

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 2008

Darwin Project Information

Project Ref Number	EIDPO11
Project Title	Biodiversity Education and Teacher Training (BETT)
Country(ies)	Kyrgyzstan
UK Contract Holder Institution	Field Studies Council
UK Partner Institution(s)	Field Studies Council
Host country Partner Institution(s)	Ecological Movement "BIOM"
Darwin Grant Value	£ 91750
Start/End dates of Project	May 2006 – May 2008
Reporting period (1 Apr 200x to 31 Mar 200y) and annual report number (1,2,3..)	1 April 2007 – 31 March 2008 Annual report 2
Project Leader Name	James Hindson
Project website	Project pages are laced on www.biom.org.kg - http://www.biom.org.kg/ecoeducation/?pid=2 and others
Author(s), date	Postnova Evgenia, James Hindson, 22/05/2008

1. Project Background

The project is located in 4 regions of Kyrgyzstan, where project partners are implementing their activities – Osh region in the south of Kyrgyzstan (Osh State University), Naryn region (Naryn State University), Issyk-Kul region (Issyk-Kul State University) and Bishkek city (BIOM and Kyrgyz National University).

The purpose of this post-project initiative is - to improve the quality of biodiversity education in universities and schools so that young people are better equipped to make decisions that enhance rather than reduce biodiversity in Kyrgyzstan.

The main objectives of the project are:

- To build the capacity of teacher trainers in Kyrgyzstan to deliver high quality biodiversity education to initial teacher training students
- To create a system of biodiversity education that will be delivered to students training to be teachers
- To provide a support framework for teacher trainers delivering biodiversity education

The goal of the original Darwin project was to “raise awareness and understanding of school students and communities in Kyrgyzstan of the unique value of biodiversity and the importance of protecting this as their country seeks to develop”. We consider that we successfully achieved this and this new project neatly grows out of and builds on some of the most significant achievements in the original project through a focus on biodiversity education at initial teacher training (ITT) level within University courses. Our original project focused on in service training and at school level. We shall use our resources and apply lessons learnt in our original project to enhance biodiversity education at ITT level. In service training and development is important but training at ITT level will result in the continuous training of teachers in biodiversity education, and over time give all new teachers the capacity to integrate biodiversity education into their subjects.

2. Project Partnerships

Project partnerships:

The collaboration between BIOM and FSC was fruitful this year – we developed capacity of project team, strengthening the partnership and making a strong platform for future joint initiatives – for instance, this year FSC, BIOM and the Kyrgyz National University are part of a proposal for Tempus programme to integrate ESD into HE. This idea was raised because of successful development and integration of new Biodiversity education module into university curricula in Kyrgyzstan within current Darwin project.

This year FSC trained the BIOM team in the sphere of SD, climate change and their links with biodiversity issues. We worked fruitfully on improving trainer skills of BIOM and raised capacity of team to apply student oriented approach. This year FSC also brought BIOM’s attention to the sphere of branding and helped to develop some interesting ideas, quite useful for current activity of organization.

Other Collaboration:

Our project collaborated with a great number of other projects, currently working in Kyrgyzstan in the field of environmental protection and biodiversity conservation including -

- **Information campaign “Biodiversity and climate change” in cooperation with British Council** – Cooperation with this project allowed BIOM and FSC to conduct wide information campaign in Kyrgyzstan on biodiversity and climate change, including a series of information meetings at the universities in 4 regions of Kyrgyzstan, mass-media campaign, eco-café in Bishkek and issuing of new posters. Darwin project universities were also involved in the project and got informational wall banners and materials on Biodiversity and Climate change, which they put at the central halls (see pictures in Appendix 1).
- **SPARE project** . This International project supported by the Norwegian government, focused on raising capacity of schools to save energy and skills to use renewable energy resources. We included the 25 “School Green land” project schools in the SPARE network and conducted 3 joint network meetings. This allowed us to develop a common Strategy of BIOM’s Eco-school network for 2008-2009 school year, disseminating experience on the

creation of microreserves of wild nature among SPARE schools, passing on knowledge and methods of biodiversity education and out of classroom lessons. As a result of this cooperation SGL schools were able to take part in 2 ecological competitions and got international awards.

- **Information campaign in cooperation with French Embassy in Kyrgyzstan**. This cooperation helped us to involve “School Green Land” project schools into creative process of conducting ecological lessons on biodiversity conservation on the basis of materials from world-famous photographer Yan Artus Bertran. The photo-exhibition “A world from above” had a great success in Bishkek. Work with French Embassy allowed us to provide associated educational materials to teachers from School Green Land as well as for Darwin project universities.
- **UNDP & European Commission project on Emergency Situations** – Links with this project allowed us to include idea of biodiversity conservation as necessary factor for ecological security into methodical pack for schools of Kyrgyzstan “Learn how to live near danger”. For example, destruction of nature communities around villages - deforested mountainsides, degradation of mountain steppes and meadows as a result of overgrazing, etc - makes them unsafe for people’s life. Great role of not-disturbed wild ecosystems in ensuring ecological security were shown and practical advice for schools and communities on protection of biodiversity near villages were prepared. The methodical pack – Illustrated book for students and manual for teachers – were issued and distributed among schools. School Green Land network became pilot schools in this process. (see pictures in Appendix 1).
- **FAO project “National Forest program Facility”**, Its aim is the Implementation of the Forestry policy of Kyrgyzstan through conducting an informational campaign on the involvement of local communities in community based forest management. Cooperation with this project allowed us to get new information materials – such as new posters and identification keys for our Darwin project universities and also actively involved teachers and students from Naryn State University in conducting an information campaign on protection of forests in Naryn region.

Our project has linked with the CBD focal point from Governmental Agency on environmental protection and forestry – their specialists, especially from Department of Ecological education - provide constant informational, expert and political support to our project.

3. Project progress

3.1 Progress in carrying out project activities

3.1.1 Creation of micro reserves

Now all 4 universities completed work on the creating of their microreserves. Now the activities improve the previously achieved results, especially using the created reserves for educational purposes at the universities. From April 07 to April 2008 the following work was done (see pictures in Appendix 2):

Naryn State University – the area of the reserve was cleaned from rubbish, as well as a big dust-hole was sorted out and covered by ground. A great number of trees, including coniferous trees (native to Naryn mountain area) were planted. A demonstration stand with map of micro reserve and sign with Darwin’s and BIOM’s logos was placed. Areas of wild bushes, steppe and wild meadow were created and necessary water supply provided. In spring 2008 several new complexes of trees were planted and creation of summer class completed.

Issyk-Kul State University - we supported University Botanic Garden and helped them to create 2 zones, 1 - sowing hotbed for growing young juniper trees 2. – area for striking roots of juniper

trees. In 2-3 years this will allow university to contribute to solution of the problem of juniper forests degradation in Issyk Kul region, as they aimed to plant young conifer seedlings on the deforested mountainsides by student groups.

Kyrgyz National University – microreserve in KNU was created in the courtyard of the university building, where all natural-science faculties are situated. That was dry abandoned area, covered by construction waste. In July-August 2007 the territory was cleaned, covered by a layer of soil, supplied by water. In September- October 2007 more than 150 diverse wild species of Kyrgyzstan were planted in KNU microreserve, and several ecosystem zones was organized, such as ecosystem of south walnut forests, area with conifer trees, pond and alpine hill, areas with steppe and meadow plants, model of ecosystem of Issyk-kul desert area, etc.

Osh State University – The area of the reserve was cleaned from rubbish and encircled by fence for protection from cattle (and Osh State University co-financed this activity). A pond area was created and summer class organized. The idea to make ecological corridor between microreserve area and riverside bushes of Ak-bura River near university building were realised. It is now possible to get to river from microreserve area directly. As further steps university is going to create zones of red list plants of Kyrgyzstan, zones of plant-barometers, etc.

In all universities both teachers and students were involved in the process of microreserve creation. The universities enlisted consultative support of experts (landscape designers, botanists, zoologists, foresters).

3.1.2 Curriculum and Course Planning – Assessment – Planning the BEM and supporting Resources

This part of work was done during visit of FSC expert James Hindson to Kyrgyzstan in June 7-14, 2007. James Hindson and Project Manager, Evgeniya Postnova, visited all project universities and discussed the structure and content of Biodiversity Education Module as well as assessment system. A structure for the handbook for university teachers and other related materials, aimed to support realisation of BEM, was also discussed and confirmed by members of DT and university groups. (see picture in Appendix 3)

3.1.3 Development of Biodiversity Education Module (BEM) and supporting materials

The process of writing lectures for BEM started at the end of June 2007 and was completed in August 2007. During this period the general concept of the course “Bases of biodiversity conservation and Sustainable Development”, 16 lectures, 14 practical trainings, a great number of diverse student-cantered learning activities, games and outdoor fieldwork were developed by the Project Development team. A handbook with detailed module description, texts of lectures and activities as well as a water identification key were also developed and published (see pictures – Appendix 6). Additional materials, such as power point presentations, CD, handouts, maps, cards for games, etc. As well as power point presentation we prepared separate printed slides to support delivering of the module, as very often teachers of regional universities of Kyrgyzstan don't have an opportunity to use LCD projector on their lectures. The Handbook and other materials of the module were distributed amongst teachers from project universities at the Capacity Building Seminar for university teachers held in Bishkek in September 2007. We also developed 3 informational wall banners – 1. Biodiversity of Issyk-Kul Lake, 2 – Ecosystem functions of forests, 3 - Biodiversity Conservation and Sustainable Development. We had them printed on big pieces of flex and placed them in halls and training rooms in 4 universities of Kyrgyzstan. (see pictures – Appendix 6).

3.1.4 Capacity building workshop on training university teachers to deliver BEM

This workshop took place in Bishkek city on 17-19th of September 2007 and was aimed to raise the capacity of teachers from universities in delivering the newly developed Biodiversity Education Module and to share information and experience of biodiversity education between the project partners. The seminar was conducted by the BIOM team together with the FSC expert, James Hindson. The workshop was very practical and included a demonstration of key themes of the module – both content and activities. 1/3 of the lectures and activities at the workshop were conducted by teachers themselves, this allowed partners the opportunity to give feedback to each other and practicing the most difficult elements of the module. One of the important issues for discussion at the workshop was Student Centred Learning and Learning out of the Classroom. These were discussed with participants in each session. (see pictures – Appendix 4).

3.1.5 Delivering of new module and monitoring visits

Since September 2007 Issyk-Kul and Naryn State universities started delivering the new Biodiversity Education Module for 3rd and 4th year students specialising in ecology and biology. From March 2007 Osh State University also started delivering the module.

Naryn State University – BEM was officially provided for speciality – “553500. Protection of environment”. The module included 102 hours (64 hours – for lectures and practical trainings and 38 hours for self-dependent work of students). At the moment the course is also officially provided for speciality “540100. Natural Science Education (Biology) in NSU.”

Issyk-Kul State University – BEM was officially provided for speciality “511101 Ecology” as course for students. It includes 70 hours in total – 32 hours (22 hours for lectures and 10 for practice) and 38 hours for self-dependent work of students.

Osh State University – the course is provided both in Kyrgyz and Russian language for speciality “511101 Ecology” for students of the 4th year course. It includes 108 hours in total – 46 hours (24 hours for lectures and 38 for practice) and 38 hours for self-dependent work of students.

Kyrgyz National University – course materials were disseminated among university teachers from different chairs of biology faculty in KNU and at the moment many of them use the course materials in their lectures – especially within such courses as “Applied ecology”, “Hydrobiology”, “Economy of nature management”, “Biocenology”, Law bases of environmental protection”, etc.

In October and November 2007 and again in January, February and March 2008 BIOM organized monitoring visits to universities to check the process of delivering the module. Results of the visits showed that the process is moving smoothly – the course is provided to students according to universities’ schedules, students are attending the course and there is regular evaluation on it. In Naryn and Issyk-Kul the new module is already successful - teachers, responsible for providing lectures on BEM, were asked by other teachers to allow visiting the lectures, organize “open lectures”, use materials, copy power point presentations, etc. Results of express-evaluation among students and teachers of Osh State University, conducted by BIOM team, demonstrated that student’s attitude towards the new biodiversity module is positive, and they even think, that it is advanced education, different from other courses at their university. (see pictures in Appendix 5)

The students will pass examinations at the end of course. The course will be included into the list of courses, marked in a special Attachment to the Diploma.

3.1.6 Work with school network

One more important step within the project was our work with “School Green Land” network. In September 2007 we renewed contacts with school coordinators, involved new schools in the network, distributed educational materials (posters and water identification keys), announced a new

school competition on best school micro reserve. And in September 2008 we are going to make a decision on this competition and give awards for schools.

In April 2007 we organized 3 Strategic meetings and capacity building workshops for “School Green Land” project schools - in Bishkek, Osh and Cholpon Ata cities in cooperation with Norwegian energy-saving project “SPARE”. More than 50 schools were involved and more than 100 teachers took part in these meetings. The Network meetings allowed us to develop a common Strategy of BIOM’s Eco-school network for 2008-2009 school year, disseminate experience on creation of wild nature micro reserves among SPARE schools, pass on knowledge and methods on biodiversity education and delivery of outdoor lessons. (See pictures in Appendix 7) As it was mentioned above we also involved SGL schools into such activities, as:

The network was also supported through the Information campaign in cooperation with French Embassy in Kyrgyzstan and UNDP & European Commission project on Emergency Situations described above.

3.1.7 Information support of project – issuing of Newsletters and support of web-site

Our project newsletter is the only one resource on Education for Sustainable Development, which is produced and distributed in Kyrgyzstan. At the current moment 4 Project Newsletters have been issued, such as:

Pilot Newsletter was produced in October 2006. It includes information about new Darwin project with universities in Kyrgyzstan and provides information about all project partners.

Newsletter 1 was produced in March 2007 and included article about concept of ESD, key milestones of ESD process, a set of interviews on ESD and biodiversity issues, given by representatives of State Agency on Protection of Environment and Forestry, experts from Ministry of Education, Science and Youth Policy of Kyrgyzstan, National Commission of UNESCO, Regional Ecological Centre of Central Asia, teachers of 3 project Universities. It also includes news about initiatives on biodiversity conservation and ESD, analytical article on content lines in modern ecological education for biodiversity conservation.

Newsletter 2 – was issued in May 2007 and includes Internet navigator on resources of eco-education, biodiversity and ESD, methodical advises on conduction of biodiversity exercises in Universities (devoted to forest ecosystems and water bioindication), review of new ecological initiatives and ecological news.

Newsletter 3 - was issued twice – in October and March 2008, as it was very popular and both universities, forest service departments and NGOs asked to get more copies. The main theme of this issue is devoted to Forest ecosystems and problem of deforestation in Kyrgyzstan. It includes description of current initiatives of NGOs and government of Kyrgyzstan in the field of protection of forests, modernization of forest policy. It also contained a scientific review about role of forest ecosystems in support of sustainable climate. Exercises and educational activities were also included, which school and university teachers could use in their lessons, lectures, practical and outdoor occupations to explain student about forest ecosystems, their ecological role, principles of functioning, ways of sustainable use.

Newsletters 4 and 5 are in the process of development. They will be devoted to “Climate change and biodiversity” and “new methods and approaches in biodiversity education” themes. We plan to issue them in July and September 2008 and distribute on final dissemination conference on Darwin project in October 2008.

Project pages on the BIOM web site – www.biom.org/kg were created. They include information about new Darwin project in Kyrgyzstan, information about previous Darwin project “School Green land”, map of the network, algorithm of micro reserve creation, materials (lectures) on Biodiversity education module, photo gallery, etc. Now we work on creating an English version of these pages and creation of project library.

3.1.8 Project surveys

There are 2 types of the survey within the project.

1. Pre and post-project survey on biodiversity assessment before start of the project and after creation of the microreserve. Now we have completed a first step of this survey – all universities conducted flora inventory on their grounds at the initial steps of microreserves creation. All universities made lists of plant species and calculated index of biodiversity. They also applied necessary pictures, which allow getting picture “before”. Report about results of the survey is prepared. Now we are on the 2nd phase of the survey – in May-June 2008 we will get 2nd biodiversity assessment in our reserves to compare with data from the 1st phase.
2. Survey on assessment level of knowledge and skills of student before and after the training on Biodiversity Education Module. For this survey we developed a questionnaire for assessment knowledge and skills of students and defined the groups, which will take part in the survey. In December 2006 and January 2007 we collected data from students in NSU and ISU, who were trained within the course and now after completion of course in OshSU, it will be possible to collect full data, necessary for evaluation. After that we will be able to prepare report about pre-project survey. Now we are also in the process of collecting data through interviews and questionnaires from teachers. We also sampled a group of academic staff and students from an institution that is not taking part in the project as a control group.

We are going to present results of the survey on final Darwin Dissemination conference at the end of project in October 2008.

3.2 Progress towards Project Outputs

The overall progress towards the project outputs:

1. The project team from university staff and BIOM was formed and trained by FSC members during 3 project workshops and numerous visits of FSC to Kyrgyzstan.

2. A Biodiversity Education Module (BEM) developed and integrated in the curriculum of students training to be biology and ecology teachers

This output has been fully achieved. We have got a new biodiversity module developed and integrated into the teaching programmes for students training to be Biology and Ecology teachers in the Issyk-Kul State University and the Osh and Naryn State Universities. All pilot Universities fulfilled their commitment to integrate the module into the Biology and Ecology degrees courses. Module is formally accepted as part of the Biology and Ecology teacher training degrees – and we have formal statements from the University Administrations.

3. Demonstration teaching micro reserves

This output has been fully achieved. All 3 State Universities created their reserves and their functioning would be available on a long term basis according to management plans. We also created one extra micro reserve in Kyrgyz State National University – leading University of Kyrgyzstan.

4 Resources developed to support the BEM

This output was fully achieved. We developed and issued the Manual for university teachers with full description of lectures as well as sets of methodical materials and handouts for students – to support realisation of BEM. We also issued water identification key to allow wider biodiversity monitoring.

We have also recorded a great number of hits (seminars for DT, process of microreserves creation, events in universities, information campaign on biodiversity protection, etc) and they will be used to prepare a short educational movie for universities – we plan to do it at the Dissemination Conference at the end of the project in October 2008.

5. BEM was officially realised in all 3 project universities in autumn 2007 and winter-spring 2008.

It was formally evaluated and will be included into student’s Diploma.

6. Information support of project and SGL network

This output was partly achieved. We issued 4 out of 6 project Newsletter (Pilot Newsletter, Newsletter 1, Newsletter 2, Newsletter 3). We also need to issue 2 newsletters - 4 and 5 by the end of project.

Project web pages are placed on BIOM's web-site – www.biom.org.kg.

7. Covering of project events in Mass media

This output was partly achieved. A serial of articles about project was issued both in local and national press, but we expect to issue more dissemination project results from May to October 2008.

8. SGL network of 25 schools established in original project – enhanced.

This output was achieved. This network now includes about 50 schools, we have also organized capacity building seminars and meeting on Network Strategy development for the 2008-2009 school year.

9. Dissemination conference and minimum of 5 seminars attended

This output was partly achieved. We attended and made presentation about project at more then 5 seminars (national and international levels). The Final Dissemination event on Darwin project will be organized in October 2008, as this is the most appropriate time.

3.3 Standard Measures

Table 1 Project Standard Output Measures

Code No:	Description	Year 1 Total	Year 2 Total	Total to date	Total planned from application
4A/4B – Biology and Ecology undergraduates	50 hours spread over 20 weeks to include 1 hour lectures/workshops/seminars a week, 20 hours of practical work and 10 hours of assignments	Y1, M10 (done – module developed and integrated)	to Y2 M19 (done – module provided for students)	50 hours	50 hours
6A/6B from three partner Institutes	6 University Academic Staff, 6 SGL Teachers and 3 NGO representatives 120 hours spread over 3, 4 day workshops (60 hours) and practical work and assignments (60 hours)	Y1, M2 – M4 (done – 12 members of current staff + diverse experts involved)	0	15 x 120 hours	15 x 120 hours
7	Training Handbook for delivery of the BEM (Ring binder file format), Handout Resources for ITT students, Specific BEM web pages for Staff and Students.	Y1, M 9 (not done - moved to year 2) Y1, M 5 (done)	(done) Y2, M 10 (done)	All completed	All completed

Code No:	Description	Year 1 Total	Year 2 Total	Total to date	Total planned from application
8	2 members of staff will spend 40 days in Kyrgyzstan	10	5	15	20
9	Three Management plans produced for Biodiversity Micro reserves	Y1 M2-M4 (done)	0	3	33
10	One identification key produced (probably for trees in Kyrgyzstan)		Y2, M21 Done (the key is issued)	1	1
14A 14B	1 Dissemination Conference and a minimum of 5 seminars Based on the original project we expect to attend 5 events		Y2, M24 Not done yet Throughout Done – we visited more than 5 events	0/5	1/5
15AB	5 to the national press and 15 (5 by each Institution) to local press	Throughout (partly done)	(partly done)	10	20
16A/16B/16C	6 newsletters – circulation 250 in Kyrgyzstan and 25 in the UK	Y1 M 2, 6,10 (partly done – 2 issued)	Y2 M,14,18, 21 (partly done – 2 issued)	4	6
17B	School Green Land Network of 25 schools established in original project – enhanced	Throughout (done – SGL network enhanced, special coordinator appointed)	Done	25	25
18AC	Based on previous experience – 2 national and 2 local programmes (don't understand)	Throughout Partly done	Partly done	1	4
19AC	Based on previous experience – 2 national and 2 local programmes(don't understand)	Throughout Partly done	Partly done	2	4
20	£9000 for computer and biological equipment	Partly done (spent for equipment and micro reserve creation)	Partly done	9000GBP	9000GBP

Code No:	Description	Year 1 Total	Year 2 Total	Total to date	Total planned from application
22	The three Biodiversity Micro Reserves will have a small research component	Throughout (done – locations chosen, reserves are in the process of creation)	Partly done	3	3
23	Approx 3000GBP	At the end of project	1000	1000	3000

In Table 2, provide full details of all publications and material produced over the last year that can be publicly accessed, eg title, name of publisher, contact details, cost. Mark (*) all publications and other material that you have included with this report.

Table 2 Publications

Type *	Detail	Publishers	Available from	Cost £
(eg journals, manual, CDs)	(title, author, year)	(name, city)	(eg contact address, website)	
Newsletter 3	"Education for Sustainable Development in Kyrgyzstan", BIOM, 2008	"Euro", Bishkek city	BIOM's address	157 (1,57 per each)
Manual for university teachers (lectures on Biodiversity educational module and supporting materials)	Bases of biodiversity conservation and sustainable development: course of lectures. Korotenko V., Domashov I., Postnova E., Kirilenko A., Hindson J., 2007	"Euro", Bishkek city	BIOM's address	585 (23, 4 per each)
Water identification key in Kyrgyz language	Korotenko V., Domashov I., Postnova E., 2008	"Salam", Bishkek city	BIOM's address	399 (0,80 per each)

3.4 Progress towards the project purpose and outcomes

The project purpose is - to improve the quality of biodiversity education so that young people are better equipped to make decisions that enhance rather than reduce biodiversity in Kyrgyzstan.

In order to achieve it we have trained 15 members of HE Academic staff in Osh State University, 10 – in Issyk-Kul State University, and 10 – in Naryn State University - total 35 people at 3 Institutions. They have received at least 120 hours of training on effective Biodiversity learning. We also involved schools, NGOs and some governmental organizations (such as Osh territorial department on protection of environment, Ak-Su forest department in Issyk-Kul, etc.) in our educational events. This will strengthen local partnership in the field of eco-education.

Representatives from Ministry of Education, Science and Youth policy of KR and State Agency on protection of environment and forestry of KR provides consultative and political support to the project. Integration of the new module on Biodiversity and creation of the micro reserves allowed us to raise quality of biodiversity education in 3 regional universities of Kyrgyzstan and initial teacher training and in local schools.

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

The project will have direct and indirect positive impact on biodiversity. It will have indirect impact because the level of biodiversity education will be raised in 3 universities, which are the biggest High educational Institutions in their regions. So, students, who will pass education within our module, will be well-prepared for their further work in local communities (as school teachers, leaders of NGOs, etc). Direct positive impact on biodiversity will be done through creation of microreserves of wild nature.

Direct impact – visually positive changes to the areas of university microreserves are happening – cleaning areas of microreserves, planting trees, bushes, creating ponds, attracting invertebrates and other animals, growing red-list species of Kyrgyzstan – all these improved biodiversity in university grounds. Detailed data and real evidences will be available in project biodiversity survey.

4. Monitoring, evaluation and lessons

A number of standard FSC monitoring systems were put in place during the project. These systems rely on local partners taking responsibility for the monitoring process. Our project manager implements current monitoring of the progress on each indicator to ensure that the project meets its objectives within the timescale and budget. She submits regular reports to the FSC and the project partners. These reports are based on visits to the Universities (no less, then once in 2 or 3 month) and from the reports provided by the Universities to BIOM. FSC members also take part in monitoring process during their visits to Kyrgyzstan. During last project year FSC experts visited Kyrgyzstan 3 times – in June 2007, September 2007 and March 2008.

We also get regular feedback from the Development Team and beneficiaries through actively working mailing list - biom_group@yahoogroups.com. Regular contact between the FSC and BIOM during the project is realised through email.

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

1. Reviewer's comment - The teacher in training level is the ideal focus for this project. I am not 100% clear if it is only teachers in training that can opt to do the biodiversity education module, or is it open to any biology/ecology etc. students? The system of teacher training is different in Kyrgyzstan to the UK. A pedagogical module is offered a part of the normal BSc Biology degree and students wanting to be teachers take this. A high proportion of students do take the pedagogical options as it provides the with job qualification on leaving University – even though many do not take it up. The BEM is focused on raising capacity of biology/ecology students in universities, which are going to be school teachers of biology and ecology in the future (pre-service teachers). Though the project also continues to work with in-service teachers from schools from different regions of Kyrgyzstan (joint into School Green Land network, created in original Darwin project). And, of course, we work with in-service university teachers, who are responsible for realization of the BEM and other university teachers, who can be involved in delivering BEM in the following years.

2. *Reviewer's comment - What are the links between the universities and the schools that have been part of this project since 2004? Could part of the BEM, or other projects the ITT students are involved in allow the students to work closely with nearby schools to develop biodiversity gardens (or Microreserves) in the schools? (Please address in next year's report).* The links with project universities and School Green land schools were developed fruitfully this year. We successfully got agreements between schools and universities to do practical pedagogical work of students in SGL schools. This allowed us to conduct a series of open lessons on biodiversity, including outdoor lessons in school micro reserves in April and March 2008. Involvement of students also helped us to recover some schools micro reserves and built links with new schools. Besides this all 3 project universities conducted ecological events for SGL schools in Naryn, Issyk-Kul and Osh regions this spring, devoted to celebration of Earth Day. At the moment – from 19 to 23 of May we organized ecological week on biodiversity conservation for SGL schools in Osh city, including school ecological festival, action on Osh State University microreserve, recovering school microreserves in Osh, etc. Please, see pictures in Appendix 7.

3. *Reviewer's comment - Has the project developed conservation horticulture as a teaching medium for students of all ages? Given the existence of the microreserves, there is great potential for their development to act as real reserves for genetic diversity of rare and threatened wild plants. The Issyk-Kul state university has evidently begun to incorporate this model into their Microreserve, which is great to see. Advice and resources for this are readily available from Botanic Gardens Conservation International (BGCI) and there is a great deal of expertise in UK botanic gardens to set up small scale ex-situ propagation and re-introduction regimes for important plants. Indeed, this is a great way to bring in arboriculture and horticulture students, as well as local community and schools groups that can all get involved in a simple yet elegant biodiversity conservation project. (please clarify the range of ways the microreserves are going to be used in next year's report)* The project has not really addressed this opportunity. Although we recognise the potential it would be problematic in terms of time and resources. The purpose of the micro reserves are to provide a varied environment that lecturers can work in with their students to demonstrate ecological monitoring techniques and approaches to student centred learning in the environment. The resources are not really currently available to enable to reserves (which are quite small) to be used for ex situ propagation and reintroduction – although we recognise that this is a good idea. That this is happening in Issy Kul is largely due to the specific interest of the staff at the University and the location of the micro reserve – unplanned added value for the project. Having said that linking learning and ex situ conservation would make an interesting future project.

6. Other comments on progress not covered elsewhere

The design of the project as well as the exit strategy has not been changed over the last year. There were no significant difficulties encountered during the past project year or specific lessons that we have learned.

Dates of some events were moved for several month, these delays were not significant and in general the project has gone very smoothly. We have achieved the major part of our planned objectives and outcomes and have not changed our planning for the following year of the project.

The only critical thing is that we will have to move the date of Final Dissemination conference for the project to October 2008, because of the end of the academic year – April - May 2008 coinciding with the end of project and the beginning of academic year (September 2008) is not a good time for organizing a big conference for the University. We have applied to the Darwin Initiative by letter to allow us to move the date of dissemination event to October 2008.

7. Sustainability

The fact that the BEM has been formally accepted as an optional module at University level and listed in University catalogues is the biggest indicator of sustainability. The interest and enthusiasm shown by students and lecturers for the module as documented above is another. There is customer demand!

The ongoing Darwin project is the only project in Kyrgyzstan which is working at the moment on strengthening curricula of ecological chairs and faculties of High Education Institutions. This is very important, as in March 2005 Kyrgyzstan confirmed its obligations on fulfilment of the UNECE Strategy on Education for Sustainable Development. That's why integration and piloting of this new module, called "Biodiversity Conservation and Bases of Sustainable Development" is actually a good contribution to implementation of the UN Decade on ESD in Kyrgyz Republic. Our strategy to achieve sustainability is built on a strong network of Schools and Universities of Kyrgyzstan, available to promote ESD principles in all regions of the republic. BIOM has started coordinating this network activities and we expect to reach our goals through delivering diverse educational events for members of our network, information campaigns, publishing of methodical and propaganda materials and periodical issuing of Newsletter, etc.

Fundraising to support the network of schools and universities is very important, and both BIOM and FSC pay strong attention to this issue – through attracting different project opportunities, invitations to capacity building seminars, cross-project activities and preparing new proposals, etc. This year, for example, BIOM, FSC and project universities in cooperation with some European High Educational Institutes developed a proposal for Tempus program, which aims to develop a new module on Sustainable Development and officially integrate it into curricula of some Universities in Central Asia.

8. Dissemination

8.1 Project results were presented on several national and international conferences and meetings in Kyrgyzstan, such as:

- First national forum of NGOs of Kyrgyzstan – project materials were presented in evening master-class - Kyrgyzstan. Bishkek, 9 June 2007.
- Ceremony "Faces of the year" – project results were presented during ceremony of rewarding of BIOM members - Kyrgyzstan. Bishkek, 19 August 2007.
- National Youth Ecological Forum under support of UNEP – project results were presented as good practice – Kyrgyzstan. Bishkek, 17 October 2007.
- Central Asian (Regional) Youth Ecological Forum under support of UNEP – project results were presented as good practice – Kyrgyzstan. Bishkek, 15 November 2007.
- Third meeting of the UNECE Steering Committee on ESD - project results were presented during expert Panel on competences of ESD - Switzerland, Geneva, 31 of March -1-st of April

8.2 30/08/2007 we conducted a press-conference in Bishkek city, where current project results were presented. 2 radio broadcasts and 2 articles in national level newspapers were also made.

8.3 In 2007-2008 year original Darwin project also approved as :

- UNECE best practice on ESD – please see website <http://www.unece.org/env/esd/GoodPractices/list.html> for details.
- Good practice in Dubai Best Practices & Local Leadership Programme UN-HABITAT.

9. Project Expenditure

Table 3 Project expenditure during the reporting period (Defra Financial Year 01 April to 31 March)

Item	Budget (please indicate which document you refer to if other than your project application)	Expenditure	Balance
Rent, rates, heating, overheads etc			
Office costs (eg postage, telephone, stationery)			
Travel and subsistence			
Printing			
Conferences, seminars, etc			
Capital items/equipment			
Others			
Salaries (specify)			
TOTAL			

Highlight any agreed changes to the budget and explain any variation in expenditure where this is +/- 10% of the budget.

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 ECTF 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)

New biodiversity education in Kyrgyzstan - creating potential for protection of Life!

You can rarely hear about Kyrgyzstan in world breaking news, or they can just mention, that the Republic still meets diverse problems in the social and economic field. But not so many people know, that Kyrgyzstan can be famous not only for its revolutions, but for its unique mountain ecosystems, rich wildlife, endemic species and initiatives, aimed to protect and save all these treasures for future generations. Biodiversity of Kyrgyzstan is under big threat because of high level of poverty of the general population, which tries to raise their quality of life by using resources of natural ecosystems. But shoots of new values have already appeared, including education! 4 Universities of Kyrgyzstan in cooperation with NGOs and a network of ecological schools decided to joint their efforts and raise the quality of their biodiversity education for students of natural and pedagogical specialities, considered that specialists, equipped by new knowledge and skills, can become a real force to make decisions that enhance rather than reduce biodiversity in Kyrgyzstan. Under the support of Darwin Initiative foundation and consultative support of local NGO "BIOM" and FSCEE (UK) a new biodiversity education module was developed and successfully integrated into curricula of 3 regional Universities in Kyrgyzstan. The module – "Bases of Biodiversity

Bonservation and Sustainable development” includes 16 lectures, 14 practical trainings sessions, a great number of diverse student-centered learning activities, games and outdoor fieldwork. A special handbook for teachers with full texts of lectures and algorithms of activities was also developed and published. Additional materials, such as power point presentations, CD, handouts, maps, cards for games, etc. were prepared and spread amongst teachers from project Universities at the Capacity Building Seminar for University teachers, held in Bishkek in September 2007.

Parallel to this work, both teachers, student from all project Universities were involved in creating microreserves – special educational areas with wildlife and models of nature ecosystems near university buildings . At the moment 4 micro reserves ihave been completed, and are being used in educational process – delivering practical work, observations, field study exercises, delivering outdoor lessons, games, etc.

In 2007-2008 academic year a new course was oficially provided for 3rd and 4th year students of ecology and biology departments, and both teachers and students approved it as really advanced education, which they haven't used before.

Involvement of Kyrgyz National University - the major and leading university in Kyrgyzstan – raise our chances for further distribution of project experience and official integration of the Biodiversity Education module into curricula of other universities of Kyrgyzstan

Annex 1 Report of progress and achievements against Logical Framework for Financial Year: 2007/08

Project summary	Measurable Indicators	Progress and Achievements April 2007 - March 2008	Actions required/planned for next period
<p>Goal:</p> <p>To draw on expertise relevant to biodiversity education from within the United Kingdom to work with local partners in Kyrgyzstan to achieve the conservation of biological diversity, and the sustainable use of its components.</p>			<p><i>(do not fill not applicable)</i></p>
<p>Purpose</p> <p>To improve the quality of biodiversity education so that young people are better equipped to make decisions that enhance rather than reduce biodiversity in Kyrgyzstan.</p>	<p>15 members of HE Academic staff at 3 Institutions, Schools and NGOs receiving at least 120 hours of training on effective Biodiversity learning.</p> <p>Higher quality of biodiversity education in University initial teach training and in schools.</p> <p>An improvement in biodiversity in university and school grounds.</p>	<p>All completed as described in report</p> <p>Pre project survey completed</p> <p>Pre project survey completed</p>	<p>Post project survey in progress</p> <p>Post project survey in progress</p>
<p>Output 1.</p> <p>A Biodiversity Education Module (BEM) integrated in the curriculum of students training to be biology and ecology teachers.</p>	<p>A 30 hour module is developed and integrated into the teaching programmes for students training to be Biology and Ecology teachers in the Issyk-Kul State University and the Osh and Naryn State Universities by the end of year 1</p>	<p>Completed</p>	

Activity 1.1 Y1 – Preparation and delivery of three training events for the Development Team.		Described in full detail in report and completed - continue to offer the module in future years
Activity 1.2 Piloting of BEM with one cohort of students including lectures, workshops at the University – work on the Micro reserve and training in schools.		Described in full detail in report and completed, no further activity planned
Activity 1.3, Y2 – on going coaching of the DT through visits by BIOM and FSC.		Described in full detail in report and completed, no further activity planned
Activity 1.4 Biodiversity Education Module development and announcement of piloting, production of guidelines for Universities and training materials for students.		Described in full detail in report and completed, no further activity planned
Output 2. Demonstration teaching micro reserves.	A demonstration micro reserve established at each of the three State Universities – by year 2.	Completed and described in report
Activity 2.1 - Confirmation of micro reserve location at University site and development of micro reserve management plan, starting making of the reserve.		Described in full detail in report and completed,
Activity 2.2. Continued development and use of the reserve.		Described in full detail in report and completed - ongoing maintenance and development of micro reserve
Output 3. Resources developed to support the BEM and SGL network.	An education for sustainability Kyrgyzstan website developed and 4 sets of teaching materials created for students – by the end of year 1. Additional materials will include an appropriate identification key to allow wider biodiversity monitoring.	All completed – appropriate indicators
Activity 3.1 – Creation of web pages on new BIOM website (www.biom.org.kg) development of simple identification key to a major		Completed though only in Kyrgyz – will be completed in English by

group of plants to be identified during the project (for example trees)	October.
Activity 3.2 First Newsletter and in Y2 Newsletter produced regularly.	Completed – project news was inetgrated into the new BIOM national newsletter covering all their projects and general environmental news – the only one in Kyrgyzstan – will be ongoing
<p>Output 4. The outcomes of the project are disseminated and promoted widely through the SGL network.</p>	<p>A dissemination conference held for all 51 Universities in Kyrgyzstan attended by 70 academic staff; at least 25 articles/broadcasts in the media; 1 seminar held in 10 other H Ed Institutions; regular School Green Land Newsletters produced.</p> <p>At least 2 national and 2 regional TV will enlighten the project activities and results on different project steps.</p> <p>Dissemination Conference will be held in October when more Univeristies can attend.</p> <p>High levels of media interest as decsried above.</p>
Activity 4.1. Dissemination Seminars and Visits to key HE Institutions	To be completed in October

Annex 2 Project's full current logframe

Project summary	Measurable indicators	Means of Verification	Important assumptions
<p>Goal:</p> <p>To draw on expertise relevant to biodiversity education from within the United Kingdom to work with local partners in Kyrgyzstan to achieve the conservation of biological diversity, and the sustainable use of its components.</p>			
<p>Purpose:</p> <p>To improve the quality of biodiversity education so that young people are better equipped to make decisions that enhance rather than reduce biodiversity in Kyrgyzstan.</p>	<p>15 members of HE Academic staff at 3 Institutions, Schools and NGOs receiving at least 120 hours of training on effective Biodiversity learning.</p> <p>Higher quality of biodiversity education in University initial teaching training and in schools.</p> <p>An improvement in biodiversity in university and school grounds.</p>	<p>Ministry of Education and Department of Environment Reports.</p> <p>Project pre and post project survey reports.</p> <p>Biodiversity monitoring.</p>	<p>That our training will be successful in raising the quality of Academic and school teaching.</p> <p>That the Academic Staff we select will be able to implement the new approaches to learning in their courses!</p>
<p>Outputs:</p> <p>1 A Biodiversity Education Module (BEM) integrated in the curriculum of students training to be biology and ecology teachers.</p> <p>2 Demonstration teaching micro reserves.</p>	<p>A 30 hour module is developed and integrated into the teaching programmes for students training to be Biology and Ecology teachers in the Issyk-Kul University and the Osh and Naryn State Universities by the end of year 1.</p> <p>A demonstration micro reserve established at each of the three State Universities – by year 2</p>	<p>Module is formally accepted as part of the Biology and Ecology teacher training degrees – formal letters/statements from the University Administrations.</p> <p>Biodiversity Micro Reserve Management Plan produced; photographic evidence of reserve.</p>	<p>That the pilot Universities will be able to fulfil their commitment to integrate the module into the Biology and Ecology degrees courses.</p> <p>That locations can be identified for the HE Institutions to be able to develop teaching micro reserves and that these will be available on a long term basis.</p>

<p>3 Resources developed to support the BEM and SGL network.</p> <p>4 The outcomes of the project are disseminated and promoted widely through the SGL network.</p>	<p>An education for sustainability Kyrgyzstan website developed and 4 sets of teaching materials created for students – by the end of year 1. Additional materials will include an appropriate identification key to allow wider biodiversity monitoring.</p> <p>A dissemination conference held for all 51 Universities in Kyrgyzstan attended by 70 academic staff; at least 25 articles/broadcasts in the media; 1 seminar held in 10 other H Ed Institutions; regular School Green Land Newsletter produced.</p> <p>At least 2 national and 2 regional TV will enlighten the project activities and results on difference project steps.</p>	<p>Website address promoted and number of hits recorded; copies of resources produced sent to Darwin Initiative.</p> <p>Reports for Dissemination Conference and Seminars; Newsletter submitted to the Darwin Initiative</p>	<p>That the website will be used by students and teachers.</p> <p>The other HE Institutes will be willing to attend the Dissemination events and consider adopting the BEM.</p>
<p>Activities</p> <p>Project Management</p> <p>Training</p> <p>Course Development and piloting</p>	<p><i>Activiy Milestones (Summary of Project Implementation Timetable)</i></p> <p>Y1 – Inception Workshop with all the partners, confirmation of the Development Team members, written contracts with participating Universities, Monitoring and Reporting; pre project baseline survey of DT and students,</p> <p>Y2 – Monitoring, Reporting and evaluation, post project survey of DT and students.</p> <p>Y1 – Preparation and delivery of three training events for the Development Team.</p> <p>Y2 – on going coaching of the DT through visits by BIOM and FSC.</p> <p>Y1 – Biodiversity Education Module development and announcement of piloting, production of guidelines for Universities and training materials for students.</p> <p>Y2 – Piloting of BEM with one cohort of students including lectures, workshops at the University – work on the Micro reserve and training in schools.</p>		

Establishment of Micro Reserves	<p>Y1 – Confirmation of micro reserve location at University site and development of micro reserve management plan, starting making of the reserve.</p> <p>Y2 – Continued development and use of the reserve.</p>
Network support	<p>Y1 – Creation of web pages on new BIOM website (www.biom.org.kg) development of simple identification key to a major group of plants to be identified during the project (for example trees)</p>
Promotion and Dissemination	<p>Y1 – First Newsletter</p> <p>Y2 – Dissemination Seminars and Visits to key HE Institutions</p> <p>Y1 and Y2 – Newsletter produced regularly.</p>

Annex 3 onwards – supplementary material (optional)

Appendix 1 – Partnership - links and cooperation with other projects

Darwin project and British Council - Information campaign “Biodiversity and climate change” in universities of Kyrgyzstan + eco cafe in Bishkek.



Educational complex on ecological security and basic skills on behavior in emergency situations, developed under support UNDP and Euro Commission and distributed among schools of “School Green land” network.



Appendix 2 – Creation of microreserves

Naryn state university



Issyk-Kul State university



Osh State University



Kyrgyz national University in Bishkek



Appendix 3 - DT meetings on developing Biodiversity education Module



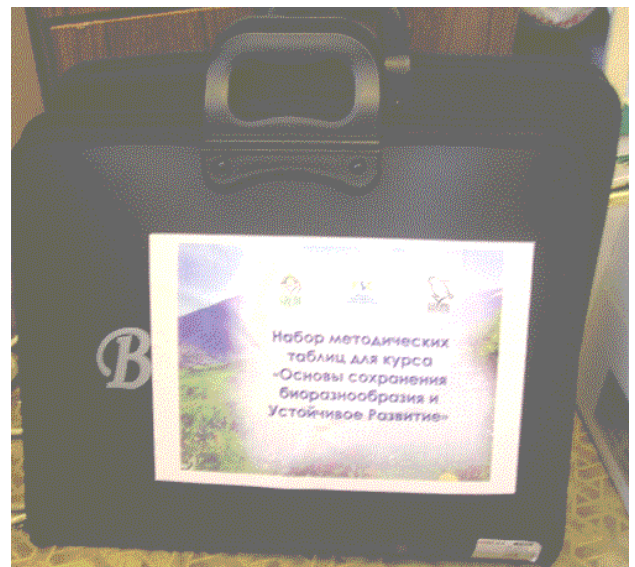
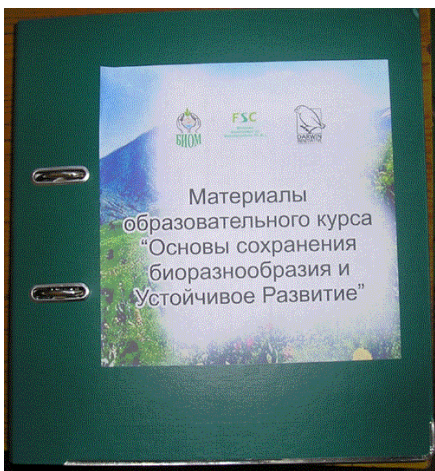
Appendix 4 – Workshop on training teachers to deliver a new developed Module on biodiversity



Appendix 5 – Monitoring visits - lectures and practical work within new Biodiversity education module



Appendix 6 – Project publications - banners, water key, Educational Package for universities (Manual for university teachers with lectures and activities, case with printed slides, CD, etc.)





Appendix 7 – work with School Green Land network - capacity building seminars, Strategic annual meeting (in cooperation with SPARE project), ecological actions, etc.





Checklist for submission

	Check
Is the report less than 5MB? If so, please email to Darwin-Projects@ectf-ed.org.uk putting the project number in the Subject line.	✓
Is your report more than 5MB? If so, please advise Darwin-Projects@ectf-ed.org.uk that the report will be send by post on CD, putting the project number in the Subject line.	
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 completed the Project Expenditure table?	✓
Do not include claim forms or communications for Defra with this report.	x