



## Darwin Initiative Main: Annual Report

To be completed with reference to the “Project Reporting Information Note”:  
(<https://www.darwininitiative.org.uk/resources-for-projects/information-notes-learning-notes-briefing-papers-and-reviews/> ).

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

**Submission Deadline: 30<sup>th</sup> April 2023**

**Submit to: [BCF-Reports@niras.com](mailto:BCF-Reports@niras.com) including your project ref in the subject line**

### Darwin Initiative Project Information

Project reference	28-009
Project title	Enabling youths to lead lemur conservation in eastern Madagascar
Country/ies	Madagascar
Lead Partner	Madagasikara Voakajy
Project partner(s)	<ul style="list-style-type: none"> <li>- Association Mitsinjo (Mitsinjo)</li> <li>- Money for Madagascar (MfM)</li> <li>- Label CBD Consulting (LCBD)</li> <li>- Délégation de la Jeunesse Moramanga (DeJJS)</li> <li>- Circonscription de l’Agriculture, de l’Elevage Moramanga (CIRAE)</li> <li>- Circonscription de la Pêche et de l’Economie Bleue (CIRPEB)</li> <li>- Circonscription de l’Environnement et des Forêts Moramanga (CIREF)</li> </ul>
Darwin Initiative grant value	£286,137.92
Start/end dates of project	July 2021 to June 2024
Reporting period (e.g. Apr 2022 – Mar 2023) and number (e.g. Annual Report 1, 2, 3)	April 2022 to 31 <sup>st</sup> March 2023 Annual report 2
Project Leader name	Voahirana Claudia Randriamamonjy
Project website/blog/social media	<a href="http://www.madagasikara-voakajy.org">www.madagasikara-voakajy.org</a> <a href="https://www.facebook.com/madagasikaravoakajy">https://www.facebook.com/madagasikaravoakajy</a> <a href="https://www.linkedin.com/company/madagasikara-voakajy/">https://www.linkedin.com/company/madagasikara-voakajy/</a> <a href="https://twitter.com/MVoakajy">https://twitter.com/MVoakajy</a>
Report author(s) and date	Voahirana Claudia Randriamamonjy, Harilefitra-Ratovo Andrianarisoa, Julie Hanta Razafimanahaka, Anna Rakotoarison, Hirina Andriamanjomba, Rianahary Andrisoa, Tabitha Middleton, Youssouf, Oumadi Fabrisse, Anja Rakotomanga, 30 April 2023

## 1. Project summary

The project « **Enabling youths to lead lemur conservation in eastern Madagascar** » tackles a key driver of Madagascar's accelerated biodiversity loss: the growing population's need to clear forests for agriculture. Around three Reserves in eastern Madagascar, we will equip 200 youths with the knowledge, skills, and experience needed to increase yields through sustainable farming, adopt aromatic and medicinal plants in their farming systems and market their products with ethical enterprises. Youths will share their knowledge, skills, and experience in their communities and will engage all members in lemur conservation stewardship.

Rice is the staple food in Madagascar. The average consumption per capita is 138kg per year, so a family of five members will need to yield or buy 690kg. The average yield with the traditional technique is 1 ton per hectare. Hence, to provide for their consumption, a family of five requires at least 0.69 hectares of arable land. Since the total area of arable land in Madagascar is decreasing, fewer people, especially youths, have sufficient land. To survive, young families convert forest areas into agricultural land. Consequently, initiatives to create protected areas to save Madagascar's unique biodiversity are considered a barrier for the poorest needing to access fertile soil and escape poverty.

This project will try to reconcile the needs of people and biodiversity around three protected areas in Moramanga district, Alaotra-Mangoro Region, eastern Madagascar: Analamazaotra, Ankeniheny (southern part of Ankeniheny-Zahamena Corridor) and Mangabe-Ranomana-Sahasarotra (figure 1). All host Critically Endangered lemur species such as the indri (*Indri indri*) and the diademed sifaka (*Propithecus diadema*). Mangabe and Ankeniheny are difficult to reach and youths have poor access to education, markets, or technology. Subsistence agriculture is their main activity. They also rely on charcoal production, timber harvesting and wildlife hunting for their livelihoods. Analamazaotra is the most visited protected area in Madagascar. Although there are more job opportunities here, due to ecotourism and the operations of large mining company Ambatovy, poor education levels mean few youths from nearby villages gain employment. Most (90%) still depend on agriculture. In addition, when problems such as political instability or the current pandemic disrupt employment, even youths involved in ecotourism or mining resort to agriculture, timber harvesting, charcoal production and hunting to survive.

Multiple research and development projects around the project area demonstrated that yields can be doubled or tripled. However, adoption rates have been low. Farmers from the target villages report the following reasons: improved techniques are too expensive to maintain (time and money); produce rots due to lack of markets; farmers still need assistance, but technicians are no longer available (project ended).

Consequently, most households continue to produce less food than they need, and must rely on other activities, such as daily labour, charcoal production, logging or hunting, to survive. These households cannot afford to invest in technologies to increase yields on existing land. Therefore, to meet their basic needs, they continue clearing forests for agricultural land and harvesting wild products intensively, inadvertently destroying unique habitats and reducing biodiversity.

In Madagascar's 'Emergence Plan', a textile industry development is planned for Moramanga district (<https://bit.ly/3aRx33A>). This development represents both an opportunity and a risk for the targeted Reserves and the local population. In fact, with this industry, the number of people in Moramanga and thereby the demand for food and other agricultural products will increase. It will therefore represent a good market opportunity for the population. However, with this increasing population, the risk of more forest clearing will also increase. Strong local conservation stewardship will be key to stopping this threat.

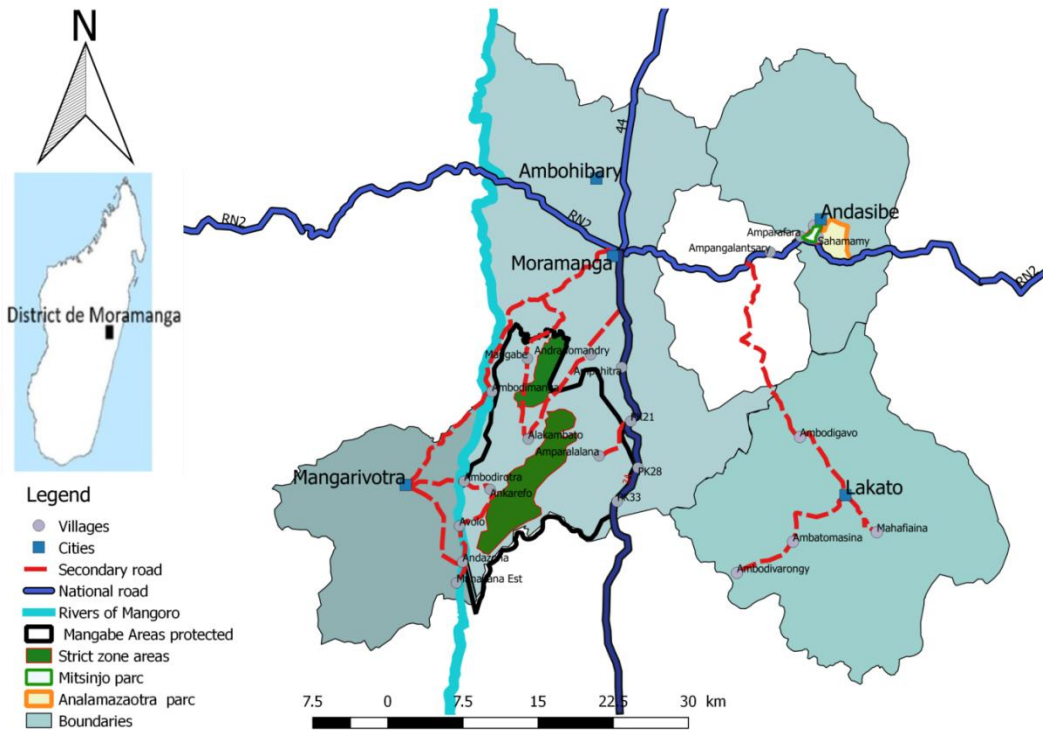


Figure 1 Map of the Protected Areas where the project takes place

## 2. Project stakeholders/ partners

Madagasikara Voakajy (MV) has worked in partnership with the following partner organisations since the beginning of the project: Association Mitsinjo, Money for Madagascar (MFM), Label CBD Consulting (LCBD), Delegation de Jeunesse et Sport Moramanga (DELJS), Circonscription de l'Agriculture et de l'Elevage Moramanga (CIRAE), Circonscription de la Pêche et de l'Economie Bleue (CIRPEB), and Circonscription de l'Environnement et Forêt Moramanga (CIREF).

Over the course of the project, all partners have continued to demonstrate their commitment to achieving the project's planned outcomes. The collaboration between the key project partners has proved to be effective since each partner is a specialist in their field and their multiple perspectives and insights have enriched each team meeting. MV and Mitsinjo Association's in-depth knowledge of the project areas has facilitated interventions, as has the concerted effort to include all local organisational stakeholders in the process from the very beginning.

Below are key examples of collaborative working over the past year:

A monthly meeting has always been held between all the partners every first Wednesday of the month between April 2022 and March 2023 (except September 2022) to strengthen communication and ensure consistency of activities between the partners. The objectives of the meeting include reporting on the progress of each partner, exchange and feedback to improve the partnership, and planning for upcoming fieldwork.

Every 03 months, a field trip to Mitsinjo has been carried out by MV to ensure that the key project elements are being effectively communicated and to support the team in the field. MFM has provided recommendations on the objectives of the mission to obtain reliable and efficient indicators and means of verification. At the end of each mission, the MfM teams have carried out monitoring and evaluation of each partner by referring to the logical framework.

On the 24th of June, 2022, the Director of MV (winner of the prestigious Tusk Award 2021 for African-based conservation leaders), the Mangabe project leader as well as the partners of the Tusk Award, visited one of the project's youth groups in Farahevitra. A discussion and a visit to the demonstration plot were carried out. Visitors were also able to interact with all the members of the 04 youth teams at the Mitsinjo office in Andasibe.

In August 2022, a meeting between MfM, MV and Mitsinjo was also held to closely monitor the progress of the project and discuss the feedback from Darwin on the Year 1 annual technical report. To respond to the feedback, we are now correcting the database and clarifying the indicators, trying to relate our activities and results to lemur conservation/stewardship. We are also increasing Darwin visibility on the ground and on our websites. Thanks to effective exchanges and working sessions between the all project team members, we have been able to collect and collate data on the young people and project focal points as well as their activities (agricultural activities, conservation, mini-projects, and community life.

There has been significant collaboration with technical services as well as local authorities:

- CIREF staff helped the teams to raise awareness about biodiversity conservation
- DELJS staff were involved in the design of training tools and training as well as monitoring and evaluation of the youth teams from May-June 2022, August-September 2022, November-December 2022 and February-March 2022
- The CIRAE staff were involved in the training and monitoring of young people on the sectors of their choice as well as the demonstration plots.
- The CIRPEB team was involved in all activities concerning fish farming from planning to implementation on the ground
- To ensure engagement with and ownership of the project at every institutional level, the mayors of the municipalities concerned, as well as the local authorities, were always consulted before each activity and they were involved in almost all the activities.

On 27-28<sup>th</sup> March 2023, a meeting was held for the project focal points in Moramanga. The DELJS was involved in facilitating the meeting, reminding everyone of the roles of the focal points and monitoring the group activities. CIRAE and CIRPEB were involved in monitoring, evaluating and giving recommendations on the agricultural activities of the groups. Label CBD took the opportunity to discuss with the focal points the potential of each Aromatic and Medicinal Plant (AMP) and their expectations. The Regional Director of Fisheries and Blue Economy Alaotra Mangoro was also present to express his interest in the youth project and prepare for the next mission.

On 30<sup>th</sup> March 2023, a meeting with all partners (MV, Mitsinjo, Label CBD, and MFM) was held in Andasibe to share project updates, discuss contextual issues needing resolution, consider MEL data and identify how to adapt the next interventions according to the context.

### **3. Project progress**

#### **3.1 Progress in carrying out project Activities**

##### **Output 1: 200 youths take steps to move towards sustainable farming techniques in Analamazaotra, Ankeniheny and Mangabe, including composting, agroforestry and crop diversification**

In December 2021, the project was launched in 21 villages (**Activity1.1**) in the rural municipalities of Ambohibary, Andasibe, Mangarivotra and Lakato. Twenty-one community meetings were held to successfully create 21 youth teams: 08 in Ambohibary, 04 in Andasibe, 04 in Mangarivotra, and 05 in Lakato. Twenty-one 'Focal Points' were elected by the local community (1 per group) to lead and coach the youth teams. Two hundred and twenty three young people registered their interest in participating in the teams and developing more sustainable farming techniques.

In order to monitor the evolution of the agricultural practices adopted over the project lifetime and to understand any changes occurring as a result of project activities, data on agricultural practices were collected (**Activity 1.2**) for each of the 21 villages, between February 2022 and March 2023. 30% of households were surveyed randomly. All the hamlets making up each village were represented. The survey sheets allowed us to obtain data on: 1) the characteristics and needs of the households, 2) the crops and livestock adopted and their relative level of priority 3) whether or not identified sustainable agricultural techniques were being adopted.

To ensure that all the 'focal points', recruited at the project launch, could effectively carry out their role of leader and coach for the youth teams, a training schedule was developed and

implemented (**Activity 1.3**). During all fieldwork visits, MV teams held sessions to reinforce the focal points' understanding of their key responsibilities and to build their capacity to effectively monitor and support the youth teams. On 27-28<sup>th</sup> March 2023, a specific workshop was held with the 21 focal points in Moramanga to further strengthen their capacity, follow up their activities and collect their feedback. The workshop consisted of 2 days of sharing sessions sharing, presentations, discussions and homework by group, with MV, Mitsinjo, Label CBD, CIRAE, DELJS, and CIRPEB.

Positive feedback from the focal points included:

- Many people are convinced of the youth project,
- Young members differ from other young people by their behaviour,
- Young people participate effectively in the development of the village and in the conservation of lemurs.

However, the focal points also raised challenges and issues needing to be resolved:

- Inflation, increasing the cost of living as well as the price of basic agricultural inputs
- Climatic hazards, negatively impacting agriculture,
- Young people becoming unwilling to patrol the forest because of the risk of violence from offenders in the protected areas,
- Lack of availability of some young people to attend training during the lean season.

The focal points made several recommendation to help resolve the problems identified:

- Avoid long training sessions or interventions during lean periods, take urgent measures
- Always reinforce and refresh the trainings already received
- Get help (from police or military) to remove offenders from the Protected Areas

Initial training on sustainable agricultural techniques (**Activity 1.4**), which reflected the youths' stated preferences, was carried out in the 21 target villages between February and March 2022. The young people particularly appreciated learning climate smart agricultural techniques such as the use of improved varieties and cropping systems under vegetative cover. After these initial agricultural training sessions, participating youths were invited to commit to the project by registering (**Activity 1.5**). The final list of registered youth team members was received during the meeting with the focal points in Moramanga in March 2022. Three hundred and twenty four young people attended the initial training but 286 registered. As part of the on-going project, MEL, data will be collected on the youth teams' evolution, including membership levels, reasons for membership and reasons for resignation, where this occurs.

Field trips to identify and characterise community agricultural demonstration plots (**Activity 1.6**) were made during the practical agricultural training sessions in February and March 2022. Undertaking plot soil characterisation was vital for working out the plot's ideal technical itinerary and identifying the costs that would be incurred by each chosen practice. Knowledge of the history of the soil allowed the MV team to propose crop rotations to adopt as well as crops to avoid in order to maintain soil fertility. Knowing the state of soil fertility, thanks to this study of the soil profile, also helped to identify the appropriate dose and spread of fertiliser. In addition, studying the terroir allowed potential agricultural risks to be identified and enabled the development of an effective plan for the sustainable management of the youths' project plots.

In the case of livestock (fish and pig farming), characterisation visits were held in August and November 2022 for the 04 youth teams in Andasibe. The characterisation of the location of the dwelling of the cattle is essential in order to know whether the site is secure or not, to calculate the costs for the installation of the necessary infrastructure and the conduct of the breeding before the practice.

Having identified key crops and practices to be implemented on the demonstration plots, youths were supported to design optimal production plans from April 2022 to March 2023 (**Activity 1.7**). Each production plan included the list of all necessary agricultural inputs (materials and seeds) and labour. It also included all agricultural operations from soil preparation to harvest. These cultural operations were planned monthly with the corresponding costs. These plans allowed for the estimation of expected yields as well as the benefits.

Field missions were carried out from August 2022 to provide training as well as financial and material support to enable the 21 youth teams to implement their production plans (**Activity**

**1.8).** During field trips, checks were made to see whether or not the technical itineraries adopted by the young people matched the pre-established production plans. Any difficulties that they were encountering with the implementation of their plans were discussed and the opportunity was used to provide additional training and support where needed. Thus, the project team were able to respond to the young people's feedback and to help them to improve their production plans according to their specific contexts.

In February 2023, the process of monitoring the yields from the youths' and other community members' plots was initiated (**Activity 1.9**). The project teams started to fill in the identification sheets on agricultural practices at the level of the 21 villages. All the data from the agricultural plots will continue to be recorded according to the progress of each different crop type. The sustainable agricultural practices implemented by the communities were identified and the necessary information was recorded in identification sheets. Each sheet shows information on the owner, the history and the location of the plot and details on the adoption of the techniques as well as yields per crop.

## **Output 2: Production of aromatic and medicinal plants becomes part of youths' farming system**

At the start of the project, appropriate aromatic and medicinal plant (AMP) species with potential to be included in the youth's farming systems were identified (**Activity 2.1**). The 12 species below were selected due to their wide distribution throughout the Protected Areas, both in the 'forest hard-core' and the buffer zones:

- *Centella asiatica*, *Desmodium adscendens*, *Sigesbeckia orientalis* for the short term;
- *Calophyllum inophyllum*, *Canarium madagascariensis*, *Cryptocaria aromatica* for the medium and long term (potential customers already existing);
- *Harungana madagascariensis*, *Norhonia lanceolata*, *Pittasporum achrosiaefolium*, *Trema orientalis*, *Vernonia appendiculata*, *Tambourissa trichophylla* for the medium and long term (customers to be identified).

To date, various trials have been undertaken to assess the feasibility of growing selected species in fields and nurseries (**Activity 2.2**). In June 2022, production trials of dried leaves of *Centella asiatica* were carried out by the young project beneficiaries following training on best practice for handling Aromatic and Medicinal Plants. The samples were received by Label CBD for analysis. The analysis made it possible to identify the level and quality of the active ingredient in the plants (i.e. the element that is of interest of the buyers). The results showed that the *centella* collected met the standards required by buyers. In August 2022, Mitsinjo trained youth teams in Amparafara and Ampangalantsary on how to develop tree nurseries. Each nursery was made up of a shed and a bed of 200 pots of *Tambourissa trichophylla*. These youth teams were ready to create their own nurseries once the results of the Label CBD study were available and the nurseries in Ampangalantsary and Amparafara have been functional since February 2023. In addition, in the case of *Canarium madagascariense*, a study of the resin production capacity is in progress. Certain resins are marketable for their aromatic qualities. The results are still pending on whether these resins meet the required standards. Research into the potential for producing and marketing identified species is on-going and will continue into the next year of the project.

In order to assess the annual availability of each plant species (**Activity 2.3**) in each project area, in depth studies were undertaken between June and December 2022. These studies consisted of a quantitative assessment of abundance and an estimate of biomass and distribution of pre-identified AMP species, which can be exploited and considered as plants of potential interest for buyers. The studies, carried out in partnership with the Plant Research Centre of Madagascar (CRPM) within the Plant Biology and Ecology (MBEV) section of the Faculty of Sciences of the University of Antananarivo, aimed to identify, locate and validate plants that can be used sustainably, whether in terms of collection or cultivation. The first study was carried out at the level of 20 localities distributed in 07 sites in 04 rural communes including the Commune Ambohibary (PK 21 and Amparalalana sites), Commune Lakato (Lakato and Ambodivarongy sites), Commune Andasibe (Farahevitra site), and Commune

Mangarivotra (Ankarefo and Avolo sites) The study was completed in September 2022 and the results were shared with all partners. The study found that *Centella asiatica* is the herbaceous species which was the most observed and the most widespread in 11 localities where the plant was found, followed by *Desmodium adscendens* found in eight localities, and *Sigesbeckia orientalis* found in four localities. *C. asiatica* is the most productive species with 325 g of dry leaves available per square meter.

The second study was carried out in December 2022 at the level of 14 localities distributed in three sites / villages named Andranomandry, Lakambato and Mangabe, all attached to the rural commune (CR) of Ambohibary, Moramanga District. As results, the 3 herbaceous species namely *Centella asiatica*, *Sigesbeckia orientalis*, *Desmodium adscendens* were confirmed as existing and directly exploitable; 4 ligneous species including *Trema orientalis*, *Pittosporum ochrosiifolium*, *Vernonia appendiculata* and *Tambourissa trichophylla* were confirmed to exist with possible exploitation in the future; the species *Cryptocaria agatophylla*, *Noronhia lanceolata* were absent and *Canarium madagascariense* presents substitution species

The conditions for the sustainable exploitation and management of resources have been defined for each species to be exploited in the short, long and medium terms. Best practice and collection rates have been defined for directly exploitable species as well as the conditions favouring the regeneration of plants, or their reproduction, for those whose exploitation is conceivable in the future. Best practice requires compliance with sustainable collection sheets depending on the species (hygiene and collection method).

The process of training youths in best practice for handling AMP products (**Activity 2.4**) was initiated by LCBD teams in February-March 2022 but will continue over the project lifetime. Representatives of the youth teams received training on hygiene, safety, sustainable collection, drying and storage. The focus of follow-up training will depend on which species the youth teams ultimately decide to collect or plant in the nursery. The choice of which plants to produce and collect is made according to:

1. Availability of plants at each site,
2. Preference and capacity of young people to meet collection requirements,
3. Market opportunities.

An exchange with the focal points on the handling of aromatic and medicinal plants was held during the focal points meeting on 27-28<sup>th</sup> March 2023. During this exchange, the youth teams who could provide the samples of dried *Siegesbeckia orientalis* leaves requested by the potential customer were identified.

Now that the study on AMP species' biomass abundance has been completed, LCBD has begun the process of identifying which herbs will be appropriate for exploitation in each village. Once this is completed, a fair price and sustainable harvesting model for the selected AMP species will be developed for each village Youth Group (**Activity 2.5**). This activity has begun in the case of *Centella* in certain communities. The activity will continue in Y3, until all communities have agreed a price and have a sustainable harvesting plan.

The situation is most advanced with two youth teams in Lakato and Ambodigavo who were able to follow best practice and sell 61 kg of *centella* to the Mada Herbs Society in September 2022. Mada Herbs was satisfied with the quality of the samples and a negotiation on prices and the type of contract was carried out. A good price of 9,000 Ar per dry kg was accepted and the development of the contract is now in progress. A contract with another society "Talamanga" is also being processed with a price of 10.000Ar per dry kg of *centella* for the youth group in Lakambato village. The 02 youth teams in Andasibe have also already chosen to work with *Tambourissa trichophylla* because it meets all their selection criteria.

### **Output 3: Youth-led cooperatives are established to drive social and economic development and biodiversity stewardship in the villages**

From November 2022 to March 2023, the 21 youth teams received training on entrepreneurship, cooperative management and marketing (**Activity 3.1**). Monitoring assessments were given after each training to be sure that the youth teams had understood and absorbed the training content. Before and after the training, a pre-evaluation and post evaluation test was held to see the knowledge gained by youths. Thanks to these trainings, the young people were able to elaborate the statute of the cooperatives including identifying the board members, the objectives of the cooperative, the sources of income and the other essential points within the framework of a cooperative. Following the training, the youths understood that market research was important to guide their production. Hence, they are starting to search for markets after their training.

In February-March 2023, 05 cooperative creation meetings were held in order to establish and register the Youth Cooperatives (**Activity 3.2**). All documents have been drawn up and signed. All that remains is registration with the Regional Direction of Commerce in Alaotra Mangoro. Since the cooperatives have only just been established, **Activities 3.3** (development of simplified business plans) and **3.4** (monitoring the management and function of the youth cooperatives) will start in May 2023.

### **Output 4: Three private enterprises, engaged in sustainability, commit to sourcing products from the youth-led cooperatives and support their development as a business and biodiversity steward entity in the villages**

Thanks to Label CBD's research, several potential partner enterprises have already been identified (**Activity 4.1**). Three enterprises, Ravina, Jacarandas and Talamanga, have already been contacted with a view to establishing a contract to buy AMP from the youth led cooperatives.

One company, interested in the dried leaves of *Siegesbeckia orientalis* has requested samples of 300 to 500 g per group of youth teams, in order to validate the quality of the products and to propose a price.

Some of the youth teams are starting to engage in exchange and discussions with enterprises (**Activity 4.2**). For example, The Ravina Company has already received requests from the youth teams and the collaboration has resulted in the collection of 61 kg of *centella* (21kg for Lakato, 40kg for Ambodigavo). Unfortunately, only 2 teams in the Commune Rurale Lakato were successful in collecting and delivering *centella* to the buyer, due to bad weather and wandering cattle destroying the crops for the other teams. The Youth Teams who faced these problems hope to resolve the issue with cattle by marking their plots more clearly and also speaking to the livestock owners to ask them to be careful. They also intend to use weather forecasting to help them to manage their plans for collection and drying.

Although the collection of *centella* is difficult, these young people are very keen to practice sustainable collection of aromatic and medicinal plants and demonstrate best practice for drying in order to convince other communities to adopt these approaches. For now, the two groups of young people in Lakato and Ambodigavo are leading by example with 61kg. Although these are small quantities compared to local availability and the forecast potential, selling this amount allowed young people to obtain money for the end of the year 2022 because the sale was made during the lean period.

The process of developing and signing agreements (**Activity 4.3**) between youth cooperatives and businesses is still underway. For example, in the case of the Ravina Company, the contracts have not yet been signed but the young people and the company have agreed on the prices and the method of collection. However, only groups in the Commune Rurale Lakato have accepted the agreed price. The groups in the Commune Rurale Mangarivotra did not accept because of the difficulty in collecting *Centella*. The groups in the Commune Rurale Ambohibary already have other collectors who offer higher prices. Since the contracts are still not fully developed, **Activity 4.4** (supporting youths to implement their part of the agreement) has not yet been initiated.



As part of the search for potential buyers and seed suppliers, in August 2022, the youth project coordinator (MV), the local agent in Mangabe (MV) and the youth team responsible in Andasibe (Mitsinjo) also visited the FIER-MADA 2022 agricultural fair in Antananarivo. Beyond the identification of potential buyers, visiting the fair brought many opportunities:

- To learn lessons and obtain ideas about cooperatives
- To learn lessons on biological control
- To obtain contacts of interesting companies and cooperatives
- To see innovations in the field of Agriculture
- To obtain the contacts of several experts in their fields
- To purchase the products of actors in the field of Agriculture

The local agent in Mangabe village bought improved rice seed and planted it in Mangabe village to show and convince local communities the importance of sustainable farming techniques. We are currently waiting for the yield.

### **Output 5: Youths engage other community members in sustainable farming, cooperatives and biodiversity stewardship**

In November-December 2022 and February-March 2023, training sessions on communication, leadership, social skills and technical awareness were given to 21 youth teams (**Activity 5.1**). For example, in May-June 2022, the staff from Ministry of Youth Moramanga (DELJS) conducted training on awareness-raising techniques for lemur conservation, health and other aspects of development for all 4 youth teams in Andasibe and youth teams in the following villages: Lakambato, PK33, PK32, Lakato and Mahafiaina. The young people's interest in this training was demonstrated by the high level of attendance (242 youths were present).

Several awareness campaigns have already been run by the youths (**Activity 5.2**). For example, the four youth teams in Andasibe were able to participate in two local events, the Indri festival on 30<sup>th</sup> September 2022 and the World Wetlands Day on 02<sup>nd</sup> February 2023, during which they raised awareness through posters. Local and national authorities were aware of the existence of the youth project funded by the Darwin Initiative and of the groups of young ambassadors for the conservation of lemurs. The young people were also able to discuss with other actors in the field of conservation. They mainly sensitised the communities in Andasibe through interpersonal communications during the carnival. On 21<sup>st</sup> July 2022, MV teams participated in the inauguration of the information centre in Avolo village, where the CIREF in Moramanga raised awareness about lemurs and the protection of the forest. In addition, the Babakoto youth team in Avolo was able to make awareness-raising performances on the conservation of lemurs through traditional songs and dances in front of all the community and the authorities.

It is still too early in the project to review lists of cooperative members (**Activity 5.3**) to identify whether new community members are joining, the youth cooperatives have only just been formed. The cooperatives were created in Q4Y2, but the list of members by Quarter needs to be revised from Q1Y3. The identification of other communities joining the cooperatives is planned for 2024.

The conservation and restoration plans for each project area are yet to be developed with each youth group (**Activity 5.4**). Once these have been implemented, household interviews will be undertaken to assess communities' engagement to the conservation and restoration plans (**Activity 5.5**)

Despite the plans not being finalised, from August-September 2022, the MV teams participated in massive patrols organised by Youth Teams and local communities for the following villages: Lakambato, Andranomandry, PK33 and PK32. These patrols aimed at observing and reporting infractions within the Mangabe reserve. During these missions, the youth teams in PK21, PK33 and Amparalalana received training on time management by MV.

## 3.2 Progress towards project Outputs

### **Output 1: 200 youths take steps to move towards sustainable farming techniques in Analamazaoatra, Ankeniheny and Mangabe, including composting, agroforestry and crop diversification**

All youths in the project are already taking steps towards using sustainable farming techniques. To date, 21 youth teams with 281 members (159 men and 122 women) around Mangabe, Ankeniheny and Analamazaoatra reserves are successfully set up and functional. Since June 2022, demonstration plots for all the 21 youth teams have been identified, delimited and characterized. This process has increased the youths understanding of the state of their soil and the agricultural capacity of their land, which was vital in enabling them to design and fulfill appropriate production plans (showing what they will grow and/or raise).

Training, by Mitsinjo and MV, on sustainable farming techniques and on developing effective production plans for each chosen agricultural sector, has ensured that the youth teams were all able develop and implement quality plans in their chosen area of focus. A production plan has been completed for each of the 21 Youth Teams, outlining all the technical itineraries, the costs, the productions envisaged as well as the cultural calendars. These plans have provided the basis for the development of the demonstration plots. .

For the youths who chose a fish farming project, the activities were immediately advanced to ensure that they fitted with the farming season. Theoretical and practical training, followed by the construction of a pond was carried out for the youth team in Ambatomasina, thanks to the collaboration with the Ministry of Fisheries and the Blue Economy. Two Youth Teams did not choose new sectors because they preferred to be supported with the fish farming work that they had already started before the project. So, the Youth Teams in Andazoana and Ankarefo villages received training on carp spawn. Carp monitoring in group and individual ponds was also carried out to identify how the enterprise was progressing.

In August-September 2022, the 21 youth groups received training on the sectors of their choice thanks to the collaboration with the Circonscription of Agriculture and Livestock Moramanga (CIRAE). The sectors chosen by the youth teams include improved lowland rice culture, maize, bean, cassava, peanut, vegetables, potato, beekeeping, fish farming, rice-fish farming, poultry farming, and pig farming. After receiving focused training, all the youth teams reviewed and modified their production plans under the supervision of the MV team, Mitsinjo and CIRAE. The seed and agricultural input needs for each group were then collected. For the youth teams in Andasibe, the seeds have already been distributed and the agricultural activities, in parallel with the chicken farming, pig farming, and beekeeping have already started. Regarding fish farming, the youth teams in Ankarefo and Andazaona were able to build ponds for the separation of spawners and they are only waiting for the egg laying in November 2022. For the youth group in Ambatomasina village, who also chose fish farming, 150 fingerlings were successfully introduced in their pond. Carp spawning in Andazoana and Ankarefo were carried out in December 2022 and January 2023. Monitoring and evaluations of the fish farming sector were carried out until March 2023 and data on breeding management and carp growth were always collected to feed the databases.

All the youth teams have already received the material support in agricultural and financial equipment according to their request between September 2022 and March 2023. The allocations are made according to the progress of agricultural activities. The amount assigned for each youth team is 1,000,000 MGA (£181) used for the purchase of agricultural equipment and labor support. 80% of support has already been received by the youth teams. Monitoring in March 2023 showed that all youth teams have already practiced composting and agroforestry, databases on these practices are already available and up to date. It should be noted that the youth teams in Andasibe preferred livestock breeding compared to the other groups because the outlets near the national roads provide a market for pigs and poultry. And the risks are also manageable. Also, the youth teams in Andasibe have already harvested potato and beans and the yield is higher than normal. Data on the adoption of agricultural techniques by the young people and the communities are also being collected.

## **Output 2: Production of aromatic and medicinal plants becomes part of youths' farming system**

The steps required for including AMPs into the youths farming systems are being taken. However, the rate of progress is varied between project areas, with some further along the path of AMP production and sale than others. Progress varies between the areas because: the availability of the plants is different from one zone to another. This means that the production capacity is not the same. The state of the market also differs between sites. For example, young people in Lakato Commune already have a lot of experience of collecting *centella*, and the price suits them. So it is easy for them to produce and market it. On the other hand, young people in Mangarivotra Commune have difficulty collecting *centella* and other young people are not satisfied with the low prices offered due the level of competition. At the start of the project, in collaboration with LCB, 12 AMP were identified as having potential to be sustainably exploited. Fieldwork carried out between June-December 2022 to study the abundance, biomass and distribution of these AMP species identified 3 herbaceous species, namely *Centella asiatica*, *Sigesbeckia orientalis*, *Desmodium adscendens*, as present and directly exploitable in the project areas. These are the key species to be piloted, however, discussion with the young people and the buyers opened up other perspectives, which created opportunities of introducing other plants too. In June 2022, production trials of dried leaves of *Centella asiatica* were carried out by the young beneficiaries of the project following training on best practice required when handling Aromatic and Medicinal Plants. The samples have already been received by Label CBD for analysis. In Andasibe, *centella* was not so abundant, so the teams are experimenting with *tambourissa*, as it is well adapted to the area. The Mitsinjo association gave youth teams in Farahevitra and Ampangalantsary villages training on tree nurseries during the period. These youth teams are already ready to create their own nurseries once the results of the Label CBD study are available on site. In addition, for the case of *Canarium madagascariense*, a study of the resin production capacity is in progress. The youth teams in Amparafara village has already been able to set up a nursery with 02 flowerbeds to multiply the *Tambourissa trichophylla* to insert them into the practice of young people. For the remaining youth, they are identifying places to set up their nurseries while they are waiting for the result from LCB on which species they can adopt as part of their farming system.

## **Output 3: Youth-led cooperatives are established to drive social and economic development and biodiversity stewardship in the villages**

All Youth Teams were interested to explore the benefits of a cooperative approach and proposed the creation of one cooperative per axis (i.e. similar geographic location<sup>1</sup>) on the condition of receiving training and support from MV and Mitsinjo.

Previous MV initiatives with youth groups identified that difficulty in finding markets and poor ability to command a good price for improved produce were the most significant factors limiting youths ability to develop improved sustainable livelihoods. The creation of youth-led cooperatives aims to help resolve these problems, and enable the youths to drive social and economic development, thanks to the improved income gained by building production capacity and cooperation between small groups, increasing their visibility, and strengthening their bargaining power with private enterprises. These cooperatives will also have the capacity to improve bio-diversity stewardship because they are explicitly based on the practice of sustainable agriculture with a pre-determined share of the profits being directly assigned to

---

<sup>1</sup> We are currently working in 4 rural communes: Mangarivotra, Lakato, Andasibe, Ambohibary. Each commune represents an axis except for the case of the commune Ambohibary which is divided into 2 axis. An axis brings together neighboring and nearby villages and each axis is assigned to a youth project assistant

conservation work. All contracts with buyers will include these principles as pre-requisites for receiving a premium price.

All 21 Youth Teams have already received training on entrepreneurship, the importance of cooperatives, cooperative management and marketing from November 2022 to March 2023. To ensure that the Youth Teams are aware of the challenges of creating and managing a cooperative, they have studied and discussed the key risk factors, with a view to avoiding these risks from seriously affecting them in the future. Key risks considered include lack of transparency and accountability of the board, bad communication between members, misuse of the cooperative name by some members.

Five location-based cooperatives were created in March 2023 (PK axis, Central axis, Mangarivotra axis, Lakato axis and Andasibe axis). During this period, the importance of cooperation in biodiversity and its link in the youth group were explained to the 21 youth teams. The cooperation consists of uniting groups of young people around protected areas and finding a common strategy to improve their income, and participate together in conservation and development. The cooperation also unites the voice of young people and strengthens their influence and their intervention in the context of lemur conservation. Each cooperative brings together 3 to 5 Youth Teams. They are grouped by axis rather than agricultural sector to ensure proximity during meetings. Board members have already been elected and are in place. All the necessary documents for the legalisation of cooperatives have already been collected. After the meetings for the creation of the cooperatives, the young members of the boards of directors have already discussed the next steps among themselves.

Cooperatives will drive local development by increasing income (improved market access and bargaining power). They will also be beneficial for lemur conservation as they will permit the development of a 'lemur friendly' premium price, which can provide a surplus to be used for the Youth Team's conservation activities (i.e. buyers pay a premium in return for evidence that plants are grown in a sustainable manner and that a percentage of the price will be used for conservation work). These benefits should begin to emerge in the final year of the project.

#### **Output 4: Three private enterprises, engaged in sustainability, commit to sourcing products from the youth-led cooperatives and support their development as a business and biodiversity steward entity in the villages**

The process of identifying private enterprises who are engaged in sustainability and willing to commit to buying produce from the youth-led cooperatives is underway. The list of potential and contacted buyers can be found in the appendix of Label CBD. It's still in progress and the premium price is still to be discussed. To date, the Jacaranda Company, Ravina Company and Mada Herbs are in the process of negotiation. The collection of *Centella asiatica* and *Sigesbeckia orientalis* leaves is under discussion with Mada Herbs. There is also negotiation between Jacarandas, LABEL CBD, MV and Mitsinjo on a possible collaboration for Curcuma longa.

Since August 2022, 04 youth teams in the Lakato Commune (Ambodivarongy, Lakato, Mahafiaina and Ambatomasina) have been responding to the requirements of the Ravina Company for collecting *Centella asiatica* and have agreed on the price of 9,000 Ar per dry kg. So far, the collaboration has resulted in the collection of 61 kg of *Centella*.

Mada Herbs prepared a document on the administrative obligations, called favourable opinions, related to the collection of leaves in August 2022. These obligations were signed by the Rural Commune of Lakato. However, signing by the rest of the Youth Teams is still in progress.

Since September 2022, groups have been working on sending samples of 300 to 500 g per group of *Sigesbeckia orientalis* to Mada Herbs in order to validate the quality of the products and to propose a price.

The development of a premium price mechanism to support lemur conservation as part of the cooperative development has also been discussed and future partnerships with buyers will take this into account.

### **Output 5: Youths engage other community members in sustainable farming, cooperatives and biodiversity stewardship**

Young people in all Youth Teams are engaging communities by practicing sustainable agricultural techniques on their demonstration plots. In total, the 21 youth groups have 24 demonstration plots to show local people the value of sustainable agricultural practices, in terms of increased yields and better work practices. The communities were able to visit these plots and request additional information and advice in order to imitate and then adopt new practices on their own plots. It should be noted that training on sustainable agricultural techniques and awareness raising techniques were also open to all community members. Local authorities were specially invited to participate in the training sessions. 144 community members attended and demonstrated particular interest in climate smart farming techniques and innovation such as fish farming.

In terms of biodiversity stewardship, all the young people were able to conduct awareness sessions on the conservation of lemurs and on sustainable agricultural practices to convince the communities about the importance of these things. The youth groups also set an example to follow in the context of conservation-related activities. Between April 2022 and March 2023, the 21 teams were able to sensitize 558 people with 21 awareness raising sessions on lemur conservation, the importance of the forest and sustainable agriculture. They were also able to carry out 9 reforestation activities with 1770 reforested plants. 9 youth teams took part in the patrols and they did not hesitate to contact us in the event of a violation.

Data on the number of people convinced by young people and adopting sustainable agricultural techniques is being collected and will be available at the end of the project.

### **3.3 Progress towards the project Outcome**

The project expected outcome is to enable youths around Analamazaotra, Ankeniheny, and Mangabe Reserve to demonstrate effective local conservation stewardship while driving social and economic development through sustainable farming and collaboration with private sector.

To date, 245 young people (37.95% women) are registered in the project. We hope that the number of young people and the 40% percentage of women will not decrease below 200 by June 2024. The young people are divided into 21 teams and it is hoped that no group will be dissolved by 2023. 263 young people have already learnt the new techniques and practice them in the demonstration plots. Awareness about sustainable farming techniques and lemur conservation were already raised and the youth team have already planned their next intervention. We expect that the 245 young people will master and practice the sustainable farming techniques in their own field and the local community will be able to learn from them adopt the farming techniques too. We expect that the 05 cooperatives will improve their business plan and sell their products for the benefits of lemurs. And thanks to the youth project, infraction will be reduced by 50% compared to the baseline in 2020. We also expect the youths' effort on practicing sustainable farming techniques will contribute to reduce infractions within the reserves by the end of the project.

### 3.4 Monitoring of assumptions

Assumption	Comments
1. Potential political, economic, or social crisis will not have impacts on youths' ability to farm and sell their products in the markets.	Verified: the young people are for the moment very determined to succeed with the project despite any potential risks
2. Natural hazards will not totally damage crops in the project area.	Verified: the agricultural techniques shared during the initial training are intended to cope with natural hazards. We have not yet received reports on the bad effect of climatic hazards
3. The Global Forest Watch platform ( <a href="https://www.globalforestwatch.org/">https://www.globalforestwatch.org/</a> ) continues to operate and provide daily and weekly forest cover loss alerts.	Verified: the platform is still functional
4. No rush for gold or other gems happens in the project area.	Verified: Patrollers from two Community Based Organisations (CBO) reported cases of gold mining in early 2023
5. The Malagasy Government continues to highlight the need to conserve and restore biodiversity in Madagascar and will act accordingly.	The sustainable management of natural resources is still part of the 10th action plan of the Malagasy Government among the 16 existing action plans. The Ministry of the Environment continues to work with NGOs working in the field of the environment and strengthens environmental laws
6. Identification of field characteristics will not be hampered by rumours of land grabbing.	Verified: the challenges of the project and the interest of soil characterizations were well explained during community meetings with local authorities to avoid rumours
7. Yields are not damaged by natural hazards such as the weather, diseases, or pests.	Verified: the techniques shared during the initial training were designed to be resilient to the effects of climate change and hazards. Thus, it is hoped that these factors will not have significant effects on yield. Only non-compliance with agricultural techniques and the cropping calendar reduced yields
8. At least 3 useful aromatic and medicinal plants are identified as compatible with the farming system.	12 aromatic and medicinal plants have been identified as being compatible with the pedoclimatic and social conditions of the study areas. The study to show the AMP adapted for each village is in progress
9. Production and harvesting of aromatic and medicinal plants are compliant with the protected area management rules.	Potential buyers who will collect aromatic and medicinal plants require organic products, which is in accordance with the law governing Protected Areas
10. The process to register a cooperative remains simple and straightforward for communities.	Verified: Madagasikara Voakajy and The Mitsinjo Association collaborate with the Ministry of Youth and the Ministry of Agriculture and Livestock for the creation of cooperatives. The steps to follow have already been designed in a simple way. The meetings for the creation of the cooperatives took place as planned. All that remains is to register them at the Regional Direction of Commerce Ambatondrazaka

11. We assume that youths will start and will continue to lead the cooperatives.	The young people will continue the initiative because being part of these cooperatives will be in their interest, helping them in market research and the sale of their products
12. No political, economic, or social crisis slows down or stops the development of aromatic and medicinal enterprises.	Verified: all partners will do their best to ensure the success of aromatic and medicinal plants. These factors are already taken into account
13. The current trend to prefer natural and organic products in Madagascar and worldwide continues and raises the value of the targeted plants.	Verified: the demand for organic products on the international and national market pushes companies to favour organic products
14. The government maintains the protection of the three targeted areas.	Verified: the government is becoming increasingly strict about conservation of biodiversity and is strengthening collaboration with NGOs for the effective management of Protected Areas
15. The local authorities will effectively respond in case of infractions reported by the communities.	'Control and Repression' missions are being carried out by relevant authorities in response to high levels of infraction
16. MV, Mitsinjo and CI will secure additional funds to match the cooperatives' income to support elaboration and implementation of the conservation stewardship activities.	Verified: MV has recruited a Grant and Partnership Coordinator to ensure additional funds. MFM secured 25.000 GBP to reinforce the initiative

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

During the lifetime of the project, we expect that 200-300 youths (40% girls) will be totally convinced of the importance of sustainable farming techniques as a powerful means to improve their livelihoods without harming biodiversity. We hope to see 200-300 youths develop a strong personal commitment to promoting lemur conservation within their community and become young lemur conservation ambassadors: actively engaging their communities to improve their farming techniques, protect and restore forests; raising awareness to stop hunting lemurs and promoting the sustainable harvesting and equitable trade of aromatic and medicinal plant species. These youths will report that with the improved farming techniques, they can produce or buy enough food annually, and with the harvesting and trade of aromatic and medicinal species, they start building reserves for emergencies. By the end of the project, we expect to see at least another 250 households adopt the techniques used by youths, and five community cooperatives to be established, securing a 'value-added' market for 'lemur-friendly' produce with at least three private enterprises, increasing mutual trust between community members and improving social cohesion. We also expect to see a forest conservation and restoration plan to be established and starting to be implemented in each village, under trained youths' leadership. As a result, by the end of the project, each protected area's management effectiveness score will increase compared to the 2021 baseline, when evaluated with the Management Effectiveness Tracking Tool.

As the youth-led lemur conservation efforts gain momentum, and community commitment to preserve and restore the forest grows, we expect that the reductions in forest loss will be maintained over the long term and that lemur populations will even increase, as hunting is reduced, and the habitats improve. We expect that the number of community members practising improved sustainable agriculture will gradually increase over time as the youth cooperatives grow in effectiveness and reach and as people observe tangible economic benefits of their sustainable practises. When combined with an increased awareness of the value of the local forest and wildlife, widespread uptake of sustainable higher yielding techniques should result in more families able to meet their needs without having to resort to destructive slash and burn agriculture or wildlife poaching. Increased access to improved

markets should also result in more families able to increase their income. The ultimate change will be that lemurs in these three reserves are secured within their natural habitat.

The project will contribute to the higher level impact on biodiversity conservation and human development by demonstrating a model for parallel sustainable livelihood improvement and biodiversity conservation that can be replicated in other areas.

The youth-led model is enabling young people to work as role models in their local communities. Youth ambassadors are already raising community awareness of the value of maintaining the forest and biodiversity for maintaining and improving their own livelihoods. To date, where awareness raising has occurred, community members have become more aware of the importance of the conservation of biodiversity, especially lemurs and how this can be achieved in conjunction with improved livelihood development. Indeed, the demonstration plots of the youth teams demonstrate to all the villagers that it is not necessary to practice slash and burn agriculture to improve yields but it is just necessary to increase and then maintain the fertility of the soil through, easy to adopt, improved agricultural practices. The new agricultural practices have the double benefit of improving yield and production, whilst also mitigating the effects of climate change. Although it is still in early development, the cooperative system should ensure improvement of the income of young people and the community by facilitating their access to markets increasing their bargaining power (both for buying and selling). This has already occurred on a small scale in Lakato commune where 2 youth groups are in negotiation with Ravina enterprise regarding the collection and sale of *centella*. The conservation premium is intended to provide a contractual incentive to the youth Groups to continue with their improved agricultural practices and local conservation work beyond the project end.

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

The project contributes to the Convention on Biological Diversity (CBD) thanks to its contribution to the NBSAP through youth initiatives to lead conservation in the East Coast of Madagascar and community awareness on the importance of lemurs and their habitats

This project will contribute to achieving four of the 20 objectives in this plan: #1 (by 2025, policymakers and 65% of the Malagasy people are aware of the value of biodiversity and the measures they can take to protect and use it sustainably), #2 (by 2025, biodiversity values, opportunities and benefits of conservation and sustainable use will be recognized and integrated into the country's socioeconomic development activities), #3 (by 2025, positive incentives for conservation and sustainable use of biodiversity and natural resources will be developed and applied), and #4 (by 2025, the extinction of endangered species is reduced, and their conservation status improved).

#### **5. Project support to poverty reduction**

The project aims first to improve the income of young professionals aged 14-30 who tend to depend on the forest because of poverty. Then, these young people will share new sustainable agricultural techniques with the community in the target areas so that they turn to adopt sustainable agriculture, increase production and improve incomes.

In addition, the project also creates temporary jobs for households, especially during lean periods thanks to involving local community members during each fieldwork such as porters, cooks and other tasks requiring labour.

The project also contributes to long-term poverty reduction through various trainings such as leadership, management and future production plans that will change the bad behaviour and management of the local community and help them take better decisions about their practices.

The 05 cooperatives created will also allow not only young people but also communities to identify markets and sell products at reasonable prices. This will direct the household production plan, avoid risks or contingencies that may arise (increase of expense or decrease of production) and improve their income.



## 6. Gender equality and social inclusion

Before project launch, meetings with local authorities were held to find effective ways to involve women in the project. Home awareness raising sessions were even carried out by the local authorities to convince the women and households concerned to involve women more in the project. At the start of the project, awareness raising sessions on gender equality were carried out.

Thanks to these efforts, women represent 37.95% of the young people. These women will first receive all the training, then apply it, they will then serve as role models for other women to encourage them to take initiatives at the community level.

In Andasibe, we have 56.89% women because awareness raising on the participation and commitment of women has already been done even before the project. In addition, the level of study is high in Andasibe and they are more open minded with regards to gender roles. But we still need a lot of effort for the other areas because the majority of women are still considered to be housewives. Young people are currently convincing them to understand the importance of gender equality through awareness raising.

Please quantify the proportion of women on the Project Board <sup>23</sup> .	54% (MV staff: 6/14, Mitsinjo Staff: ¼, Label CBD Staff: 4/4, MfM Staff: 2/2)
Please quantify the proportion of project partners that are led by women, or which have a senior leadership team consisting of at least 50% women <sup>4</sup> .	¾

## 7. Monitoring and evaluation

After each mission, MfM takes care of the monitoring and evaluation for Madagasikara Voakajy, Mitsinjo and Label CBD, focusing on the evolution of activities in relation to the project objectives. During the meetings, the team checks progress by referring to the logframe (impact, outcome, output, activities), to the Theory of Change (ToC) and to the project document. Progress is checked in relation to the allocated project timeframe. The evaluation consists of checking activities and outputs against the measurable indicators obtained. MfM makes sure that the means of verification comply with the identified indicators and checks that satisfactory progress is being made in relation to each activity.

A meeting was organized to evaluate the project and consider Darwin's feedback in August 2022. A meeting was also held in March 2023 to prepare the year 2 report and assess the achievement of objectives. MfM provided support to the technical team for data acquisition and recording.

A series of working sessions with the technical team were carried out for this quarter in order to support the collection and recording of data and to prepare the annual technical report of the project. These working sessions were carried out in Antananarivo and Andasibe with the participation of the MfM UK team.

---

<sup>2</sup>

<sup>3</sup> A Project Board has overall authority for the project, is accountable for its success or failure, and supports the senior project manager to successfully deliver the project.

<sup>4</sup> Partners that have formal governance role in the project, and a formal relationship with the project that may involve staff costs and/or budget management responsibilities.

## 8. Lessons learnt

### What worked well:

Good communication between the partners helped a lot in carrying out the project activities. Monthly meetings between partners should always continue apart from phone calls and direct communications. This communication was also reinforced with the local community to avoid rumours.

The involvement of local authorities, especially the mayor, also really helped during the start-up of the project at the local level because it facilitated awareness-raising, especially the involvement of women.

Innovative projects such as aromatic and medicinal plants are of great interest to the youth teams and the community, which makes it easier to capture their attention.

### Challenges:

Concerning the AMP, the main difficulty encountered during the fourth quarter of year 2 lies in the search for outlets for products from aromatic and medicinal plants, in particular the dried leaves of *Centella* and *Tambourissa*. For some teams, there have been issues regarding price expectations not matching their current collection capacity, both in terms of quality and quantity. For example, in the case of *Centella asiatica*, the price offered by the buyer of Ar 9,000/kg of leaves was not considered acceptable for some of the young people who want to supply the customer at a higher price (Ar 12,000 to Ar 15,000/kg of leaves). Unfortunately, they were not able to meet the expectations of local buyers offering these attractive prices. The challenge would therefore be to find buyers and engage contracts with youths for appropriate AMP.

In the case of the *Tambourissa*, a species in danger of extinction, the problem is a lack of interest from the main customer identified the company SOTRAMEX, who already have an established collection network (intermediaries in each zone). However, the company leaders did suggest negotiating directly with their collaborators.

In the case of Turmeric, exchanges with the JACARANDAS Company are currently on hold because, following a change in the team that initiated the negotiations, the Business Development Department did not follow up on the collaboration. Turmeric is therefore a pending project.

Overall, the negotiations are progressing very slowly since potential buyers for aromatic and medicinal plants require the production of samples of products in order to set the prices, as these are determined by the quality and analysis results. Due to poor infrastructure in Madagascar, the communication of information to the young people and their response, as well as the actual production of samples often involves long delays, which slow the process considerably. It is then recommended to develop a precise collection point with the communities.

Another significant challenge is the arrival of migrants from the south in need of land to support their families. They are practising slash and burn agriculture and not willing to respond to the youth teams. There have been several potentially violent clashes and the security forces have had to be involved. Meetings will be organized with relevant authorities to find strategy to deal with infractions within Mangabe reserve.

### What we would do differently:

Next time, if possible, we should avoid starting a project during the lean season (December-March) because this limits the number of participants occupied by daily labour. In case there are no other possibilities, we should collect recommendations from the community on the time of meetings so that everyone can participate (for example, schedule meetings in the afternoon after fieldwork).

## **Recommendations to others:**

It is recommended to highlight the successes of the project in terms of the impacts on income, on the environment, and on personal, and village development. The difficulties/challenges met and the solutions taken by the project team should also be highlighted to make comparisons between areas in order to demonstrate the disparity in the localities affected by the project.

It is also necessary to take into account the growing seasons in Madagascar to adapt the field trips because the young people are all busy feeding their families during the lean season and they are also busy preparing the soil between the months of September to November.

It is also necessary to ensure the publication of the results at the level of the website and social networks but not stay only with the participation in the various activities and taking photos with the logos of Darwin.

Exchange visits between young people or to other sites are also important to allow them to see and observe other practices in order to learn lessons and improve their practices.

Periodic follow-ups and field visits are important to encourage young people to fight back and deal with the pressures because illegal migrants do not back down and intimidate the conservationists.

The young people and the team must also ensure the safety of the demonstration plots to avoid theft and wandering of the cattle. For example, the youth team at PK32 was the victim of a bean theft in February 2023, all the production on 10 ares was stolen and the young people are forced to restart their production.

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

Immediately after receiving feedback from Darwin, the team met in August 2022 to apply it. Thus, the young people participated in various events on the conservation of lemurs and biodiversity to raise awareness but also to show their commitment. In all these activities, we put forward the supports showing that the project was funded by Darwin (polo shirt, banners).

A discussion to really define the impacts and successes of the project as well as the direct link between the project of young people and lemurs was carried out. In this context, databases have been rectified and data to quantify the project's contribution to the impact are being collected.

## **10. Risk Management**

Below are some new risks:

- Despite the conservation efforts of the young people and the authorities, offenses still persist because illegal migrants thirsty for cultivable plots are practicing illegal activities. These migrants even loot the villages and threaten the local people. In this context, patrollers are afraid to conduct patrol for their safety because migrants are willing to resort to violence to protect their slash and burn agriculture and extend their cultivable plots. In addition, they do not want to discuss the issues and are not interested to learn about biodiversity conservation or sustainable agriculture. Young people and local communities have already made complaints to the competent authorities but their capacity to respond has been very limited. The CIREF Moramanga team has been on the ground in February 2023 to remind people of the laws surrounding protected areas and to encourage the community not to give up. The team was also accompanied by the gendarmerie in Moramanga to ascertain the facts and show the communities the support of the army. However, this was short lived and once the army had left, the destruction continued. Reports have been sent to relevant authorities and strategies to respond to these infractions will be addressed from May 2023.

- In February 2023, the threat of a cyclone upset the already pre-established schedule. Meetings and interventions by the authorities have been postponed.
- Regarding AMP, the collection price of companies ready to commit did not satisfy young people. Thus, we have to seek and negotiate with other collectors.

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

The involvement of the Gendarmerie and the CIREF was necessary in February 2023 to provide security for the team but also to strengthen the laws and show the presence of the stakeholders in the protected area.

### 12. Sustainability and legacy

Our exit strategy is still valid. This project is designed to change people's habits and behaviour in a long term. The goal is to make conservation farming the new tradition. We will thus strengthen our partnership with Mitsinjo for the initiatives in Andasibe, and Conservation International for the initiatives in Ankeniheny in order to ensure sustainable conservation in the targeted areas. As has been done before, a search for additional funding will be carried out to ensure the continuity and sustainability of activities.

### 13. Darwin Initiative identity

During all our interventions, the Darwin logo was always present. However, we participated in many events already mentioned above. Partners especially the authorities always wear polo shirts showing the Darwin logos during national events.

Project developments have been published on Madagasikara Voakajy's website, Twitter and Facebook accounts.

The Malagasy government, all partners, young people and local communities recognize that the project and the impacts of the project are visible thanks to funding from Darwin Initiative.

### 14. Safeguarding

Our safeguarding policy is being developed and will be reported for the next period.

Has your Safeguarding Policy been updated in the past 12 months?	Yes/No
Have any concerns been investigated in the past 12 months	Yes/No
Does your project have a Safeguarding focal point?	Yes/No <i>[If yes, please provide their name and email]</i>
Has the focal point attended any formal training in the last 12 months?	Yes/No <i>[If yes, please provide date and details of training]</i>
What proportion (and number) of project staff have received formal training on Safeguarding?	Past: % [and number] Planned: % [and number]
Has there been any lessons learnt or challenges on Safeguarding in the past 12 months? Please ensure no sensitive data is included within responses.	
Does the project have any developments or activities planned around Safeguarding in the coming 12 months? If so please specify.	

**15. Project expenditure**

The project expenditure during the reporting period (1 April 2022-31 March 2023) is still under process with the Administration teams at the moment we are sending the report. We will send the detailed project expenditure before 31st May 2023.

**Table 1: Project expenditure during the reporting period (1 April 2022 – 31 March 2023)**

Project spend (indicative) since last Annual Report	2022/23 Grant (£)	2022/23 Total Darwin Costs (£)	Variance %	Comments (please explain significant variances)
Staff costs (see below)				
Consultancy costs				
Overhead Costs				
Travel and subsistence				
Operating Costs				
Capital items (see below)				
Monitoring & Evaluation (M&E)				
Others (see below)				
<b>TOTAL</b>				

**Table 2: Project mobilising of matched funding during the reporting period (1 April 2022 – 31 March 2023)**

	Matched funding secured to date	Total matched funding expected by end of project
Matched funding leveraged by the partners to deliver the project.		
Total additional finance mobilised by new activities building on evidence, best practices and project (£)		

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

N/A

## Annex 1: Report of progress and achievements against logframe for Financial Year 2022-2023

Project summary	Smart Indicators	Progress and Achievements April 2022 - March 2023	Actions required/planned for next period
<p><b>Impact</b></p> <p>Madagascar's lemurs secured within their natural habitats thanks to strong local stewardship and a favourable social, economic, and political environment</p>		<p>Thanks to the initiative of young people, the communities will be sensitized and convinced of the importance of the conservation of biodiversity, especially lemurs. In addition, training on agricultural techniques is intended on the one hand to improve yield and production, on the other hand to fight against the effects of climate change. The sale of the products obtained will then be ensured by the cooperative system. That will ensure the improvement of the income of young people and the community</p>	
<p><b>Outcome</b></p> <p>Appropriately trained youths around Analamazaotra, Ankeniheny, and Mangabe Reserves enabled to demonstrate effective local conservation stewardship while driving social and economic development through sustainable farming and collaboration with private sector</p>	<p>1.1 By June 2024, 200 youths (40% women) adopt composting and crop diversification on their existing plots, have plans for improvements, and report higher yields and increased income from these plots compared to the 2021 baseline.</p> <p>1.2 By 2023, youth-led cooperatives are established in twenty villages, markets for sustainably farmed and harvested products are secured with private enterprises, and an average net benefit of £10 per person per month is generated, in addition to a total of £30 per cooperative per month for biodiversity conservation.</p> <p>1.3 By June 2024, 50% of other households in</p>	<p>The project expected outcome is to enable youths around Analamazaotra, Ankeniheny, and Mangabe Reserve to demonstrate effective local conservation stewardship while driving social and economic development through sustainable farming and collaboration with private sector.</p> <p>1.1 To date, 245 young people (37.95% women) are registered in the project and have developed demonstration plots in their communities. It is too early to evaluate higher yields and increased income. This will be</p>	

	<p>the target villages demonstrate increased knowledge on sustainable farming techniques, entrepreneurship, and conservation stewardship, and are willing to join the cooperatives.</p> <p>1.4 From 2023, infractions reported by forest patrollers and the frequency and extent of forest loss alerts are reduced by 50% compared to the 2020 baseline (data being collected by Global Forest Watch and from the patrol reports)</p> <p>1.5 Targeted Reserves have higher scores when evaluated with the Management Effectiveness Tracking Tool (<a href="https://tinyurl.com/y6tp7ax3">https://tinyurl.com/y6tp7ax3</a>) compared to the baseline to be established for 2021</p>	<p>done in June 2024. However, young people have already learnt the new techniques and practice them in the demonstration plots. Awareness about sustainable farming techniques and lemur conservation has been raised and the youth teams have already planned their next intervention, we already got the reports. We still expect that the 245 young people will master and practice the sustainable farming techniques in their own field and the local community will be able to learn from them adopt the farming techniques too.</p> <p>1.2 The young people are divided into 21 teams which are grouped into 5 cooperatives. Negotiations are underway but there have also been some delays and setbacks and we are still seeking additional companies to buy AMPs from the cooperatives. We expect that the 05 cooperatives will improve their business plan and sell their products for the benefits of lemurs. Benefits generated by youth's cooperatives are expected to happen from the end of year 2023.</p> <p>1.3 Data are being collected and analysed regarding the percentage of households regarding the knowledge gained on sustainable farming techniques, entrepreneurship,</p>	
--	--	--	--

		<p>and conservation stewardship</p> <p>1.4 It is too early to tell whether infractions have been reduced. In Andasibe things are progressing well but there have been significant problems with migrants practising slash and burn, which need to be resolved. For Mangabe reserve, data from patrol reports are being collected and analysed</p> <p>1.5 The progress of METT score of the targeted reserves will be provided in the next reporting period</p>	
<p><b>Output 1.</b></p> <p>200 youths take steps to move towards sustainable farming techniques in Analamazaotra, Ankeniheny and Mangabe, including composting, agroforestry and crop diversification</p>	<p>1.1 15 established and five new youth teams with 8-12 members each (40% women) register to participate in the project by March 2022.</p> <p>1.2 200 youths, 40% women, attend three days annual training on sustainable farming and their link with lemur conservation from July 2022.</p> <p>1.3 Characteristics of each youths' existing field are described, and a development plan established by November 2022.</p> <p>1.4 Members of youth teams from 20 villages receive material support and 12 sessions of 3 days mentoring on sustainable farming to adopt sustainable farming techniques on their own fields (2 in 2022, 6 in 2023 and 4 in 2024)</p> <p>1.5 By December 2023, all members of the youth teams report increased yields and higher profit from the fields where sustainable farming have been adopted and have plans to improve in the next season.</p>	<p>1.1 21 youth teams were established and 281 young people were registered in March 2022 (159 men and 122 women). Women represented 43.41% of the members</p> <p>1.2 From May 2022 to March 2023, 16 field trips were undertaken by MV to achieve the objectives at the level of the 17 youth teams concerned. Concerning the 4 youth teams in Andasibe, 20 field trips were carried out by Mitsinjo to ensure their evolution. For each fieldwork, a reminder on associative life, capacity buildings on activity reporting and planning were carried out for each group. The activity reports already available were collected to feed the MV and Mitsinjo databases. In addition, all 21 focal points also received capacity building on group management and reports at each team visit</p> <p>1.3 From May-June 2022, all the demonstration plots for the 21 youth teams were identified. The endowment acts for the 21 plots have been signed. Then, each plot was delimited and characterized in order to know its state and better fulfill the production plan of what they will grow or raise. Afterwards, MV and Mitsinjo carried out training on developing the production plan of the chosen sectors for all the 21 youth taking into account the initial training on sustainable farming techniques already given on March 2022. All the technical itineraries, the costs, the productions envisaged as well as the cultural calendars have been recorded in a file and taken into account. 21</p>	



		<p>production plan sheets were then completed. For the youths who chose fish farming project, the activities were advanced to respect the farming season. Hence, theoretical and practical training followed by the construction of a pond was carried out for the youth team in Ambatomasina thanks to the collaboration with the Ministry of Fisheries and the Blue Economy. On the other hand, two youth teams did not choose new sectors because they preferred to be supported on fish farming already started before the project. The youth teams in Andazoana and Ankarefo villages have received training on egg-laying. Carp monitoring in group and individual ponds was also carried out.</p> <p>1.4 In August and September 2022, the MV and Mitsinjo team were able to carry out all the actual training on the sectors chosen by the 21 youth teams thanks to the collaboration with the Circonscription of Agriculture and Livestock Moramanga (CIRAE). The sectors chosen by the youth teams are as follows: improved lowland rice culture, maize, bean, cassava, peanut, vegetables, potato, beekeeping, fish farming, rice-fish farming, poultry farming, and pig farming. After receiving the detailed trainings, all the youth teams then reviewed and modified their production plans under the supervision of the MV team, Mitsinjo and CIRAE. The seed and agricultural input needs for each group were then collected. For the youth teams in Andasibe, the seeds have already been distributed and the agricultural activities in parallel with the breeding have already started. Regarding fish farming, the youth teams in Ankarefo and Andazaoana were able to build ponds for the separation of spawners and they are only waiting for the laying in November 2022. For the youth team in Ambatomasina, the construction of the pond is already completed and they are only waiting for the transport and the introduction of carp fry in November 2022. Field monitoring of demonstration plots already cultivated was also carried out. In November 2022, 150 fingerlings were transported and then introduced into the pond of the youth team in Ambatomasina. Carp spawning in Andazoana and Ankarefo were carried out in December 2022 and January 2023. Monitoring and evaluations of the fish farming sector were carried out until March 2023 and data on breeding management and carp growth were always collected to feed the databases. Monitoring in March 2023 showed that all youth teams have already practiced composting and agroforestry, databases on these practices are already available and</p>
--	--	--

		<p>up to date. All the youth teams have already received the material support in agricultural and financial equipment according to their request between September 2022 and March 2023. The allocations are made according to the progress of agricultural activities. The amount assigned for each youth team is 1,000,000 MGA used for the purchase of agricultural equipment and labor support. 80% of support has already been received by the youth teams. Survey sheets on the adoption of agricultural techniques by the young people and the community by village are also being collected.</p> <p>1.5 The youth teams in Andasibe have already harvested potato and beans and the yield is higher than the normal. The remaining groups will report their yield from year 3</p>
Activity 1.1 Launch the project at the villages		<p>It is already achieved. In December 2021, the project was launched in 21 villages in the rural municipalities of Ambohibary, Andasibe, Mangarivotra and Lakato. 21 community meetings were held to successfully create the 21 youth teams: 08 in Ambohibary, 04 in Andasibe, 04 in Mangarivotra, and 05 in Lakato. 21 focal points were elected by the local community (1 focal point per group) and 223 young people were interested.</p>
Activity 1.2 Collect annual data on agricultural practices		<p>Data on agricultural practices by village are collected for the 21 villages from February 2022 up to March 2023</p>
Activity 1.3 Recruit and train focal points		<p>On 27-28th March 2023, a meeting with the 21 focal points was held in Moramanga to strengthen their capacity, follow up their activities and collect their feedback.</p>
Activity 1.4 Provide initial training for interested youths		<p>It is already achieved. Initial training on sustainable agricultural techniques which reflect the youths' preferences was carried out in the 21 target villages in February-March</p>

		2022	
Activity 1.5 Register youths willing to continue in the project		The final list of young people who will continue the project was received during the meeting with the focal points in Moramanga in March 2022. But we still continue collect the data about the number of the youths and the reason of the membership and the resignation.	
Activity 1.6 Locate and assess characteristics of youths fields		It is already achieved. During the practical training between February 2022 and March 2022, field trips to identify and characterize the demonstration plots were carried out. For the livestock (fishfarming and pig farming), the characterization of the field was held on August and November 2022	Continue to locate and assess characteristics if there will be new demonstration plots
Activity 1.7 Develop a production plan for each field		After having identified the key products to be adopted by the youth teams, we began to design the production plans from April 2022 to march 2023	Continue to improve the production plan of each team
Activity 1.8 Train, support and mentor youths in implementing the production plan		Field missions were carried out from August 2022 to coach and provide financial and material support to the 21 youth teams	Train, support and mentor youths in implementing the production plan according to the sector chosen
Activity 1.9 Monitor yields of youths and other community members		In February 2023, we started to fill in the identification sheets of agricultural practices at the level of the 21 villages and all the data on the fields will be recorded according to the progress of the culture.	Collect the data about the sustainable farming techniques adopted and entry data for analysis
<b>Output 2.</b>	2.1 By December 2021, 3-5 useful aromatic and medicinal plants that are compatible with	- In June 2022, production trials of dried leaves of <i>Centella asiatica</i> were carried out by the young beneficiaries of the project following training on the good practices required when handling Aromatic	

<p>Production of aromatic and medicinal plants becomes part of youths' farming system</p>	<p>the farming system and can be harvested sustainably from the wild are identified.  2.2 From January 2022, youths start growing the aromatic and medicinal plants in their fields.  2.3 From 2022, availability of each targeted product is assessed annually.  2.4 By December 2022, youths are trained in handling the products.  2.5 By March 2023, a business model for sustainable production, harvesting, and trade of each targeted product is developed.</p>	<p>and Medicinal Plants. The samples have already been received by Label CBD for analysis.</p> <ul style="list-style-type: none"> <li>- From June 04, 2022 to August 2022, a quantitative assessment of the abundance, an estimate of the biomass and the distribution of pre-identified AMP species, which can be exploited and considered as plants of potential interest for buyers, have also been carried out at four (4) sites including PK 21, Amparalalana, Lakato and Ambodivarongy. This study, carried out in partnership with the Plant Research Centre of Madagascar (CRPM) of the Plant Biology and Ecology (MBEV) section of the Faculty of Sciences of the University of Antananarivo, aims to know, locate and validate the plants that can be used sustainably, whether in terms of collection or cultivation. The study was completed in September 2022 and the results were shared with all partners. The conditions for the sustainable exploitation and management of resources have been defined for each species to be exploited in the short, long and medium terms. Good practices and collection rates have been defined for directly exploitable species and the conditions favouring the regeneration of plants or their reproduction for those whose exploitation is conceivable in the future. Thus, Mitsinjo gave youth teams in Farahevitra and Ampangalantsary training on tree nurseries during the period. These youth teams are already ready to create their own nurseries once the results of the Label CBD study are available on site. In addition, for the case of <i>Canarium madagascariense</i>, a study of the resin production capacity is in progress. The samples were already collected in August 2022. Mada Herbs was even satisfied with the quality of the samples and a negotiation on prices and the type of contract was carried out. A good price of 9.000 Ar per dry kg has been accepted and the youth teams in Lakato and Ambodigavo were able to collect and sell 45 kg of <i>cintella</i> to Mada Herbs. It should be noted that the young people and MV agreed to collect 200 kg of <i>cintella</i> but the bad weather and the wanderings of the cattle at the level of the <i>cintella</i> plots did not allow the young people to ensure the collection.</li> <li>- The youth team in Amparafara in Andasibe has already been able to set up a nursery with 02 flowerbeds to multiply the <i>Tambourissa trichophylla</i> to insert them into the practice of young people.</li> </ul>
---	--	--

<p>Activity 2.1 Identify appropriate aromatic and medicinal plants</p>	<p>The pre-selected species are respectively:</p> <ul style="list-style-type: none"> <li>• <i>Centella asiatica</i>, <i>Desmodium adscendens</i>, <i>Sigesbeckia orientalis</i> for the short term;</li> <li>• <i>Calophyllum inophyllum</i>, <i>Canarium madagascariensis</i>, <i>Cryptocaria aromatica</i> for the medium and long term (potential customers already existing);</li> <li>• <i>Harungana madagascariensis</i>, <i>Norhonia lanceolata</i>, <i>Pittasporum achrosiaefolium</i>, <i>Trema orientalis</i>, <i>Vernonia appendiculata</i>, <i>Tambourissa trichophylla</i> for the medium and long term (customers to be identified).</li> </ul>	
<p>Activity 2.2 Assess feasibility of growing them in the fields and nurseries</p>	<p>In June 2022, production trials of dried leaves of <i>Centella asiatica</i> were carried out by the young beneficiaries of the project following training on the good practices required when handling Aromatic and Medicinal Plants. The samples have already been received by Label CBD for analysis.</p> <p>On August 2022, Mitsinjo gave youth teams in Farahevitra and Ampangalantsary training on tree nurseries during the period. These youth teams are already ready to create their own nurseries once the results of the Label CBD study are available on site. In addition, for the case of <i>Canarium madagascariense</i>, a study of the resin production capacity is in progress. The samples were already collected in August</p>	<p>-Study the feasibility of producing cuttings of <i>Ravensara</i> or <i>Cryptocaria agatophylla</i> and <i>Tambourissa trichophylla</i> with a view to their multiplication in the nursery during the month of May</p> <p>- Carry out herbarium collections for the two substitution species for the <i>Canarium</i> and <i>Noronhia genera</i> in order to clearly identify the species encountered</p>

	2022. The nursery in Ampangalantsary is already functional on February 2023	
Activity 2.3 Assess availability of each product annually	<p>From June 04, 2022 to August 2022, a quantitative assessment of the abundance, an estimate of the biomass and the distribution of pre-identified AMP species, which can be exploited and considered as plants of potential interest for buyers, have also been carried out at four (4) sites including PK 21, Amparalalana, Lakato and Ambodivarongy. This study, carried out in partnership with the Plant Research Centre of Madagascar (CRPM) of the Plant Biology and Ecology (MBEV) section of the Faculty of Sciences of the University of Antananarivo, aims to know, locate and validate the plants that can be used sustainably, whether in terms of collection or cultivation. The study was completed in September 2022 and the results were shared with all partners. The conditions for the sustainable exploitation and management of resources have been defined for each species to be exploited in the short, long and medium terms. Good practices and collection rates have been defined for directly exploitable species and the conditions favouring the regeneration of plants or their reproduction for those whose exploitation is conceivable in the future.</p> <p>The study relating to the quantitative evaluation of the abundance, the</p>	<p>-Carry out collection trials as well as monitoring the duration and modes of species regeneration</p> <p>- Make a technical feasibility study of the production of the resources to be developed (what cultivable areas, what possibilities of extension, location of the dryer, what existing infrastructure?) then establish a production plan according to the interest of the identified buyers</p>

	<p>estimation of the biomass and the distribution of the species considered to be plants of potential interest for the buyers on the central axis of the PA Mangabe was carried out in December 2022 at the level of 14 localities distributed in three sites / villages named Andranomandry, Lakambato and Mangabe, all attached to the rural commune (CR) of Ambohibary of the district of Moramanga.</p>	
<p>Activity 2.4 Train youths in handling the products</p>	<p>Training on hygiene, safety, sustainable collection, drying and storage was provided by LCBD teams to representatives of youth teams in February-March 2022. The next training depends on what the youth teams will definitively collect or plant in the nursery</p> <p>The exchange with the focal points on the handling of aromatic and medicinal plants was held on the 28th of March 2023.</p>	<p>-Carry out a targeted training reminder for the youth teams on the activities they would like to carry out with regard to the handling of aromatic and medicinal plants; - Accompany the youth teams during the stages of production of dried leaves so that they can fulfil customer orders both in terms of quantity and quality</p>
<p>Activity 2.5 Assess fair price and develop a sustainable harvesting model</p>	<p>In September 2022, the society Mada Herbs was even satisfied with the quality of the samples and a negotiation on prices and the type of contract was carried out. A good price of 9.000 Ar per dry kg has been accepted and the development of the contract is in progress. 02 youth teams in Lakato and Ambodigavo were able to follow good practices and sell 45 kg of <i>cintella</i>. A contrat with another society "Talamanga" is being processed with a price of 10.000Ar per dry kg of <i>cintella</i></p>	<p>Continue to prospect potential customers and calculate fair prices</p>

<p><b>Output 3.</b> Youth-led cooperatives are established to drive social and economic development and biodiversity stewardship in the villages</p>	<p>3.1 By March 2023, all youth team members attend three days training on entrepreneurship, cooperative management and marketing.  3.2 By June 2023, youth teams are registered as local cooperatives aiming to bring social and economic development and ensure biodiversity conservation.  3.3 By December 2023, the cooperatives start generating benefits for each member and allocating funds for the cooperative's functions</p>		<p>The 21 youth teams have already received training on entrepreneurship, cooperative management and marketing from November 2022 to March 2023 and are already aware of the issues and the importance of cooperatives. 05 cooperatives per axis were created in March 2023 (PK axis, Central axis, Mangarivotra axis, Lakato axis and Andasibe axis). During this period, the importance of cooperative in biodiversity and its link in the youth group were already explained to the 21 youth teams. Each cooperative brings together 3 to 5 youth teams, and they are grouped by axis and not by sector to ensure proximity during meetings. Board members have already been elected and in place. All the necessary documents for the legalization of cooperatives have already been collected. After the meetings for the creation of the cooperatives, the young members of the boards of directors have already discussed among themselves for the next step</p>
<p>Activity 3.1 Train youths on entrepreneurship, cooperative management and marketing</p>		<p>From November 2022 to March 2023, the 21 youth teams received training on entrepreneurship, cooperative management and marketing. The asses monitoring were given after each training to be sure that the youth teams kept and understood the training</p>	<p>Remind the training</p>
<p>Activity 3.2 Establish and register youths' cooperatives</p>		<p>In February and March 2023, 05 cooperative creation meetings were held. All documents have been drawn up and signed. All that remains is registration with the Regional Direction of Commerce Alaotra Mangoro.</p>	<p>Going to Ambatondrazaka to register the 05 cooperatives</p>
<p>Activity 3.3 Develop simplified business plan</p>		<p>Not started</p>	<p>Develop simplified business plan according to the objectives of each cooperatives</p>
<p>Activity 3.4 Monitor youth cooperatives' management and function</p>		<p>Not started</p>	<p>Monitor youth cooperatives' management and function</p>



<p><b>Output 4.</b> Three private enterprises, engaged in sustainability, commit to sourcing products from the youth-led cooperatives and support their development as a business and biodiversity steward entity in the villages</p>	<p>4.1 By March 2022, a list of potential partner enterprises is elaborated, indicating their needs, the pros, and cons of collaborating with them.</p> <p>4.2 By December 2022, five enterprises agree to explore collaboration with the youth teams in 2023.</p> <p>4.3 By December 2023, a procurement agreement is signed between the youth-led cooperatives and three private enterprises, including a bonus provided for the fulfilment of an identified conservation stewardship plan.</p> <p>4.4 By June 2024, agreements with the private sector generate 50% additional income for the cooperatives, compared to normal market.</p>	<ul style="list-style-type: none"> <li>- In May 2022, regarding the Aromatic and Medicinal Plants (AMP), potential companies were identified and 02 of them were contacted. To date, the Jacaranda Company and Mada Herbs are in the process of negotiation. A series of meetings made it possible to discuss with the company Mada herbs for the collection of leaves of <i>Centella asiatica</i> and <i>Sigesbeckia orientalis</i>. The exchange with the companies Jacarandas and LABEL CBD as well as MV and Mitsinjo on a possible collaboration for Curcuma longa was also established. We are now awaiting confirmation.</li> <li>- In August 2022, the MV teams mentioned the requirements of the Mada Herbs Company on <i>Centella asiatica</i>. 04 youth teams in the Lakato Commune (Ambodivarongy, Lakato, Mahafiaina and Ambatomasina) have agreed on the price of 9,000 Ar per dry kg. The administrative obligations related to the collection of leaves were prepared by Mada Herbs in August 2022. These obligations called favourable opinions were then deposited and then signed by the Rural Commune of Lakato. The signing of the rest is in progress. And in September 2022, a discussion about the mode of collection between Mada Herbs, MV and the young people was started.</li> <li>- In September 2022, an instruction was given to all groups to send samples of <i>Sigesbeckia orientalis</i> because Mada Herbs is interested in it. Youth teams in Lakato are currently preparing to collect <i>Centella asiatica</i>.</li> <li>- Thanks to Label CBD's research, in November 2022, a society interested in the dried leaves of <i>Sigesbeckia orientalis</i> requested a production of samples of 300 to 500 g per group of youth team who could supply them in order to validate the quality of the products and to propose a price.</li> <li>- The Ravina Company has already received requests from the youth teams and the collaboration has resulted in the collection of 61 kg of <i>centella</i>.</li> <li>- During the meeting with the partners on March 30, 2023, we also discussed the contribution of cooperatives to the conservation of lemurs thanks to the premium price. Future partnerships will take this into account</li> </ul>
---	---	--

Activity 4.1 Identify potential partner enterprises	<p>The enterprises Ravina, Jacarandas and Talamanga have already been contacted</p> <p>Thanks to Label CBD's research, a society interested in the dried leaves of <i>Siegesbeckia orientalis</i> requested a production of samples of 300 to 500 g per group of youth team who could supply them in order to validate the quality of the products and to propose a price.</p> <p>In August 2022, the youth project coordinator (MV), the local agent in Mangabe (MV) and the youth team responsible in Andasibe (Mitsinjo) visited all the stands at the FIER-MADA 2022 agricultural fair in Antananarivo in order to get inspired for the youth project, and to search for potential buyers and seed suppliers.</p>	Continue to identify potential partner enterprises
Activity 4.2 Engage exchange and discussions between youths and enterprises	The Ravina company has already received requests from the youth teams and the collaboration has resulted in the collection of 61 kg of <i>centella</i> .	Contact potential enterprises and engage in discussions with cooperative representatives in Moramanga
Activity 4.3 Develop and sign agreements between youths cooperatives and businesses	The contracts have not yet been signed but the young people and the Ravina company have agreed on the prices and the method of collection	Start from year 3
Activity 4.4 Support youths to implement their part of the agreement	Not started	Start from year 3
<b>Output 5. Youths engage other community members in sustainable farming,</b>	5.1 Annually, youth team members receive training on communication, leadership, social	<ul style="list-style-type: none"> <li>- In May-June 2022, the staff from Ministry of Youth Moramanga (DELJS) conducted training on awareness techniques on lemurs' conservation, health and other aspects of development for all 4</li> </ul>

<p><b>cooperatives and biodiversity stewardship</b></p>	<p>skills, and awareness techniques.  5.2 Monthly, youth team members run awareness campaigns in their villages on sustainable farming, cooperatives, and biodiversity stewardship.  5.3 From January 2023, 20-30 additional households adopt sustainable farming annually.  5.4 By March 2024, 10-20 new members join the youths' cooperatives.  5.5 By June 2024, a youth-led biodiversity conservation and restoration plan is established in each village with all community members.</p>	<p>youth teams in Andasibe and youth teams in the following villages: Lakambato, PK33, PK32, Lakato and Mahafiaina. It should be noted that the 04 youth teams in Andasibe have also already benefited from training in communication.</p> <ul style="list-style-type: none"> <li>- On 21st July 2022, MV teams participated in the inauguration of the information centre in Avolo village where the CIREF in Moramanga raised awareness about lemurs and the protection of the forest. In addition, the Babakoto youth team in Avolo was able to make awareness-raising performances on the conservation of lemurs through traditional songs and dances in front of all the community and the authorities.</li> <li>- In August-September 2022, the MV teams participated in massive patrols organized by youth groups and local communities for the following villages: Lakambato, Andranomandry, PK33 and PK32. These patrols aimed at observing and reporting infractions within the Mangabe reserve. During these missions, the youth teams in PK21, PK33 and Amparalalana received training on time management by MV.</li> <li>- On September 30, 2022, representatives of the 04 youth teams in Andasibe with MV and Mitsinjo teams participated in the carnival during the celebration of the Indri Festival 4th edition in Andasibe.</li> <li>- The 04 youth teams in Andasibe were able to participate in 02 events in which they raised awareness through posters: Indri festival of September 30, 2022 in Andasibe, World Wetlands Day of February 02, 2023 in Andasibe</li> <li>- Between April 2022 and March 2023, the 21 teams were able to lead 21 awareness-raising on lemur conservation, the importance of the forest and sustainable agriculture. They were also able to carry out 9 reforestation activities with 1,770 reforested plants. 8 youth teams took part in the patrols and they did not hesitate to contact us in the event of a violation.</li> <li>- In total, the 21 youth groups have 24 demonstration plots to show local people the value of sustainable agricultural practices.</li> </ul>	
<p>Activity 5.1 Train youths on communication, leadership, social skills, and awareness techniques</p>		<p>In November-December 2022 and February-March 2023, training on communication, leadership, social skills and technical awareness were given to 21 youth teams</p>	<p>Remind the training</p>

Activity 5.2 Attend awareness campaigns run by youths	The 04 youth teams in Andasibe were able to participate in 02 events in which they raised awareness through posters: Indri festival of September 30, 2022 in Andasibe, World Wetlands Day of February 02, 2023 in Andasibe	Attend awareness campaigns run by youth at level of the village
Activity 5.3 Review list of cooperative members	Not started	Review the list of cooperative members and identify the reason of resignation and membership
Activity 5.4 Support youths to develop and implement conservation and restoration plans	Not started	
Activity 5.5 Household interviews to assess communities' engagement to the conservation and restoration plan	Not started	

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

Project summary	SMART Indicators	Means of verification	Important Assumptions
<p><b>Impact:</b> Madagascar's lemurs secured within their natural habitats thanks to strong local stewardship and a favourable social, economic, and political environment.</p>			
<p><b>Outcome:</b></p> <p>Appropriately trained youths around Analamazaotra, Ankeniheny, and Mangabe Reserves enabled to demonstrate effective local conservation stewardship while driving social and economic development through sustainable farming and collaboration with private sector</p>	<p>1.1 By June 2024, 200 youths (40% women) adopt composting and crop diversification on their existing plots, have plans for improvements, and report higher yields and increased income from these plots compared to the 2021 baseline.</p> <p>1.2 By 2023, youth-led cooperatives are established in twenty villages, markets for sustainably farmed and harvested products are secured with private enterprises, and an average net benefit of £10 per person per month is generated, in addition to a total of £30 per cooperative per month for biodiversity conservation.</p> <p>1.3 By June 2024, 50% of other households in the target villages demonstrate increased knowledge on sustainable farming techniques, entrepreneurship, and conservation stewardship, and are willing to join the cooperatives.</p> <p>1.4 From 2023, infractions reported by forest patrollers and the frequency and extent of forest loss alerts are reduced by 50% compared to the 2020 baseline (data being collected by Global Forest Watch and from the patrol reports)</p> <p>1.5 Targeted Reserves have higher scores when evaluated with the Management Effectiveness Tracking Tool (<a href="https://tinyurl.com/y6tp7ax3">https://tinyurl.com/y6tp7ax3</a>) compared to the baseline to be established for 2021</p>	<p>1.1 Youths' interview and agricultural survey report</p> <p>1.2 Copies of cooperatives' registration certificates, agreements between cooperatives and private enterprises, and cashbooks</p> <p>1.3 Household surveys at the villages where youth team members live.</p> <p>1.4 Forest patrol reports and weekly forest cover loss alerts summary</p> <p>1.5 METT annual evaluation report for each Reserve</p>	<p>1. Potential political, economic, or social crisis will not have impacts on youths' ability to farm and sell their products in the markets.</p> <p>2. Natural hazards will not totally damage crops in the project area.</p> <p>3. The Global Forest Watch platform (<a href="https://www.globalforestwatch.org/">https://www.globalforestwatch.org/</a>) continues to operate and provide daily and weekly forest cover loss alerts.</p> <p>4. No rush for gold or other gems happens in the project area.</p> <p>5. The Malagasy Government continues to highlight the need to conserve and restore biodiversity in Madagascar and will act accordingly</p>

<p><b>Output 1</b></p> <p>200 youths take steps to move towards sustainable farming techniques in Analamazaotra, Ankeniheny and Mangabe, including composting, agroforestry and crop diversification</p>	<p>1.1 15 established and five new youth teams with 8-12 members each (40% women) register to participate in the project by March 2022.</p> <p>1.2 200 youths, 40% women, attend three days annual training on sustainable farming and their link with lemur conservation from July 2022.</p> <p>1.3 Characteristics of each youths' existing field are described, and a development plan established by November 2022.</p> <p>1.4 Members of youth teams from 20 villages receive material support and 12 sessions of 3 days mentoring on sustainable farming to adopt sustainable farming techniques on their own fields (2 in 2022, 6 in 2023 and 4 in 2024)</p> <p>1.5 By December 2023, all members of the youth teams report increased yields and higher profit from the fields where sustainable farming have been adopted and have plans to improve in the next season</p>	<p>1.1 Youth team members register</p> <p>1.2 Training course records and attendance certificate</p> <p>1.3 Database on youths' field characteristics, current yield, and development plan</p> <p>1.4 Support and mentoring activity report and attendance sheets</p> <p>1.5 Youth interview report and update of the database on field characteristics and yields (Indicator 1.</p>	<p>6. Identification of field characteristics will not be hampered by rumours of land grabbing.</p> <p>7. Yields are not damaged by natural hazards such as the weather, diseases, or pests.</p>
<p><b>Output 2</b></p> <p>Production of aromatic and medicinal plants becomes part of youths' farming system</p>	<p>2.1 By December 2021, 3-5 useful aromatic and medicinal plants that are compatible with the farming system and can be harvested sustainably from the wild are identified.</p> <p>2.2 From January 2022, youths start growing the aromatic and medicinal plants in their fields.</p> <p>2.3 From 2022, availability of each targeted product is assessed annually.</p> <p>2.4 By December 2022, youths are trained in</p>	<p>2.1 Useful aromatic and medicinal plant identification process report.</p> <p>2.2 Photos of the fields with the aromatic and medicinal plants.</p> <p>2.3 Database and</p>	<p>8. At least 3 useful aromatic and medicinal plants are identified as compatible with the farming system.</p> <p>9. Production and harvesting of aromatic and medicinal plants are compliant with the protected area management rules.</p>

	<p>handling the products.</p> <p>2.5 By March 2023, a business model for sustainable production, harvesting, and trade of each targeted product is developed.</p>	<p>report on aromatic and medicinal availability assessment.</p> <p>2.4 Training report and photos of products.</p> <p>2.5 Copies of the business model document</p>	
<p><b>Output 3</b></p> <p>Youth-led cooperatives are established to drive social and economic development and biodiversity stewardship in the villages</p>	<p>3.1 By March 2023, all youth team members attend three days training on entrepreneurship, cooperative management and marketing.</p> <p>3.2 By June 2023, youth teams are registered as local cooperatives aiming to bring social and economic development and ensure biodiversity conservation.</p> <p>3.3 By December 2023, the cooperatives start generating benefits for each member and allocating funds for the cooperative's functions.</p>	<p>3.1 Training report</p> <p>3.2 Cooperatives' statutes and registration certificates</p> <p>3.3 Copies of cooperatives' cashbook, activity report and members' register</p>	<p>10. The process to register a cooperative remains simple and straightforward for communities.</p> <p>11. We assume that youths will start and will continue to lead the cooperatives</p>
<p><b>Output 4</b></p> <p>Three private enterprises, engaged in sustainability, commit to sourcing products from the youth-led cooperatives and support their development as a business and biodiversity steward entity in the villages</p>	<p>4.1 By March 2022, a list of potential partner enterprises is elaborated, indicating their needs, the pros, and cons of collaborating with them</p> <p>4.2 By December 2022, five enterprises agree to explore collaboration with the youth teams in 2023.</p> <p>4.3 By December 2023, a procurement agreement is signed between the youth-led</p>	<p>4.1 Potential partner enterprises assessment review</p> <p>4.2 Report of meetings between the youth</p> <p>team members and the enterprises</p> <p>4.3 Copies of the</p>	<p>12. No political, economic, or social crisis slows down or stop the development of aromatic and medicinal enterprises.</p> <p>13. The current trend to prefer natural and organic products in Madagascar and worldwide continues and raises the value of the targeted plants</p>

	<p>cooperatives and three private enterprises, including a bonus provided for the fulfilment of an identified conservation stewardship plan.</p> <p>4.4 By June 2024, agreements with the private sector generate 50% additional income for the cooperatives, compared to normal market.</p>	<p>procurement agreements</p> <p>4.4 Copy of the cooperatives' cashbook and prices comparison database</p>	
<p><b>Output 5</b></p> <p>Youths engage other community members in sustainable farming, cooperatives and biodiversity stewardship</p>	<p>5.1 Annually, youth team members receive training on communication, leadership, social skills, and awareness techniques.</p> <p>5.2 Monthly, youth team members run awareness campaigns in their villages on sustainable farming, cooperatives, and biodiversity stewardship.</p> <p>5.3 From January 2023, 20-30 additional households adopt sustainable farming annually.</p> <p>5.4 By March 2024, 10-20 new members join the youths' cooperatives.</p> <p>5.5 By June 2024, a youth-led biodiversity conservation and restoration plan is established in each village with all community members.</p>	<p>5.1 Training report and attendance sheet</p> <p>5.2 Youths' activity reports</p> <p>5.3 Household and field survey report</p> <p>5.4 Cooperatives' activity report</p> <p>5.5 Copies of the biodiversity conservation and restoration plan for each village</p>	<p>14. The government maintains the protection of the three targeted areas.</p> <p>15. The local authorities will effectively respond in case of infractions reported by the communities.</p> <p>16. MV, Mitsinjo and CI will secure additional funds to match the cooperatives' income to support elaboration and implementation of the conservation stewardship activities.</p>
<p><b>Activities</b> (each activity is numbered according to the output that it will contribute towards, for example 1.1, 1.2 and 1.3 are contributing to Output 1)</p> <p>0.1 Project team inception meeting (July 2021)</p> <p>0.2 Recruit MV's additional staff (July – September 2021)</p> <p>0.3 Annual METT evaluation</p> <p>0.4 Training on using Global Forest Watch platform for monitoring forest loss and fire,</p> <p>0.5 Monthly patrols by youths and local patrollers</p> <p>0.6 Project monthly calls</p> <p>0.7 Project quarterly meetings</p> <p>0.8 Project reporting and communications</p>			



- 1.1 Launch the project at the villages through community meetings, focus groups and one-to-one discussions (August-October 2021),
  - 1.2 Collect annual data on agricultural practices adopted by communities at each village (November – March annually),
  - 1.3 Recruit and train focal points at the target villages (October – November 2021, then monthly training/meeting),
  - 1.4 Provide initial training for all youths interested in participating in the project (November – December 2021),
  - 1.5 Register youths who will continue to participate in the project (January – March 2022),
  - 1.6 Locate and assess characteristics of youths' fields (April – June 2022),
  - 1.7 Develop a production plan for youths' fields (July – September 2022),
  - 1.8 Provide material support, training and mentoring for youths to implement the agreed production plan (from October 2022),
  - 1.9 Monitor yields of youths and other community members (from January 2023)
- 2.1 Literature review, community interview, field surveys and market study to identify the candidate aromatic and medicinal plant species that should be considered in this project (August – December 2021),
  - 2.2 Assess feasibility of growing the targeted species in the fields and at the nurseries (November 2021 – October 2022),
  - 2.3 Assess availability of each product in the fields and in the wild annually from 2022
  - 2.4 Train youths to handle the products (April – December 2022),
  - 2.5 Assess fair price for the products and develop a sustainable harvesting model (from May 2022 – March 2023).
- 3.1 Train youth team members on entrepreneurship, cooperative management and marketing (January-March 2023)
  - 3.2 Accompany the youths to establish and register the cooperative (April-June 2023)
  - 3.3 Accompany youth cooperatives to develop simplified business plan (July-September 2023)
  - 3.4 Monitor youth cooperative's management and function (quarterly from October 2023)
- 4.1 Identify potential partner enterprises indicating their needs, the pros, and cons of collaborating with them (January-March 2022)
  - 4.2 Help youth prospect markets and facilitate negotiation with five enterprises to explore collaboration with them in 2023 (October-December 2022).
  - 4.3 Develop and sign contracts between youth cooperatives and three private enterprises including reference to biodiversity stewardship commitments (June-December 2023)
  - 4.4 Develop action plan to implement the contracts (January-June 2024)
- 5.1 Train youth team members on communication, leadership, social skills, and awareness techniques (annually from 2022),
  - 5.2 Monitor and attend awareness campaigns by youth teams in their villages on sustainable farming, cooperatives. and biodiversity stewardship (monthly from 2023),
  - 5.3 Annually review the list of the cooperative members
  - 5.4 Support youth teams to develop and start implementing a youth-led biodiversity conservation and restoration plan in each village with all community members (March-June 2024),
  - 5.5 Assess communities' engagement to implement the conservation and restoration plan

## **Annex 3: Standard Indicators**

Our project was developed before the Standard Indicators were introduced. Therefore, we will review our indicators against the Standard Indicators and will report in the next period.

**Table 1 Project Standard Indicators**

DI Indicator number	Name of indicator using original wording	Name of Indicator after adjusting wording to align with DI Standard Indicators	Units	Disaggregation	Year 1 Total	Year 2 Total	Year 3 Total	Total to date	Total planned during the project
E.g. DI-A01	E.g. People who attended training on CBD Reporting Standards	E.g. Number of officials from national Department of Environment who attended training on CBD Reporting Standards	People	Men					
E.g. DI-C17	E.g. Articles published by members of the project team	E.g. Number of unique papers published in peer reviewed journals	Number	None					

**Table 2 Publications**

Title	Type (e.g. journals, manual, CDs)	Detail (authors, year)	Gender of Lead Author	Nationality of Lead Author	Publishers (name, city)	Available from (e.g. weblink or publisher if not available online)
Chester Zoo Expedition In Mangabe: Participation of the youth team Fandrefiala	Facebook	Voahirana Claudia RANDRIAMAMO NJY, 2023	Women	Malagasy	Voahirana Claudia RANDRIAMAMONJY, Moramanga, Madagascar	<a href="https://web.facebook.com/madagasikaravoakajy">https://web.facebook.com/madagasikaravoakajy</a> , posted on February 23, 2023
Promotion of Local Vegetable in Madagascar	Facebook	Biodiversity Challenge Fund				<a href="https://web.facebook.com/photo/?fbid=414006974236384&amp;set=a.239975054972911">https://web.facebook.com/photo/?fbid=414006974236384&amp;set=a.239975054972911</a> , posted on October 12, 2022
Happy International	Facebook	RANDRIAMAMO NJY Voahirana	Women	Malagasy	RANDRIAMAMONJY Voahirana, Madagascar	<a href="https://web.facebook.com/madagasikaravoakajy">https://web.facebook.com/madagasikaravoakajy</a> , posted on August 12, 2022

<b>Title</b>	<b>Type</b> (e.g. journals, manual, CDs)	<b>Detail</b> (authors, year)	<b>Gender of Lead Author</b>	<b>Nationality of Lead Author</b>	<b>Publishers</b> (name, city)	<b>Available from</b> (e.g. weblink or publisher if not available online)
Youth Day						
Training on fishfarming for the youth team in Ambodigavo	Facebook	Ministry Of Fishery and Blue Economy Madagascar		Malagasy		<a href="https://web.facebook.com/MPEBMADAGASCAR">https://web.facebook.com/MPEBMADAGASCAR</a> , posted on June 11, 2022
Youth: Future of Developpement	Facebook	RANDRIAMAMO NJY Voahirana	Women	Malagasy	RANDRIAMAMONJY Voahirana, Madagascar	<a href="https://web.facebook.com/madagasikaravoakajy">https://web.facebook.com/madagasikaravoakajy</a> , posted on June 16, 2022

