

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	27-014
Project title	Coffee natural capital for environmental and livelihood sustainability in Uganda
Country(ies)/territory(ies)	Uganda
Lead partner	Royal Botanic Gardens, Kew
Partner(s)	National Agriculture Research Organization (NARO), Kampala Makerere University, Kampala Kyagalanyi Coffee Ltd. (KCL), Kampala, Uganda Clifton Coffee, Bristol (UK)
Project leader	Aaron Davis
Report date and number (e.g. HYR1)	HYR2 [start 1 Oct 2020 ; end 30 Sep 2023]. Covering two full years of project
Project website/blog/social media	https://www.kew.org/science/our-science/projects/uganda-coffee-natural-capital

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).

Implementation dates in square brackets. Activity or completion for Qtr 1 & Qtr2 (2022) in **bold**.

Output 1. A critical survey of Uganda's coffee natural capital.

Activity 1.1 [Yr 3]. Database of Ugandan coffee diversity. **Completed in Qtr 2 – 2022/23.**

Activity 1.2 [Yr 2] GIS training course. Completed in Qtr 4 – 2021/22.

Activity 1.3a [Yr 3] **Critical survey of Uganda's coffee natural capital. Submitted** to Frontiers in Plant Science journal in September 2022 (**Qtr 2 – 2022/23**. Completion anticipated in Qtr 4 – 2022/23 [Yr 3].

Activity 1.3b [Yr 3]. Production of regional IUCN Red List conservation assessments for Uganda's coffee species [**Production of draft assessments** in Aug 2022 (**Qtr 2 – 2022/23**). [Submission to IUCN [completion of activity] to come in Qtr 4 – 2022/23 [Yr 3].

Output 2. Development of Liberica coffee production

Activity 2.1. [End Yr 2] **Provision of coffee drying bed equipment** (wooden posts; wire mesh, nails, plastic sheet). First set complete in Qtr 4 2021. Final set **almost completed in Qtr 2 – 2022/23**; completion expected in Qtr 3 2022/23 [Yr 3].

Activity 2.2 [Yr 3]. Provide training in coffee harvesting, processing, value chain management and basic agronomy. No activity forecast (wet season) for Qtrs 1 & 2 – 22/23.

Activity 2.3. [Yrs 2 & 3]. Ensure pre-shipment processing (milling, sorting and grading), evaluation, and export to UK, for 5,000 kg (2,500 kg per year). **140 kg coffee landed in Qtr 2 – 2022/23** [Yr 2]. This was much lower than expected due to CV-19 pandemic, and errors at processing point (i.e. c. 600 kg produced overall); production aim of 2,500 kg for Qtr 4 – 2022/23 [Yr 3].)

Activity 2.4. [Yrs 2 & 3] Distribution of farmer payments (premium of 15–30% per unit price [\$/lb]). Premiums paid in Qtr 4 – 21/22. No activity forecast for Qtrs 1 & 2 – 22/23.

Activity 2.5a. [Yrs 1, 2 & 3]. Sensory evaluation for 10 Liberica coffee samples. Caffeine and basic chemical analysis. Undertaken in Qtr 4 – 21/22. No activity forecast for Qtrs 1 & 2 – 22/23.

Activity 2.5b. [End of Yr 2]. Caffeine and basic chemical analysis for 10 Liberica coffee samples. End of Yr 2. Completed in Qtr 4 – 21/22. No activity forecast for Qtrs 1 & 2 – 22/23.

Activity 2.6. Provide nursery set-up and training to establish 1 Liberica seedling nursery for Luwero. By mid-year 3. Activity altered/completed (see Yr 2 report).

Output 3. Demonstration of biodiversity value, ecosystem service provision, and climate resiliency potential for Liberica coffee production.

Activity 3.1. [Yr 3] Install agrometeorological survey equipment. Completed in Qtr 4 – 21/22 [Yr 2]

Activity 3.2. [Year 3] Extend agrometeorological survey equipment to measure soil moisture at a range of soil depths. Completed in Qtr 4 – 21/22 [Yr 2]

Activity 3.3. [Yr 3] **Undertake pest and diseases survey** at the six farm sites by regular measurement of pests and diseases incidence and severity. Completed in Qtr 4 – 21/22 [Yr 2]. **Reports delivered in Qtr 2 –2022/23** [Yr 2]. Finalization to come in Qtr 3 2022/23 [Yr 3].

Activity 3.4. [Yr 3] Construct a drought-induced field trial for Liberica (vs. robusta). Completed in Qtr 4 – 21/22 [Yr 2]. Management ongoing until end Yr 3.

Activity 3.5. [Yr 3] Undertake **biodiversity survey**. Completed in Qtr 4 – 21/22 [Yr 2]. **Reports delivered in Qtr 2 –2022/23** [Yr 2]. Finalization to come in Qtr 3 2022/23 [Yr 3].

Output 4. Provide data for the suitability of C. eugenioides as a high-value niche crop for forest-based communities.

Activity 4.1. [Yr 2] Set up two trial plots for *C. eugenioides* coffee. **First plantings** of one field trial **in Qtr 2 –2022/23** [Yr 2]. Field trial 1 and 2 delayed due to slow response to propagate and unfavourable weather (drought).

Activity 4.2. [Yr 3] Record physical growth and stress metrics. Limited **observations** made **in Qtr 2 –2022/23** [Yr 2]

Output 5. Production of Wild Coffee Resources Strategy for Uganda document

Activity 5.1. [Yrs 1–3]. Set up and hold three half day meetings (one per year) with project members. Completed for Yrs 1 & 2]. Final Meeting scheduled for Qtr 2 – 22/23 [Yr 3].

Activity 5.2. [Yr 3] Assemble project data and outcomes from Output 1–4 and write draft strategy text. All available **data from Activities 1–4 assembled; two papers submitted in Qtrs 1 & 2 – 22/23** [Yr 2] one under review; one accepted for publication in Nature Plants. Publication of both paper anticipated in Qtr 3 – 22/23 [Yr 3].

Activity 5.3. [Yr 3] Produce maps and other GIS outputs, graphs and infographics. **GIS outputs and most graphs produced in Qtrs 1 & 2 – 22/23** [Yr 2]. Production of other resources to be finalized by Qtr 4 – 22/23 [Yr 3].

Activity 5.4. Send all materials (draft strategy) to publishers. To come in Qtr 1 22/23 [Yr 3].

Activity 5.5. Organize and undertake shipping to Uganda, and then delivery to stakeholders in Uganda. To come in Qtr 2 22/23 [Yr 3].

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.

1. Extreme weather (drought) meant that we needed to irrigate trial plots and provide extra management. Funding for these activities was provided by funds from outside the project.

2. Slow response of *C. eugenioides* to traditional propagation techniques, and extreme weather, has delayed planting of trial plots by one year. These events were beyond our control. *Eugenioides* coffee has not been cultivated in Uganda since the 1930s and so no standard protocols exist for this species.

No budget changes expected, although we may encounter issues due to fall in value of £

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: Yes/No-2.1 and 2.2 (above) but only via the Yearly Report.

Formal Change Request submitted: Yes/No

Received confirmation of change acceptance Yes/No NA

Change request reference if known: NA

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: £ 0

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?

None.

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**