



A 36-Month Progress Report: End of Phase II

ALA PROGRAMME: PHASE II

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

July 2023

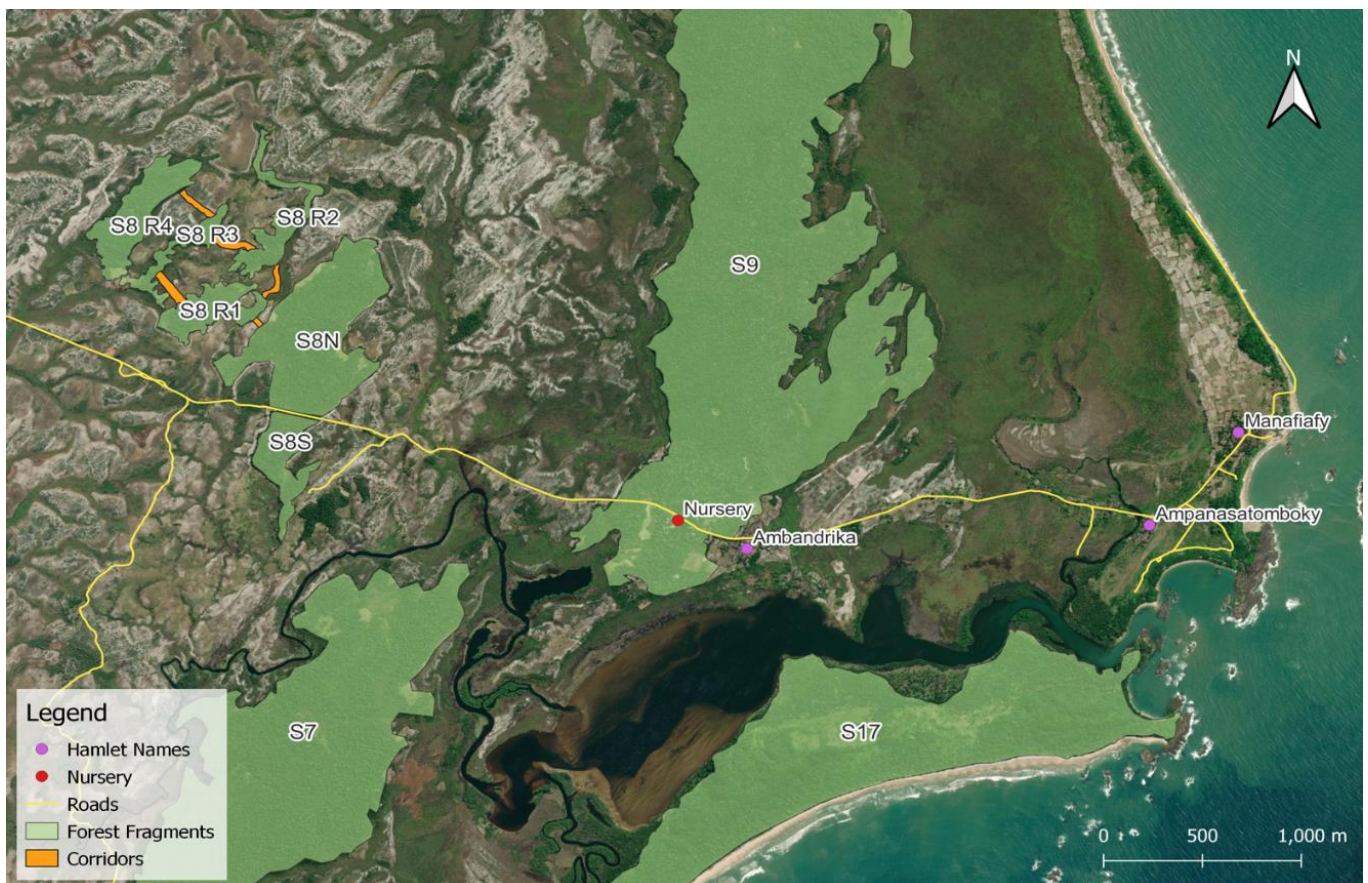
1 Introduction

1.1 Context

Madagascar is one of the least developed countries globally, ranking 177 out of 193 countries in the Human Development Index.¹ Of the country's population, 50.9% live on less than US\$2.15 per day.² This is more pronounced in the Anosy region of southeast Madagascar where 83% of people live in poverty.³

Despite having some of the highest levels of endemism seen globally,⁴ Madagascar is one of the greatest conservation priorities worldwide.⁵ The ongoing loss of forests 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 2021.⁶ Littoral forests are one of the most threatened ecosystems in Madagascar,⁷ with the region of Anosy 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. As a result of such environmental degradation, lemurs are one of the world's most endangered mammal groups.⁸

Degradation of the SLLF threatens the survival of lemur species', many of which are locally endemic. The three Endangered nocturnal lemur species found in SLLF are the Anosy Mouse Lemur (*Microcebus tanosi*), the Southern Woolly Lemur (*Avahi meridionalis*), and the Thomas' Dwarf Lemur (*Cheirogaleus thomasi*). These species are not able to traverse the open land between forest fragments. Thus, deforestation fragments lemur habitat which genetically isolates sub-populations and contributes to increased mortality rates, leaving these lemur species vulnerable to the risk of extinction.



A map of the Ala Programme's 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. The Programme aims to improve habitat connectivity and species dispersal between SLLF fragment eight (S8) and nearby littoral forest remnants through the creation of forest corridors, community engagement, working with local forest management organisations, and research. 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.

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, 111ha of protected littoral forest is connected by the Ala corridors. A fire mitigation strategy has been implemented in five communities bordering the SLLF to protect the forest and corridors. Locally led Forest management structures have been strengthened through knowledge sharing. Faunal and floral data collection in the corridors has promoted adaptive learning and contributed to increased international knowledge of the SLLF.

1.3 End of Phase Progress Report

This report will discuss progress on activities conducted in Year 3 of the Ala Programme: Phase II, throughout the period June 2023 – May 2024. It will report on progress by outcome and output, highlighting additional achievements where relevant. This report will also highlight the learnings and opportunities taken from Phase II as a whole (June 2021 – May 2024).

In Year 3 of Phase II, reforestation efforts concentrated on establishing native seedlings within all of the corridors and enhancing seedling survival and growth by adopting new corridor planting and management strategies. Threats to the corridors and the SLLF were mitigated through the clearance of firebreaks, the recruitment and training of fire agents, and community mass mobilisation events (Objective 1). Information on key natural resources in Sainte Luce and their local usage was collated, increasing SEED's understanding of community resource needs (Objective 2).

Local forest management bodies participated in training and information exchange on forest management practices, reforestation techniques, forest threats, and logbook reporting. Corridor landowners attended a cross-visit to Manombo and led community feedback sessions to disseminate their learnings in Sainte Luce. (Objective 3). Floral and faunal research in the corridors and forest fragments was conducted to monitor Programme progress and enable adaptive learning (Objective 4).

Year 3 marks the end of Phase II, the Ala Programme now enters a two-month interim period before the commencement of Phase III in August 2024.

2 Activity Detail

2.1 Outcome 1: Habitat Expansion

2.1.1 Expansion of the Corridors

In Year 3 of The Ala Programme: Phase II, 8,695 native seedlings were planted across Corridors 1 to 5 (C1 to C5), 5,771 of which were replants of dead seedlings previously planted. In the last Programme year, to complete SEED's aim to expand the corridor area, C5, an extension to C4, and a second extension to C1, were planted with natives for the first time, resulting in all five forest corridors planted with native seedlings. The plantings conducted in Year 3 represent a 62% increase in the corridor area planted with natives compared to the previous year. At the end of Phase II, an estimated 7,587 native seedlings were present across C1 to C5 from 36 different

species, bringing the Ala Programme closer to establishing forest corridors that reflect the floral biodiversity of the surrounding SLLF.

In June and July 2023, firebreaks surrounding the corridors and S8 were cleared to establish a protective area that mitigates fires. The S8 firebreak was cleared collaboratively with the local Forestry Police Association (FIMPIA).

All corridors were weeded in July 2023 and January 2024 to reduce competition with native tree species and fire risk. In addition, now that the Acacia are maturing, many are self-seeding in the corridors. As self-set seedlings would compete with the natives, SEED regularly monitored the corridors for their presence and removed all of the self-set seedlings in April 2024.



Corridor 3 (background) seen from the south side of Corridor 4 (foreground), May 2024.

2.1.2 Increasing Species Richness

At the beginning of Phase III, following a consultation with SEED's Conservation Research Committee and utilising findings from a cross visit to Missouri Botanical Garden, SEED implemented new planting and corridor management strategies. In June 2023, the new planting method of digging 20x20x20cm holes and using three handfuls of fertiliser per plant was implemented to increase native seedling growth by enhancing water retention. In July 2023, SEED employed a new corridor management strategy which also aimed to improve native seedling growth rates. The strategy was designed to deliver more nutrients to native seedlings through annual mulching, bi-monthly fertilising, and monthly watering during the dry season. After implementing this strategy, survival rates showed a marked increase. Between July 2023 and January 2024, the average native growth was 0.66cm per month across C1 to C4 and the average corridor survival rate was 72%, compared to 52% in June 2023. While growth rates did slow after this period, survival rates remained steady, at 70% across all corridors, a Programme high.

Sooty Mould can indirectly damage plants by coating their leaves in a dark threadlike growth (mycelium) of fungi, to the point that sunlight can't reach the leaf surface. Without adequate sunlight, the plant's ability to carry out photosynthesis is reduced, which can stunt plant growth. To address this pest problem on Acacia in C1 and C5, a natural pesticide was made and applied in December 2023, which aided the high survival rate of Acacia trees in the corridors.

In May 2024, a list of native species planted in the corridors was finalised. This resource identified the species that are adapted to the soil and micro-climatic conditions in each corridor. Out of the 36 native species identified, 15 were found in each of the five corridors. This list was supplemented with information on seed collection periods and data from monthly monitoring to improve internal and external knowledge on species richness within the SLLF.

2.1.3. Management of 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 land management technique of clearing land with fire for agricultural purposes known as *tavy*. In response, during the 2023 fire season, SEED expanded fire mitigation activities to a fifth community bordering the SLLF, Esohiy. SEED collaborated with the communities of Ebakika, Esohiy, Mahatalaky, Sainte Luce, and Tsiharoa to raise awareness, distribute materials, and demonstrate fire extinguishing methods. Within these five communities, SEED distributed 90 pairs of fire-retardant gloves and 65 fire beaters, as well as recruited ten fire agents, two per community, to lead and report on community fire response. Fire agents participated in two trainings on logbook keeping and fire extinguishing methods and reported ten fires between September and October 2023, all of which were successfully extinguished. In August 2023, eight community mass mobilisations were held across the five communities to promote fire prevention strategies and demonstrate appropriate fire beater use.

A secondary threat to the corridors is the encroachment of cattle (*zebu*). *Zebu* herders often drive cattle through the corridors and the SLLF for grazing which disturbs native seedling growth. SEED held a meeting in February 2024 with herders to emphasise the importance of protecting both the corridors and the wider SLLF to ensure that this threat was being managed.



Community members after the fire mass mobilisation event in Sainte Luce, August 2023.

2.2 Outcome 2: Meeting Community Resource Needs

2.2.1 Understanding Community Forest Resource Needs

In July 2023, a meeting was held with local forest management organisations, including FIMPPIA, COBA (*Communautés de Base*– Forest Management Association), and *Polisin'ala* (local forest patrol), in which forest protection was discussed. These members also participated in training on logbook keeping for forest resources, to

monitor the distribution and payment of permits and fines. Despite further logbook training planned, sessions were postponed indefinitely due to reduced implementation staff capacity and a lack of motivation among participants. A reduction in participant motivation was in part due to local political changes, whereby the committee members of the local forest management bodies changed due to scheduled re-elections.

Data collected on forest resource usage in Sainte Luce was collated from focus groups, household surveys, logger surveys, and community resource use surveys conducted during Phase II. The report identified firewood as accounting for the largest number of forest resource collections and having the greatest diversity of species usage, followed by construction and then fishing. The report also identified key species used in Sainte Luce, with *Fanola* identified as the most important species used for firewood, a number of species identified as important for construction, including *Harandrato* and *Voapaky*, and fishing reliant on four main species: *Amboza*, *Voliandroky*, *Ravinala*, and *Harandrato*. Households, loggers, and focus groups all stated that resource availability is decreasing, with many having to travel farther to harvest key species or using alternate species, creating implications for the long-term health of the SLLF and the sustainability of community livelihoods.

Full details can be found in the Ala Programme: Phase II Community Forest Resource Use Report.

2.2.2 Re-establishing a Community Planting Site

In efforts to establish a community led planting site, which would provide the community of Sainte Luce with tree and other natural resources typically sourced in the SLLF, three meetings were held with the Miaro Committee (natural resource management committee of Sainte Luce). Meetings covered discussions of community forest resource needs, they assessed a potential community planting site location, and identified community-owned land and livelihood resource hotspots on maps. The Miaro Committee voiced their interest in managing the planting site. As the committee contains at least one representative from each natural resource derived livelihood group (Forest Management Committee, Fisheries Management Committee, Mahampy reed weavers Cooperative), SEED deemed them a fitting leadership group.

Despite progress made to re-establish a community planting site, plans were indefinitely postponed in March 2024 due to uncertainties surrounding the actions of QIT Madagascar Minerals (QMM).¹ In particular, the location of QMM's proposed mining path in Sainte Luce threatened all potential community planting site locations identified. Additionally, QMM proposed plans to plant trees for community use, meaning SEEDs limited resources would likely be better utilised elsewhere. Consequently, no further meetings with the Miaro Committee were held on this topic, a planting site management committee was not established, and no training sessions were held with said committee.

2.3 Outcome 3: Building Sustainable, Locally Led Forest Management Structures

2.3.1 Stakeholder Engagement

Over the last 12 months, landowners have supported corridor management activities by coordinating watering and fertilising activities and participating in feedback and information exchange sessions. In June 2023, landowners partook in a planting training session facilitated by SEED, during which, the new planting and corridor management strategies were demonstrated and discussed. Following these activities and training sessions, it can be seen that the landowners have enhanced their own capacity for local forest management.

¹ QMM is a mining company jointly owned by Rio Tinto (80%) and the government of Madagascar (20%). QMM has a Mining Exploration Permit for Ilmenite in three sites in the Anosy region of Madagascar, of which Sainte Luce is one. Currently, the proposed mining path would destroy SLLF fragments S6 and S7, making the work of the Ala Programme, to reconnect disconnected fragments of S8, even more vital.



Corridor 1 Landowner Babaly inspects native seedling growth, October 2023.

To promote knowledge exchange regarding reforestation techniques and forest management, in November 2023, five landowners and three SEED staff members participated in a cross-visit to Manombo, a reserve situated in southeastern Madagascar, a two-day drive north of the Programme site in Sainte Luce. During the cross-visit, learnings were exchanged with Madagascar National Parks, GERP (Research and study group of the primates of Madagascar), and Missouri Botanical Garden. The knowledge gained during this visit has contributed to the sustainability of forest management, and more broadly natural resource management, structures in Sainte Luce, via the dissemination of new management techniques.

In May 2024, seven corridor landowners participated in an end-of-Phase II focus group feedback session, during which, community perceptions of the Ala Programme's progress were discussed. In the session, two landowners stated that participating in the Ala Programme has developed their technical planting knowledge, and three landowners highlighted learnings from the cross-visit to Manombo. Learnings shared by participants included, how raised nursery beds offer monitoring advantages due to greater visibility, knowledge of specific ways that Acacia can compete with native species, and the value of creating a community nursery as a potential income generating opportunity. All landowners stated that they would like to participate in research that is planned to be conducted during Phase III and highlighted the relationship and collaboration between SEED and the Sainte Luce community as the biggest success of Phase II.

“Since the beginning of the Ala Programme the landowners felt that the collaboration with SEED has improved and especially for the communities.”

Corridor 1 Landowner Babaly, May 2024

Consultation with an agroforestry specialist in March 2024 identified three key strategies to increase native seedling resilience and growth. These included increasing native seedling root mass, improving soil structure and quality through naturally enriched soil amendments, and managing the Acacia to encourage native seedling growth. Furthermore, in March 2024 the SEED team visited QMM's reforestation work in Mandena, a post-mining reforestation site located just outside Fort Dauphin, and participated in a planting event with DREDD (Regional

Ministry of Environment and Sustainable Development) for World Forestry Day. On both occasions, reforestation learnings were exchanged.

2.3.2 Community Engagement

In June 2023, World Environment Day was celebrated in Sainte Luce through a community-wide parade and event. The event showcased environmental education videos and fostered discussions on environmental protection. To promote community engagement, SEED also delivered speeches, organised games, and conducted an environmental quiz. In October 2023, a SEED representative attended World Lemur Day celebrations hosted by DREDD in Manambaro. The importance of the different lemur species that can be found in Anosy was discussed and methods for their protection encouraged.



Members of the Miaro Committee during the World Environment Day parade in Sainte Luce, June 2023.

In January 2024, corridor landowners held a community feedback session on learnings from the Manombo cross-visit in each of the three hamlets of Sainte Luce; with over 250 community members in attendance this was an incredibly productive session. The landowners highlighted their key takeaways from the visit, outlining the importance of establishing a female association to manage natural resources and explaining the benefit of creating a community nursery. Following this feedback session, a community nursery has been established in Sainte Luce to grow mangroves. The fact that the feedback session directly led to the creation of this nursery highlights the value of the cross-visit and of community-led feedback sessions.

Three community-wide meetings to discuss Programme progress were initially planned for this year. It was decided however, that no meetings needed to take place in Year 3 as high community engagement was maintained through ten mass mobilisation events, four feedback sessions, and monthly community participation in reforestation activities.

2.4 Outcome 4: Scientific Research

A full analysis of faunal and floral monitoring can be found in the Ala Programme: Phase II Technical Report – 2024.

2.4.1 Monitoring of Fauna

During Year 3, the three established methodologies of data collection for fauna continued; camera trapping for lemurs, Visual Encounter Sampling (VES) for herpetofauna, and catch-and-release sampling for invertebrates.

In October 2023, SEED installed additional cameras in corridors 1-4. In total, 12 cameras are deployed across four corridors, three cameras in each corridor. The aim of setting up the additional cameras was to capture lemur activity closer to corridor edges. In camera footage collected and analysed between January 2023 (initial camera trap deployment) and June 2024 (the end of Phase II: Year 3), there were five observations of non-lemur mammals, including four black rats (*Rattus rattus*) in C3 and one small Indian civet (*Viverricula indica*) in C4. Additionally, camera trap footage captured four different bird species, Madagascar long-eared owl (*Asio madagascariensis*), Souimanga sunbird (*Cinnyris sovimanga*), Guinea fowl (*Numida melagris*), and an unknown bird species. No lemur activity has been formally observed since April 2023.



Image of two *Numida melagris* in Corridor 1, July 2023.

VES herpetofauna surveys have recorded 15 different species within the corridors, with two species of skink (*Trachylepis elegans*, *Trachylepis gravenhorstii*) and a reed frog (*Heterixalus boettgeri*) being the most common. During Year 3, there were 35 observations of eight herpetofauna species. In addition, a day gecko, *Phelsuma modesta*, was observed in C2 and C4 for the first time, and a frog, *Plethodontohyla bipunctata*, was seen in C1 for the first time. During Phase II: Year 3, 46 morphological species were categorised and added to the Invertebrate Guide. Morphological species are categorised based on structural features, such as body shape and size.

2.4.2 Monitoring of Flora

The Acacia are well established across all the corridors, providing shade and structure for native species. As of July 2023, the Acacia in C3 were the tallest on average, at nearly 7m, with the Acacia in C2 the shortest on average, at around 3m.

From the research quadrats, the average height of native seedlings was 25.92cm in April 2024, with natives tallest on average in C4 (37.00cm) and shortest in C1 (19.78cm). C2 had the highest growth rate of alive native seedlings

at 1.13cm/month, and C3 had the lowest at -1.09cm/month. The perceived decrease in height of native seedlings in C3 is primarily due to soil erosion rather than a decline in seedling health. Despite the slow growth, 70% of native seedlings present in the corridors in July 2023 were alive in May 2024, marking a Programme high for native seedling survival rate.


















Image of a *Furcifer verrucosus* in Corridor 4, June 2023.

3 Progress of Outputs²

	Complete or in progress and on track	In progress with slight challenges	In progress with serious challenges
Output 1.1.6 Planting of corridor extensions with natives	<div style="border: 1px solid black; background-color: #4CAF50; width: 100%; height: 20px;"></div> All corridors and extensions planted with natives		
Output 1.1.8 Weed clearance in all corridors	<div style="border: 1px solid black; background-color: #4CAF50; width: 100%; height: 20px;"></div> 2 of 2 full clearances completed		
Output 1.1.9 Expand and/or clear firebreaks for all corridors	<div style="border: 1px solid black; background-color: #4CAF50; width: 100%; height: 20px;"></div> 1.05km cleared		

² Some outputs are omitted from this list because they were merged with other outputs at the end of the previous programmatic year. Outputs were merged because of their similarity, which allowed activities to be conducted together for reasons of practicality.

Output 1.1.10 S8 Firebreak construction	 17km cleared
Output 1.2.1 Corridor Management	 8 of 8 sessions completed
Output 1.2.2 Update tree species list	 List compiled and updated
Output 1.3.1 Training and capacity building on fire mitigation for community agents	 2 of 2 completed
Output 1.3.2. Stakeholder fire meeting	 Completed
Output 1.3.3 Purchase and distribution of fire mitigation materials	 90 pairs of gloves and 65 fire beaters distributed
Output 1.3.4 Mass mobilisation days for fire prevention	 Target of 5 exceeded
Output 2.1.3 Assessment, training and monitoring of FIMPIA/COBA/ <i>Polisin'ala</i> on logbook keeping	 1 of 4 sessions completed. Sessions postponed indefinitely due to lack of participant motivation.
Output 2.1.4 Attendance at Miaro Committee meetings	 3 of 4 meetings completed
Output 2.2.3 Training and meetings of management committee in planting site management	 Activity postponed indefinitely
Output 2.2.4 Establish joint management of community plantation	 Miaro Committee were interested in this role. Activity postponed indefinitely
Output 2.2.6 Plant Forest resources	 Activity postponed indefinitely due to uncertainties regarding the plans of QMM
Output 3.1.1 Meetings and trainings with stakeholders (e.g. FIMPIA, FMC, COBA).	 Target of 12 exceeded
Output 3.1.4 Stakeholder KAP survey	 End of Phase feedback sessions with corridor landowners
Output 3.1.6 Knowledge exchanges with external organisations	 Target of 2 exceeded

Output 3.3.2 Engage the wider network in information sharing sessions organised by forest management bodies	 3 of 4 sessions completed
Output 3.3.3 Community meetings	 No meetings completed. Community engagement however, remained high.
Output 3.3.4 Mass Mobilisation Days	 2 of 2 completed
Output 4.1.1 VES surveys of herpetofauna species	 18 of 18 surveys completed
Output 4.1.2 Biodiversity assessments of invertebrates in corridors and edges	 18 of 18 surveys completed
Output 4.1.3 Camera trap data collection for lemurs	 Completed
Output 4.2.1 Research on survival and growth in corridors	 4 of 4 surveys completed
Output 4.3.1 Data entry and analysis	 Completed
Output 4.3.2 Submission of progress and financial reports	 Completed
Output 4.3.3 Final Report	 Completed

4 Monitoring, Evaluation, and Learning

Throughout this Programme year, native seedlings within quadrats in the corridors were monitored monthly to assess their height and condition. Data collection and input were adapted to reflect replants and changes in corridor management methods. These data were crucial for evaluating the new corridor management strategy, with slow growth identified as a challenge. Regular corridor monitoring also identified emerging corridor threats, such as pests impacting the Acacia in November 2023 and self-seeding Acacia in March 2024.

The replant methodology was developed in January 2024 to ensure that the native seedling goal in each corridor was met. Prior to January 2024, replants were based on a count of the dead seedlings, however, it can be difficult to identify where a dead seedling was planted due to soil erosion and leaf litter coverage. Subsequently, replants are now based on a count of the number of seedlings that are alive, with the total subtracted from the original corridor goal to calculate replants.

In August 2023, weekly nursery monitoring identified lower-than-expected native germination rates, likely due to inconsistent weather conditions influenced by climate change. To address this challenge, wild self-set seedlings were collected directly from the forest from September 2023 onwards and treated in the nursery for three months before planting. Observational data recorded from September 2023 onwards, may suggest that wild self-set seedlings have higher survival and growth rates than seedlings grown from seed.

The updated list of native species in the corridors, supplemented by key information on adaptability and seasonality, will directly inform future Ala plantings. Additionally, the end of Phase II landowner feedback session increased understanding of landowner and wider community perceptions regarding the progress of the Ala Programme over the last three years.

5 Lessons and Opportunities

SEED has accrued significant learnings during Phase II from monitoring and evaluation activities, as well as stakeholder engagement. These learnings continually informed Phase II activities, and all findings drove the design of the Ala Programme: Phase III.

Inconsistent fertiliser, pests, disturbance by domesticated animals, and nearby tree roots entering seedling pots were identified as factors hampering seedling nursery growth. Following exchanges with external reforestation actors, such as Missouri Botanical Garden and OmniVerdi, new techniques will be trialled to address these growth challenges in Phase III.

Low native seedling survival rates in corridors, identified by monthly monitoring, led to the implementation of a new planting strategy and a new corridor management strategy in 2023, which have together achieved a Programme-high survival rate of 70%. Despite improved survival rates, seedling growth has slowed in recent months, suggesting that there are limiting factors, one of which was identified as the Acacia. The well-established Acacia have created the structure of the corridors, provided shade for native seedlings, and fallen leaves have acted as mulch. The Acacia, however, are now creating too much shade in some areas and have begun to outcompete the native seedlings for nutrients and water due to their widespread roots. As anticipated at the Programme's inception in 2019, the Acacia will now be selectively thinned to encourage native seedling growth.

Needs assessments conducted during Phase II, including thirteen months of community forest resource use survey data, provided SEED with a detailed picture of local forest resource usage in Sainte Luce. Plans to utilise this information to establish a community planting site have been halted due to uncertainties regarding the actions of QMM. Subsequently, the knowledge of local forest resource usage gained from Phase II creates an opportunity for SEED to advocate for community needs to relevant actors operating in Sainte Luce.

During regular meetings in Year 3, local forest management organisations expressed a clear desire for increased and more consistent communication with the DREDD. Subsequently, SEED will facilitate this communication in Phase III.

6 Next Steps

Following completion of Phase II, the Ala Programme will move into a two-month interim period before the commencement of Phase III, a two-year project due to start in August 2024. Interim activities will include the celebration of World Environment Day in June and preparations for the 2024 fire season, additionally, clearance of the S8 and corridor firebreaks along with training of ten community fire agents will commence. During the interim phase, a new nursery bed that utilises biodegradable pots to increase seedling root mass will be trialled, and literature reviews will be completed to ensure the project is aligned with international best practice on Acacia management. This interim phase will conduct vital research, laying the foundations of the Ala Programme Phase III.

Following successful completion of the interim phase, SEED will work towards achieving four outcomes for Phase III. This phase aims to improve the ecological function of forest corridors, understand and advocate for community resource needs, improve skills, knowledge, and information exchange for stakeholders engaged in forest management, and conduct scientific research to aid organisational and international understanding of biodiversity in the corridors and SLLF. Phase III will trial new nursery and corridor management strategies. Additionally, it will continue to address forest threats and forest resource needs through close communication and knowledge exchange with key stakeholders and the local community. All activities and outcomes woven into

the design of Phase III contribute to achieving the Ala Programme's long-term objective, to improve habitat connectivity and lemur species dispersal in SLLF fragment S8.

7 Conclusion

The Ala Programme: Phase II has achieved its primary objectives. Habitat has been expanded to support populations of Endangered lemur species in the SLLF, with all five corridors and extensions now planted with native seedlings totalling an area of 3.72ha. This brings the Ala Programme closer to establishing forest corridors that reflect the species richness of the surrounding SLLF. The implementation of a new corridor management strategy in July 2023 has led to Programme-high native seedling survival rates. To address the threat of fire, mitigation and prevention, activities have continued and expanded into new areas and communities. Efforts to re-establish a community planting site have been indefinitely postponed due to uncertainties regarding the plans of QMM. Subsequently, SEED will use the information collated on resource usage in Sainte Luce to advocate for community needs. The Programme has continued to strengthen the capacity of stakeholders to sustainably manage forest resources, through the landowner cross-visit that directly led to the establishment of a community nursery in Sainte Luce. Ongoing monitoring has identified that fauna are already using the corridors and has revealed the presence of a diversity of herpetofauna and invertebrate species. SEED is currently seeking funding for the Ala Programme: Phase III, which aims to build on the successes of Phase II to continue to improve habitat connectivity and lemur species dispersal in the SLLF.

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