



Department  
for Environment  
Food & Rural Affairs



UK International  
Development

Partnership | Progress | Prosperity

## Darwin Initiative Main: Annual Report

To be completed with reference to the "Project Reporting Information Note":  
(<https://www.darwininitiative.org.uk/resources/information-notes/>)

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

**Submission Deadline: 30<sup>th</sup> April 2024**

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

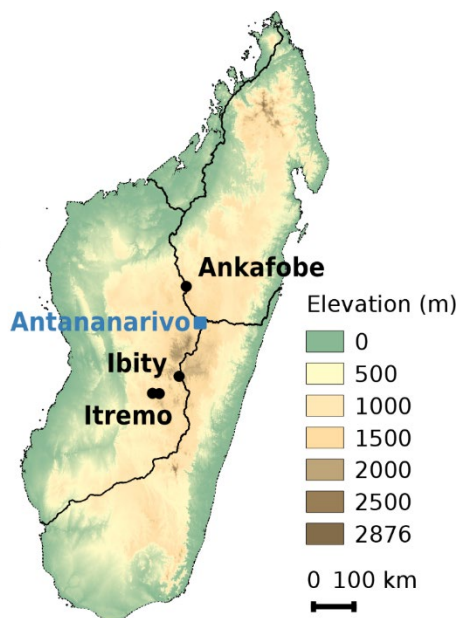
### Darwin Initiative Project Information

Project reference	28-012
Project title	Native grass forage management to feed people and protect forests  Alternative titles: Harena Voajanahary sy Kijana Mamokatra; Darwin Initiative - Productive Pasture Partnership (DI-PPP)
Country/ies	Madagascar
Lead Partner	Royal Botanic Gardens, Kew (Kew or within Madagascar Kew Madagascar Conservation Centre, KMCC)
Project partner(s)	[REDACTED]
Darwin Initiative grant value	£454,221
Start/end dates of project	1 November 2021 - 31 October 2024
Reporting period (e.g. Apr 2023 – Mar 2024) and number (e.g. Annual Report 1, 2, 3)	April 2023 – March 2024 Annual Report 3
Project Leader name	Maria Vorontsova & Mamy Tiana Rajaonah
Project website/blog/social media	Project Facebook page <a href="https://www.facebook.com/KMCCMBG">https://www.facebook.com/KMCCMBG</a>  Twitter @vorontsovams; photos at <a href="https://www.flickr.com/photos/36803481@N06/">https://www.flickr.com/photos/36803481@N06/</a> ; videos at <a href="https://www.youtube.com/channel/UCF-IArgzK3zMvdG0fCe7hw">https://www.youtube.com/channel/UCF-IArgzK3zMvdG0fCe7hw</a>
Report author(s) and date	[REDACTED]

## 1. Project summary

We bring a modern approach to address a gap in Madagascar's environmental governance. Grasses and grasslands are neglected through the assumption they are of little value compared to forests. Fires are a long-term problem Madagascar does not have the expertise to manage. We aim to boost the wealth of 90 households and their village communities by integrating botanical knowledge, grassland ecology, agricultural science and fire management expertise to trial management methods which will support key forage grasses (output 1), improve livestock nutrition (output 2), and reduce forest fires (output 3).

Six more months of funding now remain on this project which will end in October 2024, so much of this report is centred around legacy planning and project closure planning. During the past year a significant proportion of staff time had been invested into two funding bids: a Darwin main grant application which was unsuccessful, and an application to the new DEFRA funded GCBC scheme. The new GCBC project was launched in March 2024 (<https://www.youtube.com/watch?v=NB3CeubKZZQ>).



**Figure 1.** Map of the 3 project sites in Madagascar, by Sarah Z. Ficinski. Kew and MBG head offices are located in Antananarivo. Two parts of the Itremo PA are shown; the project is located in West Itremo. For detailed maps of activities at each site see Annual Report 1.

## 2. Project stakeholders/ partners

DEFRA Darwin colleagues with the UK embassy in Antananarivo visited the Ibity project site in July 2023. At the beginning of September 2023, the Director of Protected Areas and Renewable Resources at Madagascar's Ministry of the Environment (DAPRNE MEDD) visited the project's activities at Itremo and showed great interest in the research being carried out as part of the project. He recommended sharing the results of the project with Madagascar's protected areas.

In October 2023 and March 2024, the project was also visited by the Ministry of Agriculture and Livestock via the Direction d'Appui à la Production Animale (DAPA MINAE) (mission orders available). They expressed their satisfaction with the project, seeing the infrastructure put in place with the animals and the experimental pastures, which are the first project in Madagascar to have carried out such activities. They are enthusiastic about the idea of collaboration and technical support, particularly for the development of a guide to sustainable pasture management in Madagascar.

Beyond the partnerships previously documented, visits were made to the FOFIFA Kianjasoa Fodder Crops and Livestock Research Centre, FIFAMANOR Antsirabe, and Tombontsoa University (specialising in forage crops and dairy cows).

Connections were also deepened with the Malagasy projects Forest4Climate&People and <https://www.facebook.com/mirari.mg/>

### 3. Project progress

#### 3.1 Progress in carrying out project Activities

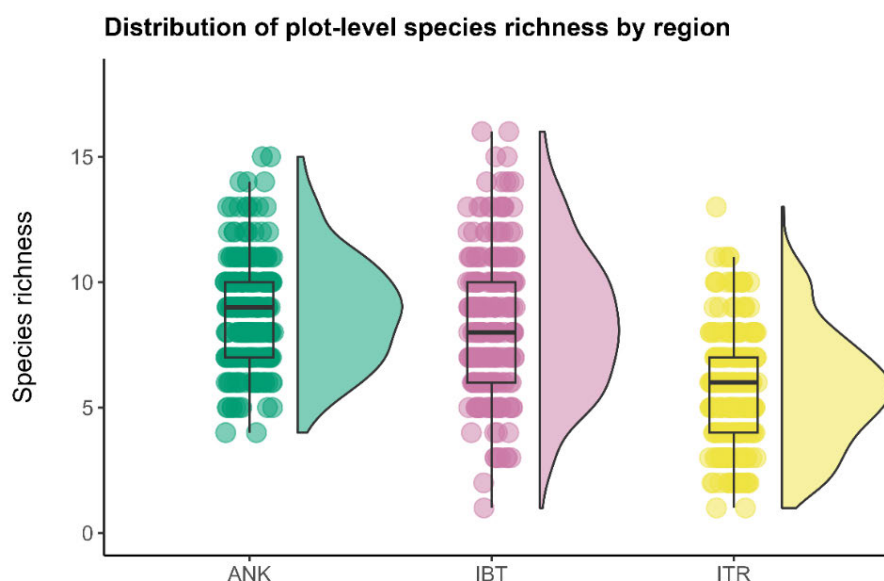
Grass and forb diversity and frequency surveys in project demonstration farm and communal pasture plots have been completed as planned (activity 1.4). Biomass production has been measured in pasture plots and grazing capacity calculated (also known as pasture productivity, activities 1.5, 1.6). Soil analysis (activity 1.7) is complete. Forage samples have been exported from Madagascar to South Africa twice (by Wayne Truter in 2023 and by Anya Courtenay in 2024) using exportation permits obtained (activity 1.9). Nutritional value has been measured for ten candidate native and endemic grasses using samples collected and exported to South Africa (activity 1.10), ready for the grazing value indices to be calculated. Specialist grass training for project households (activity 1.12) was delivered by Nanjarisoa in August and September 2023.

Sorghum Quarantine service inspection (activity 2.3): two field inspections of the new sorghum SS1000 were carried out this year with Service of Vegetable Quarantine (MINAE DPV) in June 2023 at Ibity to monitor any diseases carried by this sorghum. Seeds are apparently healthy. Following this inspection, the strict quarantine on this sorghum was lifted. The imported South African Sorghum cultivar seed (activity 2.4) has been grown in Ankafoabe, Ibity, and Itremo trial plots (activity 2.5). Activities 2.6-2.13 proceeded as planned. Wayne Truter (UP partner) delivered specialist fodder training to project households in Ankafoabe and Ibity during February 2024 (activity 2.14).

Firebreak creation and maintenance using physical clearing and hay making (activity 3.2) has been completed. Preventative burn training for the communities and Protected Area staff at the project sites (activity 3.3) was carried out in Madagascar (FIREWISE training attended by Mamy Tiana Rajaonah) and in South Africa at the Kruger National Park (attended by Tiana Randriamboavonjy). Fire prevention using preventative burns in early dry season was carried out in Ibity and Itremo (activity 3.4). Forest edge data is recorded by monthly patrols at set photo points (activity 3.5). Exchange of experiences and training in community and focus groups (activity 3.6) is ongoing as part of the protected area management mechanism, while co-writing and consultation to finalise Fire Management Plans to add to Protected Area Management Plans (activity 3.8) is carried out by the FMH project.

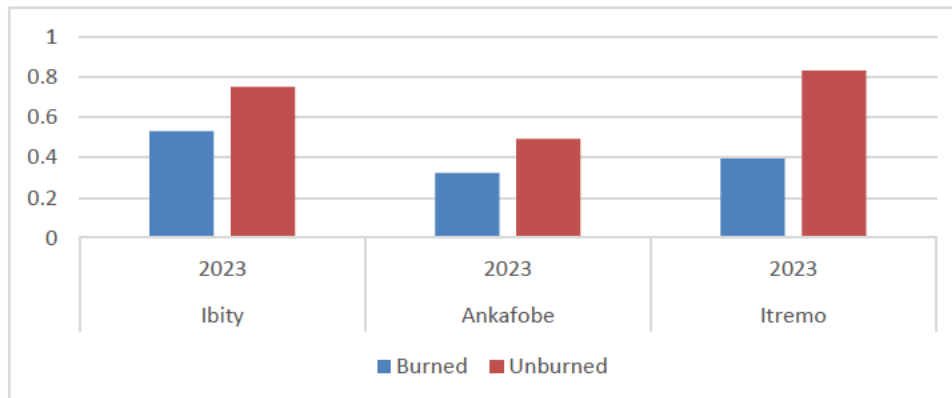
#### 3.2 Progress towards project Outputs

Thirty families comprising 155 species (130 species with generic identity verified) of plants are now known from Ankafoabe, Ibity, and Itremo areas (mapped in Figure 1 with species richness in Figure 2). Across the 1260 one-meter circular plots, the average number species per plot appears to be five.



**Figure 2. Baseline diversity and frequency of native grasses and forbs.** Comparison of the overall floristic richness at the project sites, north to south: Ankafoabe, Ibity, Itremo. Figure by OP Nanjarisoa.

Poaceae (grasses) are unsurprisingly the most common, closely followed by the Asteraceae and then by the Fabaceae. Poaceae are represented by 128 species (34% endemic to Madagascar). Forty Poaceae species are utilised for pasture grazing. The species most grazed are *Loudetia simplex*, *Aristida rufescens*, *Hyparrhenia rufa*, *Schizachyrium sanguineum*, *Heteropogon contortus*, *Paspalum scrobiculatum*, *Imperata cylindrica*, *Panicum luridum*, *Trachypogon spicatus*, *Hyparrhenia newtonii* and *Sporobolus centrifugus*. Biomass production is shown in Figure 3. Pasture productivity has been assessed by calculating an average grazing capacity of 0.7 ha/zebu/year (area of pasture required to support one animal over 12 months); this appears to be consistent across the project sites despite significant variability in fire.

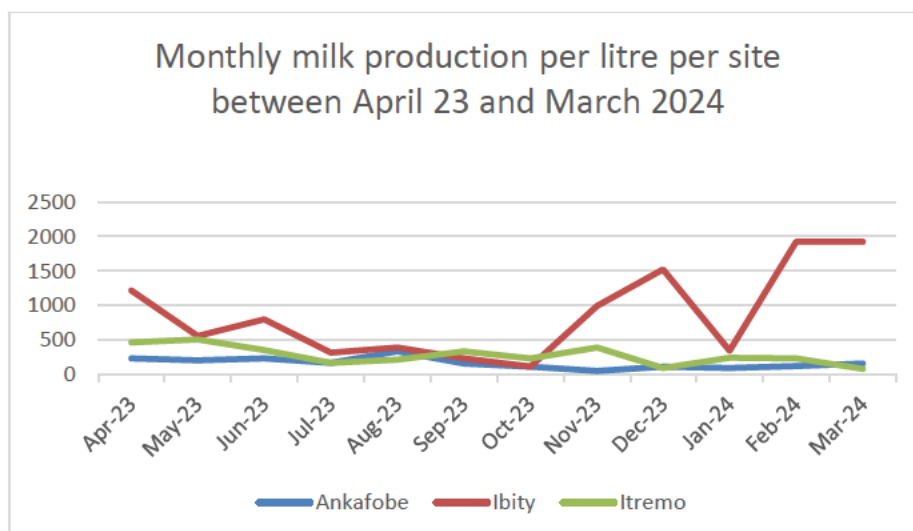


**Figure 3. Baseline biomass production.** An average biomass productivity of 0.5 tonnes per hectare has been calculated. In the absence of fire biomass accumulates. Figure by OP Nanjarisoa.

This year, the project grew 30kg of SS1000 sorghum at Itremo, 24.5kg at Ibity and 20kg at Ankafoabe. So far, these seeds have produced 2531kg of silage at Itremo, 730kg at Ibity and 500kg at Ankafoabe. There is still live sorghum in the fields.

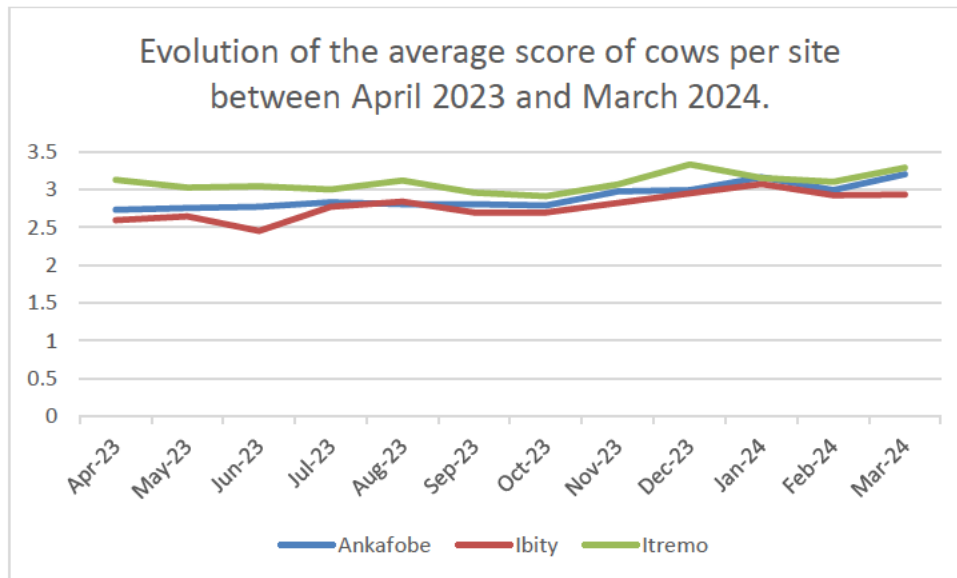
To raise beneficiaries' awareness of soil health and motivate them to produce more sorghum, the latter was also combined with different types of legumes such as groundnuts, beans, soya and fodder legumes supplied by FIFAMANOR Antsirabe. The project planted 30 kg of soya in Itremo, 20 kg of groundnuts and beans in Ibity and 15 kg of beans and soya in Ankafoabe. For the beneficiaries, this has enabled them to produce both food for themselves and residues for their cows, while moving away from the practice of monoculture.

**Milk production** per month per site for this year (Figure 4) varies between 1215l at Ibity and 45l at Ankafoabe, with an average per cow of 8.35l per month or 0.28l per day. This seems too low, as most of the beneficiaries at Itremo and Ankafoabe were more interested in getting lots of calves than milk.



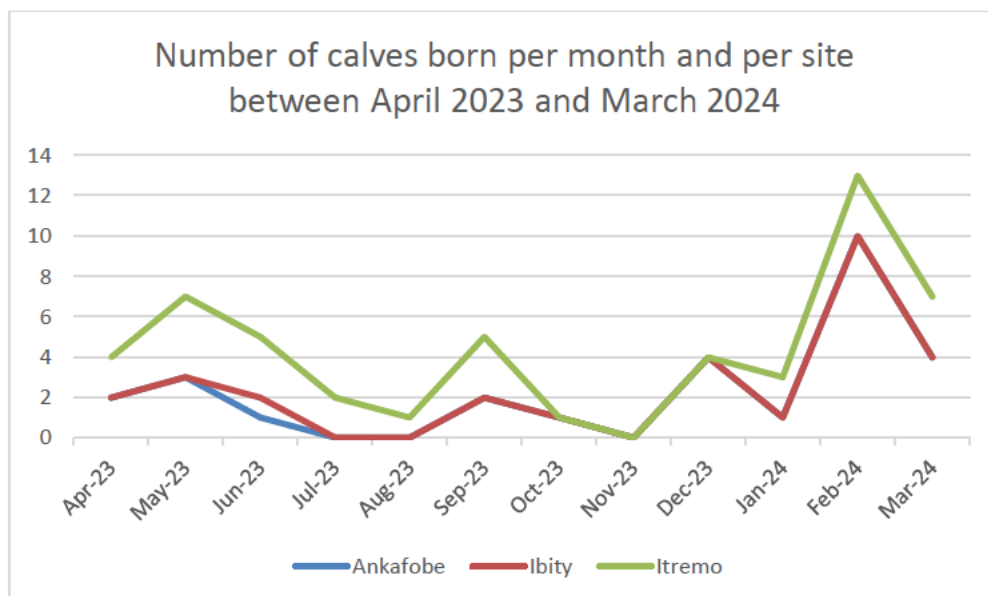
**Figure 4. Milk production timeline.** Figure by Livasoa Randriamanalina.

**Livestock body condition score** (Figure 5) shows that, on average, the cows of project beneficiaries are above the 2.5 score. There was just a slight drop between July and the end of September and then it picked up again. We can also see that Itremo's score is almost close to 3, which indicates good condition compared with the other sites.



**Figure 5. Cattle body condition score timeline.** Figure by Livaso Randriamanalina.

**Calving rate** (Figure 6) shows that Ankafoabe and Itremo cows multiply more than Ibity cows. This is because the Itremo and Ankafoabe beneficiaries do not want to keep the calf and cow together for too long. Just after weaning (usually 2 months), the mother is already preparing for the next cycle. And if, in this case, the feed is sufficient, the calving rate will automatically increase. During this year with the 156 cows, the calving rate recorded is 33.3%.

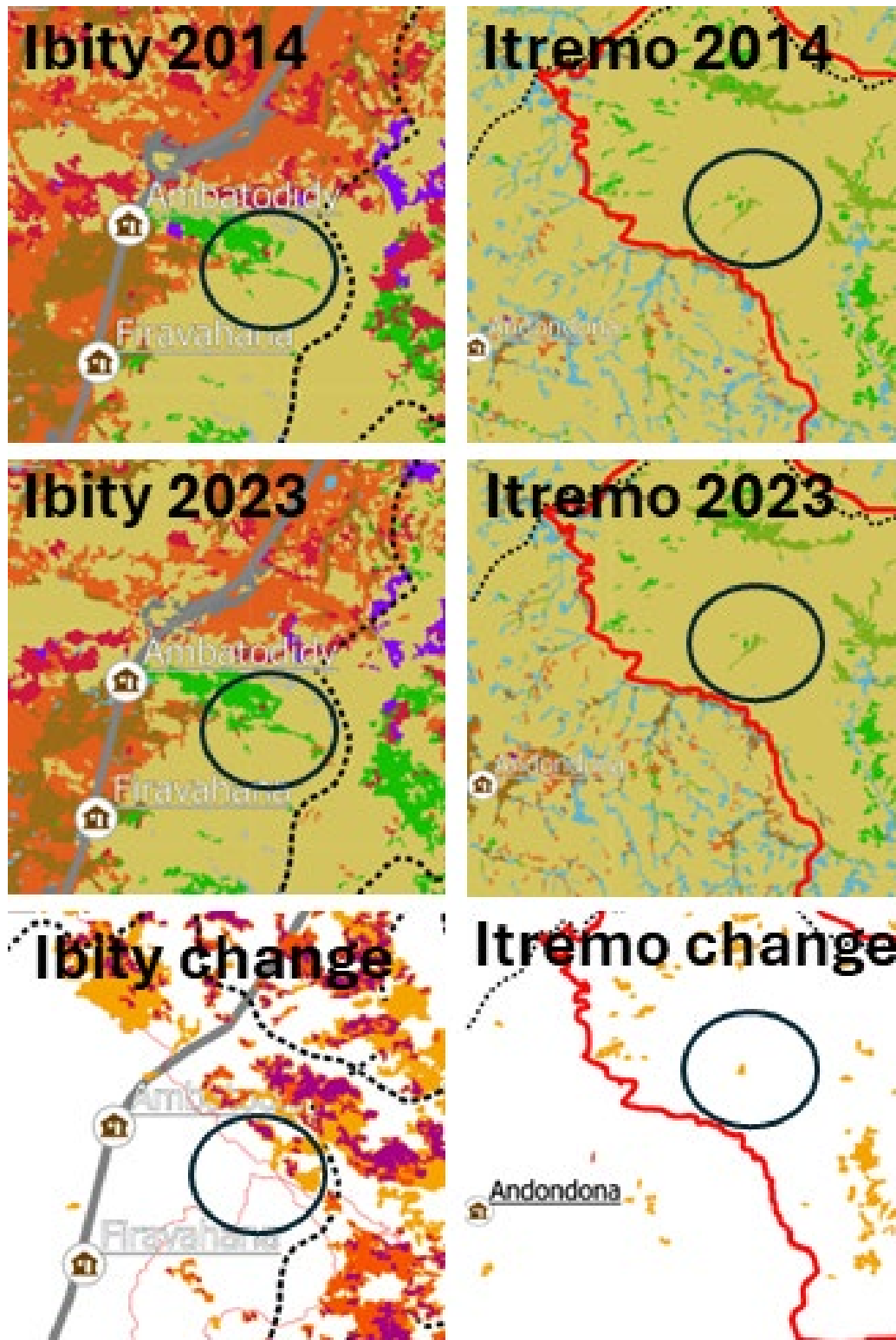


**Figure 6. Calving rate timeline.** Figure by Livaso Randriamanalina.

### 3.3 Progress towards the project Outcome

**Outcome statement:** *Improved grazing system management capacity among 90 pastoral farming households in Ankafoabe, Ibity and Itremo leading to healthier cattle, sustainable grassland exploitation, and reduced loss of grassland and forest biodiversity.*

Plant and animal diversity within 3 patches of forest within Ankafoabe, Ibity and Itremo Protected Areas are preserved at current levels through fires not increasing between January 2022 – January 2024 (Figure 7, Outcome indicator 0.5).

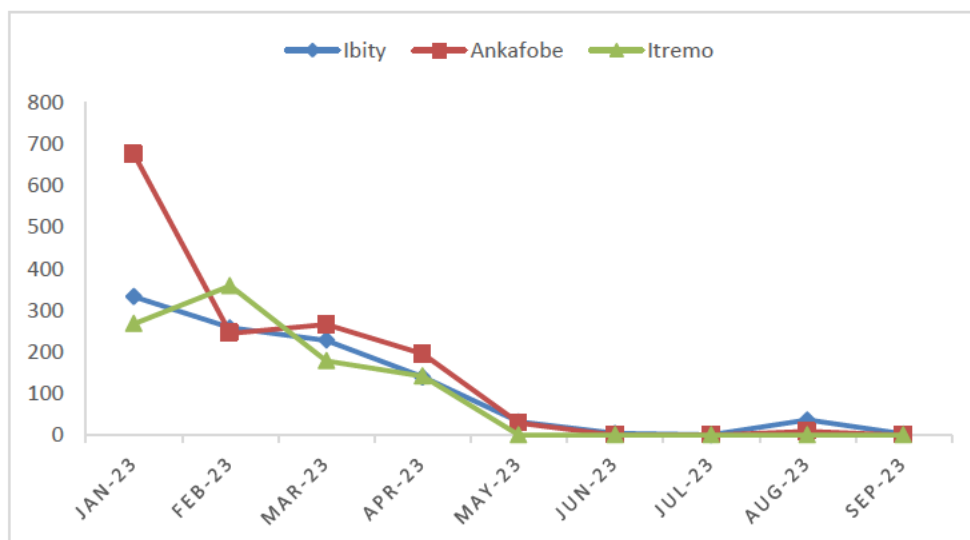


**Figure 7.** Ibity and Itremo gallery forest patches (centres of black circles) detected by satellites and analysed by [www.space-intelligence.com](http://www.space-intelligence.com). No meaningful change is seen in Ibity. The Ambazimbamena forest patch in Itremo (gallery forest in yellow-green) has not changed while areas of tapia and pine have reduced. Maps by Adam Devenish.

### 3.4 Monitoring of assumptions

Challenges have been encountered around the (output-level) assumption *Political situation stable with no significant civil unrest in Antananarivo or nearby*, as Madagascar held a presidential election on 16 November 2023. This is thought to have been connected to criminal activity around our project sites, and especially ongoing security concerns with travel to the Itremo site, livestock theft in Ankafoabe, and staff safety in the Itremo and Ankafoabe areas.

Madagascar is infamous for its variable rainfall as well as the associated debates around anthropogenic drivers versus climate change effects observed in the Anthropocene. It remains unclear whether the (output-level) assumption *Rainfall patterns remain within local average ranges* will have held true by project end. The 2023 wet season (Figure 8 below) brought usually big rains, but our data from October 2024 onwards have not been analysed. The 2022 rains prevented our team from reaching Itremo highlighting the systematic nature of missing data in these datasets: extreme events such as cyclone Batsirai in 2022 do stop even the most established data collection protocols.



**Figure 8. Precipitation timeline** from January to September 2023 (mid wet season to late dry season) for the 3 project sites, measured using the project rain gauges at the site offices, mm. Figure by Livasoia Randriamanalina.

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

For positive impact biodiversity see section 3.3, and for poverty see section 5.

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

No change.

## 5. Project support for multidimensional poverty reduction

Poverty of the beneficiary households has so far been reduced primarily through veterinary and agricultural support to our beneficiary farms. Direct support to the livestock was invariably cited by the beneficiaries first, closely followed by other agricultural knowledge benefits. Direct financial gains have also been reported as valued and especially “the per diem they received when participating in project meetings”.

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

Please quantify the proportion of women on the Project Board <sup>1</sup> .	50% of the members are female: 3 out of 6, including 2 out of 3 Malagasy board members
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>2</sup> .	60% of the partners are led by women: 3 out of 5, including 1 out of 2 Malagasy partners

GESI Scale	Description	Put X where you think your project is on the scale
<b>Not yet sensitive</b>	The GESI context may have been considered but the project isn't quite meeting the requirements of a 'sensitive' approach	
<b>Sensitive</b>	The GESI context has been considered and project activities take this into account in their design and implementation. The project addresses basic needs and vulnerabilities of women and marginalised groups and the project will not contribute to or create further inequalities.	
<b>Empowering</b>	The project has all the characteristics of a 'sensitive' approach whilst also increasing equal access to assets, resources and capabilities for women and marginalised groups	X
<b>Transformative</b>	The project has all the characteristics of an 'empowering' approach whilst also addressing unequal power relationships and seeking institutional and societal change	

According to the midline sociology report, three beneficiary farm households complained that there is discrimination in the distribution of the project benefits, with some households receiving more (e.g., job opportunities). Since our money and time are very limited it is difficult to understand this fully.

## 7. Monitoring and evaluation

Partners have undergone multiple management changes unrelated to this project which has unfortunately shifted some of the M&E burden to the core Madagascar-based staff. Staff time available has not been fully sufficient to deliver our complex and labour-intensive M&E plan, not helped by staff retention issues associated with project end.

## 8. Lessons learned

Three-year projects have an inherent challenge around staff job security.

<sup>1</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>2</sup> Partners that have a formal governance role in the project, and a formal relationship with the project that may involve staff costs and/or budget management responsibilities.



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

Project all staff meeting was held in Antsirabe in March 2024 and feedback on the year 2 report was openly discussed as below:

**Feedback 1:** *It seems that native forage grasses are perceived as less effective for grazing than fire grasses by local communities, which the project has not yet fully understood. It would be interesting to hear how the project plans to address this issue over the coming year.*

The project aims to understand how best to improve the quality of grasses and increase grass diversity through more effective fire and pastoral management. The ultimate aim of the project is to improve cattle productivity and farmers' local welfare. We kindly note that fire grasses (such as *Aristida* or "horona") are also composed of native grasses as the "native forage grasses" (such as *Cinadum*) mentioned by the reviewer. The project aims to improve the quality of both types of grasses.

Fire grasses are more widespread locally and often located at the slope and tops of hills and are perceived more positively than the "native forage grasses" located at lowlands which have been generally overgrazed and have less biomass. The project seeks to improve people's perceptions of both types of grasses through better fire and pastoral management. We have been doing lots of experiments to test the levels and types of fire and pastoral management that would lead to the best quality grasses, and farmers have been witnessing these experiments. We plan to hold a series of community meetings every six months until the project ends to share the results of these experiments more widely and also improve community's knowledge and perceptions of these native forage grasses.

**Feedback 2:** *The project comments on potential conflict between native pasture improvement and tree planting programmes (which the project clarifies as pine or eucalyptus plantations); but it is not clear what specific tree planting threats might relate to the project areas.*

Pinus tree planting is the most problematic in the project areas. This is because of the high acidity of their cones and litters that are not favourable to the native grass growth. Pinus trees tend to also propagate very easily and quickly and enter into spatial competition with other ecosystems such as the native grasses. Eucalyptus tree planting is not really in conflict with native pasture improvement. It is just important that fires on the eucalyptus plantations to increase regrowth are carefully managed so they don't negatively affect native forage grasses. The new GCBC project aims to identify spatially where best to plant trees, to conserve grasslands and to plant crops in partnership with local communities.

**Feedback 3:** *The loss of 35 ha Ankafobe forest was very disappointing for all concerned. The project recognizes that it needs a deeper understanding of how the fire was able to reach the forest and what can be done in the future to protect the remaining forest fragments. It is not clear whether the lemurs (and other animals?) can survive in the small forest fragment which acted as an immediate refuge. The project also indicates that it helped save the unique biodiversity in the Ankafobe northern forest fragment devastated by fire, but how this has been achieved is not clearly explained in the report and could be elaborated in the next report.*

Lemurs are reported to be alive and well in the forest. The fire reached the forest because of the strong wind coming from the south and then jumped the firewall. The fire penetrated through two parts of the firebreak. And because of the strong wind, firefighting was complicated.

The project aims to positively impact biodiversity conservation mostly through the development of more effective and "responsive" fire management strategies leading to the preservation of plant and animal diversity that benefit both biodiversity conservation and cattle farming. We have specifically worked with communities, ministry (MEDD), local authorities to co-elaborate and maintain fire management strategies (draft available).

**Feedback 4:** *The project discusses community trust and engagement (noting that some households have withdrawn or showed less motivation); rainfall patterns have varied; and the project remains vulnerable to variation in the future; the project needs to monitor a new invasive grass weed and comments on Madagascar's fire politics.*

The reasons why some households have withdrawn are more personal and not specifically related to lack of trust or motivations. These challenges (variable rainfall patterns, invasive weed, lack of political

will on fire management) are not unexpected and we are working hard towards adapting to these issues while ensuring we achieve our project aims (e.g. by encouraging open and honest discussions with farmers on the need to adapt their cultural calendars to the changing climate, our close monitoring of the invasive weed, and active engagement with government authorities on the establishment of more effective fire management plans.

**Feedback 5:** *Does the project have any plans to promote the restoration of the forest area that was destroyed, perhaps through accelerated natural regeneration, using tree species formerly present in the area?*

Yes, the project aims to promote forest restoration through the encouragement of natural regeneration (commonly through fencing and loose monitoring). While this is not included in our project activities, our three project partners are managing three protected areas across the island, and they are also actively engaging in active restoration, as part of their activities in managing the protected areas.

**Feedback 6:** *The project reports direct and significant livelihood improvements for the 90 project households which it is working with, but also reported that four Ankafobe households withdrew and ten Itremo households were less motivated and lacked time to participate in project work. Please clarify.*

The four households in Ankafobe had to withdraw involuntarily because their cattle was stolen by armed bandits (dahalo) and they could no longer meet the criteria for project beneficiary and also they willingly opted to benefit from the project activities but were perhaps expecting more direct benefits such as cash or per diem that they usually get from other projects. The lack of time and motivations cited by the ten households in Itremo were that these beneficiaries also have other important activities in the area, such as mayor, head of the Fokontany and head of the arrondissement delegates, but after explaining the aim of the project to them, they fit in well with the project for the time being.

**Feedback 7:** *The project has already revised its logframe, having found after the first year that completion of the project in full was beyond its capacity. It seems that the project may again need to revisit the logframe, to simplify some indicators, but this is something that should be discussed with BCFs Admin.*

Together with the 6-monthly report submitted in the autumn we also submitted a revised logframe now utilised in this report. A financial change request was also made, approved, and implemented.

**Feedback 8:** *The project now has draft consent forms for photography and videos of adults and children, and a draft incident reporting and communication form. The reviewer urges the project to finalise and utilise these as soon as possible.*

These comments are noted, we have finalized these forms. We'd just like to say that it's sometimes complicated to ask for people's consent for photographs and videos, and indeed some people refuse. But we have tried to use this consent letter for those who have accepted it.

## **10. Risk Management**

The greatest new risk we have encountered this year is the very real possibility of losing our project staff as a direct result of their employment contract termination on 3 October 2024.

## **10. Sustainability and legacy**

The new book (sample page in Figure 9) will be available online free of charge. It will be printed in the UK with copies to be carried out to Madagascar in February 2025.

# Photographic field guide to the common grasses of Madagascar

Rafael Felipe de Almeida<sup>1</sup>, Nantenaina Rakotomalala<sup>2</sup>, Fenitra Randrianarimanana<sup>2</sup>, David Rabehevitra<sup>2</sup>, François Rousseu<sup>3</sup> & Maria S. Vorontsova<sup>1</sup>

## Introduction

Malagasy grassy ecosystems are finally receiving dedicated research attention to better understand their origins, diversity, and current distribution. They currently cover ca. 65% of the country, comprising 146 genera and ca. 590 species, of which ca. 220 are endemic to this island (Figs 1-2). A Kew-led international research program has focused on Malagasy grasses and grasslands since 2011, producing a range of outputs which include the first photographic field guide to common grasses. Grass field photography is challenging due to the reduced size of their reproductive organs, making it difficult for non-specialists to intuitively compare photographs to traditional line drawings of spikelet dissections. We surveyed the availability of photographs, carried out specialist photography training, and photographed species in the wild.



Fig. 1. Andringitra high elevation grassy ecosystem (Photograph by L. MacKinnon).

## Results & Discussion

Photographs were taken on field trips from 2011 to the present, ethnobotanical data were collected via smallholder interviews in three study sites (Ambohidray, Ankaratra, and Itremo Protected Areas) in 2022, and morphological traits, distribution, ecology and economic uses of species were retrieved from project datasets, GrassBase and unpublished data from partner organisations. Field photographs are being edited using Photoshop software, focusing on morphological details such as habit, leaves, spikelets, and caryopses as a rich visual resource for the Malagasy public as well as botanists (Fig. 3).



Fig. 2. West Itremo savanna (Photographs by M.S Vorontsova).

Torolalana momba ny bozaka amani'ahitra eto Madagasikara - Fieldguide of Common Grasses of Madagascar — 55

**Anthoxanthum odoratum**  
Bozaka

Vetrina mandavan-taona, caespitose, faka lavilala, taho mngoro	Perennial, caespitose, rhizomes elongated, culms erect
18-30 x 0.04-0.10 cm, mamofona	18-30 x 0.04-0.10 cm, aromatic
Katsaaka, mitambokona, 4-11 sm halava	Panicle, contracted, 4-11 cm long
Spikelets mitakana, voa may taho tonaka	Spikelets solitary, fertile spikelets pedicelled
Tropika, afovoan-tany Madagasikara	Tropics, highlands in Madagascar
Toerana voakotaba, kijana, saha	pioneer disturbed areas, pastures, and fields
try firaoka	no association with grazing lawns
try miteraka alo	no association with fire
Anthoxanthum odoratum mitovy amin'ny Anthoxanthum madagascariense	Anthoxanthum odoratum is similar to Anthoxanthum madagascariense
try fantatra	none known
Olana eo amin'ny fambolena sy fiompiana	problematic weed of agriculture

Fig. 3. Template page for the photographic field guide to common grasses of Madagascar: the scientific name is followed by the common name in Malagasy; left column contains 11 fields in Malagasy; right column comprises the same 11 fields written in English; fields from top to bottom: 1. Habit, 2. Leaves, 3. Inflorescences, 4. Spikelets, 5. Distribution, 6. Ecology, 7. Grazing, 8. Fire, 9. Similar species, 10. Uses, 11. Agricultural relevance.

This field guide will create a foundational resource for the identification, management and uses of common grasses of this country, since native and endemic forages are still not well known or valued by Malagasy professionals. A bilingual book (English/Malagasy) is due to be printed in 2024 comprising 127 genera and 300 species of common and economically important grass species in Madagascar (Fig. 3). Copies will be made available free of charge to Malagasy organisations while the electronic version will be made freely available online.

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**Figure 9.** Poster about the new book presented State of the World's Plants and Fungi Symposium October 2023. Figure by Rafael Almeida.

## 11. Darwin Initiative identity

The project Facebook page remains popular and active with 913 followers on 25 April 2024, 44% of these male, majority aged 25-34. 870 of these are based in Madagascar with 627 in Antananarivo. The Twitter communications to the international community continue to be posted to 1,667 followers by @vorontsovams, usually with the project hashtag #kijanamaharitra. Links to Biodiversity Challenge Funds have been made on both Facebook and Twitter. A second batch of project t-shirts were printed and additional distribution completed.

## 12. Safeguarding

Has your Safeguarding Policy been updated in the past 12 months?	No
Have any concerns been reported in the past 12 months	Yes
Does your project have a Safeguarding focal point?	Yes Ando ██████████ ██████████
Has the focal point attended any formal training in the last 12 months?	Yes On the job instruction by the Kew Head of Safeguarding, Ella ██████████, during February 2024
What proportion (and number) of project staff have received formal training on Safeguarding?	Past: 60% [14/23 people] Planned: 9% [2/23 people]
Has there been any lessons learnt or challenges on Safeguarding in the past 12 months? Please ensure no sensitive data is included within responses.	No relevant events have taken place.
Does the project have any developments or activities planned around Safeguarding in the coming 12 months? If so please specify.	Training specifically on Protection from <i>Sexual Exploitation, Abuse and Harassment</i> (PSEH) will be delivered to six staff members in Itremo during April – June 2024: Mamy Tiana Rajaonah, Livasoia Randriamanalina, Nanjarisoa Olinirina Prisca, Lucien Rakotonirina, Mampiharitra Rabendrina, and Romain Benjamina.
Please describe any community sensitisation that has taken place over the past 12 months; include topics covered and number of participants.	There is not yet community sensitisation on Safeguarding.
Have there been any concerns around Health, Safety and Security of your project over the past year? If yes, please outline how this was resolved.	Numerous reports of criminal activity have repeatedly stopped travel to and from the Itremo project site. Every time a resurgence was reported security meetings were held until Kew authorised travel to resume.

### 13. Project expenditure

All figures below are in draft form pending the completion of the formal budget process. Our recent financial change request was approved and the corrected figures are presented below.

**Table 1: Project expenditure during the reporting period (1 April 2023 – 31 March 2024)**

Project spend (indicative) since last Annual Report	2023/24 Grant (£)	2023/24 Total Darwin Costs (£)	Variance %	Comments (please explain significant variances)
Staff costs (see below)				N/A
Consultancy costs				N/A
Overhead Costs				N/A
Travel and subsistence (see below)				N/A
International travel responsible for highest variance				UP partner costs unconfirmed
Operating Costs (see below)				N/A
Barn construction costs responsible for highest variance				Building costs covered by the FMH project
Capital items				N/A
Others (see below)				Fire protection equipment purchased by FMH project
Fire protection equipment responsible for highest variance				Fire protection equipment purchased by FMH project
<b>TOTAL</b>	<b>118973</b>	<b>115237</b>		

**Table 2: Project mobilised or matched funding during the reporting period (1 April 2023 – 31 March 2024)**

	Secured to date	Expected by end of project (not including previous column)	Sources
Matched funding leveraged by the partners to deliver the project (£)			Private donors
Total additional finance mobilised for new activities occurring outside of the project, building on evidence, best practices and the project (£)			Global Centre on Biodiversity for Climate (GCBC) and NERC

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

None; nothing for question 12.

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

Project summary	Progress and Achievements April 2023 - March 2024	Actions required/planned for next period
<p><b>Impact</b></p> <p><b>Conservation of biodiversity and improved welfare of communities in the Central Highlands of Madagascar through optimal grazing of cattle and management of grasslands</b></p>	<p>See 3.2, 3.3, and the midline sociology report</p>	<p></p>
<p><b>Outcome</b></p> <p><b>Improved grazing system management capacity among 90 pastoral farming households in Ankafobe, Ibity and Itremo leading to healthier cattle, sustainable grassland exploitation, and reduced loss of grassland and forest biodiversity</b></p>		
<p>Outcome indicator 0.1 <i>Global Person Generated Index</i> data and Likert scale questionnaire surveys show a positive cause and effect relationship between the project interventions and <b>perceived wealth and well-being</b> among the 90 project household members in September 2024</p>	<p>Midline sociology assessment attached</p>	<p>Endline sociology assessment and analysis planned</p>
<p>Outcome indicator 0.2 Five key native forage grasses (chosen from <i>Aristida rufescens</i>, <i>Aristida tenuissima</i>, <i>Brachiaria subrostrata</i>, <i>Cynodon dactylon</i>, <i>Cyrtococcum deltoideum</i>, <i>Digitaria longiflora</i>, <i>Eragrostis lateritica</i>, <i>Panicum luridum</i>, <i>Panicum umbellatum</i>, <i>Paspalum scrobiculatum</i>) and five native forbs increase in frequency in 30 project demonstration farm and communal pasture plots in Ankafobe, Ibity and Itremo by 20% from measured baseline in February 2022 to February 2024</p>	<p>Data have been collected but not fully analysed</p>	<p>Analysis to be completed</p>
<p>Outcome indicator 0.3 Average cattle condition in 90 – 400 cattle owned by 90 project households in Ankafobe, Ibity and Itremo improved from the estimated baseline condition score of 2 – 2.5 units to condition score of 3 – 3.5 units between December 2021 and September 2024</p>	<p>Reporting year timeline in section 3.2</p>	<p>Analysis to be completed</p>
<p>Outcome indicator 0.4 Milk production in 30 – 150 milk cows owned by 90 project households in Ankafobe, Ibity and Itremo improved from the estimated baseline of 3 – 4 litres per day per cow to 4.5 – 5 litres per day per cow between December 2021 and September 2024</p>	<p>Reporting year timeline in section 3.2</p>	<p>Analysis to be completed</p>

Outcome indicator 0.5 <b>Plant and animal diversity within 3 patches of forest</b> within Ankafobe, Ibity and Itremo Protected Areas preserved at current levels through fires not increasing between January 2022 – January 2024	Successful within reporting year	close collaboration with <i>Fitantanana Maharitra Holovainjafy</i> (FMH)
Outcome indicator 0.6 <b>Post project annual calving rate</b> reaches 70% in the cattle owned by the 90 project households in Ankafobe, Ibity and Itremo, improved from the estimated baseline annual calving rate of 40%, between September 2024 and September 2039	Post-project	Post-project
<b>Output 1</b> Improved preservation, understanding and more efficient exploitation of native and endemic forage grasses and forbs, in native grasslands near villages		
Output indicator 1.1 <b>Native grass and forb diversity increase</b> from an estimated baseline of 4 – 5 species to 6 – 7 species per 50 × 50m plot in 30 plots in project demonstration farms and communal pastures in Ankafobe, Ibity and Itremo between February 2022 to February 2024	Data have been collected but not fully analysed	Analysis to be completed
Output indicator 1.2. Five native key forage grasses and five native forbs <b>increase in frequency</b> in 30 project demonstration farm and communal pasture grazing plots in Ankafobe, Ibity and Itremo by 20% from measured baseline in February 2022 to February 2024	Data have been collected but not fully analysed	Analysis to be completed
Output indicator 1.3. Grazing value indices measured for ten key native and endemic grazing grass species candidates ( <i>Aristida rufescens</i> , <i>Aristida tenuissima</i> , <i>Brachiaria subrostrata</i> , <i>Cynodon dactylon</i> , <i>Cyrtococcum deltoideum</i> , <i>Digitaria longiflora</i> , <i>Eragrostis lateritica</i> , <i>Panicum luridum</i> , <i>Panicum umbellatum</i> , <i>Paspalum scrobiculatum</i> ) using Truter standard methodology by October 2022	Nutritional analysis completed by partners UP in South Africa	Completed
Output indicator 1.4 Key native grazing grass <b>book</b> (in English and Malagasy), <b>poster</b> (in Malagasy), and a community-led short film (in Malagasy) produced by April 2024 in draft form, and July 2024 in final form, guided by Vorontsova and Truter.	Full first draft of the bilingual book completed and being reviewed. Film completed.	Poster design, printing, dissemination. Film to be publicized with project closure.
Output indicator 1.5 <b>Grass training</b> in years 2 and 3 for 90 project household members	Completed in Ibity in August 2023; Ankafobe and Itremo in September 2023	Completed
<b>Output 2.</b> Fodder flow supplemented by crop residue preservation and exploitation of new forage crop		

Output indicator 2.1. <b>Sorghum fodder crop plants</b> established on three 1-hectare demonstration farm plots between August 2023 and May 2024	Completed	Completed
Output indicator 2.2. <b>Dry matter Sorghum harvest</b> production established on three 1-hectare demonstration farm plots to produce yield above an estimated natural grassland baseline of 4 tonnes of dry matter per hectare, achieving 6 tonnes of dry matter per hectare between April 2023 and April 2024	Completed	Completed
Output indicator 2.3 <b>Fodder bank</b> created by project households including hay and silage improved from an estimated baseline of 1 – 2 tonnes of dry matter per hectare to an estimated 4 tonnes of dry matter per hectare between April 2022 and April 2024	Completed	Completed
Output indicator 2.4 <b>Fodder training</b> in years 2 and 3 and <b>veterinary training</b> in year 2 for 90 project household members	Completed in Ibity in August 2023; Ankafobe and Itremo in September 2023	Completed
<b>Output 3.</b> Custom site-based fire management strategies conceived participatively and implemented to prevent late dry season forest fires		
Output indicator 3.1 Burned area within 3 patches of forest within Ankafobe, Ibity and Itremo Protected Areas not increased from the baseline measured for January 2022 to January 2023 and 2024	No increase in burned area during reporting period	Monitoring
Output indicator 3.2 Firebreaks created and maintained for 3 patches of forest using manual clearing and hay making at a minimum of 5m wide with vegetation kept under 15cm tall, within project dry season months May – November during 2022 – 2024	Completed through physical clearing and maintenance which is ongoing; hay making proved impractical far away from villages.	Maintenance
Output indicator 3.3 <b>Fire Management Plans</b> co-created with communities driven by the PA managers, with a focus around establishing safe burn days and times, weather adaptation and no-fire zones. Plans added to the Protected Area management plans by June 2024 in draft form and by September 2024 in the final form, guided by Lehmann	Drafts completed for Ibity and Itremo	Draft to be completed for Ankafobe
Output indicator 3.4 Fire training in years 2 and 3 for 90 project household members	Completed in Ibity in August 2023; Ankafobe and Itremo in September 2023	<b>Completed</b>



## 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
<b>Impact:</b> <b>Conservation of biodiversity and improved welfare of communities in the Central Highlands of Madagascar through optimal grazing of cattle and management of grasslands</b>			
<b>Outcome: Improved grazing system management capacity among 90 pastoral farming households in Ankafobe, Ibity and Itremo leading to healthier cattle, sustainable grassland exploitation, and reduced loss of grassland and forest biodiversity</b>	<p>0.1 <i>Global Person Generated Index</i> data and Likert scale questionnaire surveys show a positive cause and effect relationship between the project interventions and <b>perceived wealth and well-being</b> among the 90 project household members in September 2024</p> <p>0.2 Five <b>key native forage grasses</b> (chosen from <i>Aristida rufescens</i>, <i>Aristida tenuissima</i>, <i>Brachiaria subrostrata</i>, <i>Cynodon dactylon</i>, <i>Cyrtococcum deltoideum</i>, <i>Digitaria longiflora</i>, <i>Eragrostis lateritica</i>, <i>Panicum luridum</i>, <i>Panicum umbellatum</i>, <i>Paspalum scrobiculatum</i>) and five native forbs increase in frequency in 30 project demonstration farm and communal pasture plots in Ankafobe, Ibity and Itremo by 20% from measured baseline in February 2022 to February 2024</p> <p>0.3 <b>Average cattle condition</b> in 90 – 400 cattle owned by 90 project households in Ankafobe, Ibity and Itremo improved from the estimated baseline condition score of 2 – 2.5 units to condition score of 3 – 3.5 units between December 2021 and September 2024</p>	<p>0.1 Copies of gender disaggregated social survey results</p> <p>0.2 Grass and forb species frequency records in 50 × 50m standard grassland plot spreadsheets made by the grass and forb botanist using the grassland monitoring method already established for ecological research</p> <p>0.3 Cattle body condition photographs for each animal taken quarterly by community technicians for cattle using smartphones, animal rear and side</p> <p>0.4 Measurements of milk production in 30 – 150 project milk cows made by community project technicians for cattle weekly and recorded in project spreadsheets</p> <p>0.5 Photographs of forest edges made by monthly Protected Area fire patrols May - December, photographs at set photo points spaced 50 – 200 m apart in each Protected Area</p> <p>Calving date records for 60 – 300 project cows</p>	<p>Political situation stable with no significant civil unrest in Antananarivo or nearby (risk mitigated by our close links with the British Embassy in Antananarivo and multiple long-term trusted local contacts at the sites so we are kept aware of any changes and receive timely advice)</p> <p>Cattle remain central to rice production and income from meat and milk, no successful simultaneous technological improvements introduced (risk mitigated by advice obtained from the Agriculture Ministry and their involvement throughout the project)</p> <p>Cattle rustling is low and does not affect more than 10% of participating households (risk mitigated by animators living at or near the demonstration farms, and employing community members as technicians and fire patrol members, to monitor the security situation and discourage theft)</p> <p>Improved cattle productivity may lead to overgrazing (risk mitigated by close monitoring of the rangeland plots throughout project)</p> <p>Coronavirus situation permits travel at least within central Madagascar for the project duration (risk mitigated by project founded in local communities)</p>

	<p>0.4 <b>Milk production</b> in 30 – 150 milk cows owned by 90 project households in Ankafobe, Ibity and Itremo improved from the estimated baseline of 3 – 4 litres per day per cow to 4.5 – 5 litres per day per cow between December 2021 and September 2024</p> <p>0.5 <b>Plant and animal diversity within 3 patches of forest</b> within Ankafobe, Ibity and Itremo Protected Areas preserved at current levels through fires not increasing between January 2022 – January 2024</p> <p>0.6 <b>Post project annual calving rate</b> reaches 70% in the cattle owned by the 90 project households in Ankafobe, Ibity and Itremo, improved from the estimated baseline annual calving rate of 40%, between September 2024 and September 2039</p>		<p>with less reliance on central and foreign staff; budget for faster internet subscriptions to improve online communications as an alternative to travel)</p>
<p><b>Output 1</b> Improved preservation, understanding and more efficient exploitation of native and endemic forage grasses and forbs, in native grasslands near villages</p>	<p>1.1 <b>Native grass and forb diversity increase</b> from an estimated baseline of 4 – 5 species to 6 – 7 species per 50 × 50m plot in 30 plots in project demonstration farms and communal pastures in Ankafobe, Ibity and Itremo between February 2022 to February 2024</p> <p>1.2 Five native key forage grasses and five native forbs <b>increase in frequency</b> in 30 project demonstration farm and communal pasture grazing plots in Ankafobe, Ibity and Itremo by 20% from</p>	<p>1.1 Grass and forb species diversity records in standard grassland plot spreadsheets made by the grass and forb botanist using the grassland monitoring method already established for ecological research</p> <p>1.2 Grass and forb species frequency records in 50 × 50m standard grassland plot spreadsheets made by the grass and forb botanist using the grassland monitoring method already established for ecological research</p>	<p>Continued community trust and engagement; most management associations choose to participate in the project (risk mitigated by 17 years of trusting relationships already built in Ankafobe, Ibity and Itremo, enthusiasm expressed at the scoping workshop, and investment to ensure full community engagement in project)</p> <p>Rainfall patterns remain within local average ranges (risk mitigated through monitoring and adjustment of plot design)</p>

	<p>measured baseline in February 2022 to February 2024</p> <p><b>1.3 Grazing value indices</b> measured for ten key native and endemic grazing grass species candidates (<i>Aristida rufescens</i>, <i>Aristida tenuissima</i>, <i>Brachiaria subrostrata</i>, <i>Cynodon dactylon</i>, <i>Cyrtococcum deltoideum</i>, <i>Digitaria longiflora</i>, <i>Eragrostis lateritica</i>, <i>Panicum luridum</i>, <i>Panicum umbellatum</i>, <i>Paspalum scrobiculatum</i>) using Truter standard methodology by October 2022</p> <p><b>1.4</b> Key native grazing grass <b>book</b> (in English and Malagasy), <b>poster</b> (in Malagasy), and a community-led short film (in Malagasy) produced by April 2024 in draft form, and July 2024 in final form, guided by Vorontsova and Truter. Grazing grass booklet material submitted to Kew Publishing in July 2023.</p> <p><b>1.5 Grass training</b> in years 2 and 3 for 90 project household members judged useful by majority of project household participants</p>	<p>1.3 Grazing value index reports produced by Truter's <i>African Forage, Fodder, Feed and Food Quality (AF<sup>4</sup>RICA) Laboratory</i> at the University of Pretoria</p> <p>1.4 Copies of key native grazing grass book and poster, draft and final version pdfs and the community-led short film made available via the project webpage</p> <p>1.5 Gender disaggregated training attendance sheets and records of verbal feedback</p>	<p>Invasions of alien grasses and forbs do not significantly increase (risk mitigated through monitoring and adjustment of plot design by the grass and forb botanist, and cultivating <i>Sorghum</i> cultivars which have proven non-invasive)</p> <p>Coronavirus situation permits travel at least within central Madagascar for the project duration (risk mitigated by budget for faster internet subscriptions to improve video and other online communications as an alternative to travel)</p>
<p><b>Output 2</b> Fodder flow supplemented by crop residue preservation and exploitation of new forage crop</p>	<p>2.1 <b>Sorghum fodder crop plants</b> established on three 1-hectare demonstration farm plots between August 2023 and May 2024</p> <p><b>1.2 Dry matter Sorghum harvest</b> production established on three 1-hectare demonstration farm plots to produce yield above an estimated natural grassland</p>	<p>2.1 Photographs of the plantings</p> <p>2.2 Forage production yield weight measurements made by community technicians for grasses quarterly</p> <p>2.3 Hay and crop residue yield dry weight measurements made by community technicians quarterly</p>	<p>Continued community trust and engagement; most management associations choose to participate in the project (risk mitigated by 17 years of trusting relationships already built in Ankafobe, Ibity and Itremo, enthusiasm expressed at the scoping workshop, and investment to ensure full community engagement in project)</p>

	<p>baseline of 4 tonnes of dry matter per hectare, achieving 6 tonnes of dry matter per hectare between April 2023 and April 2024</p> <p><b>1.3 Fodder bank</b> created by project households including hay and silage improved from an estimated baseline of 1 – 2 tonnes of dry matter per hectare to an estimated 4 tonnes of dry matter per hectare between April 2022 and April 2024</p> <p><b>1.4 Fodder training</b> in years 2 and 3 and <b>veterinary training</b> in year 2 for 90 project household members judged useful by majority of project household participants</p>	<p>2.4 Gender disaggregated training attendance sheets and records of verbal feedback</p>	<p>Land used for the production of <i>Sorghum</i> does not compete with food crops (risk mitigated by community decision making on land use and specific questions on land use consequences in project perception questionnaires)</p> <p>Healthy project cattle are available for purchase (risk mitigated by reassuring results of informal enquiries already made by Sedera Ramaromanana)</p> <p>Cattle illness does not increase above current local average (risk mitigated by specialist advice availability from the <i>National Diagnostic Veterinary Laboratory</i> accessed through the Agriculture Ministry)</p> <p>Rainfall patterns remain within local average ranges (risk mitigated through climate-responsive approach to all interventions)</p> <p>Coronavirus situation permits travel at least within central Madagascar for the project duration (risk mitigated by budget for faster internet subscriptions to improve video and other online communications as an alternative to travel)</p>
<p><b>Output 3</b> Custom site-based fire management strategies conceived participatively and implemented to prevent late dry season forest fires</p>	<p>3.1 <b>Burned area</b> within 3 patches of forest within Ankafobe, Ibity and Itremo Protected Areas not increased from the baseline measured for January 2022 to January 2023 and 2024</p> <p>3.2 <b>Firebreaks</b> created and maintained for 3 patches of forest using manual</p>	<p>3.1 Regional assessment of fire regimes in the Ankafobe, Ibity and Itremo areas completed in March 2022, by Lehmann’s team</p> <p>3.2 Photographs of forest edges made by monthly Protected Area fire patrols using the SMART-Mobile app, including monthly photographs</p>	<p>Continued community trust and engagement; most management associations choose to participate in the project (risk mitigated by 17 years of trusting relationships already built in Ankafobe, Ibity and Itremo, enthusiasm expressed at the scoping workshop, and investment to ensure full community engagement in project)</p>

	<p>clearing and hay making at a minimum of 5m wide with vegetation kept under 15cm tall, within project dry season months May – November during 2022 – 2024</p> <p>3.3 <b>Fire Management Plans</b> co-created with communities driven by the PA managers, with a focus around establishing safe burn days and times, weather adaptation and no-fire zones. Plans added to the Protected Area management plans by June 2024 in draft form and by September 2024 in the final form, guided by Lehmann</p> <p>3.4 <b>Fire training</b> in years 2 and 3 for 90 project household members judged useful by majority of project household participants</p>	<p>at 10 set photo points in each Protected Area</p> <p>3.3 Copies of Fire Management Plans, draft and final version pdfs made available via the project webpage</p> <p>3.4 Gender disaggregated training attendance sheets and records of verbal feedback In July 2024 this will include testing perceptions of the draft Fire Management Plan.</p>	<p>No sudden change in fire regime e.g. following drought (risk mitigated through monitoring and adjustment of firebreak design and preventative burns)</p> <p>No fires deliberately started in the forest (risk mitigated by decreasing community need for fires through improved dry season livestock nutrition supply by outputs 1 and 2, and increased community control over fires)</p> <p>Rainfall patterns remain within local average ranges (risk mitigated through wider firebreaks and higher frequency of patrols in dry years)</p> <p>Coronavirus situation permits travel at least within central Madagascar for the project duration (risk mitigated by budget for faster internet subscriptions to improve video and other online communications as an alternative to travel)</p>
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<b>Activities</b>	
<b>Output 0: Project activities contributing to all outputs</b>	
0.1	National project launch and assessment workshops in Antananarivo
0.2	Regional project launch and assessment workshops in Itremo, Ibity, and Ankafobe area villages
0.3	Animator and technician site exchange visits
0.4	Ministry and foreign expert site visits
0.5	3 hectares of land secured at each site for temporary use during the project, contracts drawn up and signed

- 0.6 4 cattle purchased for each site, legal process completed
- 0.7 30 cattle owning households engaged at each site
- 0.8 New local associations formed
- 0.9 Demonstration farm property and project cattle handover to the new local associations
- 0.10 Community-led project and well-being review organised by Sarobidy Rakotonarivo

**Output 1: Improved preservation, understanding and more efficient exploitation of native and endemic forage grasses and forbs, in native grasslands near villages**

- 1.1 Trial grazing regimes in demonstration farms established, plots fenced off, plot firebreaks created
- 1.2 Trial grazing regimes in demonstration farms maintained using project cattle
- 1.3 Grazing strategy mentoring on common and private land for project households
- 1.4 Grass and forb diversity and frequency surveys in project demonstration farm and communal pasture plots, starting in first wet season
- 1.5 Biomass production measured in pasture plots
- 1.6 Pasture productivity calculated in pasture plots
- 1.7 Soil samples collected and analysed in pasture plots, communal pasture, Sorghum plantation, and beneficiary household land
- 1.8 Grassland management strategy tailored to soil analysis, biomass measurements, and pasture productivity measurements made
- 1.9 Exportation permit for forage samples from Madagascar to South Africa
- 1.10 Grazing value indices measured for ten candidate native and endemic grasses using samples collected and exported to South Africa
- 1.11 Exchange of experiences and training in community and focus groups, quarterly
- 1.12 Specialist grass training for project households, annual

1.13 Native grazing grass book produced, and distributed (book materials submitted to Kew publishing July 2023; booklet received July 2024).

**Output 2: Fodder flow supplemented by crop residue preservation and exploitation of new forage crop**

- 2.1 Baseline surveys of participant householder cattle
- 2.2 Training in South Africa for project manager and 3 animators
- 2.3 Quarantine service inspection of areas to be planted with imported Sorghum
- 2.4 South African Sorghum seed import
- 2.5 Sorghum trial plots
- 2.6 Sorghum cultivation, harvesting, and feed storage in demonstration farms, during wet season months year 2 onwards
- 2.7 Sorghum cultivation, harvesting, and feed storage by project households, during wet season months year 2 onwards
- 2.8 Hay making in demonstration farms, during wet season months
- 2.9 Crop residue, hay making, and fodder bank mentoring with project households
- 2.10 Training advisory visits from veterinary doctor
- 2.11 Cattle farming and monitoring of milk production, body condition and calving in demonstration farms
- 2.12 Cattle farming and monitoring of milk production, body condition and calving with project households
- 2.13 Exchange of experiences and training in community and focus groups, quarterly
- 2.14 Specialist fodder training for project households, annual

**Output 3: Custom site-based fire management strategies prevent late dry season forest fires**

- 3.1 Identification of forest patches
- 3.2 Firebreak creation and maintenance using physical clearing and hay making
- 3.3 Preventative burn training for the communities and Protected Area staff at the project sites
- 3.4 Fire prevention using preventative burns in early dry season
- 3.5 Forest edge data recorded by monthly patrols at set photo points
- 3.6 Exchange of experiences and training in community and focus groups, quarterly
- 3.7 Specialist fire training for project households, annual
- 3.8 Co-writing and consultation to finalise Fire Management Plans to add to Protected Area Management Plans



# Annex 3: Standard Indicators

**Table 1 Project Standard Indicators**

DI Indicator number	Name of indicator	Units	Disaggregation	Year 1 Total	Year 2 Total	Year 3 Total	Total to date	Total planned during the project
DI-A01	Number of project beneficiaries and project staff who received training on sociology, grasses, agriculture, and fire	People	90 beneficiary men, 90 beneficiary women, 11 male staff, 5 female staff	196	196		196	196
DI-A03	Number of Malagasy state bodies and NGOs (as defined in Table 1, plus KMCC and MBG Madagascar) with improved capability and capacity as a result of project	Number	None	2	9		9	10
DI-B01	Protected Area Fire Management Plans written	Number	Place	0	1		2	3
DI-B05	Number of project beneficiaries becoming members of the new pasture and livestock raising associations	Households	90 beneficiary men, 90 beneficiary women	0	0		0	180
DI-C09	Grass and forb (species known to science) herbarium and silica gel reference collections made	Number of collections	Species of plant	150	600		1500	1500
DI-C12	Number of followers on the project Facebook page	People	53% male and 47% female	481	680		913	1000
DI-C18	Number of papers published in peer reviewed journals and conference proceedings	Number	None	0	7		7	10
DI-D02	Number of project beneficiaries whose disaster/climate resilience has been improved	Households	90 beneficiary men, 90 beneficiary women	0	180		180	180

**Table 2 Publications: none to report for this year.**

Title	Type (e.g. journals, best practice manual, blog post, online videos, podcasts, CDs)	Detail (authors, year)	Gender of Lead Author	Nationality of Lead Author	Publishers (name, city)	Available from (e.g. weblink or publisher if not available online)
Smallholder zebu and forage production development in central Madagascar.	Oral presentation	Randriamanalina L. 2023. <i>Smallholder zebu and forage production development in central Madagascar</i> . Oral presentation recorded at the International Grassland Congress, Kentucky, USA.	M	Malagasy	International Grassland Congress, Kentucky, USA.	<a href="https://www.youtube.com/watch?v=4AZcGzP-bHQ&amp;t=5405s">https://www.youtube.com/watch?v=4AZcGzP-bHQ&amp;t=5405s</a>
The Global Ecosystem Typology and open ecosystems in Madagascar	Oral presentation	Lehmann CER. 2024. <i>The Global Ecosystem Typology and open ecosystems in Madagascar</i> . Shown on 6 and 7 March 2024, Panorama Hotel, Antananarivo, Madagascar.	F	UK	Self published online	<a href="https://youtu.be/06qu5-jCzAw?si=OqDePg8ROVjYm51">https://youtu.be/06qu5-jCzAw?si=OqDePg8ROVjYm51</a>

## **Annexes 4: Onwards – supplementary material (optional but encouraged as evidence of project achievement)**

**Annex 4.** Nanjarisoa OP. 2023a. Half year report.

**Annex 5.** Nanjarisoa OP. 2023b. Experimentation protocol for demonstration pasture, DIPPP 2023-2024.

**Annex 6.** Nanjarisoa OP. 2024a. Ankafobe field trip 23-26 January 2024. Technical report.

**Annex 7.** Nanjarisoa OP. 2024b. Wayne Truter field trip 30 January – 8 February 2024. Technical report.

**Annex 8.** Nanjarisoa OP. 2024c. Output 1 report Presentation 10th March 2024 in Antsirabe.

**Annex 9.** Rakotonarivo S. 2023. Sociology midline report.

**Annex 10.** Randriamanalina L. 2024. DI-PPP all staff meeting program for 9-10 March in Antsirabe.

**Annex 11.** Truter W. 2023. Forage nutrition assessment, compared to average quality of subtropical grass species.

## Checklist for submission

	Check
Different reporting templates have different questions, and it is important you use the correct one. Have you checked you have used the <b>correct template</b> (checking fund, type of report (i.e. Annual or Final), and year) and <b>deleted the blue guidance text</b> before submission?	yes
<b>Is the report less than 10MB?</b> If so, please email to <a href="mailto:BCF-Reports@niras.com">BCF-Reports@niras.com</a> putting the project number in the Subject line.	yes
<b>Is your report more than 10MB?</b> If so, please discuss with <a href="mailto:BCF-Reports@niras.com">BCF-Reports@niras.com</a> about the best way to deliver the report, putting the project number in the Subject line.	no
<b>Have you included means of verification?</b> You should not submit every project document, but the main outputs and a selection of the others would strengthen the report.	yes
If you are submitting photos for publicity purposes, do these meet the outlined requirements (see Section 16)?	yes
Have you involved your partners in preparation of the report and named the main contributors	yes
Have you completed the Project Expenditure table fully?	yes
Do not include claim forms or other communications with this report.	