its partner organisations remain deeply committed to advancing ecological restoration in Madagascar and will continue to support the scaling and legacy of this work. The growing interest in workshop-based, skill-sharing formats that blend restoration expertise across experience levels confirms that this model meets a real and expanding need, one that all partners are dedicated to advancing over the long term.

Additionally, our original exit strategy called for the distribution of a comprehensive guidebook. A guidebook will be delivered to all MV reserves as well as partners at MBG and MFG. To secure a lasting legacy, we

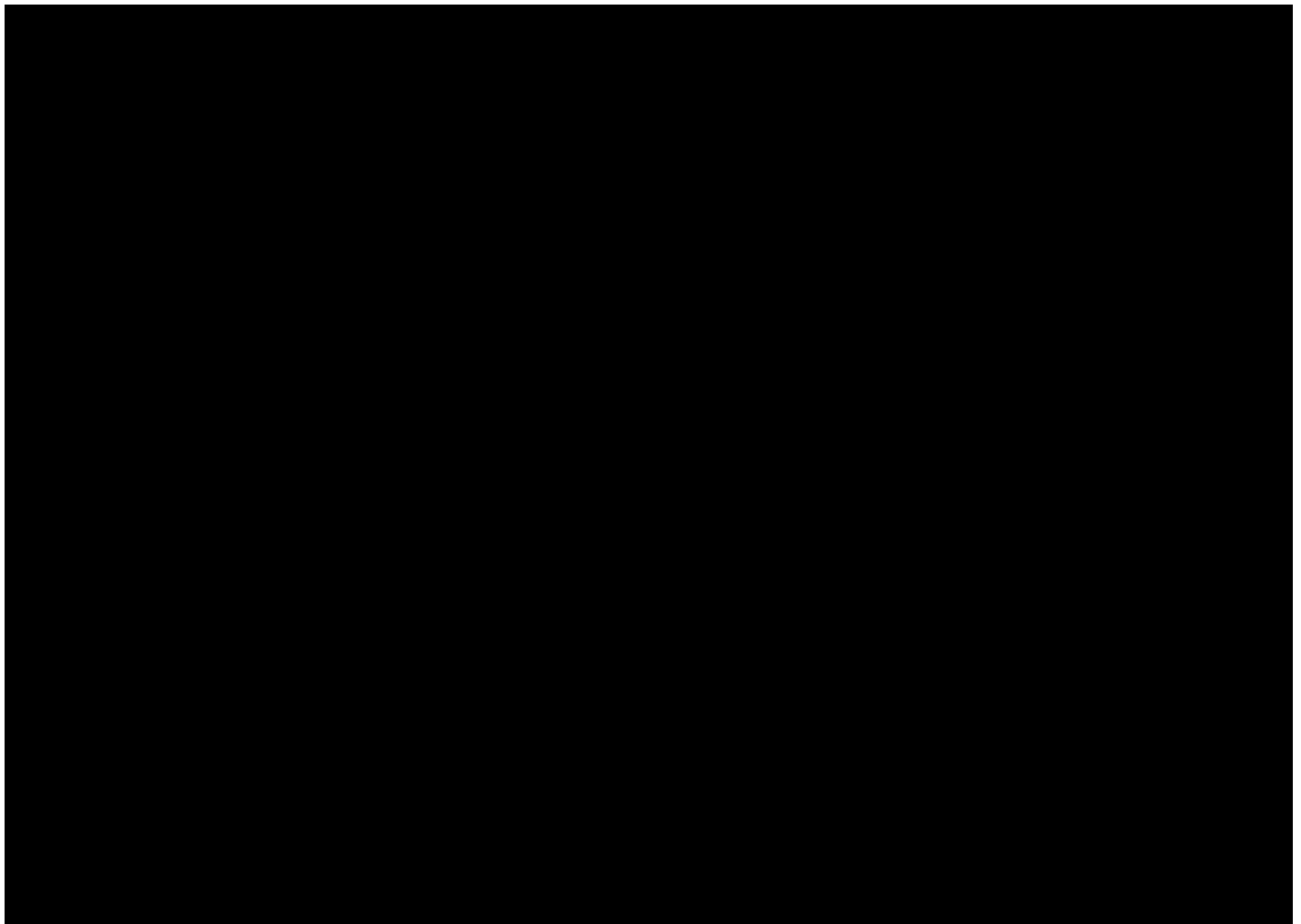
will maintain our digital community of practice. By empowering local trainers, and keeping all resources , print and digital readily accessible, we are confident that NEP's achievements will scale and endure across Madagascar's protected areas.

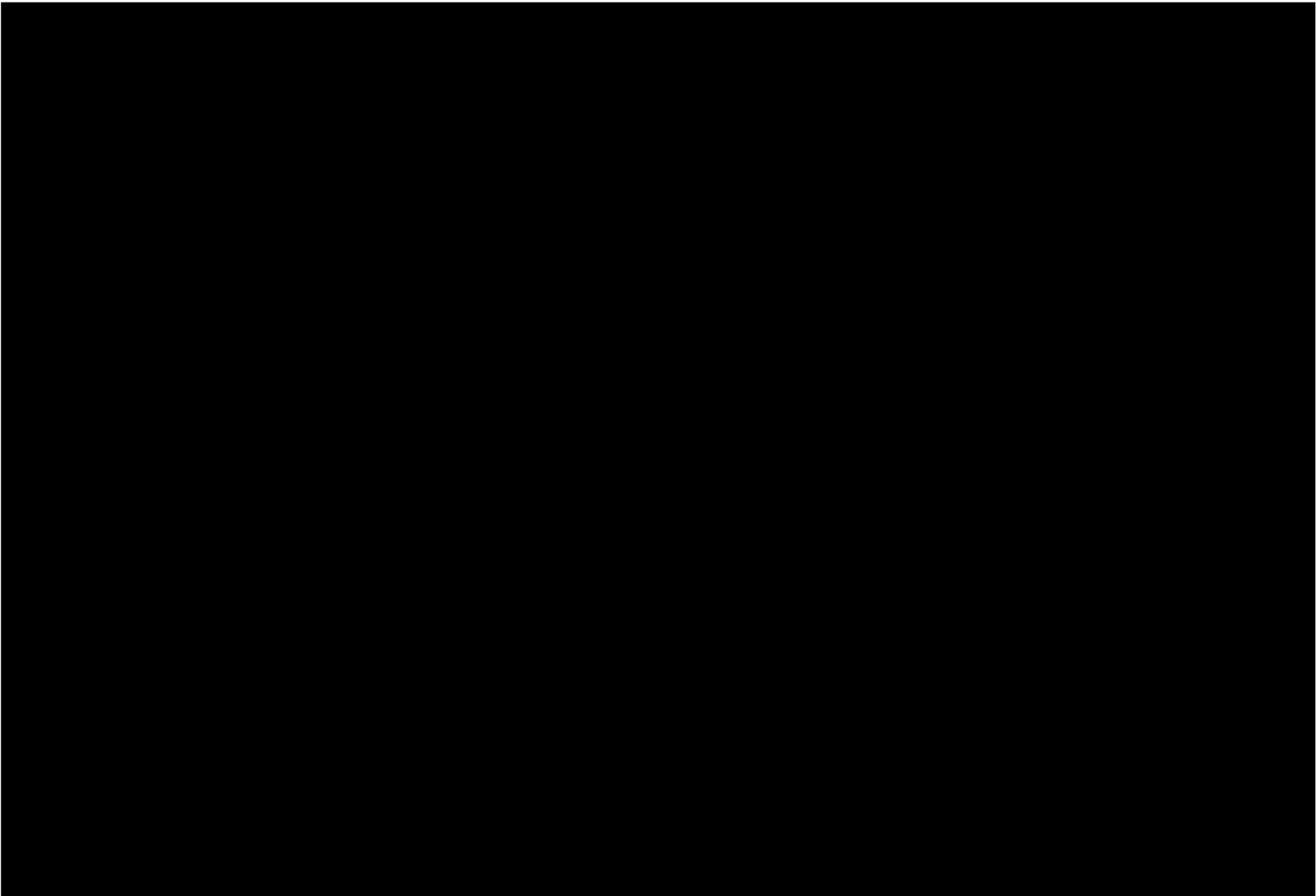
MV has recruited permanently the 9 nurserymen to be part of the scalability and sustainability. After the NEP , MV evaluated the nurserymen and the way they used the knowledge from NEP and decided to have them as a permanent staff.

## **11. Darwin Initiative identity**

The project has actively promoted the Darwin Initiative and recognised the UK Government's contribution through a range of public-facing materials and activities. T-shirts produced for the project prominently featured the Darwin Initiative logo, the UK International Development logo, and the logos of all partner organisations. All workshop materials: invitations, itineraries, handouts, trainer information packs, participation certificates, banners, and workshop signage displayed both logos and clearly stated that the project is funded by the UK Government. Similarly, all training resources, including videos and guidebooks, carried the same branding and acknowledgements. The UK Government's support is recognised in-country, notably by the UK Ambassador to Madagascar, who has expressed interest in and plans to visit the Parc Ivoloïna site to learn more about the project. The Darwin Initiative is understood within relevant local networks, particularly among workshop participants, partner institutions, and conservation professionals. Furthermore, the project's dedicated YouTube channel and Facebook group are actively maintained and have been linked to the BCF's social media platforms, helping reinforce the visibility and identity of the Darwin Initiative as a distinct, well-supported project.

## **12. Safeguarding -SR/CW**





13. Project expenditure- CW

Table 1: Project expenditure during the reporting period (1 April 2024 – 31 March 2025)

| Project spend (indicative) since last Annual Report | 2024/25 Grant (£) | 2024/25 Total Darwin Initiative Costs (£) | Variance % | Comments (please explain significant variances) |
|---|-------------------|---|------------|---|
| Staff costs (see below)                             |                   |   |            |   |
| Consultancy costs                                   |                   |   |            |   |
| Overhead Costs                                      |                   |   |            |   |
| Travel and subsistence                              |                   |   |            |   |
| Operating Costs                                     |                   |   |            |   |
| Capital items (see below)                           |                   |   |            |   |
| Others (see below)                                  |                   |   |            |   |
| TOTAL   | 50601.00          | 50,594.57                                 | 0%         |   |

Table 2: Project mobilised or matched funding during the reporting period (1 April 2024 – 31 March 2025)

|  | Secured to date | Expected by end of project | Sources   |
|--|-----------------|----------------------------|---|
| Matched funding leveraged by the partners to deliver the project (£)   |                 |                            | Chester Zoo<br>Madagasikara Voakajy<br>Madagascar Fauna and Flora Group<br>Missouri Botanical Gardens |
| Total additional finance mobilised for new activities occurring outside of the project, building on evidence, best practices and the project (£) |                 |                            |   |

#### 14. Other comments on progress not covered elsewhere

During the reporting period, we faced logistical challenges related to the procurement and storage of biodegradable pots (biopots). These pots are bulky and required more storage space than was available at our nurseries. Although funds for their purchase had been allocated in Year 1, the specific storage requirements only became apparent after the first production campaign, and no dedicated on-site storage facility was in place. To address this, we staggered the procurement process and requested a pro forma invoice to facilitate appropriate allocation of expenses within project budgets.

We also encountered challenges in revising and administering the baseline questionnaire. Questions relating to household income and access to natural resources proved sensitive, with some respondents hesitant to share detailed information. Additionally, limited literacy levels and the remoteness of the Mangabe Reserve created further obstacles to data collection. To mitigate these issues, we simplified the language used in the questionnaire and scheduled additional fieldwork days, taking into account the extended travel time required to reach participants.

## Annex 1: Report of progress and achievements against Indicators of Success for Financial Year 2024-2025-

| Project summary   | Progress and Achievements April 2024 - March 2025  | Actions required/planned for next period   |
|---|--|--|
| <b>Outcome</b> Strengthening collaborative training for nursery workers across three Malagasy NGOs to implement standardised best practice, drive effective forest restoration actions, and promote sustainable economic alternatives in local communities  |  |  |
| <b>Outcome indicator 0.1</b><br>By end of Y2, 60 people (34 current nursery workers, plus 26 additional nursery workers/ community members) can demonstrate increased knowledge and skills in restoration techniques and have access to standard best practice guidelines and learning resources, leading to increased yields at all nursery sites by 2026. (baseline = 26 nursery workers) | Progress to date: The project developed and disseminated a standardised best practice guidebook and training videos on to the Facebook group (46 members), trained 33 nursery staff as certified trainers (surpassing the target of 10), and supported 47 individuals to complete both Year 1 workshops (exceeding the target of 28). Evidence in section 3.1 and annex 4                          | Increase the exposure of the training resources online to reach a wider audience and utilise them during the training within workshop 1 in Y2.   |
| <b>Outcome indicator 0.2,</b><br>By end of Y2, three Malagasy NGOs have 34 staff that have been empowered to lead restoration activities in Eastern Madagascar  | Progress to date: 12 MV staff in Mangabe, have been empowered to lead restoration activities and training at their home sites. Evidence in section 3.1 and annex 4.  | 4 MV staff from additional MV sites, 2 MBG staff from Agnalazaha, 10 MFG staff from Parc Ivoloïna & Betampona will lead restoration activity training to community groups at their home sites in Y2. |
| <b>Output 1 (Capacity)</b> Improved access to standardised vocational resources for nursery management and restoration training throughout three Malagasy NGOs to increase capability and capacity development within the forest restoration workforce  |  |  |
| <b>Output indicator 1.1</b><br>By the end of Y2 all attendees are evaluated and at least 75% are demonstrating / reporting an improved level of knowledge and restoration skills as a result of the workshop training   | Progress to date: All attendees were evaluated, with over 75% reporting improved knowledge and skills. Most advanced from "no knowledge" to "intermediate" or "expert" across key topics, with 100% reaching expert level in some areas. Confidence in practical skills increased significantly, with "very confident" responses rising to 70% in most cases. Evidence in section 3.1 and annex 4. | Y2 workshops will incorporate skill & knowledge assessments to continue this impact tracking.  |
| <b>Output indicator 1.2, Etc.</b><br>[DI-C01] By end of Y1, standardised best practice guidelines for forest restoration in Madagascar have been produced and endorsed by MV, MBG, MFG. Guidelines and training videos have been produced and disseminated to all nursery staff and participants.   | Progress to date: <ul style="list-style-type: none"> <li>2 versions Guide of best practice (adults &amp; kids) developed and shared online with partners and the network.</li> <li>15 training videos created covering 15 topics, uploaded online and shared with partners and the network.</li> <li>Evidence in section 3.1 and annex 4.</li> </ul>   | Use of training resources throughout the workshops in Y2. Further edits can be made to improve these resources.  |
| <b>Output indicator 1.3 1.3</b><br>By end of Y1 at least 10 nursery staff trained as trainers.  | Progress to date: 33 nursery staff completed the training course and received certificates. Evidence in section 3.1 and annex 4.   | No further actions.  |
| <b>Output 2. (Restoration)</b> All three organisations have adopted improve standardised nursery & restoration techniques from the training workshops at two NGO priority sites leading to more efficient and resilient restoration initiatives.  |  |  |



|   |  |   |
|---|--|---|
| Output indicator 2.1.<br>[DI-A01] Four workshops successfully delivered (two per year)  | Progress to date: 2 workshops were delivered in year 1.<br>Workshop 1: 27th August 2024 and 4th September 2024<br>Workshop 2: 8th and 19th November 2024.<br>Evidence in section 3.1 and annex 4.  | Deliver two workshops in Y2.  |
| Output indicator 2.2.<br><br>By end of Y1 80% of MV, MFG, MBG nursery staff at Mangabe & Parc Ivoloïna have completed workshops 1 & 2 (increasing to 100% by end of Y2)   | This indicator was fully met for Year 1 (Y1) participant targets. All of MV's mangabe staff (100%) attended the Y1 workshops, along with four restoration managers from other MV sites. Over 80% of Parc Ivoloïna's nursery staff participated, in addition to community nursery workers from the Betampona Reserve. Evidence in section 3.2 and annex 4.  | Promote workshop 2 in Y2 to attract additional and newly recruited staff.                     |
| Output indicator 2.3<br><br>By the end of Y2 all attendees are evaluated and at least 75% are demonstrating / reporting an improved level of knowledge and restoration skills as a result of the workshop training                              | Progress to date: All attendees were evaluated, with over 75% reporting improved knowledge and skills. Most advanced from "no knowledge" to "intermediate" or "expert" across key topics, with 100% reaching expert level in some areas. Confidence in practical skills increased significantly, with "very confident" responses rising to 70% in most cases. Evidence in section 3.1 and annex 4. | Y2 workshops will incorporate skill & knowledge assessments to continue this impact tracking. |
| Output indicator 2.4<br><br>DI-B05] By end of Y2 training, a minimum of 12 people have increased participation in community restoration nurseries (baseline 0).   | This indicator is not able to be measured yet.   | Follow up in Y2.  |
| Output indicator 2.5<br><br>[DI-D12] The graduates of the workshops will actively be implementing their training by end of Y2 at 2 priority restoration sites across 5100Ha   | This indicator is not able to be measured yet.   | Follow up in Y2.  |
| Output indicator 2.6<br><br>DI-A04 Core] By end of Y1, at least 28 nursery staff have completed both training workshops   | This indicator was fully achieved by the end of Year 1, with a total of 47 nursery staff. Evidence in section 3.1 and annex 4.   | -   |
| Output indicator 2.7<br><br>By end of Y2, 6 additional nursery staff and a further 22 community participants have completed both training workshops.  | This indicator is not able to be measured yet.   | Follow up in Y2.  |
| <b>Output 3.</b> (Legacy) Nursery Restoration Exchange Network (NREN) established and coordinated by trained individuals to increase regional Malagasy capacity in the long-term and provide community support for future restoration projects. |  |   |
| Output indicator 3.1  | This indicator cannot be fully measured yet, but progress to date: the Facebook group comprises 43 members, 35 of whom are active  | Continue to monitor member numbers and encourage people to join.                              |

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| [DI-C12] WhatsApp & Facebook networks are maintained throughout the project period and experience a 50% increase in members by Dec 2025 compared to 2023 baselines   | participants who regularly post and engage with content, compared to 19 members in 2023. (Evidence 3.2.3a in annex 4).   |  |
| Output indicator 3.2<br>[DI-C12] Posts and activity on the sites increase by 50% by Dec 2025 compared to 2023 baselines demonstrating  | This indicator cannot be fully measured yet, but progress to date: Between 17 April 2024 and 16 April 2025, members made 102 posts, received 761 reactions, and contributed 190 comments (Evidence 3.2.3b in annex 4).   | Continue to monitor post and engagement numbers and encourage people to share.   |
| Output indicator 3.3<br>[DI-C10] 4 quarterly newsletters communicating community nursery case studies will be published on the Nursery networks annually.  | Although the target of publishing four quarterly newsletters was not met, the project's Facebook group effectively fulfilled the goal of fostering knowledge exchange and community engagement, with active peer-to-peer learning and sharing of restoration updates. (Evidence 3.2.3c in annex 4).                    | Going forward, engagement will be monitored, and if activity declines, a newsletter or summary of shared content may be produced to maintain momentum                              |
| Output indicator 3.4<br>[DI-A05 Core] The 10 individuals trained as trainers have successfully delivered training in Y2. All trainers will support the coordination of the NREN during and beyond the project ensuring alignment across eastern Madagascar restoration activities.   | This indicator cannot be measured yet.   | Follow up in Y2  |
| <b>Output 4.</b> (Poverty reduction) Increased restoration activity promotes development of the production and supply of natural consumables, resulting in increased sustainable livelihoods in local communities  |  |  |
| Output indicator 4.1<br>[DI-D16] By the end of Year 2, 90 HH in Mangabe community have reported an increase to 100,000Ar per month in HH income from nursery product sales (baseline 0 HH).  | This indicator cannot be fully measured yet, but progress to date: 93 HH benefiting from sales of biopots and seedbags. On average, each woman generates an additional income of 135,000 Ar (approximately £23) over six days of production of biopots, benefiting 80 households. Evidence in section 3.5 and annex 4. | Adapt and acknowledge that production of nursery products is not constant throughout the year and the income should be noted for the months where production and sales take place. |
| Output indicator 4.2<br>Upskilling nursery workers results in both an average increase in number of HH and increase in average HH income by the end of year 2 (between 2024 baselines and 2025 surveys) either through direct salary increases or alternative livelihood options facilitated through the training. (Baseline income will be established in pre project surveys and will aim to increase by 20% by end of year 2, Baseline =9HH and target will be 10HH). | This indicator cannot be measured yet  | Follow up in Y2  |

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|---|---|--|
| <p>Output indicator 4.3</p> <p>By the end of year 1, 10 local community group enterprises established and contributing to average increases in HH income (at least 80% sustained throughout the project duration) to support nursery activities by the end of year 2.</p>   | <p>This indicator cannot be fully measured yet, but progress to date: 6 out of 10 local women's cooperatives actively involved in producing nursery-related products for the Mangabe Protected Area. Although not directly established by the project, these cooperatives have received key support through training, feasibility studies, and product purchases, boosting their business viability and contributing to sustainable livelihoods. Evidence in section 3.2 and annex 4.</p> | <p>Engage with an additional four women's groups in Mangabe and communities groups at partner sites.</p> |
| <p>Output indicator 4.4</p> <p>[DI-B10] 90HH in Mangabe PA reporting a permanent adoption of natural nursery consumable production by end of Y2.</p>  | <p>This indicator cannot be measured yet</p>  | <p>Follow up in Y2</p>   |
| <p>Output indicator 4.5</p> <p>[DI-D02 Core] By the end of year 2 ,1500 HH in Mangabe PA estimated to have improved disaster / climate resilience from a combination of improved habitat ecosystem services as a result of successful restoration activities and increased capacity to safeguard livelihoods from climatic events</p> | <p>This indicator cannot be measured yet, but in Y1 the income, climate change, and forest dependency surveys were deployed to capture the baseline data to measure this indicator. 275 households were surveyed in 2025. Evidence in section 3.1 and annex 4.</p>  | <p>Follow up in Y2 with the second survey.</p>   |
| <p>Output indicator 4.6</p> <p>By the end of year 2, 90 HH in Mangabe PA have improved disaster/climate resilience via reduced reliance on agriculture income due to the increased income derived from this project initiatives.</p>  | <p>This indicator cannot be measured yet, but in Y1 the income, climate change, and forest dependency surveys were deployed to capture the baseline data to measure this indicator. 275 households were surveyed in 2025. Evidence in section 3.1 and annex 4.</p>  | <p>Follow up in Y2 with the second survey.</p>   |

## Annex 2: Project's full current Indicators of Success as presented in the application form (unless changes have been agreed)

|   | SMART Indicators  | Means of Verification   |
|---|---|---|
| <b>Outcome:</b> Strengthening collaborative training for nursery workers across three Malagasy NGOs to implement standardised best practice, drive effective forest restoration actions, and promote sustainable economic alternatives in local communities | <p>0.1 By end of Y2, 60 people (34 current nursery workers, plus 26 additional nursery workers/ community members) can demonstrate increased knowledge and skills in restoration techniques and have access to standard best practice guidelines and learning resources, leading to increased yields at all nursery sites by 2026. (baseline = 26 nursery workers)</p> <p>0.2 By end of Y2, three Malagasy NGOs have 34 staff that have been empowered to lead restoration activities in Eastern Madagascar.</p>                                    | <p>0.1.1 Restoration yield assessment report.</p> <p>0.1.2 Training assessments report including evaluation surveys.</p> <p>0.1.3 Workshop participation records</p> <p>0.1.4 Final project report</p> <p>0.2.1 Social survey results &amp; report.</p> <p>0.2.2 Training assessments report including evaluation surveys.</p>  |
| <b>Output 1:</b><br>(Capacity) Improved access to standardised vocational resources for nursery management and restoration training throughout three Malagasy NGOs to increase capability and capacity development within the forest restoration workforce  | <p>1.1 . By the end of Y2 all attendees are evaluated and at least 75% are demonstrating / reporting an improved level of knowledge and restoration skills as a result of the workshop training.</p> <p>1.2 [DI-C01] By end of Y1, standardised best practice guidelines for forest restoration in Madagascar have been produced and endorsed by MV, MBG, MFG. Guidelines and training videos have been produced and disseminated to all nursery staff and participants.</p> <p>1.3 By end of Y1 at least 10 nursery staff trained as trainers.</p> | <p>1.1.1 Workshop plan and end reports</p> <p>1.1 .2 Workshop register</p> <p>1.1 .3 Training assessment report including evaluation survey results.</p> <p>1.2 .1 Written guide of best practice document</p> <p>1.2 .2 Training videos</p> <p>1.2 .3 Engagement and download data for vocational resources / annual report for number of people reached with the training resources.</p> <p>1.3 .1 Train-the-Trainer certificates</p> |
| <b>Output 2:</b><br>(Restoration) All three organisations have adopted improve standardised nursery & restoration techniques from the training  | <p>2.1 [DI-A01] Four workshops successfully delivered (two per year)</p> <p>2.2 By end of Y1 80% of MV, MFG, MBG nursery staff at Mangabe &amp; Parc Ivoloïna have completed workshops 1 &amp; 2 (increasing to 100% by end of Y2)</p>  | <p>2.1 .1 Workshop planning documents</p> <p>2.1 .2 Workshop reports.</p> <p>2.2 .1 Workshop participants email list.</p>   |

|   |  |  |
|---|--|--|
| workshops at two NGO priority sites leading to more efficient and resilient restoration initiatives.  | <p>2.3 By the end of Y2 all attendees are evaluated and at least 75% are demonstrating / reporting an improved level of knowledge and restoration skills as a result of the workshop training (<b>Baseline established from pre workshop survey</b>)</p> <p>2.4 [DI-B05] By end of Y2 training, a minimum of 12 people have increased participation in community restoration nurseries (baseline 0).</p> <p>2.5 [DI-D12] The graduates of the workshops will actively be implementing their training by end of Y2 at 2 priority restoration sites across 5100Ha .</p> <p>2.6 [DI-A04 Core] By end of Y1, at least 28 nursery staff have completed both training workshops.</p> <p>2.7 By end of Y2, 6 additional nursery staff and a further 22 community participants have completed both training workshops.</p> | <p>2.3 .1 Pre &amp; post workshop participation assessment survey &amp; report.</p> <p>2.4 .1 Pre &amp; post workshop participation assessment survey &amp; report.</p> <p>2.4 .2 End of project evaluation report.</p> <p>2.4 .3 Restoration yield &amp; nursery seedling inventory annual report</p> <p>2.5 .1 Restoration site map &amp; forest cover imagery.</p> <p>2.5 .2 Restoration yield &amp; nursery seedling inventory annual report</p> <p>2.6 .1 Workshop participants email list.</p> <p>2.7 .1 Workshop participants email list.</p> |
| <p><b>Output 3:</b></p> <p>(Legacy) Nursery Restoration Exchange Network (NREN) established and coordinated by trained individuals to increase regional Malagasy capacity in the long-term and provide community support for future restoration projects.</p> | <p>3.1 [DI-C12] WhatsApp &amp; Facebook networks are maintained throughout the project period and experience a 50% increase in members by Dec 2025 compared to 2023 baselines.</p> <p>3.2 [DI-C12] Posts and activity on the sites increase by 50% by Dec 2025 compared to 2023 baselines demonstrating increased engagement and participation levels.</p> <p>3.3 [DI-C10] 4 quarterly newsletters communicating community nursery case studies will be published on the Nursery networks annually.</p> <p>3.4 [DI-A05 Core] The 10 individuals trained as trainers have successfully delivered training in Y2. All trainers will support the coordination of the NREN during and beyond the project ensuring alignment across eastern Madagascar restoration activities.</p>                                      | <p>3.1 .1 Social media platforms analytic data – member numbers</p> <p>3.2 .1 Social media platform analytic data – engagement and interaction.</p> <p>3.3 .1 Quarterly newsletters</p> <p>3.4 Communications training certificate list</p>  |
| <p><b>Output 4:</b></p> <p>(Poverty reduction) Increased restoration activity promotes development of the production and supply of natural</p>  | <p>4.1 [DI-D16] <b>By the end of Year 2</b>, 90 HH in Mangabe community have reported an increase to <b>100,000Ar per month</b> in HH income from nursery product sales (baseline 0 HH).</p> <p>4.2 Upskilling nursery workers results in both an average increase in number of HH and in crease in average HH income <b>by the end of</b></p>   | <p>4.1 .1<b>Income , dependency , and Climate reliance</b> survey results and report.</p>  |

|   |   |   |
|---|---|---|
| <p>consumables, resulting in increased sustainable livelihoods in local communities</p>   | <p><b>year 2</b>(between 2024 baselines and 2025 surveys) either through direct salary increases or alternative livelihood options facilitated through the training. <b>(Baseline income will be established in pre project surveys and will aim to increase by 20% by end of year 2, Baseline =9HH and target will be 10HH).</b></p> <p>4.3 <b>By the end of year 1</b>, 10 local community group enterprises established and contributing to average increases in HH income (at least 80% sustained throughout the project duration) to support nursery activities <b>by the end of year 2.</b></p> <p>4.4 [DI-B10] 90HH in Mangabe PA reporting a permanent adoption of natural nursery consumable production <b>by end of Y2.</b></p> <p>4.5 [DI-D02 Core] <b>By the end of year 2</b> ,1500 HH in Mangabe PA <b>estimated to</b> have improved disaster / climate resilience <b>from a combination of</b> improved habitat ecosystem services as a result of successful restoration activities <b>and increased capacity to safeguard livelihoods from climatic events</b></p> <p>4.6 <b>By the end of year 2</b>, 90 HH in Mangabe PA have improved disaster/climate resilience via reduced reliance on agriculture income due to the increased income derived from this project initiatives.</p> | <p>4.2 .1 <b>Income , dependency , and Climate reliance</b> survey results and report</p> <p>4.3 .1 Business and production plan documents</p> <p>4.3 .2 <b>ncome , dependency , and Climate reliance</b> survey results and report</p> <p>4.4 .1 Feasibility assessment document</p> <p>4.4 .2 <b>Income , dependency , and Climate reliance</b> survey results and report</p> <p>4.5 .1 <b>Income , dependency , and Climate reliance</b> survey results and report</p> <p>4.5 .2 Restoration site map &amp; forest cover imagery.</p> <p>4.6 .1 Restoration yield &amp; nursery seedling inventory annual report</p> <p>4.6 .2 <b>Income , dependency , and Climate reliance</b> survey results and report</p> |
| <p><b>Activities</b></p> <p>1.1.1. Develop and deliver workshop knowledge &amp; skill assessment survey &amp; task at each workshop.</p> <p>1.1.2. Gather results into one centralised database.</p> <p>1.2.1. Project team meetings to plan and design content for vocational resources (videos &amp; guide)</p> <p>1.2.2. CZ nursery videos filmed with help from plant team</p> <p>1.2.3. Madagascar videographer contracted and film videos for WS1 &amp;WS2</p> <p>1.2.4. Training video series edited and created.</p> <p>1.2.5. All organisations agree and endorse techniques to be used in standard guide of best practice.</p> <p>1.2.6. Create standard best practice guidelines for forest restoration in Malagasy, French, and English with visual aids.</p> <p>1.2.7. Print and prepare all vocational resources to be accessible and sharable during y2 workshops.</p> <p>1.3.</p> <p>1.3.1. CZ and partner organisation staff receive Train-The-Trainer training.</p> <p>1.3.2. CZ and partner staff deliver Train-The-Trainer training to workshop participants in-country during WS2 Y1</p> <p>1.3.3. Issue trainer certificates to trained participants.</p> <p>1.3.4. Promote Y2 workshops to community groups &amp; Identify community members interested in Y2 workshop and create register.</p> <p>2.1.1. Register NGO staff interest and availability for workshops</p> |   |   |

- 2.1.2. Design and develop two core workshops with structure, content, and logistics. (WS1 nursery management, WS2 out planting and restoration)
- 2.1.3. Develop workshop knowledge & skill assessment survey & task for each workshop.
- 2.1.4. Deliver workshop 1
- 2.1.5. Deliver workshop 2
- 2.2.
- 2.2.1. Year 1 both workshops delivered to 30 participants (Existing nursery staff) at Mangabe & Parc Ivoloia.
- 2.2.2. Year 2 deliver both workshops to 30 participants (additional nursery staff & community members) at Mangabe & Parc Ivoloia.
- 2.3. Deliver workshop knowledge & skill assessment survey & task at each workshop.
- 2.4. WS implementation evaluation survey (gather data on WS participant success at home sites)
- 2.5. At the end of Y1 & Y2 conduct restoration and nursery yield success assessment
- 2.5.1. Collect forest cover & satellite imagery
- 2.6. & 2.7 Final project assessment write up final reports
- 3.1.1. Create and/ or upgrade the NREN platforms (Facebook & WhatsApp, tiktok)
- 3.1.2. Encourage WS participants to join platforms whilst on WS
- 3.1.3. Gather emails / numbers form participants register to send network invitations
- 3.2.
- 3.2.1. Make training resources open source and upload to platforms.
- 3.2.2. Develop and share communication material.
- 3.2.3. Run social media engagement analysis for reporting.
- 3.3. Develop and share quarterly newsletters, restoration champion case studies, and videos.
- 3.4.
- 3.4.1. Identify NGO staff and nursery workers to receive comms training and manage platforms
- 3.4.2. CZ staff deliver short tutorial on how to manage online social platforms.
- 3.4.3. Identify 1 person as NREN manager to pull together and manage admin reports / content.
- 4.1.1. Design and deliver income & forest dependency ( agriculture, sustainable product production, and income generation from this project )surveys.
- 4.1.2. ID products & demand
- 4.1.3. Run feasibility assessment of products for community groups production.
- 4.1.4. Hold community meetings and share feasibility assessment.
- 4.1.5. Create product quality control and have community groups sign quality agreement.
- 4.1.6. Assist community groups with creating business and production plans
- 4.1.7. Promote sale of products at the end of each workshop in Mangabe with a stall in the camp.
- 4.2. Deliver income & forest dependency ( agriculture, sustainable product production, and income generation from this project) surveys to larger groups in the community including nursery workers.
- 4.3. Continue to deliver income & forest dependency surveys at 6 month intervals, collecting data in a centralised database.
- 4.4. Conduct final nursery consumables products feedback evaluation with community group meetings.
- 4.5. Evaluate the data collected from the climate resilience proxy questions in the income & forest dependency surveys and summarise results into final report along with forest cover imagery.
- 4.6.1 Y2 WS sessions delivered to community audience on climate change and sustainable resource use.

## Annex 3: Standard Indicators

**Table 1 Project Standard Indicators**

Please see the Standard Indicator guidance for more information on how to report in this section, including appropriate disaggregation.

| DI Indicator number | Name of indicator  | If this links directly to a project indicator(s), please note the indicator number here | Units                | Disaggregation     | Year 1 Total | Year 2 Total | Year 3 Total | Total to date | Total planned during the project |
|---------------------|--|---|----------------------|--------------------|--------------|--------------|--------------|---------------|----------------------------------|
| DI-C01              | Number of best practice guides and knowledge products published and endorsed   | 1.2   | Number               | Malagasy & English | 17           |              |              | 17            | 17                               |
| DI-A01              | Number of people in eligible countries who have completed structured and relevant training                                   | 2.1   | Number of people     | Men & Women        | 47           |              |              | 47            | 60                               |
| DI-B05              | Number of people with increased participation in governance.   | 2.4   | Number of people     | Men & women        | 0            |              |              | 1             | 12                               |
| DI-D12              | Area of degraded or converted ecosystems that are under active restoration   | 2.5   | Number of hectares   | Forest             | 0            |              |              | 0             | 5100                             |
| DI-A04              | Number of people reporting that they are applying new capabilities (skills and knowledge) 6 (or more) months after training. | 2.6   | Number of people     | Men & women        | 47           |              |              | 47            | 60                               |
| DI-C12              | Social Media presence  | 3.1   | Social media metric  | Men & women        | 43           |              |              | 43            | 38                               |
| DI-C12              | Social Media presence  | 3.2   | Social media metric  | Posts              | 102          |              |              | 102           | 4                                |
| DI-C10              | Number of Media related activities.  | 3.3   | Number of activities | Newsletters        | 0            |              |              |               | 8                                |
| DI-A05              | Number of trainers trained under the project reporting to have delivered further training                                    | 3.4   | Number of people     | Men & women        | 33           |              |              | 33            | 10                               |
| DI-D16              | Number of households reporting improved livelihoods.   | 4.1   | Households           | Households         | 93           |              |              | 93            | 90                               |



| DI Indicator number | Name of indicator   | If this links directly to a project indicator(s), please note the indicator number here | Units                | Disaggregation | Year 1 Total | Year 2 Total | Year 3 Total | Total to date | Total planned during the project |
|---------------------|---|---|----------------------|----------------|--------------|--------------|--------------|---------------|----------------------------------|
| DI-B10              | Number of new or improved sustainable livelihoods management plans available and endorsed | 4.4   | Number of households | Households     | 93           |              |              | 93            | 90                               |
| DI-D02 CORE         | Number of people whose climate and disaster-resilience has been improved.                 | 4.5   | Number of people     | Households     | 0            |              |              |               | 1500                             |

**Table 2 Publications**

| Title                                    | Type<br>(e.g. journals, best practice manual, blog post, online videos, podcasts, CDs) | Detail<br>(authors, year) | Gender of Lead Author | Nationality of Lead Author | Publishers<br>(name, city) | Available from<br>(e.g. weblink or publisher if not available online) |
|--|--|---------------------------|-----------------------|----------------------------|----------------------------|---|
| Nursery Exchange Project Youtube Channel | Online Videos  | CZ, MV, MBG, MFG, 2025    | Male & Female         | Malagasy & British         | Charles, Chester           | <a href="#">Nursery Exchange Project - YouTube</a>                    |
|  |  |                           |                       |                            |                            |   |

#### **Annex 4.**

Document title: Annex 4\_ Evidence Document\_AR1\_DARCC042

## 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 <b>correct template</b> (checking fund, scheme, type of report (i.e. Annual or Final), and year) and <b>deleted the blue guidance text</b> before submission?  |       |
| <b>Is the report less than 10MB?</b> If so, please consider the best way to submit. One zipped file, or a download option is recommended. We can work with most online options and will be in touch if we have a problem accessing material. If unsure, please email to <a href="mailto:BCF-Reports@niras.com">BCF-Reports@niras.com</a> putting the project number in the Subject line. |       |
| <b>Is your report more than 10MB?</b> If so, please discuss with <a href="mailto:BCF-Reports@niras.com">BCF-Reports@niras.com</a> about the best way to deliver the report, putting the project number in the Subject line.  |       |
| <b>Have you included means of verification?</b> You should not submit every project document, but the main outputs and a selection of the others would strengthen the report.  |       |
| <b>Have you provided an updated risk register?</b> If you have an existing risk register you should provide an updated version alongside your report. If your project was funded prior to this being a requirement, you are encouraged to develop a risk register.   |       |
| If you are submitting photos for publicity purposes, do these meet the outlined requirements (see section 15)?   |       |
| 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.   |       |