



Submit by Monday 24 October 2011

DARWIN INITIATIVE APPLICATION FOR GRANT FOR ROUND 18: STAGE 2

Please read the Guidance Notes 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 to the Project Leader)

Name: Institute of Zoology	Address: Zoological Society of London (ZSL), London, NW1 4RY, UK
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2. Project title (not exceeding 10 words)

The CUT plan for large carnivore management in Tanzania

3. Project dates, duration and total Darwin Initiative Grant requested, matched funding

Proposed start date: 1/4/2012		Duration of project: 3 years			End date: 31/3/2015	
Darwin funding requested	2011/12 £0	2012/13 £	2013/2014 £	2014/15	2015/16 £0	Total £299,090
Proposed (confirmed and unconfirmed) matched funding as percentage of total Project cost: Confirmed matched funding 45% of project cost						

4. Define the purpose of the project (extracted from logframe)

Project purpose: <i>Improved national and local capacity to reduce direct threats to leopard, lion, cheetah and wild dog by mitigating <u>C</u>onflict; ensuring sustainable <u>U</u>se; and reducing illegal <u>T</u>rade (CUT).</i>
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5. Principals in project. Please provide a one page CV for each of these named individuals. You may copy and paste this table if you need to provide details of more UK personnel or more than one project partner.

Details	Project Leader	Other UK personnel (working more than 50% of their time on project) Co-project leader	Main project partner and co-ordinator in host country/ies
Surname	Durant	Foley	Mduma
Forename (s)	Sarah Margaret	Charles	Simon
Post held	Senior Research Fellow	ZSL Conservation Fellow and Wildlife Conservation Society (WCS) Associate Conservation Ecologist	Director General
Institution (if different to above)	As above	As above	Tanzania Wildlife Research Institute (TAWIRI)
Department	Institute of Zoology (IOZ)	Tanzania Program	NR
Telephone			
Email			

Details	Main project partner and co-ordinator in host country/ies
Surname	Mwina
Forename (s)	Nebbo
Post held	Assistant Director and Acting Director
Institution (if different to above)	Wildlife Division (WD)
Department	Research, Training and Statistics
Telephone	
Email	

6. Has your organisation received funding under the Darwin Initiative before? If so, please provide details of the most recent (up to 6 examples). YES

Reference No	Project Leader	Title
EIDCF001	Tom Hart	Automating seabird counts from standardised photos contributed by volunteers
EIDPR075	Kate Jones	Bats of the Steppe: monitoring bat biodiversity in Mongolia
15033	Kate Jones	Monitoring Bat Biodiversity: Indicators of Sustainable Development in Eastern Europe
14055	Sarah Durant	Developing a National Conservation Action Plan for the Mammals of Tanzania
13022	Andrew Cunningham	Addressing a threat to Caribbean amphibians: capacity building in Dominica
12017	Simon Goodman	Building capacity and determining disease threats to endemic Galapagos fauna

7. IF YOU ANSWERED 'NO' TO QUESTION 6 describe briefly the aims, activities and achievements of your organisation. (Large institutions please note that this should describe your unit or department)

Aims (50 words)
Activities (50 words)
Achievements (50 words)

8. Please list all the partners involved (including the Lead Institution) , and explain their roles and responsibilities in the project. Describe the extent of their involvement at all stages, including project development. This section should illustrate the capacity of partners to be involved in the project. Please provide written evidence of partnerships. Please copy/delete boxes for more or fewer partnerships.

<p>Applicant institution and website where available:</p> <p>Institute of Zoology (IOZ) Zoological Society of London (ZSL) www.zsl.org/science</p>	<p>Details (including roles and responsibilities and capacity to engage with the project):</p> <p>The Institute of Zoology (IOZ) is a government-funded research institute of the Zoological Society of London (ZSL) specialising in scientific issues relevant to the conservation of animal species and their habitats. The project is aligned with ZSL's mission 'to promote and achieve the worldwide conservation of animals and their habitats'. IOZ will contribute both scientific capacity to help develop a scientifically sound approach to the conservation of large carnivores in Tanzania, and conservation capacity through ZSL's Conservation Programmes department, to transfer conservation science and management skills to in-country partners and stakeholders in Tanzania.</p> <p>IOZ has had a long-term programme in Tanzania dating from 1991, primarily spearheaded by the project leader. The Tanzania Carnivore Centre (TCC) at the Tanzania Wildlife Research Institute contributes to the overall aims of ZSL, and its work is strongly featured in interpretation materials at ZSL's zoos. The project leader is a senior research fellow at IOZ, and IOZ will allow her to spend at least 25% of her time on the project. Genetic analyses of cheetah, leopard and lion samples will be conducted at IOZ by Dada Gottelli, chief technician, who is experienced in microsatellite analysis of carnivore DNA. A map of the genetic landscape for these species, will be provided by Jinliang Wang, senior research fellow at IOZ, and a world leader in the statistical analysis of microsatellite data. This map will be used to identify source populations using samples from trafficked large cats. Statistical advice, support and training will be provided by Nathalie Pettorelli. IOZ will be responsible for the overall management of the project, including financial management and training of trainers.</p>
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<p>Lead Partner and website where available:</p> <p>Tanzania Wildlife Research Institute (TAWIRI), www.tawiri.org</p>	<p>Details (including roles and responsibilities and capacity to engage with the project):</p> <p>The Tanzania Wildlife Research Institute (TAWIRI), the key lead partner, is the national governmental institution responsible for all wildlife research in Tanzania and also mandated to advise the government on wildlife policy. TAWIRI therefore has strong institutional links to all governmental agencies involved with wildlife conservation and management. TAWIRI is the main source of governmental advice concerning international agreements on biodiversity, including CBD, CITES and CMS, and is Tanzania's scientific authority for CITES. TAWIRI's vision is 'to achieve high level of excellence in advising and providing scientific information on wildlife and biodiversity conservation and management'. It is a government parastatal and receives central financing from the government through the Ministry of Natural Resources and Tourism (MNRT). It raises additional funding through research and monitoring services provided to the wildlife management authorities, principally Tanzania National Parks (TANAPA) and Wildlife Division (WD), and from external grants.</p> <p>TAWIRI has been the main project partner on two previous Darwin Initiative grants involving the project leaders which established: the Tanzania Carnivore Centre (TCC); capacity for carnivore monitoring; a mammal database; and national conservation action plans for all mammal species. All projects, including this one, are developed and implemented in full partnership with TAWIRI. TAWIRI will be responsible for: provision of office space; trained personnel for project implementation, data analysis and training; and access to TCC/TAWIRI databases. The project will equip TAWIRI to become the nodal agency for training and information systems relating to the CUT strategy and management plan, and will provide it with appropriate skills to enable it to maintain all aspects of the project under changing staff scenarios within other collaborating institutions.</p> <p>A letter of support from TAWIRI is included with this application.</p>
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Partner Name and website where available:	Details (including roles and responsibilities and capacity to engage with the project):
Wildlife Division (WD) www.mnrt.go.tz	<p>Whilst TAWIRI has responsibility for providing information to government on wildlife, other wildlife authorities are responsible for implementing management. Wildlife Division (WD) is the second partner to the project and is responsible for all wildlife outside protected areas and for the management of Tanzania's game reserves.. WD is part of the Ministry of Natural Resources and Tourism (MNRT), which provides WD's annual budget. Of particular relevance to this project, is WD's responsibility for managing trophy hunting within hunting concessions, including setting hunting quotas with guidance from TAWIRI. WD is also responsible for granting Wildlife Management Area (WMA) status to local communities, who are then able to derive economic benefits from managing wildlife on their lands. WD raises considerable income for the government through fees from trophy hunting permits, hunting concessions, and visitors to game reserves. WD is also the enforcement and management authority for CITES and the focal point for CMS. WD is therefore keen to ensure trophy hunting is sustainable and to control illegal hunting of large carnivores. WD is an important link in the interception of wildlife trade, as WD game officers are engaged by customs whenever wildlife products are found. Additionally, WD faces increasing problems due to conflicts between local communities and large carnivores in areas under its jurisdiction, and is also interested in reducing such conflicts.</p> <p>WD will work closely with TAWIRI during project implementation, and will be responsible for: providing project staff with access to game reserves; providing WD staff for training; and engaging actively in the development of the CUT strategy and management plan. WD have been extremely supportive of past TCC activities, including the provision of free entry permits for survey teams to conduct surveys in game reserves (including rarely given multi-game reserve permits throughout 2007-11), participation in action planning workshops and logistical support during surveys. This project will continue to strengthen the TCC's existing partnership with WD, by providing training in surveying lion and leopard to WD site-based teams in hunting concessions and working with WD to develop financially feasible monitoring protocols for these species. WD will also participate in the development of conflict mitigation strategies, interpretation materials for promoting illegal wildlife trade control, and effective reporting systems. Finally, WD will be a key partner in the development of the CUT strategy and management plan.</p> <p>A letter of support from WD is included with this application.</p>

9a. Have you consulted stakeholders not already mentioned above?

Yes No

If yes, please give details:

A wide range of stakeholders was consulted during project development through an active national network established by the TCC under TAWIRI for collaboration, information and data sharing on carnivores - a key strength of the TCC. This network, which includes diverse stakeholders from individual researchers and conservation and development NGOs to safari/hunting operators and governmental institutions, enables the TCC to build on activities taking place on the ground, link policy and practice, make use of synergies between different individuals and organisations and avoid duplication. Furthermore, both project leaders have been working in biodiversity conservation in Tanzania over the last 20 years and already have strong relationships with many of the project's key stakeholders. The project leaders' long-standing in-country experience and relationships, together with TCC's network and TAWIRI's role within government, places the TCC – and this project - in an unparalleled position to leverage and co-ordinate considerable support for large carnivore conservation in Tanzania and to achieve real impact across a large geographical area. Thus, all those consulted so far have been extremely supportive and enthusiastic about the project as described further below.

- **Wildlife Conservation Society (WCS) Tanzania:** WCS has provided crucial support throughout previous activities of the project leaders, and funds the salary of the co-project leader. WCS is a registered UK charity (as well as having official charity status in Tanzania and the USA) and has a strong relationship with ZSL, including an MOU. WCS support will assist in leveraging long term support for implementing the CUT strategy and management plan.
- A wide range of community-based human-carnivore conflict projects are already underway in Tanzania, and have achieved substantial success in mitigating conflict locally. These include the **Ruaha Carnivore Programme**, **African People and Wildlife Fund (APWF)**, **Ngorongoro Lion Guardian Project**, the **Selous Lion Project** and the **African Wildlife Foundation's (AWF) Lion Research and Conservation Project**. These projects have already identified a need for national co-ordination of carnivore conflict mitigation, and their contribution to this aspect of the project will be particularly important. All have agreed to collaborate with this project and letters of support from APWF and the Ruaha Carnivore Programme are included with this application.
- The **FAO SADC subregional office** in Zimbabwe has been consulted with a view to adapting its Human Wildlife Conflict (HWC) toolkit, currently only trialled in Zimbabwe, for wider use in Tanzania. This collaboration was initiated through the project leader's range wide conservation program (RWCP) for cheetah (www.cheetahandwilddog.org) which has already been working with FAO in southern Africa. The FAO works with government decision-makers, and is increasingly encouraging wildlife-based land use and supporting the development of policies and legislation for the region which facilitate coexistence between farmers and wildlife. This has led to the development of the HWC toolkit, originally developed for elephant conflict, but then adapted to encompass large carnivore conflict through the RWCP for cheetah. Tanzania falls under the southern Africa regional office for FAO due to its status as a SADC member. A letter demonstrating the support of FAO is included with this application.
- A wide number of organisations and individuals have been consulted by the project leader in developing an approach to address the growing problem of trafficking in cheetahs to meet growing demand for pet cheetahs in the Middle East. These include the **CITES Interpol office** in Geneva; the **Environmental Investigation Agency**; and **TRAFFIC**. These consultations have confirmed a need for more information on illegal trade in live cheetah, but have also highlighted a need for information on illegal trade in leopard pelts and lion bone, which are increasingly being found within Asia, probably as substitutes for tiger products. These discussions have resulted in the addition of lion as a focal species for the illegal trade component of the project since the stage 1 application. Tanzania, as a country with substantial populations of all three species of African large cat, and with porous sea and land borders allowing access to middle eastern and Asian markets, is potentially vulnerable to this trade.

Within Tanzania, **TRAFFIC** is the primary NGO monitoring illegal trade in wildlife products, and will be a key stakeholder to the project. A letter demonstrating the support of TRAFFIC is included with this application.

- Several hunting operators have been consulted about the project, including **Friedkin Conservation Fund** (FCF – which is the conservation arm of Tanzania Game Trackers and Wengert Windrose Safaris), **TAWICO** and **Robin Hurt Safaris**. Although there are sometimes conflicts between trophy hunting operators and conservation organisations, the TCC has a long standing relationship with these operators based on a solid foundation of mutual trust. These hunting operators together hold some of the most significant hunting concessions in Tanzania and their involvement is critical in the development of the protocol to establish sustainable hunting quotas. They will provide access to hunting concession areas for trialling survey methods for lion and leopard and will engage with the development of the training initiative for rolling out the monitoring protocol. A letter demonstrating the support of FCF is included with this application.
- The **Range Wide Conservation Programme (RWCP) for Cheetah and Wild Dog** aims to develop and implement the IUCN/SSC regional conservation strategy for these species (www.cheetahandwilddog.org). The **RWCP** is led by the project leader, and operates under ZSL, WCS and the IUCN Cat and Canid Specialist Groups and was developed specifically to ensure follow-up for the IUCN/SSC strategies developed for cheetah and wild dog. The programme has developed an effective and highly participatory model of operation whereby, rather than initiating new activities and projects that may prove unsustainable in the long run, the programme focuses on: building on existing local capacity to help governments, NGOs and individuals increase cheetah and wild dog conservation activities; bringing in new players where there is clear added value; and establishing new projects only where major gaps in capacity are identified. The programme has thus been able to leverage and co-ordinate significant conservation support for cheetah and wild dog, and achieve real conservation impacts across a vast geographical area. In particular it has a focus on issues relating to illegal trade and mitigating conflict with cheetah and wild dog. The RWCP will provide information and engage key individuals and organisations to generate added value to project activities. The RWCP network will also be used to disseminate results and lessons learned from this project.

9b. Do you intend to consult other stakeholders?

Yes No

If yes, please give details:

Several other key stakeholders will be consulted during the project's inception phase – all are previous or current collaborators on other activities of either the TCC, TAWIRI and/or the project leaders and are described further below. Further local stakeholder consultations are envisaged during project implementation in connection with specific project activities and site-based work, for example, target communities, wildlife managers, additional NGOs and other relevant local stakeholders.

The government authorities of Tanzania National Parks (TANAPA), Forestry and Beekeeping Division (FBD) and Ngorongoro Conservation Area Authority (NCAA) are all grappling with an increasing problem of human carnivore conflict within and/or on the boundaries of areas under their jurisdiction. This project will continue and strengthen the existing partnership between the TCC/TAWIRI and these organisations, and they will be consulted at the start of the project and engaged in the development of the conflict mitigation protocol and the CUT strategy and management plan. Because of long standing relationships between the TCC/TAWIRI and these organisations we do not foresee any problems in engaging their support: All three organisations have previously been extremely supportive of activities of the TCC in many ways, including the provision of free entry permits for survey teams into areas under their jurisdiction as necessary; participation in action planning workshops; and logistical support when undertaking surveys.

- **TANAPA** is responsible for the management of national parks in Tanzania. It is a government parastatal organisation, and raises funding from visitor fees. Because of the recent growth of tourism in Tanzania, TANAPA's income is considerable, totalling \$63 million in 2007. TANAPA also has an increasing core of well trained community wardens within its Community

Conservation Service who are responsible for engaging with communities on the borders of national parks. TANAPA is responsible for addressing ongoing conflict between these communities and large carnivores harboured in parks, due to depredation of livestock.

- **FBD** is responsible for the management of forest reserves and forested areas in Tanzania. FBD is a governmental organisation within the MNRT, and generates some income from sustainable utilisation of forest products and, more recently, from visitor fees to forest reserves. Income raised goes to central government and FBD's budget is set by the government. Many FBD sites harbour populations of leopard, and several also harbour lions, wild dogs and cheetah, and hence conflict is a problem for communities on the borders of forest reserves and inside forested areas.
- **NCAA** is responsible for the management of Ngorongoro Conservation Area, ensuring multiple land use to assist in conserving and developing its natural resources. The 1975 Ngorongoro Conservation Area Ordinance stipulates the objectives of the Authority as follows: the conservation and development of the NCA's natural resources; the promotion of tourism; and the safeguarding and promotion of the interests of the Maasai. Conflict between people and large carnivores harboured in the Conservation Area and the adjoining Serengeti National Park, is becoming an increasingly important issue within the Conservation Area.

Academic institutions are also important project stakeholders as they have undergraduate and postgraduate students in wildlife related disciplines able to contribute to the project and to benefit from further training. Furthermore, academic institutions represent reservoirs of knowledge and learning and academics have important expertise relevant to developing the CUT strategy and management plan. The project will therefore engage academic institutions including the **University of Dar es Salaam** and **Sokoine University of Agriculture**. These institutions have provided trainees in previous projects and the TCC regularly hosts interns and provides them with training in wildlife monitoring. The TCC has an excellent record in this regard, as all interns have either gone on to further education or to permanent jobs in the wildlife sector (<http://www.tanzaniacarnivores.org/about-us/who-we-are>). Academics with relevant expertise will be engaged in the development of the CUT strategy and management plan.

Finally, **Tanzania's Customs and Excise Department** under **Tanzania's Revenue Authority** (TRA) will be a key stakeholder in the component of the project aiming to reduce illegal trade in large cats. The TRA have a good record of responding to requests for engagement such as that proposed in this project, particularly when such requests originate from another government department such as TAWIRI, with whom they already have a good working relationship. The project will target key land border custom posts to the north of the country (i.e. covering important smuggling routes to the Middle East via ports in Somalia and Djibouti); the main sea ports (Tanga, Dar es Salaam and Mtwara); and Kilimanjaro and Dar es Salaam international airports.

9c. Have you had any (other) contact with the government not already stated? Yes No
If yes, please give details:

9d. Will your project support any work in the UK Overseas Territories? Yes No
If yes, please give brief details stating which Territory/ies will be involved.

PROJECT DETAILS**10. Please provide a Concept note (Max 1,000 words) (repeat from Stage 1, with changes highlighted)**

Tanzania holds some of the most important large carnivore populations in Africa, harbouring an estimated 25% of the world's remaining lions², 27% of its wild dogs² and 9% of its cheetah³. Tanzania's leopard population is also thought to be significant. However, these populations, many of which occur outside protected areas, face growing pressures from multiple threats including direct conflict with rural communities and illegal wildlife trade. Additionally, there are concerns about long-term sustainability of trophy hunting of lion and leopard. As top predators, large carnivores play key roles in the maintenance of Tanzania's unique ecosystems. They also contribute substantially to national revenue as a major draw for tourism, which contributed more than US\$1billion in national revenues in 2008⁴. Recognizing the biological and economic importance of its large carnivores, the Tanzanian government endorsed the 2005 National Conservation Action Plan (NCAP) for Carnivores. However, the sustainable management of large carnivore populations is limited by insufficient institutional capacity and weak co-ordination.

This project aims to develop institutional capacity and strengthen coordination for the effective management of Tanzania's large carnivores by reducing mortality and improving conservation status of four IUCN threatened or near threatened species: leopard, lion, cheetah and wild dog. It will do this by managing key direct threats identified by the NCAP, namely: Conflict, unsustainable consumptive Use and illegal Trade (CUT). Conflict due to livestock loss results in retaliatory killing or problem animal control, and is a threat to all four species. Leopard and lion are targets of consumptive use through trophy hunting, which, although controlled through quotas, can be compromised due to insufficient information on abundance, particularly for leopards, risking unsustainable offtakes. Finally, evidence of a growing illegal international trade is may be also increasingly threatening cheetah, leopard and lion populations.

The project aims will be achieved by:

1. Developing and implementing best practice for large carnivore conflict management.

High levels of conflict with all large carnivores have been reported in many areas in Tanzania⁵, and several projects are carrying out research and implementing conflict mitigation within local communities. However there is no national co-ordination of these activities, neither are results being used within governmental institutions. The project will review carnivore conflict research and mitigation carried out to date, to develop a standardised protocol for conflict management. Three sites for piloting the protocol, located in pastoralist or agropastoralist areas, will be selected in consultation with project partners at the project start. Potential strategies include establishing cost effective boma construction for corralling livestock at night; effective daytime livestock herding practices; reliably identifying causes of livestock depredation and best use of domestic dogs and noise makers. Procedures will be established for dealing with problem animals, should individual carnivores repeatedly take livestock. A participatory process will be used to determine which methods are most supported by communities and to develop awareness raising materials. Results will be used in collaboration with stakeholders to develop a conflict management protocol for rolling out nationally with accompanying interpretive materials outlining recommendations and key strategies.

² Chardonnet, P. (2002) Conservation of the African lion: Contribution to a status survey. International Foundation for the Conservation of Wildlife, France and Conservation Force, USA

³ IUCN/SSC (2007) Regional Conservation Strategy for the Cheetah and African Wild Dog in Eastern Africa, IUCN/SSC (2007) Regional Conservation Strategy for the Cheetah and African Wild Dog in Southern Africa.

⁴ Tanzania Tourism Sector Survey (TTSS) Report (2008), MNRT, Tanzania.

⁵ Maddox, T (2002), The ecology of cheetahs and other large carnivores in a pastoralist-dominated buffer zone, PhD Thesis, University of London; Dickman, AJ (2008), Investigating the key determinants of human-large carnivore conflict in Tanzania, PhD Thesis, UCL; Msuha, MJ (2009) Impacts on carnivore biodiversity inside and outside protected areas in Tanzania, PhD Thesis, UCL; Durant, SM, *et al.* (2010), Past, present and future of cheetah in Tanzania: from long term study to conservation strategy Pp. 383-382 in Macdonald, DW & AJ Loveridge. *Biology and Conservation of Wild Felids*, Oxford University Press; Lichtenfeld, LL (2005). Our shared kingdom at risk: Human – lion relationships in the 21st century, PhD Thesis, University of Yale.

2. Developing standardised tools to ensure long term sustainability of trophy hunting of leopard and lion.

Camera trap methodologies used with individual recognition, already proven to be effective in Tanzania at generating verifiable data for estimating leopard abundance⁶, will be used to establish leopard densities in at least four hunting concessions in different habitats in Tanzania. Because of difficulties in identifying individual lions from camera trap photographs, call-in playbacks will also be used for lions if necessary. Hunting operators with previous histories of working with the project team will partner in this activity. Pilot sites will be used to refine the survey protocol and develop tools for use by WD wardens and hunting operators, including a handbook and a web site for data input and analysis and to provide a population model for exploring relationships between offtake and population size.

3. Identifying wildlife trade source populations of large cats and improving awareness, detection and enforcement at customs points.

The virtual disappearance of cheetah from the Horn of Africa has been ascribed to increasing international trade in live cheetah, particularly for the Middle East market, where a live cheetah can sell for US\$10,000. Leopard range has also contracted, partly due to the fur skin trade, and leopard pelts and lion bone increasingly feature in confiscations in Asia. The extent of illegal trade in cheetah, leopard and lion in Tanzania is largely undocumented, although illegal live trade in wildlife is believed to be substantial – over the last year Kilimanjaro International Airport has been identified as a major hub for wildlife trade in live wildlife to the Middle East and three cheetah were confiscated from a trader's living room in Arusha. This project aims to raise awareness about illegal trade, particularly at border posts and within the wildlife sector; train customs officers to effectively identify products from large carnivore species; and trace source populations from confiscated cheetah, leopard and lion products through tools developed by the project, including a genetic map of each species' distribution using DNA from tissue or scat samples⁷.

The project will develop capacity of local communities at focal sites to manage livestock/carnivore conflict; custom officials to intercept and report on trafficked large carnivore products; and TAWIRI to set appropriate hunting quota recommendations and to act as a nodal agency for training and information gathering and dissemination. Information, capacity and interpretation materials developed will be used to prepare a CUT plan for large carnivore management in Tanzania. This plan will establish a sustainable approach for the long-term monitoring and management of these direct threats to carnivores in Tanzania. The project will thus make a significant contribution to Tanzania's CBD 2020 Aichi targets 4, 12 and 19; contribute to CITES implementation by ensuring that lion and leopard offtakes in Tanzania are sustainable and that illegal trade in leopard, lion and cheetah is reduced; and address Tanzania's CMS priorities in helping to protect cheetah and wild dog.

The project is in a unique position to implement its goal due to strong governmental support and existing close and long-standing collaborations between the project team and key stakeholders, including Wildlife Division, NGOs, conservation projects/NGOs and hunting operators.

⁶ Msuha, MJ (2009) Impacts on Carnivore Biodiversity Inside and Outside Protected Areas in Tanzania, PhD Thesis, UCL; Pettorelli, N., *et al.* (2010) Carnivore biodiversity in Tanzania: revealing the distribution patterns of secretive mammals using camera traps. *Anim. Conserv.* 13, 131-139.

⁷ Wasser, S. K., Clark, W. J., Drori, O., Kisamo, E. S., Mailand, C., Mutayoba, B. & Stephens, M. (2008) Combating the illegal trade in African elephant ivory with DNA forensics. *Conserv Biol* 22: 1065-1071.

11a. Is this a new initiative or a development of existing work (funded through any source)?**Please give details:**

This is a completely new initiative that has been made possible by the achievements of two earlier Darwin Initiative projects. One project developed lasting national capacity for carnivore research, monitoring and conservation through the establishment of the Tanzania Carnivore Centre (TCC) within TAWIRI. Key achievements of the TCC include the development of a national database on carnivores, and Tanzania's first National Conservation Action Plan (NCAP) for Carnivores. A second Darwin funded project further developed the TCC's capacity to undertake research and conservation action for all medium to large mammals in Tanzania, resulting in the development of NCAPs for the latter and a large database on mammal distribution. Additional funding enabled a TCC member of staff, Maurus Msuha, to attain a PhD at University College London. The subject of his study was an investigation into the impacts of humans on carnivore biodiversity in Simanjiro, an area with intense conflict between people and wildlife, and hence very relevant to this project. Dr. Msuha, now a senior member of staff at TAWIRI, will be a key member of the project team. Additionally, this project will also benefit from one of the first Darwin Initiative projects in 1996 to recover the Serengeti Wildlife Research Institute (SWRI), which strengthened and reinvigorated SWRI, enabling it to develop into the modern day TAWIRI. These projects have established TAWIRI as an effective agency for national carnivore monitoring and research with the capacity to undertake high-quality science, influence policy and achieve conservation impact. TAWIRI is thus ideally placed to develop and implement this new initiative.

The Carnivore NCAP highlighted the pressing need to address direct threats to large carnivores arising from conflicts with rural populations and unsustainable use. Illegal trade in live cheetah was subsequently identified as a major threat to the species across Africa during IUCN/SSC regional strategic planning processes (<http://www.cheetahandwilddog.org/repreg.html>). There is also evidence of increasing illegal trade in leopard skins and lion bone to Asia, and a critical need to establish the extent and impacts of such trade from Tanzania to address current and future threats. However, data on illegal trade in carnivores, lion and leopard densities, and human-carnivore conflicts are limited, as is capacity to meet information needs and address CUT threats. This project aims to develop a completely new area of work for the TCC/TAWIRI, that is not currently covered by any other agency, by directly combating CUT threats. The project aims to address these threats through the development and implementation of a national CUT strategy and targeted management plan, building on and further expanding capacity established at TAWIRI by previous Darwin projects, and the agency's strong collaborative linkages with the key wildlife management authorities (WD, TANAPA, FBD and NCAA).

11b. Are you aware of any other individuals/organisations/ projects carrying out or applying for funding for 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 been/will be made to co-operate with and learn lessons from such work for mutual benefits:

We are not aware of any other individual or organisation undertaking work similar in scope and geographical reach to this project. However, some of the specific issues covered by this project are a focus of other projects. The TCC has already been collaborating with many of these projects by sharing data and engaging them in the development of NCAPs, and these projects are extremely supportive of this initiative (see section 9). This project intends to build on what has already been achieved, and increase geographic scope and capacity to deliver conservation impact on a wider scale. This project will benefit from the capacity, systems and networks established by the TCC/TAWIRI over the last 9 years, not least its respected position within government wildlife and environment agencies, which will greatly facilitate implementation of the project, as well as dissemination of results and lessons learned, advocacy for policy change where needed and scale-up and wider replication of effective strategies developed by the project for the management of CUT threats across Tanzania. A key output of this project will be the development of a comprehensive national strategy to address direct CUT threats to lion, leopard, cheetah and wild dog in Tanzania.

Additionally, while NGOs working on sustainable use quotas for lions have had some success, including a recent change to an age-based system for validating lion trophies, this system is, as yet, untested, and quota-setting remains a politically sensitive issue. There is also no appropriate standardised method for setting quotas for leopard. However, due to the TCC/TAWIRI's strong institutional linkages with government authorities and established foundations of trust, this project is exceptionally well placed to work with key government and non-government stakeholders to develop and implement an effective protocol for sustainable trophy hunting for both species. Finally, while TRAFFIC monitors overall illegal trade in wild flora and fauna from Tanzania, its main focus is currently on the ivory trade. Cheetah trafficking is being addressed at the international level by the RWCP, but this program does not have the capacity to address this issue at national level. No other organisation or programme is specifically addressing the issue of illegal trade in large carnivores in Tanzania.

The project team is uniquely well placed to implement this project, using an approach that is participatory and inclusive and builds on ongoing work by a wide range of stakeholders, as used successfully in previous projects. This will allow the development of a comprehensive and sustainable program able to deliver mutual benefits to stakeholders that can be scaled-up across a wide area.

11c. Are you applying for funding relating to the proposed project from other sources? Yes No

If yes, please give brief details including when you expect to hear the result. Please ensure you include the figures requested in the spreadsheet as Unconfirmed funding.

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

*If CMS please indicate whether it is the main Convention or one or more of the daughter agreements/MoUs (ACAP, AEWA etc)

Main convention – cheetah and wild dogs are relatively recent additions and there are currently no daughter agreements.

Is any liaison proposed with the CBD/CMS/CITES focal point in the host country? Yes No

If yes, please give details:

TAWIRI is the scientific authority for CITES and is the main partner of the project, WD is the management and enforcement authority for CITES and the focal point for CMS and is also a partner in this project. TAWIRI is mandated by government to provide information to WD relevant to CITES and CMS, and TAWIRI also liaises directly with the CBD authority which falls under the Vice President's office.

What specific issues covered by the Convention(s) will this project address and how were they identified? (150 words)

The project makes a strong contribution to Tanzania's obligations to all three conventions:

CBD: The project makes a clear contribution to all five of the Aichi 2020 strategic goals, with the strongest contribution to goals A, C and E, specifically through the following targets: 4 implementing a plan for sustainable use of large cats; 12 improving the status of threatened large carnivores; and 19 improving, sharing and applying information relating to sustainable management of large carnivores.

CITES: The project will help Tanzania meet its commitments under CITES by contributing to sustainable use of two CITES-listed species – lion and leopard – and reducing illegal international trade in three CITES-listed species lion, leopard and cheetah.

CMS: The project will increase protection of two CMS-listed species by reducing trade and conflict for cheetah (Appendix I) and by reducing conflict for wild dog (Appendix II).

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

The CUT project will reduce three major direct threats to Tanzania's large carnivores through:

1. Effective management of conflict between people and large carnivores;
2. Sustainable quotas for trophy hunting of lion and leopard;
3. Improved detection and control of illegal trade in large cats;
4. A comprehensive national CUT strategy and management plan with adequate capacity and systems in place for its effective implementation

As a result, the project will also deliver the following economic benefits:

1. Reduction in economic losses incurred by rural communities from livestock depredations by large carnivores.
2. Maintenance of sustainable income, including valuable foreign exchange, and livelihoods based on consumptive and nonconsumptive wildlife-based tourism centred on charismatic large carnivores.
3. Reduction in uncompensated loss of natural resources due to illegal trade in large cats.

Finally, the project will establish productive and enduring partnerships between wildlife management authorities, TAWIRI, ZSL and conservation NGOs and projects.

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

Tanzania is critically important for biodiversity conservation, ranking 5th in Africa in mammal biodiversity. The country harbours particularly important populations of large carnivores, including some of the most globally significant populations of large carnivores: an estimated 27% of wild dogs (IUCN endangered); 25% of lions (IUCN vulnerable); 9% of cheetah (IUCN vulnerable) and an unknown, but certainly substantial proportion of Africa's leopard (IUCN near threatened). Safeguarding these populations alone would provide a long-term future for Africa's threatened large carnivore biodiversity. Tanzania's conservation record is exceptional; 15% of land is set aside entirely for biodiversity conservation and almost 25% is granted some level of protection. However, Tanzania is one of the world's poorest countries, and hence has limited capacity for conservation. This project aims to equip Tanzania, which holds globally important refuges for large carnivores, with lasting capacity to reduce three key direct threats to this key component of biodiversity.

13. 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)

Results, training manuals and interpretation materials will be disseminated to project stakeholders and the scientific and conservation community through a number of mechanisms. Project achievements, progress will be reported through project web pages under the TCC's website www.tanzaniacarnivores.org. Monthly email updates will be sent to all project partners and stakeholders. Results of survey and conflict mitigation activities will be disseminated through peer-reviewed scientific publications, conferences and workshops. Printed copies of interpretative materials, training manuals and the CUT strategy and management plan will be distributed to stakeholders and electronic copies made available on the project website.

Posters and press releases will be used to disseminate results to the general public. Two posters will be designed to raise awareness of illegal trade and promote good livestock management and distributed to local communities and border posts in Tanzania. Both ZSL and TAWIRI have a wide range of local and national media contacts in the UK and Tanzania respectively, and ZSL press releases are very effective at gaining maximum media coverage. ZSL's experienced press office will develop releases that will then be adapted for use in Tanzania.

All dissemination materials will acknowledge the Darwin initiative and prominently display the Darwin logo.

14. What will be the long term benefits (particularly for biodiversity and local communities) of the project in the host country or region and have you identified any potential problems to achieving these benefits? (max 200 words)

Tanzania still holds vast landscapes that provide the habitat and geographic area needed for effective long-term conservation of large carnivores –increasingly rare in other parts of the range of these species due to competing pressures on land. This project aims to secure the survival of Tanzania’s large carnivore populations by increasing national capacity for their sustainable management. This in turn will help sustain the economic contribution of large carnivores to the national economy as well as to rural livelihoods in areas where carnivores are a major draw for tourism and trophy hunting. The project will reduce economic losses incurred by rural communities as a result of depredation of livestock by carnivores (in Tanzania annual losses of cattle and shoats from depredation have been reported as high as 1 and 4% respectively⁸) and reduce uncompensated loss of natural resources by intercepting and stopping illegal trade in leopard skins, lion bone and live cheetah.

Potential problems in achieving these benefits are detailed in the logframe, and depend on the continued support of Tanzania’s wildlife management authorities. The stated support of TAWIRI, WD and stakeholders for this project, make us confident that any potential problems can be surmounted.

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)

The project end point will be delivery of a national CUT strategy and management plan for large carnivores, and adequate institutional capacity and improved coordination between government, researchers, business and NGO stakeholders for its effective implementation. Capacity will include trained trainers, interpretive materials, training manuals, national databases and trained customs personnel. The CUT strategy will provide a national-level policy framework to guide further scale-up and replication of demonstrated approaches and techniques for carnivore conflict mitigation, illegal trade control and establishing sustainable trophy quotas in priority areas across Tanzania.

A systematic handover to TAWIRI at the project end will set out mechanisms to continue implementation of the CUT strategy through improved communication and coordination systems established by the project. These will enable:

- increased geographic scope through scale-up of best practices in community management of predator conflicts through trained trainers and community-to-community learning.
- Implementation of a cost-effective monitoring protocol for leopard and lion to set trophy quotas.
- Continued improvements in interception and reporting of illegal trade in large cat products.

Most individuals receiving training already hold permanent positions, those employed by the project are expected to move to permanent positions within TAWIRI, as in previous DI funded projects.

⁸ Kissui, BM 2008. Livestock predation by lions, leopards, spotted hyenas, and their vulnerability to retaliatory killing in the Maasai steppe, Tanzania. *Anim Conserv* 11:422-432.

16. If your project includes capacity building in local communities in the host country, 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 you expect the beneficiaries to obtain and how these may be used beyond the life of the project and any wider application How will you measure training effectiveness. (max 300 words)

You should address each of these points.

The project has three key themes, and each include training:

1. *Mitigating human carnivore conflict*

Project leaders and FAO will train TAWIRI-based trainers on mitigating human-carnivore conflict and use of interpretative materials developed by the project. A curriculum for a short course on these topics will be developed for extension officers and NGOs working with rural communities in areas with human-carnivore conflict. Mechanisms will also be developed for community-to-community learning. Community training will take place through training workshops.

2. *Ensuring sustainable trophy hunting of large cats*

TAWIRI based trainers are already trained in camera trap methodologies, but will additionally receive training from IOZ in call-in surveys and data analysis. A curriculum will be developed for training WD, hunting concession staff, WMA community representatives and NGOs in survey methodologies, equipping them with survey implementation and data analysis skills. The project will also establish simplified web-based tools to facilitate data analysis by field staff inexperienced in statistical techniques.

3. *Reducing illegal trade in large carnivores*

Customs officers at border posts will receive training from IOZ and TAWIRI-based trainers in species identification of different large cat products and impacts of illegal trade. Training will be provided in the use of reporting systems for confiscated cat products, including reporting to the national CITES Interpol office.

TAWIRI staff will also receive training in proposal writing, reporting and project delivery through one-on-one mentoring by the project leaders, equipping them with the skills to mainstream the CUT plan into the core work of key wildlife agencies. Direct training in all aspects of the project will be provided by the project leaders to TAWIRI, which will become the nodal agency for providing all future training.

A number of methods will be used to assess training effectiveness, key will be periodic data evaluation and in-depth participatory reviews with stakeholders.

LOGICAL FRAMEWORK

17. Please enter the details of your project onto the matrix using the note at Annex 3 of the Guidance Note. This should not have substantially changed from the Logical Framework submitted with your Stage 1 application. Please highlight any changes. (Use no smaller than Arial 10 pt)

Project summary	Measurable Indicators	Means of verification	Important Assumptions
<p>Goal: Effective contribution in support of the implementation of the objectives of the Convention on Biological Diversity (CBD), the Convention on Trade in Endangered Species (CITES), and the Convention on the Conservation of Migratory Species (CMS), as well as related targets set by countries rich in biodiversity but constrained in resources.</p>			
<p>Sub-Goal: Populations of leopard, lion, cheetah and wild dog in Tanzania are well conserved and sustainably managed.</p>	<p>A CUT large carnivore strategy and management plan is established by the wildlife authorities and used for the sustainable implementation of best practice methods proven to reduce Conflict, set sustainable Use quotas, and reduce illegal international Trade.</p>	<p>Methods proven and documented, and CUT strategy and management plan developed and endorsed by MNRT and stakeholders.</p>	
<p>Purpose Improved national and local capacity to reduce direct threats to leopard, lion, cheetah and wild dog by managing Conflict; ensuring sustainable Use; and reducing illegal Trade.</p>	<ol style="list-style-type: none"> 1. National evidence based protocol established to reduce conflict in local communities with lion, leopard, cheetah and wild dog in Tanzania. 2. Survey protocol established for monitoring lion and leopard abundance and tools established for analysing results and assessing impact of trophy offtakes. 3. Reporting systems established and, by the end of the project, confiscations of large cat products originating from Tanzania reduced. 4. Established capacity for sustainable implementation of activities 1-3 within the relevant institutions in Tanzania. 5. CUT large carnivore strategy and management plan formally accepted by MNRT. 	<ol style="list-style-type: none"> 1. Documented reduction in conflict and livestock loss in local communities at 3 sites; protocol on file. 2. Handbook for survey methodology published; website for use in analysing survey results and exploring impact of offtakes established. 3. Regular standardised reports generated at customs disseminated to wildlife authorities; database at TAWIRI. 4. Increased number of trainers in implementing 1-3 at TAWIRI; increased number of communities able to mitigate conflict; increased number of customs officers able to enforce against and report on large carnivore trafficking. 5. CUT strategy and management plan; letter of acceptance from MNRT filed. 	<p>Sufficient political will from MNRT (NB project team has a positive history in engaging political will).</p> <p>Conflict activities depend on continued collaboration with wide network of ongoing projects - project team has strong history of long term positive collaboration with these projects.</p> <p>International trade: quantifying improvements may be problematic – and may affect the ability to report on direct impact.</p>
<p>Outputs 1. Standardised evidence based protocol on large carnivore management and conflict reduction agreed and accepted by government, NGO and local community stakeholders.</p>	<ol style="list-style-type: none"> 1.1. Review of relevant data on success of approaches to large carnivore conflict. 1.2. Results from field trials of agreed standardised approach at 3 sites. 1.3. Protocol document. 1.4. Letters of support from stakeholders (active carnivore conflict projects, WMA authorities, wildlife authorities, communities etc.). 	<ol style="list-style-type: none"> 1.1 Review document 1.2 Report 1.3 Protocol document 1.4 Letters of support 	<p>Sufficient support from WD (NB project team has positive history of engaging such support).</p> <p>Continued collaboration with wide network of ongoing projects - project team has strong history of long term positive collaborations with these projects.</p>

<p>2. Standardised tools for monitoring lion and leopard abundance established, supported and implemented by WD, TAWIRI, hunting operators, and conservation NGOs.</p>	<p>2.1 Standardised survey protocol for lion and leopard established through review of existing camera trap and call-in data. 2.2 Results from field trials at 4 pilot sites. 2.3 Handbook of survey protocol. 2.4 Website providing tools for data analysis and exploring impact of trophy offtakes. 2.5 TAWIRI/WD recommendations for survey protocols for lion/leopard abundance and example of their use to calculate trophy quotas at 4 pilot sites. 2.6 Hunting operators in support of the survey and quota recommendations.</p>	<p>2.1 Protocol document 2.2 Report and scientific publication 2.3 Handbook published 2.4 Website established and accessible to member organisations. 2.5 Recommendations by TAWIRI and WD kept on file. 2.6 Letter of support from main hunting operators.</p>	<p>Sufficient support from WD (NB project team has positive history of engaging such support). Continued collaboration with hunting operators (NB project team has strong history of long term positive collaboration).</p>
<p>3. Better enforcement of CITES through a systematic and centralised reporting system at exit points and identification of source populations for large carnivore products confiscated at customs checkpoints.</p>	<p>3.1 Review and prioritisation of likely exit ports for cheetah and leopard trafficking. 3.2 Customs officers at exit ports trained in identifying carnivore products. 3.3 Genetic map of cheetah, leopard and lion for use in identifying source populations for trafficked products. 3.4 Improvement in reporting of trade and reduction in trafficked large cat products. 3.5 Centralised database, using google map, documenting all confiscations relevant to Tanzania, and centralised reporting for trafficked large carnivore products.</p>	<p>3.1 Review document 3.2 Training reports and test results. 3.3 Genetic database kept at TAWIRI. 3.4 Trafficking reports submitted to TAWIRI 3.5 Custom post reports; centralised database on international trade at TAWIRI.</p>	<p>Sufficient support from customs and excise department (NB the project will take advantage of linkages established through the RWCP). Corruption may make enforcement difficult – media will be also used to raise awareness of illegal trade. Sufficient samples for genetic analysis.</p>
<p>4. Established capacity in Tanzanian institutions, NGOs and local communities for conflict management, ensuring sustainable use of large carnivores, and controlling illegal international trade.</p>	<p>4.1 CUT carnivore threat co-ordinator and a minimum of 4 senior staff at TAWIRI trained as trainers in all aspects of project. 4.2 Minimum of 3 communities trained in large carnivore management and conflict reduction and representatives from local pastoralist and conservation NGOs engaged as trainers. 4.3 Training curriculum developed and implemented to train hunting concession stakeholders in monitoring lion and leopard. 4.4 Customs officers at priority exit ports trained to recognise and intercept large carnivore products and enforce CITES legislation. 4.5 Stakeholder network and regular communication established to increase collaboration and cooperation.</p>	<p>4.1 CUT threat co-ordinator in place and 4 staff trained in conflict management, lion and leopard surveys and analysis, and monitoring international trade in place at TAWIRI. 4.2 Livestock managers in 3 communities able to implement best practice livestock management protocols; trainers established in NGOs for community to community learning. 4.3 Curriculum available on website; stakeholders (WD, hunting operators, NGOs, communities) trained in at least 4 hunting concessions. 4.4 At least one customs officer at each priority exit port trained and aware of CITES as pertaining to large carnivores. 4.5 Email and letters as evidence of communication between TAWIRI and WD, NGOs, hunting and tour operators, and customs officials.</p>	<p>Availability of suitable trainees Effective large carnivore conflict management is likely to necessitate inclusion of other less threatened species, such as spotted hyaena. Such species will be included wherever communities indicate it is necessary.</p>

5. CUT large carnivore management plan for sustainable management of CUT threats to large carnivores.	5.1 CUT large carnivore management workshop. 5.2 All stakeholders in support of CUT large carnivore strategy and management plan 5.3 letter of acceptance of CUT plan by MNRT.	5.1 CUT strategy and management plan. 5.2 Letters of support from stakeholders, including hunting operators, TRA and NGOs on file. 5.3 Letter from MNRT on file.	Sufficient political will.
Activities (details in workplan):			
<p>1.1 Review of existing data on approaches to carnivore conflict in Tanzania and other relevant systems elsewhere.</p> <p>1.2 Meeting with FAO Tanzania office to establish way forward for adapting HWC toolkit for use in Tanzania</p> <p>1.3 Adapt HWC toolkit for use in Tanzania</p> <p>1.4 Development of large carnivore management and conflict mitigation protocol and identification of pilot sites (in WMAs, Game Controlled Areas or Open Areas) in collaboration with ongoing community-based human carnivore conflict projects.</p> <p>1.5 Conduct field trials of agreed standardised protocol at 3 pilot sites.</p> <p>1.6 Conduct participatory interviews of communities at pilot sites.</p> <p>1.7 Develop a scientific publication for a peer reviewed journal describing and justifying evidenced based protocol to mitigate conflict between people and large carnivores.</p> <p>1.8 Develop protocol, interpretive materials and roll out procedure through training workshops across participating community based NGOs and wildlife authorities.</p> <p>1.9 Distribute, revise and finalise protocol document according to a consensus amongst stakeholder groups.</p> <p>1.10 Develop a training curriculum and manual for mitigation of conflict with large carnivores to enable national roll out of protocol by extension officers, NGOs and others.</p>			
<p>2.1 Review existing camera trap and call in data (including data from 22 camera trap surveys carried by TCC and 6 call-in surveys carried out by the project leader in and around Serengeti National Park and FCF in Moyowosi Game Reserve) to develop a standardised protocol to survey lion and leopard</p> <p>2.2 Carry out pilot surveys at 4 sites within hunting concessions, documenting manpower and financial resources used.</p> <p>2.3 Analyse data from sites and use to refine survey protocol, including maximising cost effectiveness of surveys.</p> <p>2.4 Develop a handbook outlining the survey protocol.</p> <p>2.5 Develop a website to provide tools for data analysis and a population simulation model to enable users to explore the impact of different trophy offtakes.</p> <p>2.6 Develop and justify TAWIRI/WD recommendations for survey protocols for lion/leopard abundance with example of their use to calculate trophy quotas at the 4 pilot sites.</p> <p>2.7 Write and submit a scientific publication for a high ranking peer reviewed journal justifying approach to quota setting.</p>			
<p>3.1 Review and prioritise likely exit ports for cheetah, leopard and lion trafficking.</p> <p>3.2 Develop training curriculum, manual and interpretive materials for customs officers at exit ports, training should cover scale of the problem; role of CITES and Interpol; species identification; data recording; and reporting systems.</p> <p>3.3 Provide interpretive materials at 10 land, air and sea exit ports and set up reporting system.</p> <p>3.4 Establish centralised database and reporting for all trafficked large carnivore products, including any media articles from source or destination countries for trafficked products originating in Tanzania, using google map to generate a visually accessible geographical representation of trade.</p> <p>3.5 Extract DNA from leopard and lion tissue samples collected by hunting operators and opportunistically from cheetah (incl. faeces) and conduct microsatellite analysis.</p> <p>3.6 Use STRUCTURE software to establish a genetic map of cheetah, leopard and lion that can be used to identify source populations for trafficked products and publish scientific paper.</p>			
<p>4.1 Provide training to establish an effective CUT carnivore threat co-ordinator and a minimum of 4 senior staff at TAWIRI trained as trainers in all aspects of project.</p> <p>4.2 Provide training to extension officers and community based NGOs to become trainers, and to a minimum of 3 communities, in large carnivore management and conflict reduction.</p> <p>4.3 Develop a training curriculum for hunting concession stakeholders in all aspects of lion and leopard monitoring protocol, including use of data analysis tools.</p> <p>4.4 Provide training in monitoring protocol to hunting concession stakeholders (WD, hunting operators, NGOs, communities) in at least 4 hunting concessions</p> <p>4.5 Provide training to customs officers at priority exit ports to enable better identification of large carnivore products, improve reporting and enforce CITES legislation.</p> <p>4.6 Establish a stakeholder network and issue a quarterly email newsletter to deliver news, report project progress and raise awareness of CUT issues.</p>			
<p>5.1 Hold a workshop with government, NGO and safari/hunting operator stakeholders to develop consensus based CUT large carnivore strategy and management plan</p> <p>5.2 Circulate strategy and management plan and engage support of all stakeholders</p> <p>5.3 Engage acceptance of CUT strategy and management plan by MNRT.</p>			

18. 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 project.

Activity	No of Months	Year 1				Year 2				Year 3			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1.1 Review of existing data on approaches to carnivore conflict.	1												
1.2 Meeting with FAO Tanzania office to establish way forward for adapting HWC toolkit for use in Tanzania	1												
1.3 Adapt HWC toolkit for use in Tanzania	1												
1.4 Development of large carnivore management and conflict mitigation protocol and identification of pilot sites.	2												
1.5 Conduct field trials of agreed standardised protocol at 3 pilot sites.	21												
1.6 Conduct participatory interviews of communities at pilot sites.	2												
1.7 Develop a scientific publication for a peer reviewed journal describing and justifying evidenced based protocol to mitigate conflict between people and large carnivores.	3												
1.8 Develop protocol, interpretive materials and roll out procedure.	3												
1.9 Distribute, revise and finalise protocol document.	3												
1.10 Develop a training curriculum and manual for mitigation of conflict with large carnivores.	1												
2.1 Review existing camera trap and call in data to develop a standardised protocol to survey lion and leopard	3												
2.2 Carry out pilot surveys at 4 sites within hunting concessions, documenting manpower and financial resources used.	8												
2.3 Analyse data from sites and use to refine survey protocol, including maximising cost effectiveness of surveys.	4												
2.4 Develop a handbook outlining the survey protocol.	3												
2.5 Develop a website to provide tools for data analysis and a population simulation model to enable users to explore the impact of different trophy offtakes.	3												
2.6 Develop and justify TAWIRI/WD recommendations for survey protocols for lion/leopard abundance with example of their use to calculate trophy quotas at the 4 pilot sites.	3												
2.7 Write and submit a scientific publication for a high ranking peer reviewed journal justifying approach to quota setting	3												
3.1 Review and prioritise likely exit ports for cheetah, leopard and lion trafficking.	1												
3.2 Develop training curriculum, manual and interpretive materials for customs officers at exit ports.													
3.3 Provide interpretive materials at 10 land, air and sea exit ports and set up reporting system.	2												

19. Please indicate which of the following Standard Measures you expect to report against by providing indicative figures. These will help gauge project achievements if you receive funding. You will not necessarily plan to cover all these Standard Measures in your project. Separate guidance on Standard Measures can be found at http://darwin.defra.gov.uk/resources/reporting/standard_measures/

Standard Measure	Description	Estimate
1A	Number of people to submit thesis for PhD qualification (in host country)	1
1B	Number of people to attain PhD qualification (in host country)	1
2	Number of people to attain Masters qualification (MSc, MPhil etc)	0
3	Number of people to attain other qualifications (ie. Not outputs 1 or 2 above)	0
4A	Number of undergraduate students to receive training	0
4B	Number of training weeks to be provided	0
4C	Number of postgraduate students to receive training	6
4D	Number of training weeks to be provided	24
5	Number of people to receive at least one year of training (which does not fall into categories 1-4 above)	5
6A	Number of people to receive other forms of education/training (which does not fall into categories 1-5 above)	252
6B	Number of training weeks to be provided	133
7	Number of (ie different types - not volume - of material produced) training materials to be produced for use by host country	3
8	Number of weeks to be spent by UK project staff on project work in the host country	76
9	Number of species/habitat management plans (or action plans) to be produced for Governments, public authorities, or other implementing agencies in the host country	1
10	Number of individual field guides/manuals to be produced to assist work related to species identification, classification and recording	1
11A	Number of papers to be published in peer reviewed journals	3
11B	Number of papers to be submitted to peer reviewed journals	3
12A	Number of computer based databases to be established and handed over to host country	3
12B	Number of computer based databases to be enhanced and handed over to host country	1
13A	Number of species reference collections to be established and handed over to host country(ies)	0
13B	Number of species reference collections to be enhanced and handed over to host country(ies)	0
14A	Number of conferences/seminars/ workshops to be organised to present/disseminate findings	5
14B	Number of conferences/seminars/ workshops attended at which findings from Darwin project work will be presented/ disseminated.	9
15A	Number of national press releases in host country(ies)	3
15B	Number of local press releases in host country(ies)	0
15C	Number of national press releases in UK	3
15D	Number of local press releases in UK	0
16A	Number of newsletters to be produced	36
16B	Estimated circulation of each newsletter in the host country(ies)	300
16C	Estimated circulation of each newsletter in the UK	100
17A	Number of dissemination networks to be established	3
17B	Number of dissemination networks to be enhanced/ extended	1
18A	Number of national TV programmes/features in host country(ies)	1
18B	Number of national TV programmes/features in UK	0
18C	Number of local TV programmes/features in host country(ies)	1
18D	Number of local TV programmes/features in UK	0
19A	Number of national radio interviews/features in host county(ies)	3
19B	Number of national radio interviews/features in UK	3
19C	Number of local radio interviews/features in host country(ies)	0
19D	Number of local radio interviews/features in UK	0
20	Estimated value (£'s) of physical assets to be handed over to host country(ies)	28,450
21	Number of permanent educational/training/research facilities or organisations to be established and then continued after Darwin funding has ceased	1
22	Number of permanent field plots to be established during the project and continued after Darwin funding has ceased	0
23	Value of resources raised from other sources (ie in addition to Darwin funding) for project work	248,659

PROJECT BASED MONITORING AND EVALUATION

20. 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.

The project will use an internal monitoring and evaluation (M&E) framework that has been developed and successfully implemented in previous Darwin supported projects. In this framework the activities of the project are monitored against workplans drawn up at quarterly meetings attended by the entire project team, including the main project partner, TAWIRI. Workplans are structured according to the logical framework in the original proposal, including indicators and outputs, and modified according to project progress. The minutes and revised workplans developed in the meetings will all be kept in the project files, and progress on the project will be marked up on each quarterly workplan. Hence all indicators in the logical framework will be explicitly addressed during these M&E meetings and logged on updated workplans.

The project manager (TAWIRI) will also submit weekly and monthly informal reports to the project leaders to enable more frequent M&E of progress towards quarterly workplans. All project staff (TAWIRI) will submit reports on any training, surveys or trips they undertake for the project. M&E information will be additionally available through project progress reports, mission reports from visiting experts, and training course and workshop reports. These reports will be circulated widely to wildlife professionals and experts both within country and in UK research institutions. The feedback obtained from these reports will form the basis of an informal evaluation. Periodic informal review meetings will be held between collaborating colleagues at ZSL and key stakeholders to review progress and to assess future priorities. These meetings will take place at a minimum 6 monthly intervals.

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 cannot agree any increase in grants once awarded.

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

The Institute of Zoology receives a core grant of approximately £2 million per year from the Higher Education Funding Council for England, representing about 50% of its total income. The remainder comes from Research Council (NERC, BBSRC, ESRC) grants and contracts from government (DEFRA, Natural England) and non-governmental bodies (World Wildlife Fund, IUCN).

22. Provide details of all confirmed 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 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:

A total of £245,029 matched funding will contribute to the costs of the project. This includes contributions of:

- £XXXX from ZSL, by way of UK based staff time and administrative support and host country based staff at the TCC whose salaries are also covered by ZSL.
- £XXXX from TAWIRI, by way of provision of two second hand 4WD vehicles and 80 Reconyx camera traps for use of the project, staff time, and administrative support.
- £XXXX from WCS's Tanzania program by way of staff time.

- £XXXX from National Geographic's Big Cat Initiative and the Mohammed Bin Zayed Fund by way of time and expertise of Tanzanian student (and a previous project manager on a DI grant) who will be generating maps of conflict for cheetah as part of his PhD which will be used to inform conflict mitigation activities.

Unconfirmed:

FAO have already expressed an interest in the project, and we anticipate being able to help TAWIRI and FAO develop a proposal for rolling out the conflict mitigation strategy nationally. Evidenced based conflict mitigation protocols, with national and community buy-in and demonstrable improvements in confiscation and reporting of large cat products are expected to attract the attention of donor organisations, such as Panthera and National Geographic's Big Cat Initiative, which are able to provide financial support that could further increase the scope of the project.

23. Please give details of any further resources (confirmed or unconfirmed) 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)

Possible additional financial resources (not yet applied for):

NR

Funding in kind:

Substantial additional support that is difficult to quantify will be provided by way of:

- Logistical support from FCF
- Training and use of interpretive materials from FAO.
- Time and expertise from five community based human wildlife conflict projects.
- Guidance and support from the RWCP for cheetah and wild dogs

FCO NOTIFICATIONS

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 the project's success in the Darwin competition in the host country.

Please indicate whether you have contacted the local UK embassy or High Commission directly to discuss security issues (see Guidance Notes) and attach details of any advice you have received from them.

Yes (no written advice)

Yes, advice attached

No

CERTIFICATION 2011/12

On behalf of the trustees* of
(*delete as appropriate)

Institute of Zoology,
Zoological Society of London

I apply for a grant of £299,090 in respect of all expenditure to be incurred during the lifetime of this project based on the activities and dates 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 CVs for project principals and letters of support. Our most recent audited accounts and annual report are also enclosed/can be found at (*delete as appropriate*):

<http://static.zsl.org/files/zsl-trustees-report-financial-statements-2010d-1492.pdf>

Name (block capitals)	Prof. Tim Blackburn
Position in the organisation	Director Institute of Zoology

Signed



Date:

20/10/11

Stage 2 Application - Checklist for submission

	Check
Have you provided actual start and end dates for your project?	Y
Have you provided your budget based on UK government financial years ie 1 April – 31 March?	Y
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?	Y
Is the concept note within 1,000 words?	Y
Is the logframe no longer than 3 pages and have you highlighted any changes since Stage 1?	Y
Has your application been signed by a suitably authorised individual? (clear electronic or scanned signatures are acceptable in the email, but a wet signature should be provided in the hard copy version)	Y
Have you included a 1 page CV for all the Principals identified at Question 5?	Y
Have you included a letter of support from the <u>main</u> overseas partner(s) organisations identified at Question 5?	Y
Have you checked with the FCO in the project country/ies and have you included any evidence of this?	Y
Have you included a copy of your most recent annual report and accounts? An electronic link to a website is acceptable.	Y
Have you read the Guidance Notes ?	Y
Have you checked the Darwin website immediately prior to submission to ensure there are no late updates?	Y

Once you have answered Yes to the questions above, please submit the application, not later than midnight GMT on Monday **24 October 2011** to Darwin-Applications@ltsi.co.uk using the application number (from your Stage 1 feedback letter) and 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 signature page should be submitted to Darwin Applications, c/o LTS International, Pentlands Science Park, Bush Loan, Penicuik EH26 0PL **postmarked** not later than Tuesday 25 October 2011.

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.