



Darwin Initiative Annual Report

Important note:

To be completed with reference to the Reporting Guidance Notes for Project Leaders: it is expected that this report will be about 10 pages in length, excluding annexes



Submission Deadline: 30 April 2011

1. Darwin Project Information

Project Reference	17001
Project Title	Conserving Eden: participatory forest management in the Tien Shan region
Host Country/ies	Kyrgyzstan
UK contract holder institution	Bournemouth University
Host country partner institutions	BioResources
Other partner institutions	Fauna & Flora International (FFI) Botanic Gardens Conservation International (BGCI) Botanic Garden of the Kyrgyz National Academy of Sciences (BGNAS) Kyrgyz National Agrarian University (KAU) Osh Technical University (OTU), Kyrgyz State University (KSU); The Institute of Biosphere, National Academy of Science (IB); the Institute of Biology and Soil Science (IBSS); TAZA; the Regional Ecological Centre (REC); the State Forest Service of the Kyrgyz Republic (SFS)
Darwin Grant Value	£179,723
Start/end dates of project	1 April 2009 – 31 March 2012
Reporting period (eg Apr 2010 – Mar 2011) and number (eg Annual Report 1, 2, 3)	1 Apr 2010 to 31 March 2011 Annual Report number 2
Project Leader name	Prof. Adrian Newton
Project website	http://www.bournemouth.ac.uk/cceec/conserving-eden/index.html http://www.walnutforest.kg
Report authors, main contributors and date	Prof. Adrian Newton, Dr. Almaz Orozumbekov, Jenny Birch, Liesje Birchenough, Joachim Gratzfeld 20 th April 2011

2. Project Background

The project study area is in the west of Kyrgyzstan close to the Ferghana valley and encompassing the lower slopes of the Tien Shan mountain range (Figure 1). The project will particularly focus on Sary Chelek Biosphere Reserve, established in 1978 and covering an area of 23,868 ha. This reserve contains distinct tree species assemblages dominated by walnut (*Juglans regia*) and containing many other fruit- and nut-bearing trees, including a high diversity of apple (*Malus*), pear (*Pyrus*), cherry and plum (*Prunus*) species (Figure 2). Socio-economic research activities will take place in the villages and forest units in and around the Biosphere Reserve, and the additional areas of Kara Alma and Kyzyl Unkor.



Figure 1. Google Earth image with study area marked in blue (red pin).

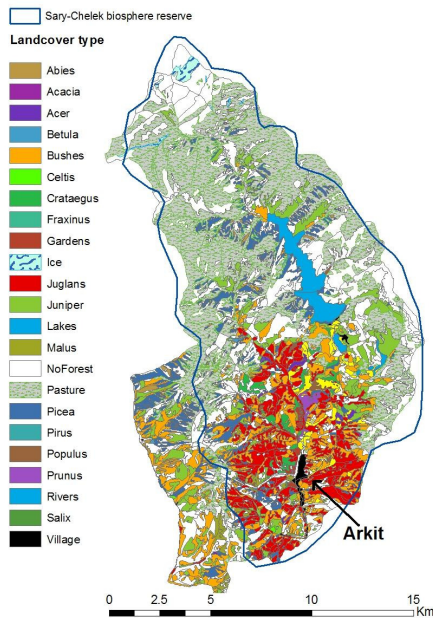


Figure 2. Sary-Chelek biosphere reserve boundary was downloaded from World Database on Protected Areas, <http://www.wdpa.org/Download.aspx> (record 4 of the GISdatabase_Kyrgyz.xls). Land cover types were derived from rlp_region.shp (record 20 of the GISdatabase_Kyrgyz.xls) provided by the Forestry Planning Office in Bishkek (version in Russian).

The fruit and nut forests of Kyrgyzstan have declined by 50% in area over the last 50 years, and remaining forests have become increasingly degraded, primarily as a result of unsustainable land use practices. As a result, globally important genetic resources have been diminished, and 44 endemic tree species are now threatened with extinction (IUCN Red List 2009). Unsustainable land use involving livestock grazing is thought to be responsible for the rapid recent decline in the volume of fruits and nuts available for harvesting, which is threatening local livelihoods. This problem was identified by the National Biodiversity Strategy and Action Plan (NBSAP), which was produced by the government of the Kyrgyz Republic in 1996, to implement the Convention on Biological Diversity.

Our project aims to address this issue through an improvement in the conservation status of threatened fruit and nut tree species and improved sustainability of rural livelihoods in southern Kyrgyzstan. The research is designed to identify fruit and nut harvesting thresholds and grazing management approaches that are sustainable, to reduce rates of forest loss and degradation and reduce extinction risk of tree species, while supporting rural livelihoods. Monitoring protocols will be developed that are appropriate for implementation by local communities, and so that an adaptive management strategy can be implemented by local people. Such a participatory approach is required, because traditional top-down approaches to forest management have failed to prevent extensive loss and degradation of this globally important forest type. This reflects the failure of traditional approaches to involve local communities in the management process and to provide them with appropriate tools to manage forest resources sustainably.

3. Project Partnerships

The partnership between UK and overseas institutions has continued to develop largely as planned, supported by regular email contact and a series of exchange visits. Again, formal MOUs were established between partners, outlining each partner's role. Five separate visits to Kyrgyzstan have been made by UK partners to assist with project management and implementation, supported by regular email contact and management meetings held in-country. Bournemouth University (BU) is the lead institution, with overall responsibility for managing and implementing the project. BU also takes prime responsibility for coordinating and implementing the research and technical elements of the project, in collaboration with overseas partners. The principal collaborators in the UK are Fauna & Flora International (FFI) and Botanic Gardens Conservation International (BGCI). FFI take prime responsibility for integrating research results with community forest management plans, and for community outreach activities, with their Kyrgyz team working in partnership with local Forest Service units and NGOs. BGCI provide assistance in capacity building and environmental education, particularly to the Botanic Garden of the National Academy of Sciences (BGNAS), and take responsibility for developing and establishing interpretation resources to be hosted at the Botanic Garden in Bishkek, focusing on threatened fruit and nut trees. The main overseas partner is BioResources, a Kyrgyz NGO, who take overall responsibility for implementing research and outreach activities in Kyrgyzstan, in collaboration with other national and regional partners.

As planned on the original proposal, a Steering Committee was formally constituted in 2009, but as reported on the six month report, two of the three members subsequently lost their positions as a result of recent political upheaval in Kyrgyzstan. A new government was elected in October 2010. All ministers have now been approved by the Government (early 2011). There will therefore be a need to reappoint a Steering Committee once the political situation has stabilised, but at time of writing, this has not yet happened. At present, the acting CBD focal point is Prof Toktoraliev, who is the Director of the State Agency of Environmental Protection and Forestry is currently acting as an external Steering Committee member for the project. Meetings with him and the Kyrgyz project staff are being held regularly.

Other collaborations

The participatory management planning activity component is being implemented by FFI in partnership with the Kyrgyz NGO called JFDF (Juniper Forest Development Fund), which is based at Osh Technological University. The Director of that NGO is Prof. Toktoraliev. This organisation has been incorporated as a partner, based on the fact that Prof. Toktoraliev is a renowned forestry expert in Kyrgyzstan, with experience of the practical application of participatory management approaches. JFDF also has a team with good capacity in this area.

TAZA (another Kyrgyz NGO) are still involved in the project, producing educational and outreach materials, but not engaged in practical training this year.

FFI has also developed collaborative relationships with three grass roots partners, who are actively implementing education and outreach activities with schools, including the establishment of threatened tree species nurseries.

Collaborative links have continued to develop with the Regional Environmental Centre for Central Asia (CAREC), who were partners in a series of proposals that were submitted this year, for future collaborative work.

A collaborative link has been developed with another Darwin Initiative project in the region 'Building capacity and resilience within the conservation sector in Tajikistan'. This project, led by FFI, is developing and delivering a series of training courses on various aspects of conservation and the collaboration will lead to deployment of training materials on participatory forest management in Kyrgyzstan.

The project has continued to work with Kamel Chorfi, a project researcher from the EU-JUMP project (2004 – 2006) on juniper forests of southern Kyrgyzstan, who has been recruited to help provide training on participatory forest management and the use of Integrated Management Plans (IMPs), taking into consideration the local people's needs through the participation of local stakeholders.

In the UK a link has been established with the organisation 'Common Ground' to co-ordinate publicity about the project. A joint press release was produced with Common Ground during this year of the project, and an on-line gallery focusing on fruit and nut trees was established with their collaboration. The press release was timed to coincide with Apple Day, an event founded by Common Ground now celebrating its 20th anniversary.

CBD focal point.

The State Agency of Environmental Protection, that is responsible for the CBD, has still not been approved, following the election of the new Government in October 2010. It is likely that this Agency will change its name and composition, but this still has not been approved. So at the current time there is no nominated CBD focal point. The acting CBD focal point is Prof Toktoraliev, who is the Director of the State Agency of Environmental Protection and Forestry. He is also actively involved in the project, as a member of the Steering Committee; as well as being the leader of the local team leading the participatory management planning.

4. Project Progress

Progress is summarized below in relation to the project outputs and relevant activities listed on the logical framework of the original proposal. We are pleased to report that key milestones outlined for this year of this project have been reached.

4.1 Progress in carrying out project activities

Output 1. Capacity strengthened for interdisciplinary research and education on sustainable forest management using participatory approaches

1.1 Training in UK on research methods

In the original proposal, the first exchange visit of Kyrgyz staff and students was planned for the first year of the project. However, owing to the delayed first visit of Kyrgyz partners to the UK (as explained in the previous Annual Report), this took place during the current reporting period. The first visit by Dr Almaz Orozumbekov of Kyrgyz National Agrarian University (KNAU)/ BioResources took place from 26 April to 8 May 2010 (Annex 3.1). This visit provided specific training in GIS techniques, data collection methods and field survey techniques, and enabled project management discussions with the UK partner organisations. Several meetings were held with key project staff including visits to FFI and BGCI. Planning for the UK visit to Kyrgyzstan in May-June 2010 was also undertaken. According to original plans, a second Kyrgyz national should have visited at the same time, but his visa application was refused, therefore this did not take place.

A second two-week visit took place from 25 March – 6 April 2011 (Annex 3.2). Training workshops were arranged for this visit focusing on data analysis, training in forest modelling

software, analysis of socio-economic data and project management and budgeting. This visit included attendance at the BES Forests and Global Change conference at Cambridge University (28 – 30 March), a meeting with project partner FFI, and a project team meeting to review the year's activities and establish a workplan for Year 3. A trip to Kew gardens was also arranged to meet the herbarium curator, Dr David Mabberley and tour the herbarium. Discussions on the taxonomy of the *Malus* genus were held and the Gardens were updated on the project progress.

Another training visit was planned for Umut Zholdoshova during March 2011. However, this was cancelled at the last minute because she changed her job to one that is no longer relevant to the project's activities. This cancellation occurred too late in the year to arrange an alternative training visit during year 2 of the project (2010/2011).

Because of the ongoing difficulty of obtaining visas for Kyrgyz students to visit the UK, we have instead arranged for training in Austria. Gulmira Karimova was provided with a training course in Salzburg on GIS, for four months, from March 2011-June 2011. Funding for this was obtained by a UNINET scholarship (a Pacific Asian research and education network). Project staff assisted with obtaining this scholarship; this therefore represents an example of the Darwin Initiative project acting as a catalyst for obtaining additional external funding. Similarly, Kanaat Musuraliev, a post graduate student affiliated with the project, was also successful in obtaining a UNINET scholarship, also assisted by project staff, to receive training in dendroecology in Boku University in Vienna, for six months from November 2010-May 2011. The advantage of training these students in Austria is that it has avoided the difficulties experienced previously, in obtaining visas for students to study in the UK.

1.2 Training in Kyrgyzstan on survey methods and participatory management approaches

A field campaign was held from 25 May – 21 June 2010, which continued the survey work that was initiated in October 2009 in the fruit-nut forests of Sary Chelek Biosphere Reserve. 32 field plots in different forest stands were established throughout the reserve. In addition, targeted surveys of threatened tree species were also undertaken. The UK team consisted of four postgraduate students from Bournemouth University, accompanied by Jenny Birch, Researcher at Bournemouth University. Dr. Almaz Orozumbekov (Kyrgyz National Agrarian University / BioResources) was the host-country co-ordinator. Six research assistants from Kyrgyzstan universities took part in the field work and received training in field survey techniques over a period of 14 days. These students also contributed to the forest survey work, and received training in a wide range of field techniques, including plot demarcation, species identification, tree measurement, vegetation surveys, increment coring, GPS recording, data management (Annex 3.3).

Additional visits of UK staff to Kyrgyzstan took place as follows: Liesje Birchenough (FFI) 26 July – 7 August 2010 and 18 October - 4 November 2010, Adrian Newton (BU) 18 - 24 October 2010, Joachim Gratzfeld (BGCI) 4 – 17 September 2010. These visits included provision of training in project management and implementation, budget management, project monitoring and planning and forest modelling techniques.

With respect to training in participatory management approaches, consultation by FFI with the stakeholders involved (i.e. forestry department staff) to ascertain their training needs identified that a more substantive training course, lasting over several days, would be of greater benefit and provide a more lasting legacy, than the series of one-day events that was originally envisaged. Another Darwin Initiative project is currently running in neighbouring Tajikistan, focusing on developing and delivering a national conservation training programme. As part of that project, a training module has been developed on participatory forest management, which has successfully been delivered, with very positive feedback. Contact has been made with this project, and as a result of discussions held, it is intended to deliver this module in Kyrgyzstan during 2011 as part of this project.

1.3 Collaborative stakeholder network established between research institutes, government agencies and local community organisations

Owing to the ongoing political upheaval in Kyrgyzstan, it has proved very difficult to appoint a replacement Steering Committee for the project. Elections for a new parliamentary democracy took place in October 2010, but the outcome was uncertain, with no clear majority. All ministers have now been approved by the Government (early 2011); however, at time of writing, some State Agencies and Departments have not been formally reinstated. It is therefore continuing to be difficult to identify relevant individuals to act as steering committee members. However, in August Prof Toktoraliev (who is formally associated with the project) was appointed Director of the State Agency of Environmental Protection and Forestry. This is a very senior appointment, which provides the project with a direct link into the national government. This will be of great value in developing policy recommendations, and in communicating these to the government. Toktoraliev continues to be kept closely informed of project activities by both the Kyrgyz and UK project partners, and regularly provides feedback, and therefore is potentially best placed to act as a single member 'steering committee'. He has agreed to continue to act in this role.

Following discussions with BioResources staff, the following organisations were identified that would usefully be involved in this network. The main method of engagement will be (i) through inviting them to relevant project workshops and events, and (ii) by inviting them to assist with dissemination of project outputs.

- (i) Institute of nuts and horticulture, Jalal-abad (formerly known as the Institute of the Biosphere)
- (ii) State Agency of Environmental Protection and Forestry.
- (iii) Osh Technological University
- (iv) Kyrgyz Agrarian University
- (v) National Academy of Sciences
- (vi) Innovation Centre of Phytotechnology
- (vii) Institute of Forestry
- (viii) Botanic Garden of the National Academy of Sciences
- (ix) BioResources
- (x) TAZA (NGO)
- (xi) Regional Ecological Centre (CAREC), Bishkek
- (xii) Kyrgyz State University

A project workshop was held during 22 – 23 October 2010, in Bishkek, organised by BioResources / Kyrgyz National Agrarian University (KNAU). More than 40 participants attended, including representatives from all of the organisations listed above, with the exception of TAZA, CAREC (the latter because of illness) and the Kyrgyz State University. In addition, a number of forest district (leshoz) representatives attended from the walnut-fruit forest area, enabling project results to be communicated directly to forest managers (Annex 3.4). UK staff (Newton, Birchenough) also participated to present project findings and were awarded an honorary diploma for high achievements in performing professional duty, responsible, conscientious and fruitful work (Annex 3.5). The meeting was chaired by Prof Toktoraliev, Director of the State Agency of Environmental Protection and Forestry. His involvement assisted in communicating project findings to the highest governmental levels concerned with forest management. In addition, the meeting was attended by Dr Turat Musuraliev (former Minister of Forest Service) and Mr Aitkul Buhanov (former Minister of Forest Service, and now Director of Forest and Land Users Association). The workshop has effectively launched the collaborative stakeholder network relating to walnut-fruit forests of Kyrgyzstan; an additional workshop is planned for the final year of the project.

Suggestions made by Prof Toktoraliev, based on the discussions with the stakeholder representatives at the workshop, included:

- (i) Collaboration between the project and the Forest Department might be strengthened by signing a formal MoU. Subsequent to the workshop, Prof Toktoraliev's office drafted an MoU, and this is currently being signed by other project partners.

(ii) It was suggested that Prof Toktoraliev might be able to help communicate the findings of the project to the national government, including development of a policy brief. This was agreed, and will form part of the activities of the final year of the project.

(iii) It was also suggested that it would be helpful if the project could publish a formal report, presenting its findings. This was also agreed, and will form part of the activities of the final year of the project.

(iv) It was also noted that Prof Toktoraliev is currently the acting CBD focal point for the country. This provides another potential mechanism for the project's recommendations to be incorporated into policy.

(v) Prof Toktoraliev also indicated his enthusiasm for developing future collaborative projects with UK institutions, involving the direct participation of the Forest Department. This coincides with FFI's long term commitment to working in Kyrgyzstan. As a result, FFI staff (Liesje Birchenough and colleagues) developed and submitted two collaborative proposals for future work in Kyrgyzstan, during the current year.

A website has also been established in Kyrgyzstan to assist in networking between network partners. <http://www.walnutforest.kg>. This is still under development, but is now 'live'.

Output 2. Information on sustainable management of fruit and nut forests produced and disseminated

2.1 Analysis of spatial distribution, stand structure, stand dynamics and current status of threatened fruit and nut tree species

As noted in the previous Annual Report, for this second year of the project, field survey activities focused on assessment of forest structure and dynamics in Sary Chelek Biosphere Reserve. A total of 42 field survey plots were established, in two field campaigns. Within each plot, measurements were made of forest stand structure and composition. All data have been entered into a database, and initial analyses have been completed. Additional field surveys were undertaken on (i) seedling regeneration, (ii) human impacts on forest structure and composition, (iii) distribution and diversity of butterfly species, in relation to forest structure and composition. Results were presented in four MSc theses, which were successfully examined (at Bournemouth University). Copies of all data and theses have been passed to the Kyrgyz partners. Data were also collected on tree ages determined from increment cores, which were processed in Kyrgyzstan, after training was provided to counterpart staff and students. Preliminary results of these surveys were presented at the stakeholder workshop held on 22 - 23 October 2010, in Bishkek. Results are currently being written up for publication.

2.2 Analysis of the impact of current land use practices on stand structure and composition of fruit and nut forest

Following the development of the survey form in the previous year, socio-economic semi-structured interviews were conducted with the local community in Arkyt village, inside Sary Chelek reserve in June 2010 by Bolot Tagaev who is also engaged in school education activities as part of this project and who previously worked on a project in walnut forests of southern Kyrgyzstan and has substantial experience of socio-economic methods. In total, 45 households were surveyed, out of approximately 180. Data were collected on use of tree species by households. Preliminary results of these surveys were presented at the stakeholder workshop held on 22 -23 October 2010, in Bishkek.

Further socio-economic surveys were completed later in the year in two additional communities, namely Kara Alma and Arslanbob region (Jumhana, Dashman and Arslanbob villages). These were undertaken by Bolot Tagaev, Alima Kolbaikyzy and Almaz Orozumbekov. A total of 45 households were surveyed in Kara Alma and a further 45 in the Arslanbob region. Data collection on this activity is therefore now complete. Data analysis is ongoing, and the results will be written up for publication during the final year of the project.

To explore the impacts of human activities on forest dynamics, a spatially explicit model of forest dynamics will be used (LANDIS-II). This is the first time such an approach has been employed in the region. Field work data from forest plots has been used to parameterise the

model. These include spatial data describing the composition and distribution of forest stands in Sary Chelek, and ecological characteristics of individual tree species, identified through a systematic literature review. During the UK visit in March 2011, the model was fully parameterised. In the final year of the project, results from the socio-economic surveys will be used to develop scenarios of different degrees of human impact (e.g. livestock densities and cutting intensities), to explore their potential impacts on forest structure and composition. In this way, it is intended that this modelling approach will inform the development of participatory forest management plans.

2.3 Development and implementation of participatory approaches to forest management

A Kyrgyz organisation, JFJD (led by Prof Toktoraliev), has been contracted to assist with this work at Kyzyl Unkor. A grant agreement has been signed with detailed terms of reference. This includes (i) constructive analysis of existing situation relating to forest and land use, current state of the leshoz, the use and needs of forest land and products by local people; (ii) three participatory workshops involving stakeholders, including representatives of local communities; (iii) drafting a management plan, consulting stakeholders, and producing final version.

In April, JFDF made their first official visit to Kyzyl Unkor at which the initiative was launched, in collaboration with local stakeholders. Meetings were held with the local Forest Service team, local village government and representatives of local communities. In May, a two week visit was undertaken; five villages were visited and a socio-economic survey was undertaken involving semi-structured interviews. The forest was visited with the Forest Service, with the aim of ground truthing and assessing changes since the previous formal forest inventory undertaken in 2002-2003. A substantive report was produced based on this assessment, which has been provided to the UK project team. One key result was that efforts at tree planting have largely been unsuccessful, because they have been undertaken under the forest canopy. As the species involved are light demanding, trees should preferentially be established in the open, but here there is a conflict with other land uses (grazing). So, lessons need to be learned from these previous tree-planting efforts. Further information was gathered from local government on socio-economic characteristics of the local communities. In May / June a participatory workshop was held in Kyzyl Unkor with the villagers and other stakeholders, involving about 40 people. A report of this workshop is in preparation. A working group involving a range of stakeholders has been established to take this work forward.

This activity was then disrupted by serious civil unrest and ethnic violence in the south of the country (where the project site is located). This made travel to the area dangerous and communication with local stakeholders difficult. The situation in the south has remained tense with UK FCO continuing to advise against travel to the area. Following parliamentary elections in October, and some severe late winter weather causing landslides which blocked the road to Kyzyl Unkor, it is now planned to hold the remaining participatory workshops in the spring.

BioResources have continued with cultivating apple trees and planting them into community forest areas, with more than 1000 trees established to date.

Output 3. Plans for sustainable management of fruit and nut forests, involving participation of local communities, and informed by research findings, developed and disseminated

3.1 Development of plans for sustainable management of fruit and nut forest by local communities

The development of participatory management plans has begun in one area (Kyzyl Unkur) and will be further developed in the remainder of the project. FFI is currently implementing this activity through a formal linkage with the NGO JFDF (led by Prof Toktoraliev), which is linked with Osh Technological University (see above). A second plan has been developed in draft form in a second area (Kara-Alma); this will be further developed in the final year of the project, through an additional process of stakeholder consultation within the community concerned. A third study area is Sary Chelek. This is a very different context than the other areas, because it is a Biosphere reserve, which a very different management context. Human use is prohibited

in the centre of the reserve. However human use occurs in the buffer zone and this falls under the jurisdiction of the neighbouring lesхозes. The role of participatory management approaches in this particular land ownership context is still being explored. On the basis of discussions with stakeholders held to date, the most appropriate way forward would be to present the results of the research to the management team and other stakeholders in Sary Chelek, together with some management recommendations. A participatory approach as developed in other areas would not be applicable here, because of its distinctive land ownership and tenure arrangements, connected with its designation as a reserve. Further work by project staff in this location has been constrained by the recent social conflict in the area. This led to the cancellation of a workshop in the area planned for 2010, as following FCO advice, UK staff cannot currently visit the area.

3.2 Identification of implications for policy-makers at both local and national scales

This activity is primarily planned for the final year of the project. However, a set of preliminary policy recommendations were identified at the stakeholder workshop held in October 2010 in Bishkek. These will be further developed during the final year of the project.

3.3 Development of community outreach programme

FFI have not been able to run the additional village seminars that were originally planned, because of the current social unrest and political uncertainty. Instead, FFI has started to work with schools in two different communities within the walnut-fruit forest area, to develop programmes including school nurseries of rare/ threatened tree species and associated environmental education activities such as field trips and eco-clubs. Grant agreements have been signed for two projects with local partners, so the exact programme of work has been planned and budgeted. In one school, children have made expeditions to the forest, with overnight stays, and have collected seeds and fruits of threatened tree species. These have been propagated in a nursery plot that has been created at the school. Running alongside this, a wider set of eco-education activities have been initiated that will involve a wider group of children. For example, in Gumkhana an eco-club has been created. Plans are also developing in Sary Chelek. It is planned to continue these activities through 2011/12.

3.4 Dissemination of policy recommendations through workshop and policy briefs

This activity is planned for the final six months of the project and will follow on from the various workshops and data analyses produced in preceding years of the project.

3.5 Development of an interpretation facility at the national Botanic Gardens, supported by media campaign

Joachim Gratzfeld, BGCI attended an International Seminar on biodiversity conservation and plant introductions at the Gareev Botanical Gardens 7 – 9 September 2010 (Annex 3.6). The seminar was attended by over 40 national and international participants, notably by Prof Toktoraliyev, Director State Agency Environment Protection and Forestry, Kyrgyz Republic. At this event he provided an overview of the international botanic garden community, the work of BGCI, the Darwin Initiative project, and the particular role of Gareev Botanical Garden in the project. Important project meetings were held during this visit in order to discuss the outputs for this activity.

The production of eight high quality interpretation panels for individual threatened tree species is currently under development. These will ultimately be displayed in both Kyrgyz and Russian languages at a prominent location at the entrance of the national botanic garden, and/or next to the respective species growing in the garden following an organised trail. BGCI will also aim to mobilise further financial resources for the creation of the panels. It is planned to have the interpretation panels in place latest by early 2012. Draft text has been written and is currently being checked. Photographs have been sourced.

3.6 Preparation and submission of scientific publications

One paper has been published in the proceedings of a conference, and another manuscript completed and submitted. The principal publications will be produced during the final year of the project.

3.7 Development of website and other outreach materials

In addition to the project website developed in the UK, an additional website has been designed and implemented in Kyrgyzstan, <http://www.walnutforest.kg>.

BGCI has also established a section on the project on its website.

<http://www.bgci.org/ourwork/eden/>

A photo gallery was established at FFI, with the Global Trees Campaign: <http://www.globaltrees.org/fruitandnut.htm> and a press release was produced to publicise this web resource, in connection with Common Ground, to celebrate the 20th Anniversary of Apple Day on 21 October 2010 (Annex 3.7). The GTC facebook group also dedicated a running story to the photo gallery and made 'Malus niedzwetzkyana' tree of the week.

To further promote the Darwin Initiative project and the role of Gareev Botanical Garden, BGCI produced a poster as well as a more detailed informational leaflet that was distributed at the International Seminar on biodiversity conservation at the Gareev Botanical Gardens meeting in September 2010. The poster and the leaflet have been translated into Kyrgyz and Russian and were made available at the project stakeholder meeting of 22 – 24 October, 2010 (Annex 3.8).

BioResources have also developed leaflets, a calendar and posters about the project, featuring the Darwin logo, as planned (Annex 3.9). These were disseminated at the stakeholder workshop held in October 2010, and at a range of other fora. The leaflets have been published in both English and Russian.

A campaign in the national media was conducted following the workshop in October 2010, which generated some newspaper coverage (Annex 3.10). An article about the Darwin Initiative workshop was published in the State Agency of Environmental Protection and Forestry web page on 1 November 2010:

http://www.nature.kg/index.php?option=com_content&view=article&id=298%3A2010-11-01-04-25-47&catid=32%3Alatest-news&Itemid=59〈:ru

A range of other outreach materials are currently under development and will be finalised during the third year of the project.

4.2 Progress towards project outputs

This section reports against the project outputs specified in the logical framework of the original proposal.

Output 1. Capacity strengthened for interdisciplinary research and education on sustainable forest management using participatory approaches

Progress has been made towards increasing the capacity of the project team in Kyrgyzstan. Field training in 2010 was provided by UK staff to six Kyrgyz staff and students who conducted collaborative surveys of the fruit-nut forests that are the focus of the project. Data analysis and use of GIS systems training was delivered to the principal project worker from the host country in April 2010, and further training in data analysis and presentation was provided to the same individual in March 2011. Training has also been provided to Kyrgyz counterparts in undertaking socio-economic surveys and in the application of participatory approaches to sustainable management of the forests.

(a) The first output indicator was that at least six senior staff receive training in the UK in research methods, especially sampling design, GIS, data analysis and modelling by end of project. So far one of these personnel has received two periods of training in the UK. An additional staff member is receiving training in April 2011. Two other postgraduate students are receiving training in Austria, using training funds leveraged by the Darwin project. Originally, it

was planned that both of these students would receive training in the UK, but because of the current difficulties of obtaining visas for Kyrgyz students to visit the UK, alternative training was arranged in Austria instead. The assumption that the staff remain in position and are able to maintain an on-going commitment to the study area has been met for the Kyrgyz project leader. However, this was not met for one of the trainees identified, who changed job immediately prior to undertaking the training course that had been developed, which was therefore cancelled. Current political instability in the country is causing additional uncertainty about the job security of many professional staff. The problem of obtaining travel visas to the UK has also acted as a disincentive to other staff who were initially identified for training in the UK.

(b) The second output indicator was that at least 30 staff and students of partner organisations receive training in survey methods (including forest inventory, monitoring methods and data analysis), participatory management approaches, education and outreach through workshops in Kyrgyzstan, by end of project. To date, 10 Kyrgyz staff have received training in forest inventory, monitoring methods and data analysis and 23 have received training in participatory management approaches.

(c) The third output indicator was that a collaborative stakeholder network would be established between research institutes, government agencies and local community organisations in Kyrgyzstan. This has been achieved as detailed above.

Output 2. Information on sustainable management of fruit and nut forests produced and disseminated

Field surveys were continued throughout the summer months of 2010, focusing on surveying the fruit and nut forests in one specific area, namely Sary Chelek. Analysis of the initial field survey data has enabled initial hypotheses to be developed regarding the impact of human activities on fruit and nut forests in the study area. Specifically, it appears that livestock may play a crucial role in governing the dynamics of the system. Further modelling activities will be designed to test this hypothesis. In addition, socio-economic surveys have been completed in three study areas, providing detailed information on the patterns of forest use by local people. This information will again inform the development of participatory management plans.

(a) The first indicator is for at least four research publications produced by end of year 3, supplemented by annual reports. One paper has been published, and one other manuscript completed and submitted. The others will be produced during the final year of the project. In response to a suggestion made by the Steering Committee, one of these publications will be a formal project report published in Russian in Kyrgyzstan, during year 3.

(b) The second indicator is the interpretation facility presenting results established at Botanic Garden by end of year 3. The project is currently on track to achieve this.

The assumption for this output is that research successfully identifies interventions that can contribute to increased sustainability of management of fruit and nut forests. Initial results indicate that this assumption will be met.

Output 3. Plans for sustainable management of fruit and nut forests, involving participation of local communities, and informed by research findings, developed and disseminated

Development of management plans for two forest areas is currently underway, with the information gathering stage having been completed. Future activities will focus on stakeholder consultation to further refine these plans. A number of educational and outreach materials have been produced, and others will be finalised during the third year of the project. Plans to initiate a tree nursery scheme in schools have also been implemented, supported by an educational programme focusing on conservation of walnut-fruit forests.

(a) The first output indicator was that at least three management plans would be published by end of year 3. Two management plans are on track for completion by the end of the project. For the third study area (Sary Chelek), the plans will take the form of management recommendations based on the research results obtained, as described above.

(b) The second output indicator that interpretive and community outreach materials will be produced (website, leaflets, poster display, community newsletter) by end of year 3 is also currently on track. Materials of each of these types have already been produced and disseminated, but further outputs are anticipated in year 3.

(c) The third output indicator for policy recommendations to be published as a policy brief and disseminated at stakeholder workshop is scheduled for year 3.

The assumption is that partners involved in developing forest management plans are receptive to interventions proposed for increasing sustainability identified by the research component. So far, all individuals involved and those approached through meetings have been receptive to interventions and activities proposed by the project team so this assumption still holds. The direct involvement and support of senior government officials (Prof Toktoraliev) in project activities have been instrumental in this respect.

4.3 Standard Measures

The standard output measures that are relevant to this stage of the project are reported below, based on the project milestones section of the application for Year 2.

Table 1 Project Standard Output Measures

Code No.	Description	Year 1 Total	Year 2 Total	Total to date	Number planned for reporting period	Total planned during the project
4C	Number of UK postgraduate students undertaking fieldwork and training	0	4	4	0	0
4D	UK postgraduate fieldwork training weeks	0	16	16	0	0
6A	Number of Kyrgyz partner staff, research assistants and students trained on field survey methods and/or participatory approaches in Kyrgyzstan	4(field surveys) 23(particip. forest mgmt)	6 (field surveys)	33	6	30
6B	Kyrgyz training weeks	Forest surveys: 12 (4 x 3 weeks) Participatory methods: 11.5 (0.5 week)	Forest surveys: 18 (6 x 3 weeks)	41.5	18	60
7	Number of training materials produced for use by host country (leaflet, field manual, participatory methods manual)	3	1 participatory methods manual in draft. Two practical manuals completed in draft.	6	3	9
8	Weeks spent by UK project staff on project work in the host country (including workshops, field work and	3 (Brouwers) 1.5 (Newton) 1.5	4 (Birch) 2 (Newton) 2 (Gratzfeld)	24	12	30

	meetings)	(Gratzfeld) 4 (Birchenough) 2 (Hinsley)	4 (Birchenough)			
9	Number of management plans (or action plans) produced for Governments, public authorities, or other implementing agencies in the host country	0	0	0	0	3
11A	Number of papers published in peer reviewed journals	0	0	0	0	4
11B	Number of papers submitted to peer reviewed journals	0	1	1	0	4
12A	Number of computer based databases established and handed over to host country	2	2	4	2	2
13A	Number of species reference collections to be established and handed over to host country(ies)	1	1	2	1	3
14A	Number of conferences/seminars/workshops to be organised to present/disseminate findings	3 (TAZA x2, PFM)	2 participatory workshops 1 (National workshop)	6	3	8
14B	Number of conferences/seminars/workshops attended at which findings from Darwin project work will be presented/ disseminated.	0	2	2	0	2
15A	Number of national press releases in host country(ies)	0	1	1	0	1
15B	Number of local press releases in host country(ies)	0	1	1	0	1
15C	Number of national press releases in UK	1	1	2	1	2
15D	Number of local press releases in UK	1	1	2	1	1
16A	Number of newsletters to be produced	0	0	0	0	1
16B	Estimated circulation of each newsletter in the host country(ies)					
16C	Estimated circulation of each newsletter in the UK					
17A	Number of dissemination networks to be established	1	0	1	1	1
18A	Number of national TV programmes/features in host country(ies)	0	0	0	0	1
18C	Number of local TV programmes/features in host country(ies)	0	0	0	0	1
19A	Number of national radio interviews/features in host county(ies)	0	0	0	0	1
19C	Number of local radio interviews/features in host country(ies)	0	0	0	0	1
20	Estimated value (£) of	£6,100	0	£6,100	£6,100	£0

	physical assets handed over to host country					
21	Number of permanent educational/training/research facilities established and to be continued after Darwin funding ceases	3 (tree nurseries)	2 (tree nurseries)	5	3	3
22	Number of permanent field plots to be established during the project and continued after Darwin funding has ceased	10	42	52	10	30
23	Value of resources raised from other sources (ie in addition to Darwin funding) for project work	£32,088	£32,546	£64,634	£32,546	£88,631
New - Project specific measures	Parameterised model provided to Kyrgyz partners, providing a decision support tool for sustainable forest management	0	0	0	0	1

Table 2 Publications

Type (eg journals, manual, CDs)	Detail (title, author, year)	Publishers (name, city)	Available from (eg contact address, website)	Cost £
Leaflet (Eng, Rus, Kyr)	Conserving Eden: Participatory forest management in the Tien Shan region of Kyrgyzstan, BGCI 2010	BGCI, London	BGCI, London	Free
Poster	Conserving Eden: Participatory forest management in the Tien Shan region of Kyrgyzstan, BGCI 2010	BGCI, London	BGCI, London	Free
Conference proceedings	(TBC)	IUFRO	(still in development)	
Calendar	2011	Bioresources, KNAU, Bishkek	KNAU	Unknown
Website article,	State Agency on Environment Protection and Forestry, 1 November 2010	State Agency on Environment Protection and Forestry, Bishkek	http://www.nature.kg/index.php?option=com_content&view=article&id=298%3A2010-11-01-04-25-47&catid=32%3Alatest-news&Itemid=59&#9001;:ru	Free
Website material	A.Orozumbekov, 2010	A.Orozumbekov, Bishkek	http://www.walnutforest.kg/index.html	Free
Fruit and nut forest photo gallery	Photo Gallery, GTC, 2010	GTC, Cambridge	http://www.globaltrees.org/fruitandnut.htm	Free

4.4 Progress towards the project purpose and outcomes

The indicators are still considered adequate for measuring outcomes. However, research is providing a deeper understanding of the ecology of fruit and nut forests in the region, and the role of human activities in forest dynamics. Initial field observations suggest that human activities, specifically browsing by livestock, may in fact play a central role in the dynamics of the forest. The initial concept, that all human impacts on these forests are likely to have negative ecological consequences, may therefore be too simplistic. While 'reduced rate of decline in production of fruits and nuts' may still provide an appropriate indicator, this may need to be revised to focus more directly on forest structure and composition (for example as could be revealed by an effective monitoring programme). This aspect will receive more detailed consideration in the final year of the project.

The main assumptions listed on the original logical framework were:

- Economic crisis of country does not worsen, intensifying pressure on forest resources
- External actors do not increase commercial exploitation of fruit and nut forests, without involving local communities.
- Government remains committed to sustainable development of forest resources.

These have now been somewhat superseded by events. There is an ongoing political crisis in the country. Throughout the first year of the project, there was serious political unrest in Kyrgyzstan, which culminated in armed conflict in April 2010. This led to serious loss of life, and major political instability, as the president was removed from power and an interim government installed. Subsequently, a new government was elected in October 2010 (in what was considered to be the first democratic elections held in the country). This has led to the removal of a large number of senior government officials, which has directly impacted the project (for example through loss of the Steering Committee members, and the CBD focal point). At time of writing, the situation is still tense and uncertain. This political uncertainty will continue to hinder project implementation, primarily by reducing engagement of state agencies and government institutions. The situation has also impacted negatively on the research and training elements of the project. During the summer field season in 2010, there was ongoing armed conflict in the Osh region, in which the walnut-fruit forest is located. Field staff were understandably reluctant to visit field sites for some months, and the situation also affected the engagement with local communities that is a central element of the project. As a result, some of the field-based activities were curtailed, others were delayed, and some (such as the community-based training events) were cancelled. Visits of UK staff to the study area are also currently not possible, because of FCO guidance against non-essential travel to this part of Kyrgyzstan, which precludes travel insurance and permission to travel from UK employers. While there has been a definite negative impact on the project, the principal objectives have been achieved as planned, and overall the project is still on track to deliver its principal outputs. Plans for the project for 2011/2012 have been based on the assumption that this situation will neither improve, nor deteriorate further. The original field survey plans have been reduced somewhat in scope. As UK staff cannot visit the field sites, greater emphasis will be placed on using the visits of UK staff to Kyrgyzstan to monitor project progress, and amend plans should this be necessary.

In the current political climate, the fact that a successful workshop was held in Bishkek in October at which a wide range of stakeholder groups were represented, constitutes a major achievement. The direct involvement of Prof. Toktoraliev, who is a senior government figure, represents another significant achievement, which will contribute greatly to ensuring that the project has an impact at the national scale. Prof. Toktoraliev and his colleagues have been highly supportive of the project, as recognised by the formal recognition of the contribution being made by the project through formal awards to the UK staff, at the October workshop.

The previous annual report referred to a greater lack of capacity than anticipated in budgetary planning and management, basic project management including planning and monitoring of implementation, reporting processes, and media / outreach. This is in addition to the lack of technical and institutional capacity referred to on the original proposal. These are successfully being addressed through support and training provided to the main project partner (Almaz

Orozumbekov), who has continued to work hard to implement the project. Substantially better progress has been made by the Kyrgyz partners during this year of the project than in the preceding year. A particularly successful venture was the deployment of four UK postgraduate students to Kyrgyzstan, together with a UK staff member, to work alongside staff and students in a field campaign. This achieved a high level of engagement and knowledge exchange, and has undoubtedly had a significant positive impact on the ability and willingness of Kyrgyz staff and students to engage in field work of this nature. The joint field campaign has provided a solid basis for the research elements of this project, despite having been curtailed by the deteriorating political situation.

Development of formal collaborative links with other partners, especially Osh University, have also made significant progress this year, reflected in the co-signature of a formal joint work programme focusing on socio-economic survey and participatory management planning. These elements of the project have similarly made definite progress, despite again being negatively affected by the political situation. However the Director of the Kyzyl Unkor Ieshoz has changed again, for third time during the project, again causing problems in relation to continuity.

4.5 Progress towards impact on biodiversity, sustainable use or equitable sharing of biodiversity benefits

The primary impact of the project will be on unsustainable use of fruit and nut forests moving towards more sustainable use. The project has delivered some significant steps towards this, through (i) further research into identification of human activities that are consistent with sustainable use, and (ii) the development of participatory management processes that are aimed to deliver increased sustainability. We acknowledge that positive biodiversity impacts may take a number of years to be seen, but we are optimistic that the project is on track to define with much greater precision the key elements and approaches that are required for sustainable forest use to be achieved in the study area.

5. Monitoring, evaluation and lessons

Many of the key points have been referred to above. The principal method of monitoring progress is through the direct engagement of the project coordinator, who in collaboration with project partners developed a project work plan, listing a series of action points. The coordinator has subsequently continuously monitored progress towards delivery of each of these action points, in collaboration with project partners. This has been achieved primarily by email contact, supported by telephone conversations and face-to-face meetings. As noted in the previous annual report, the frequency and duration of overseas visits by UK staff has been increased, to assist with project monitoring. Again as noted previously, the project coordinator has again requested regular progress reports from overseas partners, against an agreed set of action points; the partners now appreciate the need for detailed regular reporting of activities, and this element of the project is now operating smoothly. Budgetary management has also improved significantly over the past year, but continues to be supported by guidance provided by the UK project staff. The most notable achievement is that the Kyrgyz partners are increasingly demonstrating increased ownership of the project, both in terms of technical content and in terms of the monitoring and evaluation process. As an example of this, the Kyrgyz partners were able for the first time to develop and budget for a complete field programme, which will be implemented in the third year of the project. This provides clear evidence that capacity to undertake projects such as this is being strengthened.

As noted in the previous report, the main challenge at present in this project is not to ensure that the outputs and outcomes of the project actually contribute to the project purpose, but to ensure that the project outputs are all delivered on time. It is this need to focus on delivery and measurement of tangible outputs that is currently one of the principal objectives of the capacity building being provided to senior staff of partner organisations. This is because the partners have little experience of being required to deliver such outputs. However, progress is again being made in this area. Helpfully, the participants of the stakeholder workshop clearly identified the kind of output that would be most useful: a formal report, to be published in Russian, profiling the activities of the project and its key findings and recommendations. For the

final year of the project, production of this report has therefore been identified as a key objective, and the Kyrgyz partners have expressed enthusiasm in taking responsibility for its preparation and delivery.

Problems with obtaining visas for Kyrgyz nationals, particularly students, have continued. The senior Kyrgyz partner has now been granted a one year, academic visa, so the situation is now solved for him. However one student had his visa refused, and therefore the project has organised alternative training for him in Austria, rather than in the UK. This was achieved by project staff securing additional external funds to support these training placements, providing an example of the project catalysing the capture of external financial support.

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

Reviewer comments from 2010: "Given the scope for continued civil and political unrest in Kyrgyzstan, it would be useful if the project leader could keep LTS up-to-date and informed about any disruptions to project implementation, or other changes in the Kyrgyz situation that might affect project progress, as they become apparent".

The UK project staff have kept in close contact with LTS, both through the six-month report and additional email contact. As noted above, while the situation has been serious and has negatively impacted project activities, overall the disruptions have not been so severe as to require a change to the log frame.

7. Other comments on progress not covered elsewhere

None

8. Sustainability

The aim, as indicated on the original proposal, is to achieve sustainability through the development of proposals to fund future work after the completion of the project. Project partners have become members of BGCI, and the IUCN SSC Global Trees Specialist Group, as was indicated on the original proposal. This should help in developing international collaborative partnerships, to assist the process of developing proposals to fund future work. Two such proposals were submitted this year (led by FFI), namely: (a) a proposal submitted to the EU 'Non-state Actors in Development' fund, for community collaborative forest management. This focused on increasing the role of local communities and stakeholders in forest management. This was not successful. (b) The Big Lottery Fund. A proposal focused on involving local people in forest management and promoting sustainable alternative livelihoods. This was also unsuccessful. Further support has been given to the principal host country project worker on project management and budgeting skills, as well as preparation of proposals. During his visits to the UK he has had meetings with a number of potential donors (eg Rufford Foundation, Christensen Fund), and one of the activities of the UK staff in the coming year will be to provide ongoing support to proposal development. In addition, the focus on developing participatory approaches to forest management, which can be implemented by local communities, is aimed at ensuring long-term sustainability of forest management without strong dependence on external financial support.

9. Dissemination

As envisaged on the original proposal, project results and activities are being disseminated in the following ways:

(i) a community outreach programme to be developed in the study area; this has been initiated (see above).

(ii) workshops supported by the development of policy briefs, to present policy recommendations to relevant stakeholders, including national government agencies and CBD national focal point; this to be covered in year 3.

(iii) development of an interpretation facility at the national Botanic Gardens, supported by a campaign in the national media, leaflets and poster displays, with the aim of providing education to the public regarding fruit and nut forests and their role in supporting livelihoods, thereby raising public awareness; the development of these interpretive materials has been initiated, and a first leaflet produced.

(iv) scientific publications; the first of which has been prepared.

(v) a dedicated internet site aimed at raising public awareness and disseminating research results; this has been established, and has been supported by the development of several others (see earlier).

(vi) a media campaign aimed at national television, radio and newsprint; a campaign at the national level has generated some newspaper coverage this year.

10. Project Expenditure

Bournemouth University has fully transferred the budget allocation to the partner in Kyrgyzstan (BioResources) for the year 2010/11 however going through the budget with BioResources at the end of the project year they have not fully spent the funding. Their underspend is in the region of £5000 and has occurred due to problems caused by the difficult political situation in Kyrgyzstan at the moment. The project team are currently putting together a budget for the 2011/12 project year which will include a reallocation of funds to take into account the underspend. We will submit a request and full justification to Darwin as soon as possible.

Table 3 project expenditure during the reporting period (1 April 2010 – 31 March 2011)

Item	Budget (please indicate which document you refer to if other than your project application or annual grant offer letter)	Expenditure	Variance/ Comments
Staff costs specified by individual UK partners Prof A Newton Jenny Birch Anita Diaz Duncan Golicher L Birchenough, FFI J Gratzfeld, BGCI Kyrgyz partners Dr A Orozumbekov Research assistants Dr G Lazkov Dr K Shalpiykov			

Dr I Soodembekov Dr S Kenjebaev		
Overhead costs		0%
Travel and subsistence		-15.3% A training visit was planned for Umut Zholdoshova during March 2011. However, this was cancelled at the last minute because she changed her job to one that is no longer relevant to the project's activities. This cancellation occurred too late in the year to arrange an alternative training visit during year 2 of the project (2010/2011) hence the under spend here.
Operating costs		41.4% No money was allocated in this year for field work consumables and some purchases were necessary for carrying out a successful field visit in June 2010. In addition, unforeseen costs were incurred during the field visit due to the political instability and violence in the country resulting in the foreign office advising us to cut short the trip and make arrangements to return early to the UK. Significant costs went towards satellite and mobile phone calls
Capital items/equipment (specify)		0%
Others: Consultancy		
Others (please specify)		0%
TOTAL		-0.7%

11. OPTIONAL: Outstanding achievements of your project during the reporting period (300-400 words maximum). This section may be used for publicity purposes

I agree for LTS and the Darwin Secretariat to publish the content of this section (please leave this line in to indicate your agreement to use any material you provide here)

Annex 1: Report of progress and achievements against Logical Framework for Financial Year 2010-2011

Project summary	Measurable Indicators	Progress and Achievements April 2010 - March 2011	Actions required/planned for next period
<p>Goal: <i>To draw on expertise relevant to biodiversity from within the United Kingdom to work with local partners in countries rich in biodiversity but constrained in resources to achieve</i></p> <ul style="list-style-type: none"> ⇒ The conservation of biological diversity, ⇒ The sustainable use of its components, and ⇒ The fair and equitable sharing of the benefits arising out of the utilisation of genetic resources 		<p>(i) ongoing development of participatory management plans, (ii) ongoing research being conducted to define approaches to forest use that are sustainable</p>	
<p>Purpose Strengthened national and local capacity applied to improve the sustainability of management of the fruit and nut forests of the Tien Shan region of Kyrgyzstan</p>	<p>Reduced rate of decline in production of fruits and nuts detected within 5 years of project implementation indicated by and field surveys and market data.</p> <p>Number of participatory management plans developed by end of project.</p> <p>Recommendations for sustainable management of fruit and nut forests incorporated in local and national policy initiatives.</p>	<p>Baseline surveys of forest structure and composition completed in one study area</p> <p>Socio-economic surveys completed in three study areas</p> <p>Participatory management approaches developed in two study areas</p>	<ul style="list-style-type: none"> (i) Completion of field surveys documenting the status and distribution of threatened tree species (ii) completion of data analysis and modelling activities, to identify sustainable forest use approaches (iii) completion of participatory management planning process (iv) completion of all project outputs (v) dissemination of outputs, for example through stakeholder workshop
<p>Output 1. Capacity strengthened for interdisciplinary research and education on sustainable forest management using participatory approaches</p>	<p>(a) At least six senior staff receive training in UK in research methods, especially sampling design, GIS, data analysis and modelling by end of project</p> <p>(b) At least 30 staff and students of partner organisations receive training in survey methods (including forest inventory, monitoring methods and data analysis), participatory management</p>	<ul style="list-style-type: none"> (i) Five staff have now received training, or are currently doing so. One additional trainee to visit the UK in 2011. (ii) 33 staff and students have so far received training in Kyrgyzstan (iii) Collaborative stakeholder network established 	

	<p>approaches, education and outreach through workshops in Kyrgyzstan, by end of project</p> <p>(c) Collaborative stakeholder network established between research institutes, government agencies and local community organisations in Kyrgyzstan</p>	
Activity 1.1 Training in UK on research methods		<ul style="list-style-type: none"> (i) Training provided to one staff member in UK, in two separate training secondments (ii) Training currently being provided to two other Kyrgyz postgraduate students in Austria, using funds leveraged by Darwin Initiative project (iii) Training to be provided to two other staff during coming year
Activity 1.2 Training in Kyrgyzstan on survey methods and participatory management approaches		<ul style="list-style-type: none"> (i) Training provided in Kyrgyzstan to six counterpart staff and students, on survey methods (ii) Additional, week-long training event on participatory management approaches to be held in 2011
Activity 1.3 Collaborative stakeholder network established between research institutes, government agencies and local community organisations		<ul style="list-style-type: none"> (i) Stakeholder network established, supported by website in-country, and through a participatory workshop held in October 2010 (ii) Additional workshop planned for October 2011
Output 2. Information on sustainable management of fruit and nut forests produced and disseminated	<ul style="list-style-type: none"> (a) At least four research publications produced by end of year 3, supplemented by annual reports (b) Interpretation facility presenting results established at Botanic Garden by end of year 3. 	<ul style="list-style-type: none"> (i) One publication published, another submitted for publication (ii) Other publications to be produced during 2011, including a formal report profiling project activities and findings, to be published in Kyrgyzstan in response to request from stakeholder network (iii) Plans have progressed for development of interpretation facility, including development of draft text, photographs and costing (iv) Interpretation facility to be established during 2011
Activity 2.1 Analysis of spatial distribution, stand structure, stand dynamics and current status of threatened fruit and nut tree species		<ul style="list-style-type: none"> (i) Field campaign conducted at one field site, Sary Chelek; the work is now complete at this site

		<ul style="list-style-type: none"> (ii) Field campaign to be conducted throughout remaining forest areas in 2011, to identify status and distribution of threatened tree species (iii) Results of survey work to be written up for publication in 2011
Activity 2.2 Analysis of the impact of current land use practices on stand structure and composition of fruit and nut forest		<ul style="list-style-type: none"> (i) Fieldwork completed in single field site (Sary Chelek) (ii) Socio-economic surveys completed in three study areas (iii) Initial parameterisation of forest model completed (iv) Results to be written up for publication in 2011, including development of scenarios of human use based on results obtained, and using the model of forest dynamics
Activity 2.3 Development and implementation of participatory approaches to forest management		<ul style="list-style-type: none"> (i) Development of draft plans underway in 2010, involving participatory process with local communities (ii) Plans to undergo further exploration with local stakeholders during 2011, to enable them to be finalised (iii) Results of these activities written up for publication in 2011
Output 3. Plans for sustainable management of fruit and nut forests, involving participation of local communities, and informed by research findings, developed and disseminated	<ul style="list-style-type: none"> (a) At least three management plans published by end of year 3. (b) Interpretive and community outreach materials produced (website, leaflets, poster display, community newsletter) by end of year 3. (c) Policy recommendations published as a policy brief and disseminated at stakeholder workshop in year 3. 	<ul style="list-style-type: none"> (i) Two plans produced in draft, these to be finalised in year 3 (ii) Plan for the third study area (Sary Chelek) will be provided in the form of a series of management recommendations, based on results obtained (iii) Interpretive materials produced during 2010, including website, leaflets, poster display (iv) Further interpretive materials to be produced during 2011
Activity 3.1 Development of plans for sustainable management of fruit and nut forest by local communities		<ul style="list-style-type: none"> (i) Two plans produced in draft, these to be finalised in year 3 (ii) Plan for the third study area (Sary Chelek) will be provided in the form of a series of management recommendations, based on results obtained
Activity 3.2 Identification of implications for policy-makers at both local and national scales		<ul style="list-style-type: none"> (i) Results of research to be analysed and written up for publication in 2011

Activity 3.3 Development of community outreach programme	<ul style="list-style-type: none"> (i) Community outreach programme continued during 2010 (ii) Programme to continue through 2011, until end of project
Activity 3.4 Dissemination of policy recommendations through workshop and policy briefs	<ul style="list-style-type: none"> (i) Policy recommendations identified at project workshop in October 2010 (ii) Further policy recommendations to be identified through analysis of research results, and disseminated at an additional workshop in October 2011, as well as through project publications
Activity 3.5 Development of an interpretation facility at the national Botanic Gardens, supported by media campaign	<ul style="list-style-type: none"> (i) During 2010, development of the interpretation facility continued; the text has been drafted and photographs sourced, and the facility has been costed (ii) In 2011, the interpretation facility will be completed and installed
Activity 3.6 Preparation and submission of scientific publications	<ul style="list-style-type: none"> (i) One publication was completed and published in 2010; a further publication was submitted for publication (ii) Additional publications will be completed during 2011
Activity 3.7 Development of website and other outreach materials	<ul style="list-style-type: none"> (i) An additional website was developed and implemented in Kyrgyzstan (ii) Other outreach materials were produced and disseminated, including leaflets, calendar, poster (iii) Additional outreach materials will be produced in 2011

Annex 2 Project's full current logframe

Project summary	Measurable Indicators	Means of verification	Important Assumptions
<p>Goal: Effective contribution in support of the implementation of the objectives of the Convention on Biological Diversity (CBD), the Convention on Trade in Endangered Species (CITES), and the Convention on the Conservation of Migratory Species (CMS), as well as related targets set by countries rich in biodiversity but constrained in resources.</p>			
<p>Sub-Goal: Reduction in the rate of forest biodiversity loss in the Tien Shan region of Kyrgyzstan through an increase in the sustainability of land use practices, as identified in the NBSAP.</p>	<p>Reduced rate of decline in biodiversity as indicated by national biodiversity indicators</p> <p>Improvement in indicators of human well-being including poverty indices, health status and income levels</p>	<p>Biodiversity assessments undertaken at regional and national scale by state agencies</p> <p>Socio-economic surveys undertaken by national government</p>	
<p>Purpose Strengthened national and local capacity applied to improve the sustainability of management of the fruit and nut forests of the Tien Shan region of Kyrgyzstan</p>	<p>Reduced rate of decline in production of fruits and nuts detected within 5 years of project implementation, indicated by and field surveys and market data.</p> <p>Number of participatory management plans developed by end of project.</p> <p>Recommendations for sustainable management of fruit and nut forests incorporated in local and national policy initiatives.</p>	<p>National reports, for example to the Global Forest Resources Assessment</p> <p>Surveys of management plans undertaken by project partners within the study area</p> <p>Policy documents developed by Kyrgyz Republic relating to forests</p>	<p>Economic crisis of country does not worsen, intensifying pressure on forest resources</p> <p>External actors do not increase commercial exploitation of fruit and nut forests, without involving local communities.</p> <p>Government remains committed to sustainable development of forest resources.</p>

<p>Outputs</p> <p>1. Capacity strengthened for interdisciplinary research and education on sustainable forest management using participatory approaches</p>	<p>(a) At least six senior staff receive training in UK in research methods, especially sampling design, GIS, data analysis and modelling by end of project</p> <p>(b) At least 30 staff and students of partner organisations receive training in survey methods (including forest inventory, monitoring methods and data analysis), participatory management approaches, education and outreach through workshops in Kyrgyzstan, by end of project</p> <p>(c) Collaborative stakeholder network established between research institutes, government agencies and local community organisations in Kyrgyzstan</p>	<p>(a) Training secondment and study programme reports</p> <p>(b) Training workshop reports and educational materials</p> <p>(c) Reports of network meetings produced quarterly</p>	<p>Staff that have received training as part of the project, and facilities developed, remain in position and are able to maintain an on-going commitment to study area</p>
<p>2. Information on sustainable management of fruit and nut forests produced and disseminated</p>	<p>(a) At least four research publications produced by end of year 3, supplemented by annual reports</p> <p>(b) Interpretation facility presenting results established at Botanic Garden by end of year 3.</p>	<p>(a) Annual project reports, and research papers published in scientific journals</p> <p>(b) Interpretive facility featuring poster boards and leaflets on display, with associated press releases</p>	<p>Research successfully identifies interventions that can contribute to increased sustainability of management of fruit and nut forests</p>
<p>3. Plans for sustainable management of fruit and nut forests, involving participation of local communities, and informed by research findings, developed and disseminated</p>	<p>(a) At least three management plans published by end of year 3.</p> <p>(b) Interpretive and community outreach materials produced (website, leaflets, poster display, community newsletter) by end of year 3.</p> <p>(c) Policy recommendations</p>	<p>(a) Plans published</p> <p>(b) Annual reports produced and copies of interpretive materials produced (website, leaflets, poster display, community newsletter); use by local communities verified by participatory surveys of communities in study area</p> <p>(c) Workshop report and policy</p>	<p>Partners involved in developing forest management plans receptive to interventions proposed for increasing sustainability identified by research component</p>

	published as a policy brief and disseminated at stakeholder workshop in year 3.	brief produced.	
<p>Activities (details in workplan)</p> <p>1.1 Training in UK on research methods</p> <p>1.2 Training in Kyrgyzstan on survey methods and participatory management approaches</p> <p>1.3 Collaborative stakeholder network established between research institutes, government agencies and local community organisations</p> <p>2.1 Analysis of spatial distribution, stand structure, stand dynamics and current status of threatened fruit and nut tree species</p> <p>2.2 Analysis of the impact of current land use practices on stand structure and composition of fruit and nut forest</p> <p>2.3 Development and implementation of participatory approaches to forest management</p> <p>3.1 Development of plans for sustainable management of fruit and nut forest by local communities</p> <p>3.2 Identification of implications for policy-makers at both local and national scales</p> <p>3.3 Development of community outreach programme</p> <p>3.4 Dissemination of policy recommendations through workshop and policy briefs</p> <p>3.5 Development of an interpretation facility at the national Botanic Gardens, supported by media campaign</p> <p>3.6 Preparation and submission of scientific publications</p> <p>3.7 Development of website and other outreach materials</p>			
<p>Monitoring activities:</p> <p>Indicator 1 Repeat surveys of the quantity of fruit and nuts harvested from local forests</p> <p>Indicator 2 Repeat surveys of the number of participatory management plans established with local communities</p> <p>Indicator 3 Repeat assessments of implementation of management plans and monitoring protocols by local communities</p>			

Annex 3 Onwards – supplementary material (optional but encouraged as evidence of project achievement)

Annex 3.1 – April 2010 study visit to UK report, photos, training materials

Annex 3.2 – March 2011 visit to UK agenda, Kew invitations

Annex 3.3 – June 2010 field campaign report and photos

Annex 3.4 – October 2010 National workshop presentations and photos

Annex 3.5 – Honorary Diploma translation

Annex 3.6 – BGCI visit report September 2010

Annex 3.7 – Apple Day press release

Annex 3.8 – Publicity materials

Annex 3.9 – Project calendar (Russian)

Annex 3.10 – Newspaper feature on fruit-nut forests (Russian)

Checklist for submission

	Check
Is the report less than 5MB? If so, please email to Darwin-Projects@ltsi.co.uk putting the project number in the Subject line.	x
Is your report more than 5MB? 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.	Yes, to be posted on a CD
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.	