



Submit by Tuesday 1 December 2015

DARWIN INITIATIVE APPLICATION FOR GRANT FOR ROUND 22: 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. Blank cells may render your application ineligible

ELIGIBILITY**1. Name and address of organisation**

(NB: Notification of results will be by email to the Project Leader in Question 6)

Applicant Organisation Name:	University of Exeter (UoE)
Address:	Centre for Ecology and Conservation, University of Exeter
City and Postcode:	Penryn, Cornwall, TR10 9FE
Country:	United Kingdom
Email:	www.exeter.ac.uk http://biosciences.exeter.ac.uk/cec/
Phone:	

2. Stage 1 reference and Project title

Stage 1 Ref: 3135	Title (Max 10 words): Transforming marine resource management in the Republic of Congo
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3. Project description (not exceeding 50 words)

(Max 50 words)

Improved food security and poverty reduction in fisheries-dependent coastal communities in the Republic of Congo, resulting from more effective marine resource governance; and stakeholder-led design of an evidenced-based marine spatial plan that includes MPAs and community and industrial fishing zones, that enhance ecological integrity, reduce conflict and conserve biodiversity.

4. 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: Republic of Congo	Country 2: Gabon (training host)
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4. Project dates, and budget summary

Start date: 1 st April 2016	End date: 30 th September 2018	Duration: 30 months (2.5 years)		
Darwin request	2016/17 £ 119,099	2017/18 £ 111,867	2018/19 £ 68,470	Total request £ 299,435
Proposed (confirmed & unconfirmed) matched funding as % of total Project cost				47%
Are you applying for DFID or Defra funding? (Note you cannot apply for both)			DFID	

6. Partners in project. Please provide details of the partners in this project and provide a CV for the individuals listed. You may copy and paste this table if necessary.

Details	Project Leader(s)	Project Partner 1	Project Partner 2
Surname	Godley	Ngouembe	Gately
Forename (s)	Prof Brendan J.	Pierre	Mark
Post held	Professor of Conservation Science and Director of the Centre for Ecology & Conservation	Conservateur de Parc National Conkouati-Douli (CDNP)	Republic of Congo Country Programme Director
Organisation (if different to above)	University of Exeter (UoE)	Ministère de l'Economie Forestière et du Développement Durable (MEFDD)	Wildlife Conservation Society (WCS)
Department	Centre for Ecology and Conservation	Ministère de l'Economie Forestière et du Développement Durable (MEFDD)	WCS Congo Country Programme
Telephone			
Email			

Details	Project Partner 3	Project Partner 4	Project Partner 5
Surname	Abitsi	Vanleeuwe / Collins	Bréheret
Forename (s)	Gaspard	Dr Hilde / Tim	Nathalie
Post held	Gabon Country Programme Director	Project Director Conkouati-Douli National Park (CDNP) / Wildlife Conservation Society Africa Coordinator - IUCN SSC Cetacean Specialist Group	NGO Director
Organisation (if different to above)	Wildlife Conservation Society (WCS)	Wildlife Conservation Society (WCS)	Rénatura
Department	WCS Gabon Country Programme	WCS Congo Country Programme / WCS Marine Program	Rénatura
Telephone			
Email			

Details	Project Partner 6
Surname	White
Forename (s)	Prof. Lee
Post held	Executive Secretary
Organisation (if different to above)	Agence Nationale des Parcs Nationaux (ANPN)
Department	Agence Nationale des Parcs Nationaux (ANPN)
Telephone	
Email	

7. 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
EIDPO046	B.J. Godley	Linking marine biodiversity conservation and fisher prosperity through marketplace innovation
20-009	B.J. Godley / M.J. Witt	Delivering an MPA network for fisheries and biodiversity for Central Africa (Republic of Congo and Gabon)
19-026	A.C. Broderick / B.J. Godley	Implementing a Darwin Initiative Biodiversity Action Plan for Ascension Island
18-001	B.J. Godley	Darwin Sustainable Artisanal Fisheries Initiative (Peru)
17-005	B.J. Godley	Darwin Marine Biodiversity Action Plan for Gabon
14-051	B.J. Godley	In Ivan's Wake: Darwin Initiative BAP for the Cayman Islands

8. If you answered 'NO' to Question 7 please complete Question 8a, b and c.

N/A

9. 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>University of Exeter (UoE), UK www.exeter.ac.uk</p> <p>Prof. Brendan Godley http://biosciences.exeter.ac.uk/cec/staff/index.php?web_id=brendan_godley</p> <p>Dr Matthew Witt http://www.exeter.ac.uk/esi/people/academicandhonorary/witt/</p> <p>Dr Rachel Turner http://www.exeter.ac.uk/esi/people/academicandhonorary/turner/</p> <p>Dr Kristian Metcalfe http://biosciences.exeter.ac.uk/staff/index.php?web_id=Kristian_Metcalfe</p>	<p><i>Details (including roles and responsibilities and capacity to lead the project): (max 200 words)</i></p> <p>The UoE has been working with partner organisations on marine biodiversity conservation in Central Africa since 2003, leading to Darwin Initiative Projects 17-005 (Gabon) and 20-009 (Gabon and Congo), which culminated in the announcement of a network of new marine protected areas (MPAs) in Gabon covering 46,000km², as well as the creation of community and industrial fishing zones. This project builds on existing work in Congo and focuses on three priority areas highlighted during Darwin Initiative Project 20-009 and the pre-bid consultation among partners.</p> <p>The UoE team on this project comprises Principal investigator Professor Brendan Godley (Conservation Science), and Co-Investigators Dr Matthew Witt (Spatial Ecology) and Dr Rachel Turner (Fisheries/Social Science), who will support Dr Kristian Metcalfe experienced Darwin Research Fellow (Spatial Ecology/Fisheries). UoE will lead the project, coordinating a network of regional and national partners and NGOs, working to strengthen marine resource management. UoE will provide technical training covering aspects of ecosystem-based management, spatial planning, social science research methodologies, community engagement, fisheries enforcement and monitoring. All investigators will be involved extensively throughout the planning, delivery and monitoring of the project, with sufficient budget earmarked for annual in-country meetings (as part of monitoring and evaluation).</p>
<p>Have you included a Letter of Support from this institution? A. Prof David Hosken Dean of Strategic Development (Lead Institution)</p>	<p>Yes</p>

<p>Partner Name and website where available:</p> <p>Ministère de l'Economie Forestière et du Développement Durable (MEFDD) http://www.mefdd.cg/accueil/</p>	<p><i>Details (including roles and responsibilities and capacity to lead the project): (max 200 words)</i></p> <p>The Ministère de l'Economie Forestière et du Développement Durable (MEFDD) is the principle partner in the Republic of Congo. At a national level MEFDDs responsibilities include enforcement of environmental regulations and agreements; conservation of biodiversity, protected area management, including co-management, and controlling natural resource extraction. MEFDD staff, specifically those employed in Conkouati-Douli National Park (supporting letter E) will be involved in training and workshops, as well as providing logistical support and staff to support research initiatives.</p> <p>MEFDD will play a lead role with Rénatura in the development of a community-based IUU fishery reporting system due to their long-standing relationships with fisheries-dependent communities, further building on the institutional capacity and participatory data collection established in Darwin Initiative Project 20-009. Due to its protected area remit MEFDD will also play an important role in highlighting the governmental processes underpinning the implementation of a network of marine protected areas, as well as disseminating key findings and facilitating meetings with relevant Government institutions.</p>
<p>Have you included a Letter of Support from this institution? B. Emile Opika Director General of MEFDD (Partner 1)</p>	<p>Yes</p>

<p>Partner Name and website where available:</p> <p>Wildlife Conservation Society (WCS) www.wcs.org</p>	<p><i>Details (including roles and responsibilities and capacity to lead the project): (max 200 words)</i></p> <p>The Wildlife Conservation Society (WCS) is an international non-profit established in 1895 that saves wildlife and wild places worldwide through science, conservation action and education. WCS's global conservation program is active in landscapes and seascapes in 60 countries, and has been present in the Republic of Congo since 1991 and Gabon since 1985, serving as technical advisor to both Governments for the management of their extensive network of protected areas.</p> <p>WCS has been a key in-country partner for UoE-led Darwin Initiative Projects 17-005 and 20-009 and will continue to provide technical support for all aspects of the project, acting as facilitator and fund administrator for the local side of the project. The WCS Congo Country Programme (WCS-RoC) will provide logistical support in-country and will be responsible for the coordination and implementation of fisheries surveillance/enforcement in Conkouati-Douli National Park. The WCS Gabon Country Programme (WCS-GAB) in collaboration with ANPN will support technical training through an international exchange program to improve institutional capacity and legacy (supporting letters D and G).</p> <p>WCS will disseminate key findings and reports to different target audiences and will be responsible for the facilitation of meetings with relevant Government institutions to increase awareness and provide policy recommendations.</p>
<p>Have you included a Letter of Support from this institution?</p> <p>C. Mark Gately Director WCS Congo Country Programme (Partner 2)</p> <p>D. Gaspard Abitsi Director WCS Gabon Country Programme (Partner 3)</p> <p>E. Dr Hilde Vanleeuwe Coordinator of Conkouati-Douli National Park (Partner 4)</p>	<p style="text-align: center;">Yes</p>

<p>Partner Name and website where available:</p> <p>Rénatura http://www.renatura.org/</p>	<p><i>Details (including roles and responsibilities and capacity to lead the project): (max 200 words)</i></p> <p>Association de Conservation de la Biodiversité (Rénatura) is a Congo-based non-governmental organisation (NGO) established in 2000 employing ~30 staff that promote sustainable development through biodiversity conservation and outreach activities, using sea turtles as a flagship species. Its inter-disciplinary team has well-established relationships with local communities as a result of its long-term: (1) marine turtle nesting beach monitoring program established in 2001, conducted along 60% of Congo's coastline; (2) participatory bycatch monitoring established in 2005 in 7 (25%) small-scale fishing communities; and (3) education and outreach delivered to ~19,000 children to date. Consequently, Rénatura is well placed to develop community-based solutions to fisheries and biodiversity conservation challenges, and possesses a sensitive understanding of the local social, political, economic and ecological issues. Rénatura staff will be involved in training and workshops, providing logistical support and staff to support research initiatives.</p> <p>Rénatura and WCS have long-established working relationship, and established a knowledge and data exchange partnership with the UoE during Darwin Project 20-009. Rénatura will disseminate key findings to different target audiences through its existing outreach and awareness raising initiatives (e.g. schools, government, industry); and in collaboration with WCS will facilitate meetings with relevant Government institutions to increase awareness and provide policy recommendations.</p>
<p>Have you included a Letter of Support from this institution?</p> <p>F. Nathalie Bréheret Director of Rénatura (Partner 5)</p>	<p>Yes</p>

<p>Partner Name and website where available:</p> <p>ANPN www.gabon-nature.com/</p>	<p><i>Details (including roles and responsibilities and capacity to lead the project): (max 200 words)</i></p> <p>Agence Nationale des Parcs Nationaux (ANPN) is the National Parks Agency in Gabon and its responsibilities include conservation of biodiversity and protected area management, including enforcement. ANPN are responsible for co-ordinating and permitting all research in protected areas and works closely with WCS to inform the management of its extensive network of marine and terrestrial protected areas, through applied research and community engagement.</p> <p>There is strong governmental support to monitor and control illegal and industrial fishing activities in Gabon and so ANPN has a well-established and funded fisheries enforcement program. Consequently, ANPN in collaboration with WCS-GAB are best placed to deliver region specific training courses, and will be responsible for providing boat-based, and surveillance training for staff from WCS-RoC and MEFDD. This will be achieved through an international exchange program taking place at Mayumba National Park, which borders the Republic of Congo's only marine protected area Conkouati-Douli National Park. Given that ANPN and MEFDD organisations are often targeting the same illegal industrial fishing vessels this holds tremendous potential for monitoring the success of extended enforcement initiatives, increasing cross-border collaboration and knowledge transfer, and as a result has strong support from all partners.</p>
<p>Have you included a Letter of Support from this institution?</p> <p>G. Prof Lee White Executive Secretary of ANPN (Partner 6)</p>	<p>Yes</p>

10. Key Project personnel

Please identify the key project personnel on this project, their role and what % of their time they will be working on the project. Please provide 1 page CVs for these staff, or a 1 page job description or Terms of Reference for roles yet to be filled. Please include more rows where necessary.

Name (First name, surname)	Role	Organisation	% time on project	1 page CV or job description attached?
Brendan Godley	Project Leader	UoE	10	Yes - CV
Matthew Witt	Co-I	UoE	5	Yes - CV
Rachel Turner	Co-I	UoE	5	Yes - CV
Kristian Metcalfe	Darwin Research Fellow	UoE	89	Yes - CV
Mark Gately	Program Director	WCS-RoC	5	Yes - CV
Hilde Vanleeuwe	Project Director	WCS-RoC	15	Yes - CV
Tim Collins	Program Coordinator	WCS-RoC	15	Yes - CV
Nathalie Bréheret	Project Director	Rénatura	15	Yes - CV
Roch Baganina	Administrator	WCS-RoC	33	Yes - CV
	Field Officer	WCS-RoC	83	Yes - ToR
	Field Officer	WCS-RoC	83	Yes - ToR
	Field Officer	Rénatura	83	Yes - ToR
	Field Officer	Rénatura	83	Yes - ToR

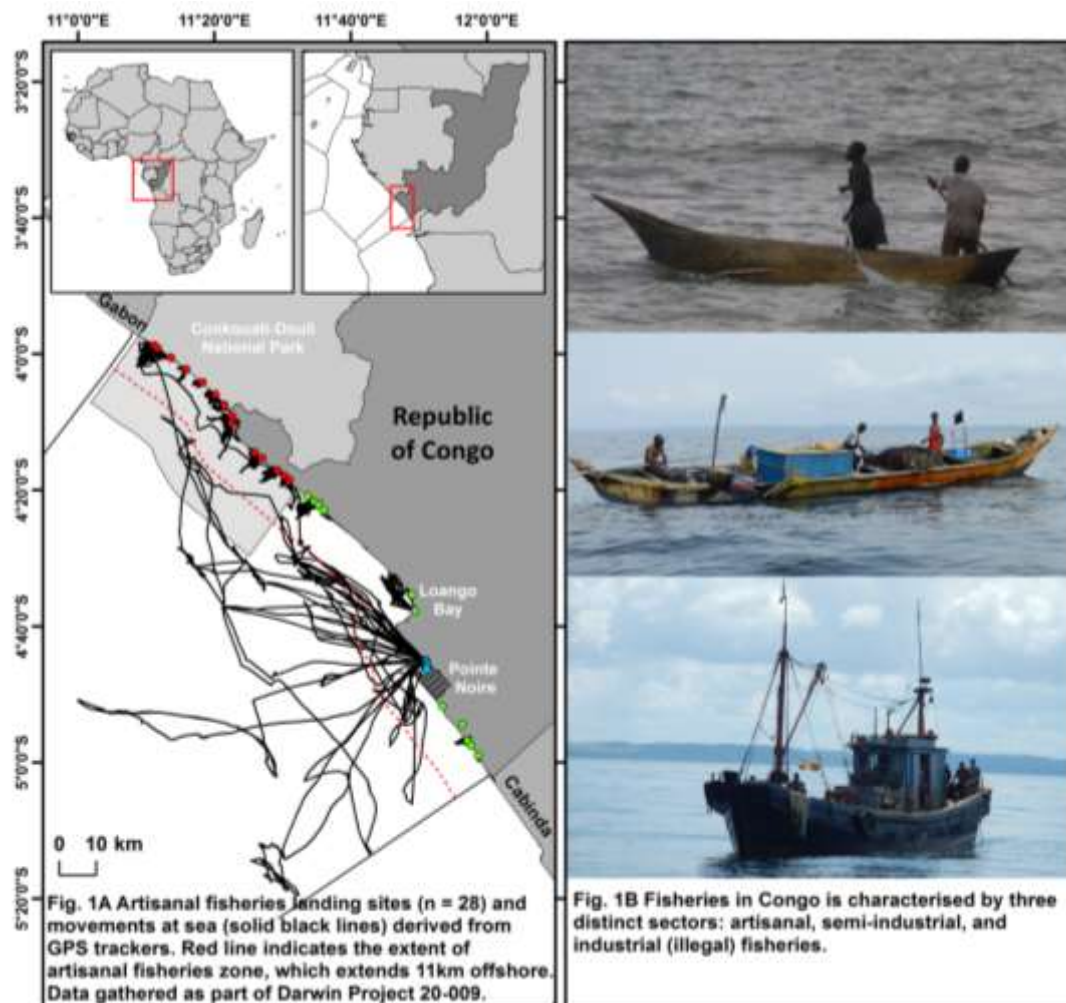
11. Problem the project is trying to address

Please describe the problem your project is trying to address in terms of biodiversity and (essential for DFID projects) its relationship with poverty. For example, what are the drivers of loss of biodiversity that the project will attempt to address? Why are they relevant, for whom? How did you identify these problems?

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 300 words)

The Republic of Congo has significant resources with potential to contribute to food security and poverty alleviation in fisheries-dependent coastal communities where few alternative livelihood opportunities exist. A previous **Darwin Project (20-009; 2015 annual report graded 1 by DI)** supported capacity building in Congo leading to a greater understanding of the socio-economic status and operating behaviour of artisanal fishers (**Fig. 1A**). However, the project highlighted additional work is urgently needed to improve fisheries governance - to promote the sustainable and legal extraction of marine resources by industrial fisheries, and the conservation of marine biodiversity, particularly vertebrates (many covered by **CITES** and **CMS**), for which this region is globally important. These include 11 marine mammal, 4 turtles and 10 shark species.



In particular, participatory research in **20-009** highlighted that, fisheries-dependent communities perceive illegal, unregulated and unreported (IUU) fishing by the industrial fleet (in waters legally reserved for artisanal fishers) as the single greatest threat to livelihoods and sus-

tainability of their fisheries (**Fig. 1B lower**). This project seeks to maintain excellent momentum and understand the drivers behind IUU fishing and improve surveillance and enforcement capacity, thus reducing overexploitation. This will help conserve biodiversity, and augment artisanal fisheries profitability and livelihoods by reducing competition and illegal fishing pressure.

In light of increasing petrochemical exploration and exploitation, which has reduced available and exploitable areas for fisheries and conservation, data will further contribute to the development of an evidence-based marine spatial plan that includes MPAs and fishing zones that minimise impacts on, and conflicts between, competing sectors. Learning from Gabon will be integrated, where the data compiled through **20-009** contributed to the announcement of a new network of MPAs covering 46,000 km² (equivalent to **23% of Gabon's EEZ**) and included the creation of community and industrial fishing zones.

12. Biodiversity Conventions, Treaties and Agreements

Which of the conventions supported by the Darwin Initiative will your project support? 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)	Yes

12b. Biodiversity Conventions

Please detail how your project will contribute to the objectives of the convention(s), treaties and agreements 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)

This project will assist Congo in fulfilling its commitments to the **CBD and CITES**. In particular, it will lead to the development of informed national strategies for the conservation and sustainable use of biological diversity (**Article 6**). This will be achieved through the establishment of a network of marine protected areas (**Article 8**) that protect **10%** of Congo's coastal and marine **key biodiversity areas (Aichi Target 11)**, and **integrates resource-users** into the decision-making process (**Article 10**). By engaging with a broad spectrum of stakeholders to increase awareness (**Aichi Targets 14, 18**) this project will help arrest the underlying causes and drivers behind illegal behaviour and **reduce direct pressure on biodiversity**, by **securing access rights** through the creation of community and industrial fishing zones that reflect actual patterns of resource use, rather than arbitrary delineations (**Aichi Targets 1, 6, 12, 14**). Ultimately, the extensive research, cross border collaboration and increased local and national capacity will lead to more effective governance of marine resources across the region (**Articles 5, 12, 17**), contributing to the objectives of **CITES** and **CMS** by reducing bycatch of marine turtles (**Appendix I**) and sharks (included on **Appendix II**), the latter of which are finned and **illegally exported**.

12c. Is any liaison proposed with the CBD/ABS/ITPGRFA/CITES focal point in the host country?

Yes No if yes, please give details:

The focal point for CBD and CITES is Emile Opika the Director General of **MEFDD**, who fully supports the implementation of the project (see supporting letter B).

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 – this may be a repeat from Stage 1, but you may update or refine as necessary. Tracked changes are not required.)

The project focuses on **three priority areas** highlighted during Project **20-009** and in pre-bid consultation among partners:

1. Capacity Building: Training will build further technical expertise in **socio-economic data collection, biodiversity monitoring, and marine spatial planning**. National and local organisations will be targeted to improve **institutional capacity and legacy**, with a particular focus on **enforcement**. To improve effectiveness, investment in training will be supplemented by an **international exchange programme** with enforcement teams operating in Mayumba National Park in neighbouring Gabon. Additionally, **community-based training** in IUU fisheries monitoring will provide fishers' with a legitimate platform and **voice; empowering fishers** to work with local organisations to inform targeted enforcement efforts, and **support legal cases** by contributing data to a **national online IUU reporting database**.

2. Research: Poverty alleviation, food security and reduction of biodiversity loss will be supported by participatory and applied research and policy change:

Fisheries: To inform fisheries management, a detailed profile of spatio-temporal patterns of industrial and IUU fisheries activity will be generated (building upon artisanal fisheries data in **20-009 Fig. 1A**). This will contribute to **stakeholder-led design** of distinct community and industrial fishing zones that reflect patterns of resource use, and so **minimise conflict** and **reduce economic losses** associated with illegal mechanized trawling in waters reserved exclusively for artisanal fisheries. Analysis of industrial and IUU fishing will contribute to a better understanding of their negative impact on species of conservation concern (e.g. dolphin and turtle foraging grounds, building further on research in **20-009**).

Marine Spatial Planning: To provide policy relevant recommendations the project will **engage with stakeholders** to identify targets and management scenarios with a focus on participatory workshops. Trade-offs between differing objectives on biodiversity goals, fisheries livelihoods and resource access will be identified using *Marxan with Zones* conservation planning software and fed back into a **stakeholder-led marine spatial planning process**.

3. Engagement/Environmental Awareness: Continued engagement with stakeholders will lead to greater awareness of regional biodiversity and **maintain access rights** to important fishing grounds. However, increased incidences of IUU fishing suggest responses to several socio-economic drivers, and so there will be a specific focus on industrial fishers. We will

ascertain their knowledge regarding the rules and regulations governing resource use, and their perception of enforcement and risk will be assessed to understand the drivers behind IUU fishing (i.e. risk vs reward). This will involve workshops and participatory research to identify gaps/needs/priorities that will be used to inform management, enact changes to improve marine resource governance, and assess **behaviour change** (resulting from increased engagement and surveillance/enforcement initiatives).

4. Project Monitoring/Evaluation:

SMART indicators will be used to assess progress towards project outcomes detailed in the logframe, and all activities will be monitored and their impact evaluated using a range of **socio-ecological indicators**.

Roles and Responsibility: The project will be managed by a steering group comprised of representatives from each partner, co-ordinated by **UoE**, with logistics supported by **WCS**. The project will train/employ **4 Darwin Field Officers** and **1 experienced Darwin Research Fellow** ([Dr Kristian Metcalfe](#)) based at **CDNP** within **MEFDD**.

14. Change Expected

Detail the expected changes this work will deliver. You should identify what will change and who will benefit a) in the short-term and b) in the long-term.

- 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. Q15 provides more space for elaboration on this.

(Max 300 words)

Currently, less than **3%** of the Congo's EEZ is subject to formal conservation or zoning designation, despite the importance of fisheries to coastal communities and marine biodiversity of global significance. To date much of the investment in the marine realm has focused on petrochemical exploitation, increasing pressure on available and exploitable areas for fisheries and conservation. In the **short-term** the project will resolve conflict in marine space by implementing a **stakeholder-led evidence-based marine spatial plan** that incorporates economically important sectors, protects **10%** of Congo's coastal and marine key biodiversity areas within MPAs (**CBD Aichi Target 11**), and establishes community and industrial fishing zones that reflect actual patterns of resource use (**CBD Aichi Target 6 and 14**). By improving marine resource governance this will have **demonstrable medium-to long-term impacts** on:

Poverty alleviation, with **food security** and **fishing profitability** in focal communities increased as a result of steps taken to ensure **legal harvests**, secure **access rights** and reduce IUU fishing effort and gear loss; with downstream economic benefits in the value chain for traders/fish-processors (an occupation traditionally employing women).

Biodiversity conservation, with overexploitation and illegal take of fisheries resources reduced as a result of more effective fisheries **management** and **modified behavior**. Benefits to biodiversity will be visible through an increase in the diversity and abundance of indicator species and enhanced catches and reduced bycatch in coastal fisheries.

Awareness, resulting from the **participation** of stakeholders involved in marine resource exploitation will promote sustainable and legal fishing practices. Increased **engagement** will

empower stakeholders, promote stewardship and build capacity and legitimacy at different levels, supporting the successful functioning of marine spatial plans and community/industrial fishing zones.

These changes will be facilitated by a strong consortium with long-established relationships coordinated by [Dr Kristian Metcalfe](#) who was also **Darwin Research Fellow** on **DI Project 20-009**.

15. Pathway to poverty alleviation – ESSENTIAL FOR DFID PROJECTS, OPTIONAL FOR DEFRA PROJECTS

Please describe how your project will benefit poor people living in low-income countries. Give details of who will benefit and the number of beneficiaries expected to be impacted by your project. The number of communities is insufficient detail – number of households should be the largest unit used. If possible, indicate the number of women who will be impacted.

(Max 300 words)

Overexploitation of marine resources, conflict and illegal fishing practices resulting from the ineffective management of the industrial fleet is currently threatening **28 fisheries-dependent communities** in the Republic of Congo. This is critical as these communities support an estimated **2,600 small-scale fishers and 35,300 dependents (~ 1,500 households)**, which together with **29,500 associated workers (including traders, 51% of which are female)** represents ~10% of the coastal population. The timing of this project is critical as unsustainable and unregulated levels of fishing are driving degradation of the **natural capital** underpinning local fishing communities, and threatening livelihoods. The **average value of fishing gear lost to trawlers** in 2015 was ~ **\$966 USD per fisher - equivalent to 36-41% of fishers' annual earnings**. Without changes to marine resource governance **economic insecurity and unemployment** in these communities will increase.

This project aims to **alleviate pressure** on these communities, and contribute to multiple **Sustainable Development Goals** by **reducing poverty (Goal 1) increasing food security (Goal 2) and promoting sustainable use (Goal 14)** through: (1) the implementation of a network of MPAs, that will increase the size and abundance of target species, thereby contributing to increase catch-per-unit-effort (CPUE); (2) improving management effectiveness by **securing access rights** for fishers by creating community and industrial fishing zones; (3) **increasing enforcement capacity** thereby **reducing competition and economic losses** associated with gear loss by illegal mechanised trawling in waters reserved exclusively for artisanal fisheries.

Ultimately, the long-term sustainability of the resources that fishers depend on will be strengthened, ensuring a more **stable** and reliable income source, **reduced vulnerability** and **increased resilience**. In addition, increased **engagement** with fisheries-dependent communities will provide a **legitimate platform** and **voice** to **empower stakeholders, build capacity** and **enhance relationships** with Government, promoting improved representation of small-scale fisheries in decisions relating to marine resource management and **stewardship**.

16. 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)

The **long-term viability** of this project will be fostered by the participatory approach to marine resource management, building on existing work undertaken as part of Darwin Project **20-009**. Through an integrated program of capacity building, research, stakeholder engagement and awareness raising this project will provide much-improved **governance** and **stewardship** of marine resources by establishing a community-based monitoring and surveillance program that will support newly **enhanced enforcement capacity** and **reporting**. Prior to project exit, research on small-scale and industrial fisheries will be comprehensive. Thus, equipping national institutions (many of whom are project partners) with the required knowledge to engage with stakeholders to implement marine resource management plans, and interventions to safeguard marine biodiversity and resources.

The **long-term sustainability** will depend on the ongoing commitment of partner organisations. However, given their sustained efforts in-country (>20 years) it is evident that these organisations are committed to building national capacity. Additionally, this project will invest in four **Darwin Field Officers** across partner institutions ensuring that it will not depend disproportionately on any one individual or organisation. Furthermore, three **Darwin Field Officers** trained as part of Darwin Initiative Project **20-009** will support these roles demonstrating that there is sustained institutional support beyond the initial project.

17a. Harmonisation

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

(Max 200 words)

This is a new initiative developed as a result of findings from Project **20-009** led by **UoE**, which highlighted that poor enforcement has resulted in fisheries-dependent communities perceiving illegal, unregulated and unreported (IUU) fishing by the industrial fleet as the single greatest threat to their livelihoods and long-term fisheries sustainability. The economic impact can be devastating, with the average value of artisanal fishing gear lost to illegal trawlers operating in Conkouati-Douli National Park in 2015 representing **36-41% of fishers annual earnings**. This project seeks to build on existing momentum to support key stakeholders to understand the drivers behind IUU fishing, improve enforcement capacity and develop a stakeholder led marine spatial plan that includes distinct community and industrial fishing zones to reduce conflicts. This project involves all of the member organisations of the project **20-009** and has been expanded to include **Rénatura** a Congo-based non-governmental organisation (NGO) that possesses a sensitive understanding of the local social, political, economic and ecological issues, and so is well placed to develop community-based solutions to fisheries and biodiversity conservation challenges. While project **20-009** operated across Congo (a first for **UoE** Darwin work) and Gabon (a second for **UoE**), this project is wholly focussed in Congo.

17b. 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 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.

As per the previous Darwin Projects in Central Africa (Gabon **17-005: £65,000** and Congo and Gabon **20-009: £85,741**), if the opportunity arises for securing additional support to enhance project activities we will, of course, embrace it. There is, however, nothing pending. Extensive match funding is, however, already in place.

18. 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 **UoE** has a strict **ethics policy** and seeks to promote the highest standards of scientific and professional integrity, and to give due consideration to the rights, privacy and safety of communities. As such all aspects of this project are focused on: (1) **reducing poverty and vulnerability**; (2) increasing the **resilience of fisheries-dependent communities**; and (3) ensuring the **conservation and sustainable use** of marine biodiversity and resources.

To achieve these goals this project will be implemented within a strong collaborative and participatory framework with all research subject to approval by the **UoE's Ethics Committee** and the **Ministry of Scientific Research and Technological Innovation** in Congo (which has provided a research permit that is currently valid until 30th September 2016 **Permit N° 023/MRSIT/DGRST/DMAST**). In particular, project partners will follow established guidelines stipulating that researchers must secure free, prior informed consent from participants and emphasise that *'...researchers should not harm the safety, dignity or privacy of the people with whom they work... or who might reasonably be thought to be affected by their research'* (Code of Ethics of the American Anthropological Association 2009). For sensitive topics (i.e. trade, illegal fishing) this will involve using specialised questioning techniques to make it impossible to directly link sensitive data to an individual.

WCS and **Rénatura** are also legally registered charities in the Republic of Congo, operating under MoUs with the Congolese Government and adhering to strict government regulations relating to finance and employment, as well as donor requirements. All partner organisations will apply operational policies covering all aspects of field operations and **welfare**, including: **health and safety**, discrimination, conflicts of interest, anti-bribery and fraud. The **UoE** and **WCS** also operate a **duty of care** policy that requires all employees to submit **extensive health and safety assessments** that are subject to **rigorous review**.

19. 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)

All partners will continually invest significant time and effort in engagement with stakeholders (**government decision makers, biodiversity/planning professionals, fisheries and petrochemical sectors**) to facilitate the establishment of a network of marine protected areas, and the implementation of community and industrial fishing zones.

Through this project we plan to continue to disseminate findings to this network, and to regional organisations in Central Africa and beyond. Using these networks proved extremely successful during Darwin Project **20-009** resulting in requests on data/information/research methodologies from other **WCS** country programs, **IUCN Marine & Coastal Programme**, West and Central Africa, **Rénatura** (pre-partner stage), international NGOs working in biodiversity conservation (e.g. **Principe Trust**, **WWF**), and **MEFDD** as well as environmental consultancies concerned with mitigating the impacts of petrochemical exploration and development activities (e.g. **Five Oceans Environmental Services**, **Biotope**).

A large aspect of our participatory research is focused on the fisheries sector, and so project partners will continue to engage with local communities through public meetings, educational activities and workshops. This will often see us embedding Darwin Project material within those of in-country project partners who possess a sensitive understanding of the local social, political, economic and ecological issues and have extensive knowledge of successful delivery strategies within the host nations (e.g. **Rénatura**).

Using a variety of social media (e.g. press releases, Twitter, Facebook and the [Darwin Initiative Project website](#)) has also proven highly effective in highlighting project findings (and delivering key conservation messages to a global audience. To date the project website has been visited > 2500 times by persons from 30 countries. The **UoE**, **WCS** and **Rénatura** will continue to publicise findings through these outlets as well as engaging with local and national media in the UK and the Republic of Congo.

20. Capacity building

If your project will support capacity building at institutional or individual levels, please provide details of what form this will take and how this capacity will be secured for the future.

(Max 300 words)

Capacity will be secured through the training of Congolese nationals across a number of partner organisations (i.e. **WCS-RoC**, **MEFDD**, **Rénatura**) ensuring that the legacy of the project will not depend disproportionately on any one individual or organisation. In particular, the project aims to increase capacity, awareness and environmental stewardship to support the sustainable use of marine biodiversity and resources by targeting three key groups:

1. Local and national institutions: Training workshops will be given on: **biological and socio-economic sampling methodologies**, **geographic information systems** data manipulation and storage, **fisheries landings surveys**; as well as **data management** and analysis, thereby building technical expertise within national and local organisations. Additionally, regional fisheries surveillance, and the effectiveness of enforcement initiatives will be greatly enhanced through increased **cross-border collaboration** with neighbouring countries (i.e. Gabon), as a result of an annual exchange program. This will contribute to increased knowledge on illegal fisheries behaviour thereby enhancing enforcement capacity at regional scale.

2. Students: **Rénatura** and **MEFDD** currently support/host University students for short periods (up to 4 months) and so opportunities will likely arise to support training of this age group through **internships** and/or **placements** within research teams and partner organisations, thereby enhancing the legacy of the project.

3. Marine resource users: Training artisanal fishers in **IUU data collection** will provide a **stakeholder-led** network to report IUU fishing, leading to more effective and targeted enforcement efforts by local and national institutions. The development of reporting tools together with **participatory research** will reinforce the value of **community engagement** and **traditional knowledge** in both generating an evidence base to support legal cases, as well as promoting the sustainable and **legal use of shared resources**. Additionally, engagement with industrial sector will **increase knowledge of rules and regulations** governing marine resource extraction.

21. 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)

In keeping with the **UoE's** commitment to promote open access to data, findings, tools, and project outputs will be distributed to relevant government institutions responsible for marine resource and protected area management through **WCS's, R natura's** and **MEFDDs** in-country networks. As per **20-009** this project will continue to host detailed information on the projects objectives, research activities, outputs and awareness raising initiatives online through the dedicated [Darwin Initiative Project website](#) in both French and English.

In relation to data collection and management Projects **17-005** and **20-009** have contributed to and/or established a number of electronic databases relating to marine turtle nest beach monitoring, marine vertebrate bycatch and protected area design. These tools will continue to be used throughout the project, further contributing to the scientific evidence base for the implementation of a network of marine protected areas, and community and industrial fishing zones. All outputs, including spatial data will also be deposited with the **Ministry of Scientific Research and Technological Innovation** in the Republic of Congo, which is accessed by governmental organisations.

As part of the **UoE's open access policy** all scientific peer-reviewed publications will be archived in pre-submission format online (Green Standard) within the **UoE's [Open Research Exeter](#)** (**ORE**) online repository, thereby reducing spend on open-access publication costs.

22. Match funding (co-finance)

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: The project has an outstanding level of matched funding in place, equivalent to 47% of the total project cost as follows:

1. Lead organisation (University of Exeter):

- University of Exeter Salaries £XXX
- University of Exeter Overheads £XXX

2. Partner organisations (WCS | R natura):

- Partner Salaries £XXX
- Partner Overheads £XXX

- Partner Travel £XXX
- Partner Operating Costs £XXX

Total Confirmed: £270,108

22b) 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
N/A	N/A	N/A	N/A

22c) None

If you are not intending to seek matched funding for this project, please explain why.

(Max 100 words)

Not applicable.

PROJECT MONITORING AND EVALUATION

MEASURING IMPACT

23. 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.

Project summary	Measurable Indicators	Means of verification	Important Assumptions
<i>(Max 30 words)</i>			
Impact: Poverty alleviation, increased food security and sustainable use of marine biodiversity through improved governance and regulation of fisheries resources and the implementation of an effectively managed marine protected area network.			
<i>(Max 30 words)</i> Outcome: Improved food security, poverty reduction and biodiversity conservation in coastal communities through effective governance of fisheries resources and implementation of evidence-based marine spatial plan that integrates MPAs and fisheries zones.	<p>0.1 Marine protected area network that covers at least 10% of Republic of Congo's EEZ, including community and industrial fishing zones based on robust research and participatory design identified by year 3 Q2 (current baseline 3%).</p> <p>0.2 Increased knowledge of the spatial distribution of industrial and IUU fisheries activity, based on participatory research by year 3 Q2 leading to increased effectiveness and targeted enforcement initiatives to support fisheries regulations (current zero baseline).</p> <p>0.3 Increased knowledge of drivers behind IUU fisheries activity based on participatory research leading will provide decision makers with data to promote more effective governance of marine resources and reduce illegal fishing by year 3 Q2 (current zero baseline).</p>	<p>0.1 Maps of candidate MPAs and fisheries zones (GIS data layers). Submission of reports and maps to Government agencies. Announcements, new legislation relating to designation of MPAs and community/industrial fishing zones. Press releases.</p> <p>0.2 Data collection. Distribution maps (GIS data layers). Government /partner reports relating to creation of community and industrial fishing zones. Peer reviewed publication on fisheries. National Fisheries Management Plan – covering all fisheries sectors (artisanal, semi-industrial, industrial and illegal).</p> <p>0.3 Data collection (IUU status report) Government /partner reports. Peer reviewed publication on IUU fisheries activity/behaviour.</p>	<p>Government remains committed to establishing MPA network, as well as improving fisheries enforcement and developing national fisheries management plan to support the sustainable use of marine resources. Note 1: MEFDD is a project partner, and was involved in identifying priorities, will benefit from capacity building and expansion of staff team and will remain fully involved throughout the project.</p> <p>Host country remains politically stable. Note 2: Congo is generally peaceful and has been stable for several decades as stated by FCO.</p> <p>Fisheries sectors continue to engage in participatory research, and IUU reporting to inform targeted enforcement efforts. Note 3: Project</p>

Project summary	Measurable Indicators	Means of verification	Important Assumptions
	<p>0.4 Economic losses for fishers associated with loss of equipment by industrial and IUU fisheries activity (e.g. nets and buoys) reduced by 50% in focal fishing communities by year 3 Q2, based on more effective surveillance and enforcement efforts (Baseline established during Project 20-009 and re-examined in years 1, 2 and 3).</p> <p>0.5 Number of IUU fisheries infractions reduced by 50% by end of year 3 Q2. (Baseline to be elaborated year 1 and re-examined in year 2 and 3).</p>	<p>0.4 Socio-economic data collection (household surveys, focus groups /fisher surveys to generate baseline data) to monitor effectiveness of interventions, and assess positive or negative impact on economic losses associated with gear loss.</p> <p>0.5 Data collection (IUU reporting data to monitor effectiveness of improved enforcement efforts and increased engagement with industrial fisheries).</p> <p>Note: To support achievement of sustainable development goals all data and reports will be disseminated to project partners for future management.</p>	<p>20-009 engaged with 82% of 28 fishing communities, the majority of which highlighted threat from IUU fishing that led to development of this project. These communities will thus be engaged to contribute to research to address this threat.</p> <p>Retention of key staff / ability to appoint replacements. Note 4: All partner staff involved in Project 20-009 will be engaged in this new project enhancing legacy and capacity of new Darwin Field Officers.</p> <p>No major economic changes / disasters that could affect fisheries management.</p>
<p>Output 1. Marine Spatial Planning: Evidence-based stakeholder-led process resulting in the implementation of a marine spatial plan that includes marine protected areas that protect at least 10% of the Republic of Congo's EEZ as well as community and industrial fishing zones based on realistic goals identified by stakeholder groups, research and participatory design.</p>	<p>1.1 Policy relevant realistic targets and management scenarios identified through a 2-day stakeholder (opening) workshop in year 1 Q1 with findings disseminated to local and national organisations by the end of year 1 Q4. Dissemination (closing) workshop year 3 Q2 will contribute to local and national awareness of project results and outcomes.</p> <p>1.2 Enhanced capacity and technical expertise to deliver a scientifically evidenced marine spatial plan as a result updated Darwin Marine Biodiversity Atlas</p>	<p>1.1 Workshops delivered (materials, number of attendees, certificates). Number of local, national and government agencies present. List of gaps/needs and key criteria to underpin marine spatial planning process disseminated to partners and government agencies.</p> <p>1.2 Number of practical training days. Number of government staff trained.</p> <p>1.3 Workshops delivered (number of attendees). Number of local, national</p>	<p>Partners remain committed to hosting training workshops.</p> <p>Trained individuals remain in employment with partner organisations.</p> <p>Retention of key staff / ability to appoint replacements.</p>

Project summary	Measurable Indicators	Means of verification	Important Assumptions
	<p>(incorporating ≥ 20 new data layers; year 2 Q4) supported by training of 10 new biodiversity/fisheries professionals within government agencies to use data for marine spatial planning by year 3 Q1 (current baseline is 10).</p> <p>1.3 Participatory planning workshop implemented to develop marine spatial plan using available information on marine biodiversity, resource extraction (e.g. petrochemical extraction) artisanal and industrial fisheries data and supported by Marxan with Zones analyses of priority areas, community and industrial fishing zones (2 x 2 day participatory workshop in year 3 Q1). Workshop supported by GIS training in year 1 Q3-Q4 and year 3 Q1.</p>	<p>and government agencies present. Marine spatial plan, candidate maps for the designation of marine protected areas, and community and industrial fisheries zones.</p>	
<p>Output 2. Enforcement Capacity: Increased number and effectiveness of IUU fisheries monitoring, surveillance and enforcement initiatives as a result of increased capacity and technical expertise, leading to increased protection, reduced conflict and fishing pressure in coastal and nearshore waters legally reserved for artisanal fishers.</p>	<p>2.1 Increase in the number of formally trained Congolese boat pilots to ≥ 2 by end of year 3, Q1 (Current number of pilots is 1 and lack of this capacity is a key factor impeding adequate marine enforcement efforts).</p> <p>2.2 Increased capacity for marine surveillance and enforcement initiatives enhanced by marine teams attending study exchange with enforcement teams from WCS and ANPN in Mayumba National Park which borders CDNP in neighbouring Gabon (1 x 10 day training</p>	<p>2.1 Training course (attendance numbers and certificates), and number of practical training days.</p> <p>2.2 Workshops delivered. Training course (attendance numbers and certificates), and number of practical training days.</p> <p>2.3 Number of day's boat operating at sea on surveillance/enforcement patrols (confirmed by GPS logs). Interim reports/maps on distribution of effort, and outcome of boat missions.</p>	<p>Partners remain committed to hosting training workshops and study exchanges to improve fisheries management and reduce IUU fishing effort (Note 5: See supporting letters D and G from WCS-GAB and ANPN).</p> <p>Fishing communities continue to engage in participatory research and data collection.</p>

Project summary	Measurable Indicators	Means of verification	Important Assumptions
	<p>workshop in years 1 and 2 Q2). Training will focus on boat handling, safety, maintenance, surveillance, enforcement techniques and data collection and recording.</p> <p>2.3 Increase in the number of regular enforcement patrols at sea by 200% to a minimum of 3 per month in year 3 (baseline 0-1 per month).</p> <p>2.4 At least 25% of 28 fisheries dependent communities engaged in collecting IUU fishing data to inform targeted enforcement efforts based on participatory data collection by year 2 Q3 (2 x 2 day training workshops in year 1 Q2, current zero baseline).</p> <p>2.5 Effectiveness of increased enforcement and surveillance initiatives on marine biodiversity (ecological spill-overs) and fisheries livelihoods will be assessed in 25% of 28 fishing communities to identify positive or negative impacts on fisheries catches, and economic losses. Baseline generated year 1 and re-evaluated in years 2 and 3. Catch surveys will focus on catch-per-unit-effort, size, length, weight and community composition, which will contribute to monitoring and evaluation towards project outcomes.</p>	<p>2.4 Workshops delivered (attendance numbers). Surveillance underway in focal fishing communities (number of fishers contributing data). Fisher engagement facilitates participatory research.</p> <p>2.5 Fisheries landing surveys (catch-per-unit effort, size, length, weight, species composition). Socio-economic surveys targeted at identifying economic losses (protocol established in project 20-009) Fisher engagement facilitates participatory research.</p> <p>2.6 Training manual. Darwin Project website and analytics of IUU data. Number of partners/government agencies contributing data and accessing database.</p>	

Project summary	Measurable Indicators	Means of verification	Important Assumptions
	<p>2.6 Development of online spatial database (year 1 Q1-Q2) to host IUU data collected by focal fishing communities and surveillance patrols leading to increased knowledge of spatio-temporal trends of IUU fisheries activity. Results will lead to more informed and targeted enforcement efforts (and increased awareness at a national level) by year 1 Q4 (current zero baseline).</p>		
<p>Output 3. Industrial and IUU fisheries: More effective governance and management of fisheries through increased knowledge of the operating behaviour, spatio-temporal patterns of industrial and IUU fisheries activity, leading to a more effective understanding of the scale of conflict with artisanal fishers and overlap with key biodiversity areas and species of conservation concern.</p>	<p>3.1 Baseline knowledge of spatio-temporal patterns of industrial fisheries activity and its conflict / overlap with artisanal fisheries quantified and described. Minimum 5 data layers incorporated into existing Marine Biodiversity Atlas for the Republic of Congo by year 2 Q1-Q4 (current zero baseline).</p> <p>3.2 Baseline knowledge of magnitude and spatio-temporal patterns of IUU fisheries using data collected by fishers engaged in participatory research. Extent of area illegally exploited quantified and described. Minimum 5 data layers incorporated into existing Marine Biodiversity Atlas for the Republic of Congo by year 2 Q3-Q4 (current zero baseline).</p> <p>3.3 Distribution maps for at least 10 species of conservation concern (i.e. sharks, turtles and cetaceans) developed through</p>	<p>3.1 National fisheries action plan. Maps, updated GIS database and Marine Biodiversity Atlas. Deposited with relevant government agencies.</p> <p>3.2 IUU status report, seasonal trends and patterns. Maps, updated GIS database and Marine Biodiversity Atlas.</p> <p>3.3 Species distribution maps, threat layers. Updated GIS database and Marine Biodiversity Atlas for the Republic of Congo.</p> <p>3.4 Partner reports. National species action plans.</p>	<p>Partners continue to collect and share data.</p> <p>Fishing communities continue to engage in participatory research and data collection.</p> <p>Government remains supportive of providing access to industrial fisheries data.</p> <p>Effective / appropriate measures can be identified for both fisheries and bycatch species.</p>

Project summary	Measurable Indicators	Means of verification	Important Assumptions
	<p>analysis of existing available field data (e.g. satellite tracking / boat surveys) and overlap with industrial and IUU fisheries quantified by year 2, Q4 (current zero baseline).</p> <p>3.4 Potential interventions to reduce bycatch in each fishery sector identified, costed, and species action plans developed for marine mammals, sharks, and turtles (year 2 Q3-Q4). Current number of interventions and action plans is zero.</p>		
<p>Output 4. Engagement & Awareness Raising: More effective governance and management of the fisheries resources as a result of increased knowledge and understanding of the drivers behind IUU fisheries (based on participatory research), that can be used to assess behaviour change resulting from increased surveillance and enforcement efforts.</p>	<p>4.1 Engagement with industrial fishing operators (n = 5 companies) underway by year 1 Q3 facilitating awareness raising initiatives and contribution to stakeholder-led marine spatial planning process (Output 1) with participatory research underway in year 1 Q4. Representatives from each industrial fishing operator (n = 5 companies) attend 1-day workshop to establish current knowledge of rules and regulations and the perceived level of enforcement and risk to help understand the drivers behind IUU fisheries activity (1 x 1-day assessment workshop in year 1 Q3). Evaluation workshop in year 2 Q4 following increased awareness raising and enforcement initiatives, current zero baseline).</p>	<p>4.1 Fisher engagement / focus groups / workshops participatory data collection.</p> <p>4.2 Workshops delivered (attendance numbers, training materials). Report on the drivers behind IUU. Evaluation report on level of information retained each year by boat operators to assess behaviour change (e.g. trends in number of recorded infractions elaborated in year 1 and re-examined in year 2 and year 3).</p>	<p>Representatives / owners of industrial boats willing to engage with partner organisations, and explore role of fisheries management.</p> <p>Fishers continue to engage in participatory research and data collection.</p>
<p>Output 5. Project monitoring and evaluation:</p>	<p>5.1 Minimum of 2 steering group / committee meetings with partners each year to</p>	<p>5.1 Steering group / committee meetings and minutes. Interim partner reports on</p>	

Project summary	Measurable Indicators	Means of verification	Important Assumptions
	evaluate progress. Feedback to Outputs & Activities 1-4. 5.2 Submission of half year and annual Darwin Reports. Feedback to Outputs and Activities 1-4.	annual progress towards agreed goals. 5.2 Darwin Reports. Darwin project website updated.	
<p>Activities (each activity is numbered according to the output that it will contribute towards, for example 1.1, 1.2 and 1.3 are contributing to Output 1)</p> <p>1.1 Workshops: Project launch (opening workshop YR1 Q1) and dissemination of outputs (YR1 Q4), closing workshop & dissemination of project results (YR3 Q2).</p> <p>1.2 Darwin Marine Biodiversity Atlas: Data analysis (YR2 Q1-Q3), leading to updated atlas incorporating ≥ 20 new data layers (YR2 Q4).</p> <p>1.3 GIS Training: Field data collection techniques (YR1 Q3-Q4), introduction to biodiversity atlas, GIS data manipulation & tools for ≥ 10 national staff (YR3 Q1).</p> <p>1.4 Marine spatial planning: Spatial prioritisation analysis (YR2 Q3-Q4) and participatory planning workshops with stakeholders (YR1 Q3).</p> <p>1.5 Peer-reviewed paper: Preparation of peer-reviewed paper on stakeholder-led marine spatial planning outputs from participatory workshops (YR3 Q2)</p> <p>2.1 Training: Boat handling, maintenance, surveillance and enforcement techniques, data collection (reporting database), & international exchange (YR1 Q2, YR2 Q2).</p> <p>2.2 Engagement with fishers: ≥ 25% of 28 fishing communities engaged, workshop to identify focal representative at each site established (YR1 Q2).</p> <p>2.3 Field data collection: ≥ 25% of fishing communities engaged in participatory data collection, to report IUU fisheries activity, and assess fisheries catches (YR1-YR3).</p> <p>2.4 IUU fisheries reporting database: Development of online reporting database to manage IUU data (YR1 Q1-Q2.)</p> <p>2.5 Peer-reviewed paper: Preparation of peer-reviewed paper to demonstrate cost-benefits of stakeholder-led IUU reporting (YR3 Q2)</p> <p>3.1 Data analysis: Spatio-temporal patterns of industrial and IUU fisheries activity analysed leading to ≥ 5 new data layers on fisheries sector (YR2 Q1-Q4).</p> <p>3.2 Threat mapping: Increased knowledge of scale conflict/overlap with small-scale fisheries sector, & marine biodiversity, leading to ≥ 10 new data layers (YR2 Q3-Q4).</p> <p>3.3 Biodiversity (species) action plans: Preparation of species action plans for marine mammals, sharks, turtles, with interventions identified & costed (YR2 Q3-Q4).</p> <p>3.4 Policy paper: Preparation of policy paper to government on the fisheries sector, and the socio-economic and ecological impact of IUU fishing activity (YR3 Q1-Q2).</p> <p>4.1 Workshops: ≥ 5 industrial fishing companies engaged to assess baseline levels of rules governing fisheries sector (YR1 Q3) re-evaluated (YR 2 Q4).</p> <p>4.2 Engagement with industrial fishing sector: ≥ 5 industrial fishing companies engaged with participatory research and awareness raising initiatives (YR1 Q4).</p> <p>5.1 Steering committee: Project launch & annual progress meetings (monitoring and evaluation).</p> <p>5.2 Progress reporting: Half year, annual & final reports.</p>			

24. 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 (Q1 starting April 2016)

Activity	No of months	Year 1				Year 2				Year 3	
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Output 1 Marine spatial planning											
1.1 Workshops: <i>Project launch (opening workshop YR1 Q1) and dissemination of outputs (YR1 Q4), closing workshop & dissemination of project results (YR3 Q2).</i>	9	■			■						■
1.2 Darwin Marine Biodiversity Atlas: <i>Data analysis (YR2 Q1-Q3), leading to updated atlas incorporating ≥ 20 new data layers (YR2 Q4)</i>	12					■	■	■	■		
1.3 GIS Training: <i>Field data collection techniques (YR1 Q3-Q4), introduction to biodiversity atlas, GIS data manipulation & tools for ≥ 10 national staff (YR3 Q1).</i>	6			■	■					■	
1.4 Marine spatial planning: <i>Spatial prioritisation analysis (YR2 Q3-Q4), and participatory planning workshops with stakeholders and local national & organisations (YR1 Q3).</i>	9						■	■	■	■	
1.5 Peer-reviewed paper: <i>Preparation of peer-reviewed paper on stakeholder-led marine spatial planning outputs from participatory workshops (YR3 Q2)</i>	6									■	■
Output 2 Enforcement capacity											
2.1 Training: <i>Boat handling, maintenance, surveillance and enforcement techniques, data collection (reporting database), & international exchange (YR1 Q2, YR2 Q2).</i>	30	■	■	■	■	■	■	■	■	■	■
2.2 Engagement with fishing communities: <i>≥ 25% of 28 fishing communities engaged, workshop to identify focal representative at each site established (YR1 Q2).</i>	30	■	■	■	■	■	■	■	■	■	■
2.3 Field data collection: <i>≥ 25% of 28 fishing communities engaged in participatory data collection, to report IUU fisheries activity, and assess fisheries catches (YR1-YR3).</i>	30	■	■	■	■	■	■	■	■	■	■
2.4 IUU fisheries reporting database: <i>Development of online reporting database to manage IUU data (YR1 Q1-Q2.)</i>	6	■	■			■	■			■	
2.5 Peer-reviewed paper: <i>Preparation of peer-reviewed paper to demonstrate cost-benefits of stakeholder-led IUU reporting (YR3 Q2)</i>	6									■	■

Output 3 Fisheries											
3.1 Data analysis: <i>Spatio-temporal patterns of industrial and IUU fisheries activity analysed leading to ≥ 5 new data layers on fisheries sector (YR2 Q1-Q4).</i>	12										
3.2 Threat mapping: <i>Increased knowledge of scale conflict/overlap with small-scale fisheries sector, & marine biodiversity, leading to ≥ 10 new data layers (YR2 Q3-Q4).</i>	6										
3.3 Biodiversity (species) action plans: <i>Preparation of species action plans for marine mammals, sharks, turtles, indicating scale of threat, with interventions identified & costed (YR2 Q3-Q4).</i>	12										
3.4 Policy paper: <i>Preparation of policy paper to government on the fisheries sector, and the socio-economic and ecological impact of IUU fishing activity (YR3 Q1-Q2).</i>	6										
Output 4 Engagement & Awareness Raising											
4.1 Workshops: <i>≥ 5 industrial fishing companies engaged to assess baseline levels of rules governing fisheries sector (YR1 Q3) re-evaluated (YR 2 Q4).</i>	6										
4.2 Engagement with industrial fishing sector: <i>≥ 5 industrial fishing companies engaged with participatory research and awareness raising initiatives (established YR1 Q4).</i>	24										
Output 5 Monitoring & Evaluation											
5.1 Steering committee: <i>Project launch & annual progress meeting (monitoring and evaluation).</i>	6										
5.2 Progress reporting: <i>Half year, annual & final reports.</i>	6										

25. 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 project's 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)

This project will use a range of **socio-ecological indicators** to monitor and evaluate the **positive and negative outcomes** on stakeholder groups, marine biodiversity and focal communities.

1. Stakeholder-led marine spatial plan (Output 1): will be evaluated in terms of the number of workshops in which stakeholder attitudes are surveyed (i.e. opinions on MPA size, number, spacing and management zones), synthesis documents that summarise findings, as well as the number of participants from different stakeholder groups (e.g. petrochemical, conservation and fisheries organisations) engaged in research and workshops. Overall achievement though will be evaluated against proportion of EEZ earmarked for zoning for biodiversity conservation and/or marine resource management, from a baseline of 3%.

2. Engagement with fisheries-dependent communities (Output 2) and knowledge of IUU fishing effort (Output 3): will be evaluated in terms of the number of communities engaged in participatory research. The reporting database will allow partners to monitor key indicators including, distribution and number of infractions, associated economic losses (number and value of gear lost), and the number of enforcement patrols undertaken each month. This will allow project partners to identify positive or negative trends in IUU fisheries activity resulting from increased enforcement (**Output 2**) and awareness raising efforts (**Output 4**); as well as the resulting socio-economic impact on fishing communities. Spatiotemporal analysis of IUU fishing effort (**Output 3**) will also ensure that **enforcement efforts** are **adaptive / reactive to potential changes in behaviour** (i.e. displacement) that may arise as a result of various initiatives implemented during the project.

To identify potential positive and negative '**ecological spill-overs**' on marine biodiversity and fisheries resulting from increased enforcement and awareness raising (**Output 2/3**) landings surveys (i.e. catch-per-unit-effort, species composition, size and weight) will be enacted in focal fishing communities. The **implications for priority species** (i.e. trends in strandings) will be evaluated using the marine vertebrate bycatch database developed as part of Project **20-009**.

3. Engagement with industrial fisheries (Output 4): will be evaluated in terms of the number of companies and participants engaged in the project and participatory research. The impact of this engagement will be evaluated using a before-after control-impact approach to monitor changes in attitudes (perception of enforcement) and behaviour (number of infractions) as well as their retention of rules and regulations governing marine resource use. This will allow partners to refine their strategies to determine whether a single initiative (enforcement) or combination of initiatives (enforcement and awareness) is the most effective means to reducing illegal fishing effort.

Roles & Responsibilities: The **UoE** will be responsible for the design and coordination of monitoring activities, the training of staff, and analysis of data to support the evaluation of project activities. The progress of project activities against key indicators will be appraised by a **Darwin Steering Committee** consisting of representatives from each partner organisation, which will meet twice each year. The **Darwin Research Fellow** will circulate minutes from these meetings as well quarterly interim reports to the Steering Committee and, where necessary, remedial action taken.

Total budget for M&E	£5,175
Percentage of total budget set aside for M&E	~1.7%

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. You should also ensure you have read the 'Finance for Darwin' document and considered the implications of payment points for cash flow purposes.

NB: The Darwin Initiative cannot agree any increase in grants once awarded.

26. Value for Money

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 project budget was calculated in conjunction with the finance departments of each partner organisation and so reflects the essential costs to achieve the projects goals. The budget was designed in line with **DFIDs 3Es Framework** (*Economy, Efficiency and Effectiveness*) and informed by two decades of in-country research, project management and delivery by the project partners.

The project has already **secured significant matched funds (~47%)**. This in large part is due to the extensive commitment of project partners. **WCS** and **Rénatura** have contributed significant human resources in kind, with requested funding for staff largely limited to overheads, Darwin Field Officers (x 4 persons) and administration of funds and logistics (x 2 persons). Both organisations have a strong commitment towards gender equality and building national capacity and so all Darwin Field Officers employed as part of the project will be Congolese, further contributing to the existing staff base trained and employed as part of Darwin Project **20-009**. All UK estate costs, as well as salaries and overheads for Project leaders and Co-Investigators, are included as in kind contributions from **UoE** (x 3 experienced researchers), with requested funding for staff limited to the Darwin Research Fellow. For all partner organisations anticipated inflation of 3% was used to calculate partner salaries in subsequent years, with overhead of 40% used for all salary calculations.

The remaining budget is largely allocated to travel/field costs, training/workshops and monitoring/evaluation required to deliver, and assess progress towards project outputs, with capital spend limited to ~3%. In-country travel and subsistence for UK partners is minimal due to the support of **WCS** and **Rénatura** which provide access to basic infrastructure (e.g. office space / equipment / accommodation / vehicles).

27. Capital items

If you plan to purchase capital items with Darwin funding, please indicate what you anticipate will happen to the items following project end.

(Max 150 words)

Existing investment in capital items purchased as part of Project **20-009** means this project is very low in terms of **capital expenditure (~3%)** with significant funds directed towards human resources, travel/field costs and training/workshops to allow the scale of the work planned. All field-based items are low cost and designed to support long-term fisheries management and will remain in-country post project to allow research initiatives established as part of the project to continue.

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

- ***Email sent FCO 7th October 2015***
- ***Response received FCO 14th October 2015 – Attached***
- ***FCO website reviewed 1st December 2015 – no change in status for coastal region (minor amendments to entry requirements section on 2nd November 2015)***

CERTIFICATION

On behalf of the University of Exeter

I apply for a grant of **£299,435** 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 key project personnel and letters of support.
- I enclose our most recent signed audited/independently verified accounts and annual reports (if appropriate)

Our most recent audited/independently verified accounts and annual report are also enclosed/can be found at <http://www.exeter.ac.uk/about/facts/accounts/>

Name (block capitals)	PROF. BRENDAN J. GODLEY
Position in the organisation	DIRECTOR, CENTRE FOR ECOLOGY & CONSERVATION

Signed**



Date:

1ST December 2015

If this section is incomplete or not completed correctly the entire application will be rejected. You must provide a real (not typed) signature. You may include a pdf of the signature page for security reasons if you wish. Please write PDF in the signature section above if you do so.

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)	Yes
Have you included a 1 page CV for all the key project personnel identified at Question 10?	Yes
Have you included a letter of support from the <u>main</u> partner organisations identified at Question 9?	Yes
Have you been in contact with the FCO in the project country/ies and have you included any evidence of this?	Yes
Have you included a signed copy of the last 2 years annual report and accounts for the lead organisation?	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 2359 GMT on Tuesday 1 December 2015 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 (e.g. 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 (i.e. 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.