Darwin Initiative Annual Report

Darwin Project Information

Project Ref Number	162/13/009
Project Title	Ethnobiology of proposed community use zones of Crocker Range Park
Country(ies)	Malaysia
UK Contract Holder Institution	Global Diversity Foundation
UK Partner Institution(s)	
Host country Partner Institution(s)	Sabah Parks, Institute for Tropical Biology and Conservation (ITBC) Universiti Malaysia Sabah
Darwin Grant Value	£129 280
Start/End dates of Project	1 August 2004 to 31 July 2007
Reporting period (1 Apr 200x to 31 Mar 200y) and annual report number (1,2,3..)	1 April 2006 to 31 March 2007 (Annual Report 3)
Project Leader Name	Gary J Martin
Project website	www.globaldiversity.org.uk
Author(s), date	Agnes Lee Agama, Gary J Martin, Adam Murphy, James TH Wong, Yassin Miki 31 May 2007

1. Project Background

From August 2004 to July 2007, the Global Diversity Foundation (GDF) is working with local partners in Sabah, Malaysia to assess the use of landscapes and key ethnobiological resources by indigenous Dusun communities in the Buayan-Kionop Community Use Zone[1] (CUZ) of the Crocker Range Park (CRP). Yet to be formally established, the CUZ was initially proposed under the CRP Management Plan (2006) to legally enable the communities of Buayan-Kionop (principally the hamlets of Buayan, Tiku and Kionop) to continue subsistence activities inside the CRP while maintaining the biodiversity conservation priorities of the Park. The CUZ will be jointly managed by Sabah Parks and the communities, governed by a CUZ Management Agreement.

[1] Originally referred to as Traditional Use Zones, they have now been renamed Community Use Zones in the recently completed Crocker Range Park Management Plan 2006

Together with Sabah Parks, our principal partner in the field, we are conducting ethnobiological assessments of key plant and animal resources used by the communities in Buayan-Kionop, as well as investigating patterns of subsistence agriculture, hunting and gathering of forest resources. Using ethnobiological methods, we are working intensively with a team of community field assistants, community leaders, key informants and local researchers to obtain baseline data and develop methodologies for the future participatory monitoring of natural resource use inside and adjacent to the CUZ. Our results guide the negotiation between Sabah Parks and the local communities in formulating the CUZ Management Agreement. In the field, we are also working closely with PACOS (an emergent partner in this project; see Section 2 below) to map important resource patterns and areas, using a participatory GIS approach. We are finalising a Resource Catchment Area (RCA) GIS that shows the areas where people farm, hunt, collect forest resources, and culturally significant areas both inside and outside the CUZ.

Working with the Institute for Tropical Biology and Conservation (ITBC) of the Universiti Malaysia Sabah (UMS), our principal partner in training, we are conducting the Ethnobiology and Conservation Training Course delivered in collaboration with lecturers from the University of Kent, Canterbury (UKC). Comprising five modules of lectures and field methods workshops, we are building the capacity of local community members, professionals from government and non-government sectors, researchers and students to conduct ethnobiological research in Sabah.

2. Project Partnerships

Global Diversity Foundation (GDF)
GDF is the main implementing agency, while Sabah Parks and ITBC are main executive partners in the host country. BBEC and PACOS are the other host country partners, and the University of Kent is a supporting institution from the UK. Over the period of this project, we have also formed links with a range of organisations, as previously described in past progress reports. As our project approaches closure in July 2007, we have concentrated on working intensively with our main partners to consolidate our results and enhance project impact.

Sabah Parks
The project continues to receive excellent input from Sabah Parks (SP) in the form of support for field research and the continued contractual employment of Mr. Yassin Miki, the GDF Assistant Field Coordinator. SP provides significant technical input from the directorate and senior personnel, in addition to generous logistical support through their Park Rangers and other staff, use of vehicles, equipment and facilities at CRP Stations. In August 2006, Sabah Parks seconded two staff naturalists to carry out an inventory of rattans (Mr Jusimin Duaneh) and an ongoing ethno-ornithological survey (Mr Alim Biun) in Buayan-Kionop. In November 2006, Sabah Parks and GDF collaborated on a series of presentations at the 10th International Congress of Ethnobiology held in Chiang Rai, Thailand (see Section 8 below). The close rapport between GDF and Sabah Parks personnel at all levels continues to be crucial in consolidating the efficacy of field research, and the overall ownership of techniques and processes set into motion to implement CUZs. SP is the main host country partner in the Darwin post-project (scheduled to commence in August 2007), which will focus intensively on the participatory monitoring of critical subsistence activities in the Buayan-Kionop CUZ.

The Institute for Tropical Biology and Conservation (ITBC)
The project continues to receive excellent support from ITBC at the Universiti Malaysia Sabah (UMS), which hosted Modules Three (24-28 April, 2-5 May 2006) and Four (13-22 November 2006) of the Ethnobiology and Conservation training course. Both Modules were delivered by UKC and UMS lecturers and were well attended. The Fifth and final Module will be held from 4-15 June 2007. A crucial outcome stimulated through this partnership, and one that has been explored through several interactions between UKC and UMS colleagues, is the establishment of a UMS MSc programme in Ethnobiology and Conservation that will carry on the legacy of this project to build local capacity in ethnobiological research. Spearheaded by Datin Prof. Dr. Maryati Mohamed, ITBC Director, UMS has been developing the curricula for an MSc programme and aims to launch the programme in June 2008. The programme will be coordinated by Mr. Paul Porodong, a lecturer at the UMS School of Social Sciences, who is also a completing PhD student at the UKC Anthropology Department.

Bornean Biodiversity and Ecosystems Conservation (BBEC) Programme
The BBEC Programme officially closed in January 2007, having completed the five-year collaboration between the governments of Japan and Sabah, a multi-agency programme that is primarily responsible for the production of the CRP Management Plan and CUZ proposals. In this reporting period, GDF Community Field Assistants have been working closely with BBEC to assist in the establishment of Permanent Plots in the CRP Headquarters in Keningau and Gunung Alab Substation throughout 2006. In March 2007, community members from Buayan-Kionop conducted Dusun identifications of tagged plants in the Permanent Plot at the Inobong Research and Education Station, to enhance the floristic database compiled under BBEC. Additionally, GDF presented a paper at the 5th and Final BBEC International Conference (See Section 8), and the paper presented at the 4th BBEC Conference (see Section 8) has been included in the recently published conference proceedings. Although the collaboration with BBEC has not been as active this year (as BBEC has turned its focus towards report writing and evaluation), there are attractive prospects for future collaboration when Phase Two of BBEC is launched in July 2007 (coinciding with the launch of our Darwin post-project in August 2007). Under BBEC Phase Two (2007-2012), the Park Management Component headed by Sabah Parks will focus entirely on the formal establishment of CUZs, including at our Buayan field site.

Partners of Community Organisations (PACOS)
The partnership with PACOS (an indigenous NGO in Sabah) has proven to be vital in several aspects and particularly in the development of the Buayan-Kionop Resource Catchment Area (RCA) GIS. We have been working closely with PACOS to integrate GDF data collected in Buayan-Kionop with data collected by the PACOS community mapping team from Tiku and Terian (see Appendix 3). The RCA GIS shows the areas important to the community for agriculture, hunting, fishing and gathering of forest products. Over 2006 and 2007, Mr Raymond Sipanis, GDF Community Field Assistant, is being trained by PACOS on Participatory GIS techniques and basic GIS software. In April 2007, Mr Yassin Miki, GDF Assistant Field Coordinator, was invited to present a paper at the Indigenous People and Protected Areas Workshop convened by PACOS, during the 4th Regional Conference on Protected Areas in Southeast Asia; conference results will contribute to the formulation of a Regional Action Plan that will be presented at COP9 of the CBD (see Section 8). Yassin will also join other colleagues from PACOS to attend the 3rd Asia Conference on Indigenous Peoples and Biodiversity in Lijiang, China in June 2007. Additionally, PACOS continues to conduct workshops, field visits, discussions and feedback sessions with community members about project fieldwork. PACOS is one of the host country partners in our Darwin post-project as the principal contributor to the Participatory GIS aspects of monitoring CUZs.

University of Kent, Canterbury, UK
The University of Kent at Canterbury (UKC) has been an important collaborating institution in this project. Training modules are delivered by UKC Department of Anthropology lecturers, who teach, visit the project site, and provide expert advice on project activities. In total, there are six UKC lecturers (including Dr. Gary Martin, the Project Leader) contributing to the training modules. These UKC lecturers have, in turn, featured aspects of our project as case studies or examples in their classes and other teaching activities in the UK and elsewhere (see Section 3.1.). Over the period of this project, colleagues at UMS and UKC have been engaged in a series of discussions and cross-visits to explore opportunities for institutional collaboration in establishing a postgraduate degree programme in Ethnobiology and Conservation at UMS. Mr. Paul Porodong, who is a UMS lecturer completing his PhD in Environmental Anthropology at UKC, has been appointed as the convener of the proposed UMS degree programme, which is expected to be launched in June 2008. Both UK Field Research Grantees (Ms. Perpetua George and Mr. Adam Murphy) are postgraduate students from the Department of Anthropology. Additionally, our project is mentioned in the UKC Department of Anthropology Research Assessment Exercise (RAE) Report, which will be submitted to the Higher Education Funding Executive (HEFCE) later this year, as an example of collaboration between external NGOs and the Anthropology Department.

3. Project progress

3.1. Progress in carrying out project activities

Overview
In the final full year for the project (ending in July 2007), we have made substantial progress in consolidating our field results and magnifying the impact of our training and dissemination efforts. Project Leader Dr. Gary Martin made two trips to Sabah in April and November 2006, coinciding with the Third and Fourth Modules of the Ethnobiology and Conservation training course and the Partners' Progress Meetings. Project management and institutional partnerships have been further strengthened through cross collaborations in various field and training activities.

Field research
In the field we have been working closely with our team of ten community field assistants and principal collaborators in the community to collect and analyse data. As we approach the end of the project, we have concentrated field research on the following key aspects:

- Development of the Resource Catchment Area (RCA) GIS:
  Working in close collaboration with the PACOS community mapping team and community field assistants, we have accumulated an extensive collection of georeferenced data on agricultural, hunting and gathering activities in Buayan-Kionop, particularly in areas that are inside the CRP (see Appendix 1). The RCA GIS contains the GIS database of key ethnobiological resources in Buayan-Kionop which are organised into various layers. The completed RCA GIS will be handed over to Sabah Parks in July 2007.

- Subsistence hunting and key animal resources:
  We have intensified research on subsistence hunting activities, using an integration of methods to investigate the domain of hunted animals, identify important hunting areas and monitor hunting offtake (see Appendix 2). Community field assistants have been collecting georeferenced data on fishing activities, as well as weighted ranking on preferred fish in the local community. Mr. Alim Biun (Sabah Parks staff naturalist) is conducting an ethno-ornithological survey in Buayan. We have compiled a list of about 150 animals (identified according to Dusun and scientific names using visual recognition in field manuals and photographs) that are included in the ethnobiological database.

- Agriculture and traditional agroecosystems:
  Field research on agriculture has been further augmented with the MSc grants to Mr. Yassin Miki (GDF Assistant Field Coordinator) and Mr. James Wong (GDF Field Coordinator). Yassin's research on homegarden diversity has contributed an additional 186 plants found in 21 homegardens inside and outside the CRP, and will be extended to investigate the role of homegardens in transplantation of useful species from primary and secondary forests. James' research examines the patterns of swidden agriculture and farmer's knowledge of soils, and has been pivotal in the collection of georeferenced data of swidden and fallow sites.

- Key plant resources:
  We completed an inventory of rattans (56 voucher collections) in collaboration with Mr. Jusimin Duaneh (Sabah Parks staff naturalist) from August to September 2006. We completed weighted ranking exercises on other categories of useful plants in February 2007. There are about 631 plants (identified according to Dusun and scientific names, including varietals) - rattans, food plants, timber trees and medicinal plants - that have been included in the ethnobiological database. Scientific identifications of plant voucher specimens were made in collaboration with Mr. Berhaman Ahmad (UMS Lecturer in the School of International Tropical Forestry). Plant experts from the local community additionally visited the Inobong Station of the CRP to verify the Dusun identifications of tagged plants in the BBEC Permanent Plot.

Over the last three years, we have found that the community field assistants are playing an increasingly prominent role in driving field research; an emergent development that bears promise as the Darwin post-project (starting in August 2007) turns the focus on establishing community-based resource monitoring in Buayan-Kionop. We have also found tremendous interest in the community to participate in our research; we now have a team of ten community research assistants and a growing number of principal collaborators throughout the community.

Training

The Third and Fourth Modules of the Ethnobiology and Conservation Training Course were successfully completed in this reporting period. Each module is delivered jointly by lecturers from the University of Kent in Canterbury (UKC) and Universiti Malaysia Sabah (UMS), as well as local guest speakers. Module Three (24-28 April and 2-5 May 2006; see Appendix 4) topics were Ethnobiological Knowledge Systems and Conservation, Communities and Tourism, and was attended by 18 participants (2 postgraduate and 16 staff from 11 agencies). Module Four (13-22 November 2006; see Appendix 4) covered Ethnobiological Data Analysis, and was attended by 12 participants (2 postgraduate and 10 staff from 7 agencies). Participation was significantly lower in Module Four because this was a technical topic requiring computer laboratory work, and we had decided to limit participant numbers to a smaller group to ensure a more comfortable learning environment.

Both Modules Three and Four Field Methods Workshops were conducted in Buayan (previously conducted at the Inobong Station of the CRP). This move enabled community members, in addition to the team of community field assistants, to participate in the training, with interactive field exercises conducted around the village vicinity in the Dusun language. The Module Four Field Methods Workshop also included a special Children's Workshop on The Birds of Buayan, where 25 children from Buayan-Kionop (ages 4 to 12) carried out freelisting and identification tasks in a fun and creative atmosphere.

Preparations for the Fifth and final Module (4-15 June 2007) are being finalised. Module Five will cover Conservation Education and Participatory Video, which will be delivered by Dr. Ian Bride from UKC and Mr. Nicholas Lunch from Insight (a UK organisation specialising in Participatory Video). The Module Five Field Methods Workshop will be conducted in Buayan.

In addition to the Ethnobiology and Conservation Training Course, our project has been featured as a case study in the following training events:

Table A. External training events that feature project approaches and methods

Event	Location	Delivered by
DI832 Tourism, local communities and protected areas (postgraduate course); 2006/7	University of Kent, Canterbury, UK	Dr. Helen Newing, Lecturer in Conservation Social Science, University of Kent
DI870 Skills for the design and analysis of conservation research projects (postgraduate course); 2006/7	University of Kent, Canterbury, UK	Dr. Helen Newing, Lecturer in Conservation Social Science, University of Kent
SE845 Practical methods in Conservation Social Science (postgraduate workshop); 2006/7	University of Kent, Canterbury, UK	Dr. Rajindra Puri, Lecturer in Social Anthropology, University of Kent
4th and 5th Annual International Summer Course in Tools and Methods in Ethnobiology (registered course); 2006/7	University of Natural Resources and Applied Life Sciences	Dr. Rajindra Puri, Lecturer in Social Anthropology, University of Kent
1st International Training Course in Tools and Methods in Ethnobiology (certificate course); 2007	Research Centre for Limnology and Biodiversity of the Pantanal (CELBY), State	Dr. Rajindra Puri, Lecturer in Social Anthropology, University of Kent
UNDP-GEF Klias Peat Swamp Conservation Training Course for Forestry Rangers (professional level training course); 2006	Kimanis, Sabah, Malaysia	Dr. Agnes Lee Agama & Mr. Adam Murphy, Global Diversity Foundation
Methods to Assess Ethnoecological Knowledge Acquistion, Distribution and Transmission (conference workshop at the 10th International Congress of Ethnobiology); 2006	Chiang Rai, Thailand	Dr. Gary Martin, Dr. Rajindra Puri, GDF Sabah Team and others

Another aspect is the training received by the GDF Sabah team, particularly Mr. James Wong (GDF Field Coordinator) who received a scholarship from the Society for Conservation GIS (SCGIS) to attend a two-week advanced GIS training course in Redlands, California, and participate in the 26th Environmental Systems Research Institute (ESRI) International User Conference in San Diego, California, in August 2006. Other training received includes the field training of community field assistants (Mr. Raymond Sipanis and Mr. Marius Limpat) to establish permanent plots in the CRP, through the BBEC Programme. Mr. Raymond Sipanis has also been receiving regular training from PACOS in participatory GIS techniques. The project continues to benefit from these emergent training opportunities, particularly in our enhanced capacity to develop the Buayan-Kionop Resource Catchment Area GIS.

The final call for applications for Field Research Grants was advertised in June 2006 (see Appendix 6), based on mutual agreement at the Partners' Annual Progress Meeting on 9 May 2006. Two applications were received from Mr. Yassin Miki (homegarden diversity) and Ms. Elizabeth Idek (ethno-ornithology). Yassin has been awarded the fourth Field Research Grant (see Appendix 7); Elizabeth, however, withdrew her candidacy from UMS for personal reasons as was not awarded a grant. Partners agreed that remaining funds in this budget line would be redirected towards providing expanded grants to existing grantees and hiring additional consultants to carry out field research projects; a decision which was approved by the Darwin Secretariat. Research projects (including student grantees) conducted are:

Table B. Research projects conducted under Field Research Grants

Title	Grant holder	Status
Identifying Community Valuable Landscapes of the Buayan Dusun in the Crocker Range, Sabah, Malaysia	Ms. Perpetua George, MSc Ethnobotany, University of Kent	Completed

Study of Mammal Hunting in Buayan-Kionop, Sabah, Malaysian Borneo	Mr. Adam Murphy, PhD Ethnobiology, University of Kent	Ongoing
Feeding Ecology of the Sucker-Fish (BALITORIDAE: GASTROMYZONTIDAE) from the Northwestern-Northeastern of Crocker Range	Ms. Zuraida Zainudin, MSc Biodiversity and Taxonomy, Universiti Malaysia Sabah	Ongoing
Floristic Composition and Diversity in Buayan-Kionop, Crocker Range, Sabah	Mr. Yassin Miki, MSc Taxonomy and Plant Taxonomy, Universiti Malaysia Sabah	Ongoing
Inventory of Rattans in Buayan-Kionop, Crocker Range, Sabah	Mr. Jusimin Duaneh, Park Naturalist, Sabah Parks (consultancy)	Completed
Ethno-ornithological Survey in Buayan-Kionop, Crocker Range Sabah	Mr. Alim Biun, Park Naturalist, Sabah Parks (consultancy)	Ongoing
GIS mapping of the Buayan-Kionop Resource Catchment Area	Mr. Nousi Giun, PACOS (consultancy)	Ongoing
Taxonomic Identification of Plant Voucher Specimens from Buayan-Kionop, Crocker Range, Sabah	Mr. Berhaman Ahmad, Lecturer, School for International Tropical Forestry, Universiti Malaysia Sabah (consultancy)	Completed
Swidden Agriculture in Buayan-Kionop, Crocker Range, Sabah	Mr. James Wong, MArts Geography, Universiti Malaysia Sabah	Pending

Dissemination

This has been a distinctive period because of the extensive dissemination activities conducted, particularly the large number of presentations delivered to a global audience at a diverse range of fora (see Section 8). Because of the considerable effort we have invested in disseminating our project this reporting period, we decided to postpone the press release to the next reporting period, which will be issued in conjunction with the Fifth and final Module of the Training Course in June 2007.

3.2. Progress towards Project Outputs

Field research

The Resource Catchment Area (RCA) concept has been pivotal in stimulating a shift within Sabah Parks to define CUZs according to the broad categories of resource use documented in the Buayan-Kionop area. No longer seen as an area delimited according to records of cultivation areas, there is commitment within Sabah Parks to take into consideration the hunting and gathering needs of the local community. Additionally, Sabah Parks has submitted an Amendment to the Parks Enactment that will legally enable the creation of CUZs and its collaborative management through a CUZ Management Agreement. The importance of CUZs can be further seen in the decision to focus the Park Management Component of BBEC Phase Two entirely on the establishment of CUZs and development of the respective CUZ Management Agreements.

Training
Over four Modules, we have trained 38 participants (11 undergraduate and postgraduate students, 27 staff from 18 government and non-government agencies). We found that although individual participants may not attend all modules (due to the different topics covered in each module), there has been consistent participation from our key collaborators – Sabah Parks, PACOS, ITBC – who have been represented at all modules. The total number of people to receive 2-10 weeks of training, over five modules, far exceeds our initial expectations (16 people as originally proposed), as does the number of agencies that have been involved in attending these modules.

The emergent process within UMS to establish a postgraduate degree programme in Ethnobiology and Conservation is a successful result of discussions stimulated through this project. The link between UKC and UMS has facilitated an exchange of ideas and opens up possibilities for formal institutional collaboration as the UMS degree programme develops in future, further enhancing the legacy of this project.

Dissemination
Training modules also act as a valuable venue for disseminating information about our project, and the highly interactive approach taken in training modules has enabled exciting discussion about indigenous people and protected area issues amongst participants and visiting guests. Visiting guests include UMS lecturers, high-ranking officials from government (Sabah Museum Director, Sabah Parks Assistant Director, Forestry Department Assistant Director, Ministry of Tourism, Culture and Environment Senior Officer, Vice-President of the Sabah Women's Action Resource Group) and other interested researchers (see Appendix 4 and 5).

3.3. Standard Output Measures

Table 1. Project Standard Output Measures

Code No.	Description	Year 1 Total	Year 2 Total	Year 3 Total	Year 4 Total	TOTAL
(2)	UMS students chosen to receive MSc grants	2 (James Wong, Yassin Miki)	1 (Zuraida Zainudin)	Nil	Nil	3 MSc grantees
(2)	Kent students chosen to receive MSc grants	1 (Perpetua George)	1 (Adam Murphy; double award)	Nil	Nil	2 MSc grantees
(4A) (4B) (4C) (4D)	Local participants in Ethnobiology and Conservation modules	0	3 undergraduates 19 postgraduates or professionals received 2–4 weeks training (April 05: 11 UMS students & 10 staff from 9 GOs & NGOs; Sept 05: 13 UMS students & 5 staff from 4 GOs & NGOs)	0 undergraduate 21 postgraduates or professionals received 2 -4 weeks training (April 06: 2 UMS students & 16 staff from 11 GOs & NGOs; Nov 06: 2 UMS students & 10 staff from 7 GOs & NGOs)	Pending	3 undergraduates 35 postgraduates or professionals received 2-10 weeks training
(6A) (6B)	Research experience gained (MSc students, field coordinators & community members)	10 people; 54 people-weeks total in CRP fieldwork	12 people; 380 people weeks total in CRP fieldwork (estimated as 40 weeks x 8 Community RAs, 20 weeks	12 people; 380 people weeks total in CRP fieldwork (estimated as 40 weeks x 8 Community RAs, 20 weeks	Pending	12 people; 814 people weeks total in CRP fieldwork

Code No.	Description	Year 1 Total	Year 2 Total	Year 3 Total	Year 4 Total	TOTAL
			x 2 field coordinators, 20 weeks from 3 MSc students)	x 2 field coordinators, 20 weeks from 3 MSc students)		
(7)	Training manuals	0	1 (in the form of 15 community research process sheets and resulting data on ethnobiological resource inventory)	1 (in the form of 6 community research process sheets and resulting data on resource valuation, assessment of subsistence activities)	Pending	
(8)	Time spent by UK (GDF and Kent) personnel on training and research in Sabah	4 weeks (GJ Martin)	10 weeks (GJ Martin, Stuart Harrop, Raj Puri)	8 weeks (GJ Martin, Raj Puri, Roy Ellen, Helen Newing)	6 weeks (GJ Martin, Ian Bride, Nicholas Lunch)	28 weeks
(12a)	Buayan-Kionop Resource Catchment Area GIS database	Nil	Nil	1 GIS database on ethnobiological resource use	Continued development	1 GIS database on ethnobiological resource use
(12a)	Buayan-Kionop ethnobiological database	Nil	Nil	1 ethno biological database with 631 plants and 150 animals recorded in Buayan-Kionop	Continued development	1 ethno biological database
(13a)	Reference collection of CRP ethnobiological resources	0	120 plant specimens and 22 fish collections lodged at Sabah Parks research centre	445 plant specimens and 22 fish collections lodged at Sabah Parks research centre	Continued development	
(14A)	BBEC/Darwin scientific conferences and roundtables	Community & Sustainable Resource Use paper, poster; 3rd BBEC Annual International Conference Feb. 2005.	Local forest classification and valuation, community RA papers, was presented at the 4th BBEC International Conference, Feb 2006	Participatory resource monitoring in Community Use Zones paper presented at the 5th BBEC International Conference, Dec 2006	Nil	3
(14B)	Conferences, seminars & workshops attended (Darwin project results presented, disseminated)	2 (Public lectures on the CRP project presented at the University of Florida, University of Texas)	4 (Darwin workshop poster, CRP project presented as case study in Uppsala University, Universitaet fuer Bodenkultur Vienna,	11 (paper and poster presentations, lectures, talks at various venues; see Section 8 below)	Pending	17 presentations at various venues globally

Code No.	Description	Year 1 Total	Year 2 Total	Year 3 Total	Year 4 Total	TOTAL
			University of Kent)			
(15A)	National press releases and articles	1 press release Jan 05; 5 articles in three local newspapers	1 press release Sept 05; 2 articles in one local newspaper	Nil	Pending	
(17A)	Mailing list of people interested in ethnobiology and community use zones	30 people or organisations in the contacts database	120 people or organisations in the contacts database	150 people or organisations in the contacts database	Pending	

Table 2. Publications

Type * (eg journals, manual, CDs)	Detail (title, author, year)	Publishers (name, city)	Available from (eg contact address, website)	Cost £ (if applicable)
Conference Proceedings	How do indigenous people value the forest? A closer look at the ethnobiological forest classification and forest values of the Buayan-Kionop community in Crocker Range, Sabah. Miki, Y., Wong, J., George, P., Murphy, A., Chua, R., Agama, A.L. & Martin, G.J. 2006	Bornean Biodiversity and Ecosystems Conservation (BBEC) Programme: Kota Kinabalu	BBEC Secretariat. Institut Biologi Tropika dan Pemuliharaan, Universiti Malaysia Sabah http://www.bbec.sabah.gov.my	Free
Conference Proceedings	The need for participatory resource monitoring: Some perspectives from the ethnobiological assessment of the Buayan-Kionop Community Use Zone in Crocker Range Park, Sabah, Malaysian Borneo. Agama, A.L., Wong, J., Miki, Y., Murphy, A. & Martin, G.J. in press	Bornean Biodiversity and Ecosystems Conservation (BBEC) Programme: Kota Kinabalu	BBEC Secretariat. Institut Biologi Tropika dan Pemuliharaan, Universiti Malaysia Sabah, http://www.bbec.sabah.gov.my	Free
Poster	Ethnobiology of proposed community use zones of Crocker Range Park, Sabah, Malaysia. Martin, G., Mohamed, M., Nais, J., Agama, A.L., Harrop, S., Miki, Y., Puri, R. & Wong, J. 2006	Global Diversity Foundation, Canterbury, UK	Global Diversity Foundation, http://www.globaldiversity.org.uk	Free

3.4. Progress towards the project purpose and outcomes

As the project approaches closure in July 2007, we have accumulated a significant amount of data on community resource use and access in Buayan-Kionop.

In field research, we have established an ethnobiological database with more than 600 records of plants and animals used in the community. This forms part of the GIS database on key resources and landscapes that is used to generate GIS maps showing the locations of resources used and landscape types accessed by the community. Our field methods and experience have been documented in the form of process sheets that act as field guides for community field assistants, as well as in interim progress reports. We are currently finalising the manuscript for the Best Practices Handbook, which will be published at the end of the project in digital format.

In training, we have completed Modules Three and Four of the Ethnobiology and Conservation training course, with the Fifth and final Module being delivered in June 2007. To date, these modules have trained 38 undergraduate and postgraduate students, researchers and professionals in the concepts and methods of ethnobiological research. These modules have additionally stimulated the development of a UMS MSc programme in Ethnobiology and Conservation that is expected to be launched in June 2008.

In dissemination, we have successfully delivered a variety of presentations about aspects of the project to a global audience (see Section 8). We will also be sending copies of the Best Practices Handbook to our regional network of more than 150 researchers, students and institutions in Southeast Asia and internationally.

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

We have made significant impact in developing local capacity to conduct participatory research using ethnobiological methods.

The primary impact of our work has been the change in approach to defining Community Use Zones. Previously seen as only the areas currently under cultivation, Sabah Parks has adopted the approach of including cultivated and fallow areas, and areas used for hunting and gathering of forest products as part of CUZs. As highlighted in the previous Annual Report, our work is tied closely to the progress of the BBEC Park Management Component, headed by Sabah Parks, which is responsible for the establishment of Community Use Zones in the CRP. An important development in BBEC is the strategic decision to focus the Park Management Component of BBEC Phase Two (2007-2012) on establishing CUZs in the CRP. This timing coincides with our Darwin post-project, which will operate from August 2007 to July 2009, primarily to assist Sabah Parks and the local community in establishing participatory monitoring of CUZs.

The increased emphasis placed on process-based approaches to establishing and formalising CUZs is, in part, stimulated by our project's efforts to engage partners in documenting resource use patterns at the grassroots level.

The other main impact is in building local capacity to carry out participatory research in ethnobiology. Stimulated by our fieldwork and training of community field assistants, and in part by the Training Course modules, there is growing local recognition for a need to provide institutionalised training in Sabah on ethnobiological approaches and methods. After several exchanges between colleagues from the Universiti Malaysia Sabah and the University of Kent, UMS's commitment to develop curricula has resulted in the formulation of a UMS MSc programme in Ethnobiology and Conservation, which will be launched in June 2008.

4. Monitoring, evaluation and lessons

In this reporting period, we continue to engage project partners and participants in regular formal and informal monitoring and evaluation activities. Formal evaluations are carried out in the Partners' Progress Meetings (November 2006 and June 2007; see Appendix 16) and joint reviewing of Progress Reports. Additionally, we carry out formal evaluations of the Training Course; Module Three in April-May 2006; Module Four in November 2006 (see Appendix 4 and 5). Informally, we carry out regular discussions and meetings with project partners, and team meetings with community field assistants and principal collaborators in the community.

To formally assess project progress in the field, we conducted a participatory community evaluation from June to August 2006, which was carried out over three stages (see Appendix 18). The evaluation was jointly designed and implemented with the Buayan JKKK (Village Safety and Development Committee), community field assistants and principal collaborators in the community. Feedback was exceedingly positive, with repeated comments from the community about raised awareness on the value of biodiversity and heightened motivation within the community to pursue their own research about the uses and values of plants and animals. A subsequent discussion was held with community field assistants and principal collaborators in the community to reflect on the evaluation results and discuss next steps in responding to issues raised. We also conducted smaller community expositions (called A Day with GDF) as an interactive way of presenting research results to the community, clarifying data and obtaining feedback.

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

The main issue raised in the Annual Report Review concerns the reduced number of UMS MSc Field Research Grant projects, which have been less than originally expected. Specifically, the review states:

"The number of Malaysian MSc research projects undertaken in the CRP and supported by the project is not expected to reach that anticipated. The reasons for this have been somewhat beyond the control of the project, and in large part a result of UMS not covering the fees of students as previously promised. This has been discussed by the project, and with UMS, and a number of measures to deal with it suggested. If agreed by the Darwin Secretariat, and adopted, these measures will help ensure that the project produces maximum possible capacity building in this area.

However, will the reduced number of MSc research projects have an effect on the amount of data concerning the ecological impact of resource use?"

With the agreement of local partners, we applied to, and received approval from, the Darwin Secretariat to allocate the remainder of funds in this budget line to hire local consultants to conduct field research projects. These consultants comprise specialists from Sabah Parks, PACOS and UMS who have contributed additional data in their own fields of expertise (see Section 3.1., Table B) and strengthened the overall outputs of this project.

6. Other comments on progress not covered elsewhere

An emergent challenge is the development of the CUZ Management Agreement (originally termed Community Stewardship Agreement in the project proposal), which we had anticipated to complete by the end of this project in July 2007. The CUZ Management Agreement is a requirement stated in the CRP Management Plan, where each CUZ will be governed by a CUZ Management Agreement based on the mutual agreement between Sabah Parks and the communities involved. The aim of our project was to facilitate this process of negotiation by providing technical input about resource use patterns and appropriate datasets to support the determination of limits of use and access in CUZs. Sabah Parks, through the BBEC programme, would undertake the responsibility of initiating and sustaining the negotiation process. With the closure of the BBEC programme in January

2007, a strategy was announced for addressing CUZ establishment as follows: 1) the second five-year phase of BBEC starting in July 2007 will be dedicated entirely to addressing CUZ establishment; 2) the workplan for the second phase of BBEC will first address the Ulu Senagang CUZ, followed by the Buayan-Kionop CUZ because the local situation in Ulu Senagang is less complex than in Buayan-Kionop and involves a far smaller area; therefore it is envisaged that Ulu Sengang would be more efficient to resolve, and could provide a baseline template for discussing CUZ Management Agreements in other areas.

Based on our project results, we have been working with Sabah Parks to lay the groundwork for a draft CUZ Management Agreement for Buayan-Kionop,. We have privileged process over product: instead of seeking to finalise a premature draft that could exacerbate differences of opinion, we have promoted a continuing dialogue between community members and park staff. As additional results emerge from the work of the community research assistants, there is increasing common ground for discussion of some of the complex issues surrounding people-park relations. Should some land included in the Park be given to the community under some mechanism such as Communal Native Title? Would the community be interested in creating a Community Conserved Area (CCA) on some of their existing communal lands and perhaps any land given by the Park? Can agreement be reached on hunting within the Park on traditional hunting grounds?

Because the BBEC decision to focus on Ulu Sengang has channelled Sabah Parks' resources to resolving the issues in Ulu Senagang, there have been limited opportunities for Sabah Parks to conduct formal negotiations in Buayan-Kionop to discuss the CUZ Management Agreement. Given the complex layers of community resource use in Buayan-Kionop, these negotiations will need a sustained and substantively detailed investment from both Sabah Parks and the community. The focus of BBEC on CUZs in its second phase should provide an opportunity to see this process through to its natural end, a CUZ Management Agreement, an elusive but valuable product.

7. Sustainability

This project has attained a high profile locally, in part due to the increased visibility of our dissemination efforts, but mainly because of the unique contribution of the project to the formulation of CUZs which is a pioneer development in protected area management policy in Sabah. The increased knowledge about ethnobiological resource use in CUZs has contributed towards the strategic decision in BBEC to dedicate the next five-year cycle of work solely towards the formal establishment of CUZs in the CRP. In addition, our project has contributed in part to an amendment to the Sabah Parks Enactment that enables the establishment of CUZs which was passed by the Sabah State Legislative Assembly in early 2007. Our legacy is further enhanced with the launching of the UMS MSc programme in Ethnobiology and Conservation, which will provide training to students and practitioners to carry out ethnobiological research.

Our Darwin post-project (2007-2009) will add to this legacy by assisting Sabah Parks and the local communities to establish participatory monitoring of resource use in CUZs, an essential priority identified in the CRP Management Plan.

8. Dissemination

This reporting period is unique in that we have invested substantial effort to disseminate our approaches and results to a global audience. Table C lists the paper and poster presentations that have been delivered within this period, as well as upcoming presentations that we are currently preparing.

Table C. List of main dissemination activities

Forum	Date/s	Presentation Title/s
26th Annual ESRI International User Conference in San Diego, California	7-11 August 2006	Exploring the Buayan-Kionop Resource Catchment Area: The Role of GIS in the Collaborative Park Management of the Crocker Range Park, Sabah, Malaysian Borneo
4th Sabah-Sarawak Environmental Convention, in Kota Kinabalu, Sabah	5-7 September 2006	Traditional Knowledge in Ecosystem Management: Sabah Parks' Experience (paper by Sabah Parks)
Indigenous Peoples and the CBD National Capacity Building Workshop, in Donggongon, Sabah	9-11 October 2006	Free Prior Informed Consent and the Research Agreement with Local Communities in Buayan-Kionop
10th International Congress of Ethnobiology in Chiang Rai, Thailand	5-9 November 2006	Integrating Community Resource Use with Biodiversity Conservation: Community Use Zones in the Crocker Range Park, Sabah, Malaysian Borneo (paper by Sabah Parks) The Ethnobiological Classification of Forest and Land Types of the Buayan-Kionop Dusun in the Crocker Range, Sabah, Malaysian Borneo Mapping Cultural Landscapes: Using Participatory Approaches to Incorporate Local Ethnobiological Knowledge into GIS Understanding Local Uses and Perceptions of Animals: An Ethnobiological Study of Key Animal Resources in Buayan-Kionop, Sabah Ethnobiology of proposed traditional use zones of Crocker Range Park (poster presentation)
5th BBEC International Conference in Kota Kinabalu, Sabah	6-7 December 2006	The Need for Community-based Natural Resource Monitoring: Some Perspectives from the Ethnobiological Assessment of the Proposed Buayan-Kionop Community Use Zone in the Crocker Range Park, Sabah.
2nd ASEAN Heritage Parks Conference and 4th Regional Conference on Protected Areas in Southeast Asia, in Kota Kinabalu, Sabah	23 to 27 April 2007	From the Ground Up: Documenting Subsistence Patterns in the Buayan-Kionop Community Use Zone, Crocker Range Park, Sabah
Seminar in the Research for Development Forum, in the University of Natural Resources and Applied Life Sciences, Vienna	7 May 2007	Community based biodiversity management in Malaysia. Is there a conflict between environmental protection and poverty alleviation?

Forum	Date/s	Presentation Title/s
3rd Asia Regional Conference on Indigenous Knowledge and Biodiversity in Lijiang-China	27 to 30 June 2007	Paper pending
5th International Convention of Asia Scholars, in Kuala Lumpur, Sabah	2-5 August 2007	Local community participation in park management of the Community Use Zones in the Crocker Range Park, Sabah, Malaysian Borneo (in preparation)

Several (of the above) abstracts and papers presented at conferences can be found online at the respective conference website. The project has also been featured in the Darwin Initiative Newsletter (Issue 5) and the 9th Darwin Initiative Annual Report.

Our project has also been referred to in the following journal article:
Harrop, S.R. (2007). Traditional agricultural landscapes as protected areas in international law and policy. In *Agriculture, Ecosystems and Environment 121*: 296–307

Informally, we disseminate information about our work through several key networks and mailing lists, including:

- IUCN Theme on Indigenous/Local Communities, Equity, and Protected Areas (TILCEPA) Working Group
- IUCN Theme on Governance, Equity and Rights (TGER) Working Group
- International Society for Ethnobiology Discussion Group

In addition to the Darwin Initiative website (www.darwin.gov.uk), information about our project can also be found at www.globaldiversity.org.uk and appears on thematic search engines such as www.earthplatform.com.

We are continuing to compile a regional mailing list of institutions and individuals who will be receiving pdf versions of the Best Practices Handbook. The pdf file will also be made available at www.globaldiversity.org.uk for download. The Global Diversity Fund, the sister organisation of GDF-UK in the United States, will make the methods descriptions and worked examples available through the Online Biocultural Diversity Learning Guide (see http://www.globaldiversityfund.net)

9. Project Expenditure

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

Item	Budget (please indicate which document you refer to if other than your project schedule)*	Claim (Expenditure)**	Balance
Rent, rates, heating, overheads etc			
Office costs (eg postage, telephone, stationery)			
Travel and subsistence			
Printing			
Conferences, seminars, etc			
Capital items/equipment			
Others			
Bibliography			
Financial auditing costs			
Community field assistants			
Community organisers			
MSc Research grants			
Salaries (specify)			
TOTAL			

*Note: This is a revised budget that was configured after we were informed by DEFRA that they were following an older budget revision that provided only £for this fiscal year. The GDF project team was using a budget that provided £, from 1 April 2006 – 31 March 2007 (this figure was cited in all claim forms submitted throughout the fiscal year). We are working with DEFRA to resolve this discrepancy but here we report the de facto amount reimbursed by DEFRA for 2006-2007.

**Note: There were overspends in every category which we will recover in the first claim form of the next fiscal year, following practice established in previous years. In parentheses we give the actual expenditure for 2006-2007.

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

I agree for ECTF and the Darwin Secretariat to publish the content of this section

An outstanding achievement not only during this reporting period but throughout our project has been the level of participation by community members. We would like to suggest that 'community participation in conservation' be a theme for a future Darwin Workshop, as it would build nicely on the livelihoods and conservation theme set for this year. In our project, participation has come to fruition this year, building on the process of community consultation, free prior information consent that led to the signing of a community research agreement at the beginning of the project (as discussed in previous annual reports). Two additional elements that we developed are participatory community evaluation and participatory video.

An important lesson is that participatory community evaluation (fully described in Appendix 18) is a valuable and essential part of the project. It not only enabled a mid-term review of field progress with the community, but additionally provided an open forum where community members could discuss and review aspects of the project that were important for them. The highly interactive approach was crucial in allowing issues to emerge from within the community, thereby enabling the project to assess our impact (e.g. the heightened motivations in the community to carry out their own research on important resources) and respond to community reactions to the project (i.e. prevent overlapping research questions, train more community field assistants). The design of the evaluation was documented in the form of a Process Sheet (in the local language) as an individual component of our Training

Manual. The evaluation process and results are being translated to English for inclusion in the Best Practices Handbook.

Another lesson is the importance of having regular and less formal sessions with the community to return results. Feedback obtained from community expositions have been a valuable source for clarifying data, thereby enhancing the design and implementation of field activities.

The second approach developed this year, participatory video (PV), was launched in Buayan in June 2007. As this was after the end of this reporting period, our experience with PV will be more fully described in the final report, and we will submit the videos that the community has made. In brief, the fifth module of the of the Ethnobiology and Conservation training course included sessions given by Nick Lunch of Insight a UK organisation that focuses on PV. A community workshop allowed the local research assistants to share what they learned with fellow community members. Together, they created several scripts (storyboards) on issues chosen by community members in collaboration with GDF-Sabah team members: “Land, resources and conservation in Buayan”, “Local research assistants, ethnobiology and community use zones” and “Culturally appropriate education in indigenous preschools”. Videos on these subjects are under production, and will hopefully be presented at several international fora in 2008, including the Fourth World Conservation Congress in Barcelona. This will allow the community to present its perspectives – including its opinion of the Darwin Initiatives project – in its own words and images. We would like to have the opportunity to present the videos at the 2008 Darwin workshop and to discussion community participation (including community conserved areas) with leaders of other Darwin projects.

Annex 1. Report of progress and achievements against Logical Framework for Financial Year: 2006/07

Project summary	Measurable Indicators	Progress and Achievements April 2006 - March 2007	Actions required/planned for next period
Goal: *To draw on expertise relevant to biodiversity from within the United Kingdom to work with local partners in countries rich in biodiversity but constrained in resources to achieve* *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*		*Institutional partnerships between UK and local partners strengthened where:* *CUZs recognised as crucial development in protected area management in Sabah for both conservation of biodiversity and sustaining community livelihood needs; Sabah Parks strategy developed for discussing use and access of CUZs and sharing of benefits; Sabah Parks commitment for continued monitoring of CUZs in future* *Increased local commitment and capacity to conduct participatory research; UMS developing curricula for degree programme in Ethnobiology and Conservation to be launched in 2008*	*(do not fill not applicable)*
Purpose Crocker Range Park adaptive management plan enhanced by strengthening capacity of local institutions to assess and implement proposed community 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 community use zones by yr 3 Agreement on community use zones and CUZ Management Agreement by yr 3	**Progress:** Database on key ethnobiological resources established with 600+ plants and animals RCA GIS database on key resources and landscapes for subsistence agriculture, hunting and gathering established with GIS maps showing locations of areas important for subsistence activities CUZs legal status approved under	**Actions:** Preparation of Final Technical Report to Sabah Parks with recommendations for establishment of Buayan-Kionop CUZ based on RCA GIS and handing over of outputs to Sabah Parks Preparation at community level to initiate community-based resource monitoring of critical subsistence activities

		amendment to Parks Enactment by Sabah Parks; enhanced effort in Sabah Parks to strategically address development of CUZ Management Agreements in CRP as a whole	
Output 1 Community 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 community use zones completed by yr 3	**Progress:** RCA GIS developed as the principal tool for organising information about community access to key landscapes and use of key resources Extensive focus on ethnobiological assessment of subsistence hunting activities; identified key hunting areas, preference ranking of hunted animals, and ongoing monitoring of hunting offtake Continued field collection of information agriculture with a focus on swidden agriculture and homegardens as primary sources of food security **Actions:** Finalisation of RCA GIS database and GIS maps for handing over to local partners in July 2007	
Activity 1.1 Implementation of ethnobiological field techniques to assess subsistence agriculture, hunting and gathering activities		380 weeks spent on field research by 2 field coordinators, 3 Masters students, and 8 community field assistants receive hands-on training in quantitative and qualitative techniques 4 consultants spend 36 weeks on specific research projects with community field assistants and community members (see Activity 2.2)	
Activity 1.2 Development of RCA GIS to database field data and produce GIS maps that show locations of key resources, landscapes and areas used for subsistence activities		Draft GIS maps produced for key landscapes, agricultural areas, village settlements, and hunting areas	
Output 2 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	**Progress:** Two training modules delivered in collaboration between UKC and UMS lecturers; field research grantees conducting ongoing research UMS compiling curricula in Ethnobiology and Conservation to launch MSc degree programme in June 2008 **Actions:** Conduct Fifth and final module of training course in June 2007	
Activity 2.1 Delivery of Modules Three and Four on Ethnobiology and Conservation at UMS		Modules Three (April-May 2006) and Four (Nov 2006) completed with 21 postgraduate and professionals trained for 2-4 weeks	

Activity 2.2 Awarding of Field Research Grants to UMS Masters students and select consultants (as pre-approved by Darwin Secretariat)		3 Masters students at UMS conducting ongoing field research on swidden agriculture, homegardens and fishing 4 grants awarded to consultants to conduct field research on rattan inventory, ethno-ornithology, taxonomic identification of plant specimens, GIS mapping. Results have enhanced overall field research and built local community capacity in these fields
Output 3 Best practice handbook and training manuals	One "Best Practice in Assessing Community Use Zones" published Three training manuals produced on assessing ethnobiological resources, swidden agriculture and subsistence hunting	**Progress:** Documentation of field techniques in local language through training manuals and translation into English for inclusion in Best Practices Handbook is ongoing Extensive dissemination of approach, selected field techniques and data analyses conducted through paper presentations at various fora as described in Section 8 of the main report **Actions:** Finalisation of Handbook draft for publication in July 2007 (see Activity 3.2)
Activity 3.1 Production of process sheets as training manuals in fieldwork (as pre-approved by Darwin Secretariat)		2 sets of training manuals produced in the form of process sheets in the local language as field guides for community field assistants
Activity 3.2 Production of Best Practices Handbook		Handbook draft in production and will be published in July 2007 as a pdf file (as pre-approved by Darwin Secretariat)
Output 4 CRP adaptive management plan enhanced	Revised management plan, including detailed section on community use zones, approved by stakeholders by yr 3	**Progress:** CRP Management Plan completed in 2006 with significant input from Project Coordinators; contains revised definition of CUZs that incorporates multiple sources of subsistence livelihoods including hunting and gathering Sabah Parks submitted amendment to Parks Enactment that will legally establish CUZs as areas inside parks where communities can carry out multiple subsistence activities based on mutual agreement **Actions:** Preparation of Final Technical Report on key ethnobiological resource use to Sabah Parks in July 2007 and handing over of RCA GIS to local partners as primary tool for continued monitoring of CUZs
See Activity 1.1		
Output 5 CUZ Management Agreement	Strategy developed by 2 local village committees in consultation with Sabah	**Progress:** Sabah Parks developed strategy to address CUZ establishment, with priority

established	Parks by yr 3	placed on Ulu Senagang CUZ followed by the Buayan-Kionop CUZ (see Section 6 of the main report) **Actions:** Finalised RCA GIS submitted in July 2007 as focus point for discussions between Sabah Parks and local community
Activity 5.1 Consultations between Sabah Parks and local communities to discuss CUZ establishment		See Section 6 of the main report

Note: The only change made in the logical framework is the use of Community Use Zones (CUZ) instead of Traditional Use Zones (this follows the usage in the recently completed Crocker Range Park Management Plan 2006) and the use of CUZ Management Agreement in place of Community Conservation Stewardship Agreement.

Annex 2. Project's full current logframe

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 yr 3	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

Checklist for submission

	Check
Is the report less than 5MB? If so, please email to Darwin-Projects@ectf-ed.org.uk putting the project number in the Subject line.	
Is your report more than 5MB? If so, please advise Darwin-Projects@ectf-ed.org.uk that the report will be send by post on CD, putting the project number in the Subject line.	
Do you have hard copies of material you want to submit with the report? If so, please make this clear in the covering email and ensure all material is marked with the project number.	
Have you completed the Project Expenditure table?	
Do not include claim forms or communications for Defra with this report.	