APP2 159

DARWIN INITIATIVE

APPLICATION FOR GRANT FOR ROUND 12 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 12pt or alter the paragraph spacing.

Submit by 19 January 2004

Ref *(Defra only)*:

1. Name and address of organisation

Gary J. Martin, The Global Diversity Foundation (GDF)

2. Project title (not exceeding 10 words)

Ethnobiology of proposed traditional use zones of Crocker Range Park

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

Details	Project leader	Main project partner or co-ordinator in host country	Main project partner or co-ordinator in host country
Surname	Martin	Nais	Maryati
Forename(s)	Gary J.	Jamili	Mohamed
Post held	Director	Deputy Director	Director
Institution (if different to above)		Sabah Parks	University Malaysia Sabah
Department		Research and Education	Institute for Tropical Biology and Conservation
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 Global Diversity Foundation (GDF) aims to document, monitor and promote agricultural, biological and cultural diversity around the world, particularly through research, training and social action. GDF was created in 1999 with the support of professionals from various academic disciplines and obtained charitable status in May 2000 from the Charity Commission of England and Wales.

Activities

The Global Diversity Foundation works with selected academic institutions to offer research and training opportunities on cultural and natural diversity, conservation and community development. In key natural areas near these institutions, GDF supports field studies where local researchers and students gain practical experience

in documenting, monitoring and promoting biocultural diversity. Areas of specific research focus include the dynamics of ethnobiological knowledge, community access to biological resources and the valuation of biodiversity. Near its field study centres, the Foundation contributes to conservation and development projects that involve local communities, governmental agencies, non-governmental organizations and academic research centres. The Foundation supports multidisciplinary diploma and graduate degree programs in collaboration with botanical gardens, research institutes and universities. GDF seeks to provide fellowships for talented young colleagues who are studying for advanced degrees, and grants to support their research at field study centres. GDF presents the results of its applied scientific research in seminars, symposia and scientific publications. To educate the general public on the threats to global diversity, the Foundation supports excursions, exhibits and publications that focus on agricultural diversity, cultural traditions and natural history.

Achievements

The Global Diversity Foundation is making progress in its goal of establishing longterm 'observatories' of cultural and natural diversity at four selected field sites in Asia (Sabah, Malaysia), Africa (central and southern Morocco); Latin America (southern Mexico) and the Pacific (probably the Solomon Islands). In its first initiative, GDF has been successful in designing an innovative development, training and research programme in Morocco, entitled "Sustaining the Medina". A small grant programme has supported student research among indigenous peoples in Brazil, Canada, Ecuador, Indonesia and Morocco Through its trading subsidiary, Diversity Excursions Ltd., GDF is raising funds for these initiatives while educating the general public about the cultural, ecological and historical heritage of Morocco. A fund of more than £ raised by Diversity Excursions through tours and guest donations is supporting conservation, research and training initiatives of The Global Diversity Foundation (GDF), including partial support for wildlife trade inventory in southern Morocco funded by the National Geographic Conservation Trust in 2003.

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

Yes, a pre-project grant in 2003 was awarded to GDF to explore opportunities for a Darwin project in Sabah.

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.

Project partners in Malaysia are:

1. Sabah Parks, the Sabah state government agency responsible for protected areas in Sabah, is the principal partner. In this project, Sabah Parks will provide senior technical input on all levels of project development and implementation, particularly on the target local communities in and around the Crocker Range Park and the key ethnobiological resources to be studied, as well as logistical support where appropriate. Project results will be integrated into the overall conceptualisation of local community resource use in traditional use zones in the proposed Crocker Range Management Plan currently being developed by Sabah Parks.
2. The Institute for Tropical Biodiversity and Conservation (ITBC) at the University Malaysia Sabah (UMS) will be responsible for the training component of this project. ITBC will provide senior technical input into the development and implementation of training modules and field workshops, which will represent the combined effort of UMS and UK experts to build capacity among project team members and a peer group of local professionals. Eight MSc students from UMS will engage in Master's level field studies as part of this project.
3. The Bornean Biodiversity and Ecosystems Conservation (BBEC) Programme (2002-2007), a multiagency collaboration between the Sabah state government, UMS, and the Japan International Cooperation Agency (JICA), will be responsible for the dissemination of project progress and results. Under Sabah Parks, BBEC is in the process of formulating the Crocker Range Management Plan where proposed traditional use zones may accommodate the concept of monitored community use of natural resources. For the Darwin project, BBEC will be responsible for conducting two thematic conferences on ethnobiology and traditional use zones, and for supporting the publication of training and dissemination materials.

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?

This project builds on a long term collaboration between the project leader, the project partners and the project coordinator (Dr. Agnes Lee Agama). Dr. Martin and Dr. Nais collaborated on a community-based ethnobotanical inventory at Kinabalu Park (the Projek Etnobotani Kinabalu) from 1992 – 2000. Dr. Agama joined the team as field coordinator with the People and Plants Initiative in 1996, and later completed her PhD at the University of Kent, with Dr. Martin as her supervisor. Prof. Maryati translated Dr. Martin's *Ethnobotany Methods Manual* (1995) into Bahasa Malaysia, and has been active in promoting ethnobotanical research at training at UMS.

Through a Darwin pre-project grant, Dr. Martin made a trip to Sabah in August 2003 to plan the Darwin proposal with these partners. Discussions were held with Sabah Parks Director Datuk Lamri Ali and Deputy Director Dr Jamili Nais to develop a basic concept for the project. A field trip to Crocker Range was conducted with Dr. Nais, Park Warden Ludi Apin and UMS Lecturer Dr Monica Suleiman to visit a number of communities in and around the park, as well as to discuss the feasibility of the project. Support from Sabah Parks was also gained through a travel grant to GDF to conduct a subsequent trip to Sabah in January 2004 to finalise the details of the Darwin proposal. GDF will seek to formulate an MoU with Sabah Parks to ensure the long-term partnership and exchange of expertise. Discussions were held with ITBC Director Dr. Maryati Mohamed on the potential for multidisciplinary training workshops to be conducted by ITBC and the UMS School of Social Sciences on ethnobiological issues and methodologies, as part of a longer-term collaboration to develop curricula for ethnobiology and conservation biology at UMS. Discussions were also held with the Chief Technical Advisor of BBEC Mr Takahisa Kusano, and the JICA Long term Advisor to Sabah Parks, Dr Yoneda Masaki, on the overall progress of the BBEC programme and the development of the Crocker Range Management Plan. Support from BBEC will contribute to a wide dissemination of project result through publications and conferences.

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.

As part of the BBEC programme, Sabah Parks co-sponsored a workshop on zoning CRP in March 2003, resulting in strong support for traditional use zones inside the park and buffer zones outside the park. Through the Darwin pre-project grant, visits were conducted to the communities of Buayan and Kionop, located in the proposed traditional use zones for the Crocker Range Park. In addition, we have made initial contact with staff members of Partners for Community Services (PACOS), a local NGO which works to build organisational capacity in thirteen communities around CRP. There is existing cooperation and collaboration between Sabah Parks and these local communities on issues such as natural resource use and sustainable development. SP and PACOS collaborated on a workshop on social issues sponsored by BBEC. Based on this rapport, the project team will conduct further discussions through community workshops to engage local community participation in monitoring the impact of ethnobiological resource use on protected area management. Existing data on the local communities in and around the Crocker Range Park, collected from studies conducted under Sabah Parks and BBEC, will be collated and analysed as the basis for further project activities. Technical input will also be sought from Sabah state agencies such as the Forest Research Centre for comparative data on ethnobiological resource use, the Wildlife Department on susbistence hunting, and the Drainage and Irrigation Department for developments in catchment protection policies.

PROJECT DETAILS

9. Define the purpose of the project in line with the logical framework.

We will build the capacity of local institutions and Dusun communities to improve an adaptive management plan for Crocker Range Park (CRP) – which covers 140 sq. kms. in western Sabah, Malaysia – by studying the local appropriation and management of proposed traditional use zones. The multidisciplinary study will use qualitative and quantitative methods to assess the impact of swidden agriculture, hunting and gathering of non-timber forest products. Exploring the establishment of traditional use zones in this protected area will enhance a new trend towards community-based conservation in Sabah. The specific objectives are to:

1. Identify the key ethnobiological resources used by two communities, Buayan (outside the park) and Kionop (inside the park),

2. Assess the cultural importance and ecological impact of gathering, hunting and swidden agriculture within the proposed traditional use zones,
3. Contribute to the design and implementation of the traditional use zones proposed in the draft Crocker Range Management Plan, as a model of sustainable biodiversity use by local people that can be applied in other protected areas of Sabah,
4. Build the capacity of local professionals, researchers, students and local community members to assess the role of local people in protected areas of Sabah, using ethnobiological methods, and
5. Stimulate discussion and raise awareness among local agencies and individuals about the importance of integrating local community interests in biodiversity conservation and resource management.

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

This initiative adds a new, clearly delimited component to a wider project. Although a number of expedition-style studies have been conducted to collect data on local communities in the park, an in-depth study is needed on the cultural and ecological impact of community use of ethnobiological resources in proposed traditional use zones. The proposed Darwin project stems from a Sabah Parks request for expert investigation of ethnobiological resource use that can substantially contribute to the formulation of recommendations for zones.

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 (see Annex C for list and worked example) and rank the relevance of the project to these by indicating percentages. 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.

By building the capacity of local institutions to assess proposed traditional use zones in CRP, the project shall support the government of Sabah – in compliance with its 'Sabah Biodiversity Enactment 2000' – to implement CBD Articles 6 (5%), 7 (10%), 8 with a particular emphasis on 8j (15%), 10 (15%), and 12 (20%) with particular emphasis on agricultural biodiversity (5%), forest biodiversity (5%), protected areas (10%), sustainable use (5%), and traditional knowledge, innovations and practices (10%) themes.

12. How does the work meet a clearly identifiable biodiversity need or priority within the host country? Please indicate how this work will fit in with National Biodiversity Strategies or Environmental Action Plans if applicable.

Accommodating the presence of Dusun communities inside and near the boundary of CRP is a clear priority in biodiversity conservation in Sabah. Long time inhabitants of the area, the Dusun are sedentary horticulturalists who engage in swidden agriculture, collection of non-timber forest products and some hunting. According to current conservation policy and practice, Sabah Parks must either evict the people inside CRP – which would be controversial and is not being considered – or degazette the area where they live, which would have negative consequences for the integrity of the Park. A third possibility – creating traditional use zones that would cover about 3% of CRP's area – needs to be critically studied.

The project will contribute to developing the concept of traditional use zones in protected area management in Sabah, which is a crucial element of biodiversity conservation and water catchment protection. Community involvement in the sustainable use of biodiversity has emerged as a national priority in Malaysia and a state priority in Sabah. Environmental issues have an increasingly high profile in the 5-year national development plans that Malaysia produces. During the implementation of the 7th Malaysia Plan (1996 – 2000), authorities completed a Country Study on Biological Diversity (1997) and a "National Policy on Biological Diversity" (1998). Our project on traditional use zones in CRP fits with the 8th Malaysia Plan (2001-2005), which calls for "empowering local authorities and engaging communities in addressing environmental issues", especially in land use planning, biodiversity conservation and the sustainable management of forests. Following in this vein, the Sabah Biodiversity Enactment (2000) recognises the importance of traditional knowledge of the environment, setting out special procedures for its documentation and application in conservation and development projects.

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

The Crocker Range Park is the main water catchment area for the West Coast of Sabah, providing water to roughly one third of Sabah's population. The immediate vicinity around the park and some areas inside the park are home to a number of local Dusun villagers who continue to rely on ethnobiological resources for daily subsistence, and in some cases, on traditional methods of swidden agrculture.

The proposed Darwin project will contribute primarily to:

1. Investigating the sustainability of local community livelihoods by examining the ecological impacts of local community access, extraction and regeneration of key ethnobiological resources that are needed to fulfill daily subsistence requirements in these communities. The results will contribute to the conceptualisation and implementation of traditional use zones that will balance the need for biodiversity conservation and the sustainable use of natural resources by local communities living in these areas.
2. Building capacity among local professionals, researchers, students and local community members on the issues surrounding protected area management, such that local people are able to understand, and act on, the need for the integral management of areas inside and around the Crocker Range Park.

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 overall impact of the proposed Darwin project will be to contribute to the formulation and implementation of traditional use zones within the Crocker Range Park that balance biodiversity conservation with the sustainable use of natural resources by local communities living in these areas. This will be achieved by a combination of training activities, participatory field research and preparation of dissemination materials (including a 'Best Practices' handbook and a community stewardship agreement). Other impacts will be:

1. Increased knowledge about the kinds of ethnobiological resources and patterns of use by local people living in and around the park that will inform and guide all stakeholders involved in natural resource management, from policy makers to local community members. This will be achieved in six phases conducted over three years (see numbers 21, 22, 23 below). The results will be disseminated through community workshops, training workshops, conferences, and publications in print and electronic forms.
2. Increased technical capacity among local professionals, researchers, students and local community members on the issues and methods for assessing and monitoring the use of ethnobiological resources that will enable long-term research and conservation action extending beyond the timeframe of this project. This will be achieved in four principal ways: 1) establishing a multidisciplinary project team that will be assisted by community members, 2) training local professionals, researchers and students to carry out ethnobiological assessments, 3) engaging a wider network of peer professionals and organisations in discussions about the conceptualisation of traditional use zones in the Crocker Range Park, and (4) applying the expertise developed to assess the viability of traditional use zones in other existing and proposed protected areas of Sabah (for example, the Tun Mustapha Marine Park, a proposed transboundary protected comprising the islands near Kudat).

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

Lasting legacy will be achieved by increasing the capacity and dedication of local UMS researchers and Sabah Parks staff to: 1) establish traditional use zones in the Crocker Range Park, as part of the overall Crocker Range Management Plan, that will balance biodiversity conservation with the sustainable use of ethnobiological resources by local communities living in these areas to fulfil daily subsistence needs; 2) implement traditional use zones as an innovative initiative that incorporates local community needs within the framework of protected area management in Sabah; and 3) engage local agencies in long-term and in-depth monitoring of ethnobiological resource use that takes into account the changing needs and use patterns of local resource users of all levels.

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

Consultation with a broad range of user groups to obtain their prior informed consent and collaboration is the single most important factor in achieving impact. As shown in the letters of support, representatives of Sabah Parks, UMS and BBEC fully embrace the initiative. We are designing the project in collaboration with other local authorities and NGOs to ensure that they are fully aware of all aspects of the research and application.

This will maximize the probability that researchers and government officials incorporate new knowledge we generate in their efforts to create traditional use zones in CRP. We have identified competent students who are currently studying at UMS, and candidates for the field staff positions. Both UMS and SP have expressed interest in providing stable employment for project participants after the project ends, and drawing upon their experience to create traditional use zones in other protected areas of Sabah. The various training manuals, 'Best Practices for Assessing Traditional Use Zones' handbook and community stewardship agreement further ensure the legacy of the project. The Director of Sabah Parks considers that the CRP management plan is a flexible document that will be modified – following an adaptive management approach – through continuing community and scientific input.

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

The Darwin name and logo will be associated with the following outputs from the project: (1) a "Best Practices for Assessing Traditional Use Zones" handbook; (2) three training manuals; (3) reference collections (e.g. on herbarium labels of voucher specimens of ethnobiological resources); (4) community stewardship agreement and (5) any revised CRP management plan produced by Sabah Parks. The Darwin name and logo will be further publicised as the sponsor of the project on all official communication materials such as project stationery, reports, invitations to activities, press releases and other informational materials produced. The Darwin name and logo will also be featured in all the banners, certificates of attendance and materials produced for the training modules and conferences. Darwin will be acknowledged as the main donor for the project in all publications.

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 and how your work will be distinctive and innovative. 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.

To our knowledge, this would be the first Darwin funded project in the region on participatory approaches to the conservation and use of biodiversity, and community involvement in management of protected areas. Previous Darwin projects in Borneo have focused on scientific approaches to assessing and conserving biodiversity, for example "Molecular tools for promoting biodiversity in rainforest fragments of Borneo", "Biodiversity of butterflies in tropical rainforests of Sabah, Borneo", "Conservation of the orang-utan in Kinbatangan Wildlife Sanctuary, Sabah", and "Biodiversity of peatswamp forest in Central Kalimantan, Indonesia". In general, integration of local peoples in the co-management of protected areas of Southeast Asia lags behind similar efforts in Africa and Latin America. We intend to collaborate with international and local NGOs interested in community conservation areas and traditional use zones in protected areas of the region. We will also draw upon the expertise of individuals whose research approach can enrich our project, including (1) Mr. Paul Porodong (PhD candidate at University of Kent and lecturer at UMS) who is carrying out a study of the impact of swidden agriculture in the Rungus area of northern Sabah, and (2) Dr. Dario Novellino (recent PhD from University of Kent) who studies the impact of protected areas on the lifestyles of local people in Palawan, Philippines. Our project will benefit from the lessons learned during the Projek Etnobotani Kinabalu, a community-based ethnobotanical inventory led by the project leader and project coordinator from 1992 – 2000 (see website) under the now defunct WWF-Unesco-Kew People and Plants in Southeast Asia programme.

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 project includes a cycle of training and staff development during each of the six phases. All participants will be from Malaysia (primarily from Sabah) and will be selected by the project coordinators. GDF will build on its close relationship with the University of Kent at Canterbury (UKC) Anthropology Department (and Durrell Institute of Conservation and Ecology) to include specialist training on ethnobiology and conservation biology. JICA will support the participation of experts from Japanese institutions. Training events will be evaluated by participants and these outside experts, and their effectiveness measured by the quality of the interim reports or training manuals produced after each phase. Each cycle comprises the following training events:

1. One week modules at the University Malaysia Sabah for 20 participants from Malaysia (8 MSc students, 8 representatives of government and non-governmental agencies, 4 project staff) will be taught by visiting faculty from the University of Kent (UKC), lecturers from various Japanese institutions and UMS staff.
2. One week field workshops, held in Crocker Range Park (e.g. Inobong substation or Bolotikon camp at the heads of the trail to Kionop and Buayan) for the same 20 participants, will be coordinated by project staff in collaboration with university lecturers.
3. Two day community workshops in Kionop and Buayan, Dusun settlements 1 – 2 days walk from the substations, for 25 participants including 6 community members, led by the field staff, students and institutional representatives trained in the modules and field workshops.
4. Field research experience for field coordinators, students and community researchers.
5. Participation in the preparation of interim reports and training manuals

The training will contribute to a MSc degree in 'Taxonomy and Biodiversity' currently offered at UMS, and to a proposed MSc in ethnoecology/ethnobiology that will be established by ITBC in the next years.

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.

Sabah Parks will implement the project's recommendations, and will continue to develop the CRP adaptive management strategy. UMS plans to develop a MSc course in ethnobiology/ethnoecology, with a focus and conservation biology, in collaboration with UKC; researchers and students trained will be in a position to train others. ITBC and Sabah Parks will seek to provide MSc students and programme staff with continuing employment after the project ends.

The Malaysian team will be in a position to monitor the continuing status of the traditional use zones, based on an adaptive management model, with a particular focus on the following questions: (1) how to assess changes in local lifestyles related to shifts in demography (population decrease or increase), infrastructure (road building) and intensification of commercial activities in the CRP buffer zone; (2) the potential impact if villagers in Buayan and Kionop shift from subsistence hunting and gathering to bushmeat trade, commercialisation of non-timber forest products and ecotourism.

Sabah Parks, in collaboration with other institutions, will be able to establish community agreements that outline the rights and responsibilities of local people to use biological resources and manage landscapes in a sustainable manner

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

Project implementation timetable		
Date	Financial year:	Key milestones
Phase 1	**Apr-Mar 2004/5**	**Ethnobiological inventory: What are the animal and plant resources used by local people in Kionop and Buayan?**
June – Aug 2004	Apr-Mar 2004/5	Project set-up: (1) Purchase of bibliography and equipment, (2) recruiting of project personnel; (3) final planning with UMS, Sabah Parks and other GO and NGO participants; (4) visits to Buayan and Kionop to discuss project, finalise prior informed consent & community research protocols

Sept 2004	Apr-Mar 2004/5	One week taught module on contemporary issues in anthropology and ethnobiology at UMS, followed by one week field workshop on ethnographic techniques, ethnobiological inventory methods and community research agreements with 20 participants
Oct 2004	Apr-Mar 2004/5	Two day community workshop for 25 participants given by Malaysian team to explore and implement participatory biological resource inventory methods
Oct 2004 – Jan 2005	Apr-Mar 2004/5	Four month fieldwork to launch participatory ethnobiological inventory with community members in Buayan and Kionop, to be carried on by field staff, students and Dusun researchers
Feb –Mar 2005	Apr-Mar 2004/5	Interim report prepared on animal and plant resources used by local people in Kionop and Buayan
Phase 2	**Apr-Mar 2004/5 Apr-Mar 2005/6**	**Resource valuation: What role do ethnobiological resources play in local commercial and subsistence activities?**
Mar 2005	Apr-Mar 2004/5	BBEC/Darwin Scientific conference on participatory ethnobiological approaches to assessing biological resource use and landscape management
Mar 2005	Apr-Mar 2004/5	One week taught module on resource and landscape assessment, followed by one week field workshop on preference ranking, valuation and other techniques to assess cultural importance of ethnobiological resources with 20 participants
Apr 2005	Apr-Mar 2005/6	Two day community workshop for 25 participants given by Malaysian team to explore techniques used to assess role of biological resources in local commercial and subsistence activities.
Apr – July 2005	Apr-Mar 2005/6	Four month fieldwork in which field staff, students and community members carry out valuation, preference ranking and other techniques
Aug – Sept 2005	Apr-Mar 2005/6	Training manual prepared on biological resources in their role in local commercial and subsistence activities
Phase 3	**Apr-Mar 2005/6**	**Swidden agriculture: What is the impact of shifting culitvation on the biodiversity and landscapes of Crocker Range Park?**
Sept 2005	Apr-Mar 2005/6	One week taught module on environmental anthropology at UMS, followed by one week workshop on quantitative data analysis in ethnobiology with 20 participants
Oct 2005	Apr-Mar 2005/6	Two day community workshop for 25 participants given by Malaysian team to train community members in techniques to assess impact of shifting cultivation
Oct 2005 – Jan 2006	Apr-Mar 2005/6	Four month fieldwork in which field staff, students and community members assess extent of shifting cultivation
Feb – Mar 2006	Apr-Mar 2005/6	Interim report prepared on shifting agriculture in Buayan & Kionop
Phase 4	**Apr-Mar 2005/6 Apr-Mar 2006/7**	**Traditional agroecosystems: What is the role of traditional agroecosystems in maintaining Dusun access to biological resources?**
Mar 2006	Apr-Mar 2005/6	BBEC/Darwin Scientific conference on assessing traditional use zones in protected areas of Southeast Asia
Mar 2006	Apr-Mar 2005/6	One week taught module on biodiversity law and visual anthropology, followed by one week field workshop on field photography and conservation stewardship agreements with 20 participants

Apr 2006	Apr-Mar 2006/7	Two day community workshop for 25 participants given by Malaysian team to explore techniques used to assess the role of traditional agroecosystems in maintaining local access to biological resources.
Apr – July 2006	Apr-Mar 2006/7	Four month fieldwork in which field staff, students and community members assess biodiversity and distribution of resources in agroecosystems
June 2006	Apr-Mar 2006/7	Three Malaysian researchers attend International Congress of Ethnobiology to present Ethnobiology of Traditional Use Zones project
Aug – Sept 2006	Apr-Mar 2006/7	Training manual prepared on swidden agriculture and local access to biological resources in traditional agroecosystems
Phase 5	**Apr-Mar 2006/7 Apr-Mar 2007/8**	**Subsistence hunting: What is the impact of hunting on animal populations and ecological processes (e.g. dispersal of plant propagules) in Crocker Range Park?**
Sept 2006	Apr-Mar 2006/7	One week taught module on fundamentals of conservation biology at UMS, followed by one week workshop on participatory assessment of subsistence hunting with 20 participants
Oct 2006	Apr-Mar 2006/7	Two day community workshop for 25 participants given by Malaysian team to train community member in techniques to assess subsistence hunting in traditional use zones
Oct 2006 – Jan 2007	Apr-Mar 2006/7	Four month fieldwork in which which field staff, students and community members assess subsistence hunting in traditional use zones
Feb – Mar 2007	Apr-Mar 2006/7	Training manual prepared on analysis of subsistence hunting in traditional use zones
Phase 6	**Apr-Mar 2006/7 Apr-Mar 2007/8**	**Best practice: What are the best practices for assessing the viability of traditional use zones in protected areas of SE Asia?**
Mar 2007	Apr-Mar 2006/7	One week taught module and follow-up field workshop on people, protected areas and sustainable livelihoods with 20 participants
Mar 2007	Apr-Mar 2006/7	Two day community workshop for 25 participants given by Malaysian team to explore proposals for traditional use zones and sustainable livelihoods
Apr – May 2007	Apr-Mar 2007/8	Final report on viability of traditional use zones finalised and submitted to Sabah Parks for inclusion in Crocker Range Management Plan, along with final draft of community stewardship agreement, manuscript of "Best Practices for Assessing Traditional Use Zones in Protected Areas" handbook produced from compilation of training manuals

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)

The process of assessing the viability of traditional use zones through a participatory approach will generate and disseminate new knowledge, allowing stakeholders to improve community involvement in CRP. The development of the 'Best Practices for Assessing Traditional Use Zones' handbook, training manuals and community stewardship agreement will allow the experience to be replicated in Sabah and more widely disseminated in Southeast Asia.

The legacy and longterm impact of the project will be ensured by additional outputs: (1) Developing in-country training capacity through the establishment of postgraduate curriculum in ethnobiology and conservation biology at UMS; (2) Improving, through databases and reference collections, the information base on ethnobiological resources of Crocker Range; (3) Building the infrastructure and institutional capacity of the Institute for Tropical Biology and Conservation and enhance its co-operation with Sabah Parks and other government agencies, particularly in the context of establishing traditional use zones;.

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

PROJECT OUTPUTS		
Year/Month	Standard Output	Description (include numbers of people involved, publications produced,

(starting April)	Nunmber	days/weeks etc)
2006/June 2007/June	2	8 students from Sabah to receive MSc degrees in social science or tropical biology at UMS after 2 years of study and research
2005/September 2006/September	"	4 students from UK to receive MSc degrees in ethnobotany, environmental anthropology or conservation biology, including 2 months fieldwork in Malaysia with Darwin research travel grant
2007/April	3	8 participants from government or non-governmental organisations to receive diplomas in conservation biology and ethnobiology
2004/Sept 2005/April, Sept 2006/April, Sept 2007/April	4c,d	8 MSc students and 8 participants from government or non-governmental organisations trained in six 2-week modules + workshops
2005/August 2006/August 2007/August	6a,b	8 MSc students, 8 participants from government agencies or NGOs and 6 community members to receive eight months of field research experience each year
2005/Oct 2006/Oct 2007/April	7	Manual on ethnobiological resource inventory Manual on role of local agriculture & traditional agroecosystems Manual on impact of subsistence hunting in traditional use zones
2005/March 2006/March 2007/March	8	Approximately 10 – 12 weeks per year spent by UK project staff on training and field research in Malaysia (including 6 weeks per year by project leader).
2007/May	9	Final report on traditional use zones for Crocker Range Management Plan
2007/May	"	Final draft of community stewardship agreement submitted
2007/May	10	One "Best Practices for Assessing Traditional Use Zones" handbook published and distributed
2005/Sept 2006/Sept 2007/March	11	Total of three manuscripts submitted to peer reviewed journals
2007/May	12a	Databases on CRP ethnobiological resources established at UMS
2007/May	13a	Reference collection of 1000+ species of CRP ethnobiological resources established at UMS
2005/March 2006/March	14a	Two BBEC/Darwin scientific conferences and roundtables organised at UMS on 'ethnobiology' and 'traditional use zones'
2006/June	14b	One Darwin sponsored symposium organized at the International Congress of Ethnobiology (2006) to disseminate results
2005/March 2006/March	15a	Two host country national press releases (accompanying BBEC scientific conferences)
2004/Sept 2007/May	15a,c	Two host country and UK national press releases (to announce project and upon publication of "'Best Practices for Assessing Traditional Use Zones" handbook)
From 2004/June to 2007/May	17a	Dissemination network established in SE Asia for distribution of training manuals, and "Best Practices for Assessing Traditional Use Zones" handbook
2007/May	20	£7 700 of physical assets handed over to host country
2007/May	23	£90 725 funding from all other sources

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 Logical Framework.

Specific dissemination, research and training components – including the scientific conferences, training modules, workshops and field research – will be evaluated by participants (lecturers, students, partner institution staff and community members). Databases, reference collections and training materials (including training manuals, 'Best Practices' handbook, and community stewardship agreement) will be evaluated by foreign and host country experts.

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

Permanent representatives of Sabah Parks, UMS and BBEC will be invited to attend six monthly progress meetings with the project team in March and September of each year. Copies of interim reports and training manuals issued after each phase of the project will be circulated prior to meetings and shall be finalised subject to the agreement of the institutional partners. Partners will be invited to participate in the monitoring and evaluation of training courses and field workshops. In addition, they will take part in community workshops and field visits as part of evaluating progress at ground level. An Academic Review Committee comprising representatives from partner institutions will be responsible for monitoring and evaluating progress of students carrying out research projects in the field.

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

For a project of its scope and duration, the Darwin budget for our participatory ethnobiological study of traditional use zones in Crocker Range Park is relatively modest. We have been able to keep costs moderate because: (1) most staff time is offered on a *pro bono* basis; (2) the low level of per diems for rural areas of Sabah reduce field expenses; and (3) extensive host country participation ensures excellent output while limiting expenses for international airfares and per diem. Value for money will be further achieved by matching funds and in kind contributions by partner institutions, especially Universiti Malaysia Sabah, Sabah Park, Bornean Biodiversity and Ecosystems Conservation Programme, University of Kent and The Global Diversity Foundation.

Another way of assessing the value of the project is to emphasize the importance of Crocker Range Park in maintaining biodiversity and environmental services in Sabah. Gazetted in 1984, CRP is the largest and most biologically diverse protected area in Sabah. It is the primary water catchment area for seven main rivers that supply water to the west coast of Sabah, home to roughly one third of Sabah's population.

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 2004 – 30 September 2004	31 October 2004	Yes
Annual report	1 April 2004 – 31 March 2005	30 April 2005	Yes
Six month report	1 April 2005 – 30 September 2005	31 October 2005	Yes
Annual report	1 April 2005 – 31 March 2006	30 April 2006	Yes
Six month report	1 April 2006 – 30 September 2006	31 October 2006	Yes
Annual report	1 April 2006– 31 March 2007	30 April 2007	Yes
Six month report	1 April 2007 – 30 September 2007	31 October 2007	Yes
Final report	1 April 2004 – project end date	3 months after project completion	Yes

LOGICAL FRAMEWORK

28. Please enter the details of your project onto the matrix using the note at Annex B of the Guidance Note. This should not have substantially changed from the Logical Framework submitted with your Stage 1 application. Please highlight any changes.

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 • 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 Crocker Range Park adaptive management plan enhanced by strengthening capacity of local institutions to assess and implement proposed traditional use zones through participatory analysis of biological resource use by local communities.	New knowledge on species used and habitats managed in CRP by yr 1 New knowledge on swidden agriculture and traditional agroecosystems by yr 2 New knowledge of subsistence hunting use in traditional use zones by yr 3 Agreement on traditional use zones and village stewardship agreement by yr 3	Biological resources databases and reference collections in use Interim reports, training manuals and 'Best Practice' handbook. Revised adaptive management plan with detailed delimitation and strategy for traditional use zones, related to stewardship agreement	Sabah Parks committed to establishing CRP traditional use zones Agencies commit sufficient personnel and resources to participate in research and revise management plan Communities provide prior informed consent and collaboration on project
Outputs Traditional use zones assessment programme established by partner organisations, with community input	Minimum of 8 staff and 8 MSc students from 2 institutions, and 6 community members, trained ethnobiological and conservation assessment techniques. Qualitative and quantitative assessments of traditional use zones completed by yr 3	Training module and workshop participants attendance and assessment records	Competent project staff recruited during project Partner institutions staff available and motivated to learn and apply new skills Community approval of research programme
Training modules on ethnobiology and conservation biology delivered at UMS	Curriculum combining modules by UKC and UMS lecturers developed over 3 yrs Minimum of 8 Malaysian MSc students participated in modules by yr 3	Detailed MSc course programme UMS MSc theses	UKC lecturers available for teaching at UMS Sufficient number of Malaysian MSc candidates recruited
Best practice handbook and training manuals	One "Best Practice in Assessing Traditional Use Zones" published Three training manuals produced on assessing ethnobiological resources, swidden agriculture and subsistence hunting	Best practice handbook and training manuals distributed through dissemination network established in Southeast Asia	Training modules, field workshops and research yield sufficient material for publications
CRP adaptive management plan enhanced	Revised management plan, including detailed section on traditional use zones, approved by stakeholders by	Revised management plan printed and distributed to interested parties, including a copy for Darwin Initiative	Project's recommendations on establishment of traditional use zones accepted and implemented

Community Conservation Stewardship Agreements established	Strategy developed by 2 local village committees in consultation with Sabah Parks by yr 3	Records of village committee meetings Conservation Stewardship Agreements endorsed	Co-operation between villagers, NGOs, government agency and university maintained
Activities	**Activity Milestones (Summary of Project Implementation Timetable)**		
Training modules, field research grants and theses	Training modules in Sept 2004, March 2005, Sept 2005, March 2006, Sept 2006 and March 2006; Research grants awarded Sept 2004, Sept. 2005 and March 2006; theses completed in May 2006, 2007		
Field and community workshops	Field workshops Sept 2004, March 2005, Sept 2005, March 2006, Sept 2006 and March 2006; community workshops in Oct 2004, April 2005, Oct 2005, April 2006, Oct 2006 and April 2006		
Field research programme	Four month field research periods from Oct 2004– January 2005; April – July 2005; Oct 2005 – January 2006; April – July 2006; Oct 2006 – January 2007		
Conferences	International conferences organised in Sabah in March 2005 and 2006; Symposium organised at International Congress of Ethnobiology June 2006.		
Publications	Training manuals produced in Oct 2005, Oct 2006, and April 2007; "Best Practice in Assessing Traditional Use Zones" handbook produced in May 2007; Revised CRP management plan with community stewardship agreement finalised in May 2007; Manuscripts for publication in peer reviewed journals submitted in Sept 2005, Sept 2006, March 2007		

FINANCIAL ASPECTS

29. Please state costs by financial year (April to March). Use current prices - do not include any allowance for assumed future inflation. For programmes of less than 3 years' duration, enter 'nil' as appropriate for future years. Show Darwin funded items separately from those funded from other sources.

Table A: Staff time. List each member of the team, their role in the project rate and the percentage of time each would spend on the project each year.

	2004/2005 %	2005/2006 %	2006/2007 %
United Kingdom project team members and role			
Dr. Gary J. Martin (UK project co-ordinator) Dr. Rajindra Puri (environmental anthropology) Prof. Roy Ellen (ethnobiology) Glenn Bowman (economic and social anthropology) Prof. Stuart Harrop (biodiversity law and wildlife photography) Dr. Richard Bodmer (subsistence hunting)			
Dr. Helen Newing (community conservation & zoology)			
Host country/ies project team members and role			
Dr. Agnes Lee Agama (Malaysia project coordinator) Assistant project coordinator (to be recruited) Field coordinator (to be recruited) Field assistant (to be recruited) Dr. Jamili Nais (Sabah Parks coordinator) Mr. Ludi Apin (CRP Warden) Mr. Alfred Jubilee (CRP Assistant Park Warden)			

Mr. Jusimin Duaneh (Sabah Parks Research Assistant)			
Prof. Maryati Mohamed (UMS coordinator)			
Dr. Mashitah Yusoff (UMS assistant coordinator)			
Dr. Monica Suleiman (UMS lecturer – biodiversity)			
Mr. Paul Porodong (UMS researcher – swidden agriculture)			

Table B: Salary costs. List the project team members and show their salary costs for the project, separating those costs to be funded by the Darwin Initiative from those to be funded from other sources.

Project team member	2004/2005 £		2005/2006 £		2006/2007 £	
	Darwin	Other	Darwin	Other	Darwin	Other
Dr. Gary J. Martin Dr. Rajindra Puri Prof. Roy Ellen Prof. Stuart Harrop Dr. Glenn Bowman Dr. Richard Bodmer Dr. Helen Newing Dr. Agnes Lee Agama Assistant project coordinator Field coordinator Field assistant Dr. Jamili Nais Mr. Ludi Apin Mr. Alfred Jubilee Mr. Jusimin Duaneh Prof. Maryati Mohamed Dr. Mashitah Yusoff Dr. Monica Suleiman Mr. Paul Porodong						
TOTAL COST OF SALARIES						

Table C. Total costs. Please separate Darwin funding from other funding sources for every budget line.

	2004/2005	2005/2006	2006/2007	TOTAL
Rents, rates, heating, lighting, cleaning, overheads				
• Darwin funding (for GDF)				
• other funding (UMS)				
Office costs e.g. postage, telephone, stationery				
• Darwin funding				
• other funding (BBEC)				
Travel and subsistence				
• Darwin funding				

• other funding (GDF, SP)				
Printing				
• Darwin funding				
• other funding				
Conferences, seminars etc				
• Darwin funding				
• other funding (BBEC)				
Capital items/equipment (please break down)				
• Darwin funding 2 GPS units x £200 each				
1 digital video camera				
1 desktop computer with software, periperhals				
1 laptop computer				
1 LCD data display				
Supplies for field collections				
Camping equipment for fieldwork				
• other funding (BBEC) Storage materials for reference collections				
Other costs (please specify and break down)				
• Darwin funding Bibliography				
Financial auditing costs				
Community field assistants (4 people x £900/year				
Community organisers (2 people x £600/year)				
Research grants MSc students (£750 per student)				
• other funding (BBEC) Bibliography				
Research MSc grants (UKC £250/student)				
Salaries (from previous table)				
• Darwin funding				
• other funding (GDF/UKC/SP/UMS)				

TOTAL PROJECT COSTS				
TOTAL COSTS FUNDED FROM OTHER SOURCES				
TOTAL DARWIN COSTS				

30. How is your organisation currently funded?

The Global Diversity Foundation covers its administrative costs through consultancy contracts and the income earned by its trading subsidiary, Diversity Excursions Ltd., which offers tours of cultural, ecological and historical interest in Morocoo. Charitable donations from individuals and private enterprise are used to support conservation and development field projects. Finally, grants from international foundations and organizations cover research and training activities.

31. Provide details of all other funding sources identified in Question 29 that will be put towards the costs of the project, including any income from other public bodies, private sponsorship, donations, trusts, fees or trading activity. Please include any additional funding the project will lever in to carry out additional work during or beyond the project lifetime. Indicate those funding sources which are confirmed.

GDF is seeking to provide a contribution of £ over the three years of the project for (1) salaries of £ (15% time of its Director); and (2) £for travel and subsistence. The Foundation will have access to funds earned by its trading subsidiary, Diversity Excursions Ltd., which had revenues of £in 2001, £in 2002 and £ in 2003 for a total of £over the first three years of its operations. Income for 2004 is projected at over £ In addition, GDF will ask the British Council to provide some of the travel and subsistence costs for UK participants in training courses and conferences.

BBEC is envisioning a contribution of £, including: (1) £for printing of training manuals and Best Practices handbook; (2) £ in co-funding for conferences, training courses and field workshops; and (3) £of equipment, office supplies and bibliography donated to UMS.

UMS is proposing to provide in-kind support of £equivalent to £in staff time and £in overhead costs.

SP has tentatively agreed to contribute in kind costs of £in the form of £in staff time and £in local travel and subsistence costs for its personnel.

The University of Kent would contribute in kind £in teaching time from selected lecturers and professors who will participate in training courses on a travel and subsistence basis, and MSc research grants.

32. Please give details of any further resources sought from the host country partner institution(s) or others for this project that are not already detailed in Questions 29 and 31. This will include donations in kind and un-costed support e.g. accommodation.

We anticipate receiving additional in kind support from NGOs and communities in the form of staff time, accommodations, and field support.

33. Please separately indicate in Table D the amounts of grant requested under the Darwin Initiative and any confirmed funding/income from elsewhere (where these may be costed). Add together to show total project costs.

Table D Darwin funding request

	2004/2005	**2005/2006**	**2006/2007**
Amount of Darwin Initiative funding requested			
+ Funding/Income from other sources			
= Total project cost			

FCO NOTIFICATION

Please check the box if you think that there are sensitivities that the Foreign and Commonwealth Office will need to be aware of should they want to publicise the project's success in the Darwin competition in the host country ☐

CERTIFICATION 2004/05

On behalf of the trustees *(delete as appropriate)* The Global Diversity Foundation

I apply for a grant of **£**44 155 **in respect of expenditure to be incurred in the financial year ending 31 March 2005 on the activities specified in questions 21 and 23.**

I certify that, to the best of our knowledge and belief, the statements made by us in this application are true and the information provided is correct. I am aware that this application form will form the basis of the project schedule should this application be successful.

I enclose a copy of the organisation's most recent audited accounts and annual report, CVs for project principals and letters of support.

Name (block capitals)	Gary J. Martin
Position in the organisation	Director

Signed | **Date:** 19 January 2004

Please return this form by e-mail to ECTF at darwin-applications@ectf-ed.org.uk by 19 January 2004. Please put the title of the proposed project into the subject line of the e mail. As much of the supporting documentation as possible should be sent along with the e mailed application. However, if you are e mailing supporting documentation separately please include in the subject line an indication of the number of e mails you are sending (e.g. whether the e mail is the first of two, second of three etc.). Alternatively, applications may be submitted in a paper form to Darwin Applications Management Unit, c/o ECTF, Pentland Science Park, Bush Loan, Edinburgh EH26 0PH, UK.

DATA PROTECTION ACT 1998: **Applicants for grant funding must agree to any disclosure or exchange of information supplied on the application form (including the content of a declaration or undertaking) which the Department considers necessary for the administration, evaluation, monitoring and publicising of the Darwin Initiative. Application form data will also be held by contractors dealing with Darwin Initiative monitoring and evaluation. It is the responsibility of applicants to ensure that personal data can be supplied to the Department for the uses described in this paragraph. A completed application form will be taken as an agreement by the applicant and the grant/award recipient also to the following :- putting certain details (i.e. name, contact details and location of project work) on the Darwin Initiative and Defra websites(details relating to financial awards will not be put on the websites if requested in writing by the grant/award recipient); using personal data for the Darwin Initiative postal circulation list; and sending data to Foreign and Commonwealth Office posts outside the United Kingdom, including posts outside the European Economic Area. Confidential information relating to the project or its results and any personal data may be released on request, including under the Environmental Information Regulations, the code of Practice on Access to Government Information and the Freedom of Information Act 2000.**