



Darwin Initiative Annual Report



Submission deadline 30 April 2010

Darwin Project Information

Project Ref Number	17-001
Project Title	Conserving Eden: participatory forest management in the Tien Shan region
Country(ies)	Kyrgyzstan
UK Contract Holder Institution	Bournemouth University
Host country Partner Institution(s)	BioResources
Other Partner Institution(s)	Fauna and 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 (1 Apr 200x to 31 Mar 200y) and annual report number (1,2,3..)	1 Apr 2009 to 31 March 2010 Annual Report number 1
Project Leader Name	Prof. Adrian Newton
Project website	http://www.bournemouth.ac.uk/cceec/conserving-eden/index.html
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1. 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).

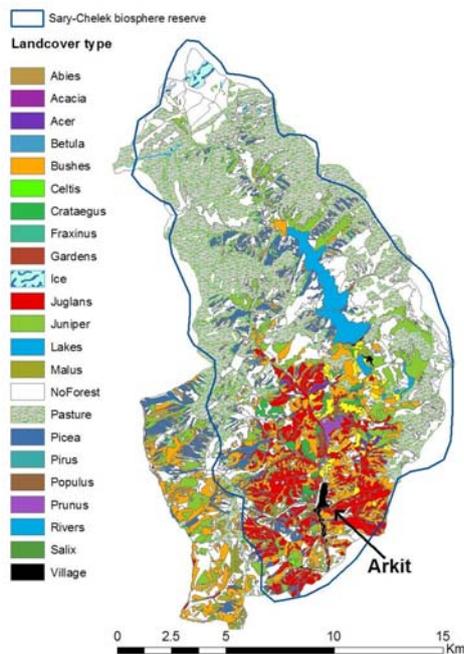


Figure 2. Sary-Chelek biosphere reserve boundary was downloaded from World Database on Protected Areas, <http://www.wdpa.org/Download.aspx> (record 4 of the GISdatabse_Kyrgyz.xls). Landcover types were derived from rlp_region.shp (record 20 of the GISdatabse_Kyrgyz.xls) provided by the Forestry Planning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

2. Project Partnerships

The partnership between UK and overseas institutions has developed largely as planned, supported by regular email contact and a series of exchange visits. A project inception visit and workshop in July 2009 cemented these relationships with the production of formal MOUs outlining each partner's role.

Four 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 will also take 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 and Flora International (FFI) and Botanic Gardens Conservation International (BGCI). FFI will 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 such as TAZA. BGCI will provide assistance in capacity building and environmental education, particularly to the Botanic Garden of the National Academy of Sciences (BGNAS), and will 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 will take overall responsibility for implementing research and outreach activities in Kyrgyzstan, in collaboration with other national and regional partners.

As described in the six-month report, the main overseas contact, Dr Almaz Orozumbekov, who helped draft the project proposal, has changed his job since the project was awarded. When the original proposal was submitted, he was an employee of the Osh Technological University (OTU). During the first six months of the project it was proposed, and accepted by the Darwin Secretariat, that while the partner organisations will remain the same as on the original proposal, the lead partner will henceforth be BioResources. BU subsequently signed a formal MoU with BioResources, and funds were transferred to the latter.

As planned on the original proposal, a Steering Committee was created to oversee implementation of the project. However, again as reported on the six month report and as agreed with the Darwin Secretariat, the nature and function of the Steering Committee has diverged slightly from that envisaged in the original proposal. The project proposal indicated that meetings with the Steering Committee will be held regularly. Based on discussions held with project staff, it became clear that convening such meetings would be very challenging, as members of the Committee hold very senior positions and identifying suitable dates on which all members are available is likely to be very difficult. Therefore, it was agreed that the Steering Committee be involved through electronic communication, supported by meetings with individual Committee members as appropriate. After an initial project workshop in July 2009, it was proposed that the members of the Steering Committee will be:

- Prof. Sharipa Jorobekova, President of the National Academy of Sciences.
- Mr. Burhanov of the State Forest Service.
- Prof. Soodombekov, Head of Medicinal Plants Laboratory of the National Botanic Garden.

This team was formally instituted in July 2009, supported by signed letters of agreement. It was anticipated that the Steering Committee would be able to support the project by providing linkage with three areas relevant to project activities, namely education, scientific research and policy. In addition it was envisaged that they would provide feedback on project activities, and assist in disseminating outputs to key stakeholders and assisting in the implementation of project findings.

A progress report describing project activities was presented to Mr. Burhanov in January 2010, to which he replied on 16/02/10 (Letter 2 attached) commenting that he is content with the progress of the project. He made one specific recommendation: that the project work with Prof. Toktoraliev of the Osh Technological University and with Kamel Chorfi from the Norwegian Forest Group, who previously co-ordinated the EU-JUMP project. Both Prof. Toktoraliev and Kamel Chorfi have subsequently been involved in the project in training and outreach activities, through formal contracts developed and implemented by FFI. However, Mr. Burhanov and Prof. Soodombekov have been removed from their positions as a result of recent political upheaval in the Kyrgyz Republic. Prof. Sharipa Jorobekova was invited to visit the UK partners during a planned visit to the UK, which has not yet taken place. Prof. Jorobekova is still in post but is likely to leave office soon, again as a result of recent political upheaval. For the coming year it is therefore planned to appoint a new steering committee once the political situation has stabilised.

Other Collaboration

During the project visit to Kyrgyzstan in July 2009, the Project Leader met with Azamat Khudaibergenov, from the Regional Environmental Centre for Central Asia (CAREC), Bishkek who was keen to be involved and could assist with a range of project activities including awareness raising and outreach, training, and work with local communities and perhaps co-hosting the workshop planned for the end of the project. This collaboration could assist with building a link with the relevant Government ministries and disseminating project information to both national and regional networks. Other meetings held during this visit include: Akynaly Dubanaev, Deputy Director of Sary-Chelek Biosphere Reserve (with whom BioResources signed an MoU during the visit); Kuliev Arstanbek Saipovich, Director of National Botanic Garden; Gunusov Toktonaly Orolbaevich, National Academy of Sciences (who offered logistic support in Sary-Chelek); Prof. Sharipa Jorobekova, President of the National Academy of Sciences (happy to be a member of the project Steering Committee); Gulnaz Jallilova (TAZA); Peter Borchart, Freie University Berlin (involved in VW project; offered help in terms of satellite imagery and information exchange).

FFI representatives visited Kyrgyzstan in December 2009 and met with Bolot Tagaev, a teacher at Gumkhana village school. He will assist with developing a nursery project for environmental awareness at the school. In addition to the school project Bolot discussed an idea to study the effects of human intervention/disturbance on walnut regeneration.

Further communication has been made with the KIRFOR project which ran in Kyrgyzstan from 1995 – 2009. FFI met with Rysbek Akenshaev (who worked for LESIC as part of the KIRFOR Swiss project) to share information with the local team on the Darwin project activities. LESIC staff and office are morphing into a NGO and are looking for partners for future work. Rysbek was very forthcoming with information about their recent activities, including establishing and supporting Coordination Councils and joint forest management (JFM). We plan to collaborate on this aspect in the future.

Kamel Chorfi, a project researcher from the EU-JUMP project (2004 – 2006) on juniper forests of southern Kyrgyzstan 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. Common Ground supports local diversity across the UK and the celebration of local culture and the environment. They promote projects that link the arts and environmental fields and came up with the original concept of Apple Day in 1990. This event is now celebrated every year and we are developing publicity materials to tie in with this. In addition, Common Ground will host an online gallery of images of the fruit-nut forests of Kyrgyzstan with details on the species found there and links to the project website and project partner webpages. These activities are designed to help raise profile of the project, and the conservation importance of forests in the Tien Shan, in the UK and internationally.

Communication has also been established with the Field Studies Council, which has been involved in Darwin projects in the Central Asia region for several years, including in Kyrgyzstan from 2006 - 2008. They have offered assistance with linking up with a local NGO and with schools.

CBD Focal point

A letter was written on 12/01/10 to the CBD focal point in Kyrgyzstan, Davletkeldiev A.A., but we have received no reply to date (Letter 1 attached). Due to recent political upheaval in the Kyrgyz Republic he has now been removed from office. Once the political situation has stabilised, we will endeavour to identify the replacement CBD focal point and contact this person as appropriate. At present there is nobody in this role.

The partnership has supported a range of host country institutions to build their capacity to the meet CBD commitments through training and capacity building activities, with further details given below.

3. Project progress

3.1 Progress in carrying out project activities

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 initial year of this project have been reached with the exception of the visit by Kyrgyz partners to the UK, which was delayed until April 2010 because of difficulties in obtaining visas to travel to the UK.

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

Training in UK on research methods

A study visit was organised for March 2010, some months later than was planned on the proposal. The shift in timing was requested by the partners so that they could accommodate their other commitments. Several problems were encountered with the subsequent planning for this visit. It was agreed that the principal project worker Dr. Almaz Orozumbekov (AO) and a post-graduate student from one of the host institutions would visit, the latter having made a valuable contribution during the survey work and training in Kyrgyzstan in October 2009.

However, significant problems were encountered with the visa applications and the student was refused a visa to visit the UK on this occasion. The processing of the visa application for AO was a long arduous process and took significantly longer than expected. This delay pushed back the visit date to April 2010, and was further delayed by disruptions to international air travel caused by the volcanic eruption in Iceland. This visit is currently taking place at the time of writing, falling just outside of Year 1. Training workshops have been arranged for this two week visit in April focusing on field sampling techniques, research methods, GIS and data analysis and writing publications. Further guidance will also be given on project management and budgeting. Visits to UK partners have also been arranged. Study programme reports and feedback will be provided at the end of this visit.

Training in Kyrgyzstan on survey methods and participatory management approaches

As planned Dr Niels Brouwers from BU provided three weeks of training on field methods during the fieldwork campaign in September - October 2009 for four Kyrgyz staff and students from partner institutions. This included standardised methods for forest surveys, data collection on tree species, measurement of tree height, diameter and regeneration plots, as well as instructional use of the handheld GPS. During this training course a detailed field survey protocol was developed, so that survey work could continue in 2010 without external help. Further training needs were identified through face-to-face discussions with the participants and these were reported back to BU to be addressed on the exchange visit to the UK in 2010. Outputs from this training include a trip report, GIS field manual (Annex 3), and participants' feedback letter (Letter 3 attached).

Training on participatory management planning was delivered through a two-day workshop from 30-31 March 2010. There were 23 participants including staff members from six forest districts: Toskol-Ata, Kara-Alma, Kyzyl-Unkur, Urumbash, Arstanbap, and Achi, three representatives from the Jalal-Abad Regional Forestry Department, two heads of village government: Kara-Alma and Ortok villages, one teacher, and three representatives of the Osh Technical University. The seminar was organised by FFI with a consultant specialist (Kamel Chorfi) to deliver the actual training. Feedback from this event was positive. (Annex 4 has a full workshop report in English and Russian along with the presentation that was given)

In addition, UK partners received training from an external expert on participatory forest management at a workshop organised by BU in order to pass this knowledge on to host country partners. This resulted in the production of draft 'best practice guidelines' for participatory approaches in Kyrgyzstan that will be disseminated to the project team and incorporated into the project (Annex 5 has details of the workshop and best practice guidelines document in draft form).

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

Following an initial project visit by a representative of FFI in June 2009, the project inception workshop was successfully held in July 2009, at which all key partners were represented, including six Kyrgyz institutions and representatives of all the UK partners (Annex 6). A report of the project visit was produced, with an action plan for implementing the first phase of the project. In addition, formal MoUs were developed between Bournemouth University (BU) and other partners involved in the project, which were ratified by the legal department of the University, and subsequently signed by each partner. The MoUs specify roles and responsibilities of all partners during the project. Twelve organisations have been identified for inclusion in the network:

- Institute of nuts and horticulture, Jalal-abad (formerly known as the Institute of the Biosphere)
- State Agency of Environmental Protection and Forestry.
- Osh Technological University
- Kyrgyz National Agrarian University
- Institute of Biology and Soil of National Academy of Sciences
- Innovation Centre of Phytotechnology

- Institute of Forestry
- Botanic Garden of the National Academy of Sciences
- BioResources
- TAZA (NGO)
- Regional Ecological Centre (CAREC), Bishkek
- Kyrgyz State University

BioResources has contacted all of these organisations and has invited them to participate in project workshops. In future BioResources will also ensure that results of project are disseminated to these partners. MoUs have been signed, between BioResources and each of these organisations, to formalise these collaborative links. It was agreed to hold a workshop in May 2010 to involve all these partners but due to the political unrest this meeting has been postponed until October 2010. It is planned that UK partners will attend this workshop.

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

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

Preliminary work was undertaken in April 2009 with initial surveys of *Malus niedzwetzkyana* completed. A second field campaign was successfully undertaken in September and October 2009, which incorporated field training for Kyrgyz partners. As envisaged, it has not been possible to continue this field work during the winter months so this activity will be resumed in May – October 2010 by project partner BioResources. In addition, as requested by overseas partners, a team of UK staff and postgraduate students will visit in June 2010 to assist with collection of field data, in collaboration with Kyrgyz partners. It is intended that data will be collected on spatial distribution of key tree species, forest stand structure, livestock browsing impacts and status of threatened tree species. Assessment of forest structure and dynamics will be conducted only in Sary Chelek Biosphere Reserve. During the Sept-Oct 2009 visit, digitised data was obtained for the study area and has been compiled in a spatial database, which has been provided to project partners in Kyrgyzstan (Annex 7). Results from initial field surveys have been incorporated in this database.

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

A socio-economic survey tool has been developed by BU in collaboration with BioResources, focusing on how local people use the forest, the values derived from it, what impacts such activities have on it, and how these are currently monitored (Annex 8). The aim of this survey tool was to develop a relatively simple survey method to elicit information on human uses of fruit and nut forests. It is proposed that the socio-economic surveys will be undertaken in three study areas, where management plans are to be developed: Kara Alma, Kyzyl Unkur and Sary Chelek. This survey will be instigated by partners at Osh Technological University (OTU), BioResources and Kyrgyz National Agrarian University, in 2010/11. 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. To date, activities have focused on compiling input data with which 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. The field plots to be established and surveyed in May / June 2010 will provide additional field data with which to parameterise the model. Once the model has been fully parameterised, results from the socio-economic surveys will then be used to develop scenarios of different degrees of human impact (eg 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 provide a framework for focusing field survey and socio-economic research activities, and provide a tool with which to inform the development of participatory forest management plans.

Development and implementation of participatory approaches to forest management

A work plan and budget have been developed with Prof Toktoraliev (OTU) and his local NGO JFDF for developing the participatory management plan for Kyzyl Unkur (KU). This was a slower process than expected and involved significant input from FFI to define and agree the process. The contract was signed in December 2009. JFDF are now in the information gathering and analysing stage of the process, and will then run a series of three participatory workshops in the village bringing together the community and local forest service to discuss issues, and agree objectives and actions for forest management. FFI's Kyrgyzstan programme officer will also attend the workshops as she has experience of facilitating participatory community meetings. No outputs have been produced at this stage.

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

It was envisaged that capacity building of local Forest Service staff would be required in order to develop sustainable management plans with local community involvement. Training has occurred (reported under Output 1) and the management process is underway in one locality. Plans for a formal training needs assessment of local forestry service staff were not carried out, under the advice of project partners. Instead, meetings were held with the directors of Kyzyl Unkur (KU) and Kara Alma (KA) *leshozes*, as well as forestry service representatives at both the regional and national level, during which the issue of skills needs and training was explored. As a result of these meetings, in 2010 training will initially be for KU and KA *lezhov* staff but could be expanded to other forestry units as appropriate. The above activities will be organised by FFI but may be conducted by local partners or consultants. At this stage there are no specific outputs.

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

At this early stage in the project, this activity has not yet been initiated as it was planned in the proposal to take place in Year 3 of the project. Implications for policy-makers will become evident as the Year 2 workshops with local communities get underway and the results of research and survey activities become available.

Development of community outreach programme

A formal agreement was negotiated and signed with national NGO TAZA to deliver awareness programmes in KU and KA within the planned timeframe. Following this, TAZA have delivered two awareness raising seminars in September and October 2009 with over 65 participants from 7 adjacent villages. The seminars covered forest biodiversity and problems in the walnut forests and included a field trip to the forest, and two demonstrations on locally appropriate alternative energy technologies e.g. solar cooker, solar water heater etc., which are designed to reduce pressure on native forests as a source of fuelwood. These were well received by the communities with much interest in the solar cooker and other demonstrated equipment. Annex 9 presents a comprehensive report from TAZA.

Training seminars about the importance of the Niedzvetzky Apple took place in the Jalal-Abad Oblast between August 13-20, 2009 led by Shalpykov K.T., Director of the Center of Phyto-technologies of the NAS. Seminars were attended by 20 persons from local villages daily. Brochures about the Niedzvetzky Apple were distributed in Russian and Kyrgyz languages along with posters in Russian language, published, as well as handout materials (folders, notepads, pencils, pens, etc.). Presentations were given on the importance of conserving those species that are on the brink of extinction, including the Niedzvetzky Apple, for future generations. Practical examples on the grafting techniques, as well as the agro-technical activities on setting and caring for mini-nurseries were also given. Participants expressed a wish that there were more seminars of this kind, including other globally important species (see Annex 12 for full report).

Further work for the coming year is planned focusing on developing tree nurseries within Schools, together with associated educational facilities. Co-financing has been secured for this (via FFI).

Dissemination of policy recommendations through workshop and policy briefs

This activity was planned for the final six months of the project and will follow on from the various workshops and data analysis produced in Years 2 and 3 of this project.

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

BGCI staff developed a plan of action with the Botanical Gardens of the Kyrgyz National Academy of Sciences during a project visit in July 2009. Development of educational materials has since been initiated and plans for deploying these materials were developed during April 2010. A workshop to strengthen capacity of BGNAS staff and relevant stakeholders in education and interpretation in botanic gardens will be delivered during a two-day training workshop later in the project.

Preparation and submission of scientific publications

This activity is timetabled for the final nine months of the project. However an initial publication is currently under preparation.

Development of website and other outreach materials

The development of the project website hosted in the UK was completed on schedule in June 2009 (<http://www.bournemouth.ac.uk/cceec/conserving-eden/index.html>). FFI and the Global Trees Campaign (GTC) have also developed their websites with detailed information about the project (www.globaltrees.org/kyrgyzstan_apple.htm). A project website has also been created in Kyrgyzstan (www.aorozumbekov.wordpress.com/darwin-initiative-2/). BGCI have also provided some information on a website (www.plant-talk.org/kyrgyzstan-conserving-eden.htm).

An initial leaflet has been written and designed by the BioResources team for distribution in Kyrgyzstan (Annex 10). It is planned to develop a further leaflet profiling project activities in more detail, in 2010. A booklet focusing on educational outreach is being written by FFI and TAZA and is currently under development. These are being reviewed by FFI and other partners and will be printed in time to distribute during the second set of planned seminars in spring/summer 2010. The booklet contains information on the types of forest in Kyrgyzstan, with detail on the fruit and nut forests, species and threats to the forest and how to protect it.

In the UK, significant links have been made with other organisations to publicise the project. The Eden project has contacted BU to potentially develop some display materials on the fruit-nut forests of Central Asia. We are currently developing a partnership with a national organisation 'Common Ground' to develop an online gallery of fruit and nut species and to co-ordinate some publicity at local Apple Day events in October 2010.

3.2 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 both in the UK and in Kyrgyzstan. Field training in 2009 was provided by UK staff to key Kyrgyz individuals who will continue to conduct surveys of the fruit-nut forests throughout the project (Annex 3). Data analysis and use of GIS systems training was delivered to the principal project worker from the host country in April 2010. Field equipment for surveys over the summer of 2010 has been purchased along with several books on the fruit-nut forests, forest ecology and techniques and a laptop computer for use by the project team in Kyrgyzstan (Annex 11). These materials have all been transferred to Kyrgyz staff. Significant progress has been made in establishing additional collaborative links both in the UK and in Kyrgyzstan to strengthen the capacity of the project. UK partners have received expert advice on participatory forest

management approaches and in collaboration with external partners have produced a best-practice guidance document for general project use (Annex 5). In Kyrgyzstan, a workshop in March 2010 provided initial training to forestry staff and local officials in the application of participatory approaches to sustainable management of the forests (Annex 4).

(a) The first output indicator was that at least six senior staff receive training in UK in research methods, especially sampling design, GIS, data analysis and modelling by end of project. So far one of these personnel has received training in the UK. The assumption that the staff remain in position and are able to maintain an on-going commitment to study area has been met for this individual. However, current political instability in the country is causing additional uncertainty about the job security of many professional staff.

(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, 4 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 initiated in April 2009, focusing on assessing the distribution of *Malus* spp. throughout the range in Kyrgyzstan. A second field campaign was conducted in September 2009 which focused 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 field work and modelling activities will be designed to test this hypothesis.

(a) The indicator is for at least four research publications produced by end of year 3, supplemented by annual reports. Preparation of the first of these is currently underway.

(b) The 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 one forest area is currently underway, with the information gathering stage having been completed during year 1. A national NGO, TAZA has produced a number of outreach materials that will be finalised and distributed in year 2 of the project.

Plans to initiate a tree nursery scheme in schools have also been developed as a result of meetings held between UK partners and individuals during Kyrgyzstan visits in 2009. These nurseries will be established initially in two schools in different villages and will incorporate environmental awareness activities.

(a) The first output indicator was that at least three management plans would be published by end of year 3. This is currently on track.

(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.

(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.

3.3 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 1.

Table 1 Project Standard Output Measures

Code No.	Description	Yr 1 Total	Total to date	Number planned for this reporting period	Total planned from application
4C	Number of UK postgraduate students undertaking fieldwork and training	0	0	0	5
4D	UK postgraduate fieldwork training weeks	0	0	0	30
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)	27	27	30
6B	Kyrgyz training weeks	Forest surveys (4 x 3 weeks) Participatory methods (0.5 week)	12.5	12	60
7	Number of training materials produced for use by host country (leaflet, field manual, participatory methods manual)	3	3	3	9
8	Weeks spent by UK project staff on project work in the host country (including workshops, field work and meetings)	3 (Brouwers) 1.5 (Newton) 1.5 (Gratzfeld) 4 (Birchenough) 2 (Hinsley)	12	10	30
9	Number of management plans (or action plans) produced for Governments, public authorities, or other implementing agencies in the host country	0	0	0	3

Code No.	Description	Yr 1 Total	Total to date	Number planned for this reporting period	Total planned from application
11A	Number of papers published in peer reviewed journals	0	0	0	4
11B	Number of papers submitted to peer reviewed journals	0	0	0	4
12A	Number of computer based databases established and handed over to host country	2	2	2	2
13A	Number of species reference collections to be established and handed over to host country(ies)	1	1	1	3
14A	Number of conferences/seminars/workshops to be organised to present/disseminate findings	3 (TAZA x2, PFM)	3	3	8
14B	Number of conferences/seminars/workshops attended at which findings from Darwin project work will be presented/ disseminated.	0	0	0	2
15A	Number of national press releases in host country(ies)	0	0	0	1
15B	Number of local press releases in host country(ies)	0	0	0	1
15C	Number of national press releases in UK	1	1	1	2
15D	Number of local press releases in UK	1	1	1	1
16A	Number of newsletters to be produced	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	1	1	1
18A	Number of national TV programmes/features in host country(ies)	0	0	0	1
18C	Number of local TV programmes/features in host country(ies)	0	0	0	1
19A	Number of national radio interviews/features in host county(ies)	0	0	0	1
19C	Number of local radio interviews/features in host country(ies)	0	0	0	1
20	Estimated value (£) of physical assets handed over to host country	£6,100	£6,100	£6,100	£0
21	Number of permanent educational/training/research facilities established and to be continued after Darwin funding ceases	3 (tree nurseries)	3	3	3
22	Number of permanent field plots to be established during the project and continued after Darwin funding has ceased	10	10	10	30
23	Value of resources raised from other sources (ie in addition to Darwin funding) for project work	£32,088	£32,088	£32,088	£88,631

Code No.	Description	Yr 1 Total	Total to date	Number planned for this reporting period	Total planned from application
New - Project specific measures	Parameterised model provided to Kyrgyz partners, providing a decision support tool for sustainable forest management	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 £
BGCI Biannual Newsletter*	Conserving Eden: participatory forest management in the Tien Shan region (BGCI, January 2010)	BGCI, Kew	BGCI, Descanso House, 199 Kew Road, Richmond, Surrey, TW9 3BW, UK	Members only
On-line magazine	Kyrgyzstan – conserving Eden	Plant Talk	http://www.plant-talk.org/kyrgyzstan-conserving-eden.htm	Free
Leaflets (x2)*	BioResources; project description leaflets	BioResources	BioResources Public Foundation 28 Malikov Str., Kok-Jar, Kyrgyz Republic, Alamudun rayon Chui region, Kyrgyz Republic	Free

3.4 Progress towards the project purpose and outcomes

The indicators are still considered adequate for measuring outcomes. However, research is already 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 coming year.

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 currently a crisis in the country, but this is more political than economic. Throughout the first year of the project, there has been 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. 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; elections are provisionally scheduled for October. This political uncertainty will hinder project implementation, primarily by reducing engagement of state agencies and government institutions. However, it should not adversely affect the research and training elements, so long as access to field areas is maintained. At present, because of the recent conflict, FCO advises against non-essential travel to Kyrgyzstan, and this means that UK staff cannot travel to the country. If this continues, then it will impact negatively on the field research activities planned for May-June 2010, and the programme of training events.

Overall, progress on the project has been fair, despite this political problem. The project was launched successfully, and generated a good deal of international press coverage. Initial implementation of the project was somewhat delayed, because of the difficulties of transferring money out to Kyrgyzstan, a project that took many weeks. Another major issue has been the lack of capacity within Kyrgyz institutions. While the project has a capacity building focus, the lack of capacity is deeper than was originally envisaged. For example, none of the overseas project partners has significant experience of implementing externally funded projects of any kind. There is therefore a lack of understanding about 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 problems are compounded by the political situation in the country, political friction between institutions, and the continual risk of corruption. Having said that, the main project partner (Almaz Orozumbekov) is very enthusiastic about the project and is very committed to it. He has worked hard to implement the project, and this degree of engagement is critical to the project's success. His difficulties stem from his own lack of experience, as well as the problems of operating in a difficult political and institutional environment. Our response to these problems has been to focus more efforts on providing advice and guidance to Dr Orozumbekov in the basic elements of project management and implementation, and to strengthen his position by giving him stronger control of the overall budget. The project is therefore focusing its capacity building activities on the main overseas partner, to help strengthen his position and to support him in developing the management and leadership skills that are required. Development of formal collaborative links with other partners, such as Osh University and TAZA, have also been slower to develop than anticipated, because of these capacity issues. However, these partners have also demonstrated strong commitment to the project and have begun to deliver significant project achievements. The prospects for the coming year are therefore good, but a main priority will be to support the Kyrgyz partners in taking greater ownership of project activities, rather than the strong dependence on UK partners that is occurring at present.

3.5 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) initiation of 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.

4. 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. This has been achieved primarily by email contact, supported by telephone conversations and face-to-face meetings. One of the key lessons learned has been the value of the presence of UK staff in the host country, to ensure that project activities are progressing as planned. In other words, email contact alone is insufficient. For this reason, the frequency and duration of overseas visits by UK staff has been increased, and this is likely to be continued for the remainder of the project. A second key lesson has been the need to request regular progress reports from overseas partners, against an agreed set of action points; the partners have been slow to understand the need for detailed regular reporting of activities, and this is something that we are currently addressing through one-to-one training of the main overseas counterpart (Orozumbekov), as well as other in-country partners. 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.

Unfortunately, a participatory forest management workshop that took place in the UK in March 2010 could not be attended by project partners from Kyrgyzstan owing to delays in processing visa applications. There appears to have been a major change in the visa application process introduced by UK Borders Agency. This has greatly increased the amount of time required for Kyrgyz nationals to obtain a visa, and in the documentation required. This is particularly a problem in Kyrgyzstan as individuals have to travel to a neighbouring country (often repeatedly) to obtain the visa, as there is no UK embassy in Bishkek. In future, anticipated visits to the UK by host country partners need to be arranged with several months notice so that adequate time is given to visa applications. Communication with Darwin Secretariat staff and with other Darwin Initiative projects that have been active in the region (which have experienced similar problems) was of great help in providing advice regarding the kind of information that now needs to be provided by Kyrgyz nationals to obtain a visa to travel to the UK. Despite this, only one of the counterpart staff was able to successfully obtain a visa. Because of this problem, we are shifting greater emphasis to provision of training and capacity building in country, rather than through visits to the UK.

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

This is the first annual report so no previous reviews have been provided. However, we have taken two specific actions in relation to external advice provided at the outset of the project. The first was to strengthen the capacity of the UK staff in participatory forest management approaches. We have addressed this by contracting a specialist in this area (Dr Kate Schreckenber, Southampton University), to provide guidance and training on this element, which has been of great value. We anticipate developing a similar arrangement with Dr Anna Lawrence (Forestry Commission) in the future years of the project. A second piece of advice was to focus project activities on specific areas, to increase local impact and provide greater depth of analysis. We have addressed this, by focusing the principal research activities on one specific area, Sary Chelek.

6. Other comments on progress not covered elsewhere

None

7. 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 been invited to 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. Some support has been given to the principal host country project worker on project management and budgeting skills. This will strengthen capacity to bid for funding at the international level and ensure sustainability of project impacts. 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.

8. 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) a workshop to be held in the final year of the project supported by the development of policy briefs, to present policy recommendations to relevant stakeholders, including national government agencies and CBD national focal point;

(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 is currently being 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. The project had a very successful media campaign at its launch, which generated a good deal of coverage in the international media. This has resulted in a number of ongoing leads for further coverage that will be explored as the project develops. A campaign at the national level will be initiated once the political situation has stabilised, and the project has delivered some substantive results.

9. Project Expenditure

Table 3 Project expenditure during the reporting period (Defra Financial Year 1 April 2009 to 31 March 2010)

Item	Budget (please indicate which document you refer to if other than your project application or annual grant offer letter)	Expenditure	Variance
Rent, rates, heating, overheads etc			
Office costs (eg postage, telephone, stationery)			
Travel and subsistence			
Printing			
Conferences, seminars, etc			
Capital items/equipment (specify) (laptop) Field equipment and books			
Others (specify) Fee for training overseas staff in UK			
Salaries (specify by individual) Dr A Orozumbekov Research assistants Dr G Lazkov Dr K Shalpiykov Dr I Soodembekov Dr Skenjebaev Prof A Newton Dr Niels Brouwers Jenny Birch L Birchenough, FFI J Gratzfeld, BGCI			
TOTAL			

- 10. 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

Annex 1 Report of progress and achievements against Logical Framework for Financial Year: 2009/10

Project summary	Measurable Indicators	Progress and Achievements April 2009 - March 2010	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> <p><i>The conservation of biological diversity,</i></p> <p><i>The sustainable use of its components, and</i></p> <p><i>The fair and equitable sharing of the benefits arising out of the utilisation of genetic resources</i></p>		<p>Initial research has been completed to define thresholds of sustainable use for fruit and nut forests, and a programme of developing participatory forest management plans has been initiated</p>	<p><i>(do not fill not applicable)</i></p>
<p>Purpose</p> <p>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>Initial field surveys have been undertaken</p> <p>Development of participatory management plans has been initiated</p> <p>Parameterisation of a model for exploring human impacts on forests has been initiated</p>	<p>Additional field campaign assessing forest structure and dynamics in Sary Chelek reserve</p> <p>Socio-economic survey conducted in at least one community</p> <p>Parameterisation of forest model completed</p>
<p>Output 1.</p> <p>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</p>	<p>One staff member from Kyrgyzstan visited the UK in Year 1 and received training, although this was postponed until April 2010 because of difficulties of obtaining a visa and problems with the volcanic ash cloud.</p> <p>Four staff and students from partner organisations have received training in survey methods during Year 1. Four members of UK organisations received training in participatory management approaches. 23 received participatory management training at a workshop in Kyrgyzstan.</p>	<p>Collaborative stakeholder network was established during the project inception</p>

	established between research institutes, government agencies and local community organisations in Kyrgyzstan	workshop in July 2009. Twelve organisations have been identified for inclusion in the network, and formal collaborative agreements have been developed. Partners will be invited to a project workshop scheduled for October 2010.
Activity 1.1 - Training in UK on research methods		One staff from Kyrgyzstan visited the UK in Year 1. Two staff will receive training in UK in February / March 2011.
Activity 1.2 - Training in Kyrgyzstan on survey methods and participatory management approaches		<p>Training in surveying methods including use of the handheld GPS was successfully completed in Sept-Oct 2009. During this training course a detailed survey protocol was developed, so that survey work could continue in 2010 without external help. Additional training in field techniques scheduled for May / June 2010.</p> <p>A two day training workshop was organised in March 2010 by FFI for forest service staff and local authority (village government) representatives. 23 participants. Training covered participatory approaches and enterprise development. At least one additional training event scheduled for 2010/2011.</p>
Activity 1.3 - Collaborative stakeholder network established between research institutes, government agencies and local community organisations		This was established during the project inception trip in July 2009. Twelve organisations have been identified for inclusion in the network. These will be invited to a project workshop scheduled for October 2010.
Output 2. Information on sustainable management of fruit and nut forests produced and disseminated	<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>Data are currently being collected that will lead to the production of research publications in year 3. A first publication is currently in preparation, for submission by June 2010.</p> <p>UK partner BGCI is working together with the BGNAS to set up interpretation facilities and will continue to plan and implement this in year 2.</p>
Activity 2.1 Analysis of spatial distribution, stand structure, stand dynamics and current status of threatened fruit and nut tree species		Preliminary field work took place in October 2009 to establish locations for field surveys and standardisation of techniques. In June 2010 a group of postgraduate students and a researcher from BU will visit the study area for six weeks to conduct field surveys on stand structure, stand dynamics and current status of threatened fruit and nut tree species, in collaboration with counterpart staff.
Activity 2.2 Analysis of the impact of current land use practices on stand structure and composition of fruit and nut forest		This will be supported by a field survey to be conducted in May / June 2010, and by a socio-economic survey to be conducted by BioResources. Activities in the first year focused on development of methods and provision of appropriate training.
Activity 2.3 Development and implementation of participatory approaches to forest management		Progress has been made by FFI working with TAZA, local stakeholders and interested parties to develop appropriate participatory approaches guided by background research on participatory techniques, external expert advice and a host-country consultant with previous experience of participatory approaches in

		juniper forests of Kyrgyzstan. Three participatory workshops are planned for 2010-11 bringing together the community and local forest service to discuss issues, and agree objectives and actions for forest management.
Output 3. Plans for sustainable management of fruit and nut forests, involving participation of local communities, and informed by research findings, developed and disseminated	(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.	A management plan for one forest unit (Kyzyl Unkor) is being developed. Information on the area is being gathered and analysed and villages have been informed about the planned activities. Draft leaflets, booklets and posters have been produced by TAZA and will be distributed in year 2. BGCI have been collaborating with BGNAS to develop interpretive materials at the botanical garden. Policy recommendations have not been considered at this early stage of the project and will be considered in more detail towards the end of Year 2 and into the final year of the project.
Activity 3.1 - Development of plans for sustainable management of fruit and nut forest by local communities		FFI have updated plans from previous work in the region in collaboration with project partners OshTU/ NGO JFDF. Terms of Reference agreed with JFDF and planning process underway for Kyzyl Unkor forestry unit.
Activity 3.2 - Identification of implications for policy-makers at both local and national scales		These will become clear in Year 2 as the workshops and seminars get underway and feedback is received from host country partners and participants.
Activity 3.3 - Development of community outreach programme		Two awareness raising seminars were successfully delivered in Sept/Oct 2009 by local partner NGO TAZA. This included a field trip to the forest, and two demonstrations on locally appropriate alternative energy technologies e.g. solar cooker, solar water heater etc. Over 65 participants from 7 villages.
Activity 3.4 - Dissemination of policy recommendations through workshop and policy briefs		Not yet initiated
Activity 3.5 - Development of an interpretation facility at the national Botanic Gardens, supported by media campaign		Development of educational materials has been initiated and plans for deploying these materials were developed during April 2010.
Activity 3.6 - Preparation and submission of scientific publications		Data is being gathered that will contribute to scientific publications at a later stage in the project. A first publication is in preparation, to be completed by June 2010. A field visit by postgraduate students from BU will result in three dissertations and the potential publication of this research in 2011.
Activity 3.7 - Development of website and other outreach materials		BU established the project website in June 2009. FFI and Global Trees Campaign also have sections on their websites about the project. These will be developed in May 2010 to include updated information and more detail on the Darwin project objectives and activities to date.

Annex 2 Project's full current logframe

Project summary	Measurable Indicators	Means of verification	Important Assumptions
<p>Goal:</p> <p>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:</p> <p>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</p> <p>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 published as a policy brief and disseminated at stakeholder</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 brief produced.</p>	<p>Partners involved in developing forest management plans receptive to interventions proposed for increasing sustainability identified by research component</p>

	workshop in year 3.		
<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>			

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 advise Darwin-Projects@ltsi.co.uk that the report will be send by post on CD, putting the	
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.	
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.	