



***Darwin Initiative for the Survival of Species***  
***Annual Report***

**1. Darwin Project Information**

Project Ref. Number	162/13/009
Project Title	<i>Ethnobiology of proposed use zones of the Crocker Range Park</i>
Country(ies)	<i>Malaysia</i>
UK Contractor	<i>The Global Diversity Foundation</i>
Partner Organisation(s)	<i>Sabah Parks, Institute for Tropical Biology and Conservation (ITBC) Universiti Malaysia Sabah</i>
Darwin Grant Value	<i>£129 280</i>
Start/End dates	<i>1 August 2004 to 31 July 2007</i>
Reporting period	<i>1 August 2004 to 31 March 2005 (Annual Report 1)</i>
Project website	<a href="http://www.globaldiversity.org.uk">www.globaldiversity.org.uk</a> (see Darwin Project news on homepage and updates, and description under Field Research)
Author(s), date	<i>Agnes Lee Agama, Gary Martin, Rachel Chua, James TH Wong, Yassin Miki 30 April 2005</i>

## 2. Project Background

The Global Diversity Foundation (GDF), in collaboration with local partners in Sabah, is assessing landscape and biological resource use by indigenous communities living in the proposed traditional use zones of the Crocker Range Park (CRP; please refer to the Project Document in the Project Appendices). The settlement area of Buayan (with its hamlets Kionop, Tampiyasa and Tiku), where roughly 800 hectares is proposed as a traditional use zone under the Crocker Range Park Management Plan, has been confirmed as the key project site. Assessments of plant and animal resource use and management, agricultural practices, subsistence hunting and freshwater fishing are being conducted with the participation of local researchers and community assistants. Results will guide the formulation of rules, regulations and stewardship agreements that govern the collaborative management of these traditional use zones by local communities and park authorities. The project engages both Sabah Parks, the state agency responsible for the park management, and the indigenous communities to jointly set in motion various methodological approaches for the future monitoring of natural resource use in and around these traditional use zones. Additionally, the project includes a series of intensive Master's level training courses and methods workshops, held in collaboration with the Universiti Malaysia Sabah and lecturers from the University of Kent. Focusing on conservation and ethnobiology, they build the capacity of local community members, researchers and students to conduct projects on collaborative management of traditional use zones in Sabah.

## 3. Project Purpose and Outputs

In **general**, the project aims to build the capacity of local institutions and Dusun communities to improve an adaptive management plan for Crocker Range Park (CRP) by studying the local appropriation and management of proposed traditional use zones, enhancing a policy shift in favour of community-based conservation in Sabah.

The **specific** objectives are to:

1. Identify the key ethnobiological resources used by a local community, Buayan, and its hamlets Kionop (inside the park), Tampiyasa and Tiku (outside 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.

Due to the later than expected approval of the proposal by the Darwin Initiative and delayed availability of start-up funds, we obtained approval to delay initiation of the project by two months. The project period is now from 1 August 2004 to 31 July 2007. The delay resulted in insufficient time and resources to proceed with the September 2004 training course and methods workshop; the proposed six 5-day modules will be given as five 6-day courses, ensuring that all material will be presented. The six methods workshops have been condensed into five three day workshops. The series of two day community workshops given by the local GDF team have been converted into flexible training sessions with eight community research assistants. These are given during fieldwork periods (approximately two weeks a month), according to the availability of participants. We emphasize that these are

changes in form only, and that the content and impact of the capacity building remains unaltered.

Some minor delays in project outputs have resulted (e.g. the interim report prepared on animal and plant resources used by local people in Kionop and Buayan will be completed in April-May 2005 instead of February-March), but we should be synchronised with the original project implementation table by September 2005.

Another minor change was the granting of a double field research grant to a UK student, Adam Murphy, who is between his MSc and PhD degrees, instead of giving two grants to students who will be completing MSc degrees in the UK. This was approved by the Darwin Initiative, and Mr Murphy will be conducting research on subsistence hunting supported by the Darwin project from May to September 2005. In addition, the Darwin Initiative has consented that we present an auditor's certificate for our accounts from 1 August 2004 to 30 September 2005, a fourteen month period, relieving us of the technical obligation to present a separate certificate for the period from 1 August – 30 September 2004.

#### **4. Progress**

The project was launched in August 2004 with the visit to Sabah of the Project Leader, Dr. Gary Martin, to finalise operational arrangements, including official agreements with Sabah Parks, the Institute for Tropical Biology and Conservation (ITBC), the Bornean Biodiversity and Ecosystems Conservation (BBEC) Programme and Partners for Community Organisations (PACOS). This visit was also dedicated to recruitment of project staff; and the formulation of research strategies and action plans (please refer to Appendix 5 of the Project Document for Action Plans in the Project Appendices). The main focus for this reporting period has been to define the scope and magnitude of the community's interaction with the landscapes around them, in part by examining the kinds of plants, animals and landscapes known and used by local people. Four major fieldtrips, one workshop, and various meetings and interviews were held with the community to discuss project implementation. Eight community members were recruited as community field assistants.

Preparations for the first training course (in April 2005) began in January 2005 with partners at ITBC and other schools at the Universiti Malaysia Sabah, recruitment of 21 participants, and finalisation of the content and schedule of the training module. Two University of Kent postgraduate students have been awarded MSc Field Research Grants to conduct fieldwork in Buayan-Kionop. The implementation of fieldwork and training activities has proceeded according to expectations, with enthusiastic support from institutional partners and the local communities. Excellent local media coverage has magnified outreach of the project (please refer to press clippings in the Project Appendices).

##### **Field research**

The field coordinators (James Wong and Yassin Miki), with support from four Sabah Parks staff, established prominent and accepted field presence with the local community. Eight community members received hands-on training as Community Research Assistants.

We developed a Community Research Agreement (signed on 18 April 2005) between GDF and the community of Buayan that outlines the mutually agreed upon terms and conditions to guide the conduct of this project (please refer to the Field Research Appendices). Elements of the initial four-month period of intensive discussions with and within the community will be pursued throughout this project as a larger process of building equitable working relations with the local community and enhancing local capacity to assert responsibility and accountability for natural resource management.

Preliminary plant and animal inventories were compiled by employing selected methods to examine local people's interactions with their natural environment. The initial fieldwork took

longer than initially expected, as the households are scattered over a large rough terrain and gathering community members for joint exercises is challenging. Similarly, conducting household interviews takes a longer time because houses are located far apart from each other, with household members working in various locations. Data requires in-depth analysis (a preliminary overview is included in the Field Research Appendices). This first stage of fieldwork yielded a community census collected through household interviews; inventory of plant and animal names given in freelisting interviews; localities and resource distribution data recorded in a community resource map; historical timelines and seasonal cycles documented in matrices. These techniques and results will be included in the training manual on biological resources and their role in local commercial and subsistence activities to be produced by September 2005. Our analyses of these data will guide research strategies for upcoming phases; for example the freelisting data will help us prioritise the collection of voucher samples of biological resources.

Field research methodology and some preliminary findings were presented at the 3<sup>rd</sup> BBEC International Conference, held from 22 to 24 February 2005 at Kota Kinabalu, during which a panel on *Community and Sustainable Use of Resources* was co-organised by the project. The field coordinators and community field assistants delivered paper and poster presentations.

### **Training**

The five-module Master's level training course in Conservation and Ethnobiology was confirmed by partners (please refer to the Training Document in the Training Appendices). Modules will be held biannually every April and September from April 2005 to April 2007. Lecturers from the University of Kent will deliver the major portion of lectures as part of building the curriculum at UMS. The preparations for module one (11-20 April 2005) were completed. Topics included biodiversity law, environmental anthropology and ecological methods; guest lectures from local speakers provided context. Twenty-one urban-based participants (8 postgraduate, 3 undergraduate, 10 staff from 9 agencies) registered for the course and were joined by six community field assistants for the methods workshop (please refer to Participant List in Training Appendices). UMS hosted a Lecturers' Workshop with University of Kent and UMS lecturers to explore development of a Master's programme in Conservation and Ethnobiology.

Two research grants have been awarded to University of Kent postgraduate students to conduct their dissertation fieldwork in Buayan (please refer to research proposals in the Training Appendices). Mr. Adam Murphy, an incoming University of Kent PhD student in Biodiversity Management, is investigating subsistence hunting patterns. Ms. Perpetua George, an MSc student in Ethnobotany, is investigating cultural perceptions of forest value among the people of Buayan. An MSc student at UMS, Mr. Sikula Magupin, will be receiving a grant in May 2005 to assess forest canopy density using remote sensing in Buayan, and to incorporate community use zones in a GIS of the area.

### **Project management, monitoring and evaluation**

The project coordinators (Agnes Lee Agama and Rachel Chua) ensured smooth working relations by establishing formal relationships with partners. This included obtaining their input on the development of action plans, research strategies and training focus. Regular meetings were held with senior counterparts in Sabah Parks, ITBC, BBEC and PACOS. The District Office of Penampang was consulted on the development of the Community Research Agreement, to be countersigned by the District Officer.

Permanent members from partner institutions attended the First Annual Progress Meeting (29 April 2005) to evaluate project progress. Representatives of partner institutions also attended parts of the training course.

### **Difficulties with cash flow**

Project efficiency and impact is severely affected by cash flow problems caused by the DEFRA reimbursement policy. As a small organisation, GDF is unable to advance the considerable funds needed for effective operations. This difficulty is compounded by delays in reimbursement by DEFRA. Irregular cash flow makes it difficult to meet emerging needs that arise that result from our fieldwork and creates unnecessary complications in the logistical arrangements for the training courses.

A tentative timetable for 1 April 2005 to 31 March 2006 is presented in Annex 2 of this report.

### **5. Actions taken in response to previous reviews**

Not applicable

### **6. Partnerships**

GDF is the main implementing agency. Sabah Parks and ITBC are main host country and executive partners. BBEC and PACOS are the other host country partners.

#### **Sabah Parks**

The project has received excellent support and input from Sabah Parks in implementing field research. Sabah Parks has provided technical input from the directorate and senior personnel and contractual employment of two GDF team members. Sabah Parks has delivered generous logistical support through their Park Rangers and other staff, as well as use of facilities at the Inobong Substation. Close rapport between GDF and Sabah Parks personnel at all levels has been crucial in consolidating the efficacy of field research, and the overall ownership of techniques and processes set into motion to manage traditional use zones.

#### **The Institute for Tropical Biology and Conservation (ITBC)**

The project has received excellent support from ITBC at UMS, which hosts the project office facilities and premises. Joint preparations were made for module one of the training course in Ethnobiology and Conservation (11-20 April 2005) at ITBC and Inobong. Module one was officially opened by the Vice-Chancellor of UMS, and was delivered by UKC lecturers, UMS lecturers and a JICA lecturer. Discussions with the UMS VC were held to explore longer-term collaboration with the University of Kent.

#### **Bornean Biodiversity and Ecosystems Conservation (BBEC) Programme**

The project co-organised a panel on *Community and Sustainable Use of Resources* at the 3<sup>rd</sup> International BBEC Conference (February 2005). Project funds supported the participation of six community field assistants, who co-presented a paper and poster presentation with the Field Coordination team. Additionally, BBEC members contributed to Module One of the Ethnobiology and Conservation training course, where a Japan International Cooperation Agency (JICA) advisor taught Ecological Methods. BBEC, through JICA, co-funded the printing of the Course Reader for Module One.

#### **Partners of Community Organisations (PACOS)**

The project awarded a grant to PACOS to support the work of their community organisers in Buayan-Kionop for the duration of this project. PACOS has conducted several field visits, discussions and feedback sessions with community members and continues to provide information, training and organising support to the villagers (please refer to PACOS progress report in the Project Appendices). PACOS has provided valuable information and feedback to the project team to assist in the implementation of field activities. Additionally, two of PACOS' programme coordinators participated in Module One of the training course. Future activities under this grant include a community mapping initiative as part of addressing community-based resource management issues in the area.

#### **World Wide Fund for Nature (WWF) Malaysia**

The project has established initial links with WWF Malaysia, from which the GDF Field Coordinator, Mr. James Wong, is a seconded staff member. Another WWF Malaysia staff member is Ms. Perpetua George (who has been awarded a field research grant to conduct her fieldwork in Buayan as part of her MSc in Ethnobotany at University of Kent). WWF Malaysia approved the participation of another staff member in module one of the training course. Potential exists to explore further avenues for technical collaboration, through the WWF Malaysia Heart of Borneo Programme (begun in late 2004), which identifies the Crocker Range as a focus site for ecosystem conservation in Borneo.

### **JICA**

Another partner is JICA who co-fund BBEC. This project feeds into one of the core components of BBEC, which is the development of the Crocker Range Management Plan. Valuable joint activities include the co-hosting of a panel during the 3<sup>rd</sup> BBEC conference, as well as joint teaching and financial support for the course reader for module one of the training course.

### **Global Canopy Programme**

We wish to explore the possibility of co-hosting a training course at Crocker Range Park on tree climbing and forest canopy biodiversity with the Global Canopy Programme. This could be part of its Tropical Forest Canopy Training Programme for the ASEAN Region, which is funded by the Darwin Initiative. The objective would be to build the capacity of community research assistants, GDF team members and Sabah Parks rangers and scientific staff to inventory the plant and animal resources of primary and secondary forest canopy in the heart of the Park. Ideally, this course would take place in late 2006, once our biological resource inventory is well advanced. Collections in the forest canopy would focus on species that are hard to identify from the ground. The training would be community oriented, putting the emphasis on low tech climbing techniques using affordable equipment. It is expected Gary Martin of GDF and Andrew Mitchell of the GCP will assess the feasibility of the course in fiscal year 2005/2006.

## **7. Impact and Sustainability**

The project has received enthusiastic support from local partners and peers. Despite being in its early stages, the project has received excellent newspaper coverage with 5 articles in 3 local newspapers over the last 2 months of this reporting period, and additional coverage in the early part of FY2. The high profile of the project rests upon the strength of integrating local people into biodiversity conservation initiatives, a relatively new trend in Sabah. The intensified involvement of Sabah Parks in working with local communities in the Crocker Range Park will pave the way for an equitable Community Stewardship Agreement that is envisioned for the end of this project. Similarly, preparations for the first training course have seen an enthusiastic response to invitations for registration, with prospective participants representing a cross section of students and professionals. Lecturers from UMS are spearheading a specialised Lecturer's Workshop as a focussed venue where UMS and UK lecturers can share expertise and discuss prospects for establishing a postgraduate degree programme in Conservation and Ethnobiology at UMS. As both Sabah Parks and UMS will inherit the institutional legacy of this project, it is promising that both agencies are asserting local ownership through their participation in various activities.

## **8. Post-Project Follow up Activities**

Not applicable

## 9. Outputs, Outcomes and Dissemination

Overall, we are well on the way to achieving the outputs agreed in the initial 'Project Implementation Timetable' and the 'Project Outputs Schedule'.

The later start to the project approved by Darwin Initiative resulted in the shift of some outputs to the 2005/2006 fiscal year. As noted in the half year report submitted in October 2004, the series of taught modules and methods workshops that was to begin in September-October was postponed until April 2004. Fieldwork was delayed, which means that the interim report on animal and plant resources used by local people in Kionop and Buayan will be prepared in April and May 2005. We have not yet launched a press release in the UK to announce the project, as we preferred to wait for some initial results that were more newsworthy than the simple launch of activities (such as the signing of the Community Research Agreement and summary of initial research results).

Recruitment of participants in the first training module exceeded expectations, as noted in the outputs table below.

The primary dissemination activities in the first six months of the project were:

(1) organisation of a panel on 'Community and Sustainable Resource Use' by GDF staff and community research assistants in the BBEC international conference held in Kota Kinabalu in February 2005. It was attended by an estimated 250 participants, mostly from Sabah (but also from Cambodia, Germany, Kenya, Philippines and other countries), who are interested in biodiversity conservation and community development. A poster and brochures about the Darwin project on traditional use zones were disseminated at the conference, and a broader public read about the event in local newspapers (see appendices).

(2) participation of Gary Martin in the Working Forests in the Tropics Conference held on 14 – 15 February 2005 at the University of Florida, Gainesville. The conference, attended by over two hundred participants from Latin America and other regions, was a forum to examine impacts of public policies and markets on tropical forests and the people who live in them, and to identify policy initiatives and market-based incentives that may be useful for promoting forest conservation and management. Dr. Martin was invited to present a paper on 'Assessing the Viability of Working Forests in Crocker Range Park, Sabah, Malaysia' in the panel on Working Forests in Indigenous Landscapes, which focussed on indigenous peoples as stakeholders in ecological, economic, and political discourses related to forest conservation and management.

(3) delivery by Gary Martin of a public lecture on 'Working Forests: the viability of traditional use zones in protected areas (Sabah, Malaysia)' as part of his *Jean Andrews Centennial Faculty Fellowship in Tropical and Economic Botany* lectures at the University of Texas, on 2 March 2005, attended by students and faculty of the University of Texas.

**Table 1. Project Outputs (Parentheses around code nos. and quantity indicate progress towards, rather than completed, outputs)**

Code No.	Quantity	Description
(2)	(3)	Universiti of Malaysia Sabah students (James Wong, Yassin Miki, Sikula Magupin) chosen to receive grants for fieldwork that will contribute to obtaining MSc degrees
(2)	(2)	University of Kent student (Perpetua George) chosen to receive grant for fieldwork that will contribute to obtaining MSc degrees; additional student (Adam Murphy) given post MSc support for 'gap year' research before his PhD.
(4A)	(3)	21 Malaysian participants chosen for the first training course module in Ethnobiology and Conservation, given in April 2005 jointly by the Universiti Malaysia Sabah and lecturers from the University of Kent. These participants include 3 undergraduate and 8 postgraduate students from Universiti Malaysia Sabah, plus 10 postgraduate staff from 9 governmental and non-governmental agencies. Original expectations were for 8 MSc students and 8 GO or NGO staff.
(4C)	(18)	
6A	10 people	Research experience gained by 2 MSc students and 8 community members during fieldwork in Crocker Range Park, producing outputs such as a community research agreement, demographic data, free lists of flora and fauna, community resource map, historical matrix and seasonal calendar.
6B	54 people/ weeks total	
8	4 weeks	Time spent by UK GDF and University of Kent personnel on training and research in Sabah
14A	1	Community and Sustainable Resource Use panel co-organised by the Darwin project and BBEC, at the 3 <sup>rd</sup> BBEC Annual International Conference 'Biodiversity as a Way of Life', held in February 2005. Paper and poster presentation disseminated information about the Darwin project.
14B	2	<i>Working Forests in the Tropics Conference</i> , 14 – 15 February 2005, University of Florida, Gainesville  <i>Jean Andrews Centennial Faculty Fellowship in Tropical and Economic Botany</i> lectures, 28 February – 2 March 2005, University of Texas,
15A	2	1 press release on 22 January about the Darwin project participation in the BBEC conference. Resulted in 5 articles in three local newspapers, presented in the project appendices sent on CD-ROM.
(17A)	(1)	We have begun to put together a mailing list of people interested in the Darwin project on traditional use zones, which is the beginning of a broader dissemination network in SE Asia.

No publications have yet been produced, so Table 2 was not included in this report.



## 10. Project Expenditure

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

Item	Budget (revised version sent 12/07/2004, acknowledged by C. Halnoun)	Expenditure	Balance
Rent, rates, heating, overheads etc			
Office costs (e.g. postage, telephone, stationery)			
Travel and subsistence			
Printing			
Conferences, seminars, etc			
Capital items/equipment			
Others			
Salaries (specify)			
TOTAL			

## 11. Monitoring, Evaluation and Lessons

We felt that it was premature to monitor and evaluate the project during its first eight months, as most efforts were directed at project set-up. Informal monitoring was conducted by the GDF local staff with oversight by the GDF Director and Trustees as well as by representatives of Sabah Parks and Universiti Malaysia Sabah. The qualitative and quantitative measures considered include successful negotiation of community collaboration (as evidenced by the community research agreement) and the number of participants recruited, including project coordinators, community research assistants and training course students. These outcomes as well as the research output (community map, census, freelists, data matrices) clearly contribute to the project purpose, especially our specific objectives 1, 4 and 5 stated above.

Formal evaluation began in FY 2005/2006 with written evaluations of the first training course and methods workshops, as well as assessment of project progress during the first partners' biannual meeting. The evaluations and minutes from partners' meetings will be included as appendices in the next annual report.

One of the lessons learned relates to the challenges of working in communities with a dispersed settlement pattern. Our plans to hold community meetings and workshops were quickly changed to a strategy of household visits and small group interactions with community research assistants. This style of community research will be continued throughout the project, as it is well adapted to the dynamics of the villages in which we are working.

Another favourable lesson is the high local interest in community participation in conservation, evidenced by (1) planning of new protected areas that contemplate the presence of local people (specifically the proposed 1 million ha Tun Mustapha Park in Kudat); (2) keen interest by local press in covering stories of the relationship between local people and conservation; (3) hiring of new staff at the Universiti Malaysia Sabah who have experience in assessing local peoples' role in natural resource management; and (4) NGO efforts to support community mapping and wise landscape use near protected areas. The Darwin project on traditional use zones is in a strategic position to publicise participatory methods and actions that can promote local involvement in protected area management.

## **12. OPTIONAL: Outstanding achievements of your project during the reporting period (300-400 words maximum)**

We are particularly pleased with the successful negotiation of the community research agreement, of which there is a rough English translation in the 'field research appendices' that accompany this report. The agreement, the product of discussions and meetings with Dusun leaders and residents of Buayan and its hamlets from October 2004 to March 2005, was signed by authorised community and institutional representatives in a ceremony at the Innobong Substation of Crocker Range Park on 18 April 2005 (photos available). It is, to our knowledge, the first agreement between an indigenous community and outside researchers in Sabah that sets out terms for access to traditional knowledge and genetic resources.

As such, it fulfils the requirement to obtain prior informed consent from communities before documenting their traditional ecological knowledge, which is strongly implied as best practice in Article 8(j) and other sections of the Convention on Biological Diversity and is further elaborated in the Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Sharing of Benefits Arising out of their Utilisation. It opens the door to documenting the use and management of biological resources while making voucher collections of animals and plants for scientific, non-commercial use in collaboration with community members. Although the agreement covers only the members of the GDF research team, it lays the foundation for constructive collaboration by other researchers and students in our project.

An innovative aspect of the agreement is that it clearly embraces the right of local people to withhold information that they consider culturally sensitive or secretive. In addition, there is a clause on returning results of the project to the community in an appropriate local language.

There is a mechanism to review the agreement on a yearly basis. After assessing how well it has worked over the first year, we intend to invite critiques from local and international specialists in biodiversity law to expand its terms and conditions in April 2006. We hope that it will evolve into a model community research agreement that will become a standard that other Darwin Initiative projects and other researchers around the world will seek to emulate.

The agreement is further strengthened by a Memorandum of Understanding between GDF and Sabah Parks, the state agency responsible for the park management. Approved by the Attorney General of Sabah, the MOU was signed by the Director of GDF on 29 April 2005 and is awaiting the signature of the Director of Sabah Parks.

Additional detail on the content of the agreement and the process of obtaining prior, free informed consent at both community and government levels will be included in the "Best Practice in Assessing Traditional Use Zones" manual produced at the end of the project.

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

Annex 1 Report of progress and achievements against Logical Framework for Financial Year: 2003/2004

Project summary	Measurable Indicators	Progress and Achievements April 2003-Mar 2004	Actions required/planned for next period
<p><b>Goal:</b> 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</p> <ul style="list-style-type: none"> <li>• The conservation of biological diversity,</li> <li>• The sustainable use of its components, and</li> <li>• The fair and equitable sharing of the benefits arising out of the utilisation of genetic resources</li> </ul>			
<p><b>Purpose</b> 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.</p>	<p>New knowledge on species used and habitats managed in CRP by yr 1</p> <p>New knowledge on swidden agriculture and traditional agroecosystems by yr 2</p> <p>New knowledge of subsistence hunting use in traditional use zones by yr 3</p> <p>Agreement on traditional use zones and village stewardship agreement by yr 3</p>	<p>Conducted preliminary inventory of plant and animal resources: lists of plant and animal names being compiled and analysed; community resource mapping indicates distribution and significance of resources; historical timeline and seasonal calendar highlights interaction with resources over time.</p> <p>Developed and signed a Community Research Agreement between the project and the local community that outlines the terms and conditions for research.</p>	<p><b>Actions:</b> Continue data collection and analysis using established methods. Implement additional techniques, guided by inventory obtained, to assess resource valuation.</p> <p>Continue to build on Community Research Agreement process as part of enhancing local capacity to manage the access and use of resources.</p> <p><b>Lessons:</b> Engaging thorough community participation takes time, especially in dispersed communities.</p>
<p><b>Outputs</b></p>			
<p>Traditional use zones assessment programme established by partner organisations, with community input</p>	<p>Minimum of 8 staff and 8 MSc students from 2 institutions, and 6 community members, trained ethnobiological and conservation assessment techniques.</p> <p>Qualitative and quantitative assessments of traditional use zones completed by yr</p>	<p>8 Masters students, 3 undergraduate students, 10 staff from 9 institutions, and 6 community members trained in first module of ethnobiological and conservation techniques.</p> <p>1 consultative community workshop conducted to collect data on community</p>	<p><b>Actions:</b> Continue to collect data with community input and hands-on training of field assistants</p> <p><b>Lessons:</b> Participation of 6 community field</p>

	3	resource mapping 8 community members identified as field assistants and given hands-on training (6 field assistants attended the field methods workshop on ethnobiological and conservation techniques)	assistants in the field methods workshop is essential for sharing of expertise and mutual learning. Continue to enhance community participation in more activities conducted outside of the community
Training modules on ethnobiology and conservation biology delivered at UMS	Curriculum combining modules by UKC and UMS lecturers developed over 3yrs Minimum of 8 Malaysian MSc students participated in modules by yr 3	First module delivered in April 2005 jointly by lecturers from UKC, UMS and JICA. 8 Malaysian Masters students participate in first module.	<b>Actions:</b> UMS to conduct one-day symposium for local speakers to contribute to the curriculum of future courses, as part of enhancing local ownership.  Monitor the development of students' field projects to explore possible collaboration with the project goals
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	Field research techniques and data collection process being compiled. Information delivered during the field methods workshop compiled.	Actions: Write-ups contribute to the development of the training manuals and handbook
CRP adaptive management plan enhanced	Revised management plan, including detailed section on traditional use zones, approved by stakeholders by yr 3	Pending	Pending
Community Conservation Stewardship Agreements established	Strategy developed by a local village committee in consultation with Sabah Parks by yr 3	Pending	Pending

*Note: Please do NOT expand rows to include activities since their completion and outcomes should be reported under the column on progress and achievements at output and purpose levels.*

**Annex 2. Timeframe for 1 April 2005 to 31 March 2006**

	Activity	Description	Timeframe												
			2005									2006			
			Apr	May	Jun	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	
1	Field Research	Compilation, elaboration and analysis of data collected on plant and animal inventory, including collection and identification of voucher specimens & database creation													
		Data collection & analysis to assess resource valuation													
		Intensive hands-on training, exposure and study exchanges of community field assistants and key community members													
		Assess local agriculture and traditional agroecosystems, with analysis of results													
		Review of Community Research Agreement													
2	Training	Conduct Module One of the Ethnobiology and Conservation training course: Biodiversity Law, Environmental Anthropology and Ecological Methods													
		2 UK postgraduate students conducting fieldwork in Buayan													
		3 UMS postgraduate students conducting fieldwork in Buayan													
		1 UK, 1 UMS postgraduate student to finish MSc degrees													
		Conduct Module Two of the Ethnobiology and Conservation training course: Contemporary Issues in Ethnobiology, Ethnopharmacology and Community Conservation													
		Visits by project leader and University of Kent colleagues to provide training and research guidance													
3	Dissemination	Training manual on techniques for plant and animal resource inventories and assessments of resource valuation compiled													
		Darwin panel at the 4 <sup>th</sup> BBEC conference													
		2 host country press release to accompany Module Two and BBEC conference; first UK press release													
		First manuscript submitted to peer-reviewed journal													