



Submit by Monday 1 December 2014

DARWIN INITIATIVE APPLICATION FOR GRANT FOR ROUND 21: 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.

ELIGIBILITY**1. Name and address of organisation** (NB: Notification of results will be by email to the Project Leader in Question 7)

Applicant Organisation Name:	The Wildfowl & Wetlands Trust
Address:	WWT Slimbridge Wetland Centre
City and Postcode:	Slimbridge, GL2 7BT
Country:	UK
Email:	
Phone:	

2. Stage 1 reference and Project title

Ref: 2783	Establishing Sustainable Management of the Lake Sofia Catchment, Madagascar
------------------	--

3. Project dates, and budget summary

Start date: 01/04/2015		End date: 31/03/2018		Duration: 3 Years
Darwin request	2015/16	2016/17	2017/18	Total request
	£108,389	£83,154	£84,984	£276,527
Proposed (confirmed and unconfirmed) matched funding as % of total Project cost: 56%				
Are you applying for DFID or Defra funding? (Note you cannot apply for both)			DFID	

4. Define the outcome of the project. This should be a repetition of Question 24, Outcome Statement.

Over 10,000 wetland-dependant people have secure access to natural resources and are part of a community-based management regime which improves food security/wellbeing/livelihoods and ecological conditions.

5. Country(ies)

Which eligible host country(ies) will your project be working in. You may copy and paste this table if you need to provide details of more than four countries.

Country 1: Madagascar	Country 2:
Country 3:	Country 4:

6. Biodiversity Conventions

Which of the conventions supported by the Darwin Initiative will your project be supporting? Note: projects supporting more than one convention will not achieve a higher scoring

Convention On Biological Diversity (CBD)	Yes
Nagoya Protocol on Access and Benefit Sharing (ABS)	No
International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA)	No
Convention on International Trade in Endangered Species (CITES)	No

6b. Biodiversity Conventions

Please detail how your project will contribute to the objectives of the convention(s) your project is targeting. You may wish to refer to Articles or Programmes of Work here.

Note: No additional significance will be ascribed for projects that report contributions to more than one convention

(Max 200 words)

The project helps deliver the **Inland Waters Biodiversity** thematic programme of work (Decision VII/4), by:

Taking a catchment-scale approach to conservation/sustainable use of Lake Sofia and promoting integrated river basin management (Goal 1.1)

Protecting one of the last examples of representative Madagascar Plateau wetlands through legally establishing community-based management and seeking further appropriate protected status (Goal 1.2)

Restoring the lake's ecosystem, better enabling it to support several threatened species including reintroduction of Critically Endangered Madagascar Pochard (Goal 1.3)

Seeking to fill institutional knowledge gaps and facilitate cross-sectoral working through the development and adoption of national sustainable wetland management guidance (Goal 2.1)

Engendering a greater understanding and appreciation of wetland biodiversity in local communities as the custodians of their wetland environment through effective participation, engagement, education and awareness-raising techniques (Goals 2.4, 3.1)

Establishing sustainable management led by local communities, building their capacity to manage the wetland and promoting this regionally and nationally as an alternative model (Goal 2.5)

It also contributes to the **Island Biodiversity** Thematic Issue (Decision VIII/1), numerous CBD cross-cutting issues, and Ramsar Convention objectives, which is recognised as a lead partner in implementing CBD wetland-related activities.

Finally, it contributes towards Aichi Targets – particularly 6, 7, 12 and 14.

Is any liaison proposed with the CBD/ABS/ITPGRFA/CITES focal point in the host country?

Yes **No** **if yes, please give details:**

The results from this project will directly contribute to CBD reporting in Madagascar as project partners are active contributors to the CBD process through regular meetings with the CBD focal point in Madagascar (Direction de la Conservation de la Biodiversité et du Système des Aires Protégées – DBCSAP, MEEF). The project's results will be included in the Annual CBD report as a result. DWCT also provide technical and advisory support to reviewing the CBD Annual Report and will use this to help ensure that results and lessons have been effectively captured.

7. Principals in project. Please identify and 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 personnel or more than one project partner.

Details	Project Leader	Project Partner 1 - Main	Project Partner 1
Surname	Shore	Woolaver	Rakotojoana
Forename (s)	Robert Glynn	Lance	Hanitra
Post held	Head of Department	Head of Department	Community Conservation and Rural Development Coordinator
Organisation (if different to above)		Durrell Wildlife Conservation Trust (DWCT)	Durrell Wildlife Conservation Trust (DWCT)
Department	Wetland Conservation	Species Conservation and Research	Community Conservation and Rural Development
Telephone			
Email			

Details	Project Partner 2	Project Partner 3	
Surname	Van Bignoot	Rivo	
Forename (s)	Didier	Rabarisoa	
Post held	Country Director	Wetland Coordinator	
Organisation (if different to above)	Organisation de Soutien pour le Développement Rural à Madagascar (OSDRM)	Asity Madagascar	
Department	Rural Development	Conservation	
Telephone			
Email			

8. Has your organisation been awarded a Darwin Initiative award before (for the purposes of this question, being a partner does not count)? If so, please provide details of the most recent awards (up to 6 examples).

Reference No	Project Leader	Title
21007	Andy Graham	Livelihoods in the balance - protecting Cambodia's remaining seasonally-inundated grasslands
15014	Sebastian Buckton	Managing Wetlands for Sustainable Livelihoods at Koshi Tappu
EIDPR006	Sebastian Buckton	Sustainable fisheries management for wildlife and people at Koshi Tappu
11012	Mark O'Connell	Monitoring biodiversity for site management planning in eastern African Wetlands

9a. If you answered 'NO' to Question 8 please complete Question 9a, b and c.

If you answered 'YES', please go to Question 10 (and delete the boxes for Q9a, 9b and 9c)

10. 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>Lead institution and website:</p> <p>WWT</p> <p>http://www.wwt.org.uk</p>	<p>Details (including roles and responsibilities and capacity to engage with the project): (max 200 words)</p> <p>WWT's mission is to save wetlands for wildlife and people. It has over 60 years' experience of wetland conservation across nine UK wetland centres and on projects globally.</p> <p>Since 2008 WWT has been working in Madagascar with DWCT, Asity, Ministry of Ecology, Environment and Forests (MEEF) to save the world's rarest duck, the Madagascar Pochard, from extinction. Conservation-breeding has already quadrupled numbers and will provide birds for future release into the wild following wetland restoration.</p> <p>In 2012, surveys by WWT and DWCT staff of wetlands across Madagascar's central plateau identified the uniqueness and importance of Lake Sofia. The proposed project has been in development with the local communities and project partners for 2 years.</p> <p>As project lead, in addition to overall project management and coordination of monitoring and evaluation work, WWT will be responsible for technical support on wetland restoration/management, river basin management, fisheries management, and wetland ecosystem service provision. WWT will have a full-time project officer in Madagascar and will apply additional UK-based expertise to the project.</p> <p>WWT will also be responsible for linking the project with global wetland conservation networks, including the Ramsar Scientific and Technical Review Panel (STRP), to which the project leader is an invited representative.</p>
--	---

<p>Partner Name and website where available:</p> <p>Durrell Wildlife Conservation Trust (DWCT)</p> <p>http://www.durrell.org</p>	<p>Details (including roles and responsibilities and capacity to engage with the project): (max 200 words)</p> <p>DWCT was founded in 1959 by Gerald Durrell, and its headquarters are located on the island of Jersey, Channel Islands.</p> <p>DWCT leads over 40 major projects in 14 countries worldwide and established an office in Madagascar in 1986. DWCT operates in eight project sites across the country. The work combines intensive hands-on species recovery programmes with long-term projects to enable local communities and agencies to sustainably manage habitats to benefit both wildlife and people.</p> <p>DWCT will provide in-country support to coordination of activities on the ground as well as technical input, particularly on community-based management of natural resources and link the project in to national policy fora.</p> <p>Since 1997 Durrell has been working with the government and local communities to support the legal transfer of local resource management to community associations, through which conservation strategies are developed to support both biodiversity conservation and human livelihoods.</p> <p>Durrell's in-country staff are experts in working with local communities and developing innovative ways of working, and a major on-going part of Durrell's work throughout Madagascar is support for good governance to reinforce village associations in their capacity not just for natural resource management but also local development.</p>
Have you included a Letter of Support from this institution?	Yes

<p>Partner Name and website where available:</p> <p>OSDRM</p>	<p>Details (including roles and responsibilities and capacity to engage with the project): (max 200 words)</p> <p>OSDRM's objective is improved food security and livelihoods for smallholder farmers in Madagascar through direct interventions in production and market development, and by influencing local and national policies and practices. With ten years experience, OSDRM is an important contributor to the National Strategy for Development of the Rice Sector and maintains a consultative relationship with the Ministry of Agriculture on various task forces. Based on achievements in Sofia, OSDRM has expanded support to other regions in Madagascar.</p> <p>OSDRM will promote rice growing techniques which have already proven yield increases from a baseline of 1.5-2.0 tonnes per hectare to 5.0 tonnes per hectare in Sofia region specifically to the Lake Sofia catchment.</p> <p>OSDRM will work with project partners to promote environmental conservation through training on improved farming practices such as conservation agriculture which improves soil quality and reduces degradation.</p> <p>As part of a programme across the wider Bealanana region (to ensure commercial viability) OSDRM will develop additional value-added livelihood options (export-grade shade-grown coffee/sustainable vanilla).</p> <p>OSDRM will have field staff permanently based in the Sofia catchment to provide training and ongoing technical support to farmers. The OSDRM M&E unit will provide support to field staff in monitoring, tracking and communicating results.</p>
<p>Have you included a Letter of Support from this institution?</p>	<p>Yes</p>

<p>Partner Name and website where available:</p> <p>Asity Madagascar</p> <p>http://asitymadagascar.org</p>	<p>Details (including roles and responsibilities and capacity to engage with the project): (max 200 words)</p> <p>Asity Madagascar is a Malagasy association whose mission is to help maintain the value of the Malagasy biodiversity by implementing conservation actions in natural ecosystems, taking into account the viability of the surrounding human population.</p> <p>With headquarters in the capital, Antananarivo, Asity runs three field offices supporting projects for three important new protected areas - Mahavavy Kinkony (northwest), Mangoky Ihotry (southwest), and Tsitongambarika forest (Anosy region). All host many threatened and migratory species. As part of the implementation of these programs, the association adopted the participatory approach and works closely with the local population.</p> <p>Asity Madagascar works in two wetlands in the west of Madagascar, Mahavavy-Kinkony and Mangoky-Ihotry. Mahavavy-Kinkony has inside its boundary the second biggest lake in Madagascar, lake Kinkony. Through awareness and conservation activities, this lake was designated as Ramsar site in 2012.</p> <p>Asity has collaborated with the other project partners on work to save the Madagascar Pochard, playing a specific role in the education and awareness-raising aspects of the work. In the proposed project, Asity will maintain this role and lead on species/habitat monitoring work. Asity will also contribute expertise in other key areas as part of the wider implementation team, notably wetland management in Madagascar.</p>
<p>Have you included a Letter of Support from this institution?</p>	<p>Yes</p>

<p>Partner Name and website where available:</p> <p>Regional Director of Ecology, Environment and Forests (DREEF), Sofia Region.</p>	<p>Details (including roles and responsibilities and capacity to engage with the project): (max 200 words)</p> <p>The DREEF of the Region of Sofia is the decentralized regional office of the Government of Madagascar's Ministry of Ecology, Environment and Forests (MEEF). It is responsible for controlling activities in the Sofia region conducted under permits issued by MEEF, leads environmental activities by the 7 districts in the region and advises MEEF on regional matters. The current Director, Zamany Rufin, has held the post since 2007, prior to which he was the DREEF for Melaky region. He gained a masters degree in Forestry Management from the University of Antananarivo in 1998, and has trained at the Institut Universitaire D'études du Développement in Geneva, Switzerland.</p> <p>The role of the DREEF on the project will be to facilitate and agree to the transfer of management of Lake Sofia and its catchment to the local population through the establishment of local associations. The DREEF will also provide support in the granting of approvals for project activities and linking the project to other regional government department and relevant policy initiatives.</p>	
<p>Have you included a Letter of Support from this institution?</p>		<p>Yes</p>

<p>Partner Name and website where available:</p> <p>Regional Direction of Rural Development (DRDR)</p>	<p>Details (including roles and responsibilities and capacity to engage with the project): (max 200 words)</p> <p>The DRDR of the Region of Sofia is the decentralized regional office of the Government of Madagascar's Ministry of Agriculture and Rural Development (MADR). The main roles of this department are the coordination of actions and stakeholders relating to agriculture and rural development within the Sofia Region and to deliver technical guidance to all projects and initiatives in accordance with regional development and agricultural policies and priorities.</p> <p>As part of this project, the DRDR will provide regionally based experience, technical support, and guidance for the implementation of the livelihood and agricultural project components to ensure that these projects benefit from and follow the region's policies and priorities.</p> <p>Within this project, these will focus on the implementation of improved rice farming techniques and the development of economic value chains for diversifying crop production (coffee and vanilla) with the communities around Lake Sofia. The DRDR will also be responsible for the development of policies related to ensuring quality and technical standards for the targeted economic value chains. Acting as facilitator, the DRDR will also support the networking and liaison with a range of stakeholders and partners to ensure that the value chains function effectively, from production to processing and marketing.</p>	
<p>Have you included a Letter of Support from this institution?</p>		<p>Yes</p>

<p>Partner Name and website where available:</p> <p>Villages of the Lake Sofia catchment, Marotolana commune</p>	<p>Details (including roles and responsibilities and capacity to engage with the project): (max 200 words)</p> <p>There are 34 villages/settlements (ranging from 3 to 450 households) in the catchment of Lake Sofia and its main tributary. They are organised into 6 fokotany (local administrative unit) and resource use around Lake Sofia is managed by Associations of Local-Based Communities (VOI in Malagasy/COBA in French) that correspond to these fokotany. At Lake Sofia there are three local associations (Sofia Mandroso, Fikambana Fitantanana Matsabory Sofia, and Sandatra Sofia) working together as a federation. No associations cover the three fokotany located along the lake's main tributary. All 6 fokotany lie within one commune, Marotolana.</p> <p>The Lake Sofia federation and its three constituent associations were set up in 2002 under a programme supported by UNDP. Although the legal basis for their management of the lake has expired, a review by DREEF in 2009 gave the associations informal permission to continue with their activities.</p> <p>The local associations will be a key delivery partner in the project as well as the long term resource managers. Although basic capacity is in place in the three associations surrounding the lake, this needs to be strengthened through the project and associations established in the upper catchment in order to enable work at a catchment scale.</p>
<p>Have you included a Letter of Support from this institution?</p>	<p>Yes. A letter of support is included from the office of the mayor of Marotolana commune</p>

<p>11. Have you provided CVs for the senior team including the Project Leader</p>	<p>Yes</p>
---	------------

12. Problem the project is trying to address

Please describe the problem your project is trying to address. For example, what biodiversity and challenges will the project address? Why are they relevant, for whom? How did you identify these problems?

(Max 200 words)

Most of Madagascar's wetlands have either been lost (+60%) or severely degraded due to conversion, sedimentation, invasive species and over-harvesting. Wetland species have declined dramatically as their habitats disappeared. The human communities, of which 80% are rural and 90% have jobs reliant on natural resources, have suffered as a result from loss of ecosystem services. Finding a sustainable solution to avoid the complete loss of native wetlands while improving conditions for local communities requires an integrated approach.

Lake Sofia, the most intact remnant of the once vast Bealanana Wetlands Complex and home to some of the world's most threatened endemic waterbirds, represents one of the last opportunities to implement this approach. 10,000 people (at least 62% of which are highly impoverished) rely on this wetland for their water, food and marsh plants. Extensive community interviews conducted this year show that priority problems are threats from external pressures such as mining, agri-business and fishers from other regions, as well as increasing malnutrition and livestock disease. This project aims to work with local communities to find effective strategies to protect and improve their livelihoods around a healthy wetland ecosystem that enables them to move beyond a subsistence only economy.

13. Methodology

Describe the methods and approach you will use to achieve your intended outcomes and impact. Provide information on how you will undertake the work (materials and methods) and how you will manage the work (roles and responsibilities, project management tools etc.).

(Max 500 words – repeat from Stage 1 with changes highlighted)

To reverse the decline of Madagascar's wetlands and their biodiversity, a more sustainable management model is urgently needed. Lake Sofia (2.3km²) and its upstream catchment (96km²) present the ideal opportunity to develop and demonstrate this model.

The project will support local communities to create a successful, sustainable co-management system for the lake and its catchment that significantly enhances the health of the wetland income from natural resources (e.g. crops, livestock) and protection for biodiversity. We intend that the lake will support reintroduction of the Critically Endangered Madagascar Pochard, further enhancing its status as a flagship site.

Our method will be to develop a practical, robust framework for sustainable management of the lake and its catchment, combined with practical work to improve livelihoods and environmental conditions, and policy work to ensure lessons/experiences are magnified nationally/internationally.

WWT will lead project management, coordinating the partnership, and reporting. Multi-disciplinary delivery teams will be established from relevant partners with a lead identified for each activity. A project steering group will be established comprised of partner representatives and external experts.

DWCT will lead on establishing community-based structures to manage natural resources and provide training/support to strengthen governance in those structures. In villages around Lake Sofia we will work with the existing associations to establish a legal basis for the associations' work and enabling continued, sustainable use of natural resources to benefit over 8,000

people. In **upstream communities** we will create local resource management associations representing **a further** 2,300 people. We will bring all groups together within a Watershed Management Group to facilitate more effective use of water resources and land-use planning, tackling issues that cannot be resolved at Lake Sofia alone.

DWCT will also lead on addressing immediate development needs of villagers around the lake **identified through existing community development plans and participatory meetings/household surveys.** Activities include vaccination of chickens/ducks/geese against disease (employing/training local operatives), and providing fisherfolk with improved facilities/equipment.

OSDRM will lead on enhancing existing agricultural practices and developing new rural livelihoods across the catchment. This longer-term work will address important environmental issues, deliver improved returns to local people and enhance resilience (through diversification). **Improvements to rice farming will be made through demonstration and training programmes.** New natural resource-based income streams will be developed through high-value Arabica coffee and vanilla production linked to new regional networks. These activities are based on **conservation agriculture techniques which improve soil fertility/prevent land degradation.**

Asity will lead on **empowering villagers to protect the lake's biodiversity.** We will develop community-based monitoring programmes that emphasise the links between ecosystem health and human health, conduct environmental education/awareness activities focussed particularly on schools (46% of the population is under 15), and run community-based habitat restoration projects. **All building pride in people about their local environment and the unique wildlife it supports.**

WWT will lead on **magnifying results through** the production of national wetland management guidance and promotion/dissemination through international fora such as CBD and Ramsar. **Partners will also apply lessons to existing programmes across Madagascar and share with partners on those programmes.**

14. Change Expected

Detail what the expected changes this work will deliver. You should identify what will change and who will benefit.

- If you are applying for Defra funding this should specifically focus on the changes expected for biodiversity conservation and its sustainable use.
- If you are applying for DFID funding you should in addition refer to how the project will contribute to reducing poverty. Q19 provides more space for elaboration on this.

(Max 250 words)

The project will enable communities to benefit directly from increased resilience and income from their use of natural resources coupled with a more sustainable and biodiversity-focussed management of the lake and its watershed. This will become a replicable model for the country. Specifically this includes:

- Functional local associations that empower and represent their communities helping to set equitable management practices for the watershed that support poorer and more marginalised groups in the community.;
- Significant increase in poultry productivity and capacity within the community to lead vaccinations post project.
- Improved access to, and more secure sustainable use of, wetland resources (e.g. fish, papyrus) for the population of the Lake Sofia catchment
- Increased safety and security for fisherfolk and fish buyers (all women and children) as a result of new fishing platforms/fish landing stations.
- Access to cleaner drinking water for over 1,400 people in the lake Sofia catchment whose main source is directly from natural watercourses.
- Enhanced agricultural productivity and food security for over 10,000 people in the Lake

Sofia catchment

- Improved conditions for wetland biodiversity including globally threatened bird species currently found there (e.g. Meller's Duck *Anas melleri*, Madagascar Pond Heron *Ardeola idae* and Madagascar Grebe *Tachybaptus pelzelinii*) and the future re-introduction of the Critically Endangered Madagascar pochard *Aythya innotata*
- Greater connection between people and their natural environment ensuring future development is sustainable.
- A practical model for sustainable wetland management, which helps regional and national government deliver against its CBD commitments.

15a. Is this a new initiative or a development of existing work (funded through any source)? Please give details (Max 200 words):

The proposed project builds on an existing partnership to save the Madagascar Pochard from extinction, and on the work of local communities around Lake Sofia to protect and manage their resources.

The three fokotany of Lake Sofia began efforts to sustainably manage the lake in 2002, through the establishment of local associations of resource users with agreed rules, management structures, fees and fines. A management agreement was signed that provided a legal framework for this system; however, that agreement has lapsed. Although the DREEF gave informal permission in 2009 for the associations to continue their activities, the agreement is increasingly out-of-date and difficult to enforce and no longer has any legal basis.

As part of efforts to find potential release sites for Madagascar Pochard, WWT and DWCT staff conducted extensive surveys of wetlands across Madagascar's central plateau which identified the uniqueness and importance of Lake Sofia, largely due to management of the lake by local communities. The partners have been working together at the site since 2012. Work to date has focussed on developing relationships, understanding the social, economic and environmental context and, a participatory review of the expired management agreement – all of which lay the foundations for this project.

15b. 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:

15c. 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.

Synchronicity Earth have supported WWT's work in Madagascar over the last two years (£16k in 2013 and £20k in 2014) and WWT will apply to them for £20k a year for three years, with a result likely in January 2015. They have indicated they want to support the project in the long-term.

16. Value for money

Please describe why you consider your application to be good value for money including justification of why the measures you will adopt will secure value for money?

(Max 250 words)

By following an approach that empowers local communities to manage their own resources and uses non-monetary incentives, we have minimised operational costs (particularly in the long term) which allows us to operate on a catchment scale and reach more than 10,000 people. The activities are simple, low-cost solutions that can easily be maintained post-project.

The relatively restorable condition of Lake Sofia presents the opportunity to develop approaches cost-effectively and generate the evidence needed to inform management of other wetland/agricultural systems in even more challenging settings

The project will provide a pilot study for a much wider programme to develop commercially viable production and distribution of Arabica coffee and vanilla across the Bealanana region led by OSDRM.

Capacity built in the local communities (community monitoring, school education, vaccination training, and agricultural techniques) and government (wetland management guidance) will be a source of knowledge/experience that is accessible (locally and nationally) in the long term – reaching thousands more people.

The project benefits from an existing strong base of local associations and resource management structures that would otherwise take years to establish.

Political support is well established through the Madagascar Pochard project and the project area is within a single administrative unit, thus streamlining approval/endorsement processes

The catchment is of sufficient size and possesses similar characteristics to other potential roll out sites that makes it meaningful as a demonstration site

The national and international reach of project partners means lessons and experiences will be magnified and specific activities have been included to ensure this.

17. Ethics

Outline your approach to meeting the Darwin Initiative's key principles for research ethics as outlined in the guidance notes.

(Max 300 words)

The local communities of Lake Sofia and its catchment are project partners and have been directly involved in developing the proposed project (cf letter of support from the Mayor's office of Marotolana Commune, the administrative unit covering all of the villages involved). Local people will lead on the development and implementation of community association agreements, and the Watershed Management Group. A key role of other partners is to support this leadership and facilitate participation of all members of the community, in particular poorer and more marginalised groups. This approach ensures that their rights, privacy, and safety are effectively considered and that Prior Informed Consent is in place.

Most project staff are Malagasy and the project will recruit staff local to the site and region as far as possible whilst maintaining independence and avoiding creating/reinforcing political and social allegiances. In Malagasy society recruiting staff that will be accepted and trusted by the local community is particularly important.

The participatory nature of the approaches used will ensure that traditional knowledge is effectively captured and reflected in planning and decision making, further enhanced by the use of discussion-based M&E structures such as community fora.

As lead partner, WWT is committed to meeting all legal and ethical obligations relating to this project in the UK and Madagascar, and that all partners adhere to the same standards regardless of staff nationality. Due to the limited development of these obligations in Madagascar, the project will follow UK requirements and best practice guidance such as those developed under the CBD for access and benefit sharing pertaining to genetic resource use (<http://www.cbd.int/abs/instruments/default.shtml>).

The project will respect the integrity and independence of the research process, seeking to publish research findings, particularly related to biodiversity conservation, through peer-reviewed journal articles. The partners have established research backgrounds and strong publications track-records.

18. Legacy

Please describe what you expect will change as a result of this project with regards to biodiversity conservation/sustainable use and poverty alleviation (for DFID funded projects). For example, what will be the long term benefits (particularly for biodiversity and poor people) of the project in the host country or region and have you identified any potential problems to achieving these benefits?

(Max 300 words)

Environmental

Established community structures will ensure long-term sustainable management of the lake and its catchment, reinforced by behavioural change and community-based environmental monitoring. This will help keep environmental pressures within acceptable limits and improve wider ecosystem health. Specific activities will have long-term biodiversity benefits e.g. reducing marsh disturbance by building fishing facilities, reducing disease transmission to wild birds by vaccinating poultry, and creating new habitats through reforestation.

Promotion and dissemination of project results will support uptake of the approach at a landscape scale contributing to wider ecosystem resilience.

Social

The project will strengthen social capital through developing stronger networks between local people and government agencies. Community-led management structures and practices will build community spirit and confidence, leading to more cohesive communities better able to adapt to environmental change. Increased security around access to natural resources will enable people to plan for the future with more confidence/certainty, a fundamental requirement for long-term sustainable management.

Economic

More than 10,000 people largely dependent on subsistence rice farming will benefit from work to develop sustainable livelihoods (e.g. reduced-impact rice production) through reduction in harmful activities, lower costs and enhanced yields. Additional value-added livelihoods (e.g. Arabica coffee and vanilla) will broaden communities' economic base, reducing exposure to risk (e.g. crop failure) and enhancing resilience. Pilots supported by training/capacity building will enable the wider community to learn/implement the new techniques, magnifying the scale and legacy of interventions.

National-level policy work and government-endorsed guidance will raise government awareness of wetland values, leading to greater appreciation of wetlands and better policies.

A potential concern is whether new management structures/processes are strong enough to sustain a fair/balanced decision-making structure and equitable sharing of benefits. However, the partners are committed to supporting this project long-term and aim to involve additional organisations during the project to support roll-out of initiatives.

19. Pathway to poverty alleviation

Please describe how your project will benefit poor people living in low-income countries. All projects funded through DFID in Round 21 must be compliant with the OECD Overseas Development Assistance criteria. Projects are therefore required to indicate how they will have a positive impact on poverty alleviation in low-income countries.

(Max 300 words)

For the 10,700 people targeted by this project, wetland resources underpin their livelihoods. Without intervention conditions will deteriorate, especially for the poor and marginalised who have little land and rely most heavily on resources such as fish and papyrus.

The main approach to alleviating poverty is to first establish equitable management of the lake's resources, second support the development of new locally sensitive income streams, and third promote pride and understanding of the watershed's values and need for protection.

The project will enable the associations to generate revenues (e.g. licence fees/fines) to support priority projects within agreed community development plans that benefit the whole community. Legal rights over access to and management of resources will reduce the likelihood of people losing their livelihoods due to land-grabbing by powerful outside forces such as mining operations, as witnessed elsewhere in Madagascar, including adjacent catchments.

Starting with existing livelihoods, disease is the primary issue affecting livestock productivity in the catchment. Poultry vaccination will increase productivity and reduce risk of transmission to wild birds, and training community members will enable vaccination to become a sustainable practice. Livestock husbandry training will improve human health by reducing conditions for/exposure to transmissible diseases and consumption of unsafe products. Improving efficiency of rice production will reduce costs and enhance yields, with significant economic benefits. More money will be available for poverty-alleviating activities e.g. sending children to school, improving sanitation at home. New fishing facilities will increase efficiency and safety for fisherfolk, and reduce risk of equipment theft/damage.

New livelihood activities will allow farmers dependent on a limited range of options to diversify their activities, providing greater resilience to external shocks. Arabica coffee and vanilla production will provide additional income-generating options, and as part of a regional production and distribution network, these new livelihoods are more likely to succeed.

19a. Impact to beneficiaries

If applying to DFID funding, please indicate the number of beneficiaries who are expected to be impacted by your project. If possible, indicate the number of women who will be impacted.

According to 2014 survey data, approximately 12,200 people (47.8% female) live in the Lake Sofia catchment. It is expected that the project will directly reach approximately 10,700 of these people, including 5,100 women. This overall figure can be further broken down into the following beneficiary groups:

Rice Farmers

Rice production is the primary livelihood activity for 97% of households in the catchment and at

present, 63% of the population do not produce enough rice to meet their own needs. Over 1,500 households will benefit from training in new skills and techniques, which reduce costs and improve yields (as well as reduce environmental impacts). This increase in rice production will ensure better food security for the communities, particularly during the “lean season” where many farmers are forced to buy rice. Surplus crops will also increase income.

Livestock Owners

Up to 9,900 people will benefit from the training and support provided to improve animal husbandry techniques. The vaccination of domestic birds in the communities surrounding the lake will benefit up to 6,800 people.

Fisherfolk

Fishing is undertaken by 37% of households in the catchment including approximately 3,100 people living in villages surrounding the lake, particularly in Marafomara and Marotolana, who will all benefit from the establishment of more sustainable fisheries management systems on the lake. Although in most cases it is a relatively minor activity (around 160 people are regular fishers, approximately 90 of whom are women), the wider population will also benefit as almost a third of fisherfolk sell the majority of their catch, including to intermediaries (all women) that come from nearby villages as well as much further afield.

Papyrus Collectors/Users

64% of households collect papyrus, chiefly for mat weaving (an activity almost exclusively undertaken by women). Lake Sofia is the main source for all villages in the catchment and is particularly important for poorer and more remote upstream villages, and more marginalised groups in larger settlements (e.g. those with little land). The establishment of structures to promote equitable sharing and sustainable management of wetland resources (including papyrus) will therefore benefit approximately 7,800 people in the catchment, and particularly the poor and marginalised.

Households dependent on natural water sources

Although the majority of people collect their water from wells and pumps, approximately 1,450 people (predominantly from poor and marginalised groups) within the area rely on natural watercourses as their primary source of drinking water. Work to improve environmental conditions such as reducing pesticide/fertilizer and sediment runoff will directly contribute to improved drinking water quality and human health.

The numbers of beneficiaries under all of these groupings are potentially much larger when sale/trade of goods is considered. With the exception of water, all of the above goods are widely sold/traded within the catchment and in some cases (e.g. fish, some rice and livestock) are collected for sale further afield. Lake Sofia also represents the source of the Sofia River and improvements to water quality and flows will have benefits for downstream populations. At present, in the absence of reliable data, these beneficiaries and the extent of benefits they will receive are difficult to quantify, however the project will look to identify and quantify these additional beneficiaries and the benefits they receive during the lifetime of the project.

It must also be noted that there is significant overlap between these figures, as most individuals/households undertake multiple livelihood activities and will benefit from multiple project interventions.

Biodiversity is another important beneficiary of the project. The sustainable management of Lake Sofia will help safeguard biodiversity representative of Madagascan wetlands, particularly species restricted to the central plateau. It will also protect several globally threatened species, including Meller’s Duck (approximately 1-2.5% of the global population), Madagascar Pond Heron (at least 1% of global population) and Madagascar Grebe (approximately 0.5% of total global population). As the planned reintroduction site for Madagascar Pochard, it will also provide home to the vast majority of the global population of this species and be critical to its

long-term survival.

The project will also provide benefits to a wider audience, including **wetland managers and wetland-dependent communities across Madagascar** as a result of policy level work to develop guidance and build capacity as well as the efforts of project partners to roll out the lessons of this work to other project sites.

20. Exit strategy

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)

Establishing sustainable management of Lake Sofia and its catchment is a long-term endeavour to which all project partners are committed, including securing additional necessary resources.

The project will establish structures and mechanisms ensuring communities are responsible for management and control of their resources – an effective, low-cost and sustainable approach. Incentives to maintain these structures will be largely non-monetary, the biggest incentive being tangible improvements to livelihoods and quality of life. Activities have been designed so they don't require significant ongoing costs.

Training and capacity building, essential to community-led management, underpins the delivery of all activities and will be delivered to representative cross-sections of target groups rather than just key individuals. Training will be cascaded (training-of-trainers), embedding knowledge and skills in organisations and communities.

Establishing a permanent legal basis for resource use gives local communities greater certainty over their long-term access, facilitating sustainable planning and management.

Seeking national/international site designation (that supports sustainable use) by the project end will attract domestic and global sources of funding to maintain the site's management.

Strengthened collaboration and creating formal links between the associations and regional technical and administrative services (e.g. DREEF), will facilitate networking with other stakeholders and provide sources of technical support.

21. Raising awareness of the potential worth of biodiversity

If your project contains an element of communications, knowledge sharing and/or dissemination please provide a description of your intended audience, how you intend to engage them, what the expected products/materials there will be and what you expect to achieve as a result. For example, are you expecting to directly influence policy in your host country or is your project a community advocacy project to support better management of biodiversity?

(Max 300 words)

10,700 people that depend on wetlands for their lives/livelihoods in six communities (34 villages) of the Lake Sofia catchment are the key audience.

Within this are specific target groups closely aligned with the beneficiaries in 19a. We will use an ecosystem services-based approach to raise awareness of wetland values and the benefits that people derive. Specific techniques to communicate/engage with these audiences include:

A strategic catchment-wide network of community information dissemination points to gain maximum exposure in a context where people are conducive to these messages (e.g. new fishing platforms and community wells/pumps where people, chiefly women, frequent/socialise and directly access natural resources).

Education programmes in primary and secondary schools. Comprising almost half the total population, children are more receptive to messages/behaviour change and are the future custodians of the environment. It is also an effective way to influence the wider household and the current decision-makers.

Pilot interventions to demonstrate solutions (e.g. rice farming) and using these strategically located pilot sites, supported by agricultural extension materials, as hubs of good practice and training venues to facilitate wider roll out.

Simple factsheets to stimulate small changes in practice (e.g. animal husbandry techniques) in Malagasy, distributed widely in the catchment using existing information points (health clinic, agricultural supplies store)

Participatory learning and action sessions with user groups and gender-specific audiences to foster joint-learning and better decision making.

Regular community fora to establish two-way flow of knowledge/information

Simple, transparent, community-based monitoring systems and providing accessible summary reports in local languages and verbally at meetings/events

Messages will be reinforced in other project activities (e.g. community reforestation events) and through existing information dissemination channels (e.g. local/national radio stations).

Government and wider national/international audiences will be engaged through the development of wetland management guidance, national wetlands conference, journal papers, media work and CBD/Ramsar focal points/events.

22. Access to project information

Please describe the project's open access plan and detail any specific costs you are seeking from Darwin to fund this.

(Max 250 words)

The project's participatory approach will ensure that knowledge and outputs are available to and owned by local communities. E.g. original community resource mapping outputs will be left with local communities and photographs/copies taken for use by the project team; thus, knowledge is retained within the community and can be used to aid resource management.

Storing and disseminating knowledge will form a component of the capacity-building work, including developing a clear and transparent system for storing monitoring data (e.g. water quality monitoring) that is made available to local people so they can track progress of work that they are involved.

Wherever possible, project materials and publications will be open source and free from Intellectual Property restrictions, widely disseminated and freely available. Exceptions could be

articles published in peer-reviewed journals – in this case, publication in open-access journals will be explored (specific budget has been allocated - £2,000) and the project will ensure this information reaches the public domain as quickly as possible after publication. Costs have been included in for the publication of reports in multiple languages – English, French and Malagasy (£2,500).

Project findings will be disseminated through the Scientific and Technical Review Panel of Ramsar including the wetlands and poverty alleviation group and directly to the CBD invited representative to the Ramsar STRP. All research outputs will be submitted to the R4D DfID repository.

All project outputs and major progress will be reported on/available through the project micro-site (£1,500), delivered by WWT's PR team.

23. Importance of subject focus for this project

If your project is working on an area of biodiversity or biodiversity-development linkages that has had limited attention (both in the Darwin Initiative portfolio and in conservation in general) please give details.

(Max 250 words)

Globally, wetland conservation has suffered a relative lack of focussed and specific attention, partially because non-marine conservation has focussed heavily on terrestrial (chiefly forest-based) ecosystems, using principles and approaches that are only partially transferrable to aquatic systems.

In Madagascar the extensive network of protected areas was established chiefly with forests in mind and even those that contain wetland habitats do not focus on their conservation. The relative fertility of wetland habitats, particularly given the decline in upland soil fertility, makes them the focus for human activity. This, combined with the lack of attention for protection/sustainable use and a shortage of national expertise on wetland management/wetland values (which the project will help address through a capacity-building process structured around national-level guidance), explains why there are very few examples of functioning, sustainable wetland ecosystems in Madagascar, particularly on the central plateau. This is exemplified by the decline and loss of a whole host of species, notably including the Madagascar Pochard (which Lake Sofia is a critical part of the recovery programme for) which depend on these wetlands just as local people do.

Our project will demonstrate biodiversity-development linkages that relate to the entire country and are an important factor in poverty and ill-health.

Finally, timing is important – during the recent political turmoil, environmental governance and development indicators have declined significantly. The recent elections and a level of political stability that has not been seen for many years open the door to efforts to prevent further loss and restore good governance.

24. Leverage

a) Secured

Provide details of all funding successfully levered (and identified in the Budget) towards the costs of the project, including any income from other public bodies, private sponsorship, donations, trusts, fees or trading activity.

Confirmed:

£100,000 has been secured towards the project through public appeals run in 2014 including Mission Madagascar (<https://www.wwt.org.uk/support/our-appeals/mission-madagascar/>).

b) Unsecured

Provide details of any matched funding where an application has been submitted, or that you intend applying for during the course of the project. This could include matched funding from the private sector, charitable organisations or other public sector schemes.

Date applied for	Donor organisation	Amount	Comments
December 2014	Synchronicity Earth	£60,000	Have indicated they will provide long-term support for the project

PROJECT MONITORING AND EVALUATION

MEASURING IMPACT

25. LOGICAL FRAMEWORK

Darwin projects will be required to report against their progress towards their expected outputs and outcomes if funded. This section sets out the expected outputs and outcomes of your project, how you expect to measure progress against these and how we can verify this.

The information provided here will be transposed into a logframe should your project be successful in gaining funding from the Darwin Initiative. The use of the logframe is sometimes described in terms of the Logical Framework Approach, which is about applying clear, logical thought when seeking to tackle the complex and ever-changing challenges of poverty and need. In other words, it is about sensible planning.

Impact

The Impact is not intended to be achieved solely by the project. This is a higher-level situation that the project will contribute towards achieving. All Darwin projects are expected to contribute to poverty alleviation and sustainable use of biodiversity and its products.

(Max 30 words)

The Bealanana Wetlands Complex is managed sustainably for people and wildlife, acting as a national model for wetland and catchment management that helps Madagascar deliver international development commitments (MDGs/SDGs).

Outcome

There can only be one Outcome for the project. The Outcome should identify what will change, and who will benefit. The Outcome should refer to how the project will contribute to reducing poverty and contribute to the sustainable use/conservation of biodiversity and its products. This should be a summary statement derived from the answer given to question 14.

(Max 30 words)

Over 10,000 wetland-dependent people have secure access to natural resources and are part of a community-based management regime which improves food security/wellbeing/livelihoods and ecological conditions.

Measuring outcomes - indicators

Provide detail of what you will measure to assess your progress towards achieving this outcome. You should also be able to state what the change you expect to achieve as a result of this project i.e. the difference between the existing state and the expected end state. You may require multiple indicators to measure the outcome – if you have more than 3 indicators please just insert a row(s).

Indicator 1	Six community associations are active across the entire catchment and are working together to address catchment-scale issues by year 3.
Indicator 2	By year 3, average community satisfaction and social cohesion perception scores improve by 20% against 2014 baseline (gender and poverty disaggregated data is available, however to give an indication of change, overall scores would move from a current average of 2.16 to 2.60 out of 4).
Indicator 3	Average duration of the 'lean season' (a widely recognised measure in development work, broadly defined as the difficult period between harvests when resources become scarce and food is more expensive) is reduced by 20% in target villages by year 3 in comparison to identified reference villages for the same period.
Indicator 4	Populations of ecological indicator species at Lake Sofia stabilized at current levels and no net loss of wetland habitat or deterioration in condition in year 3 in comparison to year 1.
Indicator 5	Guidance on the sustainable management of wetlands in Madagascar is supported by government and being used at (or agreed plans in place to use at) wetlands across the country.

Verifying outcomes

Identify the source material the Darwin Initiative (and you) can use to verify the indicators provided. These are generally recorded details such as publications, surveys, project notes, reports, tapes, videos etc.

Indicator 1	Public record (statutes and official signed documentation), project documents, association meeting minutes and participants lists, community forum meetings/feedback, participatory learning reports for target stakeholder/beneficiary groups (resource user groups, marginalised groups, women), social survey/attitudes assessment report, minutes of meetings with commune chief and district/provincial level representatives.
Indicator 2	Household survey data and reports.
Indicator 3	Household survey data and participatory learning reports, minutes of community meetings. Comparable data from reference villages (to capture real change rather than the influence of external factors such as climate)
Indicator 4	Biodiversity survey and monitoring data (including benthic invertebrate counts, fish catch records and waterbird population counts), satellite imagery and aerial photography
Indicator 5	National level CBD and Ramsar reporting, guidance referenced in additional government documents and site management plans

Outcome risks and important assumptions

You will need to define the important assumptions, which are critical to the realisation of the *outcome and impact* of the project. It is important at this stage to ensure that these assumptions can be monitored since if these assumptions change, it may prevent you from achieving your expected outcome. If there are more than 3 assumptions please insert a row(s).

Assumption 1	That, following the recent elections (establishing the first democratically elected government since 2009), the newly established political environment remains relatively stable and conducive to conservation and development work delivered in partnership with external agencies. <i>[National-level work, particularly activities under output 4 will be used to maintain close working relationships with the government and keep a close eye on the situation and the steering group will be tasked with developing strategies to address any changes]</i>
Assumption 2	That powerful individuals and outside influences, which have encroached into many other similar wetland areas (e.g. Lake Antafiandakana), do not seek to or succeed in destabilising the project's progress for their own interests. <i>[Work to establish the legal basis for the association's work will significantly address this issue during the lifetime of the project and national level work with government ministries will help ensure political support is in place to react to any threats]</i>
Assumption 3	That the management bodies established are endorsed and empowered by government to control/coordinate the sustainable management of Lake Sofia and its catchment. <i>[Although using existing frameworks and recognised techniques this is a relatively new approach/model in Madagascar. The involvement of local government (DREEF and DRDR) as project partners will help to ensure this, supported by national level policy work]</i>

Outputs

Outputs are the specific, direct deliverables of the project. These will provide the conditions necessary to achieve the Outcome. The logic of the chain from Output to Outcome therefore needs to be clear. If you have more than 3 outputs insert a row(s). It is advised to have less than 6 outputs since this level of detail can be provided at the activity level.

Output 1	Fully representative community management structures surrounding Lake Sofia re-established and strengthened, with new community management structures established for the wider catchment of the lake
Output 2	Approaches to enhance existing local livelihoods and establish additional livelihood options developed, demonstrated at key sites and being implemented across the wider catchment
Output 3	Conditions (policy, practice and awareness) in place to reduce key threats to wildlife and the environment of Lake Sofia and its catchment, including burning/clearance of marsh, hunting/trapping of threatened wildlife, and draining of wetlands.
Output 4	National-level sustainable wetland management guidance (informed by the model developed at Lake Sofia) adopted by the Government of Madagascar and being used at wetlands across the country.

Measuring outputs

Provide detail of what you will measure to assess your progress towards achieving these outputs. You should also be able to state what the change you expect to achieve as a result of this project i.e. the difference between the existing state and the expected end state. You may require multiple indicators to measure each output – if you have more than 3 indicators please just insert a row(s).

Output 1	
Indicator 1	Management transfer agreements in place for the three local associations surrounding Lake Sofia (Sofia Mandroso, Fikambana Fitantanana Matsabory

	Sofia, and Sandatra Sofia) by November 2015 and for a further three upstream communities (Antilongo, Lohanisofia, and Andranovaky) by 2018.
Indicator 2	Annual workplans and 3-year action plans (covering institutional development activities as well as conservation and community development work) are in place (agreed by general assembly) and being implemented in 3 communities by 2016 and 6 communities by 2018.
Indicator 3	The membership of local association management structures (executive committee, advisory board, and general assembly) are fully representative of the local community, including at least 50% women and with representative social stratification, by 2017.
Indicator 4	Watershed management group established and holds inaugural meeting by 2018.

Output 2	
Indicator 5	At least 60% and 90% of domesticated bird owners in the three communities surrounding the lake are participating in vaccination programmes of the project by 2016 and 2017 respectively
Indicator 6	Reporting of disease as a major problem with chickens/ducks/geese, reduced to 30%/20%/20% in vaccinated area and 70%/40%/40% in wider landscape by 2017 (against 2014 baseline of 90%/55%/55%).
Indicator 7	At least 90% of fisherfolk are using recommended fishing equipment and respecting local fishing regulations by 2016
Indicator 8	15 farmers (from three communities) signed up to and have started working on the rice farming pilot projects by 2016.
Indicator 9	Rice yields increased by an average of at least 150%, water use reduced by 20% and chemical inputs reduced by 90% on pilot rice fields by 2017 (in comparison with 2015 baseline of pilot sites and control sites)
Indicator 10	At least 30 additional rice farmers (beyond pilot sites) applying the new techniques to their rice fields by 2017
Indicator 11	Lake Sofia wet Arabica coffee and sustainable vanilla production business plans developed by 2016 with local infrastructure (nurseries, storage and collection networks) in place by 2017 and pilot phase production underway in 2018.

Output 3	
Indicator 12	65% of households in the Lake Sofia catchment have an increased understanding of the social, environmental and economic importance of sustainable wetland/watershed management by 2017 in comparison to 2015 baseline
Indicator 13	Environmental education programs developed by the project are integrated into the curriculum of at least two primary schools and one secondary school in the catchment by 2016 and being adopted commune-wide by 2018
Indicator 14	At least 1.5ha of marginal/aquatic vegetation restored and 5ha of currently bare headland around Lake Sofia reforested (under cover of saplings of diverse native provenance and demonstrating annual survival rates of at least 70%) by 2018
Indicator 15	Density of marsh-breeding bird nests and fledging success rates increased by 20% and 10% respectively in 2017 compared with 2015 baseline (as proxy for reduced disturbance). Indicator will also compare with adjacent control site to adjust for impacts of external factors (e.g. climate variation)

Indicator 16	Instances of deliberate burning/drainage of marsh, use of illegal fishing gear, illegal hunting by residents of local communities reduced to zero by year 3, and any instances of such activities by outsiders are effectively prosecuted/redressed in accordance with the rules of the local association.
--------------	--

Output 4	
Indicator 17	National-level working group established in 2015
Indicator 18	Draft guidance developed for consultation by 2016
Indicator 19	Final guidance (including a case study on Lake Sofia) produced and endorsed by government by the end of 2017
Indicator 20	Guidance is being applied to at least 3 additional wetland sites in Madagascar by 2018.

Verifying outputs

Identify the source material the Darwin Initiative (and you) can use to verify the indicators provided. These are generally recorded details such as publications, surveys, project notes, reports, tapes, videos etc.

Indicator 1	Public record (official declaration), documents supporting submission, press releases and articles
Indicator 2	Articles of local associations (annual workplans and 3 year activity plans), reports of annual workplan development/review and semi-annual workplan progress update meetings. Supplemented by feedback/minutes from community meetings and participatory learning reports.
Indicator 3	Public record (official documents), TORs, management committee membership/participant lists and minutes of meetings, minutes/feedback from community meetings, project documents, household survey data (disaggregated by village, Multi-dimensional Poverty Index score, and gender).
Indicator 4	Public record, press releases and articles, watershed management group meeting minutes and project reports/photographs.
Indicator 5	Signed agreements with individuals receiving vaccines, receipts and inventories showing volumes of vaccines used
Indicator 6	Household survey data and reports
Indicator 7	Records/receipts of gear exchange, reports of local associations on infringements of regulations, fisheries monitoring reports
Indicator 8	Signed agreements with local associations/village leadership and individual farmers, project reports
Indicator 9	Rice yield, and water monitoring data (quality and quantity) from pilot and control sites, community feedback (meeting minutes, attitudes/awareness surveys), press releases/articles, journal papers
Indicator 10	Agreements with local associations, participants lists and reports from training and follow-up events, community feedback (meeting minutes, attitudes/awareness surveys)
Indicator 11	Feasibility study final report, minutes of community meetings, Lake Sofia community development plans, Strategies/Plans of OSDRM, Project proposals, Project registers of donors.

Indicator 12	Attitudes/awareness survey at beginning and end of project
Indicator 13	School curricula/syllabus and lesson plans, evaluation report interviews with students and teachers, project reports, minutes of meetings with education departments, commune and district level education department plans
Indicator 14	Satellite imagery (Landsat images - 30m resolution), photographic evidence, minutes of community meetings, project reports, press/media articles, inventories and receipts of plug plants and saplings.
Indicator 15	Project reports and monitoring data, biodiversity reports (number of nests/fledging success rates of marsh nesting birds). Control site surveys (Bemanevika lakes)
Indicator 16	Satellite imagery (Landsat images - 30m resolution), photographic evidence, incidences of burning and clearance reported in minutes of community/association meetings, District and provincial DREEF/DRADR records.
Indicator 17	Working group ToR and commitment of members (MoU/charter), minutes of meetings, project reports.
Indicator 18	Draft guidance document, minutes of meetings
Indicator 19	Final guidance document, minutes of meetings, project reports
Indicator 20	Project reports from other sites (organisations both within and beyond the Lake Sofia project partnership), minutes of meetings and reports of government.

Output risks and important assumptions

You will need to define the important assumptions, which are critical to the realisation of the achievement of your outputs. It is important at this stage to ensure that these assumptions can be monitored since if these assumptions change, it may prevent you from achieving your expected outcome. If there are more than 3 assumptions please insert a row(s).

Assumption 1	Environmental and social conditions are representative (i.e. extreme events do not skew the baseline or mean that monitoring during project period is atypical). <i>[Relevant monitoring activities have been designed to include a control sites to reduce the impact of climatic and other large-scale factors. More localised conditions will have to be monitored and may result in additional sampling to minimise the effects and/or consideration of additional/alternative control sites]</i>
Assumption 2	That the evidence gathered and demonstrated through pilot project work will be sufficient to change attitudes and enable training to improve wider uptake (as cultural/spiritual beliefs can create scepticism towards technical solutions). <i>[This is an assumption based on successful work elsewhere in Sofia region, however in Madagascar cultural issues can be very localised (e.g. local 'fadys' which prevent certain activities in certain locations based on spiritual/ancestral beliefs). Staff of the project have the skills to adapt work to this very local context and additional staff recruited from the local community will help with this]</i>
Assumption 3	That there is not a fundamental ecological reason for the relative lack of productivity in Lake Sofia (of benthic invertebrates and fish) and that this is a consequence of poor environmental practices surrounding and upstream of the lake. <i>[This issue has been explored and fairly detailed investigations conducted to date suggest that this is unlikely to be the case, however it must always be considered and any indications/evidence during the project that this may be the case need to be reported to and considered by project]</i>

	<i>management]</i>
Assumption 4	That the increasing political stability of Madagascar attracts additional donors and partners to work/collaborate in the region and build on the foundations established by the project. <i>[If this assumption does not hold, the project will focus even more effort on developing close relations with specific donors to ensure support continues during political instability. This has been a proven strategy during the past political turmoil. Work to ensure management structures are community-led and maintainable/sustainable without significant external intervention will also help mitigate the impact]</i>

Activities

Define the tasks to be undertaken by the research team to produce the outputs. Activities should be designed in a way that their completion should be sufficient and indicators should not be necessary. Risks and assumptions should also be taken into account during project design.

Output 1	
Activity 1.1	Develop and agree initial 3-year management transfer agreements for Sofia Mandroso, Fikambana Fitantanana Matsabory Sofia, and Sandatra Sofia.
Activity 1.2	Develop agreements to transfer the management of natural resources to local-constituted community associations across the upstream catchment of Lake Sofia.
Activity 1.3	Revise and update the management transfer agreements for Sofia Mandroso, Fikambana Fitantanana Matsabory Sofia, and Sandatra Sofia based on information gathered by the project.
Activity 1.4	Constitute membership of executive committees, advisory boards, and general assemblies of local associations
Activity 1.5	Hold annual workplan development and review meetings with general assemblies
Activity 1.6	Hold community fora 3 times per year in each community to ensure wider accountability
Activity 1.7	Produce semi-annual and annual progress reports on each local association
Activity 1.8	Provide technical support to the local community to understand and support delivery of the management transfer agreements
Activity 1.9	Deliver training on laws and rights for members of the local associations
Activity 1.10	Establish watershed management group for Lake Sofia Catchment, bringing together local associations across the catchment, local government and other stakeholders.
Activity 1.11	Hold annual watershed management group meeting
Activity 1.12	Seek to support/reinforce catchment-level work through national/international site/landscape designation compatible with community management objectives (e.g. Protected Harmonious Landscape, Ramsar Site).

Output 2	
Activity 2.1	Vaccinate domestic birds against disease in the villages surrounding Lake Sofia using authorised vaccinators
Activity 2.2	Train members of local communities in vaccination techniques by working alongside authorised vaccinators to enable them to take over this work
Activity 2.3	Produce vaccination guidance manual

Activity 2.4	Deliver animal husbandry practices training to all villages in the Lake Sofia catchment
Activity 2.5	Produce information factsheets on common diseases, focussed on prevention and management techniques
Activity 2.6	Construct fishing and fish landing platforms at Lake Sofia to improve lake access and safety, enable easier processing and monitoring of fish catches, and reduce disturbance to marsh habitats
Activity 2.7	Provide replacement fishing equipment in exchange for any fishing gear not permitted for use on Lake Sofia under existing or any revised regulations.
Activity 2.8	Design and implement fisheries/fish catch monitoring programme
Activity 2.9	Identify locations for pilot rice farming projects and sign agreements with participants (through local associations where already in place)
Activity 2.10	Conduct pilot projects in three villages to demonstrate the application of more environmentally sensitive rice cultivation practices
Activity 2.11	Develop and implement monitoring programme (focussed on yield, water quality and external inputs) for pilot rice farming projects
Activity 2.12	Report on findings of pilot projects
Activity 2.13	Train agricultural extension training team
Activity 2.14	Deliver environmentally sensitive rice cultivation (including soil management techniques) training to all villages in the Lake Sofia catchment
Activity 2.15	Develop and agree a roll-out programme of rice farming work with local associations and village leadership
Activity 2.16	Conduct feasibility study for alternative livelihood options (wet-processed Arabica coffee/sustainable vanilla)
Activity 2.17	Establish local nursery to supply high-quality coffee/vanilla cuttings to local farmers
Activity 2.18	Identify locations for development of pilot value-added coffee and vanilla projects and sign agreements with participants
Activity 2.19	Provide training and materials to support sustainable coffee/vanilla farming projects
Activity 2.20	Produce quarterly updates and annual progress report on all activities

Output 3

Output 3	
Activity 3.1	Develop environmental education programme and supporting materials (lesson plans, ID guides, basic sampling equipment, teaching guides) for use in schools
Activity 3.2	Run initial demonstration sessions in schools
Activity 3.2	Conduct teacher training events
Activity 3.4	Develop magnification/roll-out plan with local and regional education departments
Activity 3.5	Establish catchment-wide network of community information dissemination points
Activity 3.6	Develop simple ecological monitoring framework, linking improvements in ecological health to human health/wellbeing

Activity 3.7	Identify network of local community monitoring focal points and sign agreements with participants
Activity 3.8	Run training events and provide simple monitoring materials to focal points to enable them to act as local coordinators of monitoring effort
Activity 3.9	Produce semi-annual community monitoring reports
Activity 3.10	Identify and agree locations and plans for reforestation work on bare headlands surrounding lake with local associations
Activity 3.11	Procure supply of suitable seedlings for reforestation work and establish local holding station/nursery
Activity 3.12	Conduct reforestation events with villages surrounding Lake Sofia
Activity 3.13	Assess extent and quality of aquatic/marginal habitat and identify priority locations for restoration work
Activity 3.14	Undertake restoration of aquatic and marginal vegetation with local community, using cuttings and transplants from other areas of the lake/catchment
Activity 3.15	Undertake habitat extent and condition monitoring using combination of remote sensing and groundtruthing techniques
Activity 3.16	Produce quarterly updates and annual progress report on habitat restoration work

Output 4	
Activity 4.1	Constitute national working group to develop the guidance
Activity 4.2	Run study tours to four wetlands (Lake Alaotra, Lake Kinkony, Torotorofotsy and Lake Sofia)
Activity 4.3	Hold guidance development workshop
Activity 4.4	Write up Lake Sofia case study
Activity 4.5	Produce draft guidance and consult with broad range of stakeholders
Activity 4.6	Workshops to finalise guidance, chaired by national CBD and Ramsar focal points.
Activity 4.7	Design and publish guidance document in three languages (Malagasy, French and English)
Activity 4.8	Organise national conference for wetland managers and policy makers and use as platform to launch guidance
Activity 4.9	Project partners involved in managing wetlands elsewhere in Madagascar (particularly DWCT and Asity) test the guidance against those sites and apply recommendations.
Activity 4.10	Promote guidelines at national and international conferences and conventions
Activity 4.11	Produce quarterly updates and annual progress reports

26. 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
Output 1													
1.1 Develop and agree initial 3-year management transfer agreements for Sofia Mandroso, Fikambana Fitantanana Matsabory Sofia, and Sandatra Sofia.	5												
1.2 Develop agreements to transfer the management of natural resources to local-constituted community associations across the upstream catchment of Lake Sofia.	9												
1.3 Revise and update the management transfer agreements for Sofia Mandroso, Fikambana Fitantanana Matsabory Sofia, and Sandatra Sofia based on information gathered by the project.	3												
1.4 Constitute membership of executive committees, advisory boards, and general assemblies of local associations	2												
1.5 Hold annual workplan development and review meetings with general assemblies	3												
1.6 Hold community fora 3 times per year in each community to ensure wider accountability	6												
1.7 Produce semi-annual and annual progress reports on each local association	4												
1.8 Provide technical support to the local community to understand and support delivery of the management transfer agreements	7												
1.9 Deliver training on laws and rights for members of the local associations	2												
1.10 Establish watershed management group for Lake Sofia Catchment, bringing together local associations across the catchment, local government and other stakeholders.	4												
1.11 Hold annual watershed management group meeting	1												
1.12 Seek to support/reinforce catchment-level work through national/international site/landscape designation compatible with community management objectives (e.g. Protected Harmonious Landscape, Ramsar Site).	4												

Output 2														
2.1	Vaccinate domestic birds against disease in the villages surrounding Lake Sofia	7												
2.2	Train members of local communities in vaccination techniques	3												
2.3	Produce vaccination guidance manual	1												
2.4	Deliver animal husbandry practices training to all villages in the Lake Sofia catchment	4												
2.5	Produce information factsheets on common diseases, focussed on prevention and management techniques	2												
2.6	Construct fishing and fish landing platforms at Lake Sofia to improve lake access and safety, enable easier processing and monitoring of fish catches, and reduce disturbance to marsh habitats	4												
2.7	Provide replacement fishing equipment in exchange for any fishing gear not permitted for use on Lake Sofia under existing or any revised regulations.	2												
2.8	Design and implement fisheries/fish catch monitoring programme	4												
2.9	Identify locations for pilot rice farming projects and sign agreements with participants (through local associations where already in place)	2												
2.10	Conduct pilot projects in three villages to demonstrate the application of more environmentally sensitive rice cultivation practices	14												
2.11	Develop and implement monitoring programme (focussed on yield, water quality and external inputs) for pilot rice farming projects	5												
2.12	Report on findings of pilot projects	1												
2.13	Train agricultural extension training team	1												
2.14	Deliver environmentally sensitive rice cultivation (including soil management techniques) training to all villages in the Lake Sofia catchment	4												
2.15	Develop and agree a roll-out programme of rice farming work with local association and village leadership	2												
2.16	Conduct feasibility study for alternative livelihood options (wet-	3												

	processed Arabica coffee/sustainable vanilla)												
2.17	Establish local nursery to supply high-quality cuttings to local farmers	5											
2.18	Identify locations for development of pilot value-added coffee and vanilla projects and sign agreements with participants	2											
2.19	Provide training and materials on sustainable coffee/vanilla farming practices	1											
2.20	Produce quarterly updates and annual progress report on all activities	2											
Output 3													
3.1	Develop environmental education programme and supporting materials (lesson plans, ID guides, basic sampling equipment, teaching guides) for use in schools	5											
3.2	Run initial demonstration sessions in schools	2											
3.3	Conduct teacher training events	2											
3.4	Develop magnification/roll-out plan with local and regional education departments	1											
3.5	Establish catchment-wide network of community information dissemination points	2											
3.6	Develop simple ecological monitoring framework, linking improvements in ecological health to human health/wellbeing	3											
3.7	Identify network of local community monitoring focal points and sign agreements with participants	2											
3.8	Run training events and provide simple monitoring materials to focal points to enable them to act as local coordinators of monitoring effort	3											
3.9	Produce semi-annual community monitoring reports	2											
3.10	Identify and agree locations and plans for reforestation work on bare headlands surrounding lake with local associations	1											
3.11	Procure supply of suitable seedlings for reforestation work and establish local holding station/nursery	3											
3.12	Conduct reforestation events with villages surrounding Lake Sofia	5											
3.13	Assess extent and quality of aquatic/marginal habitat and identify	2											

	priority locations for restoration work												
3.14	Undertake restoration of aquatic and marginal vegetation with local community, using cuttings and transplants from healthier areas of the lake/catchment	7											
3.15	Undertake habitat extent and condition monitoring using combination of remote sensing and groundtruthing techniques	3											
3.16	Produce quarterly updates and annual progress report on habitat restoration work	2											
Output 4													
4.1	Constitute national working group to develop the guidance	1											
4.2	Run study tours to four wetlands (Lake Alaotra, Lake Kinkony, Torotorofotsy and Lake Sofia)	1											
4.3	Hold guidance development workshop	1											
4.4	Write up Lake Sofia case study	1											
4.5	Produce draft guidance and consult with broad range of stakeholders	5											
4.6	Workshops to finalise guidance, chaired by national CBD and Ramsar focal points.	1											
4.7	Design and publish guidance document in three languages (Malagasy, French and English)	2											
4.8	Organise national conference for wetland managers and policy makers and use as platform to launch guidance	1											
4.9	Project partners involved in managing wetlands elsewhere in Madagascar (particularly DWCT and Asity) test the guidance against those sites and apply recommendations.	3											
4.10	Promote guidelines at national and international conferences and conventions	2											
4.11	Produce quarterly updates and annual progress reports	1											

27. Project based monitoring and evaluation (M&E)

Describe, referring to the Indicators above, how the progress of the project will be monitored and evaluated, making reference to who is responsible for the projects M&E. Darwin Initiative projects are expected to be adaptive and you should detail how the monitoring and evaluation will feed into the delivery of the project including its management. M&E is expected to be built into the project and not an 'add' on. It is as important to measure for negative impacts as it is for positive impact.

(Max 500 words)

WWT has overall responsibility for project M&E and will oversee a programme of baseline assessments, ongoing monitoring and evaluation, and end of project assessments to deliver this. Additional monitoring required both for output-level indicators and to inform adaptive management under those outputs will be conducted by the appropriate partner and is detailed in section 25 under the activities for that output. Regular reporting is also built in to each output which will be fed up to the project steering group (which meets quarterly) to inform wider project management.

The hydrology (including water chemistry, depth, turbidity, flow and rainfall) and biodiversity (including invertebrates, fish, birds, plus general habitat quality and extent) of Lake Sofia and its catchment will be the subject of a baseline assessment and monitoring. Although some aspects will require specialist input, regular monitoring will be carried out as far as possible by local communities with training and support from project staff. This community-based monitoring is built in to output 3.

The survey and monitoring data will be collected in a database and analysed yearly and at project end to establish to what extent the ecosystem of Lake Sofia is responding. As with all monitoring, results will be used to adapt management strategies and activities as appropriate (as demonstrated by the scheduled review and update of management agreements based on project data in year three).

Household surveys already undertaken in 2014 will act as the primary baseline against which social and economic impacts will be assessed. These surveys will be repeated in year three and complemented by participatory learning techniques already being used at the site which will be continued throughout the project as well as an attitude and awareness assessment conducted in years 1 and 3. Specific monitoring will be undertaken on agricultural yield/output and inputs (e.g. pesticides/fertilizers) and fisheries data (as detailed in activities under output 2) to provide information and evidence of the effectiveness of interventions, and activities will be adapted accordingly, particularly livelihood enhancement actions.

Overall project progress will be reviewed internally on an ongoing basis and reported on and discussed during the national steering group and local project management meetings. These meetings will also be used to revisit assumptions in the logframe to ensure they are holding, and take appropriate action if those situations change (as detailed under the specific assumptions in section 25). The primary focus of the steering group will be on outcome-level assumptions and the local project management group will focus on output-level assumptions.

The regular community fora established through the project will also be used to gauge support and understanding of local community members for the project and its aims (e.g. using feedback forms). Depending on the outcomes of these discussions on progress, project management will adapt to ensure problem issues are dealt with and new opportunities explored/exploited.

All data will be shared with the local community and otherwise disseminated as described in section 22.

FUNDING AND BUDGET

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

NB: Please state all costs by financial year (1 April to 31 March) and in GBP. **Budgets submitted in other currencies will not be accepted.** 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.

28. Cost Effectiveness

Please explain how you worked out your budget and how you will provide value for money through managing a cost effective and efficient project. You should also discuss any significant assumptions you have made when working out your budget.

(max 300 words)

The budget has been worked out based on our extensive experience of leading implementation of international projects and on our knowledge of Madagascar costs and systems developed (a) during the earlier Madagascar pochard project and (b) through the extensive experience of the in-country partners.

In terms of travel, flights have been kept to a minimum and much of the in-country travel will be done by motorbike – this is not only cheaper but a more reliable form of transport on Madagascar's difficult roads, particularly during the wet season. National travel will also be minimised through careful planning so that trips to Lake Sofia and other locations deliver against more than one activity. Day-to-day work will be largely carried out by project staff based at offices established in Marotolana near the Lake to reduce travel time/costs and in-country management staff will also spend significant periods of time in the field.

The project will minimise costs and increase project sustainability by, where possible, recruiting local staff and, using in-country/in-region expertise. Training will progressively reduce dependence on external inputs

Project management meetings will take place predominantly by Skype with visits by UK-based staff being kept as limited as practically possible to deliver the project. Where international travel is required, activities have been timed to ensure maximum use of in-country time (i.e. to enable the staff member to contribute to multiple relevant activities).

The main assumption made in the budget is that exchange rates do not change significantly. If they do so unfavourably it will mean project activities will need to be reviewed in light of it. To minimise this risk, exchange rates will be monitored closely and funds will be moved between accounts in the respective currencies (through working together existing partners have already established trusted and secure financial arrangements to enable this).

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 your Foreign Ministry or the local embassy or High Commission (or equivalent) 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**

The project has been discussed with the British Ambassador to Madagascar. No specific additional security advice was received; however project partners already meet with the embassy to share information on security issues and concerns on a regular basis.

CERTIFICATION

On behalf of the trustees of The Wildfowl & Wetlands Trust
 (*delete as appropriate)

I apply for a grant of **£276,527** 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 applicant institution to submit applications and sign contracts on their behalf.)

- I enclose CVs for project principals and letters of support.
- Our most recent signed audited/independently verified accounts and annual report are also enclosed/can be found at: <http://www.wwt.org.uk/charity/reports-and-accounts/>

Name (block capitals)	Dr. Deborah Pain
Position in the organisation	Head of Conservation

Signed



Date:

01/12/2014

Stage 2 Application - Checklist for submission

	Check
Have you read the Guidance Notes ?	Yes
Have you provided actual start and end dates for your project?	Yes
Have you indicated whether you are applying for DFID or Defra funding. NB: you cannot apply for both	Yes
Have you provided your budget based on UK government financial years i.e. 1 April – 31 March and in GBP?	Yes
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?	Yes
Has your application been signed by a suitably authorised individual ? (clear electronic or scanned signatures are acceptable in the email)	Yes
Have you included a 1 page CV for all the Principals identified at Question 7?	Yes
Have you included a letter of support from the main partner(s) organisations identified at Question 10?	Yes
Have you been in contact with the FCO in the project country/ies and have you included any evidence of this?	Yes, no specific advice given
Have you included a signed copy of the last 2 years annual report and accounts for the lead organisation? An electronic link to a website is acceptable.	Yes
Have you checked the Darwin website immediately prior to submission to ensure there are no late updates?	Yes

Once you have answered the questions above, please submit the application, not later than midnight GMT on Monday 1 December 2014 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**. 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). You are not required to send a hard copy.

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.