

**DARWIN INITIATIVE****APPLICATION FOR GRANT FOR ROUND 11 COMPETITION: STAGE 2**

Please read the Guidance Notes before completing this form. Give a full answer to each section; applications will be considered on the basis of information submitted on this form. Please do not cross-refer to information in separate documents except where invited on the form. The space provided indicates the level of detail required but you may provide additional information on a separate A4 sheet if necessary. Do not reduce the font size below 10pt or the paragraph spacing.

Submit by 13 January 2003

1. Name and address of organisation

Zoological Society of London, Regent's Park, London NW1 4RY

2. Project title (not exceeding 10 words)

The Steppe Forward Programme: Training Conservationists for Mongolia's Future

3. Principals in project. Please provide a one page CV for each of these named individuals.

Details	Project leader	Other UK personnel (if working more than 50% of their time on project)	Main project partner or co-ordinator in host country
Surname	Oddie		Bayartogtokh
Forename(s)	Kate		Badamdorj
Post held	Post Graduate Research Fellow		Dean, Biology Faculty
Institution (if different to above)	National Centre for Scientific Research		Mongolian National University
Department	Centre for Functional and Evolutionary Ecology		Dept. of Zoology
Telephone			
Fax			
Email			

4. Describe briefly the aims, activities and achievements of your organisation. (Large institutions please note that this should describe your unit or department)**Aims**

The overall mission of the Zoological Society of London is to promote and achieve the conservation of animals and their habitats. The Conservation Programmes directorate has the role of developing coherent approaches to research, captive animal management and field conservation projects to achieve this mission.

Activities

ZSL Conservation Programmes staff are involved in: captive breeding and re-introductions of rare species into the wild, studies of animal populations and the bushmeat trade, eco-tourism development, wildlife health control, and conservation capacity building. These activities are integrated with Institute of Zoology's research and captive animal management at the two Living Collections.

Achievements

ZSL's 2001 conservation audit recorded 25 conservation projects and activities, involving field budgets of over £2.4 million. Conservation achievements are numerous (see information sheets), but with respect to this proposal: we have trained wildlife vets in Kenya, veterinary technicians in Nepal, and NP rangers in DRC, and developed community fishing groups in Philippines.

5. Has your organisation received funding under the Initiative before? If so, please give details.

ZSL Conservation Programmes has received one DI grant: Akageara National Park (1997-8)

6. Please list the overseas partners that will be involved in the project and explain their role and responsibilities in the project. The extent of their involvement at all stages in the project should be detailed, including in project development. Please provide written evidence of this partnership.

Prof. B. Bayartogtokh, Dean of Biology Faculty, Mongolian National University (MNU) - project conception and development, project representative at university regarding office space and facilities, steering committee member for formal development of project plus very regular (weekly) informal discussions, field course lecturer, scientific advisor for ecological studies, particularly entomology, editor in chief Mongolian Journal of Biological Sciences

Prof Terbish, Drs Samiya, Batsaikhan, Gombobaatar and Oyuna, Mongolian National University - project development, steering committee members for development of field course and curriculum, advisors for editing of scientific ecology methods text book content and translation, field course lecturers, student selection panel, advisors for scientific field studies in the field of ecology, mammalogy, herbivory, ornithology and botany respectively, Dr Gombobaatar additional role as book translator

Ms. Oyundar, International Co-operations Director and CBD Focal Point, Ministry of Nature and Environment (MNE) - project support, liaison with other MNE staff departments (e.g. Protected Areas Bureau) to identify potential future work areas and collaborations, identification of national parks staff to attend courses, point of contact for necessary administrative papers

Mr. Munkhjargal, Director, Omnogovi National Parks Authority - project support in Gobi (e.g. use of National Parks building for workshops), identification of rangers to attend courses, supervision of rangers' activities throughout year, steering committee member for ranger training courses

A Co-operative Agreement for above parties is included with this application. It represents written evidence of the partnership between the SFP, MNU and MNE, and is also the document required for official procedures in Mongolia, e.g. visa issue

Mr. Damdinsuren, Education Director, Ministry of Science, Technology, Education and Culture (MOSTEC) - review of primary school environmental education book and distribution to all Mongolian primary schools

A letter of co-operation with MOSTEC is included with this application.

Ms Sundev MSc. - Mongolian Project Co-ordinator - Primary aim to learn to co-ordinate project to ensure continuation by Mongolian directors. Involved full-time at all stages, initially will shadow the UK Co-ordinator with gradual increase in responsibility. Main duties include secretarial and administrative work, e.g. purchases in Mongolia, liaison with visa police for visiting lecturers, finding drivers and cooks, present in meetings with MNE and steering committee meetings, learning project budgeting, fund-raising and management skills

Mr. Boldgiv, MSc. - currently completing PhD joint with University of Philadelphia, co-author for undergraduate text book, translation of scientific terms, steering panel for book content

Mr. Nyambayar, MSc. - currently completing MSc with University of Idaho/Peregrine Fund, co-author for undergraduate text book, translation of scientific terms, steering panel for book content,

Hovsgol GEF (World Bank) Biodiversity Project and Wildlife Conservation Society Eastern Steppe Gazelle Project - participants from Hovsgol GEF and eastern steppe gazelle researchers to lecture about their work on field courses, suggest and supervise field course mini-project subjects, advise on local villages for student presentations, Dr. Goulden (GEF) and Kirk Olsen (gazelle research) to advise on field course content in steering committee

Supporting letters from Mr Nyambayar, Hovsgol GEF and Eastern Steppe Gazelle Project included with this application

Ms Enkhtuya, local tourist business owner Dalanzadgad - help with organisation of community meetings in Gobi, translation, help in development of community projects in Gobi

Jaime Forsyth, Peace Corps Volunteer Ulaan Baatar, development and implementation of 'Ecology Theatre' in Gobi, to train teachers to implement Ecology Theatre programme as a Gobi community project, assistance in compiling directory of all environmental/conservation/biology organisations and individuals in Mongolia in line with aims of MongolBioweb

7. What steps have been taken to (a) engage at all appropriate levels within the host country partner organisations to ensure full support for the project and its outcomes; and (b) ensure the benefits of the project continue despite staff changes in these organisations?

The project leader has collaborated for three years with the Mongolian National University (MNU) and Ministry of Nature and Environment (MNE) with this programme drawn up as a collaborative effort. Hence, principal partner organisations have been involved in programme design from the outset, generated by their own requests for UK help to address Mongolian biodiversity protection problems. Their support is demonstrated by substantial in-kind donations to the programme. MNU staff changes occur rarely, academics hold posts for life. Although elections (due 2004) frequently result in changes to MNE staff, previous experience shows co-operative agreements are simply passed to the incoming government. Furthermore, government agreements for fieldwork activities are only necessary for land within a Protected Area System (12% land total), and courses do not have to be held within these areas. Other collaborating parties and local herding communities have been engaged in planning directly with the project leader.

8. What other consultation or co-operation will take place or has taken place already with other stakeholders such as local communities. Please include any contact with the government of the host country not already provided.

Informal consultation with local communities in south Gobi has been carried out over three years by the project leader, who is known and trusted by herders in this area. A specific aim of the programme is to encourage Mongolians to form their own conservation initiatives, and the first scheduled community meeting will serve as a forum for herders to express their concerns and identify priority areas for action. These will form the basis for development of local community projects (see logical framework). Additionally, rangers will be trained to carry out social surveys (example attached) to formally assess local stakeholder's natural resource use and concerns. Omnogovi National Park Director has discussed problems with ranger training directly with the project leader and requested help in training.

PROJECT DETAILS

9. Define the purpose (main objective) of the project in line with the logical framework.

The Steppe Forward Programme aims to empower Mongolians to create and manage conservation programmes by providing them with the tools necessary to design and monitor their own conservation initiatives, assess wildlife populations and design ecological studies.

10. Is this a new initiative or a development of existing work (funded through any source)?

A new initiative. The project leader has collaborated previously 3 years with MNU (scientific collaboration funded primarily by the Leverhulme Trust, London)

11. How will the project assist the host country in its implementation of the Convention on Biological Diversity? Please make reference to the relevant article(s) of the CBD, thematic programmes and/or cross-cutting themes. Is any liaison proposed with the CBD national focal point in the host country? Further information about the CBD can be found on the Darwin website or CBD website.

The project directly aids with implementation of the CBD by establishing and maintaining programmes for scientific and technical education and training in measures for the sustainable use of biodiversity (article 12), and allowing exchange of scientific and technical information (article 17). The programme promotes and co-operates in the use of scientific advances in research in developing conservation measures (articles 12,18). Programme activities, both directly and through training provided, will allow Mongolian scientists to uphold article 14 – carry out impact assessment and produce scientifically and socially viable strategies to minimise adverse impacts. The programme directly encourages understanding and importance of measures required for biological conservation and will produce educational material and initiate public awareness programmes with respect to conservation and sustainable use of biodiversity (article 13). Traditional technologies will be used to pursue objectives at a local level where possible (article 18). Field courses, including scientific project work, will be carried out in three of the thematic programme areas (dry/sub-humid lands, forest and inland waters) with community projects focused in dry/sub-humid lands intended as model community conservation initiatives for other ecosystems in Mongolia. Central to the project are the initiatives cross-cutting the thematic programmes, namely specialised education, raising public awareness and general education, and use of traditional knowledge and practices. Ms. Oyundar at MNE (see Q6 and attached Co-operative Agreement) is the CBD Focal Point contact

12. How does the work meet a clearly identifiable biodiversity need or priority within the host country?

The Mongolian government has expressed a strong commitment to biodiversity conservation and has set up a system of national parks. However, basic information on species biology, distribution and abundance, vital for conservation planning is lacking. So too are the skills required by Mongolians to carry out scientific ecological studies and surveys to address this problem. This has been formally recognised by the government in the First Biodiversity Report (1988) which emphasised the main problems facing Mongolia's natural resources as degradation associated with rapid economic development, lack of financial resources for national parks, minimal knowledge of species distributions and poor ecological research through lack of training. Biodiversity threats in the Mongolian Gobi have most recently been documented in a global study by Conservation International, 'Wilderness: Earth's Last Wild Places' (2002). The Steppe Forward Programme developed from discussions with academics at MNU who are painfully aware of shortcomings in their education system but have been cut off from the global scientific community for 70 years during Soviet occupation. They, and two National Parks, have requested help directly in implementing ecology training and practical field survey and statistical methods. Local herders have also expressed concerns over land use and changes.

13. If relevant, please explain how the work will contribute to sustainable livelihoods in the host country

Community conservation programmes will be initiated following a process of consultation and project development with local stakeholders. These are likely to involve methods of developing sustainable livelihoods given the pressing problems of overgrazing and unemployment. Details of activities will depend on stakeholder perception of problems and solutions; already livestock diversification, manufacturing goods to consumer standards through co-operation, tourism development and vegetable production rather than import have been proposed during informal discussions in the Gobi. Indirectly and in the long-term, having a force of trained, skilled biologists will allow information on ecosystem functioning to be gathered and incorporated into management decisions, which will be necessary for determination of environmentally sustainable human activities.

14. What will be the impact of the work, and how will this be achieved? Please include details of how the project outputs will be disseminated and put into effect to achieve this impact.

The direct impact will be to address the need for training in ecology to allow biodiversity assessment and protection in the host country. This will be achieved through field courses in ecological research and conservation for undergraduates and park rangers, and careers courses to teach how to source and obtain funding to implement research and conservation projects. Indirectly, the project will enhance the capacity for Mongolia to meet biodiversity obligations through understanding of wildlife population biology, species distributions and ecosystem threats. Basic biodiversity data will be collected on field courses and also by involving local community members to collect simple observational data following training. The project will also raise awareness of conservation problems and encourage initiative to create conservation/environmental projects by both professional Mongolian scientists and local communities alike. Educational texts will instruct and inform at primary and tertiary levels. Communication of information on Mongolian biology and conservation will be facilitated by running the MongolBioweb e-newsletter, enhancing co-operations between biology/conservation NGOs, institutes and individuals. Publication of Mongolia's first ISSN registered scientific journal will allow dissemination of Mongolian ecological data. Publication of popular media articles and radio interviews in both local press and abroad will raise attention to the problems faced by biodiversity in Mongolia, and attract foreign professionals with appropriate expertise to work in the country. The impact will be long-term, providing a sustainable framework to supply essential tools for development of biodiversity conservation schemes in Mongolia.

15. How will the work leave a lasting legacy in the host country or region?

Training staff/undergraduates from MNE and park rangers in ecological field techniques will allow them to carry out rigorous scientific ecological surveys and studies, generating data essential for conservation and land management decisions. Mongolian lecturers will be able to maintain scientific programmes for conservation studies learnt from the ecology text book and during field courses, and publish results in a registered scientific journal. Exposing students to career opportunities in biological sciences, and teaching grant application skills, will allow them to obtain funding for new studies, encourage collaborations with foreign experts and generally allow Mongolian interaction with the international scientific community including skills transfer. Ecology and primary school books can be used in successive years of teaching, with effect year after year. Involving local people in data collection will raise awareness of biodiversity conservation issues at the same time as generating data. This participation, coupled with local ownership of community conservation projects, enhances the likelihood of continued long-term involvement in project activities including their management.

16. What steps have been taken to identify and address potential problems in achieving impact or legacy?

There are two concerns: (i) language barrier in training. Young Mongolians appreciate the necessity of English, especially at University, and increasing numbers speak English (particularly with cheap internet connection and popularity of the WWW and MTV). Students will be selected for courses on evidence of scientific excellence and language capabilities so those attending will be those who benefit; the Mongolian counterpart co-ordinator will also act as translator where necessary. The undergraduate ecology text will be in Mongolian to ensure widespread use (particularly by park authorities) with English chapter abstracts. Prof. Bayartogtokh has made a simultaneous application to VSO for an Ecology Lecturer (Sep 2003-2005) to teach both biology in English, and English itself. The dual-language primary school book encourages English learning from an early age (6-11yrs). (ii) lack of employment opportunities. There are few opportunities for biology post-grads in Mongolia due to lack of govt funding. However, the programme actively teaches students grant application skills, allowing external funding to be levered. We anticipate Darwin funding to provide base support from which funding for smaller projects can be levered. Without essential biology skills provided by the programme, there would be absolutely no hope of students advancing – hence equipping Mongolians with these skills is an essential first step for development of biodiversity conservation projects and a pre-requisite for

17. How will the work be distinctive and innovative? How will the project be advertised as a Darwin project and in what ways would the Darwin name and logo be used?

There are no other training schemes like this operating in Mongolia, investing in people. The few scientific studies typically focus on one species rather than providing scientific methods that can be applied across a variety of ecosystems/species. This programme also uniquely uses a cascading training system by training Mongolian's themselves to become teachers in skills necessary for biodiversity monitoring and conservation. Its strength lies in the long-term investment it represents in Mongolian's capabilities to tackle environmental problems themselves with skill. The project will be advertised (Mongolian and UK press and radio) as a Darwin project in upholding the Initiative's aim to apply UK expertise in conservation of Mongolian biodiversity and sustainable resource use. The Darwin Initiative will be acknowledged in interviews, in public seminars, other publicity materials, and also in scientific publications and seminars. The logo will be applied on letterheads, office doors, vehicles and publications (books, journal, training manuals). The Darwin logo and details of the initiative will also be provided on the project website with links to the appropriate DEFRA pages.

18. Are you aware of any other individuals/organisations carrying out similar work? Are there completed or existing Darwin Initiative projects which are relevant to your work? Please give details, explaining the similarities and differences. Show how the outputs and outcomes of this work will be additional to any similar work, and what attempts have been/will be made to co-operate with such work for mutual benefits.

Yes – the Tropical Biology Association received three years Darwin Initiative funding for training courses in Africa only, and continue running ecology and conservation field courses there. Apart from geographical differences, TBA courses were attended by both European and African students. We hope to run similar mixed courses after a three-year set up period 2003-2006, necessary in Mongolia to advance students to a suitable level to allow compatibility with European students. We will draw on the TBA's experience in design and application of our own field courses, aiming to achieve similar long-term success and eventually expansion. Dr. Trevelyan, TBA Director, will serve as an advisor and steering committee member for the Steppe Forward Programme, providing details of TBA course curriculum, potential lecturers and funding sources, and giving general advice

19. Will the project include training and development? Please indicate who the trainees will be and criteria for selection. How many will be involved, and from which countries? How will you measure the effectiveness of the training and will those trained then be able to train others? Where appropriate give the length and dates (if known) of any training course. How will trainee outcomes be monitored after the end of the training?

The majority of the programme is training and development in scientific field methods and conservation. Trainees on three, 3.5 week field courses run annually will be Mongolian undergraduates (~80 p.a.) and national park rangers (~15 p.a.).

April – Eastern steppes (grassland, some freshwater) – year 1 students and rangers

July – Lake Hovsgol (forest and freshwater) – year 2 students and rangers

August – Gobi (steppe and desert) – year 3 students and rangers

During field courses students will attend lectures, carry out scientific ‘mini-projects’ and present their work to local communities. The Gobi course will include an additional component of training students to teach locals basic ecology. Undergraduates will be selected for academic excellence and English language ability by a panel of university lecturers; national park rangers will be selected by the national park directors of the field course province. Lecturers themselves (~5 p.a.) will also benefit from exposure and co-operation with UK staff on field courses. Indirect training includes production of a core ecology text book for all undergraduates (with an international academic advisory panel), and a primary school book to be distributed to schools throughout Mongolia. Attendance on field courses and a Mongolian ecology core text will equip Mongolian lecturers with knowledge to train undergraduates. Training efficacy will be tested through student examinations on basic ecological principles and methods before and after field courses. Questionnaires of student opinions of courses will also be collected at the end of field courses.

Gobi park rangers will complete an additional one week programme (September annually) training them to teach local people as para-ecologists and to organise and manage local biological data collection schemes. The scheme will be closely monitored by project staff for the first year by examination of data collected and concurrent collection of data by MNU staff to ensure its reliability, e.g. visits to nesting sites, independent assessment of pasturelands etc.

A careers course for 2nd year biology undergraduates (Nov-Feb annually) will teach CV and application writing and interview skills as well as guidance in sourcing funding and job opportunities. Students will be encouraged to apply for placements and internships abroad to gain experience and expose them to new ideas and teaching, increasing awareness of international teaching and research mechanisms. A folder of grants and job opportunities/scholarships will be held and updated at the university. Student initiative and personal development will be encouraged through the establishment of an undergraduate conservation club. The club will be run by students and carry out conservation/environmental projects, particularly involving schools in the capitol, and produce three annual newsletters. Progress of students after graduation will be monitored through email questionnaire contact with graduates, most of whom currently remain in the capitol following graduation.

Local communities will also be made aware of potential funding sources for community conservation initiatives designed by local stakeholders. Project staff will give help in developing project concepts, design, management and monitoring and applications for funding.

20. How are the benefits and/or work of the project expected to continue after the end of grant period? Please provide a clear exit strategy.

MNU lecturers will be equipped with knowledge and core text for ecology teaching. They will also be able to continue field and careers courses and undergraduates continue their conservation club once project development methods have been taught. Both students and staff will be able to source and apply for funding for biodiversity studies in Mongolia. Likewise, local community initiatives can be continued, including data collection schemes supervised by trained national park rangers. In the third year of funding we will apply for funding from other sources to continue programme activities. We aim for running costs to be substantially reduced to a negligible amount by running mixed foreign-Mongolian field courses where foreign students cover the costs of their Mongolian counterparts after a three-year set-up period. This is similar to TBA courses, but with the advantage that a much higher proportion of overhead costs can be covered by foreign contributions in Mongolia, because running costs in Mongolia are extremely low. We are already pursuing inquiries from foreign universities with academics wishing to collaborate in both student training and scientific studies in Mongolia. Capital items will be left with MNU enabling projects to continue. Visiting lecturers on field courses will be encouraged to develop independent scientific studies of Mongolian wildlife, within which Mongolian students could be placed. By the end of the grant period we also hope some students will be engaged in placements, particularly abroad to learn new skills.

21. Provide a project implementation timetable that shows the key milestones in project activities.

Project implementation timetable	
Date	Key milestones
May 03	Field course structure and content (steering committee)
Jul 03	3 wk Field course (Hovsgol) 2 nd year students
Aug 03	Dalanzadgad Community meeting
Aug 03	3 wk Field course (Gobi) 3 rd year students
Sep 03	1 wk Ranger training and practicals, Dalanzadgad
Sep 03	Dalanzadgad Community meeting and report: Assessment of needs and identification of priority projects
Nov 03	University Conservation Club founding meeting
Nov 03 – Mar 04	Careers course teaching CV writing, interview and application skills
Dec 03	University Conservation Club meeting 2
Dec 03	Meeting with MOSTEC to approve children's book content
Dec 03	Contents agreed on Ecological Field Techniques undergraduate text
Jan 04	Dalanzadgad Community meeting
1 Feb 04	University Conservation Club meeting 3
Feb 04	Publication of 'Maral's Adventures', wildlife story and environmental activity book for primary schools
Feb 04	Dalanzadgad Community meetings and report: Project aims, actions and monitoring
Mar 04	Dalanzadgad Community meeting and report: Community Land use and Social Survey
Mar 04	University Conservation Club meeting 4
Apr 04	3 wk Field course (Eastern Steppes) 1 st year students
May 04	University Conservation Club meeting 5
Jun 04	Dalanzadgad Community meeting
Jul 04	3 wk Field course (Hovsgol) 2 nd year students
Aug 04	Dalanzadgad Community meeting
Aug 04	3 wk Field course (Gobi) 3 rd year students
Sep 04	1 week Further Ranger Training and Evaluation meeting
Sep 04	Dalanzadgad Community meeting
Oct 04	University Conservation Club meeting 6
Nov 04 – Feb 05	Careers course teaching CV writing, interview and application skills
Dec 04	University Conservation Club meeting 7
Dec 04	Dalanzadgad Community meeting and project monitoring
Jan 05	University Conservation Club meeting 8
Feb 05	Dalanzadgad Community meeting, project monitoring and report
Feb 05	Publication of Ecological Field Techniques book
Apr 05	3 wk Field course (Eastern Steppes) 1 st year students
May 05	University Conservation Club meeting 9
Jun 05	Dalanzadgad Community meeting
Jul 05	3 wk Field course (Hovsgol) 2 nd year students
Aug 05	Dalanzadgad Community meeting
Aug 05	3 wk Field course (Gobi) 3 rd year students

Sep 05	1 week Further Ranger Training and Evaluation meeting
Sep 05	Dalanzadgad Community meeting and Second Annual Report
Oct 05	University Conservation Club meeting 10
Nov 05 – Feb 06	Careers course teaching CV writing, interview and application skills
Dec 05	University Conservation Club meeting 11
Dec 05	Dalanzadgad Community meetings and project monitoring
Jan 06	University Conservation Club meeting 12
Feb 06	Dalanzadgad Community meeting, project monitoring and report
Apr 06	3 wk Field course (Eastern Steppes) 1 st year students
May 06	Final sponsor report

22. How will the most significant outputs contribute towards achieving the purpose of the project? (This should be summarised in the Log Frame as Indicators at Purpose level)

5 MNU staff, 80 students and 15 park rangers will be trained annually in ecological field techniques that will allow them to design, implement and monitor conservation programmes. Field courses will yield limited biodiversity data immediately directly through course activities. Scientists will be able to publish findings in a peer-reviewed scientific journal for Mongolia. Community meetings at courses will raise awareness of conservation issues amongst locals. Gobi rangers will receive further training in instruction of field techniques to train locals as para-ecologists, involving local stewards directly in data collection and generating baseline species distribution and abundance data. Community meetings in the Gobi will specifically focus on local interpretations of pressing problems and formal questionnaires assess stakeholder opinions. As well as ecology, herders will be taught project design, development and funding skills, allowing one local community conservation project to be developed annually, which will likely address other development aims also, e.g. income diversification, involving where possible traditional resource use methods. Student initiative will similarly be encouraged through the university conservation club, which will run one conservation activity and produce three newsletters annually. Students will be encouraged to realise their full potential and apply for funding themselves through careers course guidance. Publication of a Mongolian ecology text book will provide a core text for undergraduates and park rangers alike, instructing on suitable methods for collecting and analysing data for conservation decisions. A primary school book will encourage awareness of environmental problems and independent thinking at an early age, as well as provide a text for English language learning. The e-newsletter will inform individuals and institutions of current events pertaining to biodiversity and conservation in Mongolia, including potential job opportunities, workshops and collaborations, and preventing duplication of effort between parties. Public radio broadcasts and newspaper articles will generally raise awareness of conservation problems in Mongolia, both in-country and abroad, potentially encouraging future scientific collaborations with foreign experts

23. Set out the project's measurable outputs using the attached list of output measures

PROJECT OUTPUTS		
Year/Month (starting April)	Standard Output Number (see standard output list)	Description (include numbers of people involved, publications produced, Days/weeks etc)
Jul 03, 04, 05	4A/4B 5C/5C 6A/6B	Annual 3.5 wk Field course (Hovsgol) for 25-28 2 nd year students and at least 2 MNU lecturers and 5 national park rangers (i.e. 10.5 weeks total)
Aug 03,04,05	4A/4B 5C/5C 6A/6B	Annual 3.5 wk Field course (Gobi) for 25-28 3 rd year students and at least 2 MNU lecturers and 5 national park rangers (i.e. 10.5 weeks total)
Apr 04,05,06	4A/4B 5C/5C 6A/6B	Annual 3.5 wk Field course (Eastern Steppes) 25-28 1 st year students and at least 2 MNU lecturers and 5 national park rangers (i.e. 10.5 weeks total)
Sep 03,04,05	6A/6B	1 week Ranger training and practicals, Dalanzadgad, for 5-10 park rangers
Sep, Dec Feb Annually	6A/6B	3 day supervised course where rangers train locals to collect biodiversity data throughout the year rangers will train locals, but unsupervised by project staff
Nov-Feb annually	4A/4B	70 undergraduates annually to receive training in CV writing, interview and application skills and sourcing funding, 10 week course 2 hrs per week

Sep-Jun annually	5	Informal guidance on scientific methods, experimental design and data analysis
Apr-Apr 03,04,05	5	Techniques to academic staff at MNU (at least 7 staff members) Training 1 Mongolian counterpart in project cycle and management, budgeting, acquisition of grants, organisation and communication skills to administer project in long-term
Feb 04	7	Publication of 'Maral's Adventures', wildlife story and environmental activity book for primary schools; 80 pages in colour 1000 copies
Feb 06	7	Publication of directory of NGOs, governmental organisations and individuals working in biology/conservation/environment to facilitate contact and collaborations
Throughout	(7)	Leaflets and posters produced by university conservation club (1 themed project per year) for projects involving schools in UB, e.g. posters about recycling. Exact numbers depend on club choice of project
Apr-Apr Annually	8	90 – 97 weeks annually spent by UK academic staff on project
Feb 05	10	Publication of ecological field techniques text book, core text book for ecology undergrads and also for use by park rangers/managers. Includes sampling protocols for vertebrates and invertebrates, experimental designs, basic statistical methods, randomisation, repeated measures, population estimation.
Mar 04	11B	Submission of 1 peer-reviewed paper on Gobi community surveys
Jul 04	11A	1 peer-reviewed paper on results of Gobi community surveys
Jul 04, Feb 05	11B	Submission of 2 peer-reviewed papers on field data collected on courses
Feb 06		
Dec 04, Jun 05, Jun 06	11A	2 peer-reviewed papers on field data collected on courses
Dec 03-Apr 06	12A	1 database of field data collected by local para-ecologists trained by Gobi rangers to be established and maintained
Nov 03-Apr 06	12A	1 directory of funding sources & job listings established and maintained at MNU
May 04, 05	14A	Seminars to other NGOs, consultants and institutes working in Mongolia about the programme and its annual achievements
May 03, Nov 03,04,05	15A	1 national press release in Mongolia (total 7)
Feb 04,05,06		
Apr 03,04,05,06	15C	1 national press release in UK (total 4)
Apr 03,04,05,06	15D	1 local press release in UK (total 4)

Feb 04,05,06 May 04,05 Nov 04,05	16A 16B	University conservation club newsletter, 7 copies total 100 copies to circulate in capitol, notably university and schools
Apr 03-Apr 06	17B	1 dissemination network, the MongolBioweb e-group to be continued and developed, linking over 100 subscribers in Mongolia. >60 notices pa posted
Nov 03, Apr 04, Apr 05 Jul 03 Apr 03, Dec 05	19A 19B 19C	1 national radio interview in Mongolia (total 3) 1 national radio interview with Radio 4, upon approval of funding 1 local radio interviews in UK (total 2)
Apr 06	20	£29,600 of equipment to be handed over to host country
Apr 03-Apr 06	21	1 framework for ecology field courses to be established that can be continued by Mongolian lecturers after Darwin funding. Accommodation and field ger (yurt) centre will also be handed over for use in subsequent courses
Apr 03	23	Funding from other sources currently stands at £33,400: Mongolian staff time 34 weeks/year (£4,140), 36 months office rent (£7,200), 3 weeks ranger training facilities/office in Gobi (£150), equipment donations including 2 vehicles, 2 computers, flatbed scanner, GPS, miscellaneous scientific equipment, guidebooks, solar power generation system, field station and small mammal traps (£18,570), feeding for children's book production (£2,240)
Jun 03	Unspecified by Darwin Initiative	Introductory seminar for other NGOs, govt organisations and consultants in Mongolia
Jul 03,04,05 Aug 03,04,05 Apr 03,04,05	Unspecified by Darwin Initiative	1 community meeting after each field course where students present their work to locals. 3 meetings in each geographical location (total 9 meetings)
Aug, Sep, Jun Annually	Unspecified by Darwin Initiative	Students field course reports (75-80 annually)
Sep, Mar Annually	Unspecified by Darwin Initiative	Biannual publication of the Mongolian Journal of Biological Sciences, a peer-Reviewed scientific journal, ISSN registered, issue 1 due Feb 03
Aug, Sep, Dec, Feb, Jun annually	Unspecified by Darwin Initiative	Community meetings with Gobi locals to supervisor rangers training locals as para-ecologists and to establish, develop and monitor local community conservation projects in the Gobi
Feb 04-Apr 06	Unspecified by Darwin Initiative	Throughout the period, university conservation club and local community projects in Ulaan Baatar and the Gobi respectively. These will be determined by students and local community members themselves, to address issues considered most pressing by stakeholders themselves, encouraging maximum involvement and likelihood of project continuation. Specific outputs of these projects are consequently difficult to determine exactly at this stage
May, Nov annually	Unspecified by Darwin Initiative	Steering committee meetings and reports

MONITORING AND EVALUATION

24. Describe how the progress of the project, including towards delivery of outputs, will be monitored and evaluated in terms of achieving its overall purpose. This should be both during the lifetime of the project and at its conclusion. Please make reference to the indicators described in the Logistical Framework.

Project results and progress will be discussed at biannual steering committee meetings, including UK and Mongolian academic staff, staff from other NGOs working in Mongolia (e.g. GEF, GTZ, WCS) and representatives from MNE/national parks. Field course content and structure (and ecology text book chapters) will be advised on by the TBA director (see Q18), UK and Mongolian academics and training impact and efficacy of courses measured through written examinations of attending students and rangers. Similarly, the ranger training courses will be monitored by a steering committee of national park staff and other NGO representatives working in Mongolia and rangers attending courses tested for efficacy of training. Test outcomes will be discussed at steering committee meetings where adjustments to training can be developed where necessary. Progress in developing community and undergraduate conservation club projects will be demonstrated by the initiation and activities of projects themselves. Monitoring of projects will depend on their exact nature; projects are to be decided by local stakeholders (the same applies for undergraduate conservation club projects). Community groups projects will be advised on by S. Oldfield, a UK community conservation officer with 7 years experience and W. Shaw, a UK park ranger and consultant with particular experience in Mongolia. Regular meetings with local community groups will track progress. Placement of Mongolian students on field projects both within Mongolia and abroad, and development of projects by students themselves, will indicate success of student initiative development and careers course training. Progress by the Mongolian Project Counterpart will be followed particularly closely to ensure development to a level where she is capable to take over the project in three years. Ability to hit specified targets will be monitored and presented in biannual reports.

25. How will host country partners be involved in monitoring and evaluation of the project?

Host country academics and representatives from MNE will attend field course steering committee meetings, and national park representatives attend ranger training course steering committee meetings. They will advise on course evaluations and development. Undergraduate text content will be decided on by a panel of experts including Mongolian academics, and the Ministry of Science, Technology, Education and Culture will comment on children's book content.

26. How will you ensure that the project achieves value for money?

The project requires little funding relative to the large number and long-lasting nature of outputs it generates, particularly numbers of Mongolians trained. Educating large numbers of biologists represents a long-term investment in biodiversity protection extending beyond any grant period, and local ownership of projects enhances their likelihood of continuation. Field courses will be run in traditional gers (yurts) that can be moved between sites, allowing three field courses to take place in three very different Mongolian ecosystems and removing the constraint for the need of permanent field stations. Assuming a UK lecturers salary of £30K, the project will benefit from at least £15K of UK staff expertise per year through field course lecturers. Printing costs are very low in Mongolia, and the project capitalises on this producing large numbers of academic (500) and primary school texts (1000) as well as a guide to Mongolian 'green' organisations and a biannual scientific journal. This allows dissemination of project outputs to a wide audience. Training local people to collect biodiversity data with guidance from trained rangers represents utilising local manpower, particularly appropriate in Mongolia where over half the population live directly off the land and know the land and wildlife best. Hence, biodiversity data for large areas can be covered which is otherwise impossible with conventional study. Involvement of local people simultaneously raises awareness of conservation problems. Importantly, the project develops human capacity and demonstrates through university and community conservation activities what can be achieved by individual students or community groups. This sort of legacy is long-lasting and cannot be measured easily by tangible outputs.

27. Reporting Requirements. All projects must submit six monthly reports (by 31 October each year) and annual reports (by 30 April each year). Please check the box for all reports that you will be submitting, dependent on the term of your project. You must ensure that you cover the full term of your project.

Report type	Period covered	Due date	REQUIRED?
Six month report	1 April 2003 – 30 September 2003	30 October 2003	Yes
Annual report	1 April 2003 – 31 March 2004	30 April 2004	Yes
Six month report	1 April 2004 – 30 September 2004	30 October 2004	Yes
Annual report	1 April 2004 – 31 March 2005	30 April 2005	Yes
Six month report	1 April 2005 – 30 September 2006	30 October 2005	Yes
Annual report	1 April 2004 – 31 March 2006	30 April 2006	Yes
Six month report	1 April 2006 – 30 September 2006	30 October 2006	No
Final report	1 April 2004 – project end date	3 months after project completion	Yes

LOGICAL FRAMEWORK

28. Please highlight any changes from your stage 1 application: NO CHANGES MADE

Project summary	Measurable indicators	Means of verification	Important assumptions
Goal:			
To draw on expertise relevant to biodiversity from within the United Kingdom to work with local partners in countries rich in biodiversity but poor in resources to achieve <ul style="list-style-type: none"> • The conservation of biological diversity, • The sustainable use of its components, and • The fair and equitable sharing of the benefits arising out of the utilisation of genetic resources 			
Purpose:			
To build capacity for Mongolians to create their own conservation programmes by providing them with tools necessary to design and monitor conservation initiatives, assess wildlife populations and design ecological studies	Mongolian undergrads and rangers independently develop ecology projects and use data to successfully design & implement conservation measures. 2 projects per year refereed by international scientists developed	Independent field projects established. Ecological field techniques text in use	Undergrads and rangers use new knowledge and text book to develop field programmes in conservation
	Baseline data on species and habitats collected	Field reports and publications	Students and rangers actively participate in courses, locals involved in data collection
	Effective community schemes and implementation of measures for sustainable resource use. 2 community conservation projects per year initiated	Community residents working as para-ecologists. Project reports and records of meetings	Motivation amongst communities to create jobs, income and protect environment
Outputs:			
MNU staff, students and National Park rangers able to design, implement and monitor conservation programmes in Mongolia	Approximately 5 MNU staff, 80 students and 15 park rangers trained annually in ecological monitoring techniques and their application	Ecology field course project reports and biodiversity data; course assessment reports; copies sent to Darwin Initiative	Students and rangers attend courses, staff teach on courses, rangers continue in present employment
Establishment of regular and ongoing field course programme in ecology for undergrads and rangers	Participation in field course development by MNU and National Park staff steering committee	Attendance at course development meetings and records of steering committee meetings	Staff incorporate new ecology teaching in curriculum and show full involvement in steering meetings
Community awareness of ecology and conservation needs	Community meetings before and after field courses	Attendance by locals and records of meetings	Local herders motivated to attend meetings
MNU students and rangers are able to train local herders as para-ecologists collecting biodiversity data	Data collected by community groups	Database established and maintained and annual project report	National Park rangers continue employment and are motivated to initiate local conservation projects, teach
Gobi communities able to set up and run own conservation/alternative income initiatives	200 questionnaires collected on community needs data analysed by rangers. 4 yearly meeting weeks with Gobi communities resulting in 1 local conservation project annually	Questionnaires collected and analysed. Community meeting reports. Various community activity reports depending on projects	Community members sufficiently motivated to begin new community and conservation initiatives
MNU students able to source funding and successfully apply for conservation project grants	Undergrads successfully obtain funding or placements for biology projects, particularly in Mongolian National Parks	Several undergrads entering employment with National Parks and furthering study abroad	Students motivated to find jobs, placements at National Parks exist
MNU students able to initiate and run own conservation projects, particularly with schools in the capital	1 conservation project run and 3 conservation newsletters produced annually by students	Reviews and feedback on newsletters; copies sent to Darwin Initiative	Students motivated to run own club, schools willing to participate in activities

Primary school environmental story and exercise book produced and distributed	Publishers (Admon), publication date (Mar 2004) and distributors (Min of Ed) established. 800 copies	Reviews and feedback, copies sent to Darwin Initiative and every primary school in Mongolia	Publishers and distribution method identified
Ecology field techniques core text produced	Publishers (Admon), publication date (Mar 2005) established, distribution within MNU. 500 copies	Reviews from UK scientists, copies sent to Darwin Initiative	Publishers and distribution method identified
Scientific journal for biology in Mongolia published	2 peer-reviewed issues of Mongolian Journal of Biological Sciences produced	Annual subscription to MJBS records, copies sent to Darwin Initiative	Publishers and distribution method identified, people willing to subscribe
e-newsletter providing communication forum for all biology/environment/conservation bodies in Mongolia	60 notices annually distributed to over 100 already established subscribers (govt, NGO, institutes, individuals)	Newsletter files held at MongolBioweb site (yahoo groups site)	Interested parties subscribe to MongolBioweb
Publications and presentations	6 peer-reviewed scientific articles; 2 radio and 2 newspaper articles per year; 1 annual presentation and report in Mongolia; 2 articles in popular magazines and 2 public presentations annually	Copies of all publications and recordings sent to Darwin Initiative	High quality of scientific work, acceptance of popular articles/interviews
Activities	Activity Milestones (Summary of Project Implementation Timetable)		
Ecological field course programme in 3 ecosystems	Annual field course curriculum meetings/steering committee meetings and evaluations May and Nov, reports to MNU and Darwin Initiative Years 1,2 and 3: July field course in Hovsgol, August course in Gobi, Mar/Apr course in Eastern Steppes, each 3.5 weeks long involving 2 visiting UK lecturers teaching ecological field techniques, scientific method, statistics, survey methods, encouraging independent thought and generating biodiversity data. Jun 2003 introduction to field courses and activities talk to other NGOs in Mongolia, updates 04/05		
Training undergrads and rangers to lead community conservation groups	At each field course (above) students present work to local communities. Specific training of locals by undergrads 1 week during Gobi course (August 2003, 04, 05) Ranger training week Sept 03, 04, 05		
Community meetings	Before and after each field course at each site (Jul, Aug and Mar/Apr)		
Community meetings in Gobi	Annually Sep, Dec, Feb, May (also Aug before ecology field courses) Sep 03 assessment of community needs and identification of priority projects, Feb 04 report on community land use/social surveys, Feb 04 report on community project: aims, actions and monitoring, Sep 04 community first annual report, hereafter Feb and Sep project reports		
Careers course for MNU biology undergrads	Annually Nov – Feb teaching CV writing, interview and application skills, sources of funding Nov 03 directory of funding sources for MNU established, job list of upcoming field asst and further education vacancies established		
University Conservation Club	Year 1: Nov 03 founding meeting of UCC, Dec 03 meeting 2, Jan 04 meeting 3, Feb 04 newsletter 1 and UCC undergrads visit UB schools to begin recycling schemes, Mar 04 meeting 4, May 04 meeting 5 and newsletter 2, spring and summer term continued visits to schools Year 2: meetings and activities as above, new project, with newsletters Nov 04, Feb 05, May 05 Year 3: meetings and activities as above, new project, with newsletters Nov 05, Feb 06		
Production of 2 educational text books and one scientific journal	Primary school environmental activity book: Jun 03 contents agreed, Jun-Dec 03 writing, Dec 03 meeting with MOSTEC to approve contents, Feb 04 publication Tertiary ecological field techniques text book: Contents agreed by Dec 03, Jan-Dec 04 writing and reviewing, Feb 05 publication Sep and Mar publication of Mongolian Journal of Biological Science issues, year-round review of papers and editing		
Running e-newsletter	Annually managing and redirecting postings on the internet, at least 60 articles/notices annually		
Producing publications	Jun 04 two scientific peer-reviewed publications, repeated annually Publications associated with community projects throughout 04-06		
Publicity material	2 radio broadcasts, 2 newspaper and popular magazine articles and 2 public presentations annually		