



**BIODIVERSITY
CHALLENGE FUNDS**



Biodiversity Challenge Funds Projects Darwin Initiative, Illegal Wildlife Trade Challenge Fund, and Darwin Plus

Half Year Report

It is expected that this report will be a **maximum of 2-3 pages** in length.

If there is any confidential information within the report that you do not wish to be shared on our website, please ensure you clearly highlight this.

Submission Deadline: 31st October 2024

Please note all projects that were active before 1 October 2024 are required to complete a Half Year Report.

Submit to: BCF-Reports@niras.com including your project ref in the subject line.

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|---|---|
| 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)/territory(ies) | Madagascar |
| Lead Organisation | Royal Botanic Gardens, Kew (Kew) |
| Partner(s) | Missouri Botanical Gardens Madagascar (MBG), Royal Botanic Garden Edinburgh (RBGE, Caroline Lehmann), University of Pretoria, Plant and Soil Sciences Department and Enterprises University of Pretoria (UP, Wayne Truter), Sarobidy Rakotonarivo, consultant sociologist (University of Antananarivo, School of Agronomy) |
| Project leader | Maria Vorontsova & Mamy Tiana Rajaonah |
| Report date and number (e.g. HYR1) | April 2024 – September 2024 HYR3 |
| Project website/blog/social media | Project Facebook page https://www.facebook.com/KMCCMBG Twitter @vorontsovams; photos at https://www.flickr.com/photos/36803481@N06/ ; videos at https://www.youtube.com/channel/UCF-IArgyzK3zMvdG0fCe7hw |

1. Outline progress over the last 6 months (April – September) against the agreed project implementation timetable (if your project started less than 6 months ago, please report on the period since start up to end of September).

As this is the final year of the project, most of the activity over the last 6 months has been focused on preparing for the project closure and the creation of new associations to ensure the continuity and sustainability of the activities. Ongoing project activities such as monitoring and evaluation and data collection have also continued.

Outcome 0.1. To evaluate the impacts of the project activities on local people welfare and wellbeing, we undertook a three part survey (baseline, midline, endline) with the project households and some control households. The control households were selected households in the same communities that had similar characteristics to the beneficiaries such as those owning a cow or some cattle and relying on agriculture as the primary source of income. The endline assessment took place in May 2024 in the three project sites with 78 project households and 67 control households. The attrition rates are low and acceptable, 3% in the midline and 7% in the endline survey. Most households reported that benefits lined up with and sometimes exceeded their expectations. A few respondents admitted to not expecting much at the start, assuming that the project might just be like its predecessors with no tangible benefits to their lives. Some households asserted that they did not feel deceived, and the project delivered on its promises. Increased cattle productivity: “We’ve seen our cows grow much faster and our calving rates have considerably increased”. “We also make more from the milk.” – 90% of the sample. Increased knowledge on the various cattle fodders (hay making, crop residue, sorghum cultivation, 70%). Many perceived that the application of this new knowledge has led to a tangible improvement they observed in their cattle productivity, milk and manure production (60%). Many households appreciated the close monitoring of the cattle growth and health by project staff (50%).

Output 0.7 and 0.8. As planned in the project timetable, local associations will be created at the end of the project year from the beneficiaries to ensure the sustainability of the activities. Missions to Fianarantsoa, Ambositra and Ambatofinandrahana for Itremo were carried out with some of the association's board members in order to regularize the new association (Mijoro association) at administrative level. For Ibity, the continuation of activities will be ensured by the Miatrika Association, a local association in the Ibity Protected Area, which will facilitate the needs of communities in terms of support and improvement of zebu breeding (training, health and technical monitoring) and grazing management. For Ankafobe, the new association is now being set up. Care Internationale Madagascar drew on its experience to support the project in the process of setting up these associations by providing training for project technicians and association members in associative life and association management, which took place in Tana and Ibity last August.

Output 0.1 – 0.3. A workshop to prepare for the various closing events was first held in Ibity to define the overall organization: the guests, the activities to be presented, and the dates. Two closing events took place in September to mark the end of the project: an on-site event in Ibity, and another national-level event in Tana.

Beneficiaries from other sites came to Ibity for the first closing event, on 11st of September, and for the exchange and sharing of experience between them, supervised by the project team, the Ministry of Agriculture and Livestock (DAPA/MINAE) and Prof. Wayne from the University of Pretoria. All beneficiaries received certificates signed by MINAE and MEDD thanks to their effective participation as beneficiaries of this project. Local authorities and regional representatives of partner ministries (MINAE and MEDD) gave strongly positive feedback on the project and said how much this project is important for cattle farming and fire management. The Ministry of Agriculture team will produce a video summarising the project because it's a new approach, unprecedented in Madagascar, and in line with the Ministry's objective of improving livestock breeding and pasture management.

In Tana, the main closing event took place on 17th of September, with the participation of the authorities from the project's 3 regions, the Ministries of Agriculture and the Environment, NGOs working in fire management and biodiversity conservation, FAO, research centres and universities, as well as communities. In addition to the presentation of the project's achievements and lessons learned, there were exhibitions of project products such as silage, hay, improved straw and arts and crafts made from the grasses found in the pastures, to show that there are many options for using the pastures apart from feeding the zebus. Feedback on the project and

ideas for enriching important project information for future reference were collected during this event. The participants recommended continuation and expansion of this project throughout Madagascar with some innovative ideas such as transferring pasture management to local communities as has been done with forests, revising pasture policies, implementing strategies for managing pasture fires, raising community awareness about the value of indigenous grasses and natural pastures, and utilizing indigenous grasses to improve community living conditions.

Output 1.1-1.2

Fieldtrip: For completing our data on grassland biodiversity, pasture quality assessment and the livelihoods on grassland ecosystem we have carried out 3 fieldtrips for data collecting in April to June to all project sites within our research permit

N°051/24/MEDD/SG/DGGE/DAPRNE/SCBE.Re, granted on 20 Fevrier 2024. The main activities and results from this fieldtrip are 20 GGG plots resurveyed with 10 plots in Ibity and 10 plots in Itremo, 220 vouchers specimens collected in Ibity and Itremo, 60 samples collected for biomass production in the experimental pasture with 20 per site (10 burnt and 10 unburnt), 8 grazing capacity data points collected per site both in the experimental pastures and communal pasture, 1 focus group with the project smallholders per site for exchanging knowledge on grassland use especially on native forage species. and 10 local community members across all sites interviewed including healers, traditional midwives, and artisans.

Databasing: all of the specimen vouchers were recorded into RDE files in the BRAHMS database, 30 GGG datasheets in the GGG template, and data on grazing capacity and biomass production are also recorded into excel files.

Data analysis: 3 types of data analysis were carried out: biodiversity, pasture quality assessment, and ethnobotanical survey. For biodiversity, 133 species from 31 families and 95 genera including grass and forb dominated by Poaceae, Asteraceae, Cyperaceae, Fabaceae, Orchidaceae, Rubiaceae. Pasture quality annual biomass production is about 2.7-8.356t/ha. Ibity present the highest biomass productivity and Itremo the lowest in 2024. The average species per plot region is about 9-13 for Ankafobe, 8-13 for Ibity and 3-6 for Itremo in 2024. The main use of plant species in the grassland are forage, traditional medicine, art, construction, cultural and spiritual and decoration.

Permit export: Forage sample analysis is part of our partnership with the University of Pretoria. 8 natives forages species were exported to the University of Pretoria's laboratory for a nutrient value analysis using the permit export granted by MEED (N°227N-EV09/MG24). For getting an export permit, many documents, a long and complex process consuming time of around 2-3 months was needed.

DI-PPP closing presentation: During the project closing event, we shared with the local community, the authorities, and other audiences the preliminary results of our research. The presentation is focused on the grassland diversity, the main native forage grass, the grazing capacity, biomass and the livelihoods role of grasslands.

Output 2.1-2.3. This year, we were able to combine the planting of sorghum with other leguminous crops to improve soil quality, and show communities that a single field can produce food for zebu (sorghum) and human food (legumes like beans, soya...), while improving soil fertility and preserving biodiversity. In Itremo, beneficiaries produced 661kg of silage, while 445 kg of silage and 30 kg of soya are produced in the demonstration farm. In Ibity, beneficiaries produced 800 kg of silage and 1000kg of hay from native grasses, while 1970 kg of silage, 40kg of beans and 20 kg of peanut are produced in the demonstration farm. In Ankafobe, beneficiaries produced 135 kg of silage and 80 kg of hay from native grasses, while 500 kg of silage, 2kg of beans and 2 kg of soya are produced in the demonstration farm.

The project team visited Morondava with the collaboration of the Ministry of Agriculture and Livestock and the U.S. Forest Service (USFS). This exchange focused on visits and exchanges with a number of zebu and goat farms on aspects of feeding, breeding and pasture management. This visit enabled us to compare the challenges of ruminant feeding in the highlands and coastal areas of Madagascar. We also had the opportunity to visit an association of goat breeders whose structure is similar to that of our project. Exchanges with the members of this FIAM association gave us many ideas on how to manage an association of ruminant breeders.

Output 2.9. The monthly monitoring of cattle production at demonstration farms and among beneficiaries has yielded the following results: the body condition score of zebu is mostly between 3 and 4, the beneficiaries in Ankafobe and Itremo (who use local breed zebus) have achieved calving rates of 72% and 69% respectively, while in Ibity (who use cow hybrid breeds), milk production has increased threefold compared to the baseline.

Output 3.1 – 3.3. Photography at fixed photo points in each of the project's forest patches continued throughout these 6 months, in order to monitor the evolution of any fire situation. The same applies to the collection of climatic data (temperature, humidity and rainfall) inside and outside the forest. The project is also progressing with the elaboration of the fire management plan for Itremo (which is particularly supported by the FMH project) and the updating of that for Ibity. We had the opportunity to share experiences with the FIREWISE Committee set up by USFS in the Menabe Antimena Protected Area, where the discussion focused on the FIREWISE Committee's firefighting operations, organization, working methods and efficiency.

2. Give details of any notable problems or unexpected developments/lessons learnt that the project has encountered over the last 6 months. Explain what impact these could have on the project and whether the changes will affect the budget and timetable of project activities.

The primary difficulty has been insecurity, especially in Itremo and Ankafobe. This situation has led to disruptions in field activities. We had to be accompanied by the gendarmerie and other communities during the trips, who needed to be paid based on the duration of the journey. This has added an extra budget spend to the project.

We are aware of the project's success, and we would like to take advantage of the closing events to share these achievements. Consequently, there have been higher expenses compared to the initial budget, which is why we have requested a budget change.

3. Have any of these issues been discussed with NIRAS and if so, have changes been made to the original agreement?

Discussed with NIRAS:

No

Formal Change Request submitted:

Yes

Received confirmation of change acceptance:

Yes

Change Request reference if known: [accepted on 24 October 2024](#)

4a. Please confirm your actual spend in this financial year to date (i.e. from 1 April 2024 – 30 September 2024)

Actual spend:

4b. Do you currently expect to have any significant (e.g. more than £5,000) underspend in your budget for this financial year (ending 31 March 2025)?

Yes ☐ No ☒ Estimated underspend: £

4c. If you expect and underspend, then you should consider your project budget needs carefully. Please remember that any funds agreed for this financial year are only available to the project in this financial year.

If you anticipate a significant underspend because of justifiable changes within the project, please submit a re-budget Change Request as soon as possible. There is no guarantee that Defra will agree a re-budget so please ensure you have enough time to

make appropriate changes to your project if necessary. **Please DO NOT send these in the same email as your report.**

NB: if you expect an underspend, do not claim anything more than you expect to spend this financial year.

5. Are there any other issues you wish to raise relating to the project or to BCF management, monitoring, or financial procedures?

No

6. Please use this section to respond to any feedback provided when your project was confirmed, or from your most recent annual report. If your project was subject to an Overseas Security and Justice Assistance assessment please use this space to comment on any changes to international human rights risks, and to address any additional mitigations outlined in your offer letters. Please provide the comment and then your response. If you have already provided a response, please confirm when.

Feedback not requested

Checklist for submission

| For New Projects (i.e. starting after 1 st April 2024) | |
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| Have you responded to any additional feedback (other than caveats) received in the letter you received to say your application was successful which requested response at HYR (including safeguarding points)? You should respond in section 6, annexes other requested materials as appropriate. | |
| If not already submitted, have you attached your risk register ? | |
| For Existing Projects (i.e. started before 1 st April 2024) | |
| Have you responded to feedback from your latest Annual Report Review ? You should respond in section 6, annexes other requested materials as appropriate. | |
| For All Projects | |
| Include your project reference in the subject line of submission email. | |
| Submit to BCFs-Report@niras.com . | |
| Have you clearly highlighted any confidential information within the report that you do not wish to be shared on our website? | |
| Have you reported against the most up to date information for your project ? | |
| Please ensure claim forms and other communications for your project are not included with this report. | |