Department for Environment Food & Rural Affairs

DARWIN INITIATIVE

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Darwin Initiative/Darwin Plus Projects

Half Year Report
(due 31st October 2021)

Project reference	26-020
Project title	Securing wild tulips and pastoral communities in the Kyrgyz mountains
Country(ies)/territory(ies)	Kyrgyzstan
Lead organisation	Fauna & Flora International (FFI)
Partner(s)	**Delivery:** Association of Forest Users and Land Users of Kyrgyzstan (AFLUK); Bioresurs & Cambridge University Botanic Gardens (CUBG). **Key stakeholders:** National Academy of Sciences of the Republic of Kyrgyzstan; National Pasture Users Association of Kyrgyzstan "Kyrgyz Jayity" & Gareev Botanical Garden (GBG)
Project leader	*Jarkyn Samanchina*
Report date and number (e.g. HYR1)	30th October, 2021, HYR3
Project website/blog/social media	*https://www.fauna-flora.org/projects/securing-wild-tulips-montane-grasslands-kyrgyzstan*

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).

Close communications were facilitated by FFI's team in Kyrgyzstan through frequent phone calls, e-mails and messages through the established project WhatsApp group. In addition, the FFI team convened a meeting with project partners in September 2021 to share achievements and discuss further plans. The map below references the three project sites: Sulyukta and Baul (Batken Region) in the south and Shamshy (Chui region) in the north. Each site was selected for presence of Kyrgyz Red Data Book tulip species (3 sp. in Sulyuktu; 3 sp. in Baul and 4 sp. in Shamshy).

Output 1: Increased knowledge of wild tulip species for in-situ and ex-situ conservation

Field surveys in Kyrgyzstan: In April and May 2021, field surveys led by Bioresurs identified 31 new habitats of 17 wild tulips species in Chui, Batken, Talas and Jalal-Abad regions of Kyrgyzstan. Data were collected on floral composition, range, abundance and threats, adding to data collected Y1-2 and contributing to a comprehensive picture on the status of wild tulips in Kyrgyzstan.

Understanding the genetic and conservation status of wild tulips in Kyrgyzstan and Central Asia: Over the course of 2019-21, the project – through Brett Wilson's PhD - has extracted DNA from 77 of 89 recognised tulip species (86% of the genus), enabling the creation of a revised phylogenetic tree. New materials collected in 2021 include leaf materials from ten species (*T. korolkowii, T. dubia, T. platystemon, T. spp., T. talassica, T. dasystemonoides, T. dasystemon, T. talassica, T. spp., T. spp*.) found during the April-May 2021 surveys as well as materials and GPS data provided by the National Herbarium of Uzbekistan and Kulob Botanic Gardens in Tajikistan. In addition to improving understanding of species descriptions and conservation priorities across Central Asia, preliminary results indicate four potentially new species from Kyrgyzstan. CUBG also drafted Red List assessments for 23 Central Asian tulip species (4 LC, 3 NT, 8 VU, 4 EN, 4 CR), including 18 found in Kyrgyzstan (4 LC, 3 NT, 8 VU, 2 EN, 1 CR). We plan to hold an expert workshop in 2022 to finalise these assessments, and this will be followed by a national tulip conservation strategy workshop.

Testing conservation interventions: To better understand whether reduced livestock grazing benefits tulips species and habitat, Bioresurs monitored vegetation covers and soil health in three fenced sample plots and three non-fenced control plots in 2021 (following creation of these plots in 2019). Data are being analysed and results will be shared in the EOY3 report.

Collecting seeds and bulbs for planting: 63.4g of tulip seeds and 890 bulbs (including 85 offsets) were collected from 10 wild species: *T. turkestanica, T. affinis, T. rosea, T. platestemon, T. korolkovi, T. greigii, T. talassica, T. zenaidae, T. dasystemon, T. kaufmanniana*. In 2021, we noted that almost all of the samples have disease-damaged bulbs. At present, the Laboratory of Phytopathology at the Institute of Biology of the National Academy of Sciences (NAS) is identifying the pathogens. Seeds of wild tulips were distributed to three experimental sites in Kyrgyzstan: two in Bishkek and one in Chunkurchak gorge. These sites have different microclimates, providing different optimal conditions for different species. Through collections made Y1-3, the project has in total supported ex-situ conservation of 17 species. Monitoring of germination rates of tulip species planted *ex situ* continued in 2021. These data are being compiled as part of an effort to understand best growing conditions for different tulips species.

Output 2: Grazing communities are more engaged in pasture planning and management.

Implementation of guidelines for pasture management and monitoring: The implementation of three Pasture management plans (PMP) - updated through the project in 2020 - is being regularly guided and monitored through visits and phone calls by AFLUK and FFI. In September 2021, AFLUK assessed PMP implementation in the project sites through field visits and meetings with pasture users. In all project sites, the updated Pasture Management Plans were approved by the local councils. Accordingly, seven permanent local commissions have been created to guide implementation. They also approved actions for wild tulip conservation, including establishing a gentle grazing regime and shifting grazing to account for tulip flowering times. Subsequent awareness-raising activities were conducted among pasture users.

Using pasture monitoring guidelines developed by the project in 2020, in 2021, experts from the Livestock and Pastures Research Institute of Kyrgyzstan (LPRIK) assessed and monitored spring and summer pastures in the project sites. Data were collected on vegetation cover, species composition, and pasture types and their condition in four experimental plots (150ha) in Shamshy, in five plots (300ha) in Baul and in four plots (100ha) in Sulyuktu.

Influencing pasture management policy

In October 2021, a round table in Bishkek brought together 48 central and local level policy makers on integrated forest and pasture management (8 women; 40 men) This meeting was organised following the success of the Darwin Initiative project in developing a joint forestry and pasture management plan between Leilek Forestry Unit and the Pasture Committee in the "Baul" pilot site. FFI and project partners presented this as a successful example of two sectors coming together to develop a joint plan to resolve over-grazing. The round table submitted a resolution to replicate this approach across Kyrgyzstan to the Agency on Forest Ecosystem of the Ministry of Agriculture, Water Resources and Regional Development of the Kyrgyz Republic on October 4th.

Output 3: Pasture users applying skills to support recovery of grasslands

Building on earlier capacity building trainings for pasture users in 2020 (benefiting 152 pasture users), in July 2021 the project organised an experience exchange for 7 (3 women) stakeholders who visited three pasture committees in two districts of Issyk-Kul region. Hosts shared their experiences of attracting investments to improve pasture infrastructures, improving mudflow-prone pasture roads and on record keeping and accounting. Of particular note was a visit to Sary-Bulak Pasture Committee. This PC is unusual as its chair and >50% of its members are female (pasture management is traditionally male dominated). The chair shared her experience in chairing the committee and in securing additional income for women pasture users through making Kyrgyz yurts.

Output 4: Cultural value of tulips supports community led in-situ conservation of tulips.

Supporting community engagement in tulip conservation: Equipment was purchased in 2021 to fence and establish a school nursery in Baul. Concrete pouring and welding works are in progress. At the end of October, tulip bulbs will be planted in the nursery and we will hold a workshop for schoolchildren on tulip planting and conservation.

Tulip awareness raising: In May 2021, a seminar on wild tulips was held in Shamshy Secondary School, and volunteer tulip conservation groups have since been formed. Bioresurs also created a short video on the importance of wild tulips conservation in Kyrgyz and Russian languages. Finally, preparations are underway for the forthcoming Scientific Conference on Wild Tulips of Kyrgyzstan in November 2021.

2a. Give details of any notable problems or unexpected developments/lessons learnt that the project has encountered over the last 6 months (for COVID-19 specific delays/problems, please use 2b). Explain what impact these could have on the project and whether the changes will affect the budget and timetable of project activities.

An unexpected development and lesson learned from the project relates to the joint forest and pasture management plan developed by Leilek Forestry Unit and Baul Pasture Committee. Developing a cross-sectoral plan was not the original objective of the project, but we supported its development in Y2 when we realised that lack of coordination between different agencies at Baul was a major impediment to sustainable pasture management. This became the first policy in the Kyrgyz Republic to coordinate cross sectoral activities on pasture management. In the reporting period, our work to develop this cross-sector plan at the local level drew unexpected attention from other Pasture committees and Forestry units at local and central levels. Governmental bodies have since preliminarily agreed to replicate this approach in other regions of Kyrgyzstan.

2b. Please outline any specific issues which your project has encountered as a result of COVID-19. Where you have adapted your project activities in response to the pandemic, please briefly outline how you have done so here. Explain what residual impact there may be on your project and whether the changes will affect the budget and timetable of project activities.

Due to the introduction of a state of emergency in the Kyrgyz Republic to mitigate the spread of Covid-19, many activities could not be carried out as planned. Activities that we had to postpone or adapt include:

1. The field trip for PhD student Brett Wilson was cancelled, but Bioresurs collected tulip samples and sent them to CUBG for analysis.
2. Education classes in local schools – including a master class in tulip cultivation - at all three project sites were postponed to the second half of Y3.
3. An exchange trip planned to the UK for five Kyrgyz scientists was also postponed to the second half of Y3, now scheduled for March 2022.

2c. Have any of these issues been discussed with LTS International and if so, have changes been made to the original agreement?

Discussed with LTS:	Yes/<u>No</u>
Formal change request submitted:	Yes/<u>No</u>
Received confirmation of change acceptance	Yes/<u>No</u>

3a. 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:£
3b. 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 rebudget Change Request as soon as possible. There is no guarantee that Defra will agree a rebudget 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.**
4. Are there any other issues you wish to raise relating to the project or to Darwin's management, monitoring, or financial procedures?
None.

If you were asked to provide a response to this year's annual report review 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 LTS International through a Change Request. Please DO NOT send these in the same email.

Please send your **completed report by email** to Darwin-Projects@ltsi.co.uk. The report should be between 2-3 pages maximum. **Please state your project reference number in the header of your email message e.g. Subject: 25-001 Darwin Half Year Report**