



Submit by Monday 3 December 2012

DARWIN INITIATIVE APPLICATION FOR GRANT FOR ROUND 19: 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 post and email to the Project Leader)

Name: Dr Essam Yassin Mohammed International Institute for Environment and Development (IIED)	Address: 80-86 Gray's Inn Road, London WC1X 8NH, UK E-mail address: eymohammed@iied.org Phone: 020 3463 7399
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2. Stage 1 reference and Project title

Economic incentives to conserve Hilsha fish (*Tenualosa ilisha*) in Bangladesh

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

Proposed start date: 04/2013		Duration of project: 3 years			End date: 03/2016	
Darwin request	2013/14	2014/15	2015/16	2016/17	Total	
	£59507	£70430	£78378	£	£208316	
Proposed (confirmed and unconfirmed) matched funding as percentage of total Project cost:						
IIED - secured £50,126 over the whole project period						
BCAS and BAU - £24,174						

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

By the end of the project, an improved mechanism for ensuring sustainable management of Hilsha fishery is put in place, incorporating incentives conditional on compliance with fishing restrictions and other provisions of management plans. These plans are based on ecological and socioeconomic assessment and agreed in a bottom-up participatory process with fisher communities. An effective payment mechanism reduces threats to marine biodiversity and contribute to poverty alleviation through improved targeting of those affected, maintaining a food source for the poor, and enabling continued employment of small-scale fishers in Bangladesh and beyond; Myanmar and India.

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:
Bangladesh (the People's Republic of Bangladesh)

6. Biodiversity Conventions

Which of the three 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
Convention on Migratory Species (CMS)	Yes
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 aims to introduce payment mechanism to incentivize fishers to avoid overfishing and change their attitudes towards biodiversity conservation by raising awareness among fisher communities on the importance of sustainable use of the resource to their livelihood. Therefore, in line with CBD's Decision II/10 of the 1995 Jakarta Mandate on coastal biodiversity, and Aichi Biodiversity Target 6 the project will introduce innovative ways to tackle problems of overfishing and allow recovery of the stocks of both threatened fish species and vulnerable ecosystems and promote sustainable fisheries management and development.

The Tenth Meeting of COP to CMS in Bergen adopted a convention on migratory freshwater fish. The convention recognises that the state of migratory freshwater fish in general and diadromous fish species (that move between fresh and saltwater mainly for reproduction) is worse. The convention calls up on the international community to consider "all reasonable interventions" to halt biodiversity loss. The Department of Fisheries of Bangladesh, in response to high percentage of immature fish; record low catch level and in compliance with its international commitments to conserve its biodiversity introduced economic incentive mechanisms to combat overfishing and tackle biodiversity loss. The project aims to enhance the effectiveness of this initiative.

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

Yes No if yes, please give details:

The Executive Director of BCAS, Dr Atiq Rahman and IIED's Senior Fellow, Dr Saleemul Huq, held a meeting with Mr Mesbah ul Alam, Secretary of the Ministry of Environment and Forest of Bangladesh. Mr Mesbah is the national CBD focal point in Bangladesh. The project team aims to constantly and actively engage Mr Mesbah and his team throughout the project period.

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 3
Surname	Mohammed	Liaquat	Wahab
Forename (s)	Essam Yassin	Ali	Md. Abdul
Post held	Environmental Economist/ Fisheries Expert	Senior Fellow	Professor, Limnology and Aquaculture
Institution (if different to above)	IIED	BCAS	BUA
Department	Sustainable markets	Fisheries	Fisheries Management
Telephone			
Email			

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

Reference No	Project Leader	Title
16-014	Ivan Bond	Co-management of Forests and Wildlife, Bi Doup-Nui Ba National Park
17015	James MacGregor	Harnessing carbon finance to arrest deforestation: Saving the Javan Rhinoceroses
EIDPO030	James MacGregor	Scaling up sustainable conservation through ecotourism and community-based monitoring
18-012	Maryanne Grieg-Gran	Paying local communities for ecosystem services: The Chimpanzee Conservation Corridor
19013	Dilys Roe	Research to policy - building capacity for conservation through poverty alleviation
19023	Steve Bass	NBSAPs: mainstreaming biodiversity and development

9. N/A

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>International Institute for Environment and Development (IIED)</p> <p>www.iied.org</p>	<p>The Tackling Market Failure team of IIED will be responsible for the design of the socio-economic studies, and drawing on experiences in payments for ecosystem services (PES) from around the globe to ensure best practice in relation to effectiveness, equity, efficiency and financial sustainability. The team members, Maryanne Grieg-Gran, Ina Porrás and Essam Yassin Mohammed have extensive experience in reviewing and designing Payments for Ecosystem Services, and Payments for Reduced Emissions from Deforestation and Degradation in Asia, Africa and Latin America which includes two Darwin projects in Vietnam and Uganda. The project leader, Essam Yassin Mohammed, has remarkable work experience as fisheries scientist and head of Fisheries Promotion Unit with the Ministry of Fisheries of the state of Eritrea where in his capacity led on fish stock assessment studies and development and management of both marine and inland fisheries of Eritrea.</p> <p>In addition to his academic and professional experience as fisheries scientist, he has extensive academic and professional experience as environmental economist. His areas of specialities include survey design, PRA, econometrics, economic valuation of ecosystems and fisheries economics.</p>
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<p>Partner Name and website where available:</p> <p>Bangladesh Centre for Advanced Studies (BCAS)</p> <p>http://www.bcas.net/</p>	<p>Details (including roles and responsibilities and capacity to engage with the project): (max 200 words)</p> <p>BCAS will be responsible for social and economic baselines assessment including: wealth ranking, stakeholder mapping, livelihood assessment and preferences for compensation levels and types, fishers' perceptions on Hilsha management and conservation.</p> <p>Mr Liaquat Ali, Senior Fellow at BCAS and former Director General of the Department of Fisheries (DoF) of the Government of Bangladesh, will supervise all field research activities carried out by the Bangladeshi teams: experts of BCAS, and BAU. He will be working closely with the DoF and the CBD focal point of Bangladesh and ensure their engagement in this research throughout the project period.</p> <p>Sarder Shafiqul Alam, a Fisheries Economist and survey design expert, will lead survey design, PRA checklists, provide guidance and training to field enumerators, carry out survey on socio-economics, livelihoods and fishermen performance survey, data processing and analysis, and organize workshops.</p> <p>Dr Anwara Bagum Shelly is an anthropologist and has more than 30 years of experience working with fisher communities both along the Meghna River and the Bay of Bengal. Dr Shelly will lead the community consultation process and coordinate the socioeconomic assessment of the livelihood of the fisher communities.</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>Bangladesh Agricultural University - Department of Fisheries Management, http://www.bau.edu.bd/Home</p>	<p>Details (including roles and responsibilities and capacity to engage with the project): (max 200 words)</p> <p>Bangladesh Agricultural University (BAU), Department of Fisheries Management, Mymensingh is the premier university of catering education in different branches of agricultural science and creating manpower for the agricultural development and natural resources management. The Department of Fisheries Management is one of the four departments of the Faculty of Fisheries, established in 1996, with a mission of providing post graduate education and undertaking advanced research for sustainable exploitation and responsible management of aquatic resources. The colleagues of the department are involved in research on ecology and environment of fish species, biodiversity conservation and sustainable use from inland open and closed water, estuaries, and the Bay of Bengal.</p> <p>Prof Md. Abdul Wahab will contribute to the water quality analysis, food organisms and feeding of Hilsha fish in different stages of life cycles in rivers, estuaries and inshore marine waters. Another partner Prof Zoarder Faruque Ahmed will look into the length- weight distribution, population dynamics, breeding pattern and migration of Hilsha. This important component of the study will inform the design of an effective payment mechanism to conserve Hilsha fish.</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>Department of Fisheries (DoF)</p>	<p>Details (including roles and responsibilities and capacity to engage with the project): (max 200 words)</p> <p>Roles and Responsibilities of the Department of Fisheries (DoF) will include full support and cooperation to the IIED led Bangladeshi research team to conduct the research on Economic incentives to conserve Hilsha in Bangladesh. DoF will provide technical support; including knowledge and information sharing of their on-going Hilsha fishery management project, lessons learned during implementation of the research activities.</p> <p>Experts from the DoF will be consulted in the survey design process, and will play a major role in identifying or mapping stakeholders. The DoF will also play a leading role in the national and regional workshops.</p>
<p>Have you included a Letter of Support from this institution?</p>	<p>Yes</p>

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

12. Problem the project is trying to address

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

The Hilsha (*Tenualosa ilisha*) fishery is by far the largest single species fishery in Bangladesh; providing full time employment for about 450,000 'professional' fishermen and 2.5 million part time fisher folk. Hilsha is the most affordable and preferred fish among the poor; thus contributing to poverty alleviation. But it is feared that the fish stock could collapse in the near future as the fishery is overly exploited. The exploitation rate of Hilsha increased sharply from 0.33 (under exploited) in 1990 to 0.66 (over-exploited) in 2002 (latest available data). As a result Hilsha fish prices hit record high at Rs 1000/kg this year.

This prompted the government to declare four sites in the coastal areas of the country as Hilsha sanctuaries (see figure 1) preventing fishing during the reproductive season. To compensate for lost earnings, the government has started providing "affected" fisher communities (186,000 households) with 30 Kg of rice per household and alternative income generating activities.

However, a preliminary study carried out in March 2012 by the proposal partners identified a number of weaknesses such as mistargeting that reduce the effectiveness of the payment scheme in conserving fish stocks and compensating the poorest fishers. These reflect gaps in knowledge on both the functioning of complex marine ecosystems, and socio-economic characteristics of the fisher communities.

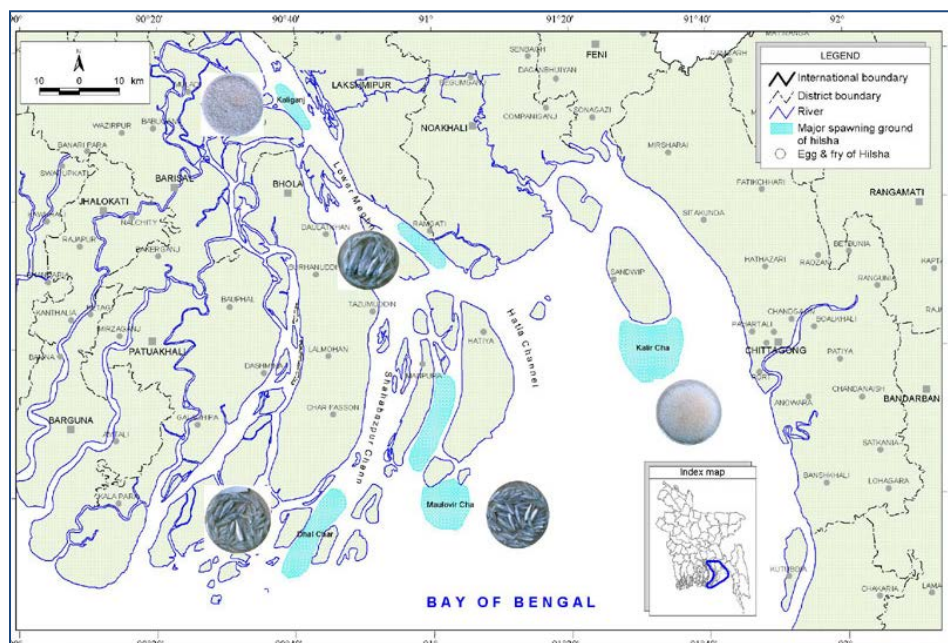


Figure 1 Hilsha fish sanctuaries in the Meghna Estuary

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)

The project aims to enhance the effectiveness of the payment scheme to compensate eligible fisher communities for carrying out clearly defined activities to sustainably manage Hilsha fishery. This will include accurate estimation of the opportunity costs of refraining from fishing during the off-season. It will be an integrated approach, aiming to influence the current top-down institutional framework. Thus it will employ the ecosystem-based approach (EBA) in its information gathering, analysis, consultations, and decision-making and management objectives. And it will employ a livelihoods framework, with activities being identified and agreed in a participatory process with fishing communities, and informed by their knowledge and practice.

The project will have four methodological building blocks to achieve the intended outcomes:

1. Ecological and socioeconomic assessment - to comprehend the functioning of complex marine biodiversity and ecosystem, and socio-economic characteristics of the fisher folk communities. This will include the establishment of both social and ecological baseline scenarios. Social baselines assessment will include stakeholder mapping, preferences for compensation levels and types, livelihood assessment, and wealth ranking. Ecological baseline assessment will encompass both biological (stock assessment, reproductive cycle, migration patterns), physical and chemical factors of the fishery and their habitat. This step will involve reviewing existing studies and collecting primary data through field surveys.

2. Technical and institutional capacity assessment - of relevant government authorities and communities, ensuring that institutional structures are in place and a properly functioning payment mechanism is sustained after the project ends. This will be done through careful assessment of existing legal frameworks, property rights, national and sub-national technical and institutional capacity, and regulatory approaches, and identifying the gaps. Workshops involving different stakeholders at national and sub-national levels, and interviews with key informants will be conducted.

3. Designing equitable benefit sharing – shaping an effective, legitimate scheme to fairly and equitably distribute payments and biodiversity conservation benefits. This will be mainly fed by information collected in steps (1) and (2) above, but will draw lessons from international experience of similar schemes elsewhere.

4. Making the case for a Hilsha Fish Conservation Fund. - This will include a cost-benefit analysis of conserving Hilsha fish stocks – loss of tax and export earnings, food source versus the costs of restricting fishing now and paying compensation. Hilsha fishery contributes 1 per cent of the country's GDP. The government earns an average of \$630 million from Hilsha export annually. Thus sustainable financing mechanisms through earmarking tax revenue for the scheme and/or an additional levy on exports through private sector engagement will also be explored.

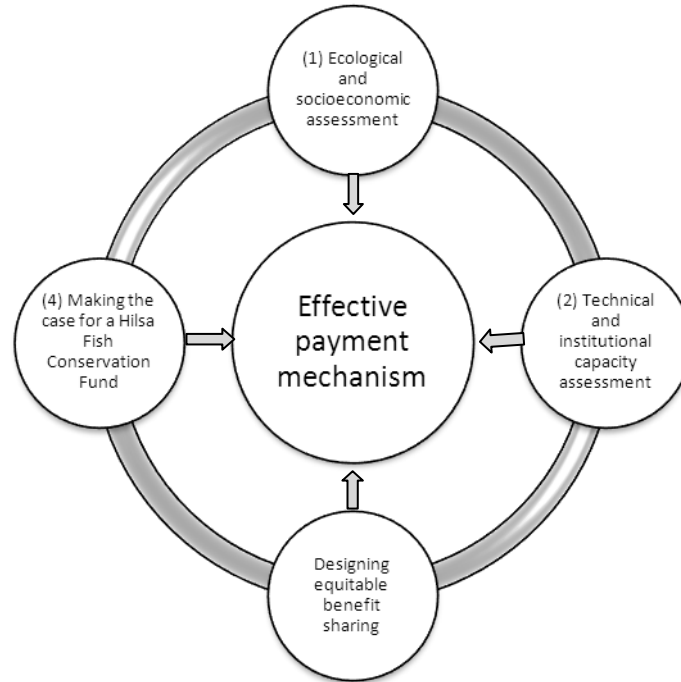


Figure 2 Methodological framework

14. Outcome

Detail what the expected outcomes of this work will be. The outcome should identify what will change and who will benefit. The outcome should refer to how the project will contribute to reducing poverty while contributing to sustainable development and management of biodiversity and its products. A summary statement of this outcome should be provided in question 4 and 24.

(210 words)

By the end of the project, an improved mechanism for ensuring sustainable management of Hilsha fishery is put in place, incorporating incentives conditional on compliance with fishing restrictions and other provisions of management plans. These plans are based on ecological and socioeconomic assessment and agreed in a bottom-up participatory process with fisher communities. An effective payment mechanism reduces threats to marine biodiversity and contributes to poverty alleviation through improved targeting of those affected, maintaining a food source for the poor, and enabling continued employment of small-scale fishers in Bangladesh and beyond; Myanmar and India.

An improved payment mechanism contributes to poverty alleviation in multiple ways:

- Improved targeting of those affected by fishing restrictions to ensure that the poorest fishers are not made worse off and that free-riding is minimised.
- Maintaining a food source that is important for the poor. Hilsha is the main or only source of animal protein for 63 per cent of the population and is the most affordable and preferred fish particularly for the poor
- Enabling continued employment in artisanal fisheries. In Bangladesh, 93 per cent of the catch is supplied by artisanal fisheries. Hilsha fishery alone provides full time employment for about 450,000 'professional' fishermen and 2.5 million part time fisher folk.

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

A budget equivalent to £50,000 over three year period has been allocated from the general DFID Accountable Grant of IIED to do desk based review work on economic incentives for coastal and marine resources conservation. The desk study will review several economic instruments from across the globe and draw lessons for this particular project.

15b. Are you aware of any other individuals/organisations/ projects carrying out or applying for funding for similar work? Yes No

Neither the project leader nor the host country partners are aware of any other individual or organisation carrying out or applying for funding for similar work in Bangladesh.

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.

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?

The implementation of this project will deliver excellent value for money by building on IIED's deep understanding of the context and the players of Bangladesh. IIED has a long established partnership with the host country organisation, BCAS. The project leader leads the thematic team on Fisheries for the Action Research for Community Adaptation in Bangladesh (ARCAB) project which is hosted by BCAS. This will enable the project to operate within an already established partnership portfolio reaching and engaging all relevant sectors of government, civil society and target communities. The Department of Fisheries is a key partner of the project, which further assures early engagement with decision makers.

The robust methodological approach which encompasses ecological and socioeconomic assessment, technical and institutional capacity assessment, designing equitable benefit sharing mechanism and making the case for a Hilsha Conservation Fund – which are deemed as prerequisite for an effective payment mechanism will generate value for money by complementing existing processes and evidences.

The outcome of the initiative will deliver value for money by (a) directly improving the cost effectiveness of the government of Bangladesh repayment scheme, improving targeting the right communities and minimising waste associated with mis-targeting; (b) delivering mechanisms to protect livelihood and income-generating opportunities for over 450,000 fishermen; and (c) enabling the repayment scheme to deliver increased return on investment by protecting the government of Bangladesh export earnings. Through these interventions and approaches the project will deliver both biodiversity conservation and poverty alleviation objectives.

17. Ethics

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

In line with IIED's and the Darwin Initiative's principles, the research project will adopt ethical principles to protect human subjects and researchers. The proposal has been reviewed and approved by IIED's Research Excellence and Ethics Team members. The proposal partners believe that commitments to ethical practices are likely to be more durable if they are intertwined with high quality research which recognise the importance of both scientific and local knowledge, and have practical implications for poverty alleviation and biodiversity conservation. This will be done through:

Respect for persons: includes attaining the free, prior, and informed consent (FPIC) of both researchers and local communities to undertake research activities, and responding meaningfully to alternative visions of how the project should proceed. We aim to give local communities important roles in the production and validation of knowledge. Ensuring that both the learning process and the ownership of outputs is shared between IIED, local partners, and local communities will contribute to an equalizing of power relations, as well as generating research outputs that are more dynamic than conventional research activities.

Beneficence: entails not just protecting people from harm, but actively making efforts to secure their wellbeing. One danger is the risk of excessively raising local expectations about where a research project might lead. We will work hard to manage expectations and not raise unrealistic hopes. Both immediate and long term benefits of the research project will be communicated with all stakeholders at the outset.

Justice: Questions of justice are central to our research project, particularly when we work on equitable distribution of benefits. The project will aim to deliver tangible benefits to poorer households and individuals by enhancing the effectiveness, efficiency and equity of the payment mechanism and thereby contributing to poverty alleviation and conserving biodiversity – which are the primary assets of the poor.

PATHWAY TO IMPACT

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 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)

This project will contribute to the conservation of Hilsha fish and improving the livelihoods of fisher communities along the Meghna River and Ganges Delta by enhancing the effectiveness of the payment mechanism. This will be done through generation of evidence on socio-economics and ecology of Hilsha fishery.

Currently the payment mechanism has some weaknesses which hinders its effectiveness namely; mistargeting and inability to clearly define the critical reproductive period and migration patterns of Hilsha. To overcome these problems, the research project will generate primary data to identify the people affected by the scheme, the potential impacts of payment types and levels on the livelihoods of the communities and the local market, carefully assess the ecology of Hilsha including their reproductive and migratory patterns, assessing the capacity needs to enhance the effectiveness of the scheme.

The project team also recognises that it is very important that sustainable financing mechanism is put in place to ensure the sustainability and continuity of the scheme. To do so, the project will make a case to set up a "Hilsha Fish Conservation Fund". This will be done through earmarking export tax, and active engagement of the private sector.

In the long term, the project will have lasting impacts beyond the borders of Bangladesh. Since Hilsha fishery is a common resource in the region which includes India and Myanmar, we aim to involve decision makers from both countries in a regional workshop planned in the second year of the project. This will lead to a regional cooperation and initiative to conserve Hilsha fishery. Therefore, in the long term, the scheme will contribute to biodiversity conservation and poverty alleviation in Bangladesh, and beyond – Myanmar and India.

19. Pathway to poverty alleviation

Please describe how your project will benefit poor people living in low-income countries. Projects are required to show how positive impact on poverty alleviation will be generated from your project in low-income countries. All projects funded under the Darwin Initiative in Round 19 must be compliant with the Overseas Development Assistance criteria as set out by the OECD. The outcomes of your research must at the very least provide insight into issues of importance in achieving poverty alleviation.

(Max 300 words)

The improved payment mechanism for Hilsha conservation will contribute to poverty alleviation through (1) improved targeting of those affected by fishing restrictions to ensure that the poorest fishers are not made poorer; (2) maintaining a food source that is important for the poor; and (3) enabling continued employment in artisanal fisheries; Hilsha fishery alone provides full time employment for about 450,000 professional fishermen and 2.5 million part-time fisher folks.

However, the project team recognises that in every intervention there are always winners and losers. The team will work to prevent or minimise negative spill-over effects of the payment mechanism. Some of the potential negative spill-over effects identified by the team are (1) the potential impact of the incentives (mainly in-kind rewards) in distorting local markets, (2) impacts on intra-household benefit distribution – where benefits may not be equitably shared between men, women and children within a household, and (3) mistargeting some interest groups. To overcome these problems, the project will carefully assess socio-economic factors – which will include examination of the potential impacts of particular in-kind benefits on the local market; and the preference for types of benefits or incentives by different members of the households. Therefore, while this might be challenging, this project will consider individuals (not households) as undifferentiated utility maximising unit. This is done to ensure that the well-being of affected individuals is not compromised, and the overall benefits to households and community as a whole is maximised.

Hilsha is a common resource of the Bay of Bengal which includes Bangladesh, India and Myanmar. Lessons learned from Bangladesh through this project are expected to have significant contribution to Hilsha fishery management in these countries too. Therefore, the project team will effectively communicate research outputs regionally and will invite researchers, practitioners and policy makers from the region to project workshops.

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)

The purpose of the project is to design an effective payment mechanism to conserve Hilsha fish through strengthening institutions to create enabling environment of the scheme by involving relevant government authorities from the early stages of project initiation, design and execution.

The project will advocate that significant government funding commitments by earmarking export tax earnings for the conservation of Hilsha and sourcing sustainable financing

mechanisms mainly from the private sector are needed. This will challenge the conventional approach of dependence on external funding sources. The Government of Bangladesh has already taken the initiative to allocate financial resources to compensate fishers during off-season. However, the scheme is met with many challenges. The project will work towards making the scheme more equitable, effective and efficient.

Creating a working environment around teamwork, shared visions and a sense of achievement is critical to both reducing staff turnover and to ensuring that when people do leave, there is a sense of pride in adequately training new staff. An emphasis has always and will continue to be placed on the training of trainers as a means to ensure as much as possible of the new skill and knowledge development is retained by project staff and stakeholders.

HIGHLY DESIRABLE

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)

Darwin Initiative logo:

We will acknowledge Darwin Initiative funding and display the Darwin logo prominently in all efforts to communicate the results.

Publications and conferences:

Reports, policy briefing and academic papers which will fully acknowledge Darwin Initiative will be sent directly to a large number of practitioners, policy makers and academics in both developed and developing countries.

- Via IIED's new-publications newsletter.
- Via targeted emails from IIED's central database.
- To the Biodiv-L mailing list managed by IISD

All publications will be made available for free download via IIED's website. BCAS's website, which is highly regarded as the main source of reliable information by academics, practitioners and policy makers in Bangladesh will also host a page dedicated to this project.

Community meetings:

We also aim to conduct community meetings at project sites to communicate project outputs and progress. This activity will be led by Caritas Bangladesh, which has extensive experience of engaging fisheries communities both along the Meghna River and Ganges Delta.

Media work:

We will invite close contacts in the Bangladeshi media to visit the project and interview researchers during the project's lifespan. We will organise a press conference for Bangladeshi journalists at the inception workshop and end of the project, and use press releases to share the results with journalists worldwide on IIED's media list.

Prof Md. Abdul Wahab from the BUA and main partner in this proposal is a renowned columnist mainly writing about Hilsha fishery in the region. The project team will capitalise on this and will write news articles in Bengali language to communicate research activities and outputs with the general public.

22. 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)

While the application of incentive mechanisms for biodiversity conservation is widely used in terrestrial environments, its application in coastal and marine environments is still in its infancy. This is mainly because the socio-economic and ecological context of coastal and marine environments is more complex. For instance, resources (fish) are more mobile and harder to monitor, and property rights are often ill-defined or insecure. If well designed, based on rigorous social and ecological research, payment mechanisms could play a significant role in incentivising fisher or coastal communities to conserve, restore and sustainably manage their resources.

There is a growing interest in the use of economic incentives to protect coastal and marine biodiversity conservation. Therefore, the importance of this project in drawing lessons and showcasing the process of enhancing the effectiveness of payment schemes is very well-timed.

23. 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:

IIED will contribute £50,126 over the whole project period mainly covering staff time and overhead costs

BCAS and BAU will contribute £24,174 including overheads, equipment and communications.

b) Unsecured [N/A]

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

PROJECT MONITORING AND EVALUATION

MEASURING IMPACT

24. 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. Further detail is provided in Annex x of the guidance notes which you are encouraged to refer to. 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.

(49 words)

In the longer term, Hilsha fish stock is maintained, and threats to marine biodiversity are avoided in line with CBD targets (Aichi Biodiversity Targets 6) and the Convention on Migratory Species (CMS). Food security is improved because of improvement in fish stocks and livelihood diversification for poor fisher communities.

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.

By the end of the project, an improved mechanism for ensuring sustainable management of Hilsha fishery is put in place, incorporating incentives conditional on compliance with fishing restrictions and other provisions of management plans. These plans are based on ecological and socioeconomic assessment and agreed in a bottom-up participatory process with fisher communities. An effective payment mechanism reduces threats to marine biodiversity and contributes to poverty alleviation through improved targeting of those affected, maintaining a food source for the poor, and enabling continued employment of small-scale fishers in Bangladesh and beyond; Myanmar and India.

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	Increased number of “impacted” households and individuals involved in the payment scheme
Indicator 2	Equitable benefit distribution system reflects the preference of the fisher communities
Indicator 3	A sustainable national Hilsha fish conservation fund to finance the scheme fits existing institutional and technical capacity
Indicator 4	Exploitation rate (ER) of Hilsha fishery in the lower Meghna reduced to optimal level (0.5)
Indicator 5	The project outputs influence decision making process in Bangladesh and beyond.

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	<ul style="list-style-type: none"> ▪ Baseline and end of project assessment of socioeconomics of Hilsha fishery
Indicator 2	<ul style="list-style-type: none"> ▪ Benefit distribution system report ▪ Benefit distribution system agreed by DoF and fisher communities
Indicator 3	<ul style="list-style-type: none"> ▪ National Hilsha fish conservation trust fund – proposal document
Indicator 4	<ul style="list-style-type: none"> ▪ Ecological baseline and end of project assessment report
Indicator 5	<ul style="list-style-type: none"> ▪ Revision of the payment scheme based on the results of the research project ▪ Discussion on setting up similar schemes in Myanmar and India

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	Overfishing is the main cause of depletion of Hilsha fish stock
Assumption 2	The DoF continues to support the scheme during the project period and is not subject to political (in)stability

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	Improved understanding of current ecological and socio economic characteristics of hilsha fishery
Output 2	Improved understanding of institutional capacity needs, opportunities and gaps to ensure the effective management and functioning of the repayment scheme
Output 3	Enhanced engagement between the Department of Fisheries and fisher communities in the lower Meghna
Output 4	Sustainable national Hilsha conservation fund proposed and agreed by DoF
Output 5	Project outputs are disseminated to influence decision making in Bangladesh and beyond

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

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require multiple indicators to measure each output – if you have more than 3 indicators please just insert a row(s).

Output 1	
Indicator 1	Ecological baseline assessment
Indicator 2	Clear understanding of the costs of refraining from fishing during off season
Indicator 3	Clear understanding of the preference of the fisher communities for payment type and level
Indicator 4	Cost benefit analysis of conserving hilsha fish stocks

Output 2	
Indicator 1	Existing legal and policy frameworks assessed
Indicator 2	Technical and institutional capacity needs identified
Indicator 3	Capacity-strengthening action plan and strategy

Output 3	
Indicator 1	Based on output 1 and 2 above, 'equitable' benefit distribution system is formulated
Indicator 2	Terms of benefit distribution system are agreed by both the implementing governmental agency (DoF) and the impacted communities

Output 4	
Indicator 1	The principles of setting up Hilsha conservation fund in Bangladesh are defined
Indicator 2	Hilsha conservation fund proposal
Indicator 3	Consultation workshop with DoF, Ministry of Finance, Civil Society and the Private Sector is held
Indicator 4	The proposal is amended and agreed

Output 5	
Indicator 1	Number of workshops, research outputs, news articles and press releases
Indicator 2	Regional workshop involving policy makers from Myanmar and India

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 1.1	<ul style="list-style-type: none"> ▪ Report on physical hydrological parameters of Hilsha fishery by quarter 4 of Year 1 ▪ Report on chemical and biological parameters of Hilsha fishery including length-weight relationship by first quarter of Year 2 ▪ Spawning and reproduction seasonality of Hilsha fish by first quarter of Year 2
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Indicator 1.2	<ul style="list-style-type: none"> ▪ report on the opportunity cost of participating in the payment scheme by quarter 4 of Year 1 ▪ report on the cost of running the scheme (administrative/transaction costs) by quarter 4 of year 1
Indicator 1.3	<ul style="list-style-type: none"> ▪ A report on the preference of the public for payment types and levels by quarter 1 of year 2
Indicator 1.4	<ul style="list-style-type: none"> ▪ A paper on cost and benefit of the payment scheme and long term economic feasibility by quarter 2 of year 2
Indicator 2.1	<ul style="list-style-type: none"> ▪ A report on legal and policy frameworks assessment relevant to Hilsha fishery and the implementation of the payment mechanism by quarter 4 of year 1
Indicator 2.2	<ul style="list-style-type: none"> ▪ Technical and institutional capacity needs assessment report by quarter 4 of year 1
Indicator 2.3	<ul style="list-style-type: none"> ▪ Capacity-strengthening action plan drafted by quarter 1 of Year 2
Indicator 2.4	<ul style="list-style-type: none"> ▪ Capacity strengthening strategy developed by quarter 2 of Year 2
Indicator 3.1	<ul style="list-style-type: none"> ▪ Equitable benefit distribution system document and community stakeholder consultation report by quarter 3 of year 2 ▪ Community and stakeholder consultation report
Indicator 3.2	<ul style="list-style-type: none"> ▪ Memorandum of understanding is signed between DoF and fisher communities by quarter 4 of year 2
Indicator 4.1	<ul style="list-style-type: none"> ▪ A preliminary report on the principles of Hilsha conservation fund by quarter 2 of year 2
Indicator 4.2	<ul style="list-style-type: none"> ▪ Hilsha conservation fund proposal produced in the second quarter of year 2
Indicator 4.3	<ul style="list-style-type: none"> ▪ Consultation workshop held in 3rd quarter of year 2
Indicator 4.4	<ul style="list-style-type: none"> ▪ Hilsha conservation fund is agreed and ratified in the 2nd quarter of year 3
Indicator 5.1	<ul style="list-style-type: none"> ▪ 3 national workshops held (one workshop in years 1, 2 and 3) ▪ 2 Presentation in international conferences (in year 2 and 3) ▪ 5 research paper published in academic journals (in year 2 and 3) ▪ 3 press releases (during inception workshop, national/regional workshop, and ratification of the Hilsha conservation fund) ▪ 12 articles in prominent national and regional newspapers (during the project period)
Indicator 5.2	<ul style="list-style-type: none"> ▪ Workshop report ▪ Participation of delegates from Myanmar and India.

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	There is a reasonable level of trust between the fisher communities and the government
Assumption 2	The Government of Bangladesh ratifies agrees with the terms of and ratifies Hilsha Conservation Fund.

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. Any risks and assumptions should also be taken into account during project design.

Output 1	
Activity 1.1	Inception workshop
Activity 1.2	Physical and hydrological assessment of Hilsha fishery
Activity 1.3	Chemical and biological assessment of Hilsha fishery
Activity 1.4	Assessment of spawning and reproductive seasonality of Hilsha
Activity 1.5	Assessment of the opportunity cost of participating in the payment scheme
Activity 1.6	Estimation of the transaction and administrative cost the scheme
Activity 1.7	Assessment of the preference of the public for payment formats (level and type)

Output 2	
Activity 2.1	Existing legal and policy framework analysis
Activity 2.2	Technical and institutional capacity needs assessment
Activity 2.3	Capacity-strengthening action plan
Activity 2.4	Developing capacity strengthening strategy

Output 3	
Activity 3.1	Design of equitable benefit distribution system
Activity 3.2	Workshop on benefit distribution system
Activity 3.3	Signing Memorandum of Understanding (MoU) between DoF and the fisher communities

Output 4	
Activity 4.1	Study on the principles of Hilsha Conservation Fund
Activity 4.2	First draft of Hilsha Conservation Fund document
Activity 4.3	Consultation workshop to refine the Hilsha Conservation Fund document
Activity 4.4	Ratification of Hilsha Conservation Fund

Output 5	
Activity 5.1	National/regional workshop
Activity 5.2	Presentation of research products in major international conferences

Activity 5.3	Submission of research products to academic journals
Activity 5.4	Press releases

25. 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 Improved understanding of current ecological and socio-economic characteristics of Hilsha fishery													
1.1 Inception workshop	1												
1.2 Physical and hydrological assessment of Hilsha fishery	Monthly												
1.3 Chemical and biological assessment of Hilsha fishery	Monthly												
1.4 Assessment of spawning and reproductive seasonality of Hilsha	12												
1.5 Assessment of the opportunity cost of participating in the payment scheme	6												
1.6 Estimation of the transaction and administrative cost the scheme	6												
1.7 Assessment of the preference of the public for payment formats (level and type)	9												
1.8 Potential impacts of payment types on local economy	6												
Output 2 Improved understanding of institutional capacity needs, opportunities and gaps to ensure the effective management and functioning of the scheme													
2.1 Existing legal and policy framework analysis	3												
2.2 Technical and institutional capacity needs assessment	6												
2.3 Capacity-strengthening action plan	1												
2.4 Developing a capacity strengthening strategy	2												
Output 3 Enhanced engagement between the DoF and fisher communities in the lower Meghna													
3.1 Design of equitable benefit distribution system	6												
3.2 Workshop on benefit distribution system	1												
3.3 Signing Memorandum of Understanding (MoU) between DoF and the fisher communities	2												
Output 4 Sustainable national Hilsha Conservation Fund proposed and agreed by DoF													

4.1	Study on the principles of Hilsha Conservation Fund	6													
4.2	First draft of Hilsha Conservation Fund document	6													
4.3	Consultation workshop to refine the Hilsha Conservation Fund document	1													
4.4	Ratification of Hilsha Conservation Fund	6													
Output 5	Project outputs are disseminated to influence decision making in Bangladesh and beyond														
5.1	National/regional workshop	1													
5.2	Presentation of research products in major international conferences	1													
5.3	Submission of research products to academic journals	18													
5.4	Press releases	3													

26. Project based monitoring and evaluation

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 monitoring and evaluation.

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. Monitoring and evaluation 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.

In the initial stage, IIED, BCAS, BAU together with DoF will hold inception workshop which includes discussion on the project design, implementation and monitoring plans. Through this workshop, primary indicators towards achieving the outputs of the project will be identified, agreed and used to determine whether the overall objectives of biodiversity conservation and poverty alleviation will be achieved in this project through enhancement of the payment mechanism, with primary indicators focused on:

- i) Abundance and distribution of Hilsa fishery and assessment of their habitats as indicators of the levels of exploitation rates and overall health of the ecosystem;
- ii) The preferences of the fisher communities for payment formats (type, level and frequency) and how much they are reflected in the enhanced scheme. This is done to improve the wellbeing of the fisher communities and ensure that that 'payment types' do not distort the local economy and contribute to poverty alleviation;
- iii) The number of poorest households included in the payment mechanism; and
- iv) The successful establishment of Hilsa Conservation Fund as a proxy for an effective and sustainable payment scheme and maintaining or sustaining the biodiversity and poverty alleviation gains.

The progress of the project will be monitored against the agreed indicators by experts from IIED, BCAS and BAU. IIED is already assisting BCAS to raise its capacity in monitoring and evaluation. The will capitalise on this, so that future progress can be monitored even after the end of the project.

All project outputs, including baseline data, monitoring data, the identified targets, will be presented at the annual national (including regional) workshops. These outputs will be reported annually to the Darwin Initiative as well.

Project progress will be evaluated through two independent evaluations: one mid-term evaluation which will focus on ecological and socioeconomic assessments and one by the end of the project which will focus on all key deliverables, their coherence and synergies to meet project objectives.

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.

27. 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 main costs are salaries (48% of total budget). IIED will manage project co-ordination alongside designing socio-economic studies. Partners will carry out socio-economic and ecological fieldwork. Both will contribute to workshop organisation and project dissemination. A significant percentage of staff time has been allocated for fieldwork as countries such as Bangladesh are characterised by insufficient availability of data. Thus, generating primary data to inform the process of enhancing the effectiveness of the scheme is crucial.

Days given have been kept as minimal as possible but to still be able to do the work effectively. Match funding in IIED's case will supplement days needed to complete the work. Both partners and IIED have also contributed match funding to cover overhead and office rental costs.

Consultancy costs through BCAS (6% of total) are needed to cover extra 2x key people. Dr Shelly is a key link to engage with the fisher communities. An expert consultant will draft the Hilsa Conservation Fund Document. The consultant will build on the institutional and technical capacity needs assessment and will be supported by IIED and BCAS experts.

Travel costs (8% of total) are based upon 2x trips from IIED to Bangladesh each year, which will help to keep project relationship strong and maintain momentum. Partner travel costs are mainly based on internal travel with some international travel in year 3 for project promotion.

Operating costs total 13%. They are based on fieldwork data collection and analysis, workshop organisation and communications. £12,000 (3%) is allocated for national and regional workshops and presenting project outputs at two international conferences. The regional workshop will invite two delegates each from Myanmar and India. 3% has been set aside to produce final project outputs and to communicate results.

Capital costs total only 1% of budget and include ecological measuring equipment.

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. NA

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

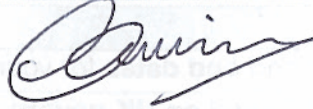
Yes (no written advice)

Yes, advice attached

No

CERTIFICATION 2013/14

On behalf of the trustees/company* of
International Institute for Environment
and Development



I apply for a grant of £208316 in respect of **all expenditure** to be incurred during the lifetime of this project based on the activities and dates specified in the above application.

I certify that, to the best of our knowledge and belief, the statements made by us in this application are true and the information provided is correct. I am aware that this application form will form the basis of the project schedule should this application be successful. *(This form should be signed by an individual authorised by the lead institution to submit applications and sign contracts on their behalf.)*

I enclose CVs for project principals and letters of support. Our most recent audited/independently verified accounts and annual report are also enclosed/can be found at *(delete as appropriate)*: <http://pubs.iied.org/pdfs/G03449.pdf>

Name (block capitals)	ESSAM YASSIN MOHAMMED
Position in the organisation	ENVIRONMENTAL ECONOMIST/ FISHERIES EXPERT

Signed



Date:

03/12/2012

Stage 2 Application - Checklist for submission

	Check
Have you provided actual start and end dates for your project?	✓
Have you provided your budget based on UK government financial years i.e. 1 April – 31 March and in GBP?	✓
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?	✓
Has your application been signed by a suitably authorised individual? (clear electronic or scanned signatures are acceptable in the email)	✓
Have you included a 1 page CV for all the Principals identified at Question 7?	✓
Have you included a letter of support from the <u>main</u> partner(s) organisations identified at Question 10?	✓
Have you checked with the FCO in the project country/ies and have you included any evidence of this?	NA
Have you included a copy of the last 2 years annual report and accounts for the lead organisation? An electronic link to a website is acceptable.	✓
Have you read the Guidance Notes?	✓
Have you checked the Darwin website immediately prior to submission to ensure there are no late updates?	✓

Once you have answered the questions above, please submit the application, not later than midnight GMT on Monday 3 December 2012 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.