

Darwin Initiative Main and Post Project Annual Report

To be completed with reference to the “Writing a Darwin Report” guidance: (<http://www.darwininitiative.org.uk/resources-for-projects/reporting-forms>). It is expected that this report will be a **maximum** of 20 pages in length, excluding annexes)

Submission Deadline: 30th April 2020

Darwin Project Information

Project reference	26-010
Project title	Know your onions: sustainable plant use in Tajikistan
Country/ies	Tajikistan
Lead organisation	Centre for Middle Eastern Plants Royal Botanic Garden Edinburgh (UK)
Partner institution(s)	Kulob Botanic Garden (Tajikistan) Ganji Tabiat (Tajikistan) Zam-Zam (Tajikistan) Fauna & Flora International (UK)
Darwin grant value	£361,436
Start/end dates of project	1 July 2019 – 30 June 2022
Reporting period (e.g. Apr 2019 – Mar 2020) and number (e.g. Annual Report 1, 2, 3)	ARY1 July 2019 – March 2020
Project Leader name	Dr Sophie Neale
Project website/blog/social media	In development
Report author(s) and date	Dr Alan Forrest, Dr Gail Stott (RBGE); Dr Mariyo Boboev (Kulob Botanic Garden); Jovidon Boboev (Ganji Tabiat); David Gill (Fauna & Flora International).

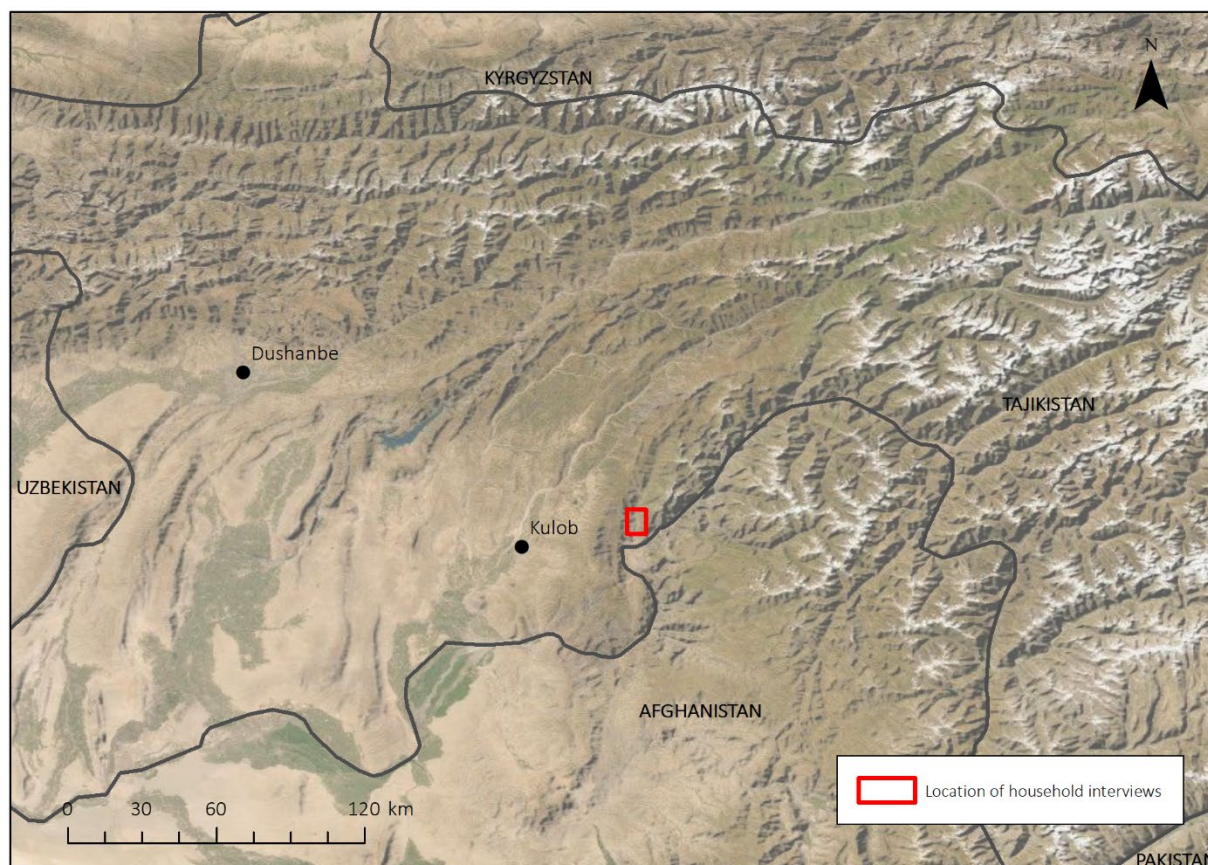
1. Project summary

The sustainable use of natural resources is embedded within international conventions and has a significant role to play in conserving biodiversity and improving rural livelihoods. However, biodiversity conservation debates often overlook the importance of local agro-biodiversity and the wide range of non-domesticated species used by people in their day-to-day lives.

Tajikistan is a floristically diverse mountainous country suffering from extreme environmental degradation. Scientists at Kulob Botanic Garden have recognized that while threats to fruit and nut forests are well known, there is a fundamental disconnect between routine harvesting and sale of wild herbaceous plant species and the potentially detrimental amount and methods of that harvesting. For example, in pilot studies, more than 80% of interviewed households were found to collect wild onion bulbs in order to augment their income.

Such poverty and financial insecurity will be compounded if wild plants are collected to extinction locally – as already documented in some areas. While many such species are not globally threatened, they are declining nationally and have been listed in the Red Book of Tajikistan. An alternative method to unsustainable wild harvesting is required. Small scale trials cultivating two species of wild onions in two communities have been successful in reducing wild harvesting by up to 50% and have reported increases in average income by up to 40% by growing wild plants locally. To make a significant difference with concomitant benefits for more communities a wider range of plant species could be cultivated, and markets identified and developed to enable increased financial benefits. Awareness and technical capacity to maintain long term programmes must be gained both in the communities and the organisations that wish to support them.

The project is located in Khatlon Province in southern Tajikistan, in identified communities in Muminabod and Dashtijum districts. Project partners Kulob Botanic Garden and Ganji Tabiat are located in the provincial capital Kulob City with partners Zam-Zam located in Dashtijum. The FFI country office is located in the capital Dushanbe with regular travel and communication with the project partners and region. Some communities have been chosen to overlap with Darwin Initiative project 24-006 in order to allow comparison among products, effects and benefits to ascertain any complementarity to be gained to further benefit local communities.



2. Project partnerships

The partnership between Kulob Botanic Garden and Ganji Tabiat with RBGE has been developing over the last six years, with multiple visits to Tajikistan for joint expeditions, training and capacity development. This was strengthened through the visit of Dr Mariyo Boboev and Jovidon Boboev to RBGE in November 2019 through support from the UK Embassy to Tajikistan. FFI have been working in Tajikistan for a number of years with local staff managing a range of projects including Darwin Initiative 24-006 on which Dr Boboev has a role. Links between UK partners have been strengthened through visit to both Edinburgh and Cambridge, and the involvement of FFI Tajikistan staff in RBGE expeditions.

The majority of planning, decision-making and actions are made by Tajik partners, with support from UK partners. This lends an element of sustainability to the project, and as capacity development increases the need for external support will lessen. All contacts with communities have been initiated and implemented through Tajik partners.

The communication during the first year has been primarily via email, with increasing engagement when planning specific aspects and the capacity development associated with specific tasks. This was strengthened through the visit to RBGE in 2019 at which FFI were present and remote conference calls were made to staff in Tajikistan (as well as to the Tajikistan Ambassador to the UK).

Project Manager Jovidon Boboev has been extremely efficient at following schedules, arranging activities, and implementing local decision making and all necessary arrangements supported by Tajik colleagues. Technical support on community interviews and engagements have been at the request of Tajik partners as and when necessary, and community engagement and establishment of agro-biodiversity plots has been undertaken virtually independently with commendable communication and evidence through photographs. This bodes well for the expansion of work programmes, arrangements for PMSD and PIA, arrangements for awareness events and local contributions for the National Report on Plants for Livelihoods in Tajikistan.

3. Project progress

3.1 Progress in carrying out project Activities

Output 1

BIODIVERSITY: improved conservation status of at least five nationally threatened native plants which are currently over-harvested in the wild.

Activity 1.1.1 Gather and model distribution data for target threatened species (desk and field study).

Desk study for gathering information largely complete, and GIS project established for mapping and modelling purposes. Data gathering from Tajik institutes and in Russian language ongoing. Gathering of field data ongoing. All data gathering and modelling to be complete by 30 September 2020.

Activity 1.1.2 Gather information about levels of wild harvesting from communities.

Information gathering about levels of wild harvesting from communities is ongoing. Up to date, interviews were conducted in one community. The interviews were done jointly with Zam-Zam representatives in villages of Dashtijum. In total, 24 respondents participated in interviews. The collected information will assist to assess the amount of material gathered, who gathers and processes collections, distances and times associated with harvesting, and both historical and contemporary information about the location and abundance of target species to inform conservation assessment and planning, as well as hitting targets for harvesting and collection time/distance reductions. It is expected to complete community interviews during 2020 but COVID-19 restrictions may cause delays in undertaking this activity.

Activity 1.1.3 Undertake formal conservation assessment of six target species.

Formal conservation assessment of six target species will be undertaken in the next reporting period. Data gathering is ongoing. A formal training workshop on IUCN Red Listing of Plants (national, regional, global) will be undertaken, with planning to introduce the concepts and methods online initially. This will primarily target KBG staff for use in Khatlon Province, with invited guests from other institutes nationally in order to input into the revision of the Red Book of the Republic of Tajikistan.

Activity 1.2.1 Establish long-term monitoring plots for six target species.

Monitoring plots for *Allium stipitatum* and *Allium rosenbachianum* were identified in Childukhtaron area (Pahndara) with initial monitoring in the field currently being processed. Due to the delay in the start date, identification of plots at the right season is being undertaken in spring 2020 for the remaining target species. Given project staff knowledge of these areas, a significant impact on plants in the field through over-harvesting is being recorded, even with evidence of some individuals being fined for such collecting activities.

Activity 1.2.2 Field and community monitoring of six target species.

Due to the project start date being modified, monitoring of target species is being undertaken in spring 2020.

Activity 1.3.1 Collection and storage of seeds and plants for *ex-situ* collections.

Seeds from four localities were collected for *ex-situ* collection and storage during June-August 2019 from Childukhtaron and Dashtijum. The following wild plant species seeds were collected: *Allium stipitatum*, *Bunium persicum*, *Ferula violacea* and *Paulia ovczinnikovii*. A certain amount of the collected seeds were sowed in pots in the KBG in order to be replanted in the demonstration plots when seedlings will appear. However, it was late for collection seeds of *Allium rosenbachianum* and *Allium trautvetterianum* therefore, seeds of aforementioned onions will be collected during May-June 2020 and sowed in November-December 2020. A subset of seeds will be transferred to *ex-situ* collections outside Tajikistan following discussion with project partners, during 2020.

Output 2

AWARENESS & CAPACITY DEVELOPMENT: capacity of project partners and local community stakeholders in horticulture and sustainable use of locally used plant species is improved. Awareness of sustainable plant use increased locally and nationally.

Activity 2.1.1 Horticulture training (Certificate in Practical Horticulture, delivered to project staff).

Previous training at Kulob Botanic Garden in the two years prior to the start of this project has resulted in KBG horticulture staff building upon their experience and skills. As such, it was decided that capacity was strong enough to initiate the first stages of horticultural work and community training, with a view to assessing additional requirements and building these into a formal training and qualification programme. This has subsequently been delayed due to postponement of the trip to Tajikistan due to COVID-10 pandemic. Once travel becomes available this will be discussed, planned and scheduled.

Activity 2.1.2 Project staff training in field survey, monitoring, documentation and reporting.

As per Activity 2.1.1 above. Several KBG staff and especially Dr Mariyo Boboev have extensive experience in survey and monitoring in Tajikistan.

Activity 2.2.1 Horticulture and sustainable harvesting training (delivered by project staff in communities).

See Activities 2.1.1 and 3.1.1. Further capacity development and training requirements for both staff and communities will be assessed, planned and scheduled.

Activity 2.3.1 PMSD and social research skills training (delivered to project staff).

This activity has been delayed due to COVID-19 pandemic. FFI staff have prepared and scheduled online training for FFI Tajikistan and Ganji Tabiat staff which will be passed on the Zam-Zam, KBG and communities, and workshops subsequently planned.

Activity 2.4.1 Sustainable use awareness workshops held in communities.

See Activity 3.1.1. Additional workshops will be planned based upon analyses of community interviews and plant use workshops being conducted in spring and summer 2020.

Activity 2.4.2 Sustainable use events held at KBG (stakeholders, schools, colleges).

Not yet applicable.

Activity 2.5.1 Media campaigns on sustainable use of natural resources.

Not yet applicable.

Activity 2.5.2 Project website online (monitoring of website hits).

Website template with web developer and expected to be online in summer 2020. Website release will be promoted and subsequent hits monitored.

Activity 2.6.1 Produce and disseminate project success reports.

Not yet applicable.

Activity 2.7.1 Conservation Assessment training.

Data gathering ongoing, and remote conceptual and methodological training ongoing. Recommendation for project staff to undertake formal online Conservation Assessment training at conservationtraining.org to be recommended and supplemented by project staff, specific expertise and methods for assessment of plant species and local contexts (Dr Alan Forrest is a Certified IUCN Assessor and Trainer).

Output 3.

LIVELIHOODS & HEALTH: livelihoods improved for 100 households through increased and diversified income from sustainable plant product sales, with associated food security and social benefits.

Activity 3.1.1 Agro-biodiversity plots established and in production.

During August 28-31, 2019 PO Ganji Tabiat team paid visits to Childukhtaron Jamoat of Muminobod District and Dashtijum Jamoat of Sh. Shohin District in order to select experienced farmers for involvement in the project. Experienced farmers were selected in the first instance to ensure that methods and practices were understood and successful before moving on to additional households potentially with less experience. Twenty households were selected. Seeds were distributed to these and 20 additional households giving a total of 40 engaged households in the first engagement.

During October - November 2019 PO "Ganji Tabiat" and KBG representatives paid visits to Dashtijum Jamoat of Sh. Shohin District and Childukhtaron Jamoat of Muminobod District. The main purpose of the visits was sowing collected seeds in the household plots of project beneficiaries. A workshop was conducted to project beneficiaries on technology of sowing seeds. In theoretical part of the workshop general information on selected species, their importance, bio-ecological features etc. were provided to project beneficiaries. In the practical session of the workshop KBG representatives based on their experiences demonstrated in the household plots methods of domestication of wild edible plants species. Project beneficiaries prepared their household plots for sowing seeds and selected types of edible wild plants based on their preferences. It is expected that further discussions about target species selection will occur during and after PMSD workshops.

Activity 3.2.1 Market appraisal workshops in five communities.

PMSD workshops were planned for the visit of UK partners in May 2020. As this trip has been delayed due to COVID-19 pandemic, online training is being prepared and a schedule constructed. There is therefore a delay to this activity but it is expected that training will be complete and workshops conducted by the end of September 2020.

Activity 3.2.2 Market chain analysis workshops (with all actors and stakeholders).

As for Activity 3.2.2 above.

Activity 3.2.3 "Producer groups" established and operating.

Activity planned for 2020 following PMSD training and workshops.

Activity 3.3.1 Participatory Impact Assessments.

Not yet applicable.

Output 4

GENDER EQUALITY: increase in number of women in five communities benefiting from involvement in household and community management and budgeting, with increased horticulture and business skills.

Activity 4.1.1 Horticulture training in communities delivered to women.

Initial activities in communities have included training for women. Of the 20 experienced farmers so far engaged, seven were women. It will be necessary to ensure a greater proportion of women are targeted and included in future plot establishment and subsequent training.

Activity 4.1.2 Sustainable harvesting training delivered to women.

As per Activity 4.1.1.

Activity 4.1.3 Production and packaging training delivered to women.

Not yet applicable; as per Activity 4.1.1.

Activity 4.1.4 Training in agro-biodiversity business management and market access delivered to women.

Not yet applicable; as per Activity 4.1.1.

Activity 4.1.5 Participatory Impact Assessments targeting livelihood benefits for women.

Not yet applicable; as per Activity 4.1.1.

Output 5

SUSTAINABLE PLANNING: "National Report on Sustainable Use of Plants in Tajikistan" developed to benefit biodiversity and community livelihoods in Tajikistan, including case studies and appropriate governance structures.

Activity 5.1.1 Research and gather data on plant use in Tajikistan.

Published and online information about the uses of plants in Tajikistan and in the wider Central Asia region has been collated. Acquisition of information from local experts and those held at Tajik institutes and in the Russian language is ongoing. Initial community interviews have indicated levels of plant use for target species, and workshops on the wider details of plant use are planned for 2020.

During reporting period, contributions of Dr. Mariyo Boboev on three target wild species were published on publication platform SpringerLink. (See the links below).

https://link.springer.com/referenceworkentry/10.1007%2F978-3-319-77087-1_60-1

https://link.springer.com/referenceworkentry/10.1007%2F978-3-319-77087-1_100-1

https://link.springer.com/referenceworkentry/10.1007%2F978-3-319-77087-1_62-1

Activity 5.1.2 National Workshop on sustainable plant use in Tajikistan.

A National Workshop on Plants for Livelihoods will be undertaken in the third year of project to engage stakeholders and discuss potential outcomes locally and nationally in order to ensure the National Report is thoroughly researched and discussed and has potential for up-scaling. The workshop will include discussions on how to increase awareness nationally, and what outputs can help to achieve this. The workshop will most likely take place in October 2021 at a National Symposium hosted by Kulob Botanic Garden.

Activity 5.1.3 Draft National Report on Plants for Livelihoods circulated to stakeholders and reviewers.

Activity planned for final year of project. Draft layout for National Report to be discussed and developed in year two.

Activity 5.2.1 Launch events for National Report.

Activity planned for final year of the project.

Activity 5.3.1 Steering Committee (all partners).

Project partners have been flexible in approach during the first year. KBG and Ganji Tabiat staff travelled to Edinburgh and met with RBGE and FFI staff in November 2019. FFI maintains routine contact with FFI Tajikistan staff. Tajik partners have regular and informal discussions and meetings and have been largely responsible for local implementation. Following planning and delivery of online training and implementation of additional workshops and community engagements, a full online meeting will be scheduled for autumn 2020.

Activity 5.3.2 Steering committee (Tajikistan partners).

See Activity 5.3.1.

Activity 5.3.3 Submit reports to Darwin Initiative.

Responsibility of RBGE to submit timely reports to Darwin Initiative. This report delayed due to COVID-19 pandemic.

Activity 5.3.4 Monitoring and Evaluation plan and reviews.

Currently, during project development, Tajik partners have planned and implemented tasks and reported back to UK staff. As year two progresses, this will evolve into more critical M&E locally in consultation with all partners and beneficiaries. This will be detailed in future reports.

3.2 Progress towards project Outputs

0.1 BIODIVERSITY: by end of project, five plant species threatened by unsustainable harvesting have better actual and projected conservation status through reduction in wild harvesting.

Six species identified; information on wild harvesting collected; seeds of plants collected and germination started, with plots established in 20 households.

0.2 AWARENESS & CAPACITY DEVELOPMENT: at least 100 biodiversity stakeholders (from local to national) in Tajikistan more aware of the sustainable use of natural resources and how to implement benefits at local and national scales.

Communities more aware of sustainable use through introduction to and participation in project; formal awareness and capacity activities not yet underway; capacity development conducted prior to project start and top up training delayed due to coronavirus pandemic – online and remote training under development (no concerns about delivery at this stage);

0.3 LIVELIHOODS & HEALTH: agro-biodiversity programmes established benefiting at least 100 households in terms of increased and more resilient household income, direct access to plant products.

Plots established in 20 households with 20 more engaged and receiving seeds and training; expansion to additional communities and households under way; PMSD planning and remote training/delivery underway.

0.4 GENDER EQUALITY: at least 50 women skilled in horticultural methods and developing and managing niche agri-businesses.

Women represented in households/farmers selected in first stage, and in community interviews, workshops and initial training. Numbers suggest that a greater effort will be needed to ensure equitable benefits, although community engagement and project still at an early stage..

0.5 SUSTAINABLE PLANNING: national report and roadmap for long term sustainable agro-biodiversity programmes developed, with pilot programmes for six species established and demonstrated to stakeholders.

Not yet applicable. However, published and grey literature on plant uses in Tajikistan and across Central Asia collated, local information sources identified with data collection planned. Symposium to be hosted by Kulob Botanic Garden in late 2021 will allow data gathering, discussion and consolidation locally towards the final report.

3.3 Progress towards the project Outcome

Outcome: Increased awareness and capacity locally and nationally to use Tajikistan's plant resources sustainably, leading to improved conservation status and enhanced livelihoods for communities.

Progress more or less as expected during Year One, with all components of the project set in motion and planned (with some delays due to COVID-19 pandemic). The activities increase awareness informally, with more formal campaigns planned for later in the project.

3.4 Monitoring of assumptions

Outcome Assumptions

SECURITY: Tajikistan remains a secure location to work, with no risks for Tajik or international partners (Khatlon province is currently a safe location, working with known and trusted partners with UK Embassy advice and support).

This assumption remains valid, but the situation will be closely monitored as and when travel to Tajikistan becomes possible following the COVID-19 pandemic. Travel within Tajikistan during the pandemic has not been restricted, but all project partners and participants in communities have been offered the decision to not travel or receive project workers locally. Routine communication with Tajik partners has been maintained to ensure all partners are aware of the current situation in Tajikistan.

NATURAL DISASTERS: floods, landslides and poor travel infrastructure may cause access issues (ameliorated through flexible planning and scheduling).

No issues encountered as yet; all communities remain accessible. Communities have been offered the right to refuse visitors from then project due to uncertainties about COVID-19.

FINANCE: international transfers and exchange rate variation could impact the timing and cost of in country implementation (exchange rates have been estimated conservatively to take account of Brexit, and routine planning with in-country partners will ensure banking instability is counteracted).

So far, no issues with international transfers have been encountered, with exchange rates remaining within planned assumptions. Exchange rates are however changing in response to Brexit and the COVID-19 pandemic and these changes will be monitored closely and Change Requests submitted if necessary.

STAFF RETENTION: continuity of staff at all partner organizations (Tajik partners have provided named individuals for all positions, and have assured these are trusted and respected staff who demonstrate long-term commitment, although if staff did move on there are a number of young graduates already known to the project team who could fulfil those roles).

All staff remain engaged and working in collaboration on the project. We do not anticipate any changes at this stage.

Output 1 Assumptions.

On the ground, measurable improvements in species numbers will not be feasible with the project, but a direct reduction in a specific threat coupled with *ex situ* collections will allow a re-assessment of status alongside a future projection of persistence.

Assumption still valid. Consideration of re-establishment of one target species at a single location may give more directly measurable benefits for biodiversity that can additionally be monitored long term.

Output 2 Assumptions.

Participation of stakeholders at awareness raising and media events can be dependent on various factors - however KBG have held such events previously, and good relations with the UK Embassy in Tajikistan and the National Academy of Sciences make this a low risk.

Not yet applicable as no formal events will be organised and implemented until later in the project.

Output 3 Assumptions.

Community engagement (existing working relations between Tajik partners and several communities make this a low risk).

No issues encountered; community engagement has been positive thus far.

Land tenure (some communities and households may be limited in the availability of land for establishment of agro-biodiversity plots, however existing pilot projects suggest that solutions can be found and are likely to increase as benefits accrue).

So far this issue has not been encountered in the field. We will target additional and more remote and isolated communities early in Year Two and will keep abreast of this issue at that time.

Output 4 Assumptions.

Social and cultural issues (involvement of women in increased responsibility in responsibility for agro-biodiversity plots and benefits has the potential to present cultural resistance).

So far this issue has not been encountered but will monitor as PMSD and PIA training and implementation increases.

Output 5 Assumptions.

Inability to engage with all relevant stakeholders (to be ameliorated by early and thorough planning).

No issues encountered as yet.

3.5 Impact: achievement of positive impact on biodiversity and poverty alleviation

Impact Statement:

Plant diversity is conserved through sustainable use, providing long term enhancement of well-being and livelihoods in local communities.

This impact statement remains valid, but it is too early in the project to assess direct or future effects. With all project components on track we envisage the impact statement to remain valid and the project to contribute to this through awareness, engagement and direct benefits that can be measured, monitored and expanded beyond the project boundaries and timeline.

4. Contribution to the Global Goals for Sustainable Development (SDGs)

The following SDGs were cited in the project application. The first year of the project has not contributed to them directly, although the establishment of horticultural plots in communities will surely start to address them as the plots come into production specially SDG1, SDG2 and SDG3. Further reporting will target SDGs in future documentation.

SDG1 No Poverty - through ensuring empowerment of the target communities and sustainable livelihoods opportunities, specifically greater and diversified local food production and income;

SDG2 Zero Hunger - through establishing sustainable food provision in agro-biodiversity plots to grow variable food items, thereby increasing food security. The effects will be enhanced through working in tandem with Darwin Initiative project 24-006;

SDG3 Good Health & Well-Being - through food security and diversification maintained throughout the year and under the control and management of local communities;

SDG5 Gender Equality - through inclusiveness of the work programme and women's participation;

SDG12 Responsible Consumption & Production - through the sustainable use of natural resources, taking into consideration wild harvested resources and ecosystem service conservation;

SDG13 Climate Action - through addressing habitat degradation by reducing the unsustainable removal of key habitat species such as *Bunium persicum*;

SDG15 Life on Land - through preventing species loss and conserving ecosystem services. This is very relevant as Tajikistan has a high level of degraded vegetation especially in mountain ecosystems.

The above goals will be addressed at the National level by incorporating lessons learnt and benefits accrued through local interventions, through the National Report on Plants for Livelihoods, with recommendations for meeting SDG targets nationally and up-scaling project outcomes.

5. Project support to the Conventions, Treaties or Agreements

This project will directly address all three main objectives of the Convention on Biological Diversity (conservation, sustainable use, equitable benefit sharing), and in particular the following articles:

Article 7 through identifying species at risk through unsustainable harvesting, and monitoring the effects of interventions designed to improve conservation status;

Article 8 through proposing interventions to reduce unsustainable use of resources leading to better in-situ conservation outcomes, especially for threatened species;

Article 9 through establishment of *ex-situ* collections (plants and seeds) of taxa threatened through unsustainable harvesting, in Tajikistan and globally;

Article 10 through establishing sound practices that both ensure sustainable use and also contribute to community livelihoods, while also benefiting target threatened species in their natural habitats;

The project will also address Article 12 through capacity development of key partners, Article 13 through education and awareness events in communities, schools and other institutes, Article 17 through the exchange of information about threatened plant species, and Article 18 through international cooperation.

The project will contribute directly to achieving the following Aichi Targets:

A1 by increasing awareness of biodiversity values through community, school and stakeholder and media events;

A2 by integrating biodiversity values into community level planning for livelihood and conservation benefits;

B5 through a reduction in unsustainable wild harvesting leading to better conservation status for target species and the ecosystem services they provide;

C12 by actively monitoring improvements in the conservation status of target threatened species;

C13 through *ex-situ* collections of target species maintained in active community programs and in appropriate institutions;

D16 through awareness and discussion with stakeholders about the equitable sharing of biodiversity resources nationally and internationally, and ensuring and trade respects the Nagoya Protocol;

E18 by respecting the practices of local communities and working with them to ensure the benefits of biodiversity are used sustainably;

E19 by facilitating workshops and a National Report on Plants for Livelihoods in Tajikistan that will make knowledge about plant use and case studies of sustainable resource use available nationally.

Project benefits will be documented against each Aichi target.

The project will be framed within the Global Strategy for Plant Conservation, and in particular will address the following targets:

Target 8 (*ex situ* collections, in communities as well as in national and international collections);

Target 9 (socioeconomically valuable plant species and knowledge conserved);

Target 12 (all wild harvested plant products sourced sustainably, through training in sustainable harvesting and agro-biodiversity plots);

Additionally targets 14 (awareness), 15 (capacity) and 16 (networks and partnerships) will all be developed as core components of the project.

Target 12 is especially pertinent as a balance between sustainable harvesting for those with no land to cultivate against agro-biodiversity plots in communities will ensure sustainable resource use alongside benefits for all community members.

Benefits will be documented against each target.

The Nagoya Protocol will be fully respected, and additional local and national recommendations developed, to ensure any *ex situ* collections adhere to the principles and procedures of Access and Benefit Sharing in Tajikistan and with international partners.

Year One has achieved basic components of the identification of threatened taxa through unsustainable harvesting, proposed amelioration methods and started to implement them. *Ex situ* collections have been established.

The Focal Point for Tajikistan has not been contacted during the first year of project development. Direct interaction will be planned for Year Two and for the National Symposium in Year Three to ensure National benefits are targeted and met.

6. Project support to poverty alleviation

After only nine months of the project activities, it is very early to report directly on poverty alleviation as many of the targets are still under development to be met by the end of the project.

The households in target communities all report that they collect target species from the wild. The benefits include direct consumption (contributing to food security and diet), sale (contributing income) and gifts (contributing social cohesion). A significant number of households report that the income derived from these and other wild sourced plants contributes to their household income. The project is designed to increase these benefits while reducing sustainable wild harvesting, with added benefits of a reduction in time spent on potentially dangerous mountain expeditions to collect plants. Additional and transferable horticulture skills are an added benefit.

The project will demonstrate these benefits in target communities with target species but is designed to collate enough additional information and lessons learned to enable expansion to additional species and additional areas at minimal expense or effort during up-scaling. These plans will be co-constructed and shared nationally in the National Report on Plants for Livelihoods.

Achievements this year have been limited to identification of communities and demonstrating further the fact that they value the plants the project focuses on, and informal awareness raising about sustainable use during community engagement and interviews.

7. Consideration of gender equality issues

At this stage, the project is still documenting the roles of gender in harvesting, horticulture and the concomitant benefits. Community interviews are covering all genders. Selected households/farmers represent 7/20 women and it is clear that additional effort will be required to ensure equitable benefits as the project moves forward. Targeting isolated, marginalised communities and women will be a feature of this.

8. Monitoring and evaluation

Monitoring and Evaluation has been based upon a sound communication strategy, with known and trusted partners. This was evident before and during the application process, and immediately after the project started when Kulob Botanic Garden Director Dr Mariyo Boboev and Ganji Tabiat Director Jovidon Bobev visited the UK with funds from the Global Britain Fund administered through the UK Embassy in Dushanbe. This allowed a range of experiences for the participants, primarily in Edinburgh but also at other locations, that will encourage further development of Kulob Botanic Garden and also allowed detailed discussion among partners about the Darwin Initiative Project.

Communication has been regular and productive. Development of resources and working schedules has been successful, with Tajik partners taking the initiative in the development of local schedules and input into community engagement and participation.

Towards the end of the project year, Monitoring and Evaluation has been challenging – primarily as it became clear that the COVID-19 pandemic would prevent planned travel and subsequent training and direct interaction with project partners and communities. A significant amount of time has and is being spent developing alternate engagement, training and work schedules that would ordinarily have been undertaken by all partners together in Tajikistan which has delayed some annual milestones. However, the experience of UK partners working overseas, often without the ability to travel, and the Tajik partners not suffering from any direct lockdown that prevented work continuing in country, has meant that adaptive planning has been successful.

Following further training and community activities during spring and summer 2020, a full meeting of all partners will be scheduled for September 2020 to discuss achievements, undertake adaptive planning as necessary, to be reported on at the Half Year Report.

9. Lessons learnt

The UK partners had planned to travel to Tajikistan in late 2019 for project discussions and initial training. However, as Tajik partners had visited the UK and training over the past few years at Kulob Botanic Garden meant that the basic horticulture skills to start the project were already sufficiently developed, it was decided to delay travel until May 2020. Unfortunately the COVID-19 pandemic meant that this was not possible. This was unfortunate, but the decision to delay travel was made in the best interests of the project, staff availability at the time, and the best use of project finances – and without any knowledge of the impending pandemic. This has been frustrating but will not ultimately affect the project outcomes.

Communication and adaptive planning in the face of the COVID-19 pandemic has been generally successful, and all activities towards outputs and outcomes remain on track if somewhat delayed.

Finalising the Project Participation Agreements and arranging subsequent financial transfers took far longer than expected, and in the future it will be advantageous to develop these as soon as any funding applications are successful – if necessary requesting a sufficient project start delay to allow all arrangements to be in place.

10. Actions taken in response to previous reviews (if applicable)

Not applicable.

11. Other comments on progress not covered elsewhere

Not applicable.

12. Sustainability and legacy

The Ambassador of Tajikistan to the UK visited RBGE in November 2019, and he spoke to Dr Mariyo Boboev by phone as Mariyo was at that time visiting Kew Gardens following his time spent in Edinburgh. The Ambassador has asked to be kept informed of the project progress.

Communication with the UK Ambassador to Tajikistan is being maintained, and advice about travel and logistics sought as and when necessary. UK partners have not visited Tajikistan since the new UK Ambassador took up his posting, but no doubt this will occur when travel becomes available again. The previous UK Ambassador visited Kulob Botanic Gardens regularly and supported all works as an example of UK “soft diplomacy”. We hope that the current Ambassador will continue this relationship.

A Darwin Fellowship has been awarded to Kobil Bobokalonov, who is associated with Kulob Botanic Garden and assisting with project remotely. He has taken part in a range of trainings and expeditions with RBGE staff and is an excellent young botanist and researcher based at the National Herbarium in Dushanbe. His Fellowship will be widely publicized and all project partners are delighted that he will receive further training in the UK when this becomes possible.

The exit strategy remains valid. The National Report on Plants for Livelihoods will be used to promote the benefits of project outcomes and how these can be up-scaled beyond the life of the project. Further, the production of cultivation guides for specific plants – project target species and others – will enable this up-scaling. All these approaches will be discussed with stakeholders at the National Symposium in Kulob in late 2021.

13. Darwin identity

The UK Government made a video featuring the project and the Darwin Initiative, filmed at RBGE.

The associated webpage link is here:

<https://www.deliveringforscotland.gov.uk/stories/1592-2/>

The project has been mentioned in some social media channels: most often on the Twitter accounts of CMEP and several other staff and research groups at RBGE. UK partners released press briefs in 2019.

The Darwin Initiative is recognised in Tajikistan as a distinct thing, due to pre-existing projects funded through FFI and also through the work of the UK Ambassador. The project partners see DI as a way to further their own ideas with priming funds, and to support conservation and development in ways that would not otherwise be possible. This has resulted in the successful application for a young Tajik botanist as a Darwin Fellow for which planning is now underway.

Promotion of this project will increase once the project website design is complete, at which time it will be promoted through CMEP, RBGE and FFI channels alongside those in Tajikistan.

14. Safeguarding

RBGE and UK project partners have safeguarding policies in place.

No safeguarding issues have been encountered during the first year of the project.

Community engagement has been implemented through trusted and pre-existing relationships between Tajik partners and those communities.

During the COVID-19 pandemic, all partners and beneficiary communities have been given the option to dictate what they are comfortable with according to the project interventions. The wearing of facemasks has been compulsory in Tajikistan for some part of the project activities. All staff were offered the choice to work as normal, or to reduce work or travel or interaction to whatever degree was dictated by National Policy or through personal choice. As yet, no issues have been reported that suggest any safeguarding issues under the global pandemic have arisen.

FFI staff in Tajikistan were asked to cease national travel under conditions allow for safe travel, as dictated by FFI protocols. As such, modification of training plans from in-country to remote – both internationally and within Tajikistan – have been implemented. Some delays have resulted, but project outcomes and outputs remain unaffected.

All international travel has been suspended to ensure control under pandemic conditions.

15. Project expenditure

Table 1: Project expenditure during the reporting period (1 April 2019 – 31 March 2020)

Project spend (indicative) since last annual report	2019/20 Grant (£)	2019/20 Total Darwin Costs (£)	Variance %	Comments (please explain significant variances)
Staff costs (see below)				Not applicable
Consultancy costs				Not applicable
Overhead Costs				Not applicable
Travel and subsistence				Not applicable
Operating Costs				Not applicable
Capital items (see below)				Not applicable
Monitoring & Evaluation (M&E)				Not applicable
Others (see below)				Bank charges
TOTAL				

Annex 1: Report of progress and achievements against Logical Framework for Financial Year 2019-2020

Project summary	Measurable Indicators	Progress and Achievements April 2019 - March 2020	Actions required/planned for next period
<p>Impact</p> <p>Plant diversity is conserved through sustainable use providing long-term enhancement of wellbeing and livelihoods in local communities.</p>		<p>The first year of the project has concentrated on planning and background research and training towards achieving the impact. The project partners have a clear understanding of the goals of the project, and how to demonstrate the impact once complete.</p>	
<p>Outcome</p> <p>Increased awareness and capacity locally and nationally to use Tajikistan's plant resources sustainably, leading to improved conservation status and enhanced livelihoods for communities.</p>	<p>0.1 BIODIVERSITY: By end of project, five plant species threatened by unsustainable harvesting have better actual and projected conservation status through reduction in wild harvesting.</p> <p>0.2 AWARENESS & CAPACITY DEVELOPMENT: At least 100 biodiversity stakeholders (from local to national) in Tajikistan more aware of the sustainable use of natural resources and how to implement benefits at local and national scales.</p> <p>0.3 LIVELIHOODS & HEALTH: Agro-biodiversity programmes established benefiting at least 100 households in terms of increased and more resilient household income, direct access to plant products.</p> <p>0.4 GENDER EQUALITY: At least 50 women skilled in horticultural methods and developing and managing niche agri-businesses.</p> <p>0.5 SUSTAINABLE PLANNING: National report and roadmap for long term sustainable agro-biodiversity</p>	<p>Six target species identified, seeds and plants collected and in <i>ex-situ</i> collections, data gathered to enable conservation assessments, field monitoring sites identified.</p> <p>Local communities more aware of sustainable harvesting and use.</p> <p>Community horticulture plots established (1 communities and 20 households with 20 more engaged); community interviews detailing plant use and benefits under way.</p> <p>Training and PMSD approaches developed and focusing on women.</p> <p>Information on plant use in Tajikistan and regionally collated through literature and through community interviews and workshops.</p>	<p>Undertake conservation assessments; expand <i>ex-situ</i> collections; undertake further field monitoring.</p> <p>Planning for awareness campaigns and events.</p> <p>Expand community horticulture plots to additional communities and households focusing on isolated and marginalised areas; PMSD approaches developed for remote delivery with schedule.</p> <p>PMSD and training targeting further women in isolated and marginalised communities.</p> <p>Further information from local partners, and from communities generated through PMSD to inform development of guides for cultivation programmes; engagement with National experts at symposium; coordinate development of National Report.</p>

	programmes developed, with pilot programmes for six species established and demonstrated to stakeholders.		
Output 1 BIODIVERSITY: improved conservation status of at least five nationally threatened native plants which are currently over-harvested in the wild.	1.1 Baseline National IUCN Red List status of six species established by end of year 1, and status improved by end of project as a result of a reduction in unsustainable harvesting. 1.2 By end of project, long term monitoring programme for six species established. 1.3 By end of year 2, ex situ seed and plant collections of six species established at KBG.	1.1 Majority of distribution data gathered for target species, awaiting additional inferred distribution information and national threats for completion of conservation assessments early in Year Two; 1.2 Collection areas and monitoring plots identified and surveys under way; 1.3 <i>Ex situ</i> collections of seeds for four target species collected, germination and living collections started and established;	
Activity 1.1.1 Gather and model distribution data for target threatened species (desk and field study)		Online and published distribution data gathered; field and herbaria data on distribution and threats ongoing.	Data acquisition to be complete in first half of Year Two.
Activity 1.1.2 Gather information about levels of wild harvesting from communities		24 community interviews undertaken	Expansion to additional households and localities in first half of Year Two.
Activity 1.1.3 Undertake formal conservation assessment of six target species		Partial data capture complete.	Data capture, training and assessment to be completed in first half of Year Two.
Activity 1.2.1 Establish long-term monitoring plots for six target species		Monitoring plots located and established.	Production of formal maps and survey protocols in first half of Year Two.
Activity 1.2.2 Field and community monitoring of six target species		Surveys started and ongoing.	Surveys continuing into spring and summer 2020.
Activity 1.3.1 Collection and storage of seeds and plants for <i>ex-situ</i> collections		Seeds collected for all target species; stored at KBG, germinated and living collection establishment ongoing.	Seed collection planned from additional localities as identified by partners and communities; expand <i>ex-situ</i> collections to RBGE.
Output 2. AWARENESS & CAPACITY DEVELOPMENT: capacity of project partners and local community stakeholders in horticulture and sustainable use of locally used plant species is improved. Awareness of	2.1 By end of year 1, at least five project staff trained in field collection, documentation, horticulture skills and links between biodiversity and poverty alleviation via adapted RBGE Practical Certificate in Horticulture; staff are co-training at workshops in years 2 and 3	2.1 KBG staff already trained to sufficient levels prior to start of project due to previous work programmes; additional training postponed until May 2020 then further postponed due to COVID-19 pandemic. KBG staff already instructing communities in care of target species. 2.2 Not yet applicable; community training already started.	

<p>sustainable plant use increased locally and nationally.</p>	<p>2.2 By end of project, 100 community members (50% women) trained in horticulture skills for agro-biodiversity programmes involving multiple plant species and including sustainable collection</p> <p>2.3 By end of year 1, at least 5 staff trained in social and rural research and monitoring and PMSD methods; successfully gathering and assessing data in years 2 and 3</p> <p>2.4 By end of project, at least six awareness raising workshops/events held for stakeholders at KBG and in communities.</p> <p>2.5 By end of project, at least two media awareness campaigns held highlighting sustainable use of natural resources; project website live.</p> <p>2.6 By end of project, dissemination of successful project activity summaries to at least 40 communities outwith the project to raise awareness of practical solutions to unsustainable harvesting that benefit communities directly.</p> <p>2.7 By end of project, at least five people trained in formal conservation assessment.</p>	<p>2.3 PMSD training postponed until May 2020 then further postponed due to COVID-19 pandemic; online and local training methods and materials under development with slight delay to output.</p> <p>2.4 Not yet applicable.</p> <p>2.5 Not yet applicable.</p> <p>2.6 Not yet applicable.</p> <p>2.7 Not yet applicable; planned for national workshop in Kulob in October 2021.</p>
<p>Activity 2.1.1 Horticulture training (Certificate in Practical Horticulture, delivered to project staff)</p>		<p>Delayed.</p> <p>Postponed until May 2020, further postponed due to COVID-19 pandemic. Existing capacity sufficient to undertake agreed tasks and community training. Training for Certificate in Practical Horticulture dependent on travel to Tajikistan (situation being closely monitored) with remote learning modules being developed.</p>
<p>Activity 2.1.2 Project staff training in field survey, monitoring, documentation and reporting</p>		<p>Delayed.</p> <p>As above.</p>

<p>Activity 2.2.1 Horticulture and sustainable harvesting training (delivered by project staff in communities)</p>	<p>Not yet applicable, but training already occurring in some localities.</p>	
<p>Activity 2.3.1 PMSD and social research skills training (delivered to project staff)</p>	<p>Delayed.</p>	<p>Online materials being developed for in country application.</p>
<p>Activity 2.4.1 Sustainable use awareness workshops held in communities</p>	<p>Not yet applicable, but informal introduction and discussion on subject undertaken during community interviews and workshops.</p>	
<p>Activity 2.4.2 Sustainable use events held at KBG (stakeholders, schools, colleges)</p>	<p>Not yet applicable.</p>	<p>Planned for final six months of project in 2022.</p>
<p>Activity 2.5.1 Media campaigns on sustainable use of natural resources</p>	<p>Not yet applicable.</p>	<p>Planned for final six months of project in 2022.</p>
<p>Activity 2.5.2 Project website online (monitoring of website hits)</p>	<p>Delayed.</p>	<p>Details of requirements currently with web developer, with a view to the website being online in the first six months of Year Two.</p>
<p>Activity 2.6.1 Produce and disseminate project success reports</p>	<p>Not yet applicable.</p>	<p>Planned for final six months of project in 2022.</p>
<p>Activity 2.7.1 Conservation Assessment training</p>	<p>Not yet applicable.</p>	
<p>Output 3. LIVELIHOODS & HEALTH: livelihoods improved for 100 households through increased and diversified income from sustainable plant product sales, with associated food security and social benefits.</p>	<p>3.1 By end of project, agro-biodiversity plots of six species established in five communities. 3.2 Co-produced solutions to create sustainable market niches identified through five community workshops in year 1 and implemented in years 2 and 3. 3.3 By end of project, participatory well-being impact assessments show evidence of (1) average 10% increase in local income from plant product sales, (2) 20% increase in locally grown produce and concomitant financial saving, and (3) 25% reduction in</p>	<p>3.1 In Year One a total of 20 plots established with 20 more households engaged. 3.2 Not yet applicable. 3.3 Not yet applicable.</p>

	lengthy and potentially dangerous wild harvesting trips.		
Activity 3.1.1 Agro-biodiversity plots established and in production		Total of 20 plots established in Year One and 20 more engaged.	Additional plots planned, focusing on remote and isolated communities and households.
Activity 3.2.1 Market appraisal workshops in five communities		Delayed.	Remote training materials and schedules developed; training to start in summer 2020 followed by implementation thereafter.
Activity 3.2.2 Market chain analysis workshops (with all actors and stakeholders)		Not yet applicable.	
Activity 3.2.3 "Producer groups" established and operating		Not yet applicable.	
Activity 3.3.1 Participatory Impact Assessments		Not yet applicable.	
Output 4. GENDER EQUALITY: increase in number of women in five communities benefiting from involvement in household and community management and budgeting, with increased horticulture and business skills.	4.1 By end of project, at least 50 of 100 people trained in horticulture, managing agro-biodiversity plots and subsequent production methods, access to markets and financial benefits (indicator 2.2) are women.	4.1 Not yet applicable; women included in community interviews, and 7 of 20 households engaged were female farmers. Additional targeting of women in engagement, capacity development and implementation is planned for PMSD approaches.	
Activity 4.1.1 Horticulture training in communities delivered to women		Not yet applicable, but training already occurring in some localities.	
Activity 4.1.2 Sustainable harvesting training delivered to women		Not yet applicable, but training already occurring in some localities.	
Activity 4.1.3 Production and packaging training delivered to women		Not yet applicable.	
Activity 4.1.4 Training in agro-biodiversity business management and market access delivered to women		Not yet applicable.	
Activity 4.1.5 Participatory Impact Assessment (women)		Not yet applicable.	

Output 5. SUSTAINABLE PLANNING: "National Report on Sustainable Use of Plants in Tajikistan" developed to benefit biodiversity and community livelihoods in Tajikistan, including case studies and appropriate governance structures.	5.1 Draft report completed and circulated to national and international stakeholders for review by end of year 2. 5.2 By end of project, final report completed and disseminated at national launch event.	5.1 Not yet applicable. 5.2 Not yet applicable.	
Activity 5.1.1 Research and gather data on plant use in Tajikistan	Available online distribution data for target species and plant use publications accessed;	Awaiting additional informal information from project partners, herbaria, and information to be gathered at national symposium in Kulob in October 2021	
Activity 5.1.2 National Workshop on sustainable plant use in Tajikistan	Not yet applicable		
Activity 5.1.3 Draft National Report on Plants for Livelihoods circulated to stakeholders and reviewers	Not yet applicable		
Activity 5.2.1 Launch events for National Report	Not yet applicable		
Activity 5.3.1 Steering Committee (all partners)	Meetings held in UK in November 2019, and subsequent bi-lateral communications between all partners on regular basis	Stick more to regular schedule of meetings; full project meeting planned for September 2020.	
Activity 5.3.2 Steering committee (Tajikistan partners)	Routine communication between all partners.	Plan for formal meetings for planning, progress and M&E.	
Activity 5.3.3 Submit reports to Darwin Initiative	Half year report submitted on time; annual report delayed due to COVID-19 pandemic		
Activity 5.3.4 Monitoring and Evaluation plan and reviews	Plans discussed in November 2019, with regular reporting from Tajik partners.		

Annex 2: Project's full current logframe as presented in the application form (unless changes have been agreed)

Project summary	Measurable Indicators	Means of verification	Important Assumptions
<p>Impact: Plant diversity is conserved through sustainable use providing long-term enhancement of wellbeing and livelihoods in local communities.</p>			
<p>Outcome: Increased awareness and capacity locally and nationally to use Tajikistan's plant resources sustainably, leading to improved conservation status and enhanced livelihoods for communities.</p>	<p>0.3 BIODIVERSITY: By end of project, five plant species threatened by unsustainable harvesting have better actual and projected conservation status through reduction in wild harvesting.</p> <p>0.4 AWARENESS & CAPACITY DEVELOPMENT: At least 100 biodiversity stakeholders (from local to national) in Tajikistan more aware of the sustainable use of natural resources and how to implement benefits at local and national scales.</p> <p>0.3 LIVELIHOODS & HEALTH: Agro-biodiversity programmes established benefiting at least 100 households in terms of increased and more resilient household income, direct access to plant products.</p> <p>0.4 GENDER EQUALITY: At least 50 women skilled in horticultural methods and developing and managing niche agri-businesses.</p> <p>0.5 SUSTAINABLE PLANNING: National report and roadmap for long term sustainable agro-biodiversity programmes developed, with pilot programmes for six species established and demonstrated to stakeholders.</p>	<p>0.1 BIODIVERSITY: Conservation status for at least five species assessed and projected nationally at start and end of project; ex-situ seed and plant collections established in communities, KBG and RBGE.</p> <p>0.2 AWARENESS & CAPACITY DEVELOPMENT: Workshop and demonstration attendance lists and photographs, media documented, training schedules and attendances recorded, participants feedback documented.</p> <p>0.3 LIVELIHOODS & HEALTH: Agro-biodiversity programmes established and photographed, benefits documented through community interviews and financial records.</p> <p>0.4 GENDER EQUALITY: Involvement and benefits documented through monitoring of project impacts on women.</p> <p>0.5 SUSTAINABLE PLANNING: National Report published and disseminated, pilot programmes established and documented.</p>	<p>SECURITY: Tajikistan remains a secure location to work, with no risks for Tajik or international partners (Khatlon province is currently a safe location, working with known and trusted partners with UK Embassy advice and support);</p> <p>NATURAL DISASTERS: floods, landslides and poor travel infrastructure may cause access issues (ameliorated through flexible planning and scheduling);</p> <p>FINANCE: international transfers and exchange rate variation could impact the timing and cost of in country implementation (exchange rates have been estimated conservatively to take account of Brexit, and routine planning with in-country partners will ensure banking instability is counteracted);</p> <p>STAFF RETENTION: continuity of staff at all partner organizations (Tajik partners have provided named individuals for all positions, and have assured these are trusted and respected staff who demonstrate long-term commitment, although if staff did move on there are a number of young graduates already known to the project team who could fulfil those roles).</p>
<p>Output 1 BIODIVERSITY: improved conservation status of at least five nationally threatened native plants</p>	<p>1.1 Baseline National IUCN Red List status of six species established by end of year 1, and status improved by end</p>	<p>1.1 Conservation status assessed, projected and published by end of project.</p>	<p>On the ground, measurable improvements in species numbers will not be feasible within the project, but a direct reduction in a specific threat</p>

<p>which are currently over-harvested in the wild.</p>	<p>of project as a result of a reduction in unsustainable harvesting.</p> <p>1.2 By end of project, long term monitoring programme for six species established.</p> <p>1.3 By end of year 2, <i>ex situ</i> seed and plant collections of six species established at KBG.</p>	<p>1.2 Project report, monitoring methodology and evidence of first monitoring undertaken.</p> <p>1.3 <i>Ex-situ</i> collections documented, demonstration plots constructed and planted, photographed.1.3 etc.</p>	<p>coupled with ex-situ collections will allow a re-assessment of status alongside a future projection of persistence.</p>
<p>Output 2 AWARENESS & CAPACITY DEVELOPMENT: capacity of project partners and local community stakeholders in horticulture and sustainable use of locally used plant species is improved. Awareness of sustainable plant use increased locally and nationally.</p>	<p>2.1 By end of year 1, at least five project staff trained in field collection, documentation, horticulture skills and links between biodiversity and poverty alleviation via adapted RBGE Practical Certificate in Horticulture; staff are co-training at workshops in years 2 and 3</p> <p>2.2 By end of project, 100 community members (50% women) trained in horticulture skills for agro-biodiversity programmes involving multiple plant species and including sustainable collection</p> <p>2.3 By end of year 1, at least 5 staff trained in social and rural research and monitoring and PMSD methods; successfully gathering and assessing data in years 2 and 3</p> <p>2.4 By end of project, at least six awareness raising workshops/events held for stakeholders at KBG and in communities.</p> <p>2.5 By end of project, at least two media awareness campaigns held highlighting sustainable use of natural resources; project website live.</p> <p>2.6 By end of project, dissemination of successful project activity summaries to at least 40 communities outwith the project to raise awareness of practical solutions to unsustainable harvesting that benefit communities directly.</p>	<p>2.1 Training materials, courses and workshops documented through photographs, videos and text and publicised online and in print.</p> <p>2.2 Training attendance records, workshop photographs, training schedules, attendee feedback documented.</p> <p>2.3 Training schedule, attendance records and photographs, attendee feedback documented; project reports.</p> <p>2.4 Event reports, attendee lists and photographic documentation.</p> <p>2.5 Photographic, film and text evidence of campaigns, stakeholder attendees documented and feedback collected, outreach of campaigns documented; website online.</p> <p>2.6 Dissemination materials translated and published, dissemination locations recorded and delivery documented.</p> <p>2.7 Training schedule, attendance records and photographs, attendee feedback documented; project reports.</p>	<p>Participation of stakeholders at awareness raising and media events can be dependent on various factors - however KBG have held such events previously, and good relations with the UK Embassy in Tajikistan and the National Academy of Sciences make this a low risk.</p>

	2.7 By end of project, at least five people trained in formal conservation assessment.		
Output 3 LIVELIHOODS & HEALTH: livelihoods improved for 100 households through increased and diversified income from sustainable plant product sales, with associated food security and social benefits.	3.1 By end of project, agro-biodiversity plots of six species established in five communities. 3.2 Co-produced solutions to create sustainable market niches identified through five community workshops in year 1 and implemented in years 2 and 3. 3.3 By end of project, participatory well-being impact assessments show evidence of (1) average 10% increase in local income from plant product sales, (2) 20% increase in locally grown produce and concomitant financial saving, and (3) 25% reduction in lengthy and potentially dangerous wild harvesting trips.	3.1 Horticultural guides for six target species, photographs and maps of community plots. 3.2 Workshop reports, photographs and attendance lists, sales records from implementation phase. 3.3 Participatory well-being impact assessments (across multiple indicators of well-being eg. material, freedom of choice and action, social relations) reported and shared with communities; reports on produce grown and financial records from sales.	Community engagement (existing working relations between Tajik partners and several communities make this a low risk); Land tenure (some communities and households may be limited in the availability of land for establishment of agro-biodiversity plots, however existing pilot projects suggest that solutions can be found and are likely to increase as benefits accrue).
Output 4 GENDER EQUALITY: increase in number of women in five communities benefiting from involvement in household and community management and budgeting, with increased horticulture and business skills.	4.1 By end of project, at least 50 of 100 people trained in horticulture, managing agro-biodiversity plots and subsequent production methods, access to markets and financial benefits (indicator 2.2) are women.	4.1 Training schedules, attendance registers and photographs, community interviews, feedback documented.	Social and cultural issues (involvement of women in increased responsibility in responsibility for agro-biodiversity plots and benefits has the potential to present cultural resistance).
Output 5 SUSTAINABLE PLANNING: "National Report on Sustainable Use of Plants in Tajikistan" developed to benefit biodiversity and community livelihoods in Tajikistan, including case studies and appropriate governance structures.	5.1 Draft report completed and circulated to national and international stakeholders for review by end of year 2. 5.2 By end of project, final report completed and disseminated at national launch event.	5.1 Report available online 5.2 Reports and documentation of workshops.	Inability to engage with all relevant stakeholders (to be ameliorated by early and thorough planning).

Activity 1.1.1 Gather and model distribution data for target threatened species (desk and field study)

Gather and model distribution data for six target threatened species (desk and field study). This will involve assessing collections at several Tajik and international herbaria, online and expert data sources, and discussions with Tajik and international botanists with field experience. Species distribution modelling will be conducted by UK experts and verified with Tajik botanists, with a direct view to incorporation into IUCN Red List assessments. Gathering information on threats to plant species will be undertaken simultaneously.

Activity 1.1.2 Gather information about levels of wild harvesting from communities

Gather information about levels of wild harvesting from communities. This will involve community interviews at five target communities, to assess the amount of material gathered, who gathers and processes collections, distances and times associated with harvesting, and both historical and contemporary information about the location and abundance of target species to inform conservation assessment and planning, as well as hitting targets for harvesting and collection time/distance reductions.

Activity 1.1.3 Undertake formal conservation assessment of six target species

Undertake formal conservation assessment of six target species. Following data gathering, a formal training workshop on IUCN Red Listing of Plants (national, regional, global) will be undertaken. This will primarily target KBG staff for use in Khatlon Province, with invited guests from other institutes nationally in order to input into the revision of the Red Book of the Republic of Tajikistan.

Activity 1.2.1 Establish long-term monitoring plots for six target species

Establish long-term monitoring plots for six target species. Following discussions with local experts and communities that routinely harvest the six target species, monitoring plots to assess the impact of harvesting reductions will be established, with protocols established to give evidence of biodiversity status improvements.

Activity 1.2.2 Field and community monitoring of six target species

Field and community monitoring of six target species. Annual visits to monitoring plots will be undertaken to assess population status of six target species. Changes in levels of harvesting, population status and abundance metrics will be used to assess project impact and conservation status.

Activity 1.3.1 Collection and storage of seeds and plants for *ex-situ* collections

Collection and storage of seeds and plants for *ex-situ* collections. Seed collections of six target species (and additional species at similar locations) will be collected from at least three localities and stored at KBG. These stores will be used as source populations for community agro-biodiversity programmes. Following agro-biodiversity plot establishment, communities will collect and store seed to ensure a sustainable horticulture programme long term. Living plants will be collected and grown in demonstration plots at KBG for horticulture training and for demonstration of the useful plants of Tajikistan. These collections will consider a range of species beyond the six target species.

Activity 2.1.1 Horticulture training (Certificate in Practical Horticulture, delivered to project staff)

Horticulture training (Certificate in Practical Horticulture, delivered to at least five project staff). RBGE horticulture training experts will adapt the RBGE Certificate in Practical Horticulture and train KBG staff in relevant disciplines. Training will directly apply to further training of communities in the cultivation of useful plants but will also increase capacity at KBG in general terms with specific benefits for the demonstration and education garden areas.

Activity 2.1.2 Project staff training in field survey, monitoring, documentation and reporting

At least five project staff training in field survey, monitoring, documentation and reporting. KBG and associated staff and students will undertake field exercises to collect plants and seeds, to monitor population status of target species, and in documenting and analysing resultant information.

Activity 2.2.1 Horticulture and sustainable harvesting training (delivered by project staff in communities)

Horticulture and sustainable harvesting training (delivered by project staff in communities). KBG staff who have been trained by RBGE staff will undertake horticulture training in five target communities benefiting at least 100 individuals, overseen in the first instance by RBGE advisers and subsequently independently. These skills can be applied beyond the life of the project, with community training delivered in communities or at KBG as required.

Activity 2.3.1 PMSD and social research skills training (delivered to project staff)

PMSD and social research skills training (delivered to project staff). At least five staff at Zam-Zam and Ganji Tabiat will receive further training from FFI experts in a range of socio-economic and market analysis skills, that will be used directly to assess impact and establish agro-biodiversity niche businesses. Skills learned during Darwin Initiative project 24-006 will be built upon. Zam-Zam are already implementing these skills, and Gani Tabiat staff will learn these skills and apply them to the function and outputs from KBG, leading to livelihoods benefits from botanical expertise.

Activity 2.4.1 Sustainable use awareness workshops held in communities

Sustainable use awareness workshops held in communities. Raising awareness of the value of biodiversity will be delivered at the same time as practical horticultural training. The benefits of local production, sustainable harvesting, and the value plant species bring to habitats through ecosystem services - as well as direct values - will be addressed and impacts of awareness campaigns monitored.

Activity 2.4.2 Sustainable use events held at KBG (stakeholders, schools, colleges)

Sustainable use events held at KBG (stakeholders, schools, colleges). Following establishment and population of demonstration plots at KBG with associated interpretation and knowledge products, events will be held targeting the sustainable use of natural resources and the value of plant biodiversity engaging school children, college and university students, and stakeholders and decision makers locally and nationally. Events will be delivered by Tajik project staff.

Activity 2.5.1 Media campaigns on sustainable use of natural resources

Media campaigns on sustainable use of natural resources. Local newspapers and television channels will be engaged to cover the project, both at the outset and at the end of the project when outputs and impacts can be documented. At least two events will be held, and routine contact with media sources maintained.

Activity 2.5.2 Project website online (monitoring of website hits)

Project website online (monitoring of website hits). A project website will be designed, populated and online by the end of year one. Progress towards project goals will be regularly updated, and content shared on social media. Downloads of physical outputs will be made available on the project website, and on other online platforms available in Tajikistan.

Activity 2.6.1 Produce and disseminate project success reports

Produce and disseminate project success reports. At the end of the project, a summary of what can be achieved from the cultivation of useful plants will be produced and disseminated to at least 40 communities outside the project target areas. This will enable up-scaling of the methods to be encouraged and supported by the capacity developed at project partners as necessary.

Activity 2.7.1 Conservation Assessment training

Formal training in IUCN Conservation Assessment (Red Listing) will be delivered by RBGE staff to at least five Tajik partners. Places on this training course will be offered to additional Tajik institutes outside the project partners.

Activity 3.1.1 Agro-biodiversity plots established and in production

Agro-biodiversity plots established and in production. Five target communities will be engaged and agro-biodiversity plots established by the end of year one in order to grow a range of useful plants. Assessment of available land and potential benefits will be conducted for each participating household.

Activity 3.2.1 Market appraisal workshops in five communities

Market appraisal workshops in five communities. Each community will discuss who the market actors are for each selected useful plant and develop the establishment of "producer groups" to interact with market actors.

Activity 3.2.2 Market chain analysis workshops (with all actors and stakeholders)

Market chain analysis workshops (with all actors and stakeholders). Market actors identified by community market appraisal workshops will be invited to attend market chain analysis workshops to identify opportunities and establish systems to benefit households and market actors through participatory planning.

Activity 3.2.3 "Producer groups" established and operating

"Producer groups" established and operating - following from market appraisal and chain analyses these will be established in line with workshop recommendations. A budget has been included as seed funding for producer groups.

Activity 3.3.1 Participatory Impact Assessments

Participatory Impact Assessments. PIA methods (including community mapping and profiling, well-being rating, financial benefits)) will be undertaken early during the project and set out targets for impact assessment through a participatory approach.

Activity 4.1.1 Horticulture training in communities delivered to women

Horticulture training in communities (Activity 2.2.1) will include at least 50% women attendees in order to ensure gender equality.

Activity 4.1.2 Sustainable harvesting training delivered to women

Training on sustainable harvesting in plots and in the wild will include at least 50% women to ensure gender equality.

Activity 4.1.3 Production and packaging training delivered to women

Training on the harvesting, production and packaging of plant products for sale or use will include at least 50% women to ensure gender equality.

Activity 4.1.4 Training in agro-biodiversity business management and market access delivered to women

Establishment of "producer groups" will include discussion with both genders, and groups will have representation from at least 50% women in running and managing such groups.

Activity 4.1.5 Participatory Impact Assessment (women)

PIA will specifically address gender dis-aggregated information to ensure that gender equality is improved for women, including those that are currently at the lower end of the poverty scale (as identified through community profiling).

Activity 5.1.1 Research and gather data on plant use in Tajikistan

Research and gather data on plant use in Tajikistan. RBGE Project Manager will initiate data gathering on published uses of plants in Tajikistan (and adjacent states as appropriate) and interact with local and international experts to gather additional information. Community plant use data will also be included. All data will be summarized as part of the National Report on Native Plants for Livelihoods and made available online and in print.

Activity 5.1.2 National Workshop on sustainable plant use in Tajikistan

Following data gathering and establishment of agro-biodiversity plots, a national workshop on plants for livelihoods will engage stakeholders and discuss potential outcomes locally and nationally in order to ensure the National Report is thoroughly researched and discussed and has potential for up-scaling. The workshop will include discussions on how to increase awareness nationally and what outputs can help to achieve this.

Activity 5.1.3 Draft National Report on Plants for Livelihoods circulated to stakeholders and reviewers

The RBGE project Manager will draft the National Report by the end of year two and circulate to stakeholders and reviewers for feedback prior to finalization, publication and launch.

Activity 5.2.1 Launch events for National Report

The National Report will be published and launched at a national event, with associated media coverage.

Activity 5.3.1 Steering Committee (all partners)

The Steering Committee including all Tajik and international partners and external M&E reviewers will convene annually in Tajikistan. This is essentially an internal M&E exercise to ensure all project partners and associated input into the monitoring and subsequent success of the project.

Activity 5.3.2 Steering committee (Tajikistan partners)

Tajik project partners will meet at six-month intervals in between international committee meetings, in order to evaluate and address project activities locally as necessary.

Activity 5.3.3 Submit reports to Darwin Initiative

RBGE, in consultation with all project partners, will write and submit Half Year and Annual reports to Darwin Initiative.

Activity 5.3.4 Monitoring and Evaluation plan and reviews

A M&E plan will be established at the project inception, with relevant targets against outputs and international conventions set. The importance of continual re-evaluation of project activities against this M&E plan will be stressed, and training in M&E activities given to Tajik staff by UK experts.

Annex 3: Standard Measures

Table 1 Project Standard Output Measures

Code No.	Description	Gender of people (if relevant)	Nationality of people (if relevant)	Year 1 Total	Year 2 Total	Year 3 Total	Total to date	Total planned during the project
3	Number of people to attain other qualifications (i.e. Not standard measures 1 or 2 above)		Tajik	0	10	0	0	10
6A	Number of people to receive other forms of education/training (which does not fall into categories 1-5 above) *		Tajik	20	80	0	20	100
7	Number of (i.e., different types - not volume - of material produced) training materials to be produced for use by host country			0	2	1	0	3
14A	Number of conferences/seminars/workshops to be organised to present/disseminate findings			0	0	1	0	1
14B	Number of conferences/seminars/workshops attended at which findings from Darwin project work will be presented/disseminated.			0	0	1	0	1
20	Estimated value (£'s) of physical assets to be handed over to host country(ies)							16,500
22	Number of permanent field plots and sites to be established during the project and continued after Darwin funding has ceased			6	0	0	2	6

Table 2 Publications

Title	Type (e.g. journals, manual, CDs)	Detail (authors, year)	Gender of Lead Author	Nationality of Lead Author	Publishers (name, city)	Available from (e.g. weblink or publisher if not available online)

Annex 4 Onwards – supplementary material (optional but encouraged as evidence of project achievement)

Checklist for submission

	Check
Is the report less than 10MB? If so, please email to Darwin-Projects@ltsi.co.uk putting the project number in the Subject line.	YES
Is your report more than 10MB? If so, please discuss with Darwin-Projects@ltsi.co.uk about the best way to deliver the report, putting the project number in the Subject line.	NA
Have you included means of verification? You need not submit every project document, but the main outputs and a selection of the others would strengthen the report.	YES
Do you have hard copies of material you want to submit with the report? If so, please make this clear in the covering email and ensure all material is marked with the project number. However, we would expect that most material will now be electronic.	NO
Have you involved your partners in preparation of the report and named the main contributors	YES
Have you completed the Project Expenditure table fully?	YES
Do not include claim forms or other communications with this report.	