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sustainable environment, education & development

A Six-Month Progress Report for

THE ALA PROGRAMME: PHASE III

In-situ Conservation of Endangered Lemurs through Reforestation in the Sainte Luce Littoral Forest

February 2025

1. Introduction

1.1 Context

Madagascar is one of the least developed countries globally and ranks 177 out of 193 countries on the Human Development Index, which measures health, education, and standard of living.[i] Madagascar has one of the highest poverty rates in the world, with 75.2% of the population living in poverty, and one in every two people living on less than US$2.15 per day. This is even more pronounced in the Anosy region of southeast Madagascar, where 83% of people live in poverty.[ii]

With some of the highest levels of endemism seen globally,[iii] Madagascar is one of the world's largest conservation priorities.[iv] Despite this status, forest loss poses a severe threat to Madagascar's unique flora and fauna, with 4.36 million hectares of forest cover lost to deforestation between 2001 and 2021.[v] Consequently, lemurs are one of the world's most endangered mammal groups.[vi] Littoral forests are one of the most threatened ecosystems in Madagascar,[vii] with the Anosy region containing some of the few remaining viable littoral forests in the country, including the Sainte Luce littoral forest (SLLF). The SLLF faces numerous threats, including industrial-scale mining operations, high community dependence on natural resources, logging, and *tavy* (the clearance of land with fire for agricultural purposes). The SLLF supports disconnected populations of four Endangered lemur species, numerous amphibian and reptilian species, and a rich diversity of invertebrate and floral species, many of which are locally endemic.

Degradation of the SLLF threatens the survival of the four lemur species who depend upon it. The three nocturnal lemur species are unable to traverse the open land between forest fragments. Namely, the Anosy Mouse Lemur (*Microcebus tanosi*), the Southern Woolly Lemur (*Avahi meridionalis*), and the Thomas' Dwarf Lemur (*Cheirogaleus thomasi*). Thus, deforestation fragments lemur habitat, genetically isolating sub-populations, contributing to increased mortality rates, and leaving these lemur species vulnerable to the risk of extirpation and extinction.

Figure 1 – A map of the Ala Programme Forest corridors in the SLLF and the community of Sainte Luce.

1.2 Ala Programme Overview

In response to the threats facing the SLLF, SEED Madagascar (SEED) developed the Ala Programme (*Ala* meaning forest in Malagasy). The Ala Programme is a ten-year littoral forest conservation strategy, which acts in one of three protected fragments of the SLLF, S8. The Programme aims to improve habitat connectivity and species dispersal between S8 and nearby littoral forest remnants through the establishment of forest corridors.

The Ala Programme directly supports the in-situ conservation of three Endangered nocturnal lemur species that cannot traverse the open land created by deforestation. The Programme also indirectly conserves a fourth species of lemur, the Red Collared Brown Lemur (*Eulemar collaris*), and a large number of herpetofauna and invertebrate species, including the Critically Endangered *Phelsuma antanosy*.

During Phase I of the Ala Programme (April 2019 - March 2021), SEED and local stakeholders planted four forest corridors, spanning a total of 1.64ha, with both *Acacia mangium* (Acacia) and native seedlings (natives). In Phase II (June 2021 – May 2024), available habitat was increased by expanding the original corridors and establishing a fifth corridor, creating a total corridor area of 3.72ha. To date, 88ha of protected littoral forest is connected by the Ala corridors.

The two-year Ala Programme: Phase III, began in August 2024 and builds on the progress of Phase I and II to conserve endangered lemur species by improving habitat connectivity in Sainte Luce littoral forest fragment S8 through the establishment of forest corridors. Additionally, Phase III will disseminate learnings on community forest usage patterns to advocate for community needs, engage with local forest management structures to improve communication, and increase available knowledge on littoral forest biodiversity.

In October 2024, a significant Programme milestone was achieved, with nocturnal lemurs recorded as using the Ala Forest corridors for the first time. After five and a half years, bare ground has been transformed into a viable habitat connection for Endangered lemurs.

1.3 Report and Progress Summary

This report will discuss progress on activities conducted in the first six months (August 2024 – January 2025) of the Ala Programme: Phase III. Firstly, the report will detail damage caused by a large fire that affected the corridors in January 2025, its impact on the Programme, and the recovery plan before covering progress by outcome and output, highlighting additional achievements where relevant.

Overall, the fire impacted the native seedlings far more than the fire-resistant and larger Acacia trees. The corridors impacted by the fire can broadly be split into two, with Corridors 1, 3, and 4 mostly intact, and Corridors 2 and 5 devastated. Nevertheless, SEED feels confident that the Ala Programme will emerge from this event stronger.

Despite this severe impact, there were many project elements that progressed well during this period. During the first six months, nursery techniques were improved through the trial of a new nursery bed and the installation of a vermicomposting system, while replanting plans have been expanded and delayed until March 2025 due to the impact of the fire (Outcome One). Work on an interactive map displaying community resource needs in Sainte Luce to be used for advocacy is ongoing (Outcome Two). Corridor landowners were upskilled through monitoring training, communication was facilitated between forest management structures from six communities, and Programme engagement activities were expanded to a seventh community bordering the SLLF. Floral and faunal monitoring of the corridors continued, with nocturnal lemurs recorded using the corridors for the first time in October 2024. One *Cheirogaleus thomasi* was caught on a camera trap in Corridor 3 and two *C. thomasi* were spotted during a survey in Corridor 3 in November 2024 (Outcome 4).

2. January 2025 Sainte Luce Fire

2.1 Context

On the 5th of January 2025, SEED was alerted that a large fire had spread to Sainte Luce affecting the Ala Forest corridors and the S8 forest fragment. As a result of strong winds, the fire became too dangerous for the community to extinguish and burned for more than two days, continuing to smoulder for up to a week later. While the three hamlets of Sainte Luce were not impacted by the fire, it crossed forest firebreaks causing significant damage to the corridors.

Following the dryest October to December period on record,[viii] unseasonal winds and the rainy season onset delayed by more than one month, numerous fires occurred in the Anosy region in January. It is likely that climate change is the cause of such weather conditions, highlighting the vulnerability to climate change that is faced by communities in southeastern Madagascar.

The fire reached Sainte Luce from the community of Esohihy situated to the north. It burned across grassland before spreading over the 15m wide S8 firebreak, partially through a dry but usually swampy area. From there, the fire entered Remnant 2 (S8 R2) from the east, burning through Corridor 2 (C2), before splitting off through the open ground between the forest remnants. The forest within this open ground is not protected by a firebreak, as the firebreak encircles the outer edge of S8.

One fork of the fire spread across dry, but usually swampy ground to Corridor 1 (C1), and the other fork towards Corridors 3 and 5 (C3 and C5). The Corridor 5 fire then spread across more dry but usually swampy ground, emerging into the open area between Remnants 3 and 4 (S8 R3 and S8 R4). The fire then spread to Corridor 4 (C4), but as the wind had slightly reduced, the corridor landowners managed to extinguish the fire before it consumed the entire corridor. SEED is devastated by the events but resolute that the Ala Programme will recover and emerge stronger.

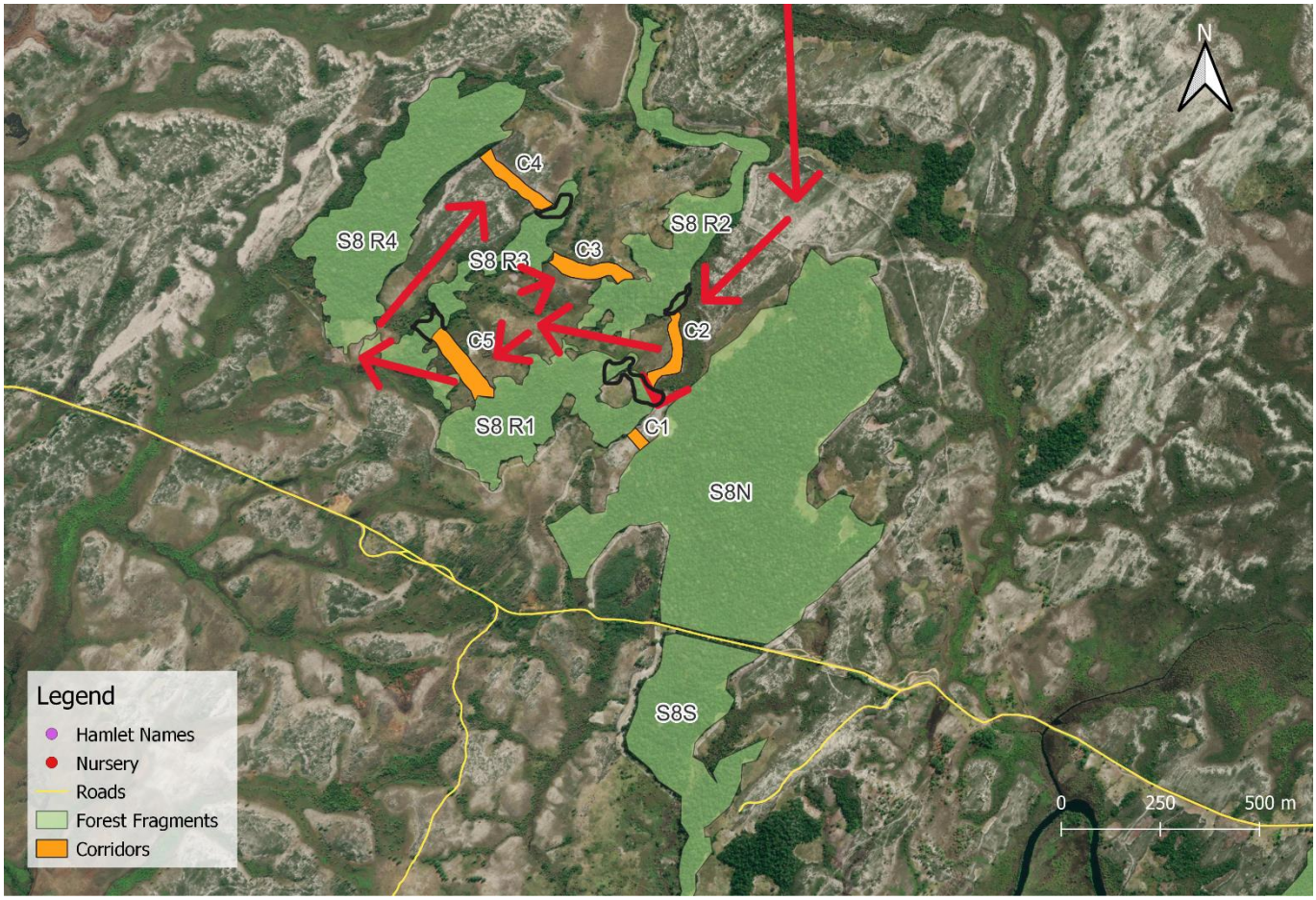

Figure 2 – Map showing the direction of fire spread (red arrows) to the Ala Programme corridors. The black areas denote burnt areas of littoral forest remnants adjoining the corridors.

2.2 Impact on the Ala Programme

Firstly, Corridors 1, 3, and 4 remained largely intact, with the Acacia mostly unscathed, maintaining most of their leaves. Sadly, based on monitoring data obtained in December, 84% of the native seedlings in the three corridors were lost to the fire. Despite Corridor 4 having the highest native seedling survival rate (25%), an area (~3,500m^2) of Remnant 3 that adjoins the corridor's southern end was also burned during the fire. As lemurs are unlikely to use burnt forest to enter the corridors, the southern trajectory of Corridor 4 may need to be altered to improve the viability of this habitat connection. Nevertheless, the forest remnants on either side of Corridors 1 and 3 were also unscathed, meaning the corridors still offer a viable connection for lemur habitat. This is particularly good news, as Corridor 3 was where three Endangered nocturnal lemurs have been spotted recently.

Corridors 2 and 5 suffered severe damage, and littoral forest remnants adjoining each corridor also burned (see *Figure 2*). This means that both corridors will need to be reorientated to meet green forest and maintain viability as habitat connectors. Devastatingly, all native seedlings in Corridors 2 and 5 were lost and the Acacia were badly burned, losing the majority of their leaves. Despite this, 60% of corridor Acacia either survived or had begun to regenerate by the end of February 2025, and it is anticipated that more Acacia will regenerate over the coming months. It is unclear exactly why these two corridors suffered the most. A possible explanation is the higher density of Acacia trees present in Corridor 5, compared with the other four corridors, and the proximity of Corridor 2 to a dry but usually swampy area that burned significantly. The damage to the forest remnants on either side of Corridor 2 was the worst, likely because these areas are usually quite swampy. To the north of Corridor 2, around 1,800m^2 of Remnant 2 was burned, and a significant portion (4,300m^2) that accounts for 5% of Remnant 1's (S8 R1) total area was burned to the south. Finally, an area of Remnant 3 (2,000m^2) to the north of Corridor 5 was also burned.

2.3 Fire Recovery Plan

The recovery plan falls into two categories, immediate and long-term. Immediate next steps are to significantly increase seedling collection, with the hope that some can be planted at the end of the rainy season in May 2025. While ringbarked trees were originally going to be left standing with a handful harvested each week by the landowners for firewood, all ringbarked trees will be cut down as they now pose a risk to anyone working in the corridor and to the remaining native seedlings.

In March 2025, more than 3,700 native seedlings will be replanted in the intact Corridors 1, 3, and 4. Self-seeding Acacia, which proliferate after fires, will be removed from the corridors before planting. Corridor 5 will be replanted with native seedlings in April or May, depending on seedling nursery growth. In areas of Corridor 5 where there is insufficient shade, individual shelters will be made out of Acacia branches and leaves for each seedling. This technique was suggested by the corridor landowners after they learned about it during a cross-visit to Mahabo littoral forest in December 2023 as part of the Ala Programme: Phase II.

In March, the feasibility of expanding Corridor 4 to the southeast and Corridor 5 to the northwest to meet green forest will be explored. Corridor 2 is more complex, with the adjoining forest on both sides significantly burned. Thus, the possibility of relocating the whole corridor will be explored. It is likely that any extensions or relocations will not occur until the 2026 rainy season, this is due to seedlings requiring a minimum of three months in the nursery before being ready to plant. It is likely that Acacia seedlings will not be planted in any future extensions, owing to their high competition with native seedlings and the existence of alternatives. To provide shade, individual shelters could be constructed over the natives, while the nitrogen-fixing role of the Acacia could be replaced with vermicompost. Nevertheless, all options will remain open and alternative fast-growing species will also be researched.

A new research survey designed to monitor the potential recovery of burned forest areas will be piloted in February 2025. If there are no signs of recovery in these areas by the start of the 2026 rainy season, then the possibility of reforesting them will be explored.

Due to high native seedling mortality during the first years of the Ala Programme, the majority of native seedlings lost were planted in 2023. For Corridor 5, and the Corridor 1 and 4 extensions, seedling were first planted in 2024. Consequently, the fire has wiped out between one and two years of native seedling growth, albeit low growth. The fire may now offer a blank slate from which the corridors can recover stronger with faster growth, aided by the addition of worm compost and reduced competition with the Acacia.

Figure 3 – An example of a shelter built by the landowners to protect unshaded seedlings.

2.4 Learnings

The perfect storm of prolonged dry and unseasonably windy conditions led to the destructive power of this fire. Nevertheless, there are lessons to be learned from this event that SEED will incorporate into future programming. Firstly, the firebreak surrounding S8 should cover all forest edges, rather than just the outer edge. Previously, an outer edge firebreak has been enough to protect the forest from fire, however, with climate change likely to increase the frequency of extreme events such as this, it is crucial to take every precaution. Currently, FIMPIA has a responsibility for this firebreak, with SEED collaborating with them annually to clear it. Subsequently, SEED will look to work with FIMPIA in 2025 to alter the firebreak. The fire has also shown the need to consider swampy and wetland areas during firebreak clearance, as in this case the usually wet swampy areas were dry and highly flammable.

In addition, the Ala Programme will look to increase the frequency of community mass mobilisations on the topic of fire and improve messaging during these events, raising awareness of tangible alternatives to *tavy* (swidden agriculture), and distributing additional fire extinguishing equipment. SEED will continue to work with local communities and key stakeholders to refine the fire mitigation strategy ahead of the 2025 fire season.

3. Activity Detail

3.1 Outcome One: Forest Corridors

3.1.1 Nursery Development

At the beginning of Phase III, the installation of a vermicomposting system in the SEED nursery was a priority to begin producing high-quality worm compost for use in the nursery and the corridors. Initially scheduled for August 2024, the installation was delayed due to an external international consultant dropping due to an unexpected scheduling conflict. Despite this setback, SEED partnered with Ver'Natiora, a local agricultural specialist in Fort Dauphin, to complete this activity. In September 2024, seven SEED staff participated in three days of capacity-building training from Ver'Natiora. The team learned the theory behind vermiculture (worm cultivation) and vermicomposting, as well as how to apply the knowledge and skills learned during practical sessions.

Figure 4 – SEED staff listen intently as the Ver'Natiora consultant explains how these boxes are used for worm cultivation.

Following this training, SEED worked with Ver'Natiora to produce a vermicomposting action plan, with an aim of scaling up production to 10,000kg of vermicompost per year by the end of Phase III. To achieve this goal, a local carpenter produced 40 wooden boxes lined with plastic for worm cultivation. To accommodate them, the nursery store was expanded by 3x4m. The boxes were installed in the SEED nursery in Sainte Luce from December to January 2025, with 4kg of worms evenly distributed across them. The goal is to quadruple the worm mass within four months, after which, a portion will be transferred to composting beds to begin producing worm compost. The remainder will stay in the boxes to again, quadruple in mass. Ver'Natiora estimated that between 42-84kg of worms will be required to achieve the production goal of 10,000kg per year. A compost heap comprised of *zebu* (cattle) manure, corridor Acacia leaves, and waste from SEED's Conservation Research Camp, is being established in the nursery to create food for these worms.

A new nursery system, consisting of degradable pots in a hydroponic flow nursery bed,[1] was trialled. To ensure a fair trial, all seeds sown were of the same species, *Haronga*. Four months after sowing, 85% of the seeds in the new nursery bed had germinated, compared with 30% in the old system that utilises plastic pots. There were no significant differences in seedling growth after four months, with seedlings in the new system averaging 3.1cm in height, and 3.5cm in the old system. Due to the trial's success in increasing seed germination, and the hydroponic beds significantly lower water usage, this trial will be expanded in size over the next six months.

3.1.2 Corridor Management

In September and October 2024, all of the native seedlings in the corridor were watered monthly, with watering efforts doubling in November and December due to the intense heat and dryness. Alongside watering, manure was applied to all seedlings in September and December, with the aim of providing vital nutrients. All native seedlings that survived the fire were watered in January .

Following a literature review completed during the interim period (June – July 2024), the decision was made to remove around half of the corridor Acacia to manage shade and reduce competition with the native seedlings. After discussions with the corridor landowners, ringbarking was selected as the best method to kill the Acacia. Ringbarking involves removing a strip of bark around the tree trunk to kill the tree by preventing the transport of nutrients and water from the leaves to the roots. In October 2024, 49% of Acacia trees in the corridor were systematically ringbarked to maximise wind protection and optimise shade. Since ringbarking, many of the Acacia have died, ensuring that there will be increased availability of water for the native seedlings during the rainy season, which finally started at the end of January 2025.

The replanting of native seedlings, initially planned for January 2025, was postponed until March due to the delayed onset of the rainy season and fire damage. At the end of January 2025, there were 3,590 seedlings in the nursery ready for planting, and a further 2,700 not yet ready. Due to the continued dry weather after the fire, remaining corridor leaf litter was cleared to reduce risk of another fire. The collected leaves will be incorporated into the vermicomposting system.

3.1.3 Forest Threats

One of the most significant threats to the corridors is fire, due to a long dry season from July to November, increasingly erratic climatic conditions, and the traditional management technique of clearing land with fire for agricultural purposes known as *tavy*. In fact, due to the record-breaking dry weather and the delayed rainy season onset, this year's fire season extended until January 2025.

In response, firebreaks surrounding the Corridors and the S8 fragment as a whole were cleared in July 2024 during the interim period. In August 2024, seven community mass mobilisation events focusing on fire prevention and mitigation were facilitated by SEED. These events were held across six communities bordering the SLLF in collaboration with the Regional Ministry of the Environment and Sustainable Development (DREDD). All seven events were also supported by the Ala corridor landowners to promote community-led awareness-raising.

For the 2024 fire season, SEED re-recruited the ten community fire agents trained during the Ala Programme: Phase II, to lead and report on community fire response. To support the fire agents in their role, each agent received a pair of jelly shoes and participated in leadership training delivered by Fabrice, SEED's Reforestation Coordinator. The training focused on how the fire agents can mobilise the community to fight fires. Between August 2024 and January 2025, the fire agents reported 29 fires across six communities, with 90% extinguished by fire agents alongside communities, who often used SEED-distributed fire beaters, branches, mud, and water. Compared with 2023, this represents a 50% increase in reported fires, suggesting that the extremely dry weather contributed to increased fire risk.

[1] Hydroponics is a type of horticulture which involves growing plants in a water-nutrient solution. A hydroponic flow nursery bed is a plastic lined nursery bed, that utilises a watering system to periodically flood plant roots.

In January 2025, the fire agents participated in an end of fire season feedback session, during which, the fire agents identified a lack of water, limited equipment, and community motivation as challenges. Four of the ten fire agents mentioned the leadership training as being useful, not only to their role as a fire agent, but in their daily lives. The fire agents also suggested that the frequency of community mass mobilisations should be increased to twice per year and suggested that firebreaks may also need to be cleared twice yearly. This feedback is invaluable and will inform planning for the 2025 fire season.

"Working with SEED was fun and gave us new knowledge… the training [on] leadership was important."

Gervais, Community Fire Agent in Ebakika, January 2025

Two meetings were held with *zebu* owners and herders in Sainte Luce to discuss the role herders play in starting fires as well as raising awareness about the harm *zebu* grazing has on young seedlings. The *zebu* owners expressed a desire to collaborate on this issue and suggested that SEED repurpose the research camera traps to monitor herders. This will not be done for ethical reasons however, the suggestion implies that the owners are motivated.

3.1.4 Monitoring and Learning

Monitoring over the past six months focused on native seedling survival and growth in the corridors and the nursery bed trial. Corridor seedlings grew an average of 0.72cm between August and December 2024, with average growth highest in Corridor 4 at 2.90cm. Monitoring also revealed that the extreme heat and dryness from October onwards caused significant mortality. Seedling mortality between September and December was 44%, compared with 2% between May and September 2024. This mortality was in spite of the increased watering conducted in November and December. To increase data collection and allow for better identification of growth trends, a second monitoring quadrat in each corridor was due to be established in January 2025. New quadrat establishment was delayed due to the fire. Sadly, only the Corridor 3 quadrat survived the January fire. As a result, new quadrats will need to be established in all corridors.

Figure 5 - The installation of the new hydroponic bed in the SEED nursery, seen from above.

In August 2024, two SEED staff attended a three-day workshop facilitated by Chester Zoo in Mahabo, eastern Madagascar. During the workshop, staff learned how to create a living fence and trialled producing seedling pots out of Eucalyptus trees. The workshop also provided an opportunity to share knowledge and network with other actors involved in reforestation in Madagascar, such as Missouri Botanical Garden.

3.2 Outcome Two: Community Resource Needs

Work on an interactive online map displaying areas important to community resource needs in Sainte Luce is ongoing. The map, which incorporates data collected during the Ala Programme: Phase II, will be shared with relevant actors, such as QMM (QIT Madagascar Minerals) to advocate for community needs. Upon completion, the map will also be displayed on the SEED website, allowing for wider awareness-raising of the resource needs of Sainte Luce.

3.3 Outcome Three: Forest Management

3.3.1 Corridor Landowners

In September 2024, the corridor landowners received training on how to ringbark, learning the theory behind the method and implementation techniques. In October, the eight landowners participated in their first corridor monitoring session, learning how to measure and record seedling survival and growth, with the aim that the landowners will be able to lead monitoring sessions by the end of Phase III.

SEED also worked with the corridor landowners to produce a plan for using the ringbarked Acacia. The landowners stated that they would predominantly like to use the Acacia as firewood, harvesting them as required. In Corridor 3, where the Acacia are the largest, the landowner expressed interest in the potential of producing planks for construction for fence posts but stated that they did not have much experience using Acacia in this manner. In January 2025, it was decided that some of the Corridor 3 Acacia would be used to fix broken beds in the SEED nursery. Meaning the felled Acacia will support the growth of native seedlings soon to be planted in the corridors. It is hoped that SEED's use of Acacia to fix the nursery can demonstrate to the community the value of this species.

3.3.2 Forest Management Structures

In October 2024, a meeting was held between the village leaders and representatives from forest management organisations of six communities bordering the SLLF. The meeting provided a platform for stakeholders to share news, exchange knowledge, and address challenges in forest conservation. During the meeting, fire prevention and *zebu* encroachment were discussed. Representatives also identified illegal logging as an impediment to forest conservation and stated their desire to reform the permitting system to ensure payments are made. Permitting will be discussed during the next meeting, which a representative from DREDD is scheduled to attend.

Additionally, during the meeting SEED was made aware that two communities not currently involved in Ala Programme engagement and fire mitigation activities send *Polisin'ala* (local forest patrol) to monitor the SLLF. Subsequently, these two more-southerly communities, Belavenoky and Itapera, will be invited to all future meetings.

3.3.3 Stakeholder Network

In September 2024, SEED met with the Miaro Committee, the local natural resource management committee in Sainte Luce. The Committee requested to meet with SEED every two months to increase collaboration. This has not yet been possible due to capacity constraints, although a meeting between the Committee and representatives from three of SEED's Sainte Luce-based projects is planned for February 2025. In addition, SEED met twice with representatives from QMM to discuss conservation in Sainte Luce, including how forest patrols can be strengthened and FIMPIA (Forestry Police Association) can be best supported. SEED continues to advocate on behalf of communities and biodiversity during all meetings with QMM.

Following the meeting of forest management organisations in October 2024, SEED held a community meeting for the first time in Belavenoky. The meeting was facilitated by SEED and supported by one of the corridor landowners to promote community-led awareness raising. During the meeting, the Ala Programme was introduced, and broader forest conservation themes were discussed. After the meeting, the *Chef Fokontany* (village leader) of Belavenoky expressed motivation to become more involved in the Ala Programme.

3.4 Outcome Four: Understanding Biodiversity

During the past six months, SEED's Conservation Research Programme continued three established data collection methodologies for fauna which included, camera trapping for lemurs, Visual Encounter Surveys (VES) for herpetofauna, and catch-and-release sampling for invertebrates.

Excitingly, Endangered nocturnal lemurs were spotted using the Ala Programme corridors for the first time. In October 2024, one Thomas' Dwarf Lemur (*Cheirogaleus thomasi*) was spotted by a camera trap in Corridor 3. Then in November 2024, two *C. thomasi* were spotted during a nighttime herpetofauna VES using Corridor 3, with one spotted in the very middle of the 200m long corridor. All three lemurs were spotted traversing the corridors using the Acacia. These lemur sightings represent an extraordinary Programme milestone; after five years, bare ground has been transformed to connect crucial lemur habitat.

Figure 6 – The tail of a C. thomasi *spotted by a camera trap in Corridor 3, October 2024*.

In addition to the lemur sightings, two species of herpetofauna were recorded in the Corridors for the first time, including a species of gecko *Hemidactylus mercatorius*, taking the total number of herpetofauna species seen in the corridors to 17. Furthermore, a new botanical survey was trialled in Corridors 1 – 4 in August 2024. The survey aims to get a better insight into how the entire ecosystem is changing over time as well as to measure and understand vegetation dynamics in the corridors. After the trial's success, the survey will now be implemented quarterly.

After the January 2025 fire, research surveys continued as scheduled, with the exception of camera trapping. Due to the fire risk to the equipment, camera trap placement was delayed until the rainy season began at the end of January.

4. Monitoring, Evaluation, and Learning

Monitoring, Evaluation, and Learning (MEL) over the past six months focused on assessing seedling survival and growth and the new nursery bed trial. The devastating January 2025 fire resulted in the loss of all except Corridor 3's quadrat. As the initial quadrats were set up after the 2023 planting season, the exact planting date of the seedlings was unknown. Thus, establishing new quadrats after replanting in March 2025 offers an opportunity to improve data quality and better understand the corridors as a whole. Two quadrats will be established in each corridor, to allow for better comparison within and between corridors.

Regular monitoring of the new hydroponic nursery system allowed for the identification of algae as a potential problem to seedling growth. The water in the new nursery bed, which requires a near constant level, began blooming with algae after one or two days in the bed. The algae were growing on the new pots, reducing water uptake and seedling growth and likely delaying germination. At the suggestion of the Bata, SEED's Nursery Manager, rainwater was trialled instead of well water. Since the use of rainwater began, no algal growth has been seen.

In addition, feedback from the fire agents in January 2025 highlighted key challenges in fire mitigation, including a lack of water, limited equipment, and low community motivation. Fire agents emphasised the value of leadership training, with four of the ten agents reporting that it improved both their fire response and daily lives. Their suggestions, such as increasing the frequency of community fire mobilisations, will directly inform fire prevention strategies. Moving forward, MEL will focus on corridor recovery, seedling survival post-replanting, and the effectiveness of adaptive fire mitigation measures.

5. Next Steps

The immediate focus of the Ala Programme will be utilising the rainy season to replant native seedlings after the fire, finalise the fire recovery plan, and continue to collaborate closely with forest management structures and local communities. To facilitate planting, 1,680 ringbarked Acacia will be cut down in Corridors 1, 3, and 4 in February 2025, with self-seeding Acacia also to be cleared from these corridors. Upwards of 3,500 native seedlings will then be planted across Corridors 1, 3, and 4 in March 2025, with new monitoring quadrats established in each corridor. Also in March, the feasibility of extending Corridors 4 and 5 to meet green forest and the potential relocation of Corridor 2 will be assessed. Further seedlings will then be replanted in April and May 2025. To further support the recovery of the corridors, in April, worm compost production will commence in the SEED nursery after a portion of the worms have been transferred to two composting beds. The Ver'Natiora consultant will assess the health and mass of the worms before transferring them with production set to be progressively scaled up.

Continuing to upskill the eight corridor landowners will be a focus over the coming months. In March 2025, the landowners will learn how to establish new monitoring quadrats and will begin an eight-lesson financial literacy training course delivered by SEED alongside their wives. Furthermore, to facilitate communication between local forest management organisations and DREDD a meeting will be held in April 2025. At the request of the local forest management organisations, this meeting will focus on permitting. Community engagement activities will continue to raise-awareness around environmental topics, with activities set to expand to include Itapera for the first time, taking the total number of communities engaged in the Ala Programme to eight. Regular monitoring of corridor flora and fauna will continue over the next six months, with surveys likely to reveal the fire's impact on corridor biodiversity.

6. Conclusion

The first six months of the Ala Programme: Phase III have yielded both significant progress and challenges in achieving the goal of connecting vital Endangered lemur habitat. The recording of three *C. thomasi* in Corridor 3 during October and November 2024 marks a significant milestone and demonstrates the practical viability of the

Ala Forest corridors as connectors of degraded lemur habitat. In addition, nursery techniques have been strengthened with the installation of a vermicomposting system and the successful trial of a hydroponic nursery bed. Another success was the collaboration between forest management organisations from six communities and the expansion of engagement activities to a seventh.

The January 2025 fire caused setbacks, with high native seedling loss and severe damage to Corridors 2 and 5. Despite this, recovery efforts are underway, with replanting in the damaged corridors set to begin in March 2025 and an initial recovery plan developed. The lemur sightings in Corridor 3 provide clear evidence that the corridors are working, reinforcing the importance of habitat restoration and connectivity. Subsequently, SEED will continue to work closely with communities, forest management organisations, and the corridor landowners to rebuild the Ala Programme stronger and safeguard the future of the Sainte Luce littoral forest.

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