



## DARWIN INITIATIVE

### APPLICATION FOR GRANT FOR ROUND 11 COMPETITION: STAGE 2

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

162/12/020

#### 1. Name and address of organisation

School of Agricultural and Forest Sciences, University of Wales Bangor, Gwynedd, LL57 2UW

#### 2. Project title (not exceeding 10 words)

Building Nicaraguan and Costa Rican capacity in biodiversity conservation

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

Details	Project leader	Co-Principal Investigators		Main project partner or co-ordinator in host country
<b>Surname</b>	Gormley	Healey	Sinclair	Zamora
<b>Forename(s)</b>	Lorraine	John Robert	Fergus Lloyd	Nelson
<b>Post held</b>	Research Fellow	Senior Lecturer	Senior Lecturer	Botanical Curator
<b>Institution</b>				National Institute of Biodiversity (INBio)
<b>Department</b>	School of Agriculture and Forest Sciences (SAFS)	SAFS	SAFS	Botany, Inventory Section
<b>Telephone</b>				
<b>Fax</b>				
<b>Email</b>				

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

##### Aims

The aims of the School of Agriculture and Forest Sciences of the University of Wales Bangor are to advance and apply knowledge of the efficient use of land and associated features in meeting world needs for food, fibre and environment and to communicate this knowledge by the education and training of students and extension to other professionals and local communities.

##### Activities

Research, development, education, training and extension. In meeting our aims, the long term sustainability of land use systems in relation to biodiversity, environmental quality, and welfare of animals are major considerations.

##### Achievements

The University of Wales Bangor (UWB) has a research income of £8.1 million per annum. The School of Agriculture and Forest Sciences, UWB has a Grade 5 in the 2001 RAE and is recognised as one of the leading international institutions in research and education in forest ecology, tropical forest conservation and management, agroforestry and biodiversity of fragmented landscapes. See attached sheet for further details.

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

SAFS, UWB has held 3 Darwin Initiative grants, one is ongoing and two successfully completed: a) Biodiversity conservation in church yards, Ethiopia (2001-04), b) Biodiversity on Mt. Cameroon (1994-7) and c) Invasive tree species (1994-6)

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

Nelson Zamora, Botanist, National Institute of Biodiversity (INBio), Costa Rica: Nelson has been involved in discussion and project planning from the outset. He and the project leader previously worked together in the project area. He will facilitate the botanical fieldwork and species identification training. He will also provide input to the production of identification guides. Angel Solís, Entomologist, INBio, Costa Rica: Angel has also been involved in project planning and he will facilitate insect surveys, species identification training and species ID guides. Bryan Finegan, Forest Ecologist, Tropical Agricultural Research and Higher Education Centre (CATIE): Bryan is a leading international expert in tropical forest ecology, conservation and management and has worked extensively in Nicaragua and in Costa Rica. He is facilitating the innovative new CATIE/University of Wales, Bangor (UWB) joint training program and one of the Darwin project trainees will be enrolled for a CATIE Masters degree under his guidance in order to benefit from both CATIE and UWB expertise. Bryan will also facilitate training in sampling methodologies and analysis. Dalia Sanchez, Research Officer, Cocibolca (a Nicaraguan grassroots conservation NGO): Dalia participated in the Managua workshop identifying the need for the project; she will facilitate the collaboration and training in Nicaragua and will receive advanced training from the project herself. Jhonny Mendez, Director of Forest Management, CODEFORSA. Jhonny has been involved in sustainable forest management in the project area for many years. He will facilitate training for his staff, who are presently involved with the proposal for a new National Park. Miguel Torres, Director, Proyecto Araucaria, Rio San Juan. Miguel manages the Proyecto Araucaria in Nicaragua, he will facilitate training amongst local Nicaraguan NGOs (Fundacion Rio San Juan, FUNDAR) in the project area.

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

a) Host country partners have been involved at all stages of project development. Meetings have been held with all partner organisations earlier in 2002 and more recently in Nov. 2002 and partners are in regular contact through email (we have full capacity to work in Spanish). The project meets a need identified by the partner organisations to strengthen capacity in biodiversity conservation in Nicaragua and Costa Rica and specifically in the Rio San Juan border region. The partner's have formally approved the project at staff and board levels. b) The benefits of the project will continue through broad dissemination of project documents, management plans and species identification guides ensuring a lasting project legacy. In addition, although staff changes may occur, it is very likely that trained personnel will continue to work in the field of conservation and will strengthen and contribute to regional biodiversity conservation capacity even if working for other organisations.

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

In Nicaragua, the project will contribute to development of a new Biosphere reserve (La Reserva de la Biosfera del Sureste), which combines the existing Si a Paz Reserve, and others. The Commission of the reserve has been consulted about this project and meetings have been held with the Technical Commission which represents the Nicaraguan Government (Ministry of the Environment, MARENA; Ministry of Agriculture, MAGFOR), and local and international NGOs. This Commission supports the project and has agreed to work with us to identify participants from the San Juan area for the training workshops. In Costa Rica, CODEFORSA, one of the project partners, has presented the project to the Board of the San Juan-La Selva Biological Corridor project (Corredor Biológico San Juan-La Selva) and to MINAE (Ministry of the Environment) representatives. Local communities are already closely involved in both the development of the Nicaraguan Biosphere reserve and the San Juan-La Selva Biological Corridor project (part of the Mesoamerican Biological Corridor project) and this Darwin project will work with local NGOs to continue this existing participatory process.

## PROJECT DETAILS

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

*Purpose:* To build capacity in biodiversity assessment, conservation and management in Nicaragua and Costa Rica, through the facilitation of regional and international knowledge exchange and training.

*Objectives:*

- Counterparts from Central American NGOs (Cocibolca, FUNDAR, Fundación Río San Juan, Nicaragua; CODEFORSA, Costa Rica) acquire expertise and experience in biodiversity identification, assessment and monitoring in order to build capacity at a regional level.
- Counterparts from the NGOs acquire expertise and experience in protected area planning and the development of habitat management plans.
- Analysed and interpreted data on the distribution of plant and insect diversity between disturbed and intact forest types across the fragmented La Cureña forest landscape contributed to the decision-making process over the creation and boundaries of a new national park.
- Detailed written guidelines, advice and training provided to the Department for the Environment of Costa Rica (MINAE), local NGOs (CODEFORSA) and local communities on their production of participatory biodiversity management plans for key habitats in the La Cureña area.

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

This project is a new initiative, but it will build on the success of existing collaboration between UWB, CATIE, University of Central America (Nicaragua) and Cocibolca in the EU-INCO funded agroforestry project 'Developing methods and models for assessing the impacts of trees on farm productivity and regional biodiversity in fragmented landscapes: FRAGMENT'. Whilst benefiting from the experience of this existing project, the new Darwin project would be quite distinct in its identity, purpose, geographical focus and local partners.

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

The project will assist both Nicaragua and Costa Rica in implementing the Biodiversity Convention through providing improved capacity to manage and conserve biodiversity. The existing close working relationships of the project partners with key government, NGO and education/research institutions in the two countries will ensure that the project does contribute to the implementation of the following articles:

- Identification and monitoring of valuable native forest tree species (Article 7),
- Improvement to the capacity of Nicaraguan and Costa Rican NGOs to carry out future biodiversity assessments (Articles 7/8/9),
- *In situ* conservation of tree and insect species in fragmented forest landscapes (Articles 8/10),
- Training of local personnel through technical and scientific collaboration (Article 12/18).

Central America is renowned as a biodiversity hotspot with high species richness and endemism, and high densities of endemic bird areas. In recognition of this regional governments have designated the "Mesoamerican biological corridor", considered to be the world's most ambitious conservation initiative, as the major focus in their implementation of CBD. The Río San Juan border region between Costa Rica and Nicaragua is a key section of this corridor (comprising the largest rain forest area in the Americas north of the Amazon) but has received little conservation attention. Thus the project's focus on this critical "frontier forest" section of the corridor, addresses a major international conservation priority.

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

Although Costa Rica has a well-developed system of biodiversity inventory and conservation (e.g. through INBio), there has been little coverage of the remoter northern region of San Carlos, where the forest is unprotected and subject to rapid conversion and fragmentation. Similarly, although a large area of intact neighbouring forest in Nicaragua has been given protected status in a new biosphere reserve it has received very little formal biodiversity assessment, or conservation management. There is an urgent need to strengthen the capacity of Nicaraguan and Costa Rican NGOs who have a major responsibility for conservation planning and management. This project will focus on building regional conservation capacity through training and staff exchange in assessment and management planning of biodiversity in fragmented forest landscapes (an increasingly common component of the Mesoamerican biological corridor). It will formally document the distribution and associations of plant and insect biodiversity within the landscape of the border La Cureña area (Costa Rica) using expertise in species identification (INBio), habitat characterisation and rapid biodiversity assessment (UWB, CATIE). This area is known to be ecologically distinct, but its biodiversity has never been formally assessed. New field data will be interpreted up to the landscape scale with GIS, enabling identification of conservation priority habitats and species. This information will play a key role in decision-making over the creation and boundaries of a new national park (Parque Nacional Maquenque) by the Costa Rican government's Department of the Environment (MINAE), a proposal presently in its earliest stages of evaluation.

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

In Costa Rica the potential for ecotourism and other biodiversity values (through INBIO) to make a significant contribution to sustainable livelihoods has already been clearly demonstrated, but its impact has been restricted to limited parts of the country and has not reached the economically poor project area in the north or neighbouring countries, e.g. Nicaragua. The project will facilitate this extension of biodiversity-based sustainable livelihoods. In Nicaragua the project area is still largely forested but the agricultural frontier is becoming ever nearer; training of local people in biodiversity conservation will be essential for them to benefit from activities such as ecotourism and extended marketing of NTFPs. The project area in Costa Rica is unprotected and the remaining forests subject to rapid conversion and fragmentation. Alternative income opportunities (e.g. ecotourism, NTFPs) are required to improve local livelihoods adversely affected by the failing cattle ranches. The development of a new national park will become an important component of sustainable livelihoods in the area.

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

The work will impact upon biodiversity conservation in an area of regional and global importance. Trainees will contribute directly to the conservation of biodiversity in both Nicaragua and Costa Rica. Personnel from Cocibolca, CODEFORSA, FUNDAR and Fundacion Rio San Juan will be trained and gain experience in biodiversity assessment and monitoring, and in the processes of protected area designation and biodiversity management. The latter will meet the need for in-country expertise to develop systems for monitoring to detect major threats to biodiversity, changes in habitat quality and populations of selected priority taxa; and then the utilization of these results in the implementation and modification of management plans. The Outputs will be disseminated through conservation priority habitat management plans produced by trainees, INBio, CATIE and UWB for the La Cureña area, northern Costa Rica and through tree and indicator insect identification guides for the wider cross-border region of the Rio San Juan basin which will be produced and disseminated to local NGOs, institutions and governments. In addition, these plans and guides will be an invaluable tool and will form the basis for similar work to be carried out in the adjacent SE Nicaragua Biosphere Reserve. Guidelines for the decision on the designation and boundaries of the proposed new Maquenque National Park in Costa Rica will also be widely disseminated and the project will contribute to the biodiversity management plan for this park. Description of the biodiversity of the La Cureña fragmented forest landscape will be published and disseminated internationally (to UNEP-WCMC etc.).

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

The training provided to local NGO staff will build necessary expertise in biodiversity inventory, assessment and management. This will ensure continuation of *in-situ* biodiversity conservation work on both sides of the Rio San Juan. It will also ensure the availability of trained staff to continue the work of the CBD at a national and regional level. Costa Rica and, particularly, Nicaragua have a serious shortage of qualified personnel to represent biodiversity issues and it is likely that local project staff will build their professional capacity not only to continue technical biodiversity work but also to secure further international funding after the end of the project. Wide dissemination of project documents, management plans and biodiversity identification guides will also ensure that the project outputs provide a lasting legacy. A major contribution of the project will be to facilitate the establishment of a new national park in northern Costa Rica which will maintain the continuity of the Mesoamerican Biological Corridor in this already degraded region. In addition, the project will facilitate the development and sustainability of the SE Nicaraguan Biosphere Reserve which represents one of the last extensive forested areas in Central America. The success of these protected area initiatives, to which the project will make a key contribution, will be crucial to provide conservation incentives for local people without which long-term sustainable biodiversity conservation will be impossible.

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

Broad consultation with local partners has taken place in the planning of this Darwin project in order to identify a real need for the project activities. This consultation and partnership process will minimise potential problems in achieving impact as the project has the commitment of local stakeholders. The project links into existing work by local partners in the development of the two reserves in the San Juan region and this will also ensure that the project legacy will continue after Darwin funding. The project will contribute expertise and capacity building within the larger framework of the ongoing Mesoamerican Biological Corridor project. In addition, we have addressed the risk presented by changing NGO circumstances by: (1) careful selection of partners (based on years of experience in the region); and (2) working with a number of partners so that if one loses capacity, others will still be in a position to continue the work. To maximise communication the project partners will work in Spanish (including the UWB team) and the Project Leader will translate final documents into English.

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

This project will be the first Darwin project carried out in Nicaragua, a country rich in biodiversity, and vital in the regional struggle to conserve biodiversity, but very poor in resources. It will draw not only on British expertise but also facilitate regional exchange of knowledge through collaboration between Nicaraguan and Costa Rican institutions and NGOs. It will result in trained personnel, biodiversity inventories and management plans, and also contribute to the development of a newly formed Biosphere Reserve in Nicaragua and contribute to the designation of a new national park in Costa Rica, both of which make up a part of the globally important Mesoamerican Biological Corridor. As the project will also train MARENA (Nicaraguan Ministry of the Environment and Natural Resources) park wardens, who are a vital tool in conserving biodiversity, its impact will range from grassroots, to national and regional level. The project will also receive a high profile through information boards placed in both the parks involved in the project in areas where ecotourism is expected to become popular and through use of the Darwin Logo on all project publications, particularly the management plans and identification guides which will be widely disseminated.

**18. Are you aware of any other individuals/organisations carrying out similar work? Are there completed or existing Darwin Initiative projects which are relevant to your work? Please give details, explaining the**

**similarities and differences. Show how the outputs and outcomes of this work will be additional to any similar work, and what attempts have been/will be made to co-operate with such work for mutual benefits.**

Within Central American there have been previous initiatives addressing biodiversity conservation (e.g. Coffee and biodiversity, El Salvador, Darwin Project 162/08/150; and Enhanced biodiversity conservation through capacity building, Central America, Darwin Project 162/10/023). This Darwin project will build on the experiences of these projects, however it is quite distinct in its aims to build capacity in the San Juan region through training of NGO staff and park wardens. It focuses on a biodiversity priority area where improved technical capacity is urgently required. INBio has a wealth of inventory experience but has not previously focused on this geographical area, while the partner NGOs are the main players in this region with a remit for biodiversity conservation.

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

UK and Costa Rican experts will provide training to NGO staff from both countries and to Nicaraguan park wardens in biodiversity identification, assessment, planning and management. Training will involve workshops in species identification (plants and insect indicator groups) and biodiversity inventory and assessment. The workshops will be held in Years 1 and 2 for 2 weeks in INBio and then be followed by 3 months of hands on field-training each year. 20 NGO staff will be involved in the training (10 each year). The trainees from CODEFORSA in Costa Rica and Cocibolca, FUNDAR and Fundacion Rio San Juan in Nicaragua will be selected by their NGO. Park wardens from the SE Nicaragua Biosphere Reserve, selected by local NGOs (FUNDAR and Fundacion R. San Juan), will also participate in the project training. In addition, one Nicaraguan NGO staff member will attend the CATIE MSc course in Biodiversity, Tropical Forest Management and Conservation. We will measure the effectiveness of the training by assessment of the project outputs including priority habitat management plans, biodiversity collections from project fieldwork and species databases. Effectiveness over the long term will be monitored through the development and implementation of biodiversity conservation plans within the Maquenque National Park and the Biosphere Reserve and will be possible through on-going collaboration between UWB, INBio, CATIE and the NGOs involved in the project. Trainees will be able to train other personnel in their NGOs particularly in field biodiversity inventory, and materials produced by the project, particularly habitat management plans and identification guides, will also facilitate the extension of project training to other regional NGO staff and stakeholders.

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

When the Darwin project has finished, the resulting improved capacity in both Nicaragua and Costa Rica, strengthened institutional links, priority habitat management plans, species ID guides and databases will continue to support Central America's work toward its CBD commitments.

- CODEFORSA, Cocibolca, FUNDAR and Fundacion Rio San Juan will all have strengthened capacity in biodiversity conservation and management. This will provide a technical and scientific resource to underpin work on Nicaragua and Costa Rica's Biodiversity Action Plans. These NGOs, CATIE and INBio have identified this Darwin project as a valuable catalyst for their plans for future collaborative applications which will provide detailed knowledge of biodiversity in the SE Nicaraguan Biosphere Reserve and continue capacity building in this area utilising and extending the expertise gained by the participants of this project.
- Identification guides will remain as key tools for identifying trees and insect indicator groups.
- The establishment of the Maquenque National Park in La Cureña, Costa Rica will ensure the long-term conservation of biodiversity in the area and will ensure the continuation of the globally important Mesoamerican Biological Corridor.

The strong support that we have received from the British Embassies in San Jose and Managua will be invaluable for publicity, legacy and continuity.

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

<b>Project implementation timetable</b>	
<b>Date</b>	<b>Key milestones</b>
Aug. 2003	Key stakeholders attend project planning workshops/meetings in Nicaragua and Costa Rica, recommendations written up and implemented.
Oct. 2003	Two week workshop-based training in methods, techniques and theory of taxonomy and biodiversity studies, species identification and rapid biodiversity assessment (Teaching input from INBio, UWB and CATIE).
Oct. 2003	Circumscription of biodiversity assessment area and establishment of GIS. Consultation with landowners and proposed national park committee.
Oct. 2003	Agreement with stakeholders (including land owners) on selection of 6 field sites/permanent plots.
Oct. 2003, April-May 2004	Two months of hands-on field training, followed by one month of practical experience (report by participants to be submitted). First phase of rapid biodiversity assessment (RBA) completed. Conservation priority habitats identified.
July. 2004	Analysis of RBA data completed: phase 1.
Sept. 2004	Two week workshop-based training in methods, techniques and theory of taxonomy and biodiversity studies, species identification and rapid biodiversity assessment (Teaching input from INBio, UWB and CATIE).
Oct. 2004, April-May 2005	Two months of hands-on field training, followed by one month of practical experience (report by participants to be submitted). Second phase of rapid biodiversity assessment (RBA) completed. Progress in priority habitat management plans.
July 2005	Analysis of RBA data completed; phase 2. Technical report. Priority habitats assessed by trainees, UWB and INBio. Local priority species (by conservation, ecological, utility/cultural values) selected.
Aug. 2005	Collation of data/values from field assessment, collaborators and wider stakeholder participation.
Sept. 2005	Draft species identification guides for tree species and insect indicator groups produced by INBio and UWB.
Sept. 2005	Draft species identification guides field tested by project participants and CATIE MSc students.
Oct. 2005	Database completed and tested. Draft guidelines for Maquenque National Park written.
Oct. 2005	Feedback obtained from at least 40 stakeholders and Mesoamerica Biological Corridor project regarding guidelines.
Oct. 2005	Species reference collections of insect indicator groups and tree species established for La Cureña region, held in INBio.
Nov. 2005	Priority habitat management plans and Maquenque National Park Management Plan guidelines written.
Jan. 2006	Final revised versions of species identification guides; published by INBio. 2 manuscripts submitted for international publication.
Jan. 2006	Final revised versions of National Park Biodiversity Management Guidelines produced and disseminated to MINAE, Mesoamerica Biological Corridor project and local NGOs including CODEFORSA.
Feb. 2006	Training/guided experience in stakeholder participation and workshop facilitation for the 20 project trainees (2 days).
Feb. 2006	Two day workshop to disseminate plans and guides to NGOs, government officers, trainers/researchers (40 participants).
Feb. 2006	Dissemination/feedback by regular liaison with MINAE/MARENA (including annual report); final key meeting
Throughout project	Bi-annual project newsletters produced in Spanish and distributed to all stakeholders throughout the project, national and international press, and local radio and television, coverage at project initiation and throughout.

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

The purpose of the project, to build capacity through knowledge and skill exchange, will be achieved through a combination of the project outputs. The major project output will be an increased human resource capacity within Nicaragua and Costa Rica to address the urgent need to conserve biodiversity through protected areas and sustainable management. These trained NGO staff and park guards will be more able to tackle the problems faced in the San Juan region in balancing poverty alleviation with forest and biodiversity conservation. Other project outputs including the species identification guides, reference collections and databases will provide an ongoing resource of critical importance to achieve the project purpose and to facilitate further training after the end of Darwin funding. In addition, the priority habitat management plans and national park guidelines will play a crucial role in improved biodiversity assessment and monitoring in the San Juan regions of Nicaragua and Costa Rica.

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

<b>PROJECT OUTPUTS</b>		
Year/Month (starting April)	Standard Output Number (see standard output list)	Description (include numbers of people involved, publications produced, days/weeks etc)
	<b>Training Outputs</b>	
Oct. 2003	6A, 6B	10 Nicaraguan and Costa Rican NGO staff receive 2-week course in species identification and rapid biodiversity assessment.
Oct. 2003	7	Information leaflet detailing the importance of biodiversity in the San Juan region.
Oct. 2003, April 2004	6A, 6B	10 Nicaraguan and Costa Rican NGO staff receive three months of hands-on field training in biodiversity inventory and assessment.
Sep. 2004	6A, 6B	10 Nicaraguan and Costa Rican NGO staff receive 2-week course in species identification and rapid biodiversity assessment.
Oct. 2004, April 2004	6A, 6B	10 Nicaraguan and Costa Rican NGO staff receive three months of hands-on field training in biodiversity inventory and assessment.
Jan. 04-Jan. 06	2	1 Nicaraguan NGO staff member studies for an MSc in CATIE.
Feb. 2006	6A, 6B	20 Nicaraguan and Costa Rican NGO staff receive training/guided experience in stakeholder participation and workshop facilitation.
	<b>Research Outputs</b>	
Apr 03 - March 06	8	40 weeks UK staff time in Nicaragua and Costa Rica.
Nov. 2005	9	4 Priority Habitat Management Plans
Jan. 2006	9	Guidelines for the Biodiversity Management Plan of the Maquenque National Park, Costa Rica.
Jan. 2006	10	3 species identification guides to the insects and tree species of the Rio San Juan Region produced.
Jan. 2006	11B	2 papers submitted to peer reviewed journals.
Oct. 2005	12A, 12B	Databases established for the insect indicator group species and tree species of the La Cureña region of Costa Rica. Existing INBio databases enhanced by addition of project data.
Oct. 2005	13A, 13B	Species reference collections of insects and tree species established for the La Cureña region. INBio's existing collection enhanced.
	<b>Dissemination Outputs</b>	
Feb. 2006	14A	2 workshops (in Nicaragua and Costa Rica) to disseminate plans and guides to NGOs, government officers, trainers/researchers.
Sept. 2004 and Sept. 2005	14B	Project findings presented at (at least) 2 international conferences.
April 2003, 2004, 2005, 2006	15A, 15B	4 press releases introducing and following the progress of the project in Nicaraguan and Costa Rican press.
April 2003, 2006	15C	2 press releases to UK national press.
April 2003, 2006	15D	2 press releases to local Welsh press.
Sept. 03, March 04, Sept 04, March 05, Sept. 05, March. 06	16A, 16B, 16C	Bi-annual project newsletters produced in Spanish and English. 200 circulated in host countries and 50 in the UK.
Thru'out project.	17A	Nicaraguan/Costa Rican dissemination network of NGOs and local institutions established (email list, webpage and local meetings).
April 03, March 06	18A, 18C	2 national and local TV features in Nicaragua and Costa Rica.
April 03, March 06	19a, 19C	2 national and local radio programmes in Nicaragua and Costa Rica.
	<b>PHYSL./FINANC. O'PUTS</b>	
March 06	20	£6,650
Thru'out project	22	6 permanent field plots established and continued by INBio after Darwin funding.
Thru'out project	23	£48,246

## MONITORING AND EVALUATION

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

The project leader, who is fluent in Spanish, will monitor the project continually both during its lifetime and at its conclusion. The measurable outputs detailed in section 23 (above) provide clear criteria against which to monitor progress. Project indicators from the Logical Framework are reflected in the project outputs listed in section 23. The timings stated for the completion of each activity in section 23 give an explicit set of targets and milestones. Together these provide clear criteria against which the success of the project will be evaluated during its lifetime and at its conclusion. In addition, project collaborators are in regular contact by email and this will enable at least monthly monitoring of progress and expenditure.

In the two previous and one ongoing Darwin projects, SAFS/UWB have produced detailed and explicit six-monthly, annual and final reports (technical and financial). Throughout this new project all collaborators will produce six-monthly and annual reports. We also have a high reputation for reporting amongst our other major project funders, e.g. DFID and EU. This will be continued in the new project, through which we will provide robust evaluation of project progress to DEFRA. The SAFS Research Committee and the Finance Office of UWB provide a further element of quality control and monitoring for the scientific work and expenditure on the school's projects. The project's accounts will be subject to financial audit and the costs of this have been built into the budget.

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

All project partners will write their own bi-annual and annual reports which will then be collated and translated by the project leader. Trainees will be monitored by the trainers from UWB, INBio and CATIE. They will also be tested at the end of each two-week workshop and the reports that they submit, having completed three months of hands-on training, will be assessed by UWB and INBio project members (Lorraine Gormley, John Healey, Nelson Zamora and Angel Solis). The formal annual reports of the collaborating organisations in Nicaragua and Costa Rica will provide an independent basis for evaluating project progress. These organisations have Boards of Directors which routinely monitor the progress of projects and will evaluate this Darwin Initiative project.

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

The project will achieve value for money through:

1. Having secured a high level of commitment and match funding (£48K) from its partners.
2. Linking its training and field work to activities and protected area initiatives that the local partners have already initiated, thus achieving considerable "added value" rather than funding a whole new initiative in isolation.
3. Utilizing a local institution (CATIE) for higher level formal MSc training so avoiding the costs of UK overseas student fees
4. Targeting expenditure on project activities that though inexpensive will have a large impact in catalysing future conservation achievements.
5. The global importance of the biodiversity resource whose conservation the project will catalyse.
6. Creating the potential for the significant enhancement of local incomes in the project area as a result of effective biodiversity conservation and protected areas management both through ecotourism and the sustainable management of forest resources, such as non-timber forest products (NTFPs).

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

Report type	Period covered	Due date	REQUIRED?
Six month report	1 April 2003 – 30 September 2003	30 October 2003	Yes
Annual report	1 April 2003 – 31 March 2004	30 April 2004	Yes
Six month report	1 April 2004 – 30 September 2004	30 October 2004	Yes
Annual report	1 April 2004 – 31 March 2004	30 April 2005	Yes
Six month report	1 April 2005 – 30 September 2005	30 October 2005	Yes
Annual report	1 April 2004 – 31 March 2005	30 April 2006	Yes
Six month report	1 April 2006 – 30 September 2006	30 October 2006	
<b>Final report</b>	1 April 2004 – project end date	3 months after project completion	Yes

# LOGICAL FRAMEWORK

28.

<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>Capacity built in biodiversity conservation and management in Nicaragua and Costa Rica, through the facilitation of regional and international exchange of knowledge and skills.</p>	<ul style="list-style-type: none"> <li>• Increased NGO capacity in biodiversity conservation and management.</li> <li>• Improved biodiversity assessment and monitoring in both Nicaragua and Costa Rica (Rio San Juan basin).</li> <li>• Documentation and learning materials available to Central American NGOs/institutions.</li> </ul>	<ul style="list-style-type: none"> <li>• Annual reports from NGOs/ institutions; WRI &amp; WCMC assessments.</li> <li>• Biodiversity inventory reports and biodiversity management plans produced by the NGOs/ institutions; WRI/WCMC.</li> <li>• Copies of all documents supplied by project leader to DEFRA</li> </ul>	<ul style="list-style-type: none"> <li>• NGOs and other stakeholders assign importance to biodiversity conservation; NGOs obtain sufficient funding/support to remain viable; sufficient political and socio-economic stability in the target area.</li> </ul>
<p><b>Outputs</b></p> <ol style="list-style-type: none"> <li>1. Enhanced expertise of Nicaraguan/Costa Rican NGO staff in biodiversity assessment &amp; protected area management.</li> <li>2. Biodiversity of the La Cureña area formally described.</li> <li>3. Priority habitat management plans and local tree and insect species identification guides.</li> <li>4. Guidelines for national park biodiversity management plan.</li> <li>5. La Cureña area given protected status by designation of a new national park.</li> </ol>	<ol style="list-style-type: none"> <li>1. Increased quality and quantity of NGO biodiversity assessment and conservation work.</li> <li>2. Report (identifying priority habitats/species) and species database produced and in use; two international peer-reviewed papers.</li> <li>3. Management plans and identification guides produced and in use by local NGOs and institutions.</li> <li>4. Guidelines produced and in use by MINAE and CODEFORSA.</li> <li>5. National park created.</li> </ol>	<ol style="list-style-type: none"> <li>1. Nicaraguan and Costa Rican NGO and institutional Annual Reports; WRI/WCMC.</li> <li>2. Copies supplied to DEFRA; NGO/institution Annual Reports; correspondence with publishers.</li> <li>3. Copies supplied to DEFRA; NGO/institution Annual Reports.</li> <li>4. Copies supplied to DEFRA; NGO/institution Annual Reports.</li> <li>5. Progress documents from MINAE and CODEFORSA; UNEP/WCMC assessment.</li> </ol>	<ol style="list-style-type: none"> <li>1. NGOs retain/replace key staff &amp; funding for conservation work.</li> <li>2. All collaborators provide agreed inputs.</li> <li>3. INBio and CATIE still able to provide agreed inputs; NGO capacity maintained.</li> <li>4. MINAE commitment and CODEFORSA capacity remain.</li> <li>5. Project results confirm biodiversity importance of area; MINAE continues to support principle of a new park and is satisfied that all other requirements are met.</li> </ol>
<p><b>Activities</b></p> <ol style="list-style-type: none"> <li>1.1 Planning workshops.</li> <li>1.2. Training of Nicaraguan and Costa Rican NGO staff in biodiversity assessment by UWB, INBio &amp; CATIE.</li> <li>2.1 Assessment sites selected.</li> <li>2.2 Rapid biodiversity assessment (RBA, with formal species identification).</li> <li>2.3 Data analysis/interpretation.</li> <li>3.1. Priority habitats identified, assessed and management plans produced.</li> <li>3.2 Priority species selected &amp; identification guides produced.</li> <li>3.3. Dissemination workshop.</li> <li>4.1 Synthesis of information.</li> <li>4.2 Guidelines written and stakeholder views incorporated.</li> <li>5. Outputs disseminated, with close CODEFORSA/MINAE/ project liaison over key information for new park decision.</li> </ol>	<p><b>Activity Milestones (Summary of Project Implementation Timetable)</b></p> <ol style="list-style-type: none"> <li>1.1 Key stakeholders attend workshops/meetings, recommendations written up and implemented (<i>Aug 2003</i>).</li> <li>1.2 Workshop-based training in species identification and rapid biodiversity assessment (<i>Oct. 2003</i>).</li> </ol> <p>Three months of hands-on field training (<i>Oct. 2003, April, May 2004</i>).</p> <p>Three months of hands-on field training (<i>Sept. 2003, April, May 2004</i>).</p> <p>Training/guided experience in stakeholder participation and workshop facilitation (<i>Feb. 2006</i>).</p> <ol style="list-style-type: none"> <li>2.1 Circumscription of biodiversity assessment area and establishment of GIS (<i>Oct. 2003</i>).</li> <li>2.2 Agreement with stakeholders (including land owners) on selection of ca. 6 field sites (<i>Oct. 2003</i>).</li> <li>2.2 First phase of RBA completed (<i>May. 2004</i>). Second phase of RBA completed (<i>May. 2005</i>).</li> <li>2.3 Analysis of RBA data completed: phase 1 (<i>July 2004</i>); phase 2 (<i>July 2005</i>); technical report (<i>Aug. 2005</i>); database completed and tested (<i>Oct. 2005</i>) and disseminated (<i>Dec. 2005</i>).</li> <li>4 manuscripts submitted for international publication (<i>Jan. 2006</i>).</li> <li>3.1 Conservation priority habitats identified (<i>Oct. 2003</i>).</li> <li>Priority habitats assessed (<i>July 2005</i>). Priority habitat management plans written (<i>Nov. 2005</i>).</li> <li>3.2 Local priority species (by conservation, ecological, utility/cultural values) selected (<i>July 2005</i>)</li> <li>Draft species identification guides (<i>Sept. 2005</i>), field tested (<i>Sept. 2005</i>), final revised versions (<i>April 2006</i>).</li> <li>3.3 Workshop to disseminate plans &amp; guides to NGOs, government officers, trainers/researchers (<i>Feb. 2006</i>).</li> <li>4.1 Collation of data/values from field assessment, collaborators &amp; wider stakeholder participation (<i>June 2005</i>).</li> <li>Information synthesized (<i>Aug. 2005</i>).</li> <li>4.2 Draft guidelines written (<i>Oct. 2005</i>), feedback obtained from stakeholders (<i>Oct. 2005</i>) and final revised versions produced (<i>Jan. 2006</i>).</li> <li>5. Dissemination/feedback by regular liaison with MINAE (inc. annual report); final key meeting (<i>Feb. 2006</i>).</li> </ol> <p>Bi-annual project newsletters produced in Spanish and distributed to all stakeholders throughout the project, national and international press, and local radio and television, coverage at project initiation and throughout.</p>		