



DARWIN INITIATIVE



APPLICATION FOR GRANT FOR ROUND 12 COMPETITION: STAGE 2

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

Submit by 19 January 2004

Ref (Defra only):

1. Name and address of organisation

School of Biological Sciences, University of Aberdeen, Aberdeen. AB24 2TZ

2. Project title (not exceeding 10 words)

Conservation of wetlands and associated biodiversity in Northern Zambia

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

| Details | Project leader | Other UK personnel (if working more than 50% of their time on project) | Main project partner or co-ordinator in host country |
|-------------------------------------|-------------------------------------|--|--|
| Surname | Racey | | Farmer |
| Forename(s) | Paul | | Edmund |
| Post held | Regius Professor of Natural History | | Manager |
| Institution (if different to above) | | | Kasanka Trust |
| Department | School of Biological Sciences | | |
| Telephone | | | |
| Fax | | | |
| Email | | | |

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

| |
|--|
| Aims Excellence in Teaching and Research |
| Activities Teaching and Research |
| Achievements Research: Grade 5 (International Excellence) in Research Assessment Exercise Teaching: Rated Excellent in Teaching Quality Assessment reviews |

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

10/024 Conservation and management of Malagasy Microchiroptera and their habitats
162/07/027 The role of fruit bats in maintaining biodiversity in Madagascar

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

- **Kasanka Trust Ltd. (KTL)** is a Zambian NGO with approved charitable status and has an agreement with the Zambian Wildlife Authority to manage and develop **Kasanka National Park (KNP)** and the surrounding **Kafinda Game Management Area (KGMA)**. It will be the main project- implementing organisation and will be responsible for all logistics in Zambia. It will provide baseline data from previous research and management activities and will be responsible for co-ordination with other host country partners and stakeholders. It will also be the main implementing organisation for the management recommendations which result from the project.
- **The Zambia Wildlife Authority (ZAWA)** is the government institution with overall responsibility for management of the National Park and of wildlife resources in the KGMA. It will be consulted at all stages of the project and invited to participate in all management, research and training activities. Implementation of all management recommendations will be with the approval and active support of ZAWA. The project will also be conducted in line with KTL's overall objective of building ZAWA's capacity to carry out management and development activities in KNP and KGMA.
- **The Department of Forestry (DOF)** is the government department responsible for the management of forest resources throughout Zambia. It will provide technical expertise and baseline data from previous research to assist research work both in KNP and KGMA.
- **The Kafinda Community Resource Board (CRB)** is the body elected from the local community responsible for the integrated approach to the management of human and natural resources in KGMA. It will be informed and consulted at all stages of the project and will be a central participant in the planning and implementation of GMA resource management.

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

- Partner organisations listed above have all been contacted at national and, where appropriate, local level, for their input to project development and support of the project activities.
- The organisations have committed to support the project with their current levels and grade of staff members so that any changes will not be detrimental to their capacity to implement the project.

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

The Kasanka Trust has a close relationship with the local community at all levels. All aspects of the project have been discussed with community members who will play a major part in implementation of the work outside the park boundary.

The Serenje District Council have been informed and consulted over the project proposal and have given their support. They will be informed of progress and invited to provide input.

The Department of Agriculture Food and Fisheries have been consulted and informed of the project. They will be asked to co-operate in the landuse management studies in KGMA and the investigation of external hydrological influences on the park from activities in the surrounding area.

The University of Zambia (UNZA) and The Copperbelt University (CBU) have considerable expertise in the management of Zambian habitats and will be invited to participate. Students will be invited to participate in fieldwork and interpretation under supervision of the Darwin fellows.

PROJECT DETAILS

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

- To secure the future of Kasanka's distinctive biodiversity through the conservation of sensitive habitats, particularly wetlands.
- To train local people to build their capacity for environmental education of community members and visitors to the area.
- To enhance the capacity of KNP to attract tourists and thereby achieve financial self sustainability.
- To provide baseline data on the natural resources of the KGMA, facilitating the development of plans for sustainable resource utilisation.
- To alleviate poverty through improved conservation and sustainable utilisation of natural resources and enhanced employment and the facilitation of rural development projects.

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

A new initiative

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

By strengthening the capacity of KNP to conserve its distinctive biodiversity, by developing a hydrological and fire management plan for sensitive ecosystems, by training local people as ecotourism guides and conservation educators to inform local communities about conservation and sustainable resource management, and by conducting studies outside the park on the sustainable use of natural resources, including land use zoning to protect the park's perimeters and wildlife corridors, the project will support the government's implementation of articles 6 (10%), 7 (20%), 8 (20%), 10 (15%), 11 (5%), 12 (20%) and 13 (10%). We have established contact with Mr. Siame in the Ministry of the Environment as the CBD contact and will continue to liaise with him.

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

The need was identified by the project leader during a site visit and discussions with KNP management. Both the conservation management in the park, particularly the management of wetlands, and the exploitation of natural resources in the surrounding area, were lacking scientific data and informed planning. Local educators and tourist guides lacked ecological and conservation knowledge, needed to influence communal resource management practices and to exploit the areas distinctive tourism attractions.

The project addresses three of the "agreed priority unmet needs" for biodiversity management listed in Zambia's National Biodiversity Strategy and Action Plan (November 1999):

- a) conserve ecosystems and protected areas
- b) sustainably use and manage biological resources
- c) equitably share benefits arising from utilisation of biodiversity

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

Better protection of ecosystems within the park will safeguard both tourism income (which is shared with the local community) and local employment (KTL is the largest non-government employer in Serenje District). It will also allow the biodiversity pool to spill into surrounding areas. Better management, control and utilisation of natural resources outside the park will be of major long term benefit to sustainable livelihoods. Expanded skill base in hosting and guiding visitors will also improve sustainable tourism and associated revenue.

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

The work will provide the Park and GMA with more comprehensive and up-to-date information on habitat management than is available for any other protected area in Zambia. Management recommendations which result from the project's research work will be implemented by Kasanka Trust and the KCRB in co-operation with ZAWA under the terms of KTL's management agreement. Results will be used as a starting point for similar work elsewhere in Zambia and beyond. Outputs will be disseminated through publication of reports and papers, specifically through ZAWA as the co-ordinating authority for national parks and GMAs. The trained educators will disseminate the project's research recommendations and enhanced knowledge of Kasanka's ecosystems both locally and on a wider scale.

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

The Kasanka Trust's management agreement was a ground-breaking initiative which has already left a legacy both in terms of the park's rehabilitation from near destruction and the precedent of private involvement in national park management which is now being replicated in other Zambian National Parks. This project will build on the proven results of this initiative, and uplift the standard of management to be a world class example of scientifically based habitat and resource management. The training of conservation educators will ensure that the knowledge base and experiences gained are fully disseminated.

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

KTL's well established close working relationships with ZAWA, DOF and KCRB are vital to sustain the impact and legacy of the project. These relationships will be protected through existing agreements and KTL's continued commitment both within the framework of the Darwin project and beyond. The project's impact and legacy will also be dependent on the continued status of Kasanka National Park and KGMA. There are no known threats to these at present, but KTL will continue to liaise closely with ZAWA and the current Ministry of Environment UNDP project examining the status of these protected areas.

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

The project will be profiled on the Kasanka website (www.kasanka.com) and on the website of the University of Aberdeen, and in the reception areas of the two tourist camps in Kasanka. The logo will appear on the project vehicle and on all educational materials associated with the project, including posters, slides and powerpoint frames.

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

Darwin Initiative (DI) annual reports reveal that the present proposal is distinctive in the application of hydrological expertise to the management of seasonally inundated grasslands, papyrus and swamp (mushito) forest. There have been no previous DI projects solely in Zambia and our investigations indicate that there are no current overlapping projects in other parks in Zambia. Manchester Metropolitan University have carried out inventory work and vegetation mapping in KNP, and together with staff at RBG Kew, have described the different soil types and their distinctive vegetation.

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

Our aim is to select two suitably qualified Zambians (preferably graduates) to attend the MSc course in Tourism and Conservation at DICE. We are under no illusion that this will be difficult, although we will have no difficulty in identifying motivated people from the local community with lower educational attainments to train as conservation educators and visitor guides, and have already identified three scouts who wish to train as guides. The funds we have requested for training will be used to train the maximum number of local people to their full potential. The park manager and his staff will monitor training outcomes and provide retainment incentives for staff gaining qualifications, and establish a framework for them to continue training others.

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

After the three years of the project KNP will have

- a) A habitat management plan which will include hydrological and fire management.
- b) A buffer zone around the park, wildlife corridors, and a natural resource map and database for the surrounding area.
- c) Staff trained as park guides and environmental educators.

Kasanka Trust (Zambia) will ensure through its Park Manager and Community Relations Co-ordinator that these plans are adhered to and that the trained staff will pass on their knowledge by training others.

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

| Project implementation timetable | | |
|----------------------------------|-----------------|---|
| Date | Financial year: | Key milestones |
| | Apr-Mar 4/5 | |
| | Apr-Mar 5/6 | |
| | Apr-Mar 6/7 | |
| July 04 | 4/5 | Appoint postdoctoral hydrologist as Darwin Fellow (to start 1/9/04), and his Zambian research assistant. |
| Sept. 04 | 4/5 | Project planning workshop at KNP with project team and stakeholders to establish methodologies for hydrology, grazing and fire ecology resource mapping in KGMA, and participatory studies. |
| Sept. 04 | 4/5 | First Darwin trainee to DICE MSc course |
| Sept. 04 | 4/5 | Commence in house training of three guides. |
| Sept. 04 | 4/5 | Initiate hydrological monitoring |
| Sept. 04 | 4/5 | Initiate resource mapping in KGMA. |
| Sept. 05 | 5/6 | Commence inhouse training of three guides. |
| Sept. 05 | 5/6 | Stakeholder Workshop. |
| Sept. 05 | 5/6 | Second Darwin trainee to DICE MSc course. |
| Oct. 05 | 5/6 | Appoint postdoctoral grazing ecologist as Darwin Fellow (to start 1/3/06), although he will attend the initial project planning workshop, and his Zambian research assistant. |
| March. 06 | 6/7 | Initiate grazing ecology studies. |
| Sept. 06 | 5/6 | Commence inhouse training of three guides. |
| Sept. 06 | 6/7 | Stakeholder Workshop. |
| July/August 07 | 6/7 | Finalise habitat management plan. |
| August 07 | 6/7 | Concluding Stakeholder Workshop. |

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

The production and implementation of a hydrological and fire management plan will safeguard the future of the distinctive biodiversity and sensitive ecosystems of KNP.

Restoration of water levels in papyrus and mushito swamp will safeguard them as habitats for sitatunga and straw coloured fruit bats respectively, both of which are major tourist attractions.

Training of local Zambians as environmental educators and guides will enhance the visitor experience, leading to increased tourist revenue and since KNP is the major employer in the area, will contribute to the alleviations of poverty.

The resource database for the KGMA will underpin sustainable use of resources outside the park.

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

| PROJECT OUTPUTS | | |
|---|--|---|
| Year/Month (starting April) | Standard Output Number (see standard output list) | Description (include numbers of people involved, publications produced, days/weeks etc) |
| 04/09-05/09 05/09-06/09 | 2 | Two Zambian graduates to year long MSc course in Tourism and Conservation at DICE. |
| 04/09-05/09 05/09-06/09 06/09-07/09 | 5 | Three Zambians each year trained as conservation and ecology educators and guides. |
| 05/06-05/09 06/06-06/09 | 4A/C | Aberdeen University biological expeditions consisting of 4 AU students partnered with 4 Zambian students separately funded by AU, Carnegie Trust, BES & BP Conservation Programme. |
| 05/06-05/09 06/06-06/09 | 4B/D | 10 weeks in each of two years. |
| 04 & 05 | 7 | A video already commissioned from a professional film maker (and funded separately by Holly Hill Trust) to include publicity for Darwin Project. Posters on Communal Wildlife Management and on Communal Forestry Management. A manual on Hydrological and Fire Management will be produced (and installed on the website). |
| 04/09-05/03 05/04-06/03 | 8 | 78 weeks: postdoctoral hydrologist at KNP. |
| 06/03 06/04-07/03 07/04-08/07 | 8 | 78 weeks: postdoctoral ecologist at KNP. |
| 04/05/06/07 | 8 | Total of 4 weeks per annum by two AU professors and Principal Scientist from Macaulay Land Use Research Institute. |
| 07 | 9 | A Hydrological and Fire Management Plan. |
| 07 | 9 | KGMA resource map. |
| 07 | 11B | 4 papers to be submitted. |
| 04/05/06/07 | 14A | Annual Workshops held for Stakeholders and at beginning and end of project (n=4). |
| 05/06/07 | 14B | One Conference per annum attended by postdocs. |
| 04/05/06/07 | 15A,15B,15C | One of each press release in each calendar year. |
| 05/06/07 | 16A,16B | Two electronic newsletters per annum to 200 recipients. |
| 05/06/07 | 18A | One TV programme per annum. |
| 04/05/06/07 | 19A | One in each calendar year of project |

| | | |
|-------|------------|---|
| | 19B 19C | One for BBC World Service One in each calendar year of project |
| 07 | 20 | 3 year old Landrover Defender value £5K 2 Laptop computers £400; GPS handsets £100; Reprint collection and similar resource materials |
| 04-07 | 23 | £120K: £25Kpa from Holly Hill Trust £15Kpa value of time donated by Principals, and others |

MONITORING AND EVALUATION

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

The project leader will maintain regular email contact with his main project partner in KNP, and will receive monthly email reports from the Darwin fellows. These will address progress in achieving the measurable indicators and the project outputs.

The project leader will visit KNP annually and will co-lead with Edmund Farmer the Annual Stakeholders Workshop. Prof Soulsby and Dr Iason will also visit the project at the outset and in subsequent years as required.

The project leader will also maintain regular contact with Martin Stanley of the Holly Hill Trust as the principal charitable donor to the project.

KTL's renewable agreement with ZAWA runs until 2012. The fact that Edmund Farmer will remain in post beyond the lifetime of the project will ensure that it achieves its overall purpose.

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

- KTL Management will submit quarterly email reports to Aberdeen.
- KTL management will establish a project monitoring committee consisting of ZAWA, DOF and KCRB (and any other major partners such as Zambian universities). This will meet six-monthly, and report to the Principals.

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

- Tight financial control in Aberdeen and Kasanka (where Mrs Kim Farmer is the accountant).
- The time of the project's principals is not charged to the project.
- Accommodation for the project – a headquarters and office facilities is provided *gratis* and Darwin Fellows will be offered accommodation at concessionary rates.
- Travel costs for Prof. Racey and Soulsby are not charged to the project since there are alternative sources of such funds.
- Guaranteed donation of £25K pa. from the Holly Hill Trust directly to the project.

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

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

LOGICAL FRAMEWORK

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

| Project summary | Measurable indicators | Means of verification | Important assumptions |
|---|---|--|---|
| <p>Goal: To draw on expertise relevant to biodiversity from within the United Kingdom to work with local partners in countries rich in biodiversity but poor in resources to achieve</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 To build capacity to conserve biodiversity of KNP by developing hydrological and fire management plan for sensitive ecosystems. To uplift management of KGMA resources. To improve conservation education. To alleviate poverty.</p> | <p>New knowledge of hydrological relations between river, lake, swamps and grasslands in KNP. New knowledge of effects of increasing populations of puku on biodiversity of grassland. Cross sectoral cooperation in the planning of KGMA resource utilisation. Improved conservation experience for visitors.</p> | <p>Reports by hydrologist and grazing ecologist. Hydrological interventions if indicated. Publications on hydrological management and grazing ecology. More community stakeholders involved in resource management. Increased tourism revenue.</p> | <p>KNP authorities supportive. Community Resource Board supportive. Zambian Wildlife Authority supportive. Political stability. Suitable candidates can be found for MSc.</p> |
| <p>Outputs Production of hydrological and fire management plan, and manual. Restoration of water levels in mushito and papyrus swamp. Two Zambian staff trained in Tourism and Conservation at DICE. Nine local staff trained as environmental educators and guides. Resource database for KGMA.</p> | <p>Regular monitoring of water levels in mushito and papyrus swamps. Publication of management plan and manual. New trained staff working in park. New educators and guides working with tour groups and wildlife clubs. Newsletters and a poster produced for schools. Papers submitted to peer-reviewed journals. Radio broadcasts. Report submitted to Government Depts.</p> | <p>Data base of hydrological measurements. Habitat regeneration. Increased throughput of school children and ecotourists. Copies of all publications and educational materials sent to Darwin Initiative. Feedback on database</p> | <p>Adequate access and means for monitoring. Park management receptive to recommendations of hydrologist and deploy staff to undertake interventions as required. Active support of stakeholders in resource mapping. Trainees complete course at DICE.</p> |

| Activities | Activity Milestones (Summary of Project Implementation Timetable) |
|---|---|
| <p>Workshops</p> <p>Field research programme</p> <p>Staff Training</p> <p>Publicity</p> | <p>Initial Project planning workshop with project team to establish methodologies of research programme for hydrology, grazing ecology and resource mapping. Annual stakeholder workshops early in Years 2 and 3, when project leader will also monitor progress on site with project team. Final workshop at completion of project.</p> <p>Protocols for hydrological measurements implemented and studies of grazing ecology and resource mapping implemented in year 1.</p> <p>Three educators and guides trained by KNP staff, Darwin Fellows and by short secondments to other Zambian parks and institutions in each of years 1, 2 & 3.</p> <p>Two Graduates trained at DICE.</p> <p>Annual radio and TV broadcasts.</p> <p>Biannual newsletters and a poster for schools, and adult groups.</p> <p>Updating Kasanka website (www.kasanka.com)</p> |