EIDPO027







Submit by Monday 1 December 2008

DARWIN INITIATIVE: APPLICATION FOR GRANT FOR ROUND 16: POST PROJECT

Please read the Guidance Notes for both Main Round and Post Project applications before completing this form. Where no word limits are given, the size of the box is a guide to the amount of information required. Information to be extracted to the database is highlighted blue.

1. Name and address of organisation (NB: Notification of results will be by post)

Name:	Address:
	The Royal Society for the Protection of Birds, The Lodge, Sandy, Bedfordshire, SG19 2DL

2. Post-Project details

Project Title (max 10 words):							
Reducing the impact of feral livestock in and around the Centre Hills							
Proposed start and end dates: 1 st April 2009 – 31 st March 2011							
Darwin funding requested	2009/10	2010/11	010/11 2011/12 Total				
	£71,144	£73,092		£144,236			

3. Original Project Title and Defra reference number (eg 162/-/--- or 10-065)

Enabling the people of Montserrat to conserve the Centre Hills (14-027)

4. Principals in project. Please provide a one page CV for each of these named individuals. Letters of support must also be provided from the host country partner(s) endorsing the partnership and value of the Post Project funding. You may copy and paste this table if you need to provide more than one overseas project partner.

Details	Project Leader	Other UK personnel (working more than 50% of their time on project)	Main project partner and co-ordinator in host country/ies
Surname	Sanders	Massei-Smith	Gray
Forename (s)	Sarah	Giovanna	Gerard
Post held	International Officer	Senior Ecologist	Director
Institution (if different to above)		Central Science Laboratory	Ministry of Agriculture, Trade, Lands, Housing and Environment
Department	International – Country Programmes	Wildlife Ecology and Management Team	Environment
Telephone			
Email			

5. Define the purpose of the Post Project (extracted from logframe) and explain how it is linked to the objectives of the original Darwin project? (Max 200 words)

The purpose is to establish a sustainable, locally managed programme to minimise the destructive impacts of feral livestock in and around the Centre Hills.

The original Darwin project was successful in assisting Montserrat to establish a management framework for the long-term conservation of the Centre Hills. One of the main outputs was a costed management plan that is currently under implementation. The four objectives in and around the Centre Hills are:

- 1) Promote sustainable livelihoods of resource users
- 2) Conserve biodiversity, habitats and ecosystems
- 3) Provide recreational and educational opportunities for the people of Montserrat and visitors
- 4) Enable effective legislative, institutional, and fiscal structures and systems to support sustainable management and stewardship

Although some activities are underway, others, like feral livestock control, will require significant additional funding. Action is urgently required as feral livestock are devastating globally important wildlife and habitats. They also damage agricultural crops and destroy the offspring of small ruminants, leading to conflicts with farmers.

The aim of the post project is therefore to support Montserrat in progressing actions identified in the management plan and thus contribute to the long-term vision for the Centre Hills.

6. What have been the main outcomes (achievements) of the original project to date?

The purpose of the original project was to strengthen the capacity of the people of Montserrat so that they are better able to take targeted action to conserve the Centre Hills. The main achievements of the project were:

- Knowledge of the ecology and socio-economic use of the forest is available to guide management of the Centre Hills
 - Completion of two major assessments (biological and socio-economic) which contributed to the development of the Centre Hills Management Plan and provide a baseline for future monitoring of the area
 - Preparation of vegetation and landownership maps that are available from the national GIS unit
- 2. Participatory management plan is produced for the Centre Hills
 - Effective engagement of a wide range of local, regional and UK partners to produce the Centre Hills Management Plan
 - Establishment of the Centre Hills Management Committee to oversee and provide guidance to the project
- 3. Technical and professional skills to conserve, manage and restore the Centre Hills are strengthened on Montserrat
 - Significantly increased capacity at the Department of Environment by training staff and supporting the development of legislation, the Conservation and Management Act

- 4. Significant progress is made towards establishing the Centre Hills as Montserrat's first National Park
 - Extensive consultation with stakeholders on the new legislation so that the Centre Hills can be designated a National Park in early 2009
- 5. Appreciation of the Centre Hills forest and an awareness of its value is increased locally and internationally
 - Exceptional coverage from the local media raised awareness and built support on Montserrat
- 6. Programme of work to manage the Centre Hills is started

Management plan implementation began in January 2008

7. What steps have been taken to ensure that project purpose and outputs of the original project will be achieved within the original project term? (max 200 words)

The project successfully achieved its purpose and all outputs.

Major emphasis was placed in the original project and will be continued in the post project on stakeholder participation so there is local ownership and interest on Montserrat to take the project forward. The original project proposal was developed in close consultation with partners and a memorandum of collaboration signed so that all were clear of the purpose, outputs and activities before the project started. A local project manager was recruited and a secretariat established to run the project on the ground. Regular reviews of the logical framework and annual workplans were held with project partners to ensure the project was progressing according to agreed milestones. A Centre Hills Management Committee was set up with representatives from all key stakeholders to oversee and provide guidance to the project.

The commitment of local project partners to achieving the project purpose and outputs was exceptional and sustained the project throughout. This was the first Darwin project that Montserrat has implemented so local partners wished to demonstrate to the Darwin Initiative they can manage projects successfully.

8. Please list the UK/collaborative (where there are partners in addition to the applicant organisation) and host country partners that will be involved in the Post Project, and explain their roles and responsibilities in the project and in the original project (if applicable). Describe the extent of their involvement at all stages, including Post Project development. This section should illustrate the capacity of host country partners to be involved in the project. Please provide written evidence of partnerships. Please copy/delete boxes for more or fewer partnerships.

Partner Name:

Royal Society for the Protection of Birds (RSPB) **Details** (including roles and responsibilities and capacity to engage with the project):

The RSPB is the UK partner of BirdLife International, a network of over 100 grass-roots conservation organisations around the world. As part of its commitment to the conservation of biodiversity worldwide, the RSPB provides financial, technical and advisory support to emerging NGO partners and local governments in the UK Overseas Territories. RSPB has worked closely with the Government of Montserrat since 1997, most recently in the implementation of the Darwin Centre Hills project. It will be responsible for overseeing the management of the project and working with the DOA to map livestock on the Centre Hills Boundary, undertake a review of existing livestock policy and implement a demonstration project.

Partner Name:

Central Science Laboratory (CSL)

Details (including roles and responsibilities and capacity to engage with the project):

CSL are the leading experts in wildlife management and ecology in the UK. CSL has a broad experience in research on animal behaviour and population management as well as extensive expertise in control of non-native species and on associated socio-economic evaluation. Work carried out by CSL includes biosecurity and risk assessment for a variety of species in the UK, Mauritius and the Seychelles, feral cat management on the Cayman Islands, mongoose and mink control in the Caribbean, Fiji and Japan and mynah bird control in Samoa.

Experience pertinent to this application includes studies on wild boar, feral pig and ungulate management in the UK, in other European countries and in the US. In particular, CSL has an established track record of research on wild boar covering reproductive biology, behaviour, population modelling and monitoring and bait delivery systems. Concerning the latter, CSL has developed a novel device, called "Boar-Operated-System" (BOS) to deliver baits and to monitor the behaviour of wild boar and feral pigs while excluding non-target species. The BOS is currently used in projects in the UK and the US and is being evaluated for studies in other European countries. Furthermore, CSL has considerable expertise in carrying out state-of-the-art analyses of spatial ecology. This is achieved by combining Geographic Information Systems (GIS) with software developed for analysing spatial and temporal patterns of habitat use. The Wildlife Ecology and Management Group at CSL also has extensive international links with key research organisations in the field of wildlife and non-native species management. In the current proposal, CSL will advise on the monitoring and control of feral pigs and goats. It will be responsible for designing field protocols, data analysis and interpretation, preparation of reports and best-practice manuals for regional dissemination.

Partner Name: Department of Environment

(DOE)

Details (including roles and responsibilities and capacity to engage with the project):

The DOE is the agency on Montserrat responsible for the direction and implementation of environmental policy, management of the environment (including addressing environmental priorities, meeting international environmental obligations and providing a supporting environmental framework to ensure sustainable development) and associated activities, and the provision of professional advice on environmental matters

The vision of the DOE is to pro-actively and competently act as driver, catalyst and facilitator for the long-term protection and sustainable productivity of Montserrat's natural resources and the ecosystem services they provide, in support of optimal and equitable social, cultural and economic development, for present and future generations.

The DOE were a main partner in the original Darwin project and are responsible for the implementation of the Centre Hills Management Plan. The Director, Environment Education Officer and 7 forest rangers will provide the following support to the project: facilitation of workshops and stakeholder engagement; liaison with local media and outreach; assistance in data collection (forest monthly patrols, BOS monitoring, mountain chicken and oriole monitoring); and, implementation of feral livestock control actions. The project co-ordinator will be based at the DOE.

Partner Name: **Details** (including roles and responsibilities and capacity to engage with the project): Department of The DOA is responsible for (i) direction & implementation of policy. (ii) Agriculture (DOA) legislation, (iii) conservation, management and sustainable utilization of natural resources and (iv) provision of professional advice on natural resources. The DOA provides services in the areas of agriculture (crop and livestock), fisheries, policy, and legislation and compliance. These include agricultural and fisheries awareness and promotion; production and marketing support services; technology transfer; pest management; environmental management (e.g. soil conservation of farmlands); management of agricultural and fisheries development programmes; policy advice; compliance checks; and legislative reviews. The vision of the DOA is to optimise the economic, social and environmental goods and services derived from the natural resources and environmental sectors, on a sustainable basis, in support of national development. The DOA were partners in the original Darwin project. The Director, Vet and 1 livestock officer will provide the following support to the project: mapping of livestock and agricultural plots; liaison with livestock farmers; veterinary services: and oversee implementation of livestock demonstration project. 9a. Have you consulted stakeholders not already mentioned above? If yes, please give details: CSL and RSPB visited Montserrat from the 1st – 7th of November 2008, to work with the Departments of Environment and Agriculture in developing the proposal. Field visits were undertaken with Forest Rangers in the Centre Hills to look at feral pig hotspots and for impacts of loose livestock. Additional meetings were held, with the national GIS unit, the Montserrat Water Authority, Governor's Office, Deputy Police Commissioner, University of West Indies Community College and the Montserrat Development Corporation. Letters of support are attached from the main partner organisations, CSL, DOE, DOA and the Governor's Office. The Governor's office is fully supportive of the post project application. They have made helpful comments regarding its implementation. A Memorandum of Collaboration will be signed by all the project partners if the application is successful 9b. Do you intend to consult other stakeholders? ⊠ Yes □ No If yes, please give details: We have shared the project proposal with the original project partners, Kew, Durrell, Montserrat National Trust and the Montserrat Tourist Board. All are supportive, particularly as the project will assist Montserrat in developing the Centre Hills as a tourist product and support the achievement of objectives in the Montserrat Oriole, Mountain Chicken and Montserrat Galliwasp species action 9c. Have you had any (other) contact with the government not already stated? ☐ Yes ⊠ No If yes, please give details:

9d. Is liaison proposed with the CBD/CMS/CITES focal point in the host country? \square Yes \square No

Defra (Eric Blencowe) have confirmed they are the CBD/CMS/CITES focal point for Montserrat. The project proposal has been shared with him and he will be kept fully informed on project

If yes, please give details:

developments.

POST PROJECT DETAILS

10. Please provide a Concept Note (max 1,000 words).

In Montserrat, the volcanic eruptions of 1995 resulted in the loss of more than half of its rainforest, the habitat for many threatened native species. The Centre Hills hold the largest intact forest area remaining on Montserrat so are of global biodiversity importance, supporting many key endemic species including the critically endangered Montserrat Oriole, *Icterus oberi*, Montserrat Orchid, *Epidendrum montserratense*, Montserrat Galliwasp, *Dipoglossus montisserati* and Mountain Chicken, *Leptodactylus fallax*. They also provide essential environmental goods and services to Montserrat, being the sole water catchment area, and providing protection from soil erosion, landslides and flooding during severe weather. The Centre Hills are also an important nature tourism product to attract visitors to the island.

Following the eruption, the human population has decreased from 11,000 in 1991 to 4,655 in 2006. 60% of the island is now in an exclusion zone where human entry is restricted, so most residents live in villages situated on the low, northwestern flanks of the Centre Hills.

Montserrat is dependent on UK Government assistance (£15 million/year). The Government is seeking to rebuild its economy following the eruption and sees tourism as a major potential source of income. The Total Economic Value of the Centre Hills to Montserrat is estimated at around £1 million/year with the most important values being tourism (32%) and water (30%). The conservation of the Centre Hills is therefore essential for the sustainable economic development of the island and a priority for the Government and people of Montserrat.

The assessments undertaken during the original Darwin project highlighted the threat of feral and loose livestock on the Centre Hills. The number of loose goats and cattle making incursions into the Centre Hills has risen as livestock management has moved to the North of the island. Since 2000, feral pigs numbers have increased dramatically, following the escape of domestic stock from abandoned agricultural areas in the exclusion zone. Pigs have reached Katy Hill, the most pristine area of the Centre Hills. Evidence from Hawaii indicate they can have devastating impacts on tropical island forests, including:

- Predation on globally threatened herpetofauna such as the Mountain Chicken and the Montserrat Galliwasp
- Destruction of native plants which have evolved in the absence of ungulates and are probably lacking chemical or structural defences against herbivory
- Dispersal of non-native, invasive plant species such as guava Psidium guajava
- Consumption of the native *Heliconia caribaea* plant, causing loss of Montserrat oriole nests and territories
- Introduction and transmission of livestock diseases
- Potential attacks on people, impacting tourism
- Destruction of agricultural crops and predation of livestock around the Centre Hills boundary and impact on subsistence farmer livelihoods
- Pollution of water courses, causing a deterioration in water quality of Montserrat
- Damage to infrastructure such as the fencing of springs in the Centre Hills
- Prevention of forest regeneration and causing soil erosion

The socio-economic assessment undertaken in the original Darwin project showed that loose livestock and invasive species were viewed as the main anthropogenic threat to the Centre Hills. Rats (92%), pigs (77%), Goats/Sheep (56%), and Cattle (46%) were viewed as the biggest problem. Most people (90%) felt that livestock should not be allowed to graze freely and supported their removal if they are causing harm to the natural environment. Less than half of persons interviewed were aware of legislation regarding livestock production (37%) or felt that it was adequate (50%).

The original Darwin project has enabled Montserrat to update its environmental legislation so once approved by the Government the UK should be in a position to sign up to the Convention on Biological Diversity on behalf of the Territory. This project will support Montserrat in conserving globally threatened species within the Centre Hills, therefore assisting the UK Government to meet its commitment to halt biodiversity loss by 2010 and deliver the Small Islands Work Programme of the CBD especially goal 1, conservation of island biodiversity, goal 3, address the threats to island biological diversity (invasive alien species) and goal 5, increasing capacities and financing for the implementation of the programme of work on island biodiversity.

The post project aims to support the conservation of biodiversity and improve livelihoods by ensuring that the people of Montserrat can mitigate the destructive impacts of feral livestock in and around the Centre Hills. Working closely with DOE and DOA staff and with a wide spectrum of stakeholders such as hunters, livestock farmers and the national GIS unit, the project will enhance local expertise and develop new skills to achieve the following:

- 1. undertake a baseline assessment of distribution and numbers of feral livestock in and around the Centre Hills. This will be carried out by estimating numbers of pigs and goats along transects already used by DOE and DOA staff to monitor key animal species in the area, by attracting pigs to bait stations and recording numbers with remote surveillance and by collecting data from hunters on number of pigs culled. From the latter, data on age and reproduction will also be collected to evaluate the potential population growth of this species and gut content analysis will be used to identify key components of the pig diet;
- 2. evaluate options to mitigate human-livestock conflicts in the area. For the feral pigs these options will range from total eradication to control methods such as trapping and culling. For the goats mitigation methods will include containment such as fencing and tethering and culling inside the Centre Hills. These options, and their relative pros and cons will be discussed during a workshop with stakeholders that will result in a feral livestock action plan;
- 3. implement the feral livestock action plan so pigs and goats within the Centre Hills are reduced to zero or contained at low numbers and monitor its effects;
- 4. review and strengthen existing livestock policy; and,
- **5.** work with the media to raise awareness on Montserrat and in the Caribbean about the impacts of feral livestock on biodiversity and livelihoods.

If yes, please give details explaining similarities and differences, and explaining how your work will be additional to this work and what attempts have/will been made to co-operate with and learn lessons from such work for mutual benefits:

Previous efforts to reduce feral pig numbers on Montserrat have failed due to a lack of clear targets and monitoring. In 2003, the Department of Environment received funding from the Governor's Office to eradicate pigs in the Centre Hills. The plan was for three teams to regularly visit the area over three months to undertake culling. In practice, between August 13th and November 26th 194 pigs were killed by one field team, who made 41 visits over the time. Five years later it is evident that numbers are again rapidly increasing.

These past actions confirm that a more sustained programme is required as there was no strategy to maximise cost-efficiency or ensure best practice. There was no monitoring of pressure or response so no means of knowing whether control efforts were working.

This project will build on previous efforts by identifying when, how, where and how many pigs are to be removed. It will establish a monitoring and response system so that pig and goat numbers are monitored regularly beyond the end of the project either to confirm their eradication from the Centre Hills or to ensure that their numbers are maintained at low levels.

12. Please indicate which of the following biodiversity conventions your project will contribute to:

At least one must be selected.

- Only indicate the conventions that your project is directly contributing to.
- No additional significance will be ascribed for projects that report contributions to more than one convention

Convention on Biological Diversity (CBD)	⊠ Yes □ No	
CITES	☐ Yes ☐ No	
Convention on Migratory Species (CMS)	☐ Yes ☐ No	

What problem is this project addressing and how was it identified? (150 words)

Invasive species are a key factor driving declines of biodiversity world-wide, particularly on small islands. Action to mitigate this threat is thus vital if we are to avoid further extinctions. Feral and loose livestock are causing devastating impacts to globally threatened species and habitats in and around the Centre Hills and potentially threaten the overall functioning of the ecosystem, which negatively impacts on livelihoods and the economic development of Montserrat. The threat level cannot be reduced without tackling this key issue.

This threat was initially highlighted in the socio-economic and biological assessments undertaken during the original Darwin project. It is identified as a key action to address in the Centre Hills Management Plan (1.6, 2.3) and supported by a recent visit to Montserrat to develop the proposal.

What will change as a result of this project? (150 words)

The main changes on Montserrat anticipated as a result of this project will be:

- Knowledge of feral livestock activity in and around the Centre Hills will be strengthened.
 This includes a current estimate of feral pig and goat numbers and their distribution as well as preliminary knowledge of pig diet
- Local persons will be trained in feral livestock monitoring and control
- Technology will be transferred and employed to mitigate impacts of feral livestock
- Impacts of feral livestock on biodiversity and livelihoods (farming and tourism) will be reduced as control actions are started
- Feral livestock policy on Montserrat will be improved
- Awareness will be raised on Montserrat and in the Caribbean about the impacts of feral livestock on biodiversity and livelihoods

Why is the project important for the conservation of biodiversity? (150 words)

Islands are rich in biodiversity, particularly endemics, and are unusually susceptible to damage caused by invasive species. Since the volcanic eruptions in 1995, the Centre Hills hold the largest intact forest area remaining on Montserrat so are of global biodiversity importance, supporting many key endemic species including the critically endangered Montserrat Oriole, *Icterus oberi*, Montserrat Orchid, *Epidendrum montserratense*, Montserrat Galliwasp, *Dipoglossus montisserati* and mountain Chicken *Leptodactylus fallax*. Feral livestock are having a devastating impact on species and habitats within the Centre Hills so this project is critical to develop capacity to:

- Prevent the extinction of globally threatened species such as the Montserrat Oriole and the Mountain Chicken
- Prevent habitat degradation and maintain regeneration and succession of the forest ecosystem, enabling populations of these species to recover to a more resilient level
- Reduce the impact that pigs may have across the whole island on other endangered species such as nesting sea turtles

How does this relate to one or more of the biodiversity conventions? (150 words)

This project will assist the UK in meeting commitments under the CBD, particularly in delivering the goals of the Island Biodiversity Work Programme:

Goal 1: Conservation of Island Biodiversity

3.1 Information will be collected to inform livestock policy and develop actions to reduce the impact of feral and/or loose livestock on and thus support the recovery of globally threatened species in the Centre Hills.

Goal 3: Address the Threats to Island Biological Diversity

11.1 & 11.2 The project will work with a range of stakeholders to develop and implement an agreed plan of action to control feral livestock.

Goal 5: Increasing capacities and financing for the implementation of the programme of work on island biodiversity

17.1 Expertise will be brought in from the UK to assist Montserrat so they are better able to reduce the devastating impacts of feral livestock on species and habitats in the Centre Hills.

It will also support Montserrat in delivering the UK Environment Charter and St Georges Declaration.

13. Explain how gains from the Post-project work will be distinct and <u>additional</u> to those of the existing project. Show where possible how these gains require limited resources and could not be achieved without the funding. (max 200 words)

One of the main outputs of the original Darwin project was a costed management plan for the Centre Hills that is currently under implementation. The annual cost of implementation is around £366,766 if non-essential costs are excluded. Although some activities are underway, others, like feral livestock control, will require significant additional funding. Currently there is little information available on:

- feral livestock distribution, numbers and the potential for reproduction (litter size, seasonality)
- pig foraging behaviour and seed dispersion, especially invasive plants (e.g guava)

This project aims to fill these gaps and ensure Montserrat is in a better position to control the threat in the future. It will explore a range of options and ensure local persons are trained to manage feral livestock including the use of a Boar Operated System, shooting and snares. It will therefore support Montserrat in taking forward urgent actions identified in the management plan and thus contribute to the long-term vision for the Centre Hills.

Montserrat is heavily dependent on UK Aid and as a UK Overseas Territory is unable to access other international funding such as the GEF or UK funding such as the National Lottery. It is therefore unable to implement this project without external expertise, training and funding.

14. What will be the long term benefits of the project in the host country or region and how will these help to strengthen the impact and legacy of your original Darwin project? Have you identified any potential problems to achieving these benefits? (max 250 words)

In the long-term, the project will contribute to the conservation of key globally threatened species (i.e. prevent extinctions) and secure the livelihoods of livestock and crop farmers around the boundary of the Centre Hills. Ultimately the Centre Hills will be conserved and both wildlife and people will benefit.

We have every confidence that the actions will continue beyond the duration of the project, as forest rangers in the Department of Environment are already working on the issue. The project is required to do the research and establish an agreed protocol, so that Montserrat is in a stronger position to carry on, in an organised and monitored fashion.

The biggest potential risks to achieving this impact and legacy are:

1) The volcano erupts and/or there are hurricanes that devastate the surrounding infrastructure of the Centre Hills.

The MVO has indicated that the volcano is unlikely to be a constraint as the chances of an eruption that severely damages the Centre Hills are extremely remote;

2) The limited human and financial capacity on Montserrat.

We have discussed the project with the DOE and DOA and have been guaranteed staff support to take the project forward. The project will strengthen this capacity by providing training for professionals at the Departments of Environment and Agriculture, but also by providing recommendations to decision-makers so that livestock policy is strengthened. RSPB will continue to work with the Department of Environment to establish an Environment Fund so funding is secured for conservation of the Centre Hills in the long-term.

15. State whether or not the project will reach a stable and sustainable end point. If the project is not discrete, but is part of a progressive approach, give details of the exit strategy and show how relevant activities will be continued to secure the benefits from the project. Where individuals receive advanced training, for example, what will happen should that individual leave? (Max 200 words)

At the end of the project, Montserrat, based on data collected and training given during the project, will be in a better position to reduce the devastating impacts of feral livestock in and around the Centre Hills. Stakeholders will have agreed a way forward and started the control of feral livestock in and around the Centre Hills, which will continue after the project. A monitoring system will be established so the long-term benefits of undertaking feral livestock control can be measured

Although assessing the problem, getting expert input and developing systems for the monitoring and control of feral livestock, are initially expensive, once the system is running, it will not cost much to maintain, and will generate economic benefits. Maintenance and monitoring activities required beyond the project will be integrated into the DOE and DOA business plans.

If the livestock demonstration project is successful, the Montserrat Development Corporation (MDC) is establishing a credit guarantee fund in January 2009, which potentially could support farmers to implement improved livestock management beyond the project.

RSPB has a long relationship with Montserrat so is committed to ensuring these actions continue beyond the duration of the project.

16. How will the results of the project be disseminated; how will the project be advertised as a Darwin project and in what ways will the Darwin name and logo be used? (max 200 words)

The post-project will be advertised at every opportunity using the Darwin logo. Support during the original project from the local media on Montserrat was outstanding and key to raising awareness and building support from the general public for the Centre Hills. We will continue to work with the media to ensure there is extensive coverage through the radio, television and newspapers. We will support the Departments of Environment and Agriculture in promoting the project through the government website, electronic discussion groups, public meetings and newsletters. Booklets, papers and manuals will be disseminated beyond the project so lessons learned can be shared with other projects and ensure continuity of the intervention.

We also plan to share the results of the project with other Caribbean islands through presentations and papers at regional conferences and initiatives like the IUCN Caribbean, SCSCB, The Wildlife Society Conference in California 2009, OT conference in Cayman, June 2009 and International Wild Boar Conference in the UK in September 2010.

17. If your project includes training and development, please indicate how you will assess the training needs in relation to the overall purpose of the project. Who are the target groups? How will the training be delivered? What skills and knowledge to you expect the beneficiaries to obtain. How will you measure training effectiveness. (max 300 words)

The visit to Montserrat enabled a rapid assessment of staff capacity to implement the project. There is currently 1 member of forestry staff qualified to shoot and 2 members of staff hunting feral pigs in the Centre Hills that have trained dogs. In addition, there are 10 persons on the island hunting pigs on an ad hoc basis.

Training will be aimed at the Departments of Environment and Agriculture, hunters and livestock owners on Montserrat. It will be delivered through a range of approaches. For example:

- 1) Classroom sessions and field visits will be held to strengthen the technical skills of local people in monitoring (Boar Operated System and transects) and biological data collection (aging, reproductive organs etc.). We expect at least 10 participants
- 2) 3 workshops will be held to start up the project, agree a feral livestock action plan and present the final project results. We expect up to 20 participants.
- 3) On-the-job training will be given to forestry staff and local hunters by an external scientist, so they can take forward the control and monitoring of feral pigs.
- 4) Basic Excel training will be provided to environment staff so they can analyse and present data collected during and beyond project
- 5) We will encourage students from the secondary school to participate in the project as part of work experience.

The effectiveness of the training will be measured by RSPB's/CSL's assessment of the ability of participants to apply skills learnt in the field and/or on the job or carrying out informal evaluation with workshop participants. RSPB intends to remain involved in Montserrat well beyond the end of the project and will continue to assess training needs as part of this work.

LOGICAL FRAMEWORK

18. Please enter the details of your project onto the matrix using the note at Annex 3 of the Guidance Note for Main applications.

Project summary	Measurable Indicators	Means of verification	Important Assumptions
Goal:			
			0), the Convention on Trade in Endangered by countries rich in biodiversity but constrained
Sub-Goal: Support the conservation of biodiversity and improve livelihoods in and around the Centre Hills	 Populations of key species (mountain chicken, oriole) remain stable by end of Y2 Water quality does not deteriorate and supply remains at the same level by end of Y2 Livestock management around the Centre Hills boundary is improved by end of Y2 	 Montserrat biodiversity databases MWU water quality reports Rapid loose livestock assessment report 	
Purpose			
A sustainable, locally managed programme to minimise the destructive impacts of feral livestock in and around the Centre	Number of sightings of feral livestock in the Centre Hills decreases by the end of Y2	 Forest patrol and MWU reports Hunting records 	Volcanic activity impacts on the forest are minimal
Hills is established	Catch per unit hunting effort decreases by the end of Y2	BOS monitoring reports	Hurricanes do not destroy island infrastructure
	Number of animals using BOS decreases by the end of Y2		
Outputs (add or delete rows as necessary) 1. Knowledge of existing feral livestock in and around the Centre Hills boundary is increased	Baseline assessment completed by end of Y1 DOA and DOE use data to	 Centre Hills boundary map (crops, livestock areas) Report on pig and goat control 	Human resource capacity is available on Montserrat to collect data
•	inform activities by end of Y2	methodsDOA, DOE business plans	

Project summary	Measurable Indicators	Means of verification	Important Assumptions
2. Technical expertise is enhanced and new skills developed in the monitoring and control of feral livestock	10 persons trained by Y2	Training certificatesTraining reports	Persons are interested to undertake training on Montserrat
3. Options to control feral livestock in and around the Centre Hills are assessed	Key stakeholders agree on preferred option to control feral livestock and sign off action plan	Workshop report Feral livestock control plan	Continued co-operation between stakeholders
Actions to control feral livestock in and around the Centre Hills are improved	 Number of livestock registered has increased by end of Y2 Actions identified in feral livestock action plan are undertaken by end of Y2 	Livestock register DOE/DOA monthly reports	Trained staff remain on Montserrat
5. Policies on livestock management are strengthened	 Review of existing policy completed by mid Y2 Recommendations integrated into DOA and DOE business plans by end of Y2 	Review of policy reportDOA business planDOE business plan	There is political will on Montserrat to improve livestock management
6. Awareness is raised on Montserrat and in the Caribbean about the impacts of feral livestock on biodiversity and livelihoods	 2 reports in media/yr 2 updates posted on DOE website/yr >3 islands receive copy of pig manual Project is presented at 2 conferences by end of Y2 	 Newspapers, radio bulletins Website hits 	Media continue to support project

Activities (details in workplan – pg 19)

- 0. Memo of Collaboration signed, Identify local project co-ordinator, Monthly teleconference to discuss project progress, Plan stakeholder workshop, Establish Hunter group, Stakeholder workshop to agree workplan, Project Steering Committee established and meeting 2/year, Inform landowners of monitoring activity, Reports submitted to Darwin, Student starts on Montserrat
- 1. Build Boar Operating System (BOS) on Montserrat, Procure equipment, Plan fieldwork, Collect and store feral pigs, Test BOS monitoring, Agree system to map livestock and agricultural plots on CH boundary, Survey existing public attitudes to pig consumption, BOS monitoring (4 times), Desk review of pig and goat control methods, Recruit student, Draft demonstration project report, Summarise results, Workshop to present project results
- 2. Prepare training material, Training to deliver monitoring, Training to collect biological data, Montserratian participation at International Wild Boar Conference
- 3. Review report on the control and management of feral pigs and goats circulated, Stakeholder workshop to agree on options, Feral livestock control plan produced, Agree livestock demonstration project
- 4. Actions implemented to control feral livestock, Complete analysis on control data, Livestock demonstration project (fencing, tethering, fodder crops etc.) implemented, Rapid assessment of tethered livestock at start and end of project
- 5. Clarify procedures on use of firearms, Review existing livestock policy and prepare report with recommendations, Circulate draft livestock policy report and integrate recommendations into DOA
- 6. Present project at Cayman Conference, Produce press releases, Radio Interviews, Website postings, Feral pig manual, Dissemination of manual, Presentation of papers, Poster

Monitoring activities:

- Indicator 1 Populations of key species (mountain chicken, oriole) remain stable by end of Y2 Collected annually by DOE. Analysis completed June 09, 10, 11
- Indicator 2 Water quality does not deteriorate and supply remains at the same level by end of Y2 Collected annually by MWA (dates to be confirmed)
- Indicator 3 Livestock management around the Centre Hills boundary is improved by end of Y2 Rapid assessment of number of tethered livestock at start and end of project
- Indicator 4 Number of sightings of feral livestock in the Centre Hills decreases by the end of Y2 Collected weekly by MWU, Monthly by forest patrols, Adhoc hunters
- Indicator 5 Catch per unit hunting effort decreases by end of Y2 Hunter records collected continuously through project
- Indicator 6 Number of animals using BOS decreases by end of Y2 BOS monitoring before and after control action
- Indicator 7 Baseline assessment completed by end of Y1 BOS summary report and presentation to workshop
- Indicator 8 DOA and DOE use data to inform activities by end of Y2 DOE/DOA business plan (2011 onwards)
- Indicator 9 10 persons trained by Y2 Workshop attendance lists and number of certificates issued
- Indicator 10 Key stakeholders agree on option to control feral livestock and sign off action plan Workshop report (March 2010)
- Indicator 11 Number of livestock registered has increased by end of Y2 DOA livestock register is updated by end of project (collect copy at start and end of project)
- Indicator 12 Actions identified in feral livestock action plan are undertaken by end of Y2 Updates provided in monthly reports, meetings and phonecalls (copies to be collected)
- Indicator 13 Review of existing policy completed by mid Y2 Report circulated October 2010
- Indicator 14 Recommendations integrated into DOA and DOE business plans by end of Y2 2011 onwards
- Indicator 15 2 reports in media/yr newspaper reports and radio interviews collected
- Indicator 16 2 updates posted on DOE website/yr check website
- Indicator 17 >3 islands receive copy of pig manual distribution list (March 2011)
- Indicator 18 Project is presented at 2 conferences by end of Y2 Cayman UK OTEP conference (June 09) and International Conference on WildBoar UK (September 2010)

19. Provide a project implementation timetable that shows the key milestones in project activities. Complete the following table as appropriate to describe the intended workplan for your Post Project.

	Activity	Who	Months	Year 1				Year 2			
				1	2	3	4	1	2	3	4
0.	Project management arrangements in place and operational										
0.1	Memorandum of collaboration signed	RSPB	1,2	X							
0.2	Identify local project co-ordinator	RSPB,DOE	2	Х							
0.3	Monthly teleconference to discuss project progress	RSPB, CSL, DOE, DOA	1 - 24	X	X	X	Х	Х	Х	Х	Х
0.3	Plan stakeholder workshop	RSPB, CSL, DOE	2,3	Х							
0.4	Establish hunter group	RSPB,DOE	4		Х						
0.5	Stakeholder workshop to agree project workplan	RSPB, CSL, DOE	4		Х						
0.6	Project steering committee established and meeting 2/year	RSPB, DOE	4,12		Х		Х				
0.7	Inform landowners of monitoring activity	RSPB, DOE	4, 12		X		Х				
0.8	Report submitted to Darwin	RSPB	6,12,18, 26		Х		Х		Х		Х
0.9	Student starts on Montserrat	CSL	12,13,1 4				Х	Х			
1.	Knowledge of existing feral livestock in and around the Centre Hills is increased										
1.1	Build Boar Operating System (BOS) on Montserrat	CSL, DOE	2,3	Х							
1.2	Procure equipment	RSPB	1,2,3	Х							
1.3	Plan fieldwork (timing,recording sheets for transects, BOS & hunting)	CSL	1,2,3	Х							
1.4	Collect and store feral pigs (4)	DOE	1,2,3	Х							
1.5	Test BOS monitoring	CSL, DOE	4		Х						
1.6	Agree system to map livestock and agricultural plots on Centre Hills Boundary	RSPB, DOA	4		X						
1.9	Survey existing public attitudes to pig consumption	RSPB, DOA	5,6,7,8, 9		Х	X					

	Activity	Who	Months	s Year 1				Year 2				
				1	2	3	4	1	2	3	4	
1.10	Survey existing livestock owners and numbers and complete livestock and crops map	RSPB, DOA	5,6,7,8, 9		Х	Х						
1.11	1 st BOS monitoring	CSL, DOE	6		Х	•						
1.12	Desk review of pig and goat control methods	CSL	6,7,8,9, 10		Х	Х	Х					
1.11	Submit paper on pig control methods	CSL	8			Х						
1.12	Summarise BOS, transects and hunting data	CSL	8			Х						
1.13	Advertise student project	CSL	9	0		Х						
1.14	Recruit student	CSL, RSPB, DOE	10				Х					
1.15	2 nd BOS monitoring	CSL, DOE	11				Х					
1.16	Summarise results from BOS, transects and hunting	CSL	12			-	Х					
1.17	3 rd BOS monitoring	CSL, DOE	18						Х			
1.18	Summarise results from BOS, transects and hunting	CSL	20							Х		
1.19	4 th BOS monitoring	CSL, DOE	22								Х	
1.20	Draft demonstration project report	RSPB, DOA	22	0							Х	
1.21	Summarise results from BOS, transects and hunting	CSL	23									
1.22	Workshop to present project results	RSPB, CSL, DOE, DOA	24								Х	
2.	Technical expertise is enhanced and new skills are developed in the monitoring and control of feral livestock											
2.1	Prepare training material	CSL	3	Х								
2.2	Training to deliver monitoring	CSL	4		Х							
2.3	Training to collect biological data	CSL	4		Х							
2.4	Montserratian participation at International Wild Boar Conference	RSPB, CSL	18					Х				
3.	Options to control feral livestock in and around the Centre Hills are assessed											
3.1	Review report on the control and management of feral pigs and goats circulated	CSL	11				Х					
3.2	Stakeholder workshop to agree on control options	CSL, RSPB	12				X					
3.3	Feral livestock control action plan produced	CSL	12				Х					

	Activity	Who	Months	Year 1				Year 2				
				1	2	3	4	1	2	3	4	
3.4	Agree livestock demonstration project	RSPB, DOA	12				Х					
4.	Actions to control feral livestock in and around the Centre Hills are improved											
4.1	Actions implemented to control feral livestock	CSL, DOE	13,14,1 5					Х				
4.2	Complete analysis on control data	CSL	16						Х			
4.3	Livestock demonstration project (fencing, tethering, fodder crops etc.) implemented	RSPB, DOA	13 - 24			2		Х	Х	Х	Х	
4.4	Rapid assessment of tethered livestock at start and end of project	RSPB, DOA	4, 24		Х						Х	
5.	Policies on livestock management are strengthened											
5.1	Clarify procedures on use of firearms	RSPB			Х							
5.2	Review existing livestock policy and prepare report with recommendations	RSPB, DOA	13 - 18					Х	Х			
5.3	Circulate draft livestock policy report and integrate recommendations into DOA	RSPB, DOA	19 - 21							Х		
6.	Awareness is raised on Montserrat and in the Caribbean about the impacts of feral livestock on biodiversity and livelihoods											
6.1	Present project at Cayman Conference	CSL, RSPB, DOE	3	Х								
6.2	2 press releases/yr	CSL, RSPB, DOE	4, 12, 13, 23		Х		Х	Х			Х	
6.3	2 radio interviews/yr	CSL, RSPB, DOE	4,12, 13, 23		Х		Х	Х			Х	
6.4	2 project updates posted on DOE website/yr	DOE	4, 12, 13, 23		Х		Х	Х			Х	
6.5	Prepare feral pig manual (ecology and control)	CSL	18 - 22						Х	Х	Х	
6.6	Feral pig manual is disseminated on Montserrat and to other Caribbean Islands	CSL	23								Х	
6.7	1 presentation/paper to international conference/yr	CSL	4, 18	Х					Х			
6.8	Prepare poster on project	CSL	13					Х				

20. Please indicate which of the following Standard Measures you are likely to report against. You will not necessarily plan to cover all these Standard Measures in your project.

Standard	Description	Tick if
Measure		Relevant
No 1 A	Number of people to submit thesis for DhD qualification (in heat country)	
1A	Number of people to submit thesis for PhD qualification (in host country)	
1B	Number of people to attain PhD qualification (in host country)	
2	Number of people to attain Masters qualification (MSc, MPhil etc)	
3	Number of people to attain other qualifications (ie. Not outputs 1 or 2 above)	
4A	Number of undergraduate students to receive training	
4B	Number of training weeks to be provided	
4C	Number of postgraduate students to receive training	
4D	Number of training weeks to be provided	
5	Number of people to receive at least one year of training (which does not fall into	
6A	categories 1-4 above)	X
бА	Number of people to receive other forms of education/training (which does not fall into categories 1-5 above)	^
6B	Number of training weeks to be provided	V
7	Number of (ie different types - not volume - of material produced) training materials	X
,	to be produced for use by host country	^
0	Number of weeks to be spent by UK project staff on project work in the host country	V
<u>8</u> 9	Number of species/habitat management plans (or action plans) to be produced for	X
9	Governments, public authorities, or other implementing agencies in the host country	^
10	Number of individual field guides/manuals to be produced to assist work related to	X
10	species identification, classification and recording	^
11A	Number of papers to be published in peer reviewed journals	
11B	Number of papers to be published in peer reviewed journals	X
12A	Number of computer based databases to be established and handed over to host	
12/1	country	
12B	Number of computer based databases to be enhanced and handed over to host	
120	country	
13A	Number of species reference collections to be established and handed over to	
10, (host country(ies)	
13B	Number of species reference collections to be enhanced and handed over to host	
102	country(ies)	
14A	Number of conferences/seminars/ workshops to be organised to	Х
	present/disseminate findings	
14B	Number of conferences/seminars/ workshops attended at which findings from	Х
	Darwin project work will be presented/ disseminated.	
15A	Number of national press releases in host country(ies)	Х
15B	Number of local press releases in host country(ies)	
15C	Number of national press releases in UK	Х
15D	Number of local press releases in UK	
16A	Number of newsletters to be produced	Х
16B	Estimated circulation of each newsletter in the host country(ies)	Х
16C	Estimated circulation of each newsletter in the UK	Х
17A	Number of dissemination networks to be established	
17B	Number of dissemination networks to be enhanced/ extended	
18A	Number of national TV programmes/features in host country(ies)	
18B	Number of national TV programmes/features in UK	
18C	Number of local TV programmes/features in host country(ies)	
18D	Number of local TV programmes/features in UK	
19A	Number of national radio interviews/features in host county(ies)	Х
19B	Number of national radio interviews/features in UK	X
19C	Number of local radio interviews/features in host country(ies)	X
19D	Number of local radio interviews/features in UK	
20	Estimated value (£'s) of physical assets to be handed over to host country(ies)	X
21	Number of permanent educational/training/research facilities or organisations to be	
	established and then continued after Darwin funding has ceased	
22	Number of permanent field plots to be established during the project and continued	X
	after Darwin funding has ceased	^`

Standard Measure No	Description	Tick if Relevant
23	Value of resources raised from other sources (ie in addition to Darwin funding) for project work	X

PROJECT BASED MONITORING AND EVALUATION

21. Describe, referring to the Indicators in the Logical Framework, how the progress of the project will be monitored and evaluated, including towards delivery of its outputs and in terms of achieving its overall purpose. This should be during the lifetime of the project and at its conclusion. Please include information on how host country partners will be included in the monitoring and evaluation.

A monitoring plan based on the indicators given in the logical framework will be agreed with partners at the start of the project and integrated into the project workplan. The local project coordinator will follow up with partners to ensure data is collected. The monitoring plan will be reviewed on a quarterly basis by the local project co-ordinator in discussion with partners to ensure the project is on track.

The Department of Environment will be responsible for:

- Key species (mountain chicken and oriole)
- Feral livestock sightings (monthly forest patrols, adhoc hunter visits)
- Catch per unit hunting effort (hunter records collected continuously)
- Number of animals using BOS (before and after control action)
- Integrating data collected and actions identified into DOE business plan (2011)
- Key stakeholders agree on preferred option to control feral livestock and sign off action plan
- Actions in feral livestock action plan are undertaken
- Press releases to media and update of website

The Montserrat Water Authority will be responsible for:

- Water quality
- Feral livestock sightings (weekly visits to check springs)

The Department of Agriculture will be responsible for:

- Rapid assessment of tethered livestock
- Integrating data collected and actions identified into DOA business plan (2011 -)
- Registering livestock

CSL will be responsible for:

- BOS summary report and presentation to workshop
- Training 10+ persons in monitoring and control
- Distribution of pig manual to > 3 islands
- Presentation of project at international conferences

RSPB will be responsible for:

Review of existing livestock policy

FUNDING AND BUDGET

Please complete the separate Excel spreadsheet which will provide the Budget information for this application. Some of the questions below refer to the information in this spreadsheet.

NB: Please state all costs by financial year (April to March). Use current prices – and include anticipated inflation, as appropriate up to 3% per annum. The Darwin Initiative will not be able to agree increases in grants to cover inflation on UK costs once grants are awarded.

22. How is your organisation currently funded? (max 100 words)

In 2007/8, the RSPB had a total gross income of £103.9million. This was made up as follows:							
Membership subscriptions:	£26.3 million	25%					
Legacies:	£27.0 million	26%					
Grants:	£21.7 million	21%					
Mail order and shop income:	£13.0 million	13%					
Donations and reserve entry fees:	£3.2 million	3%					
Appeals:	£3.9 million	4%					
Media Advertising:	£1.2 million	1%					
Land and farming income:	£1.6 million	2%					
Other Income:	£5.9 million	6%					

23. Provide details of all <u>confirmed</u> funding sources identified in the Budget that will be put towards the costs of the project, including any income from other public bodies, private sponsorship, donations, trusts, fees or trading activity. Please include any additional <u>unconfirmed funding</u> the project will attract to carry out addition work during or beyond the project lifetime. Indicate those funding sources which are confirmed.

Confirmed:

The following funding is confirmed for the project:

RSPB staff time = £19,165

CSL staff time = £12,710

MATLHE staff time = £10,945

Unconfirmed:

Funding will be sought from the Overseas Territories Environment Program to support the livestock demonstration project.

24. Please give details of any further funding resources (confirmed or unconfirmed) sought from the host country partner (s) or others for this project that are not already detailed in the Budget or Question 22. This will include donations in kind or un-costed support eg accommodation. (max 50 words per box)

Financial resources:

Financial resources:
Funding (unconfirmed) will be sought from the Overseas Territories Environment Program to support the livestock demonstration project.
Funding in kind:
The following in-kind funding is confirmed for the project:
Department of Environment office accommodation = £4,800
Department of Environment office accommodation = £4,800

25. What was the amount of funding for the original Darwin Project?

	Total Project Costs £
Amount of original Darwin Initiative project funding	160,900
+ Funding/Income from other sources	649,007
= Total original project cost	809,907

FCO NOTIFICATION

Please check the box if you think that there are sensitivities that the Foreign and	
Commonwealth Office will need to be aware of should they want to publicise details of the	
Darwin Post-project and the resultant work in the UK or in the host country.	

CERTIFICATION 2009/10

On behalf of the trustees of The Royal Society for the Protection of Birds

I apply for a grant of £144,236 in respect of expenditure to be incurred in the financial year ending 31 March 2011 on the activities specified in the above application.

I certify that, to the best of our knowledge and belief, the statements made by us in this application are true and the information provided is correct. I am aware that this application form will form the basis of the project schedule should this application be successful. (This form should be signed by an individual authorised by the lead UK institution to submit applications and sign contracts on their behalf.)

I enclose a copy of the organisation's most recent audited accounts and annual report, CVs for project principals and letters of support.

Name (blo	ck capitals)	Dieter Hoffmann		
Position in	n the organisation	Head of Global Programmes		
Signed			Date:	1 st December 2008

	Check
Have you provided actual start and end dates for your project?	x
Have you provided your budget based on UK government financial years ie 1 April – 31 March?	x
Have you checked that your budget is complete, correctly adds up and that you have included the correct final total on the top page of the application?	x
Is the concept note within 1,000 words?	Х
Is the logframe no longer than 2 pages?	х
Has your application been signed by a suitably authorised individual? (clear electronic or scanned signatures are acceptable)	х
Have you included a 1 page CV for the Project Leader, any other UK staff working >50% on this project, and for a main individual in each overseas partner organisation?	X
Have you included a letter of support from the main overseas partner organisations?	Х
Have you checked with the FCO in the project country/ies and have you included any evidence of this?	X (yes)
Have you included a copy of your most recent annual report and accounts? An electronic link to a website is acceptable.	Х
Have you read the Guidance Notes for both Main projects and Post Projects ?	х

Once you have answered Yes to the questions above, please submit the application, not later than midnight GMT on **Monday 1 December 2008** to <u>Darwin-Applications@ltsi.co.uk</u> using the first few words of the project title as the subject of your email. However, if you are e-mailing supporting documentation separately **please include in the subject line** an indication of the number of e-mails you are sending (eg whether the e-mail is 1 of 2, 2 of 3 etc). In addition, a hard copy of the application and any supporting documents not available electronically should be submitted to the Darwin Applications Management Unit, c/o ECTF, Pentlands Science Park, Bush Loan, Penicuik EH26 OPL postmarked **not later than Tuesday 2 December 2008.**

DATA PROTECTION ACT 1998: Applicants for grant funding must agree to any disclosure or exchange of information supplied on the application form (including the content of a declaration or undertaking) which the Department considers necessary for the administration, evaluation, monitoring and publicising of the Darwin Initiative. Application form data will also be held by contractors dealing with Darwin Initiative monitoring and evaluation. It is the responsibility of applicants to ensure that personal data can be supplied to the Department for the uses described in this paragraph. A completed application form will be taken as an agreement by the applicant and the grant/award recipient also to the following:- putting certain details (ie name, contact details and location of project work) on the Darwin Initiative and Defra websites(details relating to financial awards will not be put on the websites if requested in writing by the grant/award recipient); using personal data for the Darwin Initiative postal circulation list; and sending data to Foreign and Commonwealth Office posts outside the United Kingdom, including posts outside the European Economic Area. Confidential information relating to the project or its results and any personal data may be released on request, including under the Environmental Information Regulations, the code of Practice on Access to Government Information and the Freedom of Information Act 2000.