DARWIN INITIATIVE

APPLICATION FOR GRANT FOR ROUND 12 COMPETITION: STAGE 2

Please read the Guidance Notes before completing this form. Give a full answer to each section; applications will be considered on the basis of information submitted on this form. Please do not cross-refer to information in separate documents except where invited on the form. The space provided indicates the level of detail required but you may provide additional information on a separate A4 sheet if necessary. Do not reduce the font size below 12pt or alter the paragraph spacing.

Submit by 19 January 2004

Ref *(Defra only)*:

1. Name and address of organisation

Institute of Zoology, Regent's Park, London NW1 4RY

2. Project title (not exceeding 10 words)

Addressing a threat to Caribbean amphibians: capacity building in Dominica

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

Details	**Project leader**	**Other UK personnel (if working more than 50% of their time on project)**	**Main project partner or co-ordinator in host country**
Surname	Cunningham		1. Hypolite, 2. McIntyre
Forename(s)	Andrew Alexander		1. Eric, 2. John Collin
Post held	Head, Wildlife Epidemiology		1. Director, Forestry & Wildlife 2. Chief Veterinary Surgeon
Institution (if different to above)			Ministry of Agriculture & Environment, Commonwealth of Dominica
Department			1. Forestry & Wildlife Division 2. Veterinary Services Division
Telephone			
Fax			
Email			

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

Aims

The Zoological Society of London (ZSL) is a registered charity (no.208728) whose aim is to achieve the worldwide conservation of animals and their habitats. The Institute of Zoology (IoZ), the academic division of ZSL, identifies, undertakes and communicates high quality biological research which benefits the conservation of animal species and their habitats.

Activities

IoZ carries out basic research in ecology, evolutionary biology, genetics, wildlife epidemiology; reproductive biology and wild animal health in relation to conservation, funded by research council, research charity and government grants. Our work is communicated through international peer reviewed publications (journal articles and books) and our programme of scientific meetings.

Achievements

IoZ is recognised as a centre of research excellence by the UK government, demonstrated by the financial support of our core activities by the Higher Education Funding Council for England. IoZ has a record of securing competitive research funding and publication of high impact articles. Our staff participate in conservation programmes and organisations at the highest levels.

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

1996 - project refs: 162/06/151 & 162/05/132; 1997 - project ref: 162/06/126; 2000 - project ref: 162/09/020; 2001 - project ref: 162/10/013; 2002 - project refs: 162/11/007 & 162/11/013; 2003 - project refs: 162/12/004, 162/12/017 & 162/12/029.

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.

Veterinary Services Division, Government of Dominica –helped identify disease as a threat to Dominica's amphibian fauna. Staff will be trained and equipped to conduct diagnostic and surveillance techniques for chytridiomycosis, to develop methods and educational material to reduce the likelihood of spread of the disease within Dominica and to other Caribbean islands, and to liaise with counterparts on other Caribbean islands to train in, and assist with, disease surveillance activities. Diagnostic and surveillance activities will begin as soon as possible following laboratory establishment & training and will continue throughout the project and beyond.

Forestry and Wildlife Parks Division, Government of Dominica - has been conducting monitoring and surveillance of mountain chicken populations in Dominica and collecting dead/diseased animals. Staff will continue this and will be trained to expand this work to new habitat types and amphibian species within Dominica. Once proficient, they will also train appropriate personnel from other Caribbean islands in such techniques. FWD will run captive-breeding programmes on Dominica. This work will continue throughout the project and beyond.

The Government of Dominica has agreed to provide office space, laboratory space for the diagnostic work and land for captive-breeding facilities. In addition, the provision of staff time and costs towards this project has been agreed.

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?

The urgent need for this project was initially raised by Government and non-Government bodies within Dominica. In preparing this application, we have engaged in dialogue with all relevant national Governmental bodies and with relevant conservation NGOs working within Dominica. All relevant bodies have signed up to this project and are committed to it, including the Minister of Agriculture & Environment and the Heads of two Divisions within this Ministry. In addition, we have responded to the concerns of governmental and NGO conservation organisations working in other Lesser Antilles islands to address the possible spread of chytridiomycosis to these islands. These organisations (e.g. DWCT) are also committed to this project.

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.

Local communities in Dominica are very concerned about the effects of chytridiomycosis on their endemic herpetofauna (particularly on the mountain chicken frog, an important food source and the island's national dish) and this concern has been a driver of Government concern. If this proposal is successful, local communities will be involved at an early stage of the work through the establishment of a volunteer network for the surveillance of dead/diseased amphibians and through the production and dissemination of educational material about chytridiomycosis and how to prevent its spread. Local media coverage of amphibian deaths so far indicates that there will be a great deal of local support for these initiatives. Although not specifically addressed or funded in this proposal, similar activities will be encouraged in other Caribbean islands.

PROJECT DETAILS

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

To build capacity within the Caribbean region to mitigate and protect against the actual and potential impacts of the emerging infectious disease, chytridiomycosis, on wild amphibian populations, including rare and endemic species. This will involve the development of captive breeding and rapid diagnostic and surveillance technology on the island of Dominica, which appears to be the first and only Caribbean State to have been affected by chytridiomycosis so far. A Management Plan will be produced collaboratively with Dominica and other Caribbean States to minimise the risk of spread of the disease and to mitigate against it should it do so. The expertise developed within Dominica will be made accessible to, and distributed amongst, other Caribbean islands at risk.

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

This is a new initiative, the need for which was recognised during the final year of a Darwin Initiative-funded project on sustainable wildlife use in Dominica (project ref. 162/10/010).

11. How will the project assist the host country in its implementation of the Convention on Biological Diversity? Please make reference to the relevant article(s) of the CBD, thematic programmes and/or cross-cutting themes (see Annex C for list and worked example) and rank the relevance of the project to these by indicating percentages. Is any liaison proposed with the CBD national focal point in the host country? Further information about the CBD can be found on the Darwin website or CBD website.

By developing the capacity to monitor amphibian populations and to detect the occurrence and spread of disease (CBD Article 12), the project will enable Dominica to determine the conservation status of its amphibian species and other recipient countries to identify when disease has reached their country. Developing the capacity for the rapid diagnosis of chytridiomycosis and for captive-breeding mountain chicken frogs establishes facilities for conservation within the country of origin (CBD Article 9).

Public awareness will be raised through activities such as media events, educational material and popular publications (CBD Article 13). These outputs, along with scientific articles, will be regularly communicated to governments and CBD focal points in participating countries. This, and workshops involving government representatives, will alert governments to the level of urgency of the need for action to conserve the Caribbean amphibian fauna (CBD Articles 5 & 14). The development of a multinational Caribbean management plan, which will involve other Caribbean islands having access to the diagnostic capacity established on Dominica and to cascade training on amphibian monitoring and disease surveillance, will facilitate technical and scientific cooperation between Parties to the CBD (Article 18).

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

Chytridiomycosis is considered one of the main causes of amphibian population declines and extinctions. It has low host specificity, infecting at least 14 families and 93 species on 5 continents and causing severe population declines in many of these, including a small number of global extinctions. Following the identification of this disease in 2003 as the cause of sudden and epidemic mortality with a catastrophic decline of mountain chicken frogs on Dominica, it is clear that urgent biodiversity priorities are to establish the conservation status of all amphibian species on Dominica and to identify and address the impact of chytridiomycosis on the island's native amphibian fauna. These are all addressed in the current proposal, as is the urgent need to minimise the impact (through reducing the risk of spread and early detection of spread) of the disease to other islands in the Caribbean.

In addition to the general aims of the CBD, this project is of particular relevance to Dominica's own "Biodiversity Strategy and Action Plan", the island's response to the CBD. This Action Plan calls for activities such as "building capacity for environmental management", the "identification of threatened species" and "research programs for the conservation of threatened species". Each of these three activities will be carried out by the proposed project. Also, lessons learned and capacity built from the captive-breeding component of the proposed project may assist with some of Dominica's other CBD aims, such as the development of wildlife farming and the use of traditional knowledge to encourage self-reliance.

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

The captive-breeding facility could become an environmental education resource and an attraction for the island's tourism, depicting part of "Nature Island's" natural heritage and explaining why the animals are in captivity. Additionally, the project's success will be important for sustainability of Dominica's national dish; a renewable, exploitable resource for the island.

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.

Through a combination of capacity building, research, amphibian population monitoring and chytrid disease surveillance, one of the major impacts of this project will be the establishment of a chytridiomycosis Management Plan for the Caribbean. This Plan will minimise the risk of disease spread between and within islands, and establish a rapid (regional) detection, diagnostic and response capability. Another major impact will be an international captive breeding effort bringing enhanced security to the endangered mountain chicken frog, which is one of the world's most threatened amphibians, being found only on the islands of Dominica and Montserrat. (The Montserrat population is threatened by volcanic activity.) Other species may be included in such captive-breeding efforts if they are also found to be severely threatened during the course of this project. Finally, information from this project will add to a global data set on what factors cause chytridiomycosis to emerge as a threat to amphibian populations.

The training aspects of the work will be disseminated by on-the-job training and by workshops. A general audience, including local communities, governments and tourists, will be educated through the targeted dissemination of specific materials (e.g. educational leaflets) and more generally via media outputs, including newspaper, television, radio and popular scientific articles. Scientific outputs will be communicated through yearly reports, publications in peer-reviewed journals and presentations at international conferences. A project website will describe the overall project and its findings for both scientific and lay audiences.

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

Capacity building for veterinary diagnostic work (gross- and histo-pathology, molecular diagnostic techniques) will leave Dominica with a regional capacity for the rapid diagnosis of chytridiomycosis. Once set-up, however, these techniques can be applied to other diseases, thus giving the Dominican Veterinary Services Division the potential of increased capacity for the rapid diagnosis of the diseases of livestock and other wildlife. Training in population monitoring and surveillance will enable the conservation status of Dominica's amphibians to be determined and will allow a greater ability for similar studies on other (non-amphibian) taxa, which will be important for Dominica's response to the CBD. Capacity building for captive breeding of mountain chickens will leave Dominica with a valuable resource for biodiversity conservation and education as well as possibly for food production and tourism.

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

The occurrence of a previous Darwin Initiative Project on Dominica (a collaboration between FFI and the Forestry and Wildlife Division) and the collaboration between these partners, the Veterinary Services Division and the IoZ on discovering epidemic mortality of frogs and its cause has led to a good relationship and understanding between the key partners in this proposal. Due to this and the significance of the project to Dominica, we consider it unlikely that this project will fail. Captive-breeding on Dominica will be a challenge, e.g. initially a food source for the frogs will need to be found and successfully farmed, but this is an important aspect of the project and the commitment and enthusiasm of Eric Hypolite and the FWD staff is encouraging.

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

The Darwin name and logo will be used at the diagnostic laboratory established under this project and at the captive-breeding facilities. All visitors to these facilties will be aware that they are supported by the Darwin Initiative. The name and logo will be prominent on the educational material produced and will be used on all official communications arising from this project, including workshop invitations and outputs. The support and aims of the Darwin Initiative will be key features of presentations to local people and tourists. The name (and where possible, the logo) will be used in all dealings with the media, both locally and internationally.

18. Are you aware of any other individuals/organisations carrying out similar work? Are there completed or existing Darwin Initiative projects which are relevant to your work? Please give details, explaining the similarities and differences and how your work will be distinctive and innovative. Show how the outputs and outcomes of this work will be additional to any similar work, and what attempts have been/will be made to co-operate with such work for mutual benefits.

The Durrell Wildlife Conservation Trust are currently investigating the status and threats to mountain chicken frogs in Montserrat. No evidence of chytridiomycosis or unexplained mortality has yet been found on this island. The DWCT team will collaborate with the Dominica project, enabling a wider coverage of the Lesser Antilles than would otherwise be possible and bringing additional expertise in amphibian monitoring and mountain chicken biology to the current project.

Andrew Cunningham (PI) and Matthew Fisher (collaborator) are currently leading a NERC-funded investigation into the emergence of chytridiomycosis as a threat to amphibian populations in Spain. This work includes the use of novel rapid diagnostic techniques and the transfer of this technology to Dominica will be incorporated into the current project. Of additional, mutual, benefit will be that the systems in Spain and Dominica will provide interesting and important comparisons of the drivers of chytridiomycosis emergence.

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?

Three members of VSD staff will be trained in diagnostic techniques; 3 members of FWD staff will be trained in mountain chicken captive husbandry and breeding techniques; 9 members of FWD staff will be trained in ecological monitoring and disease surveillance. Trainees will be Dominican Government staff already employed in disease diagnosis or in field work. Trainees will be actively involved in diagnostics/field work and the effectiveness of the training and trainee outcomes will be evaluated by means of on-the-job assessments, annual monitoring and reports.

Additionally 5-7 workshop participants from other islands will be trained in amphibian population monitoring and disease surveillance and 10 workshop participants from 6-8 islands will be trained in risk assessment and mitigation of chytridiomycosis.

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.

The infrastructure required for continued diagnostic work and captive breeding will be established and these facilities will be handed over to the Dominican Government at the end of the Darwin project. Also, Government staff will be trained in diagnostic techniques, amphibian population monitoring, disease surveillance and captive husbandry, so they will be able to run the project independently within 3 years, and will be able to train others thereby ensuring sustainability in the event of staff turnover. By the end of the Darwin project a disease Management Plan will have been formulated in collaboration and agreement with the Dominican and neighbouring governments. This Plan will identify priority actions and will form the basis of future activities for the control of chytridiomycosis. Although Caribbean governments may have clear responsibility for supporting many of the management recommendations, additional funding may be required for major activities. If so, this will be sought from organisations such as the Global Environment Facility, US Trusts and others. As part of the project, a fundraising strategy will be developed and the presence of Darwin Initiative funding will be used as leverage for such funding applications.

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

Project implementation timetable		
Date	Financial year:	Key milestones
April	Apr-Mar 2004/5	Memoranda of understanding signed between IoZ & Dominican authorities and between all project partners
July	Apr-Mar 2004/5	Educational leaflets, on chytridiomycosis and preventing its spread, designed and produced
July	Apr-Mar 2004/5	Network of volunteers established for the detection of affected amphibians
August	Apr-Mar 2004/5	Amphibian monitoring transects identified and monthly monitoring and surveillance begun
August	Apr-Mar 2004/5	Molecular diagnostic laboratory on Dominica established & equipped
September	Apr-Mar 2004/5	Project web site launched
November	Apr-Mar 2004/5	Chytridiomycosis diagnostics underway on Dominica
January	Apr-Mar 2004/5	Food source for mountain chickens identified & successfully cultured
February	Apr-Mar 2004/5	International workshop held on prevention of chytrid spread, early surveillance measures and to develop draft Management Plan
March	Apr-Mar 2004/5	Draft Management Plan agreed and published
July	Apr-Mar 2005/6	Building of captive breeding facility completed
September	Apr-Mar 2005/6	Mountain chicken frogs in captivity in London & Chester Zoos as part of the international captive breeding programme
March	Apr-Mar 2005/6	Dominican captive facility stocked with at least 50 mountain chickens
May	Apr-Mar 2006/7	Fundraising strategy developed and agreed by main project partners
May	Apr-Mar 2006/7	Captive breeding attempts for mountain chickens begun

July	Apr-Mar 2006/7	Revised educational leaflets, on chytridiomycosis and preventing its spread, designed and produced
August	Apr-Mar 2006/7	Cascade training in amphibian monitoring and disease surveillance to relevant authorities on other Caribbean islands begun
January	Apr-Mar 2006/7	Second international workshop held on prevention of chytrid spread, early surveillance measures and to develop final Management Plan
March	Apr-Mar 2006/7	Final Management Plan agreed and published

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 establishment of a molecular diagnostic laboratory and of a captive-breeding facility along with training of Dominican government staff in laboratory, field and captive care methodologies will greatly improve Dominica's ability to respond to the current amphibian conservation crisis brought about by the emergence of chytridiomycosis on the island. Additionally, the capacity built during this project will enhance the ability of Dominica to determine the conservation status of other taxa and to determine the nature and prevalence of other disease threats to endemic fauna. Cascade training to other islands and the international agreement of a management plan for chytridiomycosis, which will be developed during the course of this project, will alert other Caribbean nations to the threats posed by chytridiomycosis to their own amphibian fauna and will enhance their ability to minimise the risk of disease spread between or within islands. Educational materials for local communities and tourists will also contribute to reducing the risks of disease spread. Together these activities will help to protect the unique Caribbean amphibian biodiversity.

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

PROJECT OUTPUTS

Year/Month (starting April)	Standard Output Number (see standard output list)	Description (include numbers of people involved, publications produced, days/weeks etc)
		Training & Research Outputs
2004/April	8	1 week: setting-up visit by AC
2004/June	6A	9 FWD staff trained in amphibian monitoring, surveillance
	6B	9 weeks of training in amphibian monitoring & surveillance
	8	4 weeks: 2 by CM, 2 by IoZ Wildlife Vet
2004/July	7	1 leaflet on chytridiomycosis and preventing its spread
2004/Aug	6A	3 VSD staff trained in diagnostic techniques
	6B	3 weeks of training in diagnostic techniques
	8	2 weeks: 2 by TG
2004/Sept	6A	3 FWD staff trained in captive husbandry and breeding
	6B	3 weeks of captive husbandry and breeding training
	8	4 weeks: 1 by RG, 1 by KB, 2 by IoZ Wildlife Vet
2004/Oct	6A	1 member VSD staff trained in molecular techniques in UK
	6B	4 weeks of training in molecular diagnostics in the UK
2005/Feb	6A	10 participants at international training workshop on prevention of chytrid spread & early surveillance measures
	6B	10 weeks training on prevention & surveillance measures
	8	5 weeks: 1 by AC, 1 by CM, 1 by GG, 2 by IoZ Vet
2005/March	11B	1 paper submitted
2005/May	6A	3 VSD staff to receive further diagnostics training
	6B	3 weeks of further diagnostics training
	8	4 weeks: 2 by TG, 2 by IoZ Wildlife Vet
2005/July	8	2 weeks: 2 by CM

2005/Sept	6A	3 FWD staff training in captive husbandry & breeding
	6B	3 weeks of further training in captive techniques
	8	4 weeks: 1 by RG, 1 by KB, 2 by IoZ Wildlife Vet
2005/Dec	8	3 weeks: 1 by AC (supervisory visit), 2 by IoZ Wildlife Vet
2006/March	11A	2 papers published
	11B	2 papers submitted
2006/May	8	4 weeks: 1 by RG, 1 by KB, 2 by IoZ Wildlife Vet
2006/July	7	1 revised leaflet on chytridiomycosis & preventing spread
2006/Sept	8	2 weeks: 2 by TG
2007/Jan	6A	10 participants at international training workshop on prevention of chytrid spread & early surveillance measures
	6B	10 weeks training on prevention & surveillance measures
	8	6 weeks: 2 by AC, 1 by CM, 1 by GG, 2 by IoZ Vet
2007/March	9	One Management Plan produced
	11A	2 further papers published
	11B	2 further papers submitted
		Dissemination Outputs
2007/March	14A	2 workshops (one each in years 1 & 3)
	14B	5 conferences (1 in year 1, 2 each in years 2 & 3)
	15A	6 national press releases in Dominica (2 in each year)
	15B	9 local press releases in Dominica (3 in each year)
	15C	3 national press releases in UK (1 in each year)
	17A	1 network, set up in year 1
	19A	12 national radio interviews in Dominica (4 in each year)
	19B	3 national radio interviews in UK (1 in each year)
	19C	12 local radio interviews in Dominica (4 in each year)
		Physical & Financial Outputs
2007/March	20	£49,621
	21	2 (1 molecular laboratory, 1 captive breeding facility)
	22	24 transects: 12 for mountain chicken, 12 for other species
	23	£232,603

MONITORING AND EVALUATION

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

Supervisory visits from UK staff (at a minimum of 6-monthly intervals) will ensure that the core elements of the project and associated training are delivered on time and to the required standard. Throughout, progress and delivery of outputs in relation to the proposed timetable will be monitored by email, telephone and by visiting scientists working with the project. Monitoring activities will match progress to expected outputs using the indicators specified in the Log Frame. Written scientific outputs of the project will be peer-reviewed before publication. Infrastructure and training components of the project will be examined by UK experts to ensure delivery of outputs to international standards. Monitoring information will be presented as project reports, co-ordinated by the IoZ in association with the Government of Dominica and FFI, with additional training and workshop reports and summaries of media coverage. The final report will be compiled by all the organisations involved, with comments from outside scientists in relation to achievements of the project, its purpose and management implications.

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

Mr Eric Hypolite and Dr Colin McIntyre will be the project leaders in their respective areas of expertise from the host country, and will be responsible for overseeing the day to day management of the project and progress towards its outputs. They will collate reports from their Dominican project staff at least on a monthly basis and forward them to the UK staff for evaluation. Scientific data relating to disease monitoring will be continuously updated on databases as appropriate and exchanged via email. Review meetings will be held involving all project staff during visits of UK personnel to Dominica. With the UK staff, Dr McIntyre and Mr Hypolite and their project staff will co-author the six monthly, yearly and final reports, plus scientific papers and management plan as appropriate according to contribution.

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

The financial management of the project will be by the IoZ in the UK together with the Government of Dominica in the Caribbean. Each organisation has established independent audit procedures. Reporting and auditing requirements will be agreed in line with Darwin guidelines including independent auditing of accounts. The establishment of the laboratory and captive breeding facilities requires a significant outlay for equipment and materials in the first year of the project. However this is crucial to the success, sustainability and legacy of the project. Once purchased, project equipment will serve the project for the lifetime of Darwin funding and beyond. Equipment will be purchased in the UK, Dominica or the U.S.A. after comparison of prices and specifications. Where possible, Dominican expertise and suppliers will be used.

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

Report type	Period covered	Due date	REQUIRED?
Six month report	1 April 2004 – 30 September 2004	31 October 2004	Yes
Annual report	1 April 2004 – 31 March 2005	30 April 2005	Yes
Six month report	1 April 2005 – 30 September 2005	31 October 2005	Yes
Annual report	1 April 2005 – 31 March 2006	30 April 2006	Yes
Six month report	1 April 2006 – 30 September 2006	31 October 2006	Yes
Annual report	1 April 2006– 31 March 2007	30 April 2007	No
Six month report	1 April 2007 – 30 September 2007	31 October 2007	No
Final report	1 April 2004 – project end date	3 months after project completion	Yes

LOGICAL FRAMEWORK

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

Project summary	Measurable indicators	Means of verification	Important assumptions
Goal: To draw on expertise relevant to biodiversity from within the United Kingdom to work with local partners in countries rich in biodiversity but poor in resources to achieve • the conservation of biological diversity, • the sustainable use of its components, and • the fair and equitable sharing of the benefits arising out of the utilisation of genetic resources			
Purpose To develop strategies and capacity to minimise the impact and spread of chytridiomycosis within Dominica and other Caribbean islands.	Government of Dominica endorses and participates with in-country capacity building. Representatives of at least 6 Caribbean States endorse and agree to implement the Management Plan to minimise the spread and impact of chytridiomycosis.	Signed Memorandum of Understanding	Countries retain commitment to CBD. Sufficient political stability to implement strategy.
Outputs Current extent and impact of chytridiomycosis on Dominica established and future impacts and routes of spread predicted.	International and scientific community endorses the research results.	Annual reports; four peer-reviewed scientific papers published and submitted to Darwin Initiative.	
Diagnostic capacity for chytridiomycosis detection established on Dominica.	Equipped diagnostic laboratory and trained staff on Dominica. Diagnostic results produced and these verified by international scientific community.	Annual reports; media releases file; results published in peer-reviewed scientific papers.	
Capacity for mountain chicken captive breeding programme established on Dominica.	Presence of captive breeding facitility and trained staff on Dominica.	Annual reports; media releases file.	Dominican mountain chickens are not extirpated by chytridiomycosis before facility is stocked.
Management Plan to minimise the spread and impact of the disease in the Caribbean produced and disseminated.	Plan developed and produced collaboratively by participating Caribbean states (10 participants); media events; educational material; popular and scientific publications.	Management Plan documentation published and submitted to Darwin Initiative; Media releases file; project web site report; copies of all publications sent to Darwin Initiative.	Participating Caribbean Governments maintain collaboration.
Participants from six countries able to implement Management Plan.	10 staff from 6-8 countries trained in mitigation of disease spread and impact; email network created.	Correspondence; Participants attendance & assessment record; Training reports.	
Fundraising strategy developed	Strategy agreed	Strategy on file at ZSL, FFI & Dominican Government.	
Activities	**Activity Milestones (Summary of Project Implementation Timetable)**		

Conservation and Research programme	Year 1: PCR diagnostic laboratory on Dominica established, equipped and functioning; building of captive-breeding facility underway; transects identified and monthly amphibian monitoring and surveillance begun; possible modes and routes of spread to other islands identified and mitigating measures identified. Year 2: Captive-breeding facility built and stocked with at least 50 mountain chicken frogs; international captive breeding programme established; measures put into place to minimise the risk of chytridiomycosis spreading to other Caribbean islands. Year 3: Extent of spread of chytridiomycosis on Dominica established; impact of disease on amphibian fauna established; captive-breeding attempts for mountain chickens begun; further mitigation against the spread of chytridiomycosis identified and enacted in light of project results.
Training programme	Year 1: One member of VSD staff trained in PCR diagnostic techniques in the UK; 3 members of VSD staff trained in diagnostic techniques in Dominica; 3 members of FWD staff trained in mountain chicken captive husbandry and breeding techniques; 9 members of FWD staff trained in amphibian population monitoring and disease surveillance; Training workshop held with at least 10 participants from 6-8 Caribbean islands. Year 2: Three members of VSD staff given further training in PCR diagnostic techniques on Dominica; 3 members of FWD staff completed further training in mountain chicken captive husbandry and breeding techniques. Year 3: Training workshop held on addressing the threat of chytridiomycosis to the Caribbean with at least 10 participants from 6-8 Caribbean islands.
Management plan development	Year 1: Draft management plan to counter threat of chytridiomycosis to Caribbean amphibian fauna produced. Year 3: Final management plan to counter threat of chytridiomycosis to Caribbean amphibian fauna published and disseminated to governments of participating, and other, Caribbean islands.
Communication and project dissemination	Year 1: Public awareness educational material produced and disseminated within Dominica; communication and surveillance network between Caribbean islands developed; project website launched; dissemination through popular and scientific media. Year 2: Continuation of project website and communication network; dissemination through popular and scientific media and through public awareness educational material. Year 3: Continuation of project website and communication network; dissemination through popular and scientific media; revised public awareness educational material produced and disseminated within Dominica and the Caribbean; ten representatives of other Caribbean islands able to put into place amphibian population monitoring and chytridiomycosis surveillance programmes on their own islands.
Project sustainability	Year 3: Fundraising strategy developed; funding obtained for sustainability of diagnostic laboratory, captive-breeding programme and for amphibian monitoring and surveillance on Dominica.