Darwin Initiative Main and Post Project Annual Report

Darwin Project Information

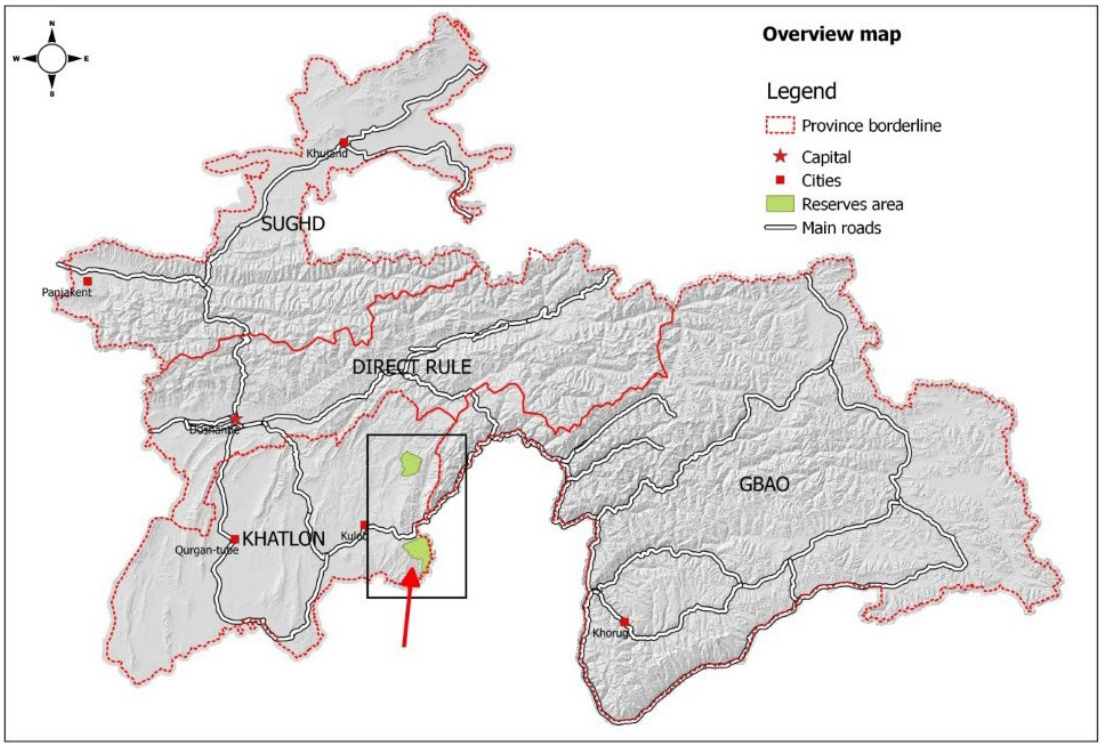
Project reference	24-006
Project title	Enhancing forest biodiversity and community resilience to Tajikistan's changing climate
Host country/ies	Tajikistan
Lead organisation	Fauna & Flora International
Partner institution(s)	Kulob Botanical Garden, Zam Zam, Muminobad Forestry Management Unit, Dashtijum Forestry Management Unit
Darwin grant value	**£383,708**
Start/end dates of project	1st April 2017 – 31st March 2021
Reporting period (e.g. Apr 2019 – Mar 2020) and number (e.g. Annual Report 1, 2, 3)	1st April 2019 – 31st March 2020 Annual Report 3
Project Leader name	David Gill
Project website/blog/Twitter	https://www.fauna-flora.org/projects/conserving-threatened-fruit-nut-forests-tajikistan
Report author(s) and date	David Gill, Ubayd Gulamadshoev, Muqaddas Milikbekova, Rasima Sabzalieva, Mario Boboev. Tojinisso Odinaeva, April 2020

1. Project summary

Childukhtaron (14,600ha) and Dashtijum (50,100ha; 13,400ha forest) forest reserves are identified in Tajikistan's National Biodiversity Strategy Action Plan (NBSAP) as two of the country's three most valuable walnut-maple forest sites, with a rich variety of wild fruit and nut trees, including pear *Pyrus tadshikistanica* (CR, endemic), *Pyrus korshinskyi* (CR), almond *Amygdalus bucharica* (VU) and apple *Malus sieversii* (VU). These globally significant forests and unique agro-biodiversity sites are important as genetic reservoirs, as climate-related impacts threaten domesticated varieties grown worldwide. The forests are essential to the livelihoods of 700 resident households. Mean income in both areas is below $1.25/person/day (SDG extreme poverty level) with limited income-generating opportunities available. Collection and sale of Non-Timber Forest Products (NTFPs) is a significant and vital livelihood strategy for women and men.

Only 3% of Tajikistan is now forested, and fruit-and-nut woodlands are under severe pressure from firewood collection, livestock grazing and over-harvesting. The habitat is degraded, with declining diversity and little natural regeneration. The forest is state-owned but the forest service lacks the capacity to manage in collaboration with local people, who have user rights but do not perceive that they have a stake or role in conserving the resource. The World Bank identified Tajikistan as the country most vulnerable to climate change in Europe and Central Asia, with very low adaptive capacity. The steeply sloping project area suffers from landslides, extreme weather events including heavy spring rains, summer drought, and pests; all predicted to worsen.

These problems were identified through the National Biodiversity Strategy Action Plan and through FFI's long-term biodiversity programme with local partners and government in the region. This project will address the identified problems by strengthening ecosystem resilience and addressing local communities' urgent need for financial resilience, through increasing access to growing markets for fruit and nut products, and secondary processing.



A map of Tajikistan with locations of the two reserves highlighted. Childukhtaron is located to the north of Dashtijum

2. Project partnerships

Project partners include: the NGO Ganji Tabiat linked to Kulob Botanic Gardens in south Tajikistan, led by national botanist Mario Boboev; Muminobad and Dashtijum Forestry Service Units (FSU), the local sections of the Agency for Forestry under the Government of the Republic of Tajikistan, responsible for the management of the reserves and the local NGO Zam Zam, who lead on livelihood and market development activities.

Other collaborators include the NGO, Centre for Climate Change and Disaster Reduction (CCDR) who conducted trainings and adaptation planning workshops on climate change in Y2 and the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) who participated in Steering Group meetings and acted as an advisor on forest management.

FFI has an office in Tajikistan and our staff are regularly in contact with all partners to monitor progress and to advise on management, technical and administrative delivery. The project steering group met for the fourth time in November 2019 (see Evidence folder (EF): Admin: A1). All partners shared updates on progress and offered each other solutions to challenges faced in delivery. This enabled the group to adapt and/or agree on new activities for Y4: including supporting roll-out of Joint Forest Management in the reserves (see 1.3); strengthening work on saving groups (see 2.8) and further diversifying species used in planting (see 3.8). Sub-grant agreements detailing partner deliverables have been signed with Kulob Botanical Gardens (rather than Ganji Tabiat for administrative reasons but the same personnel are involved) and Zam Zam, and these are renewed each project year, see EF: Admin - SGA1 and 2.

3. Project progress

3.1 Progress in carrying out project Activities

1.1 Conduct habitat and botanical surveys to update (currently weak) baseline biodiversity data for sites and key species at Childukhtaron and Dashtijum

Baselines data on threatened trees and habitat quality were collected In Y1 and Y2. In Y3 we collected new data points on threatened trees and created a database and map for all survey work carried out in the reserves since 2012. Our data suggest that the reserves are home to a minimum of 995 individual Critically Endangered *P. korshinskyi* and 212 Critically Endangered *P. tadshikistanica* (see EF1:1.2(a-d)).

1.2 Conduct interviews to collect local knowledge of agro-biodiversity

Following collection of household survey data in Y1 and Y2, in Y3 we produced a final survey report (see EF1:1.3) and applied the report's findings in the field. This established a baseline on different aspects of wellbeing (e.g. material, relational and subjective) and forest condition and use. The results are informing forest management on the ground (e.g. the report highlighted a need to strengthen community involvement in forest management, which FFI has been acting on since Y2 under activity 1.3). In addition, in Y3, during the stakeholder fora (see 3.5) we collated traditional knowledge on 39 native tree species (including how people value these trees alongside recommendations for restoration of each species). In Y4, we will share the findings back to the community for further input and the final recommendations for restoration of each species will be appended to each reserve's Participatory Management Plan (see 1.3).

1.3 Collate data to help establish sustainable harvest levels for key species

As described in the Y1 report, we expanded the scope of this activity to address sustainable forest management more broadly, allowing the project to address other factors, such as unsustainable grazing, which have a critical effect on forest regeneration. We are addressing this in two ways:

(1) We are supporting development of Participatory Management Plans (PMP) (an overall spatial plan which identifying key zones for restoration, NTFP collection and pasture). In Y3, we finalised a PMP in Dashtijum (see EF1: 1.4) following a final consultation meeting which gave 30 community representatives (27 men and 3 women) an opportunity to revise, input and change the terminology to ensure the plans were understandable and accessible to the community. The final version was shared with the FSU and ten hard copies were distributed in local community where the workshop was held in November 2019 and later distributed by the FSUs a further 70 households. We had planned to repeat this activity in Childukhtaron reserve in March 2020, but our consultant could not travel to Tajikistan as a result of the travel ban put in place due to COVID-19 related restrictions. We have postponed the activity and will complete it in Y4 when it is safe to do so.

(2) We provided advice to the reserves to support them in their adoption of Joint Forest Management, a policy in Tajikistan that empowers community members to secure the rights and responsibility for long-term monitoring, management and sustainable harvest of individual forest plots. Seventy plot-holders have signed Joint Forest Management agreements with Dashtijum FSU so far, and we expect a similar number to sign agreements with Childukhtaron FSU in 2020.

1.4 Produce and disseminate survey reports (in Russian, Tajik and English)

Species status reviews and action plans (1.6) for Critically Endangered *Pyrus korshinskyi* and *P. tadshikistanica* and Vulnerable *Malus sieversii* and *Amygdalus bucharica* drafted in Y2 were completed in Y3, with updated sections detailing planned conservation actions for each species. These are available in EF1: 1.2 (a-d) and will be disseminated to project partners and collaborators in Tajikistan in Y4.

1.5 Compile information on likely climate change impacts on forest ecosystem/ tree species, both from scientific community/ literature and community vulnerability assessments; develop climate change risk assessments for the sites

Achieved in Y2. We will use these to inform awareness raising activities scheduled for Y4.

1.6 Workshops with specialists and local stakeholders to develop Species Action Plans for three Red-List trees (two CR Pyrus species); produce and disseminate plan documents

Species status reports (1.4) were updated in Y3 to include action plans for four threatened species. These actions will be added as an annex to the Participatory Management Plan in each site (1.3) so that all management actions are available in one document. A number of these actions (including surveys in unexplored areas of forest, fencing and population reinforcement planting) were implemented in Y3 with anticipated co-funding from the Global Trees Campaign.

1.7 Agree protocol for participatory forest monitoring scheme with forest service and communities

Following the decision made by both reserves to adopt Joint Forest Management (see 1.3), FFI worked with both reserve's management teams to adapt existing monitoring protocols to make them more suitable for use by community members and to add fields to allow basic data collection on forest condition and regeneration. To encourage uptake, we kept the protocols as simple as possible (form available in EF1: 1.5). In January 2020, we organised a training workshop at each reserve (in total attended by 5 women and 38 men) to get feedback on the forms and explain how to use them. In the same workshop, a representative from the State Agency for Forestry provided training on relevant legislation regarding Joint Forest Management and on the requirements for each reserve and the plot-holders to collect data on forest use and condition (see EF1: 1.6).

1.8 Implement monitoring: patrols collect data as per agreed protocol

Monitoring is now underway in Dashtijum with 70 plot holders (those who have already signed up to Joint Forest Management). Plot-holders are using the forms developed by FFI. This will be repeated in Childukhtaron later in Y 4

1.9 Monitoring data collated, analysed and reported to forest service and local stakeholders (including community forest monitors)

Data were collected by community members for the first time in spring 2020. FFI will support the Forest Service with the analysis of this data in Year 4.

1.10 Workshop to disseminate research and learning to local and national Forest Agency and interested stakeholders.

Due to start in Year 4.

2.1 Preliminary work to start the Participatory Market System Development process for Dashtijum in consultation with community representatives and project partners: identification of appropriate products, preliminary market mapping and strategic design, identifying and

engaging key market actors (preliminary steps of PMSD roadmap – http://www.pmsdroadmap.org/).

Completed and reported on in the Y1 annual report.

2.2 Small community workshops to empower marginalised market actors (local NTFP collectors in the villages of Dashtijum and Childukhtaron) and prepare them to engage with other market actors in the next steps - with a particular emphasis on women (separate groups if necessary).

Although completed in Y1-2, we have continued to support local collectors to engage with market actors throughout Y3. For example, we supported eight group members to participate in three training/learning exchange sessions, hosted by a different enterprise: one herbal tea and one dried fruit processor (based in the local region: Khatlon) and a larger dried fruit processor in Sughd (a commercial centre in Tajikistan). The sessions were useful at clarifying the standards of dried fruit expected by larger-scale intermediaries. As a result, groups established three new agreements to sell dried products from the project sites.

2.3 Facilitate participatory market mapping at workshops with representatives of all market actors (collectors, local traders, processors, 'big' traders, input providers), help the community members to develop stronger links with traders and processors; followed by participatory planning – resulting in action plans.

This activity was completed and reported on in the Y1 annual report.

2.4 Support the two communities to establish producer cooperatives, ensuring active participation of women

At the end of Y2, there were two producer groups in place (60 members in total). However, the benefits derived from membership (including access to training, shared equipment, improved product quality and support to reach new markets) have made the groups very popular, and in Y3 there are now six groups (with a total membership of 160 people (90% women)). In Y3, our partner Zam Zam facilitated the establishment of the four new groups, mentored each group, organised exchange trips for representatives (see 2.2), provided training and supported the groups to obtain the certificates required to sell products to national markets (see 2.5)

By helping the groups to increase product quality (better drying techniques), add value to products (e.g. improved packaging) and reach new markets, the project has helped the groups to command a higher price for fruit and nut products. In 2019, the prices for ten different products all increased, with some products increasing in price by 50%.

These price gains have been critical to help buffer the negative impacts of a poor harvest in 2019 (with apple, pear and cherry trees badly affected by extremely heavy spring rains); average harvest in Childukhtaron dropped from 0.55 tonnes per member in 2018 to 0.39 tonnes in 2019. In Childukhtaron, the reduced harvest meant that average income from fruit and nut products decreased by 2.5%, despite a drop in average volume of 30%. In Dashtijum, average income per group member increased by over 100% (thanks to increases in price and an increase in the average volume by 18%). In Childukhtaron especially, the support from the project has helped to prevent the worst impacts of the poor harvest in 2019, with just slight decreases in income levels when they would otherwise have fallen significantly. See EF2: 2.2 for information on income level of DJ&CH producer groups.

2.5 Run (minimum) 15 practical training events for local women and men involved in fruit and nut collection, processing and sale - provide follow-up support through producer cooperatives to improve product quality through enhanced local processing techniques.

In Y3, Zam Zam ran a total of eight training workshops for producer and saving groups, adding to the 26 workshops and trainings completed in Y1-2. All training events completed in Y3 are described in Zam Zam's annual report (see EF2: 2.1). Training included: **(1)** eight members of

Dashtijum's producer groups (six women; two men) participated in a learning exchange with other producer group members in Childukhtaron in August 2019. Participants exchanged knowledge on techniques used to dry and process fruit products; **(2)** the same eight members were trained in quality standards by a fruit processing company "Tuhfahoi Tabiat" in Khatlon region in August 2019; **(3)** a different eight members of producer groups (5 women; 3 men) from Dashtijum and Childukhtaron villages were trained in dried fruit processing in the Sughd region in September 2019; **(4-6)** Seventy savings group members (58 women; 12 men) from Dashtijum village were trained in three workshops on financial management in September 2019; **(7-8)** two training workshop were held on labeling and packacking for producer groups members in Dashtijum (17 women; 3 men) and Childukhtaron (16 women; 4 men).

Following these trainings, Zam Zam supported the producer groups to obtain certificates needed to sell five processed products (mulberry, walnut, apple, briar and cherry plum) to national markets. The producer groups now attach a label to the packages including a photo featuring the most famous natural vistas of each reserve.

2.6 Provide locally appropriate equipment (identified in PMSD action plans) to producer cooperatives to improve processing at local level – for example, this might be drying racks or packaging machine.

Equipment provided in Y1-2 (including two electric fruit drying machines, four wooden, handmade fruit dryers and two packing machines) is still in use at both project sites. In Y3, additional materials were delivered to the groups to support continued improvement in processing and packaging (including gloves, knives, glass jars, buckets, plastic material, canning tops and a hand machine for sealing jars) and funding was used to help the producer groups establish their own fruit tree nurseries in both project sites.

2.7 Research and explore potential for overseas markets and innovative products; follow-up as appropriate.

FFI's Enterprise and Development Manager conducted initial research on potential international buyers of products from both sites. This led to a new relationship developed with one major EU herbal tea company, who has asked for FFI's support to develop a supply chain for sustainably sourced wild apple. We are exploring whether local export companies would be able to meet the specifications expected by this buyer and whether the producer groups established by this project would be able to meet such demand without over-harvesting wild stocks.

2.8 Set up and support at least three local women's saving groups in villages in Childukhtaron, based on and learning from successful model in Dashtijum (initiated by Save the Children)

Zam Zam has continued to provide mentoring and training (see 2.5) to eight saving groups (total 184 members) established in Y1-2. The groups are popular as they help people to save money, make wise decisions on spending and offer an easy, cost-effective process for taking loans, with less bureaucracy and lower interest rates compared to local banks. The amount saved by the groups in 2019 was 76,678 somoni (equivalent to £ 6,426), 31% higher than in 2018.

In 2019, loans were used to purchase equipment for canning fruit products; seeds to plant trees in local nurseries; pipes for irrigation; cotton fabric for drying fruits; sacks to store dried apple and for fencing gardens to protect trees from livestock grazing. There appears to be a strong incentive among the saving group members to use funds to invest in fruit and nut processing and in activities that help to protect the trees and forest that underpin these livelihood activities.

2.9 Conduct Participatory Impact Assessment (PIA): semi-structured interviews and focal group discussions with women and men to explore the impact the project has really had on participant's lives (using our experience from Darwin post-project in Kyrgyzstan).

To be completed in Y4.

3.1 Run 16 awareness-raising events: seminars for women and men, and school activities for children on various topics: biodiversity, climate change, agro-biodiversity and sustainable harvesting.

In Y3, Kulob Botanic Garden conducted two awareness-raising seminars, adding to eight held in Y1 and Y2. Recognising that over-grazing is a major threat to the forest, the latest seminars focussed on "Forest and Pasture Management". Participants discussed why and how better livestock management can help to improve the recovery of the forest. Seminars were conducted in December 2019 and were attended by 51 participants: 25 (12 women; 13 men) in Childukhtaron and 26 in Dashtijum (10 women; 16 men). The full report is available in EF 3: 3.1.

3.2 Organise four community harvest-time festivals to celebrate the forest, its biodiversity and fruit and nut products

In October 2020, FFI organised one harvest festival at each reserve (adding to two festivals organised in Y1). These events brought together children and adults from the communities to celebrate this year's harvest and the importance of the forest to local livelihoods. More than 900 people (65% women) (600 at Dashtijum; 300 at Childukhtaron) took part in agro-theatre, folk music, dancing and quizzes, with school children play a particularly active role. The producer groups displayed fruit and nut products (raising interest among other community members in the project). A national TV company aired the event and we hope this will increase the profile of the producer groups (who are seeking new buyers) and the Darwin Initiative project. More information is available on a blog featured on the FFI website (https://www.fauna-flora.org/news/celebrating-gifts-nature-tajikistans-harvest-festival) and in a report available in EF 3: 3.2(a-d).

3.3 Conduct at least four climate adaptation planning workshops with community groups (replicating and learning from activity in Darwin Initiative post-project in Kyrgyzstan): exploring together the likely impacts of climate change, assessing vulnerabilities, and identifying feasible adaptation measures for local stakeholders.

This was completed in Y2. No specific work was carried out in Y3, but we are now designing awareness raising materials in Y4 to promote implementation of these plans.

3.4 Following on from activities 1.1 – 1.5, develop strategic, climate-proofed, reforestation plans for both sites jointly with the forest service and other stakeholders, identifying strategic sites for planting (to improve connectivity, reduce risk of erosion/ landslides) and appropriate resilient species and varieties.

As mentioned above, the project worked with Dashtijum reserve to develop a Participatory Management Plan in Y3 and will support Childukhtaron to complete its own plan in Y4. These plans outline priority zones in each reserve for reforestation and include recommendations for priority species to plant. We also gathered traditional knowledge from village elders on where and how best to plant 39 different tree species, and this information will be annexed to and included in the plan to guide reforestation efforts going forward (see the report in EF3: 3.3). Following consultation with both reserves, we decided not to develop an entirely new reforestation plan (in addition to the PMP mentioned above). It became clear that a separate planning document, outlining restoration plans already included under the PMP, would confuse local stakeholders.

3.5 Establish stakeholder forum at each site; ensure members are representative of the different groups within the forest user community (including those with more marginal use rights and women); facilitate regular meetings to enable discussions on forest management, conservation and sustainable use issues; provide mediation if necessary; and promote collaborative planning and implementation of actions.

In December 2019 FFI and Zam Zam jointly facilitated one stakeholder forum at each reserve, attended by 25 people (12 women and 13 local men) in Childukhtaron and 26 people (14 women, 12 men) in Dashtijum. The forums again acted as a successful platform for community members and forestry officials to exchanges ideas and discuss challenges (see EF3: 3.4). These meetings focused on answering questions from community members on the Forest code and sharing ideas on how to support local producers to sell forest products to local markets. As part of the forums, FFI also facilitated a workshop on traditional knowledge on native tree species (mentioned under 1.2 and 3.4). Each forum will meet again in 2020, with likely discussion topics including reviewing and strengthening implementation of Joint Forest Management.

3.6 Work with local forest leaseholders to protect trees in their forest plots, through fencing and other means.

Fencing materials distributed to 19 leaseholders (nine Childukhtaron; ten Dashtijum) at the end of Year 2 were erected in April 2019. The project's mobilisers monitored regeneration for three threatened species (*Pyrus tadshiksitanica*, *Pyrus korshinskyi* and *Malus sieversii)* in these plots before and nine months after fences were erected. At the end of Y3 they recorded an increase in the seedling number: from 126 to 311 in Dashtijum and from 180 to 745 in Childukhtaron (see EF 3: 3.5). In Y4, we will provide fencing materials for 20 more households with threatened tree species in their gardens.

3.7 Support local forest service and community groups to grow native fruit and nut trees in nurseries for planting in forest and gardens, promoting diversity of species and local varieties to maintain agro-biodiversity (seed to be collected locally wherever possible) – minimum of two forest service nurseries and two community nurseries.

Four nurseries under the management of the FSU teams (two Childukhtaron; two Dashtijum), were established in Y1 and one school community nursery was established at Dashtijum in Y2. In Y3, these nurseries are helping to supply planting efforts this year (see 3.8).

3.8 Support forest service teams to plant 400,000 native trees (10+ species) in protected and strategic locations in Childukhtaron and Dashtijum to reinforce natural populations, including aftercare and monitoring survival.

In Y3, more than 83,353 saplings and 329.5 kg of seed (equivalent 49,100 seedlings) from 12 native species were planted in the forest and nurseries (see EF3: 3.6 (a,b)). In total, the project has planted 219,213 saplings and 1043.5 kg of seed (equivalent to 225,075 seedlings) in the forest and nurseries. The total number of trees planted is provided below and details on the numbers planted per species and per reserve is available in EF3: 3.7

	2017-18		2018-19		2019 - 2020		Total	
	Seedlings	Seed	Seedlings	Seed	Seedlings	Seed	Seedlings	Seed
DJ - nurseries	25,700	190.5 kg	14,000	125 kg	14,950	118.5 kg	54,650	434 kg
DJ - forest	7,171	37 kg	23,619		18,384		49,174	37 kg
CH - nurseries	9,330	359.5 kg	37,000	2 kg	37,000	211 kg	83,330	572.5 kg
CH - forest	10,640		8,400		13,019		32,059	

Total - nurseries	35,030	550 kg	51,000	127kg	51,950	329.5 kg	137,980	1006.5kg
Total - forest	17,811	37 kg	32,019		31,403		81,233	37 kg
Total planted	52,841	587 kg	83,019	127 kg	83,353	329.5 kg	219,213	1043.5 kg

3.2 Progress towards project Outputs

Output 1: Project team and local and national stakeholders have increased knowledge and understanding of forest habitats, including agro-biodiversity and key species, and likely impacts of climate change, and are engaged in participatory forest monitoring.

At the project start there were no current maps, data or literature for either forest or for the threatened species in the reserves. In year 1 and 2, we established baselines for threatened trees and habitat condition (**indicator 1.1**) through field surveys and remote sensing (EF1: 1.1a and 1.1b). Threatened tree data - updated in Year 3 - were used to develop an action plan for each species (EF1: 1.2 (a-d), with several actions (including planting and fencing) now underway (**indicator 1.2**). A participatory monitoring scheme has been developed (see EF1: 1.5) and is being rolled out in one reserve. Roll out in the second reserve begins later in 2020 (**indicator 1.3**). All information produced by the project will be shared with the Forestry Agency and other national stakeholders in an end of project workshop in year 4 (**indicator 1.4**).

Output 2: Local market actors supported to implement activities identified through Participatory Market System Development (PMSD) to improve income from fruit and nuts (NTFPs)

In Y1 the PMSD process was completed (**indicator 2.1**) and two cooperatives with 40 members were established. Membership has since grown to 160 (six groups) (90% women) with members actively participating in meetings and using equipment provided throughout Y2 and Y3 (**indicator 2.2** and EF2: 2.1). A total of 142 people (60% women) have been trained over the course of the project in methods required for sustainable harvesting and processing and in Y3 collectors are successfully gaining increased price for products sold compared to Y1 and Y2 (**indicator 2.3** and EF2: 2.2) although income per member decreased slightly in one reserve in Y3 due to a poor harvest due to heavy rains. Eight saving groups with a total of 184 members are still active at the end of Y3. The amount saved by the saving groups in 2019 - 76,678 Tajik Somoni (£6,426) - is 31% higher than the amount saved in 2018 (**indicator 2.4**). Well-being benefits generated through participation in the project will be evaluated in Year 4 (**indicator 2.5**).

Output 3: Community forest users (women and men) and two forest service units enhancing forest management and promoting resilience to climate change.

Forty people (50% women) have a better understanding of climate change risks and adaptation strategies following workshops completed in Year 2 and >900 (65% women) people are more aware of the importance of agro-biodiversity through participation in 10 seminars and four harvest festivals (**indicator 3.1**) – see EF 3: 3.2a. A Participatory Management Plan (with recommendations for planting 8 native species in key zones) was completed for Dashtijum in Y3 and is under development for Childukhtaron (**indicator 3.2**), with another document with guidelines for 39 native species drafted (EF3: 3.3). Two stakeholder fora (one at each site) with a total of 51 members (51% women) have met two times each throughout Y2 and Y3. Feedback on the fora is positive and their effectiveness at helping people influence forest policy will be assessed in Y4 (**indicator 3.3**). Nineteen forest users are taking actions on their plots to protect trees through fencing and 70 plot holders in Dashtijum have signed agreements with the Forest Service to carry out Joint Forest Management and related monitoring of their forest plots (**indicator 3.4**). To date more than 219,213 seedlings and 1043.5kg seed (equivalent of 225,075 seedlings) have been planted in nurseries or in the forest (**indicator 3.5**).

3.3 Progress towards the project Outcome

Outcome: Forest users at Childukhtaron and Dashtijum empowered and incentivised to work collaboratively with forest service to enhance fruit-and-nut management; conserving agro-biodiversity, improving well-being and increasing resilience to climate change.

Indicator 0.1 Members of 25% of the total 695 households at project sites are engaged and active in forest conservation by Year 4 (40 HH by end Year 1; 80 HH by end Year 2; 120 HH by end Year 3; 175 by end Year 4).

Forest users are more engaged in forest conservation at several levels. Most directly, members from 19 HHs installed fencing to protect plots from over-grazing at the beginning of Y3 and a further 20 HHs have signed agreements to also fence their plots in Y4. A participatory forest management plan for Dashtijum was completed in Y3 and another is scheduled for completion in Childukhtaron in Y4. Under the auspices of the plan, 70 households have developed agreements with Dashtijum Forest Service Unit to carry out Joint Forest Management on their land (protecting local rights to manage forest and supporting greater participation in forest monitoring). Collaboration between communities and the Forest Service is being supported through stakeholder fora (membership 51) established at each site. Training in forest management, seed collection and tree maintenance (97 people Year 1; 40 people in Year 2), awareness raising events (reaching more than 900 people throughout the project) and exchange of information (facilitated through surveys with 201 households in Year 1) are all helping to create the enabling conditions to achieve this outcome by the end of the project.

Indicator 0.2 Diversity of planting in forest increased by 50% by Year 4 (by 50% in nurseries by Year 2), including all identified local native varieties, preserving genetic diversity of wild crop relatives.

Fourteen local native tree species have been produced by project nurseries and 12 have been planted out in the forest. Eight species in Dashtijum (pomegranate, almond, two pears, apples, apricots, cherry plum and pistachio) and four in Childukhtaron (two pears, cherry plum and apples) were rarely or never produced before by the reserves (pers. comm. U. Gulamadshoev); this represents a significant increase in diversity of trees being planted. The project is helping to significantly increase the scale at which these species are planted out: in three years 219,213 seedlings and 1043.5kg seed have been planted in nurseries or in the forest (compared to less than 20,000 seedlings per year for both reserves before the project started).

Indicator 0.3 Number of individuals of 3 threatened tree species (including 2 CR Pyrus) at project sites increased four-fold from known current baseline.

Baselines for two Critically Endangered pear species reported at the end of Year 1 have been updated in Year 3 following new surveys and collation of old survey reports: *Pyrus korshinskyi* has 995 trees and *Pyrus tadshikistanica* has 212 trees.

Threatened tree surveys covering a small portion of the overall reserve also collected records of 18 *Amygdalus bucharica* trees and 19 *Malus sieversii* trees, although the total number for each of these two species is likely to be far higher.

Efforts to increase population size of these species are ongoing with all four species now being grown in nurseries and planted out into the forest; this is summarised below and recorded in planting records in EF 3: 3.7. Survival rates of trees planted will be reported in future years.

Species	Grown in nurseries				Planted in forests			
	2017	2018	2019	Total	2017	2018	2019	Total
Pyrus korshinskyi	10kg seed and 5,000 seedlings	2,500 seedlings	0.5 kg seed and 700 seedlings	10.5 kg seed and 8,200 seedlings	200 seedlings	330 seedlings	1,920 seedlings	2,450 seedlings
Pyrus tadshikistanica	10.5kg seed and 600 seedlings	300 seedlings	2 kg seed and 1200 seedlings	12.5 kg seed and 2,100 seedlings	624 seedlings	320 seedlings	975 seedlings	1,919 seedlings

Amygdalus bucharica	37kg seed and 4,730 seedlings	15kg seed	15 kg seed and 6000 seedlings	67 kg seed and 10,730 seedlings	32kg and 625 seedlings	15,000 seedlings	7,269 seedlings	32 kg seed and 22,849 seedlings
Malus sieversii	5.5 kg and 6000 seedlings	25,500 seedlings	12 kg seed and 28700 seedlings	17.5 kg seed and 60,200 seedlings	3,296 seedlings	954 seedlings	2800 seedlings	7,050 seedlings

Indicator 0.4 Male and female members of 120 participating households report 10% increase in income from Year 1 baseline by Year 4 as a result of project activities.

The project has taken positive steps to support income increases among the 160 households participating in the producer groups established by the project. Producers are successfully adding value to fruit products through canning of fruit, production of juice and jams (sold in the wintertime for almost ten times the price compared to fruit sold in the summer), packaging and labelling and have agreed higher prices with three larger buyers. Despite increases in price, a poor harvest in 2019 (affected by heavy spring rains) led to a reduction in volumes harvested in Childukhtaron and thus sold per member. Here, average income decreased by 2.5%, despite a 30% drop in harvest. In Dashtijum, average income per group member increased by over 100% (thanks to increases in price and an increase in the average volume sold per member by 18%). In Childukhtaron especially, the support from the project has helped to prevent the worst impacts of the poor harvest in 2019, with only a slight decrease in income levels when they would otherwise have fallen significantly. In Dashtijum, communities produce and sell a slightly larger range of products from more species (not all of which were impacted by the spring rains) and communities also have slightly better access to markets. This may explain why incomes have increased here and not in Childukhtaron in 2019. Our work to support the communities to add value to and sell forest products to a larger range of buyers has helped to buffer the negative impacts felt by a poor harvest. In Y4 we will complete Participatory Impact Assessments to evaluate growth of income over the project and how this has been distributed across households at each reserve.

Indicator 0.5 At end of project 50% of both male and female respondents feel they now have an increased stake in the management of their local forest resources, compared with project start.

Significant steps have been taken in Y2 and Y3 to increase local stake in forest management. This includes completion of a Participatory Forest Management Plan in Dashtijum and 70 households signing agreements with the Forest Service to carry out joint forest management in their plots (to be extended to Childukhtaron in Y4). These agreements provide households with clear documentation outlining their rights to manage and benefit from the sustainable harvest of forest resources from their plots. In the past, households had informal annual agreements, and no guarantee that they would be upheld. These new agreements can have a duration of three years or longer and help to protect the interests of individual plot-holders. In addition, the establishment of stakeholder fora for each site – attended by 51 people (51% women) over Y2 and Y3 – is supporting increased communication between representatives of the communities and the FSUs. We will measure overall changes in local stake in management in Y4 when we complete a Participatory Impact Assessment.

Indicator 0.6 Approved reforestation and Species Action Plans reflect climate change predictions and include appropriate adaptation measures to increase resilience which are being implemented.

Planned actions for reforestation and for protection of four threatened species are included within a Participatory Forest Management plan developed for Dashtijum and this will be repeated in Childukhtaron in Y4. These documents will be officially approved by the Forest Service Unit. We decided to incorporate management, reforestation and species actions all under one plan to support local implementation going forward.

3.4 Monitoring of assumptions

Assumption 1: Government policy continues to permit collaborative forest management and greater practical involvement of local forest users: Current national, regional and local policies still permit collaborative forest management.

Assumption 2: Substantial numbers of forest users are willing and able to engage in conservation and management: The project continues to have good success in engaging forest users. People are actively engaging in planning, stakeholder fora, trainings and awareness raising and people from 70 households have signed agreements to carry out Joint Forest Management.

Assumption 3: Market for fruit and nut products (e.g. dried fruit, compote, oils) continues to grow (trend is currently upwards) and new product and market opportunities can be identified: There is a strong market for fruit and nut products and the producers groups have successfully secured an increase in price for products sold in Y3, and have reached new markets in Dushanbe and in the Sughd region.

Assumption 4: Income from non NTFP sources does not significantly change during project period: The average income per group member decreased slightly in Childukhtaron and increased in Dashtijum in Y3. Lower than expected income in Childukhtaron is due to a poor harvest of apple, cherry and pears due to extreme rainfall in the spring.

Assumption 5: Local forest service remains interested and open to learning and collaboration (we currently have very positive relationship with both forestry units): Both FSUs remain engaged through tree-planting and active participation in stakeholder fora and participatory planning.

Assumption 6: No major economic or political crises in Tajikistan: Tajikistan is scheduled to hold presidential parliamentary elections in 2020. We do not expect this to have significant impact on the project but will be ready to adapt the timing of field activities if required. Tajikistan announced its first COVID-19 cases on April 29th 2020. From impacts observed elsewhere, it might be anticipated that the country will face economic implications as a result of any lockdown measures put in place as well as reduced trade with and migration of labour between neighbouring countries. We will monitor this assumption closely in Year 4.

Assumption 7: Forest users willing to share local knowledge on varieties: Forest users have shared information on local varieties with project partner Ganji Tabiat and through a successful workshop on traditional knowledge on local tree species facilitated by FFI in Year 3.

Assumption 8: Survey team able to integrate local knowledge into ecological survey methods: The survey team have excellent relationships with local people, having worked in the area for many years. Local people provided input on the survey design.

Assumption 9: Adequate and sustainable incentives can be found for forest users to take part in participatory monitoring; and they have time to do so: This remains a key assumption that we will monitor in Y4 as we test whether community members can dedicate time to monitoring resources in their plots. The strong link between income derived from NTFPs and the health and regeneration of the forest is one incentive that should support greater participation in monitoring and management.

Assumption 10: Local forest service willing to commit effort to joint monitoring (they have indicated that they are in discussions with project team): Both FSUs remain willing to do this. Plans are in place to implement joint monitoring in Year 4.

Assumption 11: Market actors (e.g. traders, processors) see the value of, and are willing to engage in, participatory market mapping - we will cultivate relationships to ensure this happens: Mapping was successfully completed in Year 1.

Assumption 12: Women as well as men feel able to join and engage meaningfully in producer cooperatives (project coordinators will empower and encourage women's participation): Two producer cooperatives formed in Year 1 remain highly active in Year 3. In order to encourage women to participate, there are two mobilisers in each reserve, one man and one woman. Ninety percent of the producer group members are women.

Assumption 13: Trained collectors are able to apply new knowledge and skills to improve product quality and/ or market access: Market access and product quality improved in Y3 as a result of the trainings and market mapping completed in Y1.

Assumption 14: Actions taken, e.g. to improve product, will result in significant increase in price – we do have evidence that better quality dried fruit commands a higher price: Producer groups have commanded a higher price as a result of adding value to fruit products as evidenced by the data on fruit sales from 2018 (see EF2: 2.2).

Assumption 15: Significant climate proofing is possible given limited resources: Climate proofing activities have been identified through climate adaptation workshops carried out in March 2019. Many of the recommended activities (e.g. planting of climate resilient trees to reduce risks of landslides in the landscape and increasing community participation in forest management and protection) are in line with project plans.

Assumption 16: Stakeholders willing to formalise relationship and meet regularly: The fora established in Y2 and continued in Y3 received positive feedback and are enabling better information sharing between the Forest Service and forest users (pers. comm. Zam Zam),

Assumption 17: Forest users willing and able to protect trees in their plots: Nineteen forest users fenced their plots in Y3 and 20 more have requested support to do this in Y4.

Assumption 18: Given adequate resources, sourcing of seedlings with increased variety is possible: Although the project has successfully increased the number of native species used by the FSUs, we are yet to support seedlings production from different varieties. We will explore this further in Y4.

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

The project is contributing to the conservation of four globally threatened tree species: *Amygdalus bucharica*, *Pyrus korshinskyi*, *Malus sieversii* and *Pyrus tadshikistanica*. We are working to ensure that these remaining trees are not lost or damaged to grazing activity and that they are able to regenerate; fences purchased at the end of year 2 were erected in plots containing these species. Populations of all four species have been boosted by planting, with 139.5 kg of seed and 115,498 seedlings planted in nurseries and in the forest. The project is supporting restoration of wider forest biodiversity; 219,213 seedlings and 1043.5 kg from 14 native species have been planted in nurseries and in the forest (see EF3: 3.7). This has more than doubled original restoration levels, which were previously ~ 20,000 trees per year (both reserves) or lower.

The project is addressing poverty alleviation through extensive activities designed to increase income, improve access to markets and increase local stake in management of forest resources. Producers groups are successfully adding value to products and reaching new markets (see EF2:2.1 and 2.2) and significantly higher prices secured have helped to buffer loss income caused by a very poor harvest in 2019. We are addressing factors that had limited production of dried fruit (e.g. securing transport to deliver products to market and ensuring an electricity supply for drying and processing machines) and, through establishing eight savings groups, have helped producers gain access to a source of finance for investing in production (see EF2:2.3). Communities were actively involved in participatory management planning and in local fora, providing a platform for them to influence local forest policy to meet their own needs and aspirations (see EF1:1.4 and EF3:3.4).

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

SDG 1.1 By 2030, eradicate extreme poverty for all people everywhere, currently measured as people living on less than $1.25 a day: The project has helped communities living in extreme poverty to command significantly higher prices for fruit and nut products that represent their major, regular source of income. This helped to buffer income lost due to a poor harvest in 2019 in one reserve, while in another, income levels from fruit and nut products are increasing.

SDG 1.2 By 2030, reduce at least by half the proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions, 5.5, 5a: equal relief of poverty and resource rights) to improve productivity and market access (2.3, 2a, 2c): In addition to helping local producer groups to add value to production of fruit products, we have helped them reach new national markets for their products (e.g. sale of products to traders from the Sughd region of Tajikistan).

SDG 1.4 By 2030, ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including microfinance community management of resources: Eight saving groups established in each reserve (184 members; of which 60 are categorised as marginalised) are enabling people to access micro-finance to invest in local enterprises.

SDG 1.5 By 2030, build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-related extreme events and other economic, social and environmental shocks and disasters: Climate change adaptation planning has been completed for two communities. We are now reviewing these documents and will apply recommendations into awareness raising activities planned for Year 4.

SDG 2.4 By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters and that progressively improve land and soil quality: The project is supporting planting of 14 native fruit tree species, at least 9 of which are edible. This is promoting local food production in the long-term and will also promote adaptation to climate change (e.g. planting multiple species provides greater resilience should one species be affected by disease or climate change).

SDG 2.5 By 2020, maintain the genetic diversity of seeds, cultivated plants and farmed and domesticated animals and their related wild species, including through soundly managed and diversified seed and plant banks at the national, regional and international levels, and promote access to and fair and equitable sharing of benefits arising from the utilization of genetic resources and associated traditional knowledge, as internationally agreed: The project is collecting seeds from a total of 14 native species of local provenance. We plan to explore adding several local varieties to planting work in Year 4.

SDG 12.8 By 2030, ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature: The project has carried out significant awareness raising, sharing relevant information on sustainable management of forest resources and biodiversity to more than 900 people.

SDG 15.1 By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements: The project is supporting conservation, restoration and sustainable use of two high priority forest sites. A participatory management plan was developed and implemented in one reserve in Y3 and will be developed for another reserve in Y4. Fencing will be established to help improve regeneration. Significant restoration of the reserves has been carried out: more than 219,213 seedlings and 1043.5 kg of seed have been planted in nurseries or in the forest.

SDG 15.2 By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase

afforestation and reforestation globally: Activities to support sustainable management include development of participatory management plans for both reserves (one complete in Y3 and another to be completed in Y4).

SDG 15.6 Promote fair and equitable sharing of the benefits arising from the utilization of genetic resources and promote appropriate access to such resources, as internationally agreed: Producer groups at each reserve are being supported to realise greater benefits from genetic resources in the reserves. They are being supported to add value and increase income from NTFPs collected in their gardens and in their forest plots.

5. Project support to the Conventions, Treaties or Agreements

The national project manager met the CBD National Focal Point Dr. N.Safarov during meetings and seminars attended throughout 2018 and introduced him to the Darwin project.

Target 1 By 2020, at the latest, people are aware of the values of biodiversity and the steps they can take to conserve and use it sustainably: 900 people participated in awareness raising events specifically highlighting the importance of forest biodiversity.

Target 4 By 2020, at the latest, Governments, business and stakeholders at all levels have taken steps to achieve or have implemented plans for sustainable production and consumption and have kept the impacts of use of natural resources well within safe ecological limits: Sustainable production of dried fruit products from two forest sites is supported by addressing factors that limit the regeneration of these species. A participatory management plan has been developed for one of the reserves (and will be replicated for a second reserve in 2020). This will guide resource use within the reserves.

Target 7 By 2020 areas under agriculture, aquaculture and forestry are managed sustainably, ensuring conservation of biodiversity: Implementation of participatory management plans will help to ensure forest resources at two sites are used sustainably.

Target 12 By 2020 the extinction of known threatened species has been prevented and their conservation status, particularly of those most in decline, has been improved and sustained: The project is contributing to the conservation of four globally threatened tree species: *Amygdalus bucharica, Malus sieversii, P. korshinskyi,* and *Pyrus tadshikistanica*. Fencing was erected in Year 3 to protect trees from grazing and populations of all four species have been boosted by planting (139.5 kg of seed and 115,498 seedlings).

Target 13 By 2020, the genetic diversity of cultivated plants and farmed and domesticated animals and of wild relatives, including other socio-economically as well as culturally valuable species, is maintained, and strategies have been developed and implemented for minimizing genetic erosion and safeguarding their genetic diversity: Fourteen native species are under production by local forest reserves. The project has not yet adequately explored seed collection and planting and protection of local genetic varieties.

Target 18 By 2020, the traditional knowledge, innovations and practices of indigenous and local communities relevant for the conservation and sustainable use of biodiversity, and their customary use of biological resources, are respected, subject to national legislation and relevant international obligations, and fully integrated and reflected in the implementation of the Convention with the full and effective participation of indigenous and local communities, at all relevant levels: Local knowledge was explored through household surveys during Y1, with a deeper understanding of resource use achieved through a community resource mapping exercise in Y2.

Target 14 By 2020, ecosystems that provide essential services, including services related to water, and contribute to health, livelihoods and well-being, are restored and safeguarded, taking into account the needs of women, indigenous and local communities, and the poor and vulnerable: An overall increase in the diversity and health of the forest ecosystems is being achieved through an improved planting and restoration regime by the FSUs.

The project is also helping to meet the core objectives of ITPGRFA (International Treaty on Plant Genetic Resources for Food and Agriculture)

Article 5 - Conservation, Exploration, Collection, Characterization, Evaluation and Documentation of Plant Genetic Resources for Food and Agriculture: The project is documenting information on the presence of native species across the reserves and is supporting communities to map and understand natural resources.

Article 6 - Sustainable Use of Plant Genetic Resources: Sustainable use of plant genetic resources is being achieved through enabling more sustainable management, helping to address critical factors impacting forest regeneration such as grazing. Participatory monitoring and management of resources, alongside the introduction of fencing in 19 forest plots in Year 3 and 20 more plots to be fenced in Year 4 will help to achieve this.

Article 8 - Technical Assistance: We have supported communities to achieve technical assistance to map forest genetic resources through community mapping exercises delivered with support of a Forest Specialist.

Article 9 - Farmers' Rights: We are supporting local collectors to increase their stake in management of agrobiodiversity. The inclusion of community representatives in forest management planning (e.g. 70 people secured management rights for their forest plots in 2019) is helping to ensure the rights of forest users are effectively accounted for.

Wider targets

The delivery under the Aichi targets are also contributing to a series of wider aligned NBSAP Tajikistan targets including 3.11 Conservation of Mid-Mountain Mesophyllic Forest Ecosystems, 3.16 Conservation of Agro-ecosystem Biodiversity, 3.18 In situ Species Conservation in Natural Habitats, Target 4 sustainable use, Target 5 (preservation of zones of natural habitats and genetics), Target 7 Sustainable Use, Target 12 Inventory of rare species, Target 16 Genetic Resource Access, Target 18 Traditional Knowledge; and the CBD Expanded Programme of Work on Forest Biological Diversity (Goals 1.1-1.4, 2.1-2.3).

6. Project support to poverty alleviation

These forests are essential to the livelihoods of 700 households, which have a mean income below $1.25/person/day (SDG extreme poverty level) and that have limited income-generating opportunities available.

Our work to support poverty alleviation in Year 3 has included:

- We extended the membership of local producer groups from 60 to 160. This will help a greater number of people to benefit from shared equipment and training both of which are needed to help improve the quality and price of forest products harvested and processed by the groups.
- We trained 126 people in techniques needed to improve product quality to standards required to reach new markets and secure higher prices, and these people are sharing these techniques with others in the community (adding to 142 people trained Y1-2).
- We provided basic equipment (gloves, knives, jars, buckets, canning tops and a hand machine for sealing jars) to the groups to support fruit and nut processing (adding to other equipment provided in Y1 and Y2).
- We organised three exchange meetings attended by eight group representatives and buyers, during which the groups shared samples of their projects and learned more about the quality expectations of these buyers. This directly led to the groups securing new agreements to sell their products at a higher price.
- We supported the groups to secure certificates that enable them to sell their products to national markets.
- We also mentored and trained eight saving groups containing 184 members. More than £6,426 was saved in year 3 (31% higher than Year 2) and members have taken loans to invest in equipment and machinery to support local enterprises and to purchase seeds for tree-planting and fencing materials to protect trees.

- We supported 70 households to secure long-term rights to manage plots of forest in Dashtijum reserve, ensuring their continued access to forest products.

These activities helped the producer groups to command higher prices for fruit and nut products in 2019 (ranging from a 10% – 50% increase for different products). This helped to buffer losses of income endured due to a poor harvest caused by unprecedented levels of spring rain. We will continue to strengthen the producer groups in Y4 and expect to see a sustained increased in income over that period, assuming normal fruit harvest, and that impacts from COVD-19 do not affect demand and trade. The overall impact of the project on poverty alleviation will be measured in Y4 through a Participatory Impact Assessments.

7. Consideration of gender equality issues

The project has recognised the different roles, responsibilities, needs and aspirations of men and women within the communities, and has tailored activities accordingly. The project has been consciously engaging women who are often marginalised in these communities in terms of decisions around markets and produce sale. The project decided to have two mobilisers in each reserve, one man and one woman, to ensure inclusivity. At the end of Year 3, women constituted 90% of the producer group members, 83% of the saving group members 87% of the people to benefit from training and 50% of the participants in the stakeholder fora. Gender equality impacts of the project are likely to be an increase in empowerment of local women to control and influence the income received from dried fruit processing; through training on processing, engagement in producer and saving groups, as well as wider market development activities. Men, who tend to spend significantly more time carrying out activities within in the forest reserve, have been more involved in activities directly related to forest management (just 7% of participants in the forest resource mapping exercise were women). Women actively participated in the stakeholder fora conducted in Year 3 (facilitated by female staff from Zam Zam and FFI) and represented the main voices raising concerns on tree diseases at the fora. Requests to learn new techniques for tree care have mainly come from women.

8. Monitoring and evaluation

A steering group (which met once in Y3) is overseeing project implementation and reviewing progress against the project activities and indicators (see meeting minutes in the Admin EF).

Each partner organisation is responsible for monitoring and maintaining records of activity outputs, including numbers of community participants, disaggregated by gender. The project manager has been responsible for collating this data. Data collected by the project partners is allowing us to effectively monitor progress against the output-level indicators, with maps, survey data, literature reviews, training reports, workshop reports and planting records is allowing us to verify progress against all outputs in the log-frame.

Data also indicate good progress towards outcome-level indicators, although in many cases it is too early to demonstrate whether these have been achieved. For example, evidence at the output level suggests good progress is being made towards increased local engagement in forest conservation (0.1), increased income (0.4) and local people feeling they have a greater stake in forest management (0.5), but we will carry out a more robust and comprehensive evaluation of progress in Y4, when we complete a thorough Participatory Impact Assessment.

9. Lessons learnt

The project has provided communities with a platform to voice their own views and attitudes towards forest condition and conservation (through household surveys in Y1, through the establishment of stakeholder fora in Y2). Through these activities we learned that communities already carry out various activities to promote forest regeneration (e.g. ad hoc fencing and leaving behind fruit in their plots to encourage regeneration), and they are motivated to help improve forest condition, especially within their forest plots. As a result, in Y3, we decided to focus more of our awareness raising work around positive messaging, which celebrates and

acknowledges what communities are already doing for forest conservation and which seeks to motivate behaviours that enhances forest condition – the harvest festival carried out in Y3 was hugely successful at drawing large crowds, and gave FFI a platform to discuss more difficult issues (including over-grazing of the forest). We have also worked directly with the FSUs to support implementation of Joint Forest Management, in order to help community members gain rights to manage forest plots over the long-term and participate in forest monitoring and management. While this is a proving an effective approach to motivate forest management from individual community members, there remains a large-scale threat to the reserves from over-grazing, with large numbers of cattle (some owned by the community, and some by outside owners) taken through the forest twice a year. To better address this threat, more coordination between the Forest Service Units and the local government agencies responsible for pasture management and farming is needed, and specific actions to better regulate grazing in both reserves needs to be agreed between these agencies.

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

Activity 2.7 relates to exploration of overseas markets yet the focus in Year 2 and the stated focus for Year 3 is on domestic markets. Please clarify if there remains an intention to explore overseas markets in Year 4 or if this is no longer planned: In Year 3, we started research on potential oversee buyers and are in contact with one EU based herbal tea company who is interested in procuring wild apple from the project sites. In Year 4 we will evaluate the steps required to build this supply chain.

Please clarify if the stakeholder fora met in Year 2, the frequency of these meetings in Year 2 and going forward, and any actions that may have been implemented as a direct result of decisions made during these meetings: Each stakeholder forum met once in Year 2 and once in Year 3. No formal decisions were made in the fora (as their purpose is more geared towards information exchange) although FFI and the stakeholders are using the outputs to inform various other planning documents and activities (e.g. recommendations for species included in restoration plans, recommendations on how to support local participation in Joint Forest Management etc.).

What actions will be taken in Years 3 & 4 to increase the number of trees planted to reach the target of 400,000 for the Project? A limiting factor to tree-planting effort is the amount of labour available to collect sufficient seed from the forest and go back to the forest to plant trees and provide after-care. In Y4, we will raise awareness in the communities on the benefits from more tree-planting and will encourage them to support the next planned planting event, scheduled for winter 2020 (assuming that such awareness raising gatherings are possible later in the year - with Tajikistan reporting its first cases of COVID-19 on April 29th 2020). We expect the final number of trees planted to be close to the target of 400,000.

Income received from fruit products has increased significantly but it should be made clearer in future reporting what the value of this additional income is in TJS (or GBP equivalent), as well as the baseline total household income, so these figures can be compared: In this report we have also included the value of additional income secured from fruit and nut products from 2018 to 2019 per group member (available in EF2: 2.2). We will include this figure again in the end of project Darwin report and will also include information on its relative contribution to total household income.

11. Other comments on progress not covered elsewhere

12. Sustainability and legacy

We are building sustainability into all aspects of the project. Information collected under Output 1 was gathered in participation with staff from the Forest Service Unit who – with the communities - will be responsible for monitoring changes in forest condition in the future against these baselines. We have avoided developing overly complex protocols and action plans to make long-term replication and implementation simple and cost-effective. Activities completed under Output 2 have a strong focus on empowering communities to develop local

enterprise without the need for external support or finance. Producer groups, with guidance and mentoring from Zam Zam, are effectively following PMSD active plans developed in Y1 and are actively using skills learnt to add value to local products. Saving groups are providing a means for supporting ongoing investment into local enterprise post-project. The significant focus on awareness raising in Output 3 will help to strengthen already positive attitudes and behaviours towards forest conservation, which will continue to have an effect post-project. The Forest Service Units are highly engaged in planning, problem solving, and planting activities. We are supporting our local partners Zam Zam and Ganji Tabat on data recording methods for gathering community and ecological datasets and are providing advice on report writing. Both partners are performing activities to a high standard are benefiting significantly from participation in the Darwin project.

13. Darwin identity

The Darwin Initiative logo is used on all external facing project documents and presentations that are given during project work. The logo is used by all project partners and a requirement for this is clearly outlined in their sub-grant agreements.

The national project manager, Ubayd Gulamadshoev presented the project at an international conference on “Ecological Characteristics of Biological Diversity” held in Khujand city of Sughd region in October 2019. The Darwin logo was used in the presentation slides.

The Harvest festival, which was celebrated at both project sites, was aired on national TV and an article was published in a local newspaper (see EF3: 3.2 (b-d)). It also featured on FFI’s Twitter, Facebook, Instagram accounts and FFI tagged the Darwin Initiative in these posts.

14. Safeguarding

An update on FFI’s safeguarding policies is included as an annex, in EF Admin: A1. Relevant policies include FFI’s Safeguarding Children and Adults at Risk Policy & Procedure; Anti-bullying and Anti-harassment Policy and Whistleblowing Policy. We monitor updates in Government and Charity Commission guidance and review our policies and procedures accordingly.

All project staff have been instructed to read and follow these policies. These policies are also included in FFI’s sub-grant agreements with its project partners. No safeguarding issues have been reported during the reporting year for this project. FFI’s trained staff regularly visit the project sites and are in close communication with the partners, many forest service staff the community mobilisers, and many of members of the communities, both women and men; we are well placed to identify and report on any safeguarding issues occurring during or as a result of the project’s activities. All work in this project is designed to increase local participation in forest conservation, especially among vulnerable members of each community. Information gathered on community members (e.g. HH survey data) is stored securely and is not shared outside of FFI.

In EF Admin A1, we also provide links to our position papers on Free, Prior and Informed Consent Position; Gender in Conservation; Displacement and Restrictions on Access to Resources and Conservation, Livelihoods and Governance.

15. Project expenditure

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

Project spend (indicative) since last annual report	2018/19 Grant (£)	2018/19 Total Darwin Costs (£)	Variance %	Comments (please explain significant variances)
Staff costs (see below)				
Consultancy costs				
Overhead Costs				
Travel and subsistence				
Operating Costs				
Capital items (see below)				
Monitoring & Evaluation (M&E)				
Others (see below)				
TOTAL				

Annex 1: Report of progress and achievements against Logical Framework for Financial Year 2018-2019

Project summary	Measurable Indicators		Actions required/planned for next period
Impact Healthy and diverse Tajik fruit-and-nut forests provide agro-biodiversity goods and ecosystem services, and are sustainably conserved, used and collaboratively managed by local stakeholders, contributing to poverty alleviation and increased resilience.		The project is contributing to a healthy and diverse forest ecosystem through planting of 219,213 seedlings and 1043.5kg seed from 14 native species, including four threatened tree species. Communities have actively been involved in participatory forest management planning and in local fora, providing a platform for them to influence local forest policy to meet their own needs and aspirations. Communities are selling NTFPs at significantly higher prices at each site and access to new markets has improved, representing strong progress towards alleviating poverty.	[redacted]
Outcome Forest users at Childukhtaron and Dashtijum empowered and incentivised to work collaboratively with forest service to enhance fruit-and-nut forest management: conserving agro-biodiversity, improving well-being and increasing resilience to climate change.	0.1 Members of 25% of the total 695 households at project sites are engaged and active in forest conservation by Year 4 (40 HH by end Year 1; 80 HH by end Year 2; 120 HH by end Year 3; 175 by end Year 4).	39 HHs are taking part in fencing activities to protect plots from over-grazing and 70 HHs have signed up to Joint Forest Management at the end of Year 3.	Support increased roll out and implementation of Joint Forest Management in both reserves.
	0.2 Diversity of planting in forest increased by 50% by Year 4 (by 50% in nurseries by Year 2), including all identified local native varieties, preserving genetic diversity of wild crop relatives.	14 local native tree species have been produced by project nurseries and 11 planted directly in the forest. Only six of these were regularly produced before in Dashtijum and only 10 were regularly produced in Childukhtaron.	Continue to support diverse plantings, adding new species and varieties to this mix wherever possible.

	0.3 Number of individuals of 3 threatened tree species (including 2 CR *Pyrus*) at project sites increased four-fold from known current baseline.	2,450 *P. korshinskyi* seedlings planted in the forest (population baseline = 995) and 1,919 *P. tadshikistanica* seedlings planted in the forest (population baseline = 212). The project has also planted 22,849 *A. bucharic*a seedlings and 7,050 *M. sieversii* seedlings (both vulnerable species) into the forest.	Continue planting threatened species and introduce more fencing to protect remaining trees from grazing.
	0.4 Male and female members of 120 participating households report 10% increase in income from Year 1 baseline by Year 4 as a result of project activities.	160 members of producer groups are successfully adding value to fruit products through canning of fruit and through production of juice and jams (sold in the winter time for almost ten times the price compared to fruit sold in the summer) and have secured higher prices with three buyers. Effect on total income levels will be evaluated at the end of year 4.	Continue to mentor and provide training to producer and saving groups to help them sustain income increases.
	0.5 At end of project 50% of both male and female respondents feel they now have an increased stake in the management of their local forest resources, compared with project start.	Facilitation of two stakeholder fora and the roll out of Joint Forest Management is contributing to improving local stake in forest management.	We will continue to facilitate stakeholder fora and will support implementation of Joint Forest Management as a principal mechanism for increasing local stake in the management of the reserves. We will measure perceptions on local stake in management in Year 4 when we complete a Participatory Impact Assessment
	0.6 Approved reforestation and Species Action Plans reflect climate change predictions and include appropriate adaptation measures to increase resilience which are being implemented.	One Participatory Management Plan (including reforestation and species actions) has been completed for and approved by Dashtijum reserve.	Support implementation of reforestation actions (as outlined in the Dashtijum Participatory Management Plan) and complete a Participatory Management Plan in Childukhtaron.
Output 1. Project team and local and national stakeholders have increased knowledge and understanding of forest habitats, including agro-biodiversity and key species, and likely impacts of climate change, and are engaged in participatory forest monitoring.	1.1 Baseline habitat and botanical surveys undertaken at both project sites in Year 1, incorporating local knowledge on agro-biodiversity. 1.2 Species Action Plans for three Red List tree species (two CR *Pyrus*)	We established baselines for threatened trees and habitat condition (indicator 1.1) through field surveys and remote sensing. Threatened tree data - updated in Year 3 - were used to develop an action plan for four threatened tree species, with several actions (including planting and fencing) now underway.	

	developed in Year 2 and actions being implemented by Year 4. 1.3 Participatory monitoring scheme developed in Year 2, designed to pick-up climate, anthropogenic and management induced change, and data collected through joint implementation by forest service and community members in Years 2, 3 & 4. 1.4 In Year 4, 20 Forestry Agency and other national stakeholders have attended dissemination workshops held to share knowledge outputs, and are aware of and understand project approaches and results for potential replication.	A participatory monitoring scheme has been developed and is being implemented one reserve with roll out in the other reserve to begin later in 2020. All information produced by the project will be shared with Forestry Agency and other national stakeholders in an end of project workshop in year 4 (indicator 1.4).	
Activity 1.1 Conduct habitat and botanical surveys to update (currently weak) baseline biodiversity data for sites and key species at Childukhtaron and Dashtijum.]		Baselines data on threatened trees and on habitat quality were collected In Year 1 and Year 2. In Year 3 we collected new data points on threatened trees and created a database and map for all survey work carried out in the reserves since 2012. Our data now suggest that the reserves are home to 995 of the Critically Endangered *P. korshinskyi* and 212 of the Critically Endangered *P. tadshikistanica.*	Share final outputs under 1.10.
Activity 1.2 Conduct interviews to collect local knowledge of agro-biodiversity		Following collection of HH survey data in Year 1 and analysis of data in Year 2, in Year 3 we produced a final HH survey report. The report established a baseline on different aspects of wellbeing (e.g. material, relational and subjective) and forest condition and use. In addition, in Year 3, during the stakeholder fora (see 3.5) we collated traditional knowledge on 39 native tree species (including how people value	In Year 4, we will share results from the Traditional Knowledge surveys back to the community for further input and the final recommendations for restoration of each species will be appended to each reserve's Participatory Management Plan (see 1.3).

		these trees alongside recommendations for restoration of each species).	
Activity 1.3 Collate data to help establish sustainable harvest levels for key species		In Year 3, we finalised a PMP in Dashtijum (drafted in Year 2 following a participatory assessment of resource use), following two meetings which gave 30 community representatives (27 men and 3 women) an opportunity to revise, input and change the Tajik terminology to ensure the plans were accessible to the community. The final version was shared with the FSU and ten hard copies were distributed to local communities in November 2019.	We had planned to repeat this activity in Childukhtaron reserve in March 2020, but our consultant could not travel to Tajikistan as a result of the travel ban put in place due to Coronavirus. We have postponed the activity and will complete it in Year 4 when it is safe to do so.
Activity1.4 Produce and disseminate survey reports (in Russian, Tajik and English)		Species status reviews and action plans (1.6) (for Critically Endangered *Pyrus korshinskyi* and *P. tadshikistanica* and Vulnerable *Malus sieversii* and *Amygdalus bucharic*a completed in Y2 were updated in Year 3, with new sections added for planned actions for each species.	Reviews and will be disseminated to project partners and collaborators in Tajikistan in Year 4 under 1.10.
Activity 1.5 Compile information on likely climate change impacts on forest ecosystem/ tree species, both from scientific community/ literature and community vulnerability assessments; develop climate change risk assessments for the sites		In Year 2, as part of work to develop climate adaptation plans (see 3.3), the Centre for Climate Change and Disaster Reduction completed climate change profiles for the two sites, based on a desk review and community assessments of vulnerability to climate change.	Results will be used to inform awareness raising activities in Year 4, scheduled in 3.1.
Activity 1.6 Workshops with specialists and local stakeholders to develop Species Action Plans for three Red-List trees (two CR *Pyrus* species); produce and disseminate plan documents		Species status reports (1.4) were updated in Y3 to include revised actions for four threatened species. These actions will be added as an annex to the Participatory Management Plan in each site (1.3) so that all recommended actions are available in one place. In Y3 we have focussed on implementing	Continued implementation of agreed actions for each species.

		some of these actions (e.g. surveys in unexplored areas of forest, fencing, planting) with co-funding from the Global Trees Campaign (GTC)).	
Activity1.7 Agree protocol for participatory forest monitoring scheme with forest service and communities		FFI worked with both reserve directors to adapt existing monitoring protocols to make them more suitable for use by community members and to add fields to allow basic data collection on forest condition and regeneration. In January 2020, we organised a training workshop at each reserve to get feedback on the forms and explain how to use them.	Support continued use of the monitoring form by community members.
Activity 1.8 Implement monitoring: patrols collect data as per agreed protocol		Monitoring is now underway in Dashtijum with 70 plot holders (who have already signed up to Joint Forest Management) using the forms developed by FFI (attached to their mutual signed agreement with the FSUs).	This will be repeated in Childukhtaron later in Year 4
Activity 1.9 Monitoring data collated, analysed and reported to forest service and local stakeholders (including community forest monitors)		Data were collected by community members for the first time in spring 2020.	FFI will support the Forest Service with the analysis of this data in Year 4.
Activity 1.10 Workshop to disseminate research and learning to local and national Forest Agency and interested stakeholders.		Due to start in Year 4.	A workshop will be organised in Year 4.
Output 2: Local market actors supported to implement activities identified through Participatory Market System Development (PMSD) to improve income from fruit and nuts (NTFPs)	2.1 Steps 1 – 7 in the PMSD roadmap[1] completed with market actors for Dashtijum in Year 1 and locally specific actions identified. 2.2 Producer cooperatives established in Childukhtaron in Year 1 and Dashtijum in Year 2 with a total of 120 active members (at least 50% female) by Year 4.	2.1 The PMSD process from steps 1-7 was completed in Year 1. 2.2 Six cooperatives with a total of 160 members (90% women) are active.	

	2.3 By end of year 4, 300 local collectors (at least 60% female) trained and applying new skills to sustainably harvest, process and sell NTFPs and increase sales value of fruit and nut products (e.g. dried fruit, compote, oils from nuts and seeds): 80 in Year 1; 120 in Year 2; 100 in Year 3. 2.4 50% of respondents report that participation in savings groups has increased their ability to cope with shocks and lean months and enabled them to invest, including in improved NTFP techniques, by Year 4. 2.5 Multi-dimensional well-being benefits explored, understood and captured through Participatory Impact Assessment (PIA) with gender-disaggregated data, in Year 4.	2.3 A total of 142 people (67% women) have received training in methods required for sustainable harvesting and processing ((see EF2: 2.1) and collectors are successfully gaining increased price for products sold (see EF2: 2.2). 2.4. Eight saving groups with a total of 184 members (83% women) are active at the end of Year 2 with an equivalent of £6,426 saved so far and funds used to invest in several agreed actions (see report in in EF 2: 2.3). 2.5 The multi-dimensional well-being benefits generated through local participation in the project will be explored in Year 4 through a Participatory Impact Assessment.	
Activity 2.1. Preliminary work to start the Participatory Market System Development process for Dashtijum in consultation with community representatives and project partners: identification of appropriate products, preliminary market mapping and strategic design, identifying and engaging key market actors (preliminary steps of PMSD roadmap – http://www.pmsdroadmap.org/).		Completed and reported on in the Year 1 annual report.	Continue to support producer groups to follow the PMSD action plans developed in Year 1.
Activity 2.2 Small community workshops to empower marginalised market actors (local NTFP collectors in the villages of Dashtijum and Childukhtaron) and prepare them to engage with other market actors in the next steps - with a particular emphasis on women (separate groups if necessary).		Although completed and reported on in Year 1 and 2, we have continued to support local collectors to engage with market actors throughout Year 3. For example, we support eight group members to participated in three training sessions, hosted by a different enterprise: one herbal tea and one dried	Continue to support producer groups to follow the PMSD action plans developed in Year 1.

		fruit processor (based in the local region: Khatlon) and a larger dried fruit processor in Sughd (a commercial centre in Tajikistan). The sessions were useful at clarifying the standards of dried fruit expected by larger-scale intermediaries. As a result, groups established three new agreements to sell dried products from the project sites.	
Activity 2.3 Facilitate participatory market mapping at workshops with representatives of all market actors (collectors, local traders, processors, 'big' traders, input providers), help the community members to develop stronger links with traders and processors; followed by participatory planning – resulting in action plans		Completed and reported on in the Year 1 annual report.	Continue to support producer groups to follow the PMSD action plans developed in Year 1.
Activity 2.4 Support the two communities to establish producer cooperatives, ensuring active participation of women.		The number of producer groups has increased from two (60 members) in Year 2 to six (160 members (90% women)) in Year 3. The benefits derived from membership (including access to training and shared equipment, improved product quality and support to reach new markets) has made the groups very popular. In Year 3, our partner Zam Zam mentored each group, organised exchange trips (see 2.2) and provided training and assistance with obtaining necessary certificates to sell products to national markets (see 2.5) .	Zam Zam will continue to support the producer groups to reach new markets in 2020.
Activity 2.5 Run (minimum) 15 practical training events for local women and		In Year 3, Zam Zam ran seven training workshops for producer and saving	We are in discussion with Zam Zam to define what needs the producer groups

men involved in fruit and nut collection, processing and sale - provide follow-up support through producer cooperatives to improve product quality through enhanced local processing techniques.		groups, adding to 26 workshops and trainings completed in Year 1 and 2. All the training events completed in Year 3 are described in Zam Zam's annual report. Following these trainings, Zam Zam supported the producer groups at both project sites to obtain certificates needed to sell five processed products (mulberry, walnut, apple, briar and cherry plum) to local and national markets.	have identified for further training in Year 4.
Activity 2.6 Provide locally appropriate equipment (identified in PMSD action plans) to producer cooperatives to improve processing at local level – for example, this might be drying racks or packaging machine.		Equipment provided in the previous years (including two electric fruit drying machines, four wooden, handmade fruit dryers and two packing machines) is in use at both project sites. In Y3, additional materials were delivered to the producer groups to support continued improvement in processing and packaging (including gloves, knives, glass jars, buckets, plastic material, canning tops and a hand machine for sealing jars) and some funding was used to help the producer groups establish their own fruit tree nurseries in both project sites.	We will focus on supporting continued use of existing equipment, providing some small materials, and additional training where required.
Activity 2.7 Research and explore potential for overseas markets and innovative products; follow-up as appropriate.		FFI's Enterprise and Development Manager conducted initial research on potential international buyers of products form the project sites. This led to a new relationship developed with one major EU herbal tea company, who has asked for FFI's support to develop a supply chain for sustainably sourced wild apple.	In Year 4 we will explore whether local export companies would be able to meet the specifications expected by this buyer and whether the producer groups established by this project would be able to meet such demand without over-harvesting wild stocks.
Activity 2.8 Set up and support at least three local women's saving groups in villages in Childukhtaron, based on and		In Year 3, Zam Zam has continued to provide mentoring and training (see 2.5)	In Year 4, Zam Zam will continue to provide mentoring and advice to the

learning from successful model in Dashtijum (initiated by Save the Children)		to eight saving groups (total 184 members) established in Year 1 and 2. The groups are very popular as they help community members to save money, make wise decisions on spending and offer an easy and cost-effective process for taking loans, with less bureaucracy and lower interest rates compared to local banks. The total amount saved by the groups in 2019 was 76,678 somoni (equivalent to £ 6,426), 31% higher than the amount saved in 2018. In 2019, loans were mostly used to purchase equipment for canning fruit products; seeds to plant trees in local nurseries; pipes for irrigation; cotton fabric for drying fruits in summer; sacks to store dried apple and for fencing gardens and territories to protect trees from livestock grazing.	groups and will support training as needs are identified.
Activity 2.9 Conduct Participatory Impact Assessment (PIA): semi-structured interviews and focal group discussions with women and men to explore the impact the project has really had on participant's lives (using our experience from Darwin post-project in Kyrgyzstan).		To be completed in Year 4.	Conduct Participatory Impact Assessment to explore the impact the project has really had on participant's lives.
Output 3: Community forest users (women and men) and two forest service units enhancing forest management and promoting resilience to climate change.	3.1 300 people report an increased awareness of climate change and the importance of forest agro-biodiversity in climate resilience (100 by end of Year 1; 200 by end Year 2; 300 by end Year 3).	3.1 Forty people (50% women) have better understanding of climate change risks and adaptation strategies following workshops completed in Year 2 and more than 900 (65% women) people have become more aware of wider importance of agro-biodiversity through participation in 10 awareness raising events and four harvest festivals. 3.2 A Participatory Management Plan (including recommendations for planting 8 native species in key zones) was completed for Dashtijum in Year 3 and is under development for Childukhtaron	

	3.2 Strategic, climate-proofed, reforestation plan developed for both project sites by Year 2 and priority actions being implemented by Year 4. 3.3. Local stakeholder fora established and meeting quarterly at both project sites by Year 2 with membership comprising at least 40% women and 15% from poorer households. By Year 4 at least 60% of both male and female forum members feel they are more able to influence forest management compared with project start. 3.4 60 local forest users taking actions to protect trees in their lease plots (20 by end of Year 2; 40 by end Year 3; 60 by end Year 4). 3.5 Over 400,000 native trees grown in nurseries and planted out in priority locations by Year 4.	3.3 Two stakeholder fora (one at each site) with a total of 51 members (51% women) have met two times each throughout Year 2 and 3. Feedback on the fora is positive and its effectiveness at helping people influence forest policy will be assessed in Year 4 3.4 Nineteen forest users are taking actions on their plots to protect trees through fencing and 70 plot holders in Dashtijum have signed agreements with the Forest Service to carry out joint forest management and monitoring of their forest plots 3.5 To date more than 219,213 seedlings and 1043.5kg seed (equivalent of 225,075 seedlings) have been planted in nurseries or in the forest	
Activity 3.1 Run 16 awareness raising events: seminars for women and men and school activities for children on various topics: biodiversity, climate change, agro-biodiversity and sustainable harvesting.		In Year 3, Kulob Botanic Garden conducted two awareness-raising seminars, adding to eight held in Year 1 and Year 2. Recognising that over-grazing is a major threat to the forest, the latest seminars focussed on "Forest and Pasture Management". Participants discussed why and how better livestock management can help to improve the recovery of the forest. Seminars were conducted in December 2019 and were attended by 51 participants: 25 (12 women; 13 men) in Childukhtaron and 26 in Dashtijum (10 women; 16 men).	Four more awareness raising events will be completed in Year 3; these will focus on climate change adaption and joint forest management.

Activity 3.2 Organise four community harvest-time festivals to celebrate the forest, its biodiversity and fruit and nut products		In October 2020, FFI organised one harvest festivals at each reserve (adding to two festivals organised in Year 1). These events brought together children and adults from the communities to celebrate this year's harvest and the importance of the forest to local livelihoods. More than 900 people (600 at Dashtijum; 300 at Childukhtaron – 65% women) took part in agro-theatre, folk music, dancing and quizzes, with school children play a particularly active role.	No further action planned.
Activity 3.3 Conduct at least four climate adaptation planning workshops with community groups (replicating and learning from activity in Darwin Initiative post-project in Kyrgyzstan): exploring together the likely impacts of climate change, assessing vulnerabilities, and identifying feasible adaptation measures for local stakeholders.		Completed in Year 2 at both sites.	We will focus on feeding the results from the workshops into awareness raising activities in Year 4 (activity 3.1)
Activity 3.4 Following on from activities 1.1 – 1.5, develop strategic, climate-proofed, reforestation plans for both sites jointly with the forest service and other stakeholders, identifying strategic sites for planting (to improve connectivity, reduce risk of erosion/ landslides) and appropriate resilient species and varieties.		As mentioned above, the project worked with Dashtijum reserve to develop a Participatory Management Plan in Year 3. These plans outline priority zones for reforestation and include recommendations for priority species to plant. We also gathered traditional knowledge form village elders on where and how best to plant 39 different tree species, and this document will be annexed to the PMP to help guide reforestation efforts going forward.	In Year 4, we will support Childukhtaron to complete a Participatory Management Plan, which will also include priority zones for reforestation and recommendations for priority species to plant.
Activity 3.5 Establish stakeholder forum at each site; ensure members are representative of the different groups within the forest user community		In December 2019 FFI and Zam jointly facilitated one stakeholder forum at each reserve, attended by 25 people (12 women and 13 local men (including	Each forum will meet again in 2020, with likely discussion topics including reviewing and strengthening

(including those with more marginal use rights and women); facilitate regular meetings to enable discussions on forest management, conservation and sustainable use issues; provide mediation if necessary; and promote collaborative planning and implementation of actions.		three forestry officials) in Childukhtaron and 26 people (14 women, 12 men (including 3 forestry officials and the head of the Municipality)) in Dashtijum. The forum again acted as a successful platform for community members and forestry officials to exchanges ideas and discuss challenges. This meeting focused on discussing barriers to participation in Joint Forest Management, answering questions from community members on the Forest code and sharing ideas on how to support local producers to sell forest products to local markets.	implementation of Joint Forest Management.
Activity 3.6 Work with local forest leaseholders to protect trees in their forest plots, through fencing and other means.		Fencing materials distributed to 19 leaseholders (nine Childukhtaron; ten Dashtijum) at the end of Year 2 were erected at the beginning of Year 3, in April 2019. The project's mobilisers monitored regeneration for three threatened species in these plots before and nine months after fences were erected: at the end of Year 3 they recorded an increase in the seedling number: from 126 to 311 in Dashtijum and from 180 to 745 in Childukhtaron.	In Year 4, we will provide fencing materials for 20 more households with threatened tree species in their gardens.
Activity 3.7 Support local forest service and community groups to grow native fruit and nut trees in nurseries for planting in forest and gardens, promoting diversity of species and local varieties to maintain agro-biodiversity (seed to be collected locally wherever possible) – minimum of two forest service nurseries and two community nurseries.		Four nurseries (each 0.2 ha in size), under the management of the FSU teams (two Childukhtaron; two Dashtijum), were established and reported on in Year 1 and in Year 2, one additional school community nursery was established at Dashtijum reserve. In Year 3, these nurseries are still in use and are helping to supply planting efforts this year (see 3.8).	Ongoing management of existing nurseries by the FSUs with advice from FFI.

Activity 3.8 Support forest service teams to plant 400,000 native trees (10+ species) in protected and strategic locations in Childukhtaron and Dashtijum to reinforce natural populations, including aftercare and monitoring survival.		In Year 3, more than 83,353 saplings and 329.5 kg seed (equivalent 49,100 seedlings) from 12 native species were planted in the forest and nurseries. In total, the project has planted 219,213 saplings and 1043.5 kg seeds (equivalent to 225,075 seedlings) in the forest and nurseries.	We are developing agreements with the FSUs covering planting, after-care and monitoring planned for Year 4. We will also work to mobilise greater community participation in Year 4 to help increase the number of trees planted.

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
Impact: Healthy and diverse Tajik fruit-and-nut forests provide agro-biodiversity goods and ecosystem services, and are sustainably conserved, used and collaboratively managed by local stakeholders, contributing to poverty alleviation and increased resilience.			
Outcome: Forest users at Childukhtaron and Dashtijum empowered and incentivised to work collaboratively with forest service to enhance fruit-and-nut forest management: conserving agro-biodiversity, improving well-being and increasing resilience to climate change.	0.1 Members of 25% of the total 695 households at project sites are engaged and active in forest conservation by Year 4 (40 HH by end Year 1; 80 HH by end Year 2; 120 HH by end Year 3; 175 by end Year 4). 0.2 Diversity of planting in forest increased by 50% by Year 4 (by 50% in nurseries by Year 2), including all identified local native varieties, preserving genetic diversity of wild crop relatives. 0.3 Number of individuals of 3 threatened tree species (including 2 CR *Pyrus*) at project sites increased four-fold from known current baseline. 0.4 Male and female members of 120 participating households report 10% increase in income from Year 1 baseline by Year 4 as a result of project activities. 0.5 At end of project 50% of both male and female respondents feel they now have an increased stake in the management of their local forest resources, compared with project start.	0.1 Stakeholder survey, activity records/ project updates, meeting attendance records. 0.2 Nursery and planting records, baseline surveys and forest monitoring, local forest service annual report to Forestry Agency. 0.3 Planting records, monitoring reports. 0.4 Household survey in Years 1 & 4, participatory impact assessment report. 0.5 Interview records, participatory impact assessment report. 0.6 Plan documents, climate change risk assessments.	Government policy continues to permit collaborative forest management and greater practical involvement of local forest users. Substantial numbers of forest users are willing and able to engage in conservation and management. Market for fruit and nut products (e.g. dried fruit, compote, oils) continues to grow (trend is currently upwards) and new product and market opportunities can be identified. Income from non NTFP sources does not significantly change during project period. Local forest service remains interested and open to learning and collaboration (we currently have very positive relationship with both forestry units). No major economic or political crises in Tajikistan.

	0.6 Approved reforestation and Species Action Plans reflect climate change predictions and include appropriate adaptation measures to increase resilience which are being implemented.		
Output 1 1. Project team and local and national stakeholders have increased knowledge and understanding of forest habitats, including agro-biodiversity and key species, and likely impacts of climate change, and are engaged in participatory forest monitoring.	1.1 Baseline habitat and botanical surveys undertaken at both project sites in Year 1, incorporating local knowledge on agro-biodiversity. 1.2 Species Action Plans for three Red List tree species (two CR *Pyrus*) developed in Year 2 and actions being implemented by Year 4. 1.3 Participatory monitoring scheme developed in Year 2, designed to pick-up climate, anthropogenic and management induced change, and data collected through joint implementation by forest service and community members in Years 2, 3 & 4. 1.4 In Year 4, 20 Forestry Agency and other national stakeholders have attended dissemination workshops held to share knowledge outputs, and are aware of and understand project approaches and results for potential replication.	1.1 Survey reports, GPS tracks, local knowledge interview records. 1.2 Action plan documents; Year 4 progress review/survey/activity records. 1.3 Monitoring protocol document, climate change risk assessment, consultation meeting reports, patrol records, collected data, reports. 1.4 Workshop presentations, participant lists, meeting report, workshop feedback surveys (participants report an increase in knowledge).	Forest users willing to share local knowledge on varieties. Survey team able to integrate local knowledge into ecological survey methods. Adequate and sustainable incentives can be found for forest users to take part in participatory monitoring; and they have time to do so. Local forest service willing to commit effort to joint monitoring (they have indicated that they are in discussions with project team).
Output 2 2. Local market actors supported to implement activities identified through Participatory Market System Development (PMSD) to improve income from fruit and nuts (NTFPs).	2.1 Steps 1 – 7 in the PMSD roadmap[2] completed with market actors for Dashtijum in Year 1 and locally specific actions identified. 2.2 Producer cooperatives established in Childukhtaron in Year 1 and Dashtijum in Year 2 with a total of 120 active members (at least 50% female) by Year 4. 2.3 By end of year 4, 300 local collectors (at least 60% female) trained and applying new skills to sustainably	2.1 Workshop reports, attendance records and participants feedback; Action Plan document. 2.2 Official documentation (Charter) for cooperatives, membership rolls, equipment purchased, activity and sales records. 2.3 Training attendance records, follow-up survey of attendees (whether they are using new skills).	Market actors (e.g. traders, processors) see the value of, and are willing to engage in, participatory market mapping - we will cultivate relationships to ensure this happens. Women as well as men feel able to join and engage meaningfully in producer cooperatives (project coordinators will empower and encourage women's participation).

	harvest, process and sell NTFPs and increase sales value of fruit and nut products (e.g. dried fruit, compote, oils from nuts and seeds): 80 in Year 1; 120 in Year 2; 100 in Year 3. 2.4 50% of respondents report that participation in savings groups has increased their ability to cope with shocks and lean months and enabled them to invest, including in improved NTFP techniques, by Year 4. 2.5 Multi-dimensional well-being benefits explored, understood and captured through Participatory Impact Assessment (PIA) with gender-disaggregated data, in Year 4.	2.4 Semi-structured interview and focal group records; PIA report. 2.5 Semi-structured interview and focal group records; PIA report.	Trained collectors are able to apply new knowledge and skills to improve product quality and/ or market access. Actions taken, e.g. to improve product, will result in significant increase in price – we do have evidence that better quality dried fruit commands a higher price.
Output 3 3. Community forest users (women and men) and two forest service units enhancing forest management and promoting resilience to climate change.	3.1 300 people report an increased awareness of climate change and the importance of forest agro-biodiversity in climate resilience (100 by end of Year 1; 200 by end Year 2; 300 by end Year 3). 3.2 Strategic, climate-proofed, reforestation plan developed for both project sites by Year 2 and priority actions being implemented by Year 4. 3.3. Local stakeholder fora established and meeting quarterly at both project sites by Year 2 with membership comprising at least 40% women and 15% from poorer households. By Year 4 at least 60% of both male and female forum members feel they are more able to influence forest management compared with project start. 3.4 60 local forest users taking actions to protect trees in their lease plots (20 by end of Year 2; 40 by end Year 3; 60 by end Year 4). 3.5 Over 400,000 native trees grown in nurseries and planted out in priority locations by Year 4.	3.1 Knowledge and attitude survey, awareness event records. 3.2 Plan documents, climate change risk assessment, activity reports, photos, local forest service annual report to Forestry Agency 3.3 Forum terms of reference, meeting attendance records and minutes, knowledge and perception survey, PIA report. 3.4 Activity records, photos, Year 4 survey of plots (baseline measured when action agreed). 3.5 Nursery and planting records, photos, local forest service annual report to Forestry Agency.	3.1 Knowledge and attitude survey, awareness event records. 3.2 Plan documents, climate change risk assessment, activity reports, photos, local forest service annual report to Forestry Agency 3.3 Forum terms of reference, meeting attendance records and minutes, knowledge and perception survey, PIA report. 3.4 Activity records, photos, Year 4 survey of plots (baseline measured when action agreed). 3.5 Nursery and planting records, photos, local forest service annual report to Forestry Agency.

Activities (each activity is numbered according to the output that it will contribute towards, for example 1.1, 1.2 and 1.3 are contributing to Output 1) 1.1 Conduct habitat and botanical surveys to update (currently weak) baseline biodiversity data for sites and key species at Childukhtaron and Dashtijum 1.2 Conduct interviews to collect local knowledge of agro-biodiversity 1.3 Collate data to help establish sustainable harvest levels for key species 1.4 Produce and disseminate survey reports (in Russian, Tajik and English) 1.5 Compile information on likely climate change impacts on forest ecosystem/ tree species, both from scientific community/ literature and community vulnerability assessments; develop climate change risk assessments for the sites 1.6 Workshops with specialists and local stakeholders to develop Species Action Plans for three Red-List trees (two CR *Pyrus* species); produce and disseminate plan documents 1.7 Agree protocol for participatory forest monitoring scheme with forest service and communities 1.8 Implement monitoring: patrols collect data as per agreed protocol 1.9 Monitoring data collated, analysed and reported to forest service and local stakeholders (including community forest monitors) 1.10 Workshop to disseminate research and learning to local and national Forest Agency and interested stakeholders. 2.1 Preliminary work to start the Participatory Market System Development process for Dashtijum in consultation with community representatives and project partners: identification of appropriate products, preliminary market mapping and strategic design, identifying and engaging key market actors (preliminary steps of PMSD roadmap – http://www.pmsdroadmap.org/). 2.2 Small community workshops to empower marginalised market actors (local NTFP collectors in the villages of Dashtijum and Childukhtaron) and prepare them to engage with other market actors in the next steps - with a particular emphasis on women (separate groups if necessary). 2.3 Facilitate participatory market mapping at workshops with representatives of all market actors (collectors, local traders, processors, 'big' traders, input providers), help the community members to develop stronger links with traders and processors; followed by participatory planning – resulting in action plans. 2.4 Support the two communities to establish producer cooperatives, ensuring active participation of women. 2.5 Run (minimum) 15 practical training events for local women and men involved in fruit and nut collection, processing and sale - provide follow-up support through producer cooperatives to improve product quality through enhanced local processing techniques. 2.6 Provide locally appropriate equipment (identified in PMSD action plans) to producer cooperatives to improve processing at local level – for example, this might be drying racks or packaging machine. 2.7 Research and explore potential for overseas markets and innovative products; follow-up as appropriate. 2.8 Set up and support at least three local women's saving groups in villages in Childukhtaron, based on and learning from successful model in Dashtijum (initiated by Save the Children) 2.9 Conduct Participatory Impact Assessment (PIA): semi-structured interviews and focal group discussions with women and men to explore the impact the project has really had on participant's lives (using our experience from Darwin post-project in Kyrgyzstan). 3.1 Run 16 awareness raising events: seminars for women and men and school activities for children on various topics: biodiversity, climate change, agro-biodiversity and sustainable harvesting. 3.2 Organise four community harvest-time festivals to celebrate the forest, its biodiversity and fruit and nut products 3.3 Conduct at least four climate adaptation planning workshops with community groups (replicating and learning from activity in Darwin Initiative post-project in Kyrgyzstan): exploring together the likely impacts of climate change, assessing vulnerabilities, and identifying feasible adaptation measures for local stakeholders. 3.4 Following on from activities 1.1 – 1.5, develop strategic, climate-proofed, reforestation plans for both sites jointly with the forest service and other stakeholders, identifying strategic sites for planting (to improve connectivity, reduce risk of erosion/ landslides) and appropriate resilient species and varieties. 3.5 Establish stakeholder forum at each site; ensure members are representative of the different groups within the forest user community (including those with more marginal use rights and women); facilitate regular meetings to enable discussions on forest management, conservation and sustainable use issues; provide mediation if necessary; and promote collaborative planning and implementation of actions.			

3.6 Work with local forest leaseholders to protect trees in their forest plots, through fencing and other means.
3.7 Support local forest service and community groups to grow native fruit and nut trees in nurseries for planting in forest and gardens, promoting diversity of species and local varieties to maintain agro-biodiversity (seed to be collected locally wherever possible) – minimum of two forest service nurseries and two community nurseries.
3.8 Support forest service teams to plant 400,000 native trees (10+ species) in protected and strategic locations in Childukhtaron and Dashtijum to reinforce natural populations, including aftercare and monitoring survival.

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	Year 4 Total	Total to date	Total planned during the project
5	**In Year 1**, 1 person from the botanical gardens received field training and 3 people from Zam Zam received PMSD and survey training.	2 male, 2 female	Tajik	4	-	-		-	4
6A	**Year 1:** 97 people were trained on fruit tree management for a day 45 people trained for a day on saving group management 40 people we trained on fruit processing for 2 days **Year 2:** 142 people trained in family budgeting; and in use of saving funds (3 days) 40 people also trained in canning and drying fruit and forest conservation (5 days) **Year 3:** 16 people involved in exchange trips to visit local fruit buyers. 70 saving group members trained in financial management 40 producer group members trained in	**Year 1:** 28 female, 69 male 33 woman, 12 male 9 male, 31 female **Year 2:** 96 female; 46 male	Tajik	182	142 (a subset of 182 from Year 1, so doesn't increase total)	126 (a subset of 182 from Year 1, so doesn't increase total)	100	182	182

	labelling and packaging								
6B	Training weeks using the figures described above: **Year 1** – 43 weeks (202 person days) **Year 2** – 125 weeks (626 person days) **Year 3** – 50 weeks (348 person days)	See above	Tajik	43	125	50	25	218	243
7	A manual was produced In **Year 1** for the training on dried fruit processing, further manuals are planned but subjects will be defined by needs	-	-	1	-	1		1	1
9	Participatory Management Plan completed in year 3 for Dashtijum	-	-	-	-	1	1	1	2
10	A pocket tree identification guide was produced was shared with the FSU teams in Year 3	-	-	-	1	-		-	1
12A	Database of threatened tree species and database of forest quality now established but not yet handed over to the Forest Service.	-	-	-	-	1		-	0
14A	Workshop to be organised at end of project	-	-	-	-	-		1	0
14B	Project findings were shared at the 2018 Conservation Asia conference in Bishkek and at International conference on “Ecological Characteristics of Biological Diversity” held in Khujand, Tajikistan	-	-	-	1	1		0	1
20	In **Year 1** two electric dryers; equipment for installation of driers **Year 2**, a truck was procured and donated to local producer groups.	-	-						

	In Year 3, the following equipment was provided to producer groups: gloves, knives, glass jars, buckets, plastic material, canning tops, a hand machine for sealing jars and hand materials to make a tree nursery								
		-	-						

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)
None at present.						

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.	X
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.	
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.	X
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.	
Have you involved your partners in preparation of the report and named the main contributors	X
Have you completed the Project Expenditure table fully?	X
Do not include claim forms or other communications with this report.	