

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

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| Project reference | DARCC014 |
| Project title | Enhancing the capacity and capability of orchid conservation in Armenia |
| Country(ies)/territory(ies) | Armenia |
| Lead partner | Royal Botanic Gardens Kew |
| Partner(s) | Nature Heritage NGO |
| Project leader | Dr Aisyah Faruk |
| Report date and number (e.g. HYR1) | 31 October 2022 HYR1 |
| Project website/blog/social media | @AisyahFaruk |

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).

Output 1

The activities within output 1 under the project implementation timetable relates to enhancing the capability of local stakeholders to protect orchid diversity in situ. The following outlines progress towards the agreed activities:

1.1 Challenges and perspectives to orchid conservation training taking place in Yerevan in July 2022

Project PI and a member of the RBG Kew Policy and CITES department travelled to Yerevan in July 2022. During this trip, a training course led by the CITES team member was held, attended by 15 participants from the local botanical institution, NGO staff and the department for environment of the Armenian government. This exceeded the target number of participants within the original log-frame (target: 10 people). A translation was provided throughout the training to make the material accessible to all participants.

1.2 Recruitment and training of MSc student by partner institution on orchid identification and habitat assessment

Project partners have recruited an MSc student from the ARMENIAN STATE PEDAGOGICAL UNIVERSITY AFTER KHACHATUR ABOVYAN. Syuzi Karapetyan is now spending her time at the partner institution training in orchid identification, seed banking and habitat assessment.

1.3 Best-practice on semi-structured interviews and community participatory mapping developed

During the visit to Yerevan in July, the project PI conducted the first workshop with in-country partners to develop best-practice on community engagement. This will continue to be developed throughout the year for activities next year.

The progress made above have put the project team in a good position to deliver the activities under this output for the upcoming 6-months. Materials for the first engagement with community members is being developed and aim to finish in November.

Output 2

The activities within output 2 under the project implementation timetable relates to enhancing the capacity and capability of in-country partners to conserve native orchid species ex situ and able to duplicate to the MSB cryopreservation unit.

2.1 Two Armenian seed bank team travel to MSB for 2-week training attachment programme

Due to changes in the training timetable at the Millennium Seed Bank, the training attachment focused on orchids was moved to January 2023. The two participants have been notified and plans are in place to ensure their attendance in January. Additionally, the PI had conducted in-country training during the visit in July 2022 (see below).

2.2 Delivery of in-country training on orchid ex situ conservation

Field-based training with key staff of Nature Heritage NGO were conducted in July 2022. Checking of ripeness and collecting methods were shown to the main collecting staff, and processing techniques such as using appropriate sieves, drying techniques and plating using fluorescent dyes to evaluate viability were also shown to key processing staff at the Seed Bank.

2.3 Procurement of equipment for collecting, cleaning and banking

A -80C freezer has been bought and now awaiting shipping to Armenia. A Laptop, -20C freezer, voltage regulator and some stationaries were bought in Armenia.

2.4 Locality survey of orchid populations for seed collection activity

Locations of orchid populations were identified by staff of Nature Heritage NGO in Spring 2022 and local herbaria. These were shared with PI and verified in the field. All localities for seed collection had been captured in Field Data Forms for 7 species.

2.5 Seeds, herbarium, and data of 10 orchid species collected from multiple populations

Seeds, data, and herbarium vouchers of 7 species were collected between July 2022 and October 2022. For 4 of the collected species, we were able to collect seeds from more than 1 population. Four species were subsequently collected by Armenian partners after the training event in July and duplicated to the MSB within 2-weeks (see 2.8 below)

2.6 Seeds are cleaned, dried and pre-storage viability determined in Armenia

Seeds of 7 species were cleaned and dried. Due to delays in procurement of a fluorescent microscope, pre-storage viability had to be conducted at the Millennium Seed Bank, although the plating and staining of the seeds using fluorescent dyes were conducted in-country by staff of the Seed Bank team after training by PI.

2.7 Seeds are stored in -20 degrees Celsius and -80 degrees Celsius in-country

Seeds of 7 species were dried, placed in foil bags and subsequently placed in both -20 degrees and -80 degrees Celsius freezers in-country in July 2022. Partners will be bringing a subset of the seeds to the Millennium Seed Bank in January 2022 (6-months after) to evaluate if viability is retained within the typical timeframe of partner duplication.

2.8 Subset of seeds are sent to the MSB

Partners were able to send seeds of 4 species (*Dactylorhiza euxina*, *D. arvilleana*, *Cephalanthera damasonium* and *Epipactis helleborine*) to the MSB on the 7th of September 2022, which represented pre-storage collections. Additional collections that had gone through drying and storing in-country will be sent in January, representing a further 3 species.

2.9 Viability determined on arrival at the MSB

The viability of the 4 species sent pre-storage is as follows:

- *Dactylorhiza euxina* = 77% viability

- Dactylorhiza urvilleana = 84% viability
- Cephalanthera damasonium = 55% viability
- Epipactis helleborine = 73% viability

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.

Minor changes to the budget and implementation timetable had already been discussed with LTS earlier in the project year and had already been accepted. This included moving some funds relating to community engagement in year 1 into year 2 when the timings fit better with access to the community. This was submitted in 27th of May and accepted on the 15th of June 2022.

However, since the end of July, the UK economy has been experiencing a recession, which has had a great impact on the project's finances. The GBP-AMD exchange rate has resulted in partners receiving significantly less than expected, which is impacting in-country staff salaries and the overall cost of fieldwork (e.g. per diems and fuel). PI and in-country partner lead are in discussion to mitigate further loss, which could include moving any available underspend to parts of the budget relating to staff salaries, ensuring that key objectives can still be met.

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: n/a

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**