

## ***Darwin Initiative Annual Report***

Important note:

To be completed with reference to the Reporting Guidance Notes for Project Leaders – it is expected that this report will be about 10 pages in length – Submission deadline 30 April 2007

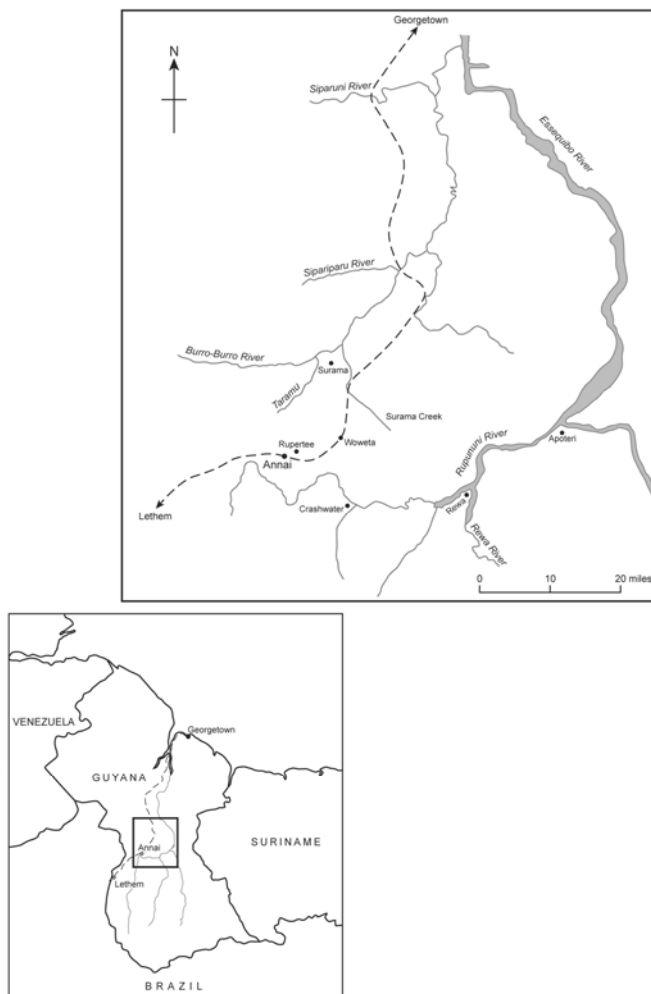
### **Darwin Project Information**

Project Ref Number	EIDPO16
Project Title	The North Rupununi Adaptive Management Plan: assessing the impacts and building capacity
Country(ies)	Guyana
UK Contract Holder Institution	Royal Holloway, University of London
UK Partner Institution(s)	Wildfowl & Wetlands Trust, The Open University
Host country Partner Institution(s)	University of Guyana, Iwokrama International Centre
Darwin Grant Value	£105,871.71
Start/End dates of Project	October 2006 to April 2008
Reporting period (1 Apr 200x to 31 Mar 200y) and annual report number (1,2,3..)	1 Apr 2006 to 31 Mar 2007, Annual Report 1
Project Leader Name	Dr Jayalaxshmi Mistry
Project website	<a href="http://www.moodle.kmi.open.ac.uk">www.moodle.kmi.open.ac.uk</a>
Author(s), date	Dr Jayalaxshmi Mistry, Dr Andrea Berardi, Dr Matthew Simpson, Mr Calvin Bernard, Dr David Singh, 30 <sup>th</sup> April 2007

### **1. Project Background**

This project builds on a three year Darwin Initiative Main Project (ref. 162/12/019) that aimed to build capacity for effective biodiversity management in Guyana through training and the development of adaptive management plans and associated monitoring systems for the North Rupununi Region, Guyana. The North Rupununi is situated in southwest Guyana (see map below) and is comprised of a mosaic of periodically flooded savannas, wetlands and forest ecosystems. The region is known to have one of the highest freshwater fish diversity in the world, currently estimated at more than four hundred species (comparable wetlands in South America such as the Varzêa of Mamiraua and the Pantanal wetlands contain 400 and 200 species of fish respectively), which in turn support rich bird and mammal communities and

endangered species such as the Black Caiman (*Melanosuchus niger*), Giant Otter (*Pteronura brasiliensis*), Giant River Turtle (*Podocnemis expansa*) and recovering populations of the largest freshwater fish in the world, the Arapaima (*Arapaima gigas*). The Rupununi region is the homeland of the Makushi and Wapishana peoples who depend on natural resources for livelihoods activities including subsistence fishing and hunting, gathering, farming and more recently, ecotourism.



**Map of North Rupununi, Guyana**

One of the key outputs of the first project was the North Rupununi Adaptive Management Plan (NRAMP), a management plan built on the concept of the learning cycle and the ethics of participation, holism and sustainability. Although NRAMP has the potential to be adopted by a number of organisations, it became increasingly clear that the wider capacity to undertake biodiversity conservation within Guyana is limited by both human and financial resources. Therefore, the purpose of the present Post-Darwin project is to build capacity of stakeholders at both local and national level in implementing the NRAMP in ways that are ecologically, socially and financially sustainable. This will be carried out by: 1) significantly expanding the number of trained individuals in biodiversity monitoring and management; 2) developing material for Guyanese university courses and schools to help raise awareness of, and build capacity for, biodiversity conservation (providing the next generation of biodiversity professionals and active conservationists); and 3) developing local financially sustainable livelihood schemes, such as eco-tourism, that support biodiversity monitoring and conservation of key wetland habitats important to the local communities.

By developing innovative educational material and approaches to sustainable livelihoods within the region, this project will build on the success of the original project and ensure that species

and habitat monitoring is permanently established and biodiversity conservation within the region is achieved.

## **2. Project Partnerships**

The project partnership is comprised of Royal Holloway, University of London, the Wetlands and Wildfowl Trust, The Open University, The University of Guyana (Centre for the Study of Biological Diversity - CSBD), the North Rupununi District Development Board (NRDDB), the Iwokrama International Centre and the Environmental Protection Agency (EPA). This collaboration, forged during the first Darwin Initiative project, has continued to be strong throughout this reporting period. In particular, the links with the University of Guyana and the NRDDB have grown as a result of greater responsibility given to them for delivering project outputs (see Section 6). In terms of the capacity of host institutions to meet CBD commitments, the partnership has facilitated adaptive management plan implementation at the community level and supported the development of biodiversity and sustainable livelihoods training and educational materials. The UK partnership has been especially vital for shaping the latter through the use of appropriate and innovative pedagogic approaches. This has been facilitated by a four month sabbatical period in Guyana for Drs Mistry and Berardi, from Royal Holloway and The Open University respectively, during which they were able to deepen their understanding of the biodiversity conservation and natural resource management issues in Guyana and take part in extensive discussions with stakeholders on appropriate methods and approaches for sustainable development.

During the first Darwin Initiative project, good links were made with other local organisations including Conservation International-Guyana, WWF-Guyana and the Karanambu Trust. These have been strengthened over the reporting period and new collaborations have been initiated with the Ministry of Education, Ministry of Amerindian Affairs, and the Wildlife Division. The project has also collaborated with the Darwin Initiative butterfly farming project in the North Rupununi, led by the Iwokrama International Centre and the University of Warwick. This has been through the inclusion of butterfly trails in the development of tourist maps for the region, joint fieldwork logistics, plans for project news dissemination through the Darwin Wetlands Bulletin, and discussions between the two projects on including butterfly farming as a livelihood activity within the NRAMP.

Iwokrama International Centre and the Environmental Protection Agency are key focal points for implementing the CBD within Guyana. Both organizations are active partners on the project. Iwokrama continues to play a vital role in guiding the project and in particular developing the material for training of Rangers and Environmental Officers. The EPA has one project staff hosted within its Natural Resources Management Division and brings a national policy perspective to the project while at the same time serving to build the internal capacity of the organisation to undertake monitoring and management of wetland biodiversity. The work of the project continues also to contribute towards the EPA's drive for the Government of Guyana to accede to the RAMSAR Convention on Wetlands and to have the North Rupununi recognized as Guyana's first RAMSAR Wetland.

## **3. Project progress**

An initial start-up workshop for the project team to plan a work programme and identify key tasks was undertaken in January. During this period, the project outputs were broken down into sub-outputs and plans were drawn up on when, how and by whom these were to be implemented. In addition, further training of project staff occurred in February 2007 to develop their IT, project management, communication and organizational skills.

In order to share information within the Project team and to develop the outputs of the project, an on-line information management platform is being used – the ECOSENSUS platform, which was developed through a sister project. Although the ESRC funded ECOSENSUS project was completed in December 2006, the Faculty of Technology, Open University, has released £1000

to hire an additional staff member within the Darwin project so as to manage and develop the online service. Please note that all documentation and resources associated with the Project and its outputs can be found on this NRAMP – Guyana site at [www.moodle.kmi.open.ac.uk](http://www.moodle.kmi.open.ac.uk) (Click on NRAMP-Guyana and logon as a guest using "NRAMP" as the enrolment key).

### **3.1 Progress in carrying out project activities**

#### *1) Community Wetland Monitoring and Sustainable Livelihoods course*

A number of community consultations about the NRAMP took place during this reporting period. The main thrust of these visits was to help communities' select specific livelihood activities with which they could implement the NRAMP and then help the communities to apply the NRAMP to that specific livelihood. The aims of these activities were to fully understand the areas in which capacity was lacking for implementing the NRAMP and to help communities focus on a relevant issue on which subsequent training could be useful. Using the feedback from these consultations, a plan for the community course was developed and the development of materials and activities commenced. The course has been designed so that the resources for the course will be the NRAMP. In this way, the Project has been simultaneously revising and updating the NRAMP and producing materials for the course.

In January/February 07, the trainers of the course (and the ranger/environmental officer course below), namely the staff working on the Project, participated in group discussions, brainstorming activities and planning activities in order to build their capacity to develop the courses. At the same time and as a result of an assessment of individual needs, Project staff also received further training in some generic skills relating to project management and implementation. This included sessions on online content management, report writing, public speaking, generic computing skills (file management, backing up, anti-virus software, hard disk maintenance etc), Geographical Information Systems and global positioning systems.

As part of supporting local ecotourism initiatives, the Project has been developing tourist maps in this reporting period. The production of the maps has been spearheaded by the ECOSENSUS sister project and has involved GIS map production and field-based ground truthing. To date, four maps have been produced and are available to local communities (Rewa x 2, Woweta, Aranaputa). In addition, the Project is seeking to increase tourism in the area through Earthwatch expeditions. In this reporting period, a plan for the execution of the expeditions was drawn up, and writing the Earthwatch proposal commenced. Lastly, discussions took place with the Tourism Unit of the NRDDDB on the development of a tourist bird guide to the North Rupununi Wetlands. Work on this publication will commence in May.

#### *2) Environmental Officer / Ranger Wetland Monitoring and Management course*

The aim of this course is to help organisations such as the EPA, Iwokrama International Centre and other local organisations implement the NRAMP at a regional, landscape level. To do this, we first had to assess the existence, content and level of training courses currently available in these organisations. This was initially done through a questionnaire and then followed up with interviews with organisational human resources/training managers. Using this information, a plan for the ranger/environmental officer course was developed and the development of materials and activities commenced. A major component of this course will be engagement with national legislation and international obligations with regards to biodiversity conservation, natural resource management, and Amerindian rights. The project's EPA staff member's initial task was to therefore compile and identify relevant material from a wide range of national acts and international conventions. The course has been designed so that the resources for the course will be the NRAMP. In this way, the Project has been simultaneously revising and updating the NRAMP and producing materials for the course.

#### *3) Primary School Teacher and Student Wetland Biodiversity packs*

In order to understand how the primary school teacher and student material may fit into the national science curriculum, an in-depth analysis of the curriculum was undertaken, followed up with interviews with teachers. In addition, an assessment of the Wetland and Wildfowl Trust's schools material was also undertaken. A plan for the primary school pack was developed and the development of materials and activities commenced. During April 2007, the Project was invited to participate in the Rupununi Wildlife Festival, an event focused at local school children. During this festival, children submitted entries to poetry and art competitions about wetlands and the Project. These entries will be used as part of the development of the schools material.

#### *4) University of Guyana Sustainable Management of Wetland Biodiversity postgraduate course*

This postgraduate course will be offered initially as a Continued Professional Development (CPD) course for biodiversity conservation professionals through the University of Guyana's School of Professional Development and later as part of existing Masters programmes at the University. As such, consultations with lecturers within the Faculty of Natural Sciences took place on the structure and content of the course. In addition, an assessment of organisations and individuals interested in CPD training in such an area is being undertaken. Using this information, a plan for the postgraduate course is being developed. Calvin Bernard, one of the principal investigators on the project and lecturer within the University of Guyana, has been awarded a three-month UK-based international fellowship (June-August 2007) by the Open University and will be focusing on developing this course in collaboration with Drs. Berardi, Mistry and Simpson. 50 copies of the Open University postgraduate course "Environmental Decision-Making: A Systems Approach" were donated by the Open University and have been shipped to the University of Guyana. The material includes a set of four books, CDs, audio and video tapes. The "Sustainable Management of Wetland Biodiversity" course will thus be supported by a growing asset of materials.

#### *5) NRAMP Impact Assessment Report*

The main aim of the NRAMP Impact Assessment is to determine how and if the NRAMP is working. In order to do this, we have developed a range of indicators to assess the viability of NRAMP, outlined in the NRAMP Impact Assessment Method document (see Project Moodle site). Data for these indicators will be collected for 2007 in the form of tables, video clips/films, and literature reviews, and then evaluated and compiled for the report.

One of the key objectives of the report is to understand the impact of NRAMP implementation at the community level and how different members of the communities view the usefulness of the management plan. During this reporting period Drs Mistry and Berardi were awarded additional funding from the British Academy (£7000) to help local communities express their views on biodiversity conservation, natural resource management issues and the NRAMP through Participatory Video (PV). Although initially the information for the report was to be compiled through interviews, it was felt that participatory video would be a more appropriate methodology since it promotes visual literacy, both vertical and horizontal communication and empowers local communities to make change. PV will be used to gather views from different members of the communities and the various stakeholders on the NRAMP, and it will also be used to understand how community members traditionally learnt about natural resource management issues and how this has changed today in light of current cultural challenges. The latter will be vital for shaping the way the NRAMP is presented and communicated to different groups of people in the communities. One current community staff member was trained in PV techniques in January. A ten-day training course on PV was then undertaken in February in the communities (18 attendees) and through this, four additional community staff members were employed to focus on NRAMP impact/PV output. In addition, during the Stakeholder Forum in January (see Output 6 below), views on the NRAMP were gathered through PV during the day, edited and a film shown at the end of the Forum. Finally, in this reporting period, a review of the biodiversity conservation, natural resource management and sustainable development policies and regulations and their potential impact on the NRAMP was completed.

## 6) Publications, presentations and exhibitions

A Stakeholder Forum took place on the 23<sup>rd</sup> January. The aim of this initial stakeholder forum was to discuss and consolidate current views on the status of the Rupununi wetlands and for participants to produce a press release at the end of the day. This was achieved and articles appeared in two national newspapers (Starbroek News, The Chronicle) and project team members appeared on the environmental slot of the Guyanese NCN TV channel. A second press release was issued by the project in light of the Guyana Forestry Commission advertising several logging concessions in the Rupununi, all against local communities' wishes (this was picked up by The Chronicle). The Starbroek News is also currently finalizing an article on the wetlands of the North Rupununi and the work of the project for publication in the next months.

Follow-up meetings were held with key stakeholders in Guyana from January to April. The Project has a regular slot on the Rupununi radio station, Radio Paiwomak, so a number of broadcasts on the theme of the NRAMP were made. In addition, the Project has its own quarterly bulletin which is distributed to all stakeholders and communities in the Rupununi, and three were produced during this reporting period. The Project website was launched in April ([www.rupununi.org.gy](http://www.rupununi.org.gy)). The only activity under this output not achieved was the 3-D model of the Rupununi. The model was originally supposed to be housed at the NRDDDB headquarters within the Bina Hill training institution in the Rupununi, but during this reporting period there was a decision by the NRDDDB to move out of this building and construct their own offices at another location. As such, there was no place to hold the 3-D model. So, the building of the 3-D model has been postponed until September 07 by which time we should have a clearer idea of where the structure will be housed.

In this reporting period we have been in negotiations with the NRDDDB and local villages for the location of the Darwin Wetland Centre. Due to lack of office space for Project staff in the Rupununi (see Section 4), the aim of this Centre will be to house Project staff as well as provide an exhibition space. To date, an used building in an easily accessible village has been identified for the purpose and we are now waiting for official confirmation for use of the building. In an additional strategy, the Project together with the NRDDDB developed a proposal to construct a larger Darwin Wetland Centre on the edge of a wetland that will serve as a tourist interpretation centre. Together with the British High Commission in Guyana, an application for £30,000 was made to the Foreign and Commonwealth Office under their Sustainable Development (Ecotourism) funding stream. Although considered an excellent proposal, it was not successful. We hope now to apply with the British High Commission in Guyana to DFID's new Environment Fund.

Press releases were also issued in the UK. An article in the Wildfowl & Wetlands Trust's membership magazine "Waterlife" was published in January publicising the work of the project. The Open University course text book "Making environmental decisions and learning from them" (Furniss, P., Morris, D., Berardi, A., Collins, K., Blackmore, C., Reynolds, M. and S. Simon 2006) was published in this reporting period. It contains significant case study material from the Darwin project. Lastly, an academic article based on the first Darwin project was drafted and will be submitted to a peer-viewed journal in May.

## 3.2 Progress towards Project Outputs

### 1) Community Wetland Monitoring and Sustainable Livelihoods course

This is being led by the NRDDDB staff on the Project and supported by the Project Coordinator. Good progress has been made on the development of the course – the course structure, including a plan for activities and content have been established and the development of course resources are well on their way as can be seen on the online information management site. In addition, some tourist maps have been produced and further maps are in production, and a preliminary proposal for Earthwatch expeditions was submitted in April 2007. In terms of the indicators, an indicator for the production of maps could be added. All other indicators are still appropriate and the assumptions hold true.

#### 2) *Environmental Officer/Ranger Wetland Monitoring and Management course*

This is being led by the NRDDDB and EPA staff members on the Project and supported by the Dr Mistry. Good progress has been made on the development of the course – the course structure, activities and content have been established and the development of course resources have now started. All indicators are still appropriate and the assumptions hold true.

#### 3) *Primary School Teacher and Student Wetland Biodiversity packs*

This is being led by the Project Coordinator and the Junior Researcher, and supported by Dr Simpson. Good progress has been made on the development of packs – lesson plans for the pack have been devised and these are currently under development. All indicators are still appropriate and the assumptions hold true.

#### 4) *University of Guyana Sustainable Management of Wetland Biodiversity postgraduate course*

This is being led by the Project PI in Guyana, Mr Calvin Bernard of the University of Guyana, and supported by Drs Berardi, Mistry and Simpson. During this reporting period, Mr Bernard was awarded an Open University International Fellowship. Mr Bernard will be using this three-month fellowship in the UK (June-August 2007) to develop the materials for the postgraduate course both in residential and distance mode. All indicators are still appropriate and the assumptions hold true.

#### 5) *NRAMP Impact Assessment Report*

This is being led by the Drs Mistry and Berardi, the NRDDDB Project Officer and the four PV staff members. Good progress has been made on this – the first Stakeholder Forum and subsequent meetings have provided a basis upon which to develop the report. The PV staff are gathering views from the communities and the EPA Project Officer has completed a comprehensive review of biodiversity conservation, natural resource management and sustainable development policies and regulations and their potential impact on the NRAMP. All indicators are still appropriate and the assumptions hold true.

#### 6) *Publications, presentations and exhibitions*

All Project staff are involved with this output. To date, good progress has been on media presentations, the Project bulletins, website and the Darwin Wetland Centre and exhibition. All indicators are still appropriate and the assumptions hold true.

### 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
Established codes						
6A, 6B	Trainers trained in community wetland monitoring and eco-tourism course	6 people, 1 week				
6A, 6B	Trainers trained in wetland monitoring	6 people, 1 week				

Code No.	Description	Year 1 Total	Year 2 Total	Year 3 Total	Year 4 Total	TOTAL
	and management ranger and environmental officer course					
8	UK staff to visit Guyana to undertake training and course development	8 weeks				
9	NRAMP 2007	1				
10	Wetlands Technical Manual 2007	1				
14A	Workshop will be held during the project	1				
14B	Workshops / conferences / seminars will be attended where project work is presented	1				
15A	Newspaper articles within national press in Guyana	2				
15D	Local press releases within UK	1				
16A, 16B	Quarterly project bulletins to be produced	3				
17A	The ECOSENSUS dissemination network will be established as a permanent communication tool	1				
18A	National TV programmes within Guyana	1				
19C	Local radio broadcasts within Guyana	6				
23	£23849.60 Includes in-kind contributions, the ECOSENSUS project and the British Academy project	£75,849.60				
New - Project specific measures						



**Table 2 Publications**

Type *	Detail	Publishers	Available from	Cost £
(eg journals, manual, CDs)	(title, author, year)	(name, city)	(eg contact address, website)	
Bulletin	Darwin Wetlands Bulletin Vol2, Issues 1-3	Darwin Wetlands Project		Free
Adaptive management plan	NRAMP 2007	Darwin Wetlands Project		Free
Manual	Wetlands Technical Manual	Darwin Wetlands Project		Free
Membership magazine, Waterlife	Water, water everywhere, Matthew Simpson, Jan 2007	Wildfowl & Wetlands Trust	Wildfowl & Wetlands Trust, Slimbridge, Gos. GL2 7BT	Free to members or £3.75
Book	"Making environmental decisions and learning from them" (Furniss, P., Morris, D., Berardi, A., Collins, K., Blackmore, C., Reynolds, M. and S. Simon, 2006)	Open University	The book will be available to the public on: <a href="http://www.ouw.co.uk/">http://www.ouw.co.uk/</a>	£25 (final price still to be fixed)

### 3.4 Progress towards the project purpose and outcomes

Good progress is being made towards building the capacity of stakeholders, particularly the local communities, in implementing the North Rupununi Adaptive Management Plan (NRAMP) in ways that are ecologically, socially and financially sustainable. The development of the training and educational courses are on schedule and information is being collected at the local and national level, through participatory video and policy review, on the potential issues related to the implementation of the NRAMP. Livelihood activities, particularly ecotourism, are being supported by the Project by helping communities in their development using the NRAMP, and through the development of resources such as tourist maps and exhibitions are. The indicators are still adequate towards measuring outcomes and the purpose level assumptions still hold true.

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

The project is currently having a significant impact on sustainable use and equitable sharing of biodiversity benefits both regionally and nationally which it is hoped in the future will lead to the continuing maintenance of biodiversity in the Rupununi. The project is actively supporting community based natural resource management of species such as the Giant River Turtles. There have been reports of over-harvesting of these species in the past but the project, together with local communities, is establishing careful monitoring programmes to understand numbers and distribution leading to management measures for sustainable resource use and ecotourism. The project is also actively supporting sustainable eco-tourism initiatives for a number of communities, which it is hoped will lead to more tourists visiting the area and

contributing to the local economy. Already, the input of money from tourism is leading to a greater recognition of the importance of biodiversity as a tourist resource and ensuring that alternative unsustainable livelihood activities are not adopted.

The project has continued to advocate for the Government to accede to the Ramsar Convention being championed by the EPA. To date the project has sought to provide all information needed by the relevant government bodies dealing with the issue and at present only a political decision stands in the way of this process taking the next step.

The Centre for the Study of Biological Diversity, University of Guyana, is directly supported by the Darwin project, enhancing facilities (computers) and providing overheads for operational costs. It is hoped that this increased capacity and recognition of the Centre to support biodiversity research within Guyana will have an overall impact on biodiversity conservation in the country.

#### **4. Monitoring, evaluation and lessons**

Monitoring and evaluation is a major component of this project since the principles of NRAMP have a strong emphasis on action learning. NRAMP is implemented around four steps of the learning cycle: observation, evaluation, planning, and action. New indicators to underpin our activities have been developed within the NRAMP Impact Assessment (see Project Moodle site). Our internal evaluation processes compare our plans against our observations in order to create more appropriate plans to guide further action. The online information management system is currently being developed to host the recording of our internal action learning cycle. The difficulties of working in a developing country context means that there must be much greater coordination between staff on the ground, those sitting in offices in Georgetown, Guyana, and those in various sites in the UK. Previous ways of working, principally through intensive two-week face-to-face training followed up by e-mail exchanges, proved to be totally unsatisfactory and unable to cope with the complexities. The online information management system was therefore developed to better manage the issues.

The lessons learnt from this year's work include the need to record all activities taking place. In many cases, meetings or discussions with communities were taking place by Project staff, but not formally recorded, and therefore it was becoming increasingly difficult to keep track on developments and problems. The implementation of the Project online information management site has greatly helped to formalise recording. In addition, it also became clear this year that Project staff were under considerable constraints while working in the Rupununi as a result of technical and infrastructural limitations outside their control. As a result we have moved to find separate office space and electricity/internet connection, and this is currently in progress.

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

Review of the documentation produced from the last project produced the following queries from the reviewer:

*1) The reviewer asked whether a single manual could have been produced which could be used by both experienced project partners and local communities.*

The project recognises that the current technical manual and community manuals are broadly similar in approach and content. We originally thought that the local communities would need a simplified version of the Technical Manual, but have now come to recognise, through discussions with them, that they require something completely different in terms of the NRAMP. They still need to be able to access the Technical Manual information, but for the purposes of NRAMP, they will be producing their own indicators, which may or may not always be in the Technical Manual. Within the current project the different elements of the original manuals are being used as course material for the community and ranger and environment officer courses, and as such are being integrated within the latest edition (2007) of the NRAMP.

*2) Methodology presentation in the State of the North Rupununi Report and the bird data presentation.*

It has been noted that there are some inconsistencies in the approach to bird monitoring between the Community Manual and the Technical Manual. During the development of the modular course material these inconsistencies will be addressed. Sound recordings were not made available to the monitoring team as each team had a qualified ranger within them who has been trained in birdsong identification. The field guide used by all of the monitoring team was the Birds of Venezuela by S. Hilty (2002). For future training of the monitoring teams we will make call and birdsong recordings available so other members of the team are not so reliant on the skills of Rangers within the team. It is hoped that as monitoring programmes are adopted by agencies and the communities within Guyana additional information regarding behaviour, breeding activity, the age structure of populations etc. can be recorded. However, at this stage the main activity of the project was to identify species present in the area and investigate their relationship with the disparate habitats and wetland types within the region. It is recognised that further investigation is required before further conclusions can be drawn.

*3) How information in the NRAMP might be summarised and presented to local communities.*

The NRAMP information is currently being developed to be presented to local communities via the community training course (see Project online information management site). It will be presented in the form of text, images, cartoons and videos, which we hope will make it much more accessible to a range of people.

## **6. Other comments on progress not covered elsewhere**

At the start of the project, there were some problems with recruiting staff in Guyana which caused a major delay in starting work on the outputs. In light of internal human capacity and bureaucratic issues, the Iwokrama International Centre relinquished project staff positions and these were subsequently transferred to the University of Guyana and the North Rupununi District Development Board. There was also a delay in recruiting the EPA staff member due to rather complicated and bureaucratic procedures within the government body and a change in Guyanese tax law at the time of recruitment. Throughout the period, the project PIs kept regular communication through e-mail, phone and web-based video conferencing, with each other and with DEFRA, and this greatly aided resolving matters as quickly as possible. As such, we now have the following DI-funded staff positions:

Researcher, University of Guyana – Ms Indranee Roopsind

Junior Researcher, University of Guyana – Mr Sean Mendonca

Project Officer, North Rupununi District Development Board – Mr Lakeram Haynes

Project Officer, Environmental Protection Agency – Ms Odacy Davis

Community Field Assistant, North Rupununi District Development Board – Mr Orville Davis

Community Field Assistant, North Rupununi District Development Board – Ms Vanda Allicock

Administrative Assistant, University of Guyana – Ms Lillian Williams

Additional funding has also been found to significantly strengthen certain aspects of the project:

£7,000 from the British Academy to employ four additional community field assistants to carry out the NRAMP Impact Assessment within communities through Participatory Video.

£1000 from the Technology Faculty, Open University, to employ one full-time staff member, Mr Jermaine Clark, to manage and develop the online information system.

An International Fellowship for Mr Calvin Bernard to focus three months of his time on developing the postgraduate training component while based at the Open University.

Donation of 50 copies of the Open University postgraduate course "Environmental Decision-Making: A Systems Approach".

A donation of six desktop computers from Royal Holloway, University of London, currently awaiting shipment.

## **7. Sustainability**

The profile of the project remains very high within Guyana as regular national newspaper, radio and television items continue to feature the project. The key partners within Guyana have been particularly active in promoting the project using internal and external communication systems. For example, the EPA issued its own press release for World Wetlands Day which focused on the North Rupununi wetlands and the NRAMP. This was an initiative which was taken independently from the project and we only found out about it once in the press. This provides strong evidence of how our project outputs have been absorbed within partner institutions. The work of the Project has also been promoted at the Stakeholder Forum and through numerous face-to-face meetings with stakeholders in both Georgetown and the Rupununi.

There is increasing interest in the work of the Project both in Guyana and in the UK. For example, Conservation International-Guyana is keen to adopt the NRAMP approach with communities living in some of the protected areas managed by them. WWF-Guyana is currently in discussions with the Project on devising their funding strategy for freshwater ecosystems in Guyana. The Project will be helping The Wildlife Division of Guyana to put together the necessary documentation to lower the IUCN status of the Black Caiman, so that local communities could potentially sustainably harvest the animals. The data collected from the first Darwin Initiative will be the core data contributing to this report. During their sabbatical leave in Guyana, Drs Berardi and Mistry were contacted by the BBC Natural Wildlife Unit regarding a BBC documentary series being planned in Guyana entitled "Expedition Guyana". One of the filming locations will be the Rupununi. Meetings were held with the series producers and the Project has been informing the production of this documentary. In addition, the producers were impressed by the use of participatory video in the Project and consequently awarded an internship for one PV staff member to join their filming crew and receive further technical training in film-making. This will take place in September 2007. In addition, an entry-level Open University course on rainforest conservation is planned based on the BBC documentary. The course will draw significantly from the Darwin project. Plans are also being developed between Darwin project members and the Ministry of Amerindian Affairs to seek funding for a nationwide distance taught programme for Amerindian communities on natural resource management and sustainable livelihoods.

Although significant developments have taken place since the writing of the Darwin proposal, we feel that the original exit strategy devised for the Project is still viable. This includes continual communication and consultation among all stakeholders through the ECOSENSUS platform, assisting and enhancing existing eco-tourism in the Rupununi through Earthwatch expeditions, and integration of developed training and educational courses into Guyanese organisations and institutions.

## **8. Dissemination**

Dissemination activities during this reporting period have targeted different audiences. At the community level, regular community visits, bulletins and broadcasts on the local radio station have helped to disseminate project work to local community members including teachers, women's groups and wildlife clubs. At the national level, the Stakeholder Forum and high-level face-to-face meetings have been important. These meetings included sessions with the Minister for Amerindian Affairs, Carolyn Rodrigues, who is increasingly playing a major role in transferring state land (which makes up the majority of the Rupununi wetlands) over to Amerindian communities.

The Darwin Wetlands Bulletin has been a vital communication tool to all stakeholders in Guyana. Dissemination to the general public has been via newspaper articles and television appearances. The domain name [www.rupununi.org.gy](http://www.rupununi.org.gy) has secured for the next two years and a website is currently being developed. Although we have already planned for major post project income streams, such as the Earthwatch expeditions and the building of an extended Darwin Wetlands Centre, it is not clear as yet which dissemination activities will be continued after the project finishes and exactly how these will be funded. Plans will become more precise as proposal outcomes are known.

## 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)	Expenditure	Balance
Rent, rates, heating, overheads etc			
Office costs (eg postage, telephone, stationery)			
Travel and subsistence			
Printing			
Conferences, seminars, etc			
Capital items/equipment			
Others			
Salaries (specify) Matthew Simpson Calvin Bernard Coordinator Researcher EPA Project Officer Wetland Ranger Community Field Assistants 1 Community Field Assistants 2 UG Admin Assistant NRDDB Admin Support			
TOTAL			

Note: a request was submitted to the Darwin Initiative Secretariat on the 26<sup>th</sup> January 2007 to carry forward the £918 balance to the next financial year.

**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.](#)

The project has successfully initiated the use of an on-line system to manage the day to day activities of the project and facilitate communication within the team. This system uses the open source course management software, Moodle, and is currently being used by the team to develop all the outputs of the project. It is easy to use by people of varying abilities and ICT competencies. Moodle is currently being championed by the Open University which is investing in increasing the range of tools available (audiovisual conferencing, dialogue mapping, messaging, etc) and open content materials (see [OpenLearn.open.ac.uk](http://OpenLearn.open.ac.uk)). It has greatly facilitated the problems encountered in projects such as this one – namely the distance between project partners and the frequency of communication between them.

## 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
<p><b>Goal:</b> <i>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</i></p> <p><i>The conservation of biological diversity,</i></p> <p><i>The sustainable use of its components, and</i></p> <p><i>The fair and equitable sharing of the benefits arising out of the utilisation of genetic resources</i></p>		<p>The project is supporting the management of resources and species such as the Giant River Turtle, and ecotourism initiatives in the region. Through capacity building at the Centre for the Study of Biological Diversity, University of Guyana, the project is enhancing the ability for biodiversity conservation in the country.</p>	<p><i>(do not fill not applicable)</i></p>
<p><b>Purpose:</b> Build capacity of stakeholders at both local and national levels in implementing the North Rupununi Adaptive Management Plan (NRAMP) in ways that are ecologically, socially and financially sustainable</p>	<p>New understanding of the impact NRAMP has on ecological sustainability of wetland systems, economic equity, social justice and cultural diversity within the Rupununi region</p> <p>Continued implementation of NRAMP by Guyanese partner organisations</p> <p>Evidence of sustainable management and the maintenance of wetland biodiversity</p> <p>Increased awareness of wetland biodiversity conservation issues at local and national levels</p>	<p>Good progress is being made towards building the capacity of stakeholders, particularly the local communities, in implementing the NRAMP. The development of the training and educational courses are on schedule and information is being collected at the local and national level, through participatory video and policy review, on the potential issues related to the implementation of the NRAMP. Livelihood activities, particularly ecotourism, are being supported by the Project by helping communities in their development using the</p>	<p>Training programs will be initiated in the next action period so we will be able to evaluate our resources and activities in order to optimise the material further. Supporting infrastructure will begin construction, such as the Darwin Wetlands Centre, or will continue their evolution, such as the online information management system.</p>

	Sustainable livelihoods achieved through activities such as eco-tourism	NRAMP, and through the development of resources such as tourist maps and exhibitions.	
<b>Output 1.</b> Community Wetland Monitoring and Sustainable Livelihoods course	<p>1a) Course documentation and materials</p> <p>1b) 6 trained trainers to implement wider training within local communities</p> <p>1c) Wetland habitat guides for tourists</p> <p>1d) 3 Earthwatch expeditions per year</p>	<p>Good progress has been made on the development of the course – the course structure, activities and content have been established and the development of course resources are near completion. In addition, some tourist maps have been produced and further maps are in production, and plans for the Earthwatch expeditions and tourist bird guide are underway. In terms of the indicators, an indicator for the production of maps could be added. All other indicators are still appropriate.</p>	
<i>Activity 1.1.</i> Community NRAMP and livelihood activities consultations to assess local capacity and training needs			
<i>Activity 1.2.</i> Production of plan for development of course			
<i>Activity 1.3.</i> Commencement of course development			
<i>Activity 1.4.</i> Production of the NRAMP 2007 (also for Output 2)			
<i>Activity 1.5.</i> Skills training for Project staff (also for Output 2)			
<i>Activity 1.6.</i> Production of tourist maps for the area			
<i>Activity 1.7.</i> Production of plan for Earthwatch expeditions and proposal writing commencement			



<b>Output 2.</b> Environmental Officers/Ranger Wetland Monitoring and Management course	2a) Course documentation and materials  2b) 6 trained trainers to implement training of biodiversity conservation NGOs and EPA staff	Good progress has been made on the development of the course – the course structure, activities and content have been established and the development of course resources are near completion. All indicators are still appropriate.
<i>Activity 2.1.</i> Assessment of current training courses within relevant organisations		
<i>Activity 2.2.</i> Production of plan for development of course		
<i>Activity 2.3.</i> Commencement of course development		
<b>Output 3.</b> Primary School Teacher and Student Wetland Biodiversity packs	3) 16 local community school resource packs for teachers and students published	Good progress has been made on the development of packs – lesson plans for the pack have been devised and these are currently under development. All indicators are still appropriate.
<i>Activity 3.1.</i> Assessment of national science curriculum, WWT schools material and follow-up interviews with teachers		
<i>Activity 3.2.</i> Production of plan for development of schools pack		
<i>Activity 3.3.</i> Participation in Rupununi Wildlife Festival focused on school children		
<i>Activity 3.4.</i> Commencement of schools pack development		
<b>Output 4.</b> University of Guyana Sustainable Management of Wetland Biodiversity postgraduate	4) Course lecture material and resources produced	Good progress is being made on the development of the course – a plan has been devised and major course development will take place from June to August 2007. All indicators are still appropriate.

course		
<i>Activity 4.1.</i> Consultations with lecturers at the University of Guyana		
<i>Activity 4.2.</i> CPD assessment within relevant organisations		
<i>Activity 4.3.</i> Production of plan for development of postgraduate course		
<b>Output 5.</b> NRAMP Impact Assessment Report	5a) Workshops completed  5b) Report peer reviewed and distributed to all stakeholders	Good progress has been made on this – a framework with relevant indicators has been established. The first Stakeholder Forum and subsequent meetings have provided a basis upon which to develop the report. The PV staff are gathering views from the communities and the EPA Project Officer has completed a comprehensive review of biodiversity conservation, natural resource management and sustainable development policies and regulations and their potential impact on the NRAMP. All indicators are still appropriate.
<i>Activity 5.1.</i> Stakeholder Forum held (also for Output 5)		
<i>Activity 5.2.</i> Participatory Video training undertaken by 18 attendees		
<i>Activity 5.3.</i> Four staff employed and currently undertaking research on the impact of the NRAMP through PV		
<i>Activity 5.4.</i> Film on Stakeholder Forum produced		
<b>Output 6.</b> Publications, presentations and exhibitions	6) 6 radio and 2 TV broadcasts; 4 newspaper articles; permanent wetland biodiversity exhibitions; 6 quarterly wetland stakeholder bulletins; 2 papers published in	Good progress has been on media presentations, the Project bulletins, website and the Darwin Wetland Centre and exhibition. All indicators are still appropriate.

	peer reviewed journals; Rupununi wetland website	
<i>Activity 6.1.</i> Two press releases in Guyana and the UK		
<i>Activity 6.2.</i> Two Guyanese national newspaper articles		
<i>Activity 6.3.</i> One Guyanese TV broadcast		
<i>Activity 6.4.</i> Six local Guyanese radio broadcasts		
<i>Activity 6.5.</i> Three Darwin Wetlands Bulletins produced and distributed		
<i>Activity 6.6.</i> Plan and proposal for Darwin Wetland Centre submitted to local communities		
<i>Activity 6.7.</i> Project website and online information management system launched		
<i>Activity 6.8.</i> Proposal for larger Darwin Wetland Centre completed and submitted to FCO via British High Commission in Guyana		

## Annex 2 Project's full current logframe

• <b>Project summary</b>	• <b>Measurable indicators</b>	• <b>Means of verification</b>	• <b>Important assumptions</b>
<p>• <b>Goal:</b></p> <p>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></p> <p>Build capacity of stakeholders at both local and national levels in implementing the North Rupununi Adaptive Management Plan (NRAMP) in ways that are ecologically, socially and financially sustainable</p>	<p>New understanding of the impact NRAMP has on ecological sustainability of wetland systems, economic equity, social justice and cultural diversity within the Rupununi region</p> <p>Continued implementation of NRAMP by Guyanese partner organisations</p> <p>Evidence of sustainable management and the maintenance of wetland biodiversity</p> <p>Increased awareness of wetland biodiversity conservation issues at local and national levels</p> <p>Sustainable livelihoods achieved through activities such as eco-tourism</p>	<p>Internal reports from Guyanese partner organisations related to sustainable management of wetland biodiversity</p> <p>Wetland training, monitoring and education programmes adopted by Guyanese organisations</p> <p>Wetland species and habitat monitoring reports from partner organisations</p> <p>Income generated from sustainable livelihoods</p>	<p>All relevant stakeholders willing and able to continue participation in the implementation of NRAMP</p>
<p>• <b>Outputs</b></p>			

<p>1) Community wetland monitoring and eco-tourism course</p>	<p>1a) Course documentation and materials</p> <p>1b) 6 trained trainers to implement wider training within local communities</p> <p>1c) Wetland habitat guides for tourists</p> <p>1d) 3 Earthwatch expeditions per year</p>	<p>1a) Feedback from documentation review</p> <p>1a) 2 copies of course material sent to Darwin Initiative</p> <p>1b) Trainee evaluation questionnaire and attendance records</p> <p>1c) 2 copies of course material sent to Darwin Initiative</p> <p>1d) Expedition participant attendance records</p>	<p>1) Trained staff remain in communities and train other community members to undertake wetland monitoring and tourist guiding</p>
<p>2) Wetland monitoring and management ranger and environment officer training course</p>	<p>2a) Course documentation and materials</p> <p>2b) 6 trained trainers to implement training of biodiversity conservation NGOs and EPA staff</p>	<p>2a) Feedback from documentation review</p> <p>2a) 2 copies of course material sent to Darwin Initiative</p> <p>2b) Trainee evaluation questionnaire and attendance records</p>	<p>2a) Trained staff remain in institutions and train other staff members in wetland monitoring and management</p> <p>2b) Conservation organisations having a continued commitment to wetland management within the Rupununi</p>
<p>3) Wetland biodiversity primary school teacher and student packs</p>	<p>3) 16 local community school resource packs for teachers and students published</p>	<p>3) Review and feedback on course material at local and national level</p>	<p>3) Continued support from local schools and wildlife clubs for the project</p>
<p>4) Sustainable management of wetland biodiversity university postgraduate course</p>	<p>4) Course lecture material and resources produced</p>	<p>4) Review and feedback on course material within University of Guyana, Open University and Royal Holloway</p>	<p>4) Continued support from the University of Guyana for the project</p>
<p>5) NRAMP Impact Assessment Report</p>	<p>5a) Workshops completed</p> <p>5b) Report peer reviewed and distributed to all stakeholders</p>	<p>5a) List of attendees</p> <p>5b) ECOSENSUS database updated</p>	<p>5) All stakeholders attend and participate in workshops</p>

6) Publications, presentations and exhibitions	6) 6 radio and 2 TV broadcasts; 4 newspaper articles; permanent wetland biodiversity exhibitions; 6 quarterly wetland stakeholder bulletins; 2 papers published in peer reviewed journals; Rupununi wetland website	5c) 3D participatory model of Rupununi 5d) 2 copies of report sent to Darwin Initiative 6) Copies of all publications and recordings sent to Darwin Initiative	6) Broadcasts and publications reach and positively influence intended stakeholders
<ul style="list-style-type: none"> <li>• <b>Activities</b></li> </ul>	<b>Activity Milestones (Summary of Project Implementation Timetable)</b>		
Stakeholder workshops	Yr1: Start-up workshop – project team to plan work programme and identify key tasks (1wk Jan 07); First stakeholder workshops - assess implementation of NRAMP using ECOSENSUS platform, develop 3D Rupununi model and undertake first iteration of NRAMP impact assessment (4wks Jan/Feb 07); Second stakeholder workshops – second iteration of NRAMP impact assessment (1wk Aug07); Final workshop – third iteration of NRAMP impact assessment and presentation of findings (1wk Feb08)		
Training programmes	Training of trainers for community wetland monitoring and eco-tourism course and initiation of course development (1wk Feb07); Training of trainers of wetland monitoring and management ranger and environment officer course and initiation of course development (1wk Feb07). Evaluation and adaptation of training course material (Mar07 to May07) Community wetland monitoring and eco-tourism training programmes (Jun07 to Feb08); Wetland monitoring and management ranger and environment officer training programmes (Jun07 to Feb08).		
Wetland biodiversity primary school teacher and student packs	Development of materials (Oct06 to Sep07); First draft, consultation and review (Oct07); Second draft, pilot implementation and evaluation (Feb08); Published (Mar08).		
Sustainable management of wetland biodiversity university postgraduate course	Development of materials (Oct06 to Sep07); First draft, consultation and review (Oct07); Second draft, pilot implementation and evaluation (Feb08); Published (Mar08).		

Publicity material

3 radio and 1 TV broadcasts (per yr); 1 national newspaper article (per yr); 2 UK press releases; permanent wetland biodiversity exhibitions (Feb08); 4 wetland stakeholder bulletins (per yr); 2 papers published in peer reviewed journals (Dec 08); Rupununi wetland website (Feb07 to Nov08); articles within WWT, Royal Holloway and OU publications (Feb 07 to Nov08).

## **Annex 3 onwards – supplementary material (optional)**

Please note that all documentation and resources associated with the Project and its outputs can be found on the NRAMP – Guyana site at [www.moodle.kmi.open.ac.uk](http://www.moodle.kmi.open.ac.uk) (Click on NRAMP-Guyana and logon as a guest using "NRAMP" as the enrolment key)



### ***Checklist for submission***

	Check
<b>Is the report less than 5MB?</b> If so, please email to <a href="mailto:Darwin-Projects@ectf-ed.org.uk">Darwin-Projects@ectf-ed.org.uk</a> putting the project number in the Subject line.	√
<b>Is your report more than 5MB?</b> If so, please advise <a href="mailto:Darwin-Projects@ectf-ed.org.uk">Darwin-Projects@ectf-ed.org.uk</a> that the report will be send by post on CD, putting the project number in the Subject line.	
<b>Do you have hard copies of material you want to submit with the report?</b> 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.	