

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	IWT114
Project title	Harnessing technology to end the illegal trade in succulent plants
Country(ies)/territory(ies)	South Africa and Namibia
Lead partner	Royal Botanic Gardens, Kew
Partner(s)	TRAFFIC
Project leader	Dr Carly Cowell, Senior Policy Advisor and Project Leader, Royal Botanic Gardens, Kew.
Report date and number (e.g. HYR1)	31.10.2022 - HYR1
Project website/blog/social media	Kew and TRAFFIC's project websites are in development. These will link to one another and the webpage links will be shared via social media when available.

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).

Reporting Period: 1st July 2022 – 30th September 2022 (3 months):

The first three months of the project have enabled foundations to be established for each of the main outputs, with progress against Logframe indicators highlighted below and in Annex 1:

Output 1 - Greater understanding of trade dynamics informs law enforcement strategy and action.

- **Output 1.2:** Kew have overseen a two-month placement of a computer science intern from the University of Southampton, to develop our AI web crawling technology and create a package of software downloads and training materials for these techniques. Refinements included clearer presentation of data in output files, better adaptation of the crawler to marketplace websites, and the ability to decode emojis within online posts. This technology will be deployed to gather and analyse data from websites to evaluate the online trade in succulent plants (**Output 1.1**), and for use in training modules planned for later stages of the project (**Output 2.2**).
- **Output 1.3:** TRAFFIC has recorded 27 unique open-source incidents comprising seizures of succulent plants involving South Africa between 2011 and 2022. TRAFFIC intends to expand this list with inclusion of closed court case records for both South Africa and Namibia in the next quarter. TRAFFIC has commenced their research on identifying succulent plant nurseries for site visits and whether they have online catalogues. Under another TRAFFIC project called Reducing Trade Threats to Africa's wild species and ecosystems (ReTTA), TRAFFIC is conducting online market surveys for a variety of species on numerous ecommerce platforms. TRAFFIC continues to

monitor online advertisements of succulent plants, with input from ReTTA forming part of the match funding arrangements for the project. TRAFFIC and Kew intend to finalise a plan for online market surveys going forward to incorporate use of the AI web crawling technology and incorporate this data into the baseline TRAFFIC's database.

- **Output 1.4 to 1.5:** TRAFFIC has been in discussion with researchers from the Threatened Plants Programme under the Namibian Botanical Research Institute (NBRI). NBRI will be brought on as a consultant to identify key stakeholders in Namibia, such as nurseries trading in indigenous succulent plants and private landowners engaged in succulent plant conservation and/or trade, for interviews by TRAFFIC. It has been agreed that over the next 11 months, they will conduct field trips to survey protected areas in Namibia to identify hotspot poaching locations and targeted species and report on their findings. They will also develop a list of species names, synonyms, common names, trade terms, and locations of interest (both online and physical) for Namibian plant groups, which will be used to focus the AI search software on the right areas of online content.

Output 2 - Technical skills of law enforcement officers in identifying and intercepting illegally traded succulent plants are improved, supported by innovative technology.

- **Output 2.1:** TRAFFIC has arranged meetings for early October with law enforcement officials from the Special Investigation Unit and Compliance and Enforcement Unit from the Province of the Eastern Cape's Department of Economic Development, Environmental Affairs and Tourism (DEDEA) to discuss the status of succulent plant trade in that province. Plans are underway for fieldwork in the Western and Northern Cape Provinces in 2023.
- **Output 2.2:** Kew and the University of Southampton have created a package of software downloads and training materials for AI led online search techniques, to be used in training modules at later stages of the project (see previous notes above).

Output 3 - Internet companies are aware of their responsibility to police and deter illegal trade in succulent flora and adopt and implement effective monitoring frameworks.

- **Outputs 3.1 to 3.4:** TRAFFIC has commenced engagement with members of the "The Coalition to End Wildlife Trafficking Online." The Coalition brings together companies from across the world in partnership with wildlife experts at WWF, TRAFFIC, and IFAW. TRAFFIC and Kew will be working with the coalition on developing information needed to engage e-commerce/social media companies to incorporate succulent plants into prohibited wildlife policies, such as determining the exact policy language and its location within their existing policies (this will likely be under Prohibited/Regulated Goods); the list of species that would be included and their CITES listing; identification materials for these species; as well as key search terms.

Output 4 - Development and testing of innovative tools and technology to improve and facilitate identification and intervention of illegally traded succulent flora.

- **Outputs 4.1 and 4.4:** Kew has begun preparations for testing plant samples for their stable isotope and trace element profiles, aiming for initial laboratory work in early 2023. Kew have discussed with laboratory partners refinements to these testing methods, with succulent plants of the correct species purchased, to commence experimental testing. Specimens of known provenance that can be used for testing have been identified within Kew's Living Collection and via external experts who have agreed to supply plant material to the project.

- **Outputs 4.2 and 4.3:** Kew has discussed strategies for the collection of wild samples with partners at the Millennium Seed Bank and SANBI, aiming for a main period of wild collection in Yr 2 Q3/Q4. Agreements for material transfer from South Africa have been written and are under review. This will support the transfer of accessioned and possibly confiscated material in South Africa to the UK for laboratory testing work.

Project Outreach and Networking:

Our objectives support and align with several elements of South Africa’s *National Response Strategy to Address the Illegal Trade in South African Succulent flora*. Regular interaction with other organisations and experts working in this field is therefore important, to find potential synergies, maximise the impact of project outputs and build momentum ahead of detailed engagement with key stakeholders **(Outputs 3.1 to 3.4, and 4.5)**.

- Kew and TRAFFIC have attended online meetings of experts in succulent conservation. These include a meeting of partners involved in the South African National Response Strategy, and a discussion with succulent anti-poaching experts, formed by members of the IUCN Cacti and Succulent’s Specialist Group. There is a high level of interest in the project, with the potential for useful collaborations and synergies to be developed. Members of the project team will also attend the Arid Zone Ecology Forum in October.
- Our Project Leader, Dr Carly Cowell, is a representative of the IUCN Sustainable Use and Livelihoods (SULi) Plant User’s Group (PUG), where illegal trade in South African succulents has been identified as a priority.
- Kew attended a national cacti and succulent trade show in the UK, to establish contacts with specialist succulent growers and gain insights into the cultivation and trade in these species. A second specialist trade show will be attended in October.

2. Give details of any notable problems or unexpected developments/lessons learnt that the project has encountered over the last 3 months. Explain what impact these could have on the project and whether the changes will affect the budget and timetable of project activities.

Due to a need to align with Financial Year reporting, our budget across the 3 years of the project has been re-profiled to fit with this cycle. Our underspend therefore appears high, but this money is being moved to be spent within different financial years, and the plans for the overall project spend remain the same.

A second element impacting the budget re-profile is the timing of transfers of plant material from South Africa to the UK, and the timing of windows of opportunity for the collection of wild plant material within South Africa. Here, we are awaiting some further confirmation of details, which will enable us to plan the timing of laboratory testing as accurately as possible.

Due to the main project partners’ involvement in CITES CoP19, work on data collection and analysis has been slowed in some areas (Outputs 1.1 and 3.1), but plans and resources are in place to make up this ground in line with the implementation timetable, with further details to follow within the change request.

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**

Formal Change Request submitted: **Yes/No**

Received confirmation of change acceptance **Yes/No**

Change request reference if known: **Change request to follow Nov 2022.**

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?

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**