



Submit by 5 January 2007

DARWIN INITIATIVE: APPLICATION FOR POST-PROJECT FUNDING 2007

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 and on the merit of your current / recently completed Darwin Initiative project. The space provided indicates the level of detail required. Please do not reduce the font size below 11pt or alter the paragraph spacing. Please note the additional information requirements (CVs and letters of support as detailed in the Guidance for Applicants).

1. Name and address of UK organisation

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

2. Post-Project details

Project Title:

Conservation actions to secure the recovery of *Gyps* species vultures

Proposed start and end dates: June 2007 to May 2009 **Duration of project:** 2 years

| Darwin funding requested | 2007/08 | 2008/09 | 2009/10 | Total |
|--------------------------|---------|---------|---------|----------|
| | £73,294 | £87,151 | £22,941 | £182,386 |

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

Prediction and management of declines in *Gyps* species vultures

Project reference: 162/12/027

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.

| Details | Project leader | Other main UK personnel | Main project partner in host country |
|--|-------------------------|-------------------------|---------------------------------------|
| Surname | Cuthbert | N/A | Prakash |
| Forename(s) | Richard James | N/A | Vibhu |
| Post held | RSPB Research Biologist | N/A | BNHS Principal Scientist |
| Institution (if different to above) | | N/A | Bombay Natural History Society (BNHS) |
| Department | Conservation Science | N/A | |
| Telephone | | | |
| Fax | | | |
| Email | | | |

5. Define the purpose (main objective) of the Post-project (extracted from logical framework). How is it linked to the objectives of the original Darwin project?

The purpose of the post-project is to improve national and regional capacity to monitor the use and impacts of NSAIDs and conserve and recover vulture populations through in situ and ex-situ activities across South Asia

The objectives of the original Darwin project were to establish the current extent of the declines, identify the main causal agent of decline, produce a plan for the management of declines, support partners in implementing the plan, protect *Gyps* populations from declines, disseminate knowledge and develop a funding strategy. The original project was successful in achieving these objectives including determining that diclofenac was the main causal agent, finding a safe alternative, obtaining a ban on veterinary diclofenac in the region, and establishing vulture conservation breeding centres. However, whilst this represents considerable progress, it remains essential that the ban is effectively implemented and monitored, as diclofenac continues to be used and the remaining small vulture populations continue to decline.

The post-project follows on from the first project through providing the techniques to enable India and Nepal to monitor the effectiveness of the diclofenac ban, to implement in-situ vulture conservation measures to ensure that populations persist in the wild, and to increase staff capacity and expertise at the vulture conservation breeding centres.

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

The key recommendations of the vulture recovery plan were to obtain a ban on the veterinary use of diclofenac within South Asia and to establish vulture conservation breeding centres within the region. These recommendations were both met during the course of the project. In order to facilitate a ban, the project focused on finding a safe alternative drug (meloxicam) through undertaking safety testing in collaboration with researchers in South Africa, the Indian Veterinary Research Institute (IVRI) and the Bombay Natural History Society (BNHS). The involvement of IVRI and BNHS in safety testing was crucial for acceptance of these results in the region, and along with efforts to support the manufacture of meloxicam in Nepal, removed the major obstacle to banning diclofenac. The nationwide ban on diclofenac within India, Nepal and Pakistan has been the single most important conservation action for *Gyps* vultures, which, if effectively implemented, will remove the main threat to vulture populations and allow populations to recover. The other main outcome is the establishment of two vulture breeding centres within India, and the plans of the RSPB, BNHS and Indian Central Zoo Authority (CZA) to develop three more centres. The centres now hold 116 vultures from all three critically endangered species. The last major achievement of the project is the increased national and local support towards vulture conservation in South Asia, as demonstrated by an international meeting organised by the Indian Ministry of Environment and Forests (MoEF), the production of an Action Plan for Vulture Conservation in India (April 2006), and increasing support towards the breeding programme from the CZA and MoEF. The project has also achieved a large number of scientific publications, significant national and international media coverage, and has raised general awareness of the social and economic, as well as environmental, importance of keystone species like vultures.

7. What steps have been taken to ensure that project purpose and outputs will be achieved within the original project term?

The original project was very successful in achieving its main purpose and objectives within the three-year time frame of the Darwin award. This included providing solutions and progress on the following objectives: a) current extent of declines established, estimation of current population size of *G. tenuirostris*, b) identification of relative contribution of different causal agents in declines across range states, c) plan for the management of declines produced, d) participants from affected countries able to implement and monitor management plan, e) *Gyps* population protected from declines, f) knowledge gained from project disseminated to governments, scientists and media, and g) funding strategy developed. The project's partners and other government departments or regional NGOs are now very engaged in continuing with these objectives, as is demonstrated by the increasing number of partners involved in the project and their increasing financial and logistical support to vulture conservation.

8. Please list the overseas partner organisation(s) that will be involved in the Post-project and explain their role and responsibilities in this work and in the original project (if applicable).

| | |
|---|--|
| <p>Partner</p> <p>Dr Vibhu Prakash BNHS Principal Scientist and Vulture Programme Director Bombay Natural History Society (BNHS)</p> | <p>Details (including roles and responsibilities in the Post Project and in the original project if applicable):</p> <p>Dr Prakash was the main Indian partner on the original project. Dr Prakash is the principal scientist who manages the BNHS Vulture Conservation Breeding Centres and coordinates a team of researchers in monitoring vulture populations through colony monitoring and nationwide road transects. Dr Prakash will be involved in running the captive breeding efforts and will coordinate all training and the expansion of this programme in India. Dr Prakash will also advise and work on in-situ conservation measures</p> |
| <p>Partner</p> <p>Dr Hem Sagar Baral Chief Executive Officer Bird Conservation Nepal (BCN)</p> | <p>Details (including roles and responsibilities in the Post Project and in the original project if applicable):</p> <p>Dr Baral has been the main contact in Nepal and has co-ordinated all vulture conservation activities within Nepal. This includes surveys and monitoring, vulture conservation advocacy, and initiating in-situ conservation measures around remaining key breeding sites. Dr Baral will remain the key point of contact for work in Nepal and will coordinate collaboration between Nepali NGOs and departments working on vulture conservation, and extend the in-situ conservation actions to the last remaining key vulture populations.</p> |
| <p>Partner</p> <p>Dr Devendra Swarup Head of Division of Medicine Indian Veterinary Research Institute (IVRI)</p> | <p>Details (including roles and responsibilities in the Post Project and in the original project if applicable):</p> <p>In the original project, Dr Swarup led the Indian research in testing the safety of the drug meloxicam to <i>Gyps</i> vultures so that it could be used to replace veterinary diclofenac. The involvement of Dr Swarup and IVRI was key to the acceptance of this work by Indian decision makers. Dr Swarup and IVRI will work with the project to develop expertise and techniques so that IVRI can lead on analysing and reporting on the prevalence of diclofenac and other drugs in livestock carcasses.</p> |

9. Please provide written evidence of commitment and capability of overseas partner in achieving the purpose and outputs of this Post Project. Are formal agreements in place for overseas partner responsibility in this project?

See Appendix I for letters of support from project partners in India and Nepal.

The RSPB has written memorandums of understanding with both BCN and BNHS with regards the research and conservation actions still being pursued (funded by the RSPB) and has had such agreement with both partners over the previous four years. New written agreements will be produced if the project is successful in gaining post-project funding. As IVRI is a government research institute and cannot directly have contracts with international organisations work undertaken by IVRI will be agreed through a written agreement between IVRI and BNHS, with any financial or technical support from this project passing through BNHS. Such an approach was successfully followed with respect to the safety-testing programme undertaken in the original project in collaboration between IVRI, BNHS and the RSPB.

POST PROJECT DETAILS

10. Please provide a Concept Note

In the last three years, the Darwin vulture project has made significant progress towards solving the Asian vulture crisis. Without the project, there would have been little hope for the continued existence of these species in South Asia. Progress made includes: confirming that veterinary diclofenac is the major cause of the vulture declines across South Asia; finding and safety-testing an alternative drug (meloxicam); raising awareness at all levels from the general public to scientists and government of the vulture declines and required conservation solutions; achieving a ban on diclofenac in India, Nepal and Pakistan; establishing two vulture conservation breeding centres in India which hold 116 birds from all three threatened vulture species; and ensuring that South Asian NGOs, governmental and other agencies feel ownership of and commitment to helping vulture populations recover. These actions have gone a long way to fulfilling the key recommendations for the conservation of vultures made in the Species Recovery Plan established at the start of the original Darwin project and the revised Species Action Plan produced by the Indian Ministry of Environment and Forests in April 2006 (both are appendices in the project final report).

Despite this progress, there is still much to do to ensure that these conservation actions are implemented effectively, and to build a lasting capacity within India and Nepal to undertake the required future monitoring, research and captive breeding actions without needing external support from organisations. Key activities that need to be accomplished to ensure the recovery of *Gyps* vultures include: training researchers in monitoring the use of veterinary drugs and the analysis of diclofenac residues in livestock carcasses, establishing and coordinating in-situ conservation efforts around extent vulture colonies in the region, and increasing the skills and number of staff trained to support the vulture conservation breeding centres and allow these to expand.

These activities are important because whilst there are nationwide bans across the region on the manufacture and importation of diclofenac, it is still legal to use the drug. Consequently, monitoring the sale and use of diclofenac and other non-steroidal anti-inflammatory drugs and assessing the prevalence of these drugs in cattle carcasses is essential to measure the effectiveness of the diclofenac ban at protecting *Gyps* vultures. Previous analysis of diclofenac residues in livestock carcasses has been carried with the support of the RSPB, using BNHS researchers and analytical facilities at Aberdeen University. The post-project will train staff from the IVRI in the required ELISA analysis techniques. As a government research institution IVRI (in collaboration with BNHS) will become the official institution to monitor, analyse and report on diclofenac prevalence in India. This will leave a lasting capacity within the region to monitor the effectiveness of the diclofenac ban and assess the safety of the environment to vultures.

Whilst an effective diclofenac ban is the ultimate action necessary to secure the recovery of vulture populations, in-situ and ex-situ conservation actions are needed in the medium-term to ensure their survival as the remaining small populations will continue to decline until the ban is fully effective. Within India and Nepal, many organisations are involved in vulture conservation, but there is little collaboration between organisations, or assessment of the effectiveness of these actions. The post-project will increase coordination between organisations and will initiate and support in-situ conservation actions in key areas where vulture populations remain and where people are able to implement conservation activities. Some in-situ conservation measures are already underway in Nepal, including awareness campaigns on the role of diclofenac, provision of vulture-safe food resources, and exchanging diclofenac for the safe drug meloxicam. Priorities for the expansion of in-situ activities in India and Nepal will be agreed as part of a consultative process involving existing stakeholders. Sites where in-situ conservation has been proven to work, with colony monitoring indicating stable or increasing populations and a network of conservation organisations working around sites to promote vulture conservation, are likely to be some of the first sites to be used for the re-introduction of captive bred vultures in to the wild. Thus, in-situ conservation will build for the future recovery of *Gyps* vultures in South Asia. Lastly, the post-project will increase the skills and capacity for vulture conservation breeding centres in South Asia, through a programme of training. The BNHS vulture breeding centres (supported by the original Darwin project) are now widely recognised in India as the leading example of best practise for ex-situ vulture conservation. Through consolidating the expertise of trained BNHS staff and visits from staff at newly established centres to work in the BNHS programme, the project will ensure increased skills and an increased capacity in South Asia to effectively run vulture conservation breeding centres. This will ensure the survival of the species in captivity and the eventual reintroduction of *Gyps* vultures across the Indian subcontinent.

11a. Have you consulted stakeholders not already mentioned above?

Yes No

If yes, please give details:

The concepts within this project have been discussed with a wide range of governmental and non-governmental stakeholders at a variety of recent meetings. Within India, these include: the Indian Central Zoo Authority and Chief Wildlife Wardens of many Indian States. Internationally, the IUCN, Zoological Society of London, The Peregrine Fund, International Centre for Birds of Prey and others have been consulted. In India, the proposal for capacity building at the breeding centres and plans for carcass sampling have been discussed in great detail with Dr Jakati, the Chief Wildlife Warden, Haryana Government Forestry Department, India. Dr Jakati has had a very close role in the vulture project and regularly provides expert advice on the best way of pursuing vulture conservation research

11b. Do you intend to consult other stakeholders?

Yes No

If yes, please give details:

If successful, the post-project will contact local conservation NGOs and local stakeholders (farmers and panjarapols [cow shelters]) to work towards in-situ conservation activities in India and Nepal. This will be done regionally in areas that still support extent populations of vultures and that have the capacity to work locally around remaining vulture colonies. Discussions on the potential for this work have already taken place with individuals and NGOs in Nepal and the state of Gujarat and West Bengal in India. We will also contact the British High Commission in New Delhi and Kathmandu.

11c. Have you had any (other) contact with the government not already stated? Yes No

If yes, please give details:

12. Are you aware of any other individuals/organisations/Darwin Initiative projects carrying out similar work? Yes No

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:

There are no other Darwin Initiative projects carrying out vulture conservation activities within the region, although funding to a previous Darwin project ("Conservation of Critically Endangered *Gyps* spp. Vultures in India – Ref 192/10/013") will be supporting a nationwide vulture survey in India between March and June 2007. This survey was brought forward from 2006 and will provide another year of data to previous nationwide surveys carried out by BNHS. The BNHS staff will undertake this survey in collaboration with the RSPB and ZSL.

A large number of other national and international organisations are working towards vulture conservation within the region, especially in India. The original project has been in contact with many of these organisations and has discussed plans for in-situ and ex-situ vulture conservation activities (see 11a above). One of the components of this application is to ensure collaboration between organisations working on vulture monitoring and in-situ conservation measures. This will be achieved through organising a Vulture Recovery Plan meeting in Nepal and regional meetings in India to coordinate in-situ conservation work. Cooperation with National and State Government Departments and the Indian Central Zoo Authority is already well established in India to coordinate captive breeding efforts.

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

The "Action Plan for Conservation of Vultures in India" produced by the Government of India (see project final report) details the following actions for the conservation of vultures: a) removal of the main causative agent – diclofenac, b) curbing leakage of human formulations of diclofenac to the veterinary sector, c) monitoring conservation and recovery of existing vulture sites, d) setting up and expansion of vulture care and breeding centres, e) control of further mortality; f) raising awareness especially among users of veterinary formulations and g) monitoring implementation of the action plan.

The purpose and outputs of this proposal were decided after consultation with both governmental and NGO project partners in India and Nepal. Both BNHS and BCN have increasing concerns about the actual effectiveness of the diclofenac ban at protecting vultures, and the promotion and use of other veterinary drugs that may be harmful to vultures and other scavenging birds. The project's outputs (Section 22) will support the Vulture Action Plan through training researchers to monitor NSAID prevalence in carcasses and monitor NSAID users (Output 1) which will allow partners to monitor and assess actions a), b), e) and g) of the action plan. Establishing and co-ordinating in-situ conservation actions (Outputs 2 and 3) will support actions c), e) and f). And increased capacity to undertake vulture conservation breeding programmes (Output 4) will support action d) of the action plan.

In addition, within Nepal at the recent 23rd Warden Seminar (run by the National Parks Department, Government of Nepal) the attending members agreed to the proposed in-situ conservation measures to be undertaken by Bird Conservation Nepal and agreed that there should be a Nepal Vulture Action Plan as part of contingency measures for vulture conservation in the country.

14a. How will the project assist the host country in its implementation of the Convention on Biological Diversity? Please rank the relevance of the project to the relevant article(s) of the CBD thematic programmes and/or cross-cutting themes by indicating percentages.

| Articles | % Relevance | Themes | % Relevance |
|---|-------------|--|-------------|
| 5. Co-operation | 10% | Access and Benefit Sharing | |
| 6. General measures for Conservation and Sustainable Use | 15% | Agricultural Biodiversity | |
| 7. Identification and Monitoring | - | Alien Species | |
| 8. <i>In-situ</i> Conservation | 20% | Biodiversity and Tourism | |
| 8h. Alien Species | - | Biosafety | |
| 8j. Traditional Knowledge | - | Climate Change and Biodiversity | |
| 9. <i>Ex-situ</i> Conservation | 20% | Economics, Trade and Incentives | |
| 10. Sustainable use of components of Biological Diversity | - | Ecosystems approach | |
| 11. Incentive measures | - | Forest Biodiversity | |
| 12. Research and Training | 20% | Global Strategy for Plant Conservation | |
| 13. Public education and awareness | 15% | Global Taxonomy Initiative | |
| 14. Impact assessment and minimizing adverse impacts | - | Impact Assessment, Liability and Redress | |
| 15. Access to genetic resources | - | Indicators | |
| 16. Access to and transfer of technology | - | Inland Waters Biodiversity | |
| 17. Exchange of information | - | Marine and Coastal Biodiversity | |
| 18. Technical and scientific co-operation | - | Mountain Biodiversity | |
| 19. Handling of biotechnology and distribution of its benefits | - | Protected Areas | |
| 20. Financial resources | - | Public Education and Awareness | |
| 21. Financial mechanism | - | Sustainable Use and Biodiversity | |
| 22. Relationship with other international conventions | - | Traditional Knowledge, Innovations and Practices | |
| 23. Conference of the Parties | - | | |
| 24. Secretariat | - | | |
| 25. Subsidiary Body on Scientific, Technical and Technological advice | - | | |
| 26. Reports | - | | |

14b. Is any liaison proposed with the CBD national focal point in the host country? Yes No

Within Nepal, Dr Hem Sagar Baral has discussed the issue of vulture conservation and the proposed plans for further work with the CBD focal point contact Mr Ananta V. Parajuli (Chief Environment Division, Ministry of Forests and Soil Conservation, Government of Nepal).

In India, Dr Asad Rahmani (Director of BNHS) has written to Mr. Desh Deepak Verma (CBD Primary National Focal Point, Joint Secretary C.S. Division, Ministry of Environment and Forests, Government of India) to inform him of the proposed continuation to the vulture project and to inform Mr Verma of the vulture conservation work that BNHS is already undertaking. A copy of this email is available on request.

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

The project will contribute substantially to the local economy in areas around the breeding centres in India. This includes employment for labourers and contractors constructing centres, employment as night watchmen and vulture attendants, and the purchase of goats as food for the vultures. The Pinjore centre in Haryana, which houses 116 vultures, currently has a goat bill of around £2,400 per month, which is going to the local community. Other benefits around centres include a reliable electrical supply to the area and treatment to livestock from the project veterinarians. In India and Nepal, local people have also been employed to assist in the capture of vultures, monitoring vulture colonies, disseminating vulture conservation materials and providing accommodation and transport.

Ultimately the project will have a large benefit to rural communities in South Asia through the recovery of vulture populations, as the economic and human health costs of the vulture decline are substantial. Vulture declines have resulted in increases in feral dogs and increased risk to humans, domestic stock and wildlife from rabies and other diseases. Changes in carcass disposal methods following vulture declines are also costly, and have affected the livelihoods of some of the poorest communities, including skimmers and bone-collectors.

16. What will be the impact of the work, and how will this be achieved? How will these help to strengthen the long-term impact and legacy of your original Darwin project? Please include details of how the results of the project will be disseminated and put into effect to achieve this impact.

This project will ensure that vultures do not become extinct in South Asia – resulting in beneficial impacts for biodiversity and humans. This will be achieved through the transfer of skills so that India and Nepal can monitor the effectiveness of the diclofenac ban, and undertake in-situ and ex-situ conservation actions without the need for continued support or technical advice from external organisations. This will leave a lasting legacy of knowledge, and enable the expansion and monitoring of essential conservation actions for vultures. The post-project will build on well-established relationships to ensure ownership of and commitment to vulture conservation, at local level, and within both the statutory and NGO sectors in India. Providing training for staff at the IVRI (a statutory agency) so that they can work with BNHS to monitor effective implementation of the governmental ban on diclofenac is one example. Ex-situ conservation work will be expanded and sustained by training future trainers. We aim to maintain the high project profile sustained throughout the initial project, with scientific publications, media outputs and reports to government. Involvement of all stakeholders in both the work and reporting will help ensure that vulture conservation remains a priority across the region.

17. Explain how gains from the Post-project work will be distinct and additional to those of the existing project. Show where possible how these gains require limited resources and could not be achieved without the funding.

When the initial Darwin project was developed, the cause of the vulture declines was unknown. By the end of the project, both the cause of the declines, and solutions to the declines had been identified, and key conservation actions initiated. However, whilst its objectives were achieved, within the timeframe of the initial project it was only possible to lay the groundwork for the recovery of vulture populations. The post-project work builds on the achievements of the original Darwin project by developing the capacity of partner organisations to monitor the effectiveness of the diclofenac ban and the uptake of other veterinary drugs, and by enhancing the skills of staff that will be involved in the breeding programmes for vultures and in-situ conservation efforts. Training of Indian researchers in ELISA techniques to monitor diclofenac, increasing training and capacity for captive breeding, and the expansion of the project to protect remaining vulture colonies through in-situ conservation actions are new areas distinct from the original project. These new areas require specific technical and financial support to be achieved, which is currently not available within India or Nepal. For example, training and equipment are essential for ELISA analyses, and funding necessary for local groups to undertake in-situ conservation activities.

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

By helping Gyps vulture populations to recover, and thus prevent the disruption of ecosystems, the project will leave a lasting legacy with wide-ranging impacts for wildlife, domestic stock and humans across South Asia. More generally, the project will increase international awareness about the potential impact of pharmaceutical residues and the economic and ecosystem services played by key wildlife species such as scavenging birds and mammals.

The project's purpose and objectives are designed to enable the two main partner organisations to increase their skills base and capacity for vulture conservation in India and Nepal. At the end of this post-project, skills and equipment will exist in both India and Nepal to monitor NSAID use, run in-situ conservation activities and manage the vulture conservation breeding centres with the minimum of external support or guidance. This will leave a variety of organisations in the region with experience in tackling large-scale in-situ conservation activities, in monitoring and undertaking risk assessments of certain pharmacological drugs, and in running conservation breeding programmes. Many of the skills developed as part of this process will be transferable to other avian and non-avian species, and thus the project will result in enhanced capacity for biodiversity conservation in South Asia.

19. Please provide a clear exit strategy and describe what steps have been taken to identify and address potential problems in achieving impact and legacy.

The post-project will train governmental (IVRI) staff to monitor the use of diclofenac and other NSAIDs using an ELISA technique. Given the commitment that the government have already shown to vulture conservation, and the clearly stated need for monitoring NSAID use, it is highly likely that the monitoring programme will become part of a government funded and instituted monitoring programme. The in-situ conservation established around vulture colonies is intended as an interim measure until the environment is diclofenac free, thus long-term sustainability of this activity is unlikely to be necessary. The post-project will ensure sustainability of ex-situ activities in conservation breeding centres by training staff from other organisations, including the Central Zoos Authority, who have stated their intention to initiate 4 conservation breeding centres, both set up and sustained by Indian government funding. Potential problems for the post-project could occur if Nepal and the Indian States where activities are planned become politically unstable, or if individual State governments cease supporting vulture conservation. The project will guard against these potential problems by undertaking in-situ and ex-situ conservation activities at a range of sites to ensure that these programmes can continue and/or be transferred to remaining sites.

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

The Darwin Initiative will be acknowledged in all promotional material produced during the post-project, including conservation education posters and pamphlets, training material, project newsletters, press releases and on the project website. Support from the Darwin Initiative will be reported in all talks and seminars, and in the acknowledgements of all scientific publications. The Darwin Initiative's support and logo will also be visible at the Vulture Conservation Breeding Centres, which visited by many wildlife officials, state ministers, international conservationists, and by officials from the British High Commission.

21. Will the Post-project include training and development? If so, please indicate a) who the trainees will be, b) the criteria for selection, c) what the level and content of training will be, d) how many people will be involved, e) which countries will they be from, f) how will you measure the effectiveness of the training, g) will those trained then be able to train others and h) how will trainee outcomes be monitored after the end of the training?

The post-project will involve training and development of staff.

- a) Staff will be trained from the two main partner organisations (BNHS and BCN), as well as from IVRI and the Indian Central Zoo Authority (CZA). Trainees will include veterinarians and vulture keepers on the breeding programmes, research biologists and field assistants working on in-situ activities and NSAID monitoring, and IVRI technicians working on NSAID residues.
- b) Staff will be selected on the recommendation of the host country project partners
- c) Training will not lead to formal qualifications but will be tailored to suit the specific requirements of the project. Training will include 1:1 work alongside visiting researchers, visits by project veterinarians to overseas institutions, and training workshops for breeding centre staff
- d) A minimum of four project staff in India and three project staff in Nepal will be trained, an estimated 8-12 new staff will be trained at the breeding centres
- e) Trainees will be from India and Nepal
- f) The effectiveness of ELISA training will be assessed through testing the results of this method against tissue samples with known diclofenac residues. The success of training for NSAID user surveys and in-situ conservation and monitoring will be assessed by the accurate collection and initiation of these activities. Breeding centre managers will provide feedback to the project on the effectiveness of staff trained in breeding centre activities.
- g) Personnel trained at breeding centres will be expected to take skills and experience to other breeding centres and to train other staff, and IVRI staff trained in ELISA methods will be expected to train BNHS staff at the breeding centre
- h) The outcome of training will be monitored through the successful expansion of the breeding programmes, the independent collection of data on carcass residues and NSAID user surveys, and initiation of in-situ conservation actions

LOGICAL FRAMEWORK

22. Please enter the details of your project onto the matrix using the notes at Annex C of the Guidance Note.

| Project summary | Measurable indicators | Means of verification | Important assumptions |
|--|--|---|---|
| <p>Goal:</p> <p>To draw on expertise relevant to biodiversity from within the United Kingdom to work with local partners in countries rich in biodiversity but poor in resources to achieve</p> <ul style="list-style-type: none"> • 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 | | | |
| <p>Purpose</p> <p>Capacity to monitor the use and impacts of NSAIDs and conserve and recover vulture populations through in situ and ex-situ activities enhanced across South Asia</p> | <p>Regional partners running surveys to determine effectiveness of diclofenac ban</p> <p>Local and regional stakeholders involved in a suite of in-situ vulture conservation measures and colony monitoring</p> <p>Increased number of trained staff and increased knowledge to undertake vulture breeding</p> | <p>Annual reports and scientific publications produced on NSAID use and prevalence</p> <p>Data on vulture numbers at in-situ sites published, information on amounts of diclofenac exchanged for meloxicam and other activities reported in newsletter and websites</p> <p>New trained staff working at new vulture centres</p> | <p>Political stability in Nepal and Indian states where in-situ and ex-situ activities planned.</p> <p>Continued support from National and State governments towards vulture conservation</p> |

| | | | |
|--|---|---|--|
| <p>Outputs</p> <p>1. Indian researchers trained in methods for sampling and analysis of NSAID prevalence in livestock carcasses and for monitoring NSAID sales and use by user groups</p> <p>2. In-situ conservation activities established and effective around extant vulture colonies in Nepal and India</p> <p>3. Effective mechanisms for the co-ordination of in-situ conservation activities within the region established</p> <p>4. Capacity to undertake vulture conservation breeding programmes in the region enhanced</p> | <p>1a. Training of 2 staff in ELISA methods and 3 staff in NSAID user surveys successfully completed by July 2007</p> <p>1b. NSAID carcass surveys and monitoring of NSAID users organised, managed, analysed and reported by regional partners by April 2008 and April 2009, and scientific publications by June 2009</p> <p>2. Colony monitoring protocols developed and baseline data available; meloxicam exchanged for diclofenac, conservation education materials disseminated around at least three vulture colonies</p> <p>3. Nepal vulture action plan meeting conducted by July 2007; regional meetings at three sites by September 2007 for in-situ actions</p> <p>4. Two, one week training workshops completed by August 2007; overseas training visits in 2007 and 2008 for project vets</p> | <p>1. Carcass survey and NSAID user survey reported to Indian government; one scientific publication; summary results available on project website</p> <p>2. Monitoring protocols and conservation education material available on website; annual monitoring reports and in-situ actions reported for all three sites; publication on in-situ results.</p> <p>3. Nepali vulture action plan produced; meeting results reported and available on website</p> <p>4 Number of staff trained at centres reported in breeding centre newsletter and on website; overseas trip reports and veterinary training reported in newsletters</p> | <p>Key staff trained in NSAID analysis methods and vulture conservation breeding centres remain involved with the project or ensure expertise passed on to replacement staff</p> <p>Support from national, state officials and regional forestry departments remains in areas with in-situ and ex-situ conservation activities</p> |
| <p>Activities</p> <p>1. Staff recruited in India and Nepal to survey NSAID users; training on ELISA methods and NSAID surveys to IVRI & project staff; nationwide surveys of carcasses & NSAIDs undertaken in both years</p> <p>2. Coordination of in-situ actions between NGOs; training for staff on in-situ activities; diclofenac swapping and colony monitoring in place at >3 colonies</p> <p>3a. Meeting arranged for Nepal Vulture Action plan</p> <p>3b. Meetings in Indian states to coordinate in-situ plans</p> <p>4a. International and national training visits arranged for project vets</p> <p>4b. Workshops for centre staff</p> <p>4c. Visits from staff from new breeding centre to receive training from project staff</p> | <p>Activity milestones</p> <p>1. Staff employed, training & manual for ELISA & NSAID surveys by July 2007; annual report to governments on NSAIDs and carcass residues by April 2007 & 2008; publication by June 2009</p> <p>2 Training undertaken by Sept 2007; colony monitoring and conservation actions reported on website & local newsletters; paper on effectiveness of in-situ work produced by June 2009</p> <p>3a. Nepali action plan produced by July 2007</p> <p>3b. Meetings and minutes published by Sept 2007</p> <p>4 Training manuals produced by Aug 2007 & Aug 2008; vet trip reports produced; centre staff training reported in newsletter by Sept 2007 & Sept 2008</p> | <p>Assumptions</p> <p>1a. Agreement in place with IVRI and BNHS to support work and IVRI staff available; suitable staff can be found; permits in place to allow surveys</p> <p>2a. NGOs and forest departments willing to collaborate on in-situ conservation</p> <p>2b. Suitable staff found and recruited</p> <p>3. NGOs and forestry departments able to attend meetings and willing to collaborate on activities</p> <p>4. Continued support and cooperation between organisations running captive centres, and availability of staff at key training periods</p> | |

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

| Project implementation timetable | | |
|---|-----------------------|--|
| Date | Financial Year | Key milestones |
| By July 2007 | Apr – Mar 2007/08 | IVRI staff trained in ELISA methodology |
| By July 2007 | Apr – Mar 2007/08 | 3 BNHS and BCN staff trained in NSAID user surveys |
| By July 2007 | Apr – Mar 2007/08 | Meeting and production of action plan for vultures in Nepal |
| August 2007 | Apr – Mar 2007/08 | Overseas visit by centre veterinarian to receive training |
| August 2007 | Apr – Mar 2007/08 | At least two week long training workshops at breeding centre for vets and vulture centre attendents |
| By Sept 2007 | Apr – Mar 2007/08 | Co-ordination and establishment of in-situ conservation activities in at least three sites and training of at least 4 staff for this |
| Jul-Dec 2007 | Apr – Mar 2007/08 | BNHS staff undertake nationwide survey of cattle carcasses |
| Sep-Dec 2007 | Apr – Mar 2007/08 | NSAID user surveys undertaken in Nepal and India |
| Oct 07 - Mar 08 | Apr – Mar 2007/08 | Analysis by IVRI of NSAID residues in cattle carcasses |
| Nov 07 - Mar 08 | Apr – Mar 2008/09 | Monitoring of vulture colonies at in-situ conservation sites |
| By April 2008 | Apr – Mar 2008/09 | Report on diclofenac and NSAID prevalence prepared for Indian government departments |
| By April 2008 | Apr – Mar 2008/09 | Report on progress of in-situ conservation activities and monitoring |
| By April 2008 | Apr – Mar 2008/09 | Report on NSAID use prepared for Indian and Nepali government departments |
| By May 2008 | Apr – Mar 2008/09 | Publication on carcass surveying techniques in India |
| August 2008 | Apr – Mar 2008/09 | At least two week long training workshops at breeding centre for vets and vulture centre attendents |
| August 2008 | Apr – Mar 2008/09 | Overseas visit by centre veterinarian to receive training |
| Jul-Dec 2008 | Apr – Mar 2008/09 | BNHS staff undertake nationwide survey of cattle carcasses |
| Sep-Dec 2008 | Apr – Mar 2008/09 | NSAID user surveys undertaken in Nepal and India |
| Oct 08 - Mar 09 | Apr – Mar 2008/09 | Analysis by IVRI of NSAID residues in cattle carcasses |
| By April 2009 | Apr – Mar 2009/10 | Report on diclofenac and NSAID prevalence prepared for government departments |
| By April 2009 | Apr – Mar 2009/10 | Report on progress of in-situ conservation activities and monitoring |
| By April 2009 | Apr – Mar 2009/10 | Report on NSAID use prepared for Indian and Nepali government departments |
| June 2009 | Apr – Mar 2009/10 | Publication on prevalence of NSAID residues and impact on vulture populations in India |
| June 2009 | Apr – Mar 2009/10 | Publication on success of in-situ conservation activities for protecting vulture populations |

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

| PROJECT OUTPUTS | | |
|------------------------|-------------------------------|--|
| Year/Month | Standard output number | Description (include numbers of people involved, publications produced, days/weeks etc.) |
| Aug 07 & Aug 08 | 4C | Project veterinarians trained overseas, IVRI technicians trained in ELISA methods, research biologists trained in NSAID survey methods |
| Aug 07 & Aug 08 | 4D | 10 weeks (visits by vets of at least 3 weeks in each year, 2 weeks to IVRI staff, >2 weeks to research biologists) |
| Aug 07 & Aug 08 | 6A | Training to breeding centre staff and attendants |
| Aug 07 & Aug 08 | 6B | 4 weeks (at least 2 weeks in each year) |
| Aug 07 | 7 | 3 (manual on ELISA methods, guides on data collection and data analysis) |
| Jun 07 to May 2010 | 8 | 26 weeks |
| July 2007 | 9 | 1 Action Plan for Vultures in Nepal |
| May 08 and June 09 | 11A 11B | 3 peer-reviewed publications published 3 publications submitted |
| April 08 | 12A | 1 database on nationwide prevalence of NSAIDs in cattle carcasses |
| Sept 07 | 14A | 3 workshops to co-ordinate in-situ conservation actions |
| July 07 | 14B | 1 meeting for production of Nepali Vulture Action Plan |
| Jun 07 to May 2010 | 15A 15B 15C | >5 >10 >4 |
| Jun 07 to May 2010 | 16A 16B | 2 newsletters in India and Nepal 300 |
| Sept 07 | 17A | 2 networks coordinating in-situ conservation efforts and captive breeding programmes |
| Jun 07 to May 2010 | 18A 18C | 2 >5 |
| Jun 07 to May 2010 | 19A 19B 19C | >5 >20 >4 |
| Jun 07 to May 2010 | 20 | £10,900 towards equipment, set-up costs and reagents for ELISA testing, and purchase of land in Nepal |
| Jun 07 to May 2010 | 23 | £259,450 of support in kind from salaries of UK staff, office costs, overheads, and travel & accommodation of visiting staff |

MONITORING AND EVALUATION

25. 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 monitoring and evaluation.

The project's measurable indicators will allow progress towards outputs to be assessed during the course of the post-project. This will include 1a) successfully training staff in ELISA methods, 1b) carcass surveys and NSAID surveys undertaken and reported by partner organisations, 2) in-situ conservation actions in place in at least 3 sites, 3) meetings taken place between organisations to coordinate in-situ conservation and 4) skills and knowledge of breeding centre staff increased through training activities and increased numbers of staff trained at centres in captive breeding techniques.

Monitoring and evaluation of the project's progress will occur in collaboration with all main project partners and annual assessments of progress and work plans. Visits by project staff to overseas partners will regularly occur, as well as regular phone and email contact to discuss plans and problems. Monthly progress reports will be prepared by the Vulture Conservation Breeding Centres to enable their progress to be closely monitored, and a recently established (December 2006) technical advisory committee to the breeding centres (involving partners in India (BNHS and IVRI) and the RSPB and ZSL) will meet annually to review the development at breeding centres.

26. FINANCIAL ASPECTS

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

Please note that although three financial years are shown here, funding will only be awarded for a maximum period of two calendar years

Table A: Staff time. List each member of the team; their role in the project rate and the percentage of time each would spend on the project each year.

| | 2007/2008 | 2008/2009 | 2009/2010 |
|--|-----------|-----------|-----------|
| | % | % | % |
| UK Project Staff | | | |
| Dr Richard Cuthbert (Darwin Project Manager and RSPB Vulture Research Manager) | 75% | 90% | 10% |
| Mr Chris Bowden (Vulture Breeding Centre Project Manager RSPB) | 42% | 50% | 4% |
| Mr Ian Barber (Asia Country Programme Officer RSPB) | 17% | 20% | 2% |
| Dr Debbie Pain (Head of International Research RSPB – Scientific guidance) | 21% | 25% | 3% |
| Professor Rhys Green (RSPB/Cambridge – Scientific guidance) | 13% | 15% | 2% |
| Mr Lennox Campbell (RSPB – Financial guidance) | 1% | 3% | 0.5% |
| Dr Mark Taggart (Aberdeen University – Analytical chemist for multiple NSAID work) | 33% | 0% | 0% |
| Overseas Project Staff | | | |
| Dr Vibhu Prakash (BNHS, India – Vulture Programme Director) | 83% | 100% | 8% |
| Research Biologist in-situ work (BNHS, India) | 83% | 100% | 8% |
| Research Biologist carcass sampling (BNHS, India) | 83% | 100% | 8% |
| Research Biologist in-situ work (BNHS, India) | 83% | 100% | 8% |
| Research Biologist NSAID user work (BNHS India) | 83% | 100% | 8% |
| Field assistant colony monitoring (BNHS, India) | 83% | 100% | 8% |
| Field assistant colony monitoring (BNHS, India) | 83% | 100% | 8% |
| Driver centres/research (BNHS, India) | 83% | 100% | 8% |
| Driver carcass sampling (BNHS, India) | 83% | 100% | 8% |
| Dr Hem Sagar Baral (BCN, Nepal – guidance to project) | 33% | 40% | 3% |
| BCN permanent staff (BCN, Nepal – support to project) | 33% | 40% | 3% |
| Research Biologist NSAID use and in-situ (BCN, Nepal) | 83% | 100% | 8% |
| Research Biologist NSAID use and in-situ (BCN, Nepal) | 83% | 100% | 8% |
| Research Biologist surveys and monitoring (BCN, Nepal) | 83% | 100% | 8% |
| Field assistant colony monitoring & in-situ (BCN, Nepal) | 83% | 100% | 8% |
| Field assistant colony monitoring & in-situ (BCN, Nepal) | 83% | 100% | 8% |
| Field assistant colony monitoring & in-situ (BCN, Nepal) | 83% | 100% | 8% |

Table B: Salary costs. List the project team members and show their salary costs for the project, separating those costs to be funded by the Darwin Initiative from those to be funded from other sources.

| Project team member | 2007/08 | | 2008/09 | | 2009/10 | |
|---------------------------|---------|-------|---------|-------|---------|-------|
| | Darwin | Other | Darwin | Other | Darwin | Other |
| Dr Richard Cuthbert | | | | | | |
| Mr Chris Bowden | | | | | | |
| Mr Ian Barber | | | | | | |
| Dr Debbie Pain | | | | | | |
| Professor Rhys Green | | | | | | |
| Mr Lennox Campbell | | | | | | |
| Dr Mark Taggart | | | | | | |
| Dr Vibhu Prakash | | | | | | |
| Research Biologist (BNHS) | | | | | | |
| Research Biologist (BNHS) | | | | | | |
| Research Biologist (BNHS) | | | | | | |
| Research Biologist (BNHS) | | | | | | |
| Field assistant (BNHS) | | | | | | |
| Field assistant (BNHS) | | | | | | |
| Driver (BNHS, India) | | | | | | |
| Driver (BNHS, India) | | | | | | |
| Dr Hem Sagar Baral | | | | | | |
| BCN permanent staff | | | | | | |
| Research Biologist (BCN) | | | | | | |
| Research Biologist (BCN) | | | | | | |
| Research Biologist (BCN) | | | | | | |
| Field assistant (BCN) | | | | | | |
| Field assistant (BCN) | | | | | | |
| Field assistant (BCN) | | | | | | |

Table C. Total costs. Please separate Darwin funding from other funding sources for every budget line.

| | 2007/08 | 2008/09 | 2009/10 | TOTAL |
|---|---------|---------|---------|-------|
| Rents, rates, heating, lighting, cleaning, overheads | | | | |
| • Darwin funding | | | | |
| • other funding | | | | |
| Office costs eg postage, telephone, | | | | |
| • Darwin funding | | | | |
| • other funding | | | | |
| Travel and subsistence | | | | |
| • Darwin funding | | | | |
| • other funding | | | | |
| Printing | | | | |
| • Darwin funding | | | | |
| • other funding | | | | |
| Conferences, seminars etc | | | | |
| • Darwin funding | | | | |
| • other funding | | | | |
| Capital items/ equipment (please break down) | | | | |
| • Darwin funding | | | | |
| Set up costs for ELISA testing in India | | | | |
| Minor lab equipment for IVRI for ELISA work | | | | |
| Purchase meloxicam to swap with diclofenac | | | | |
| Purchase of land for safe cow farms in Nepal | | | | |
| • other funding | | | | |
| Other costs (please specify and break down) | | | | |
| • Darwin funding | | | | |
| Insurance for Nepali fieldworkers | | | | |
| Reagents for training ELISA methodology | | | | |
| ELISA reagents for 1 years running in India | | | | |
| Reagents for multi-NSAID screening costs Aberdeen | | | | |
| Work with forest user groups in Nepal to protect nest sites | | | | |
| Work with Panjarapols to use meloxicam | | | | |
| Protection of nest sites in India | | | | |
| Survey of Himalayan Griffon vultures Nepal | | | | |

| | | | | |
|--|-----------------|-----------------|----------------|-----------------|
| Minor equip for training & research | | | | |
| Visa applications, airport tax etc | | | | |
| • other funding | | | | |
| Salaries (from previous table) | | | | |
| • Darwin funding | | | | |
| • other funding | | | | |
| TOTAL PROJECT COSTS | £187,036 | £211,628 | £44,172 | £442,836 |
| TOTAL COSTS FUNDED FROM OTHER SOURCES | £113,742 | £124,477 | £21,231 | £259,450 |
| TOTAL DARWIN COSTS REQUESTED | £73,294 | £87,151 | £22,941 | £183,386 |

27. Please provide a written justification of why alternative funding is not available from within your own organisation or from other sources.

The RSPB and ZSL will continue to make a large financial commitment towards vulture conservation through in-kind support and direct funding of the vulture breeding centres (see below), as well as encouraging financial support from Indian partners such as BNHS and the Indian Central Zoo Authority. The large and growing costs of the vulture breeding centres means that the RSPB and other organisations have reached the limit of the contributions that they can make to the vulture project in Asia. Other funding sources are being sought for the breeding programme, where donations towards capital expenditure (e.g. an aviary) are easier to secure from funding agencies in comparison to covering costs of training, capacity building and in-situ conservation that this project is seeking to undertake.

28. Provide details of all confirmed funding sources identified in Question 26 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 unconfirmed funding the project will attract to carry out addition work during or beyond the project lifetime. Indicate those funding sources which are confirmed.

Confirmed:

- 1) RSPB funding contribution of £192,480 through in-kind donation of personnel time and overheads for RSPB staff and a further £12,000 towards travel and accommodation costs of RSPB staff visiting the region (e.g. Chris Bowden, Ian Barber, Debbie Pain), and £12,370 of in-kind salary costs and overheads for Dr Mark Taggart (Aberdeen University), funded by the RSPB
- 2) RSPB funding of >£50,000 in each year towards the captive breeding programme

Unconfirmed:

- 1) ZSL funding in kind for salaries and overheads of £35,000 and direct funding of £35,000 each year towards vulture breeding programme and vulture conservation activities in Nepal
- 2) National Bird of Prey Trust funding of £6000 towards vulture breeding centre construction costs

29. 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 Question 65. This will include donations in kind or un-costed support eg accommodation.

| |
|---|
| <p>Financial resources:</p> <p>BCN is seeking funding from the UN Global Environment Programme towards costs of vulture conservation work in Nepal</p> |
| <p>Funding in kind:</p> <p>1) BNHS funding contribution of £22,400 through in-kind donation of personnel time and overheads for Dr Vibhu Prakash</p> <p>2) BCN funding contribution of £21,000 for in-kind donation of personnel time and overheads for Dr Hem Sagar Baral and other permanent BCN staff</p> |

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

| | Total Project Costs £ |
|---|----------------------------------|
| Amount of original Darwin Initiative project funding | £231,975 |
| + Funding/Income from other sources | £643,000 |
| = Total original project cost | £874,975 |

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 2007/08

On behalf of the trustees/~~company~~ (delete as appropriate) Royal Society for the Protection of Birds

I apply for a grant of **£73,294** in respect of expenditure to be incurred in the financial year ending 31 March 2008 on the activities specified in the Logical Framework.

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.

I enclose a copy of the CVs for project principals and letters of support.

| | |
|-------------------------------------|---|
| Name (block capitals) | RICHARD JAMES CUTHBERT |
| Position in the organisation | RSPB Vulture Programme Research Manager |

Signed **Date:** 4th January 2007

Please return this form in Word format by e-mail to ECTF at darwin-applications@ectf-ed.org.uk by **5 January 2007**. Please put the title of the proposed project into the subject line of the e-mail. As much of the supporting documentation as possible should be sent along with the e-mailed application. 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**, hard copies of all applications and supporting documents should be submitted to the Darwin Applications Management Unit, c/o ECTF, Pentlands Science Park, Bush Loan, Penicuik EH26 0PH **postmarked not later than 5 January 2007**.

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.