

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

Note: 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 2022

Project reference	28-025
Project title	Stock-proof hedges to improve farming livelihoods and conserve Malagasy forests
Country(ies)/territory(ies)	Madagascar
Lead partner	North of England Zoological Society (Chester Zoo)
Partner(s)	Missouri Botanical Garden, Madagascar Research and Conservation Program (MBG)
Project leader	Dr Claire Raisin
Report date and number (e.g. HYR1)	October 2022 HYR2
Project website/blog/social media	Twitter: @c_birkinshaw Chester Zoo: Stock proof hedges

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

According to the implementation timetable submitted as part of the proposal, the activities listed below were planned for the first semester of Year 2.

2.4 Workshops to train nurserywomen in best practice for the propagation of shrubs and trees (initial workshop provided by Malagasy national, mid-term evaluation provided by horticulturalist from Chester Zoo)

Completed. Between 11-19 July Chester Zoo (CZ) horticulturalist Liz Young provided training in best practice for the propagation of trees for the ten nursery women and the head nurseryman at the project tree nursery. During the training Liz endeavoured to identify areas for improvement. One such area was the composition of the potting substrate that she judged was not sufficiently aerated. To improve this, Liz worked with the team to identify methods whereby coconut husk fibres could be obtained and integrated into the potting substrate. This led to the successful adaptation of an electric rotary saw to a machine to chop pieces of locally available coconut husk safely into fibres (so called coco-peat). This machine is greedy for electricity but the addition of cocopeat to the potting substrate is clearly beneficial. Liz was also concerned about the negative environmental impact of using polyethylene pots to grow tree seedlings – as is universal practice in Madagascar. Although clearly undesirable, to date, no acceptable alternative has been identified although the use of thick papery bark of the alien invasive tree, *Melaleuca quinquenervia* (which is abundant and troublesome in this area), to make biodegradable pots offers some promise (see [here](#)).

Claire Raisin (CZ, Regional Field Programme Manager - Madagascar & Mascarenes) and Greg Counsell (CZ, Social Scientist) accompanied Liz, and their work at the site is described in proceeding sections.

2.5 Biweekly presentations on child care for nurserywomen from local experts

Ongoing. During the reporting period, four well-being presentations for the nursery women were provided by diverse experts. These presentations concerned: maternal and child health, nutrition, poultry farming techniques, and market gardening.

2.6 Propagation of 16,000 seedlings of plants to be used to enrich hedges.

Ongoing. Currently the nursery contains 18,306 young plants (exceeding the target of 16,000 young plants) of eight different native tree species. These young plants should be large enough for out-planting along the hedge lines from January to March 2023.

2.7 Purchase and transport of living stakes (= 1 m long stems of plants that root is pushed into the soil)

Complete. Sufficient living stakes were purchased locally to enable all the 11 km of barbed wire fences to be reinforced with lines of living stakes (that ultimately will be transformed into hedges). The income received from this purchase was very helpful to local people following a cyclone that severely impacted agriculture in this part of the country.

2.8 Inserting living stakes along line of barbed wire fence to create basic hedge structure

Complete. All the barbed-wire fences have been reinforced with lines of living stakes but, since some stakes will fail to root, the acquisition and insertion of replacement stakes will be necessary during the second semester of YR2.

4.1 Communication about project through social media and website

Ongoing. Occasional communication concerning the project were made on the @c_birkinshaw twitter account. During her time at Agnalazaha, Claire reviewed the work to date and gathered materials (interviews, film, audio, photos) to facilitate future communication about the project. The first output from this work was a two-page spread about the project in Chester Zoo's member's magazine called "Z Mag" (pages 26 & 27 [here](#)). This magazine is read by 120,000 people. This particular edition is historic because it is the last ever paper copy of this magazine that was launched in 1937. Henceforth, "Z Mag" will appear only in electronic form.

5.2 Support for monitoring team to apply monitoring protocols

Ongoing. Data concerning the indicators are being collected by the site-based Project Manager (Amadou) and the Monitoring Officer (Eliane) with the assistance of ten students from the local middle school. As a change of plan (following the advice of CZ's social scientist Greg Counsell) the ten students are not collecting social information because the protocols for conducting high quality interviews are complicated. Rather, Amadou and Eliane have been trained and tasked to conduct all the interviews without the students. The technique they are using consists of conducting a loosely structured (structure defined by Greg) but open interview which is recorded (with interviewee consent), transcribed into Malagasy and then translated into English. The English texts will be analysed and interpreted by Greg. To date, interviews have been conducted with the 44 farmers who are direct beneficiaries of the barbed wire fences/hedges, 44 randomly-selected local people who are not beneficiaries of the project – this group will constitute the control group for the project, and the ten nurserywomen. All these interviews will be repeated at the end of the project to document the changes in livelihoods and perceptions attributable to the project. The ten students, under the leadership of Eliane, are focused on monitoring the biological indicators. As part of this work they have flagged 4 transects in different parts of the forest and, each Saturday, sub-groups walk slowly along each recording sightings of lemurs and a selection of large birds.

5.3 Workshops to share information on project progress, to identify issues arising and to modify interventions to maximise efficacy

The entire site-based staff of the Agnalazaha Conservation Project formally meet once a month. During these meetings everyone describes their work during the previous month, their work plans for the proceeding month, and any issues they would like to discuss. Amadou and Eliane contribute fully in these meetings.

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.

Under the expertise of Greg Counsell, the social monitoring of the project has rightly developed a greater importance than originally imagined. The methods that Greg introduced are, we believe, superior to any being used elsewhere in Madagascar, and they constitute important capacity building for MBG staff. However, the application of the protocols identified by Greg is time-consuming and somewhat expensive because the process consists of four main steps: 1) Amadou and Eliane record interviews with target interviewee in their home environment; 2) a Malagasy consultant is paid to transcribe (word for word) the audio files into Malagasy text (Antaisaka dialect); 3) a second Malagasy consultant is paid to translate the Malagasy text into English; and 4) the English translations (hopefully capturing all nuances) are dispatched to Greg who then analyses and reports on the significance of the dialogues. We think we will be able to cover these extra costs from sources other than Darwin Initiative.

At the start of the project we identified 44 local farmers who would be beneficiaries of barbed wire fences, and later hedges, as a means to protect their crops from free-ranging cattle. Barbed wire fences have been installed around the fields of all these beneficiaries (a total of 11 km) yet we have 19,000 m of barbed wire remaining. With this resource we can enclose another 4.75 km of crops from among additional farmers who, impressed by the initial results of the project, came forward latterly. Thus while we have strictly concluded the phase of the project in which the barbed wire fences are installed, we will try to accommodate these supplementary beneficiaries.

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

Discussed with NIRAS-LTS: No

Formal Change Request submitted: No

Received confirmation of change acceptance No

Change request reference if known:

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

Yes No Estimated underspend: £

4b. If yes, then you need to 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 if necessary. Please DO NOT send these in the same email as your report.

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

If you are a new project and you received feedback comments that requested a response (including the submission of your risk register), or if your Annual Report Review asked you to provide a response with your next half year report, please attach your response to this document.

Please note: Any planned modifications to your project schedule/workplan can be discussed in this report but **should also be raised with NIRAS-LTS International through a Change Request. **Please DO NOT send these in the same email.****

Please send your **completed report by email** to BCF-Reports@niras.com. The report should be between 2-3 pages maximum. **Please state your project reference number, followed by the specific fund in the header of your email message e.g. Subject: 29-001 Darwin Initiative Half Year Report**