



Submit by Monday 1 December 2014

DARWIN INITIATIVE APPLICATION FOR GRANT FOR ROUND 21: STAGE 2

Please read the Guidance Notes before completing this form. Where no word limits are given, the size of the box is a guide to the amount of information required.

Information to be extracted to the database is highlighted blue.

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

Applicant Organisation Name:	University of Sussex
Address:	Sussex House, Falmer
City and Postcode:	Brighton BN1 9RH
Country:	UK
Email:	
Phone:	

2. Stage 1 reference and Project title

Ref 2877	Title Complete Altitudinal Rainforest Transect for research and conservation in PNG
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3. Project dates, and budget summary

Start date: 1 st April 2015	End date: 31 st March 2018			Duration: 3 years
Darwin request	2015/16 £117,117	2016/17 £89,223	2017/18 £85,831	Total request £292,171
Proposed (confirmed and unconfirmed) matched funding as % of total Project cost: 40%				
Are you applying for DFID or Defra funding? (Note you cannot apply for both)			Defra	

4. Define the outcome of the project. This should be a repetition of Question 24, Outcome Statement.**(max 30 words)**

Biodiversity survey of Complete Altitudinal Rainforest Transect (CART) to: prioritise and establish protected forest; improve sustainability for indigenous landowners; enable climate change monitoring; build national capacity in biodiversity data interpretation.

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: Papua New Guinea	Country 2:
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6. Biodiversity Conventions

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

Convention On Biological Diversity (CBD)	Yes
Nagoya Protocol on Access and Benefit Sharing (ABS)	Yes

International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA)	No
Convention on International Trade in Endangered Species (CITES)	No

6b. Biodiversity Conventions

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

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

(Max 200 words)

According to its Fourth Report on the CBD (2010), PNG plans to increase protected areas from 4.5 to 10% of the country in 2011-2015 and improve their management. Our project contributes to these goals. It is also relevant to the CBD Aichi Biodiversity targets for 2011-2020, particularly Target 5 (halving the rate of loss of forests by 2020), Target 11 (protecting minimum areas of important habitats) and Target 19 (building research capacity and knowledge base).

The Nagoya protocol strives for fair and equitable access to genetic resources and appropriate transfer of relevant technologies. Our project will develop extensive libraries of DNA barcodes for insect species, and make them available on-line free of charge to PNG professionals. This information will facilitate insect species identifications and thus biodiversity conservation decisions. We will also establish local expertise for the use of this DNA information in conservation decisions, thereby laying the foundation for future implementation of the Nagoya protocol (not yet signed by PNG).

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

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

The Department of Environment and Conservation of the PNG Government (DEC), which is the focal point for the CBD and CITES treaties in PNG, is one of the project's collaborators.

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 – Leader
Surname	Stewart	Novotny
Forename (s)	Alan J. A.	Vojtech
Post held	Senior Lecturer	Director
Organisation (if different to above)		New Guinea Binatang Research Center
Department	School of Life Sciences	n/a
Telephone		
Email		

Details	Project Partner 2 - Deputy Leader	Project Partner 3 – Team Leader
Surname	Toko	Molem
Forename (s)	Pagi	Kenneth
Post held	Deputy Director	Team Leader
Organisation (if different to above)	New Guinea Binatang Research Center	New Guinea Binatang Research Center

Department	n/a	n/a
Telephone		
Email		

Details	Project Partner 3 – Team Leader	Project Partner 4 – Paraecologist
Surname	Auga	Luke
Forename (s)	John	Grace
Post held	Team Leader	Paraecologist
Organisation (if different to above)	New Guinea Binatang Research Center	New Guinea Binatang Research Center
Department	n/a	n/a
Telephone		
Email		

Details	Project Partner 5 – Researcher	Project Partner 6 – Paraecologist
Surname	Moses	Koane
Forename (s)	Jimmy	Bonny
Post held	Researcher	Paraecologist
Organisation (if different to above)	New Guinea Binatang Research Center	New Guinea Binatang Research Center
Department	n/a	n/a
Telephone		
Email		

Details	Project Partner 7 – PhD student
Surname	Dahl
Forename (s)	Chris
Post held	PhD student
Organisation (if different to above)	New Guinea Binatang Research Center
Department	n/a
Telephone	
Email	

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

Reference No	Project Leader	Title
19-008	A. Stewart	Building biodiversity research capacity to protect PNG rainforest from logging
15-007	A. Stewart	Focus for Fiji: Insect inventories for biodiversity assessment
14-054	A. Stewart	Training the next generation of Papua New Guinean conservation biologist.
14-040	M.R. Peck	Developing a sustainable conservation network for primates in Ecuador – PRIMENET (2005-2008)
EIDPO009	A. Stewart	Consolidating Local Capacity for Biodiversity Surveys in Papua New Guinea.
10-030	A. Stewart	Developing local capacity for biodiversity surveys in Papua New Guinea

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

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

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

<p>Lead institution and website: Dr Alan Stewart University of Sussex http://www.sussex.ac.uk/lifesci/Stewartlab.html</p> <p>Dr Mika Peck University of Sussex http://www.sussex.ac.uk/lifesci/Pecklab.html</p>	<p>Details (including roles and responsibilities and capacity to engage with the project): (max 200 words)</p> <p>Dr Stewart, as Project Leader, will be responsible for overall co-ordination of the project, liaison with overseas and UK partners, financial management and report writing. Dr Stewart will co-ordinate the PNG trainees' visits to the UK and assist in planning training visits to PNG by UK experts. Dr Stewart has led four previous Darwin Initiative projects and so has considerable experience of the issues and challenges involved. He will be involved in training activities both in the UK and PNG.</p> <p>Dr Mika Peck has previously led a Darwin Initiative project in NW Ecuador that combined scientific research, monitoring and sustainable livelihoods to establish protected areas for critically endangered species. In PNG he has experience in developing indigenous livelihoods through ecosystem services. He will engage in training of PNG partners in biodiversity survey, both <i>in situ</i> and as part of the UK training exchange visits. In addition he will support establishment of the base-line altitudinal transect surveys and genetic barcoding project, provide GIS mapping/remote sensing support in defining and establishment of protected areas and support local staff in exploration and initiation of sustainable livelihood alternatives for indigenous communities.</p>
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Partner Name and website where available: Prof. Vojtech Novotny Director New Guinea Binatang Research Center www.entu.cas.cz/png/	Details (including roles and responsibilities and capacity to engage with the project): (max 200 words) <p>New Guinea Binatang Research Center (BRC): Counterpart in our four previous DI projects, principal partner in project management, training and research. BRC is a leading biological research and training institution in PNG with a staff of 24 researchers, students and research technicians that is also active in rainforest conservation. It has established long-term collaboration with UoS as well as the other PNG counterparts. The project team includes a senior researcher (Novotny), his deputy (Toko), one researcher (Moses), two senior paraecologists appointed as team leaders (Auga, Molem), two junior paraecologist (Luke, Koane) - one of which (Luke) is a prospective Hons student - and one PhD student (Dahl). These team members, all of them DI-trained, include lead specialists on all six focal biodiversity taxa, as well as specialists on the work with local communities. In addition to these key staff members, 14 other paraecologists and 3 students will be involved.</p>
Have you included a Letter of Support from this institution?	Yes

Partner Name and website where available: Ms Yvonne Tio, Acting Deputy Secretary PNG Department of Environment and Conservation www.dec.gov.pg/	Details (including roles and responsibilities and capacity to engage with the project): (max 200 words) <p>Department of Environment and Conservation of the PNG Government: This department is responsible for the implementation of CBD and CITES treaties as well as for conservation areas and biodiversity conservation. The department will assist in developing conservation areas and will receive all conservation-related research results from the project which can inform government policy on biodiversity conservation, including compliance with the CBD. It already has a working collaboration with BRC, the project's principal partner in PNG.</p>
Have you included a Letter of Support from this institution?	Yes

Partner Name and website where available: Prof. Osia Gideon Head, Biology Department University of Papua New Guinea www.upng.ac.pg	Details (including roles and responsibilities and capacity to engage with the project): (max 200 words) <p>University of Papua New Guinea (UPNG): PNG's leading university, with the most advanced postgraduate program in Biology. PNG Honours and MSc students working on the project will enrol at UPNG. The university will be responsible for training and supervision of these students, together with BRC where the students will be in residence. V. Novotny (BRC), already appointed as External Professor, will coordinate the training with the head of Department, O. Gideon, as has been the case in the previous DI projects.</p>
Have you included a Letter of Support from this institution?	Yes

Partner Name and website where available: Prof. Teatulohi Matainaho Chairman Research, Science and Technology Council, the PNG Government www.ohe.gov.pg/index.php/about-us/rst-council	Details (including roles and responsibilities and capacity to engage with the project): (max 200 words) Established in 2014, the Research, Science and Technology Council at the Office of Higher Education of the PNG Government is tasked with leading the country's research and development in science and technology so that it contributes meaningfully to economic, technological and social development in PNG. The Council has already provided input in shaping the priorities of the current DI application, and the project will in turn provide feedback on the biodiversity research priorities in the country, based on its results. This will be facilitated by V. Novotny and P. Toko (BRC) who are already appointed Advisors to the Council.
Have you included a Letter of Support from this institution?	Yes

11. Have you provided CVs for the senior team including the Project Leader	Yes
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12. Problem the project is trying to address

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

(Max 200 words)

New Guinea includes the world's third largest rainforest, supporting 5% of global biodiversity. However, 24% of Papua New Guinea's forests have been destroyed in the past 30 years^{ref}. Only 4.5% of land is protected and this protection is ineffectual^{ref}. PNG's biodiversity is also among the least known in the world. For instance, only 0.2 papers per bird species in PNG, compared with 2.9 papers in Australia, were published in the last 50 years^{WoS}. Furthermore, only 24% of the 396 research papers on PNG biology from the last 10 years had a PNG author. Ecological research is hampered by the lack of permanent study sites, especially along key altitudinal and disturbance gradients with background information on their biota to enable environmental change monitoring. Training the next generation of PNG biologists is a top priority as they are better placed to implement conservation measures than overseas experts. In summary, PNG needs (i) new conservation strategies and conservation areas, (ii) more biodiversity research, including new molecular approaches, (iii) better research training of Papua New Guineans, and (iv) better field research facilities. We address all these needs in an integrated program of conservation, research and training for Mt. Wilhelm, a globally important biodiversity hotspot.

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)

New Guinea is regarded as a 'mini-continent', large enough to generate its own species diversity and thus harbouring many endemic species. The central cordillera, including PNG's highest peak Mt. Wilhelm (4509 m asl.), is one of the few tropical mountain areas where an entire rainforest altitudinal gradient up to the timberline remains intact. This makes it one of the world's seven most diverse areas^{ref}, harbouring >5,000 plant species per 10,000km², as well as e.g. >50% of all PNG bird species.

PNG is one of the least scientifically explored countries in the world. It is lacking permanent study sites with documented biodiversity, particularly along altitudinal gradients, essential for

monitoring the impact of climate change on biodiversity^{ref}.

PNG forests are coming under increasing pressure. Conservation projects often fail because indigenous communities, with customary land ownership recognized by law, do not receive adequate benefits for conserving their forests^{ref}. At Mt. Wilhelm, only 700 ha above 3000 m asl are protected as National Park, thereby excluding 80% of bird and 95% of butterfly species present.

Our Complete Altitudinal Rainforest Transect (CART) on the slopes of Mt. Wilhelm will be a field research facility of international significance, providing PNG with the first study system for bio-monitoring of climate change and expanding rainforest conservation to include a large proportion of local biodiversity.

CART will comprise eight research sites, regularly spaced from 200 to 3700 m asl., where (i) plants, ants, moths, butterflies, amphibians and birds are surveyed; (ii) communities provide logistical help by trained field assistants to support research and eco-tourism, (iii) new forest areas are designated for conservation, and (iv) basic field research facilities and accommodation are created.

The biodiversity surveys will include at each elevation: five 20x20m plant plots, 10 amphibian surveys, 50 bird point-counts, five 500m butterfly transects, 10 1m² ant litter samples, and 10 moth light-trapping nights. The surveys will be driven by local researchers, include two local Honours/MSc students, and provide training for field assistants, para-ecologists, students and researchers.

Biodiversity analysis increasingly relies on molecular information^{ref}, particularly in complex situations including altitudinal gradients. 30,000 specimens provided by BRC made PNG the 9th most active country in providing material for insect barcoding^{ref}. Now we will build in-country expertise in the interpretation of these molecular data.

CART will help communities to establish new conservation areas that will bring employment in assistance to research and tourism. We will provide training and guidance to villages on (i) conservation management, (ii) field research methodology, and (iii) logistical support of researchers and tourists.

Biodiversity surveys will be lead by UK and PNG researchers and implemented by local students and para-ecologists. Conservation and training work with communities will be lead by BRC staff with >10 years of experience^{ref}. We will continue our long-established and highly successful programme of bringing para-ecologists to the UK for training. BRC has excellent field and laboratory facilities available to the project. The communities and forest areas proposed for CART have been visited already and confirmed suitable.

14. Change Expected

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

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

(Max 250 words)

Overseas and local researchers, students and para-ecologists, working with indigenous landowners, will establish CART - Complete Altitudinal Rainforest Transect – on the slopes of Mt Wilhelm, the nation's highest peak rated amongst seven global maxima of plant diversity. The CART project will: (i) constitute a unique research facility, providing access to undisturbed rainforests from the lowlands to the climatic limits of forest at 3700m asl., thus facilitating PNG biodiversity research; (ii) include a prominent conservation component, working with the village-based landowners to establish three protected areas which will connect with the existing Mt. Wilhelm National Park to include biologically important, yet currently unprotected areas at altitudes below 3000 m asl.; (iii) bring sustained conservation-based income from research and ecologically-oriented tourism to indigenous communities of ~400 members, currently living

largely in extreme poverty (<\$1.25 per day); (iv) obtain detailed information on plant, insect and vertebrate communities, thereby establishing the country's first comprehensive base-line dataset for monitoring effects of climate change on biodiversity distribution; (v) significantly expand molecular databases for insects, and the local expertise needed for their interpretation, thus facilitating biodiversity identifications in PNG; (vi) have a strong national training component, including 18 para-ecologists (including 6 brought to the UK for intensive training in biodiversity research techniques), 4 postgraduate students (completing their Hons and MSc studies as a part of the project), and 2 junior researchers. The project thus represents a powerful combination of rainforest conservation, indigenous community economic development, research infrastructure development, biodiversity training and biodiversity data collection.

15a. 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, building on our previous work in PNG. Our previous DI projects developed research capacity and trained paraecologists at BRC (10/030, EIDPO009), trained postgraduate PNG students (14/054), one of which is presently the BRC Deputy Director, and tested conservation strategies when assisting a community to develop conservation as a sustainable alternative to logging on their lands (19-008). These projects created a new opportunity for our long-term UoS – BRC collaboration to create CART as a nationally important new research infrastructure, while also ensuring the protection of its biodiversity, improving living standards of resident indigenous communities, and developing the country's research capacity and knowledge of its biodiversity, which is relevant to the monitoring of climate change.

The BRC has already completed pilot research projects on birds and insects in the proposed study area^{ref}, However, these projects (funded by the Czech National Science Foundation) do not include the conservation, training, poverty alleviation and infrastructure development goals of the project proposed here.

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

If yes, please give details explaining similarities and differences, and explaining how your work will be additional to this work and what attempts have been/will be made to co-operate with and learn lessons from such work for mutual benefits:

PNG's Fourth Report on CBD (2010) noted that 73% of conservation areas have minimal or no management structure. This includes also the Mt Wilhelm National Park adjacent to CART. In our opinion there are only two larger rainforest conservation areas in PNG with active plans for management and sustained conservation, namely the Wanang Conservation Area (WCA) which is the focus of our current DI project (19-008), and the YUS Conservation Area in the Finisterre Mts., where management plans have been developed by the Tree Kangaroo Conservation Program (TKCP, www.zoo.org/treekangaroo). The two projects differ in their approach, as WCA focuses on hosting research while YUS focuses on sustainable agriculture, particularly organic coffee, and they have to cope with different threats – logging and hunting respectively. The present project will combine the experience from both projects to address conservation and financial needs along CART. We have already established collaboration between BRC and both WCA and TKCP, which will continue with the aim of developing sound conservation and poverty alleviation strategies for CART.

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.

The project will obtain cost shares from several existing and pending projects (funded by the

the Czech Science Foundation, the Christensen Fund, and the US National Science Foundation) which fund biodiversity research through BRC, as well as from institutional support by Sussex University and BRC. This funding will allow us to achieve the goals of the project with a reduced, cost-efficient budget requested from the DI.

16. Value for money

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

(Max 250 words)

The use of combined teams comprising locally recruited research assistants, paraecologists, postgraduate students and researchers has proved to be one of the most cost-efficient approaches to biodiversity research and conservation in tropical forests, as documented in our own papers^{ref.ref} as well as by independent assessments^{ref.ref}. Our team of paraecologists, trained during past DI projects, is considered one of the three leading teams in the tropics, according to a recent analysis in Science^{ref}.

The development of the present project has benefitted from a long-term collaboration between UoS and BRC, one of the most experienced research and conservation organizations in PNG that has been active for almost 20 years. This experience leads to cost-effective solutions that may not be obvious from a short-term perspective. Furthermore, BRC relies on its own facilities in PNG, including laboratories, accommodation for researchers, and field research bases that are more cost efficient than when rented. The present request for the purchase of a vehicle for BRC (essential for accessing remote and hazardous terrain on the CART) continues in this cost-efficient strategy.

The biodiversity research and PNG student training benefits from significant unpaid contributions of time by numerous overseas researchers from collaborating institutions in the UK (Sussex Univ., RBG Kew, National Museum of Wales), Czech Republic (Czech Academy of Sciences), Australia (Griffith Univ.) and USA (Smithsonian Institution, Minnesota Univ.). Furthermore, our past extensive analyses of molecular sequences for PNG insects qualify the present project for 50% discount for sequencing at the Biodiversity Institute of Ontario (see letter attached).

17. Ethics

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

(Max 300 words)

Our project builds on a long-standing UoS-BRC collaboration in PNG that complied with PNG laws. Our research has been approved and research visa issued by the PNG National Research Institute. Our PNG employees enjoy high working standards, above those required legally, including medical and pension insurance, holidays, and financial assistance for accommodation and education. Work safety and security is taken very seriously (safe driving, security guards as needed, emergency medical assistance etc.). We have had no work-related serious accidents in the past DI projects, despite 10 years of activities by many people, including field work in difficult conditions.

Our DI projects facilitated the careers of PNG counterparts, and placed them in responsible positions. Our previous DI trainees include [Pagi Toko](#), now Deputy Director at BRC with a prominent role in the present project, Dr [Darren Bito](#), Dean of School (Pacific Adventist University), [Rapo Pokon](#), Lecturer (PNG University of Technology), and [Kipiro Damas](#), Senior Researcher (PNG Forestry Research Institute). We also share expertise through training for paraecologists and students.

Our use of PNG biodiversity for non-profit research is guided by five principles: (i) sampling approved by indigenous communities and financially compensated, (ii) exports of specimens

approved by authorities, (iii) duplicate specimens deposited in PNG, (iv) molecular and taxonomic information shared (see Section 22), and (v) local taxonomists trained. Our DI projects trained several top in-country experts on particular taxa: [Legi Sam](#) (butterflies), [Francesca Dem](#) (Auchenorrhyncha), [Martin Mogia](#) (bark beetles), [Kipiro Damas](#) (plants), [Billy Bau](#) (plants), and [Chris Dahl](#) (amphibians).

Our work with indigenous communities is based on the application of their traditional knowledge to modern science^{ref.ref}. BRC is recognised as one of the global leaders in this field^{ref}. The indigenous communities involved in the present project have been working with BRC for 5-10 years, in a stable and mutually beneficial partnership.

18. Legacy

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

(Max 300 words)

The project's legacy will include (i) CART as physical infrastructure (field labs, permanent plots, transects etc.) available for future biodiversity research on the slopes of Mt Wilhelm, the nation's highest peak and biodiversity hotspot, including field laboratory and accommodation from traditional materials, and a series of 20x20 m permanent plant plots; (ii) rainforest conservation areas organized and lead by indigenous landowners, extending the existing Mt. Wilhelm National Park to biologically important lower elevations; (iii) detailed information on plant, insect and vertebrate communities, thereby establishing the country's first comprehensive base-line dataset for monitoring effects of climate change on biodiversity distribution^{ref15}; (iv) expanded molecular (barcode) database for insects, and the local expertise needed for its interpretation, to facilitate identification of unknown fauna in PNG; (v) community management training and infrastructure for supporting visiting researchers and ecologically-oriented tourism, thereby generating conservation-based income for indigenous communities, presently living largely in extreme poverty (defined as <\$1.25 per day): the annual existing combined income of approx. GBP60,000 for ~400 community members will be increased by the project by 20%; (vi) 4 postgraduate students completing their Hons and MSc degrees, (vii) extended biological training for 18 para-ecologists (including in UK for 6 individuals) and 2 junior researchers in PNG, enhancing their career prospects and strengthening their organization, BRC, one of the leading research NGOs in the country; and (viii) improved equipment, including a new 4WD vehicle, for BRC. The project will thus establish a nationally important legacy for the monitoring and analysis of key biodiversity groups, significantly improve the capacity for biodiversity research in PNG, and combine biodiversity conservation with significant and sustainable poverty alleviation for indigenous rainforest owners.

19. Pathway to poverty alleviation

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

(Max 300 words)

Improved economic status for ~400 members of the indigenous communities living in the CART area is an important project goal. The communities live in extreme poverty, defined as daily income <\$1.25, and rely on subsistence slash-and-burn agriculture. At the same time, they own lands harbouring uniquely valuable biodiversity. The premise of our project is that additional income will be an incentive for forest conservation. The income will come from assisting research and ecologically-oriented tourists (including entry and accommodation fees, research assistants, field guides, carriers, camp managers, cooks). The project area is exceptionally suitable for these activities. It represents one of only few complete rainforest altitudinal

gradients in the Old World tropics, and as such is attractive to researchers. There is growing interest in using altitudinal gradients as proxies for climate change. For instance, the number of research papers on [rainforests + altitudinal gradients] published annually increased four times from 2000^{ref} to 2013^{ref}. The project area is presently virtually unknown to tourists, while situated next to one of the top PNG tourist destinations, the summit of Mt. Wilhelm. With trained guides and appropriate promotion, the project area will be able to attract hikers interested in a rainforest experience.

We estimate the combined annual income of the 400-member community at GBP 60,000 and target it to increase by 20%, sustained beyond the life of the project. We have successfully tested this approach elsewhere, in the Wanang community that already generates additional income linked to conservation^{ref, ref}.

The community will also benefit from the training and the management structure created during the project, including a Conservation Board that could help manage other community-level projects, such as village trade store, aid post or school. This approach was successful in the Wanang community that attracted funding for a new school^{ref}, improving local education standards.

19a. Impact to beneficiaries

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

The project will directly financially benefit ~80 personnel in indigenous communities living on <\$1.25 per day; this income will indirectly benefit eight entire communities of ~400 members. Furthermore, professional careers of 18 paraecologists and 2 junior researchers will be enhanced by training and employment on the project, while 4 postgraduate students will obtain their degrees, opening new career prospects for them.

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)

Achieving sustainability of CART as a conservation area and secure base for long-term biodiversity research, supported by sustained income for the indigenous landowners, is the primary goal of this proposal. We will lay strong foundations for the organizational stability and financial sustainability of CART, focusing on leaving a legacy in four key areas: management structure and training of local conservation leaders; skills of field research trainees recruited among rainforest landowners; research infrastructure development; and biodiversity information generation. We envisage that all four of these will attract further research beyond the lifetime of this project. Financing conservation by research and ecological tourism has been successfully tested by BRC^{ref16} and although not a universal solution for PNG, it is a suitable model for CART, with its exceptional biological diversity and location next to the Mt. Wilhelm summit, a top tourist destination in the country.

Impact from our past DI projects has been impressive: 22 of 28 paraecologists continue in research, 4 study university biology; of 12 Hons and MSc students, 9 remain in research and 3 continue in PhD studies; and former researchers now occupy prominent positions in PNG science (see section 17). We expect similar impact from the present project.

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)

UoS and BRC have a broad audience in PNG that is addressed by our proposal on several levels, each appropriate to its audience:

(i) PNG national biodiversity research and conservation policy: Host country partner director V. Novotny and P. Toko, his BRC deputy, are advisors to the Research, Science and Technology Council of the PNG Government, thus being able to directly shape national research policy. They also have access to the Sustainable Environment Programme officers at the Department of Environment and Conservation, with input into conservation policies.

(ii) PNG academic community and universities: BRC regularly trains local biology students and young professionals on the [International Tropical Ecology Course](#), offers 4 internships a year to students from PNG universities, and BRC staff also give guest lectures at these universities. The next course will take place in the CART area whilst the DI project is active, providing an excellent learning opportunity for the students.

(iii) Secondary and primary schools, general public: Paraecologists at BRC excel in communicating environmental messages to students and public, often in Neomelanesian language, through organizing school “science fairs”, and public exhibitions. These activities will continue throughout the DI project, highlighting its activities.

(iv) Local and international media: V. Novotny (serving as a Councillor for the Association for Tropical Biology and Conservation) and P. Toko (PNG country representative for the [ATBC Asian Chapter](#)) were instrumental in shaping the *ATBC Resolution in Support of Biodiversity Education, Research and Conservation in Papua New Guinea* ([Cairns, 2014](#)). The declaration had significant media exposure, internationally e.g. on [Mongabay](#) and domestically on PNG radio, national TV and [press](#). Earlier, DI and other projects were highlighted in an interview given to the [New Scientist](#). We will continue to seek media exposure for the proposed project.

22. Access to project information

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

(Max 250 words)

We are committed to sharing all biodiversity information originating from PNG with PNG experts and public, as well as internationally. We have a strong record of information sharing from previous research including DI projects. BRC made 1,490 DNA sequences from 609 putative species of insects and vertebrates publicly available ([here](#)). Our BRC [portal](#) comprises databases with taxonomic and ecological information on (i) PNG ants (1284 species), (ii) New Guinea birds (718 species), (iii) New Guinea bark beetles with an electronic identification key, (iv) a key to PNG woody plant genera, (v) a database of PNG plants (>2000 specimens), and (vi) a database of trophic interactions between 550 Lepidoptera and 110 plant species.

Additional trophic interaction data are freely available from the [Dryad](#) data depository. Furthermore, all publications contributed to by BRC (including all publications from previous DI projects) are available on the BRC [web page](#).

We will continue these policies in the proposed DI project. In particular, we are planning to generate and publicly deposit >2,000 new barcode DNA sequences, expand our on-line plant and animal databases, and make all publications available to a PNG audience free of charge.

23. Importance of subject focus for this project

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

(Max 250 words)

Our focal area is globally exceptional. Mt. Wilhelm was recognized^{ref} as one of the seven most diverse areas in the world for plants, harbouring >5,000 species per 10,000km². We confirmed that >50% of all PNG bird species live in the area. Mt. Wilhelm is extraordinarily diverse because it comprises a complete undisturbed rainforest altitudinal gradient, from lowlands to alpine zone at 3,700m asl. There are very few such gradients in the Palaeotropics (the nearest is Mt. Kinabalu). New Guinean altitudinal gradients are highly important biogeographically, as they are the only ones east of Wallace's line in the Australian–Oceanian realms^{ref}. Despite this importance, Mt. Wilhelm's diversity remains largely unprotected.

Although climate change is often monitored by tracking the altitudinal distribution of biodiversity, very few such schemes capture the entire variability in rainforests across 3500m altitudinal range, as our study would.

Our approach, combining overseas expertise with locally based training for technicians, paraecologists and students, has been widely recognized as one of the most cost-efficient approaches to biodiversity research and conservation in under-developed tropical countries^{ref.ref}, and our team is considered to be one of the global leaders in this field^{ref}. However, paraecologist training for biodiversity and conservation remains limited, both in PNG and internationally. We consider this to be a missed opportunity for biodiversity conservation and the development of local expertise, particularly in the poorest tropical countries. We believe that the critical situation in tropical conservation requires novel approaches and positive examples^{ref.ref}; our proposed project would provide both.

24. Leverage

a) Secured

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

Confirmed:

- Grant Agency of the Czech Republic, Center for Tropical Biology (Grant No. 14-36098G), 2014-2018, GBP 39,000; ▪ Czech Academy of Sciences, GBP 61,000; ▪ New Guinea Binatang Research Center, GBP 15,750; the University of Sussex, GBP 48,801
- Pending: Christensen Foundation (USA) grant to BRC, 2014-2015 GBP 8,000, US national Science Foundation GBP 21,000

b) Unsecured

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

Date applied for	Donor organisation	Amount	Comments
11 August 2014	US National Science Foundation	GBP 21,000	application pending, to be decided by the end of 2014
1 January 2015	Christensen Foundation (USA)	GBP 8,000	application planned to meet the next deadline

PROJECT MONITORING AND EVALUATION**MEASURING IMPACT****25. LOGICAL FRAMEWORK**

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

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

Impact

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

(Max 30 words)

Forest loss rate is halved by 2020, areas of particular biodiversity importance are conserved, and scientific knowledge and technologies are shared, thus addressing Aichi biodiversity targets 5, 11 and 19.

Outcome

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

(Max 30 words)

Biodiversity survey of Complete Altitudinal Rainforest Transect (CART) to: prioritise and establish protected forest; improve sustainability for indigenous landowners; enable climate change monitoring; build national capacity in biodiversity data interpretation.

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	Quantitative biodiversity data on focal taxa from CART – number of samples and specimens,
Indicator 2	Number of field assistants, para-ecologists and researchers trained; number of person-days of training
Indicator 3	Hons. and MSc completed degrees by PNG nationals
Indicator 4	Community conservation areas established – number and size
Indicator 5	Income generated for indigenous forest owners – amount per year

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.

Verification 1	Research publications, specimens in biological collections and specimen database records
Verification 2	Records of training, tests and personal projects completed to monitor the results of training
Verification 3	Hons. and MSc dissertations and resulting publications
Verification 4	Signed Community Conservation Deeds
Verification 5	Financial reports by Conservation Boards established by local communities

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	Focal area remains accessible by road (for researchers and tourists)
Assumption 2	Sufficient local expertise and interest can be developed for biodiversity surveys
Assumption 3	Sufficient supply of students interested in honours and postgraduate training
Assumption 4	Indigenous communities in the focal project area are interested in declaring forest conservation areas on their land
Assumption 5	Researchers and biologically oriented tourists can be attracted to project areas, providing income from paid services

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	Focal plant and animal taxa (plants, ants, moths, butterflies, amphibians and birds) surveyed along CART as base-line information for climate change impact monitoring, and results published
Output 2	Locally recruited field assistants, BRC para-ecologists and researchers trained in biodiversity surveys and biodiversity data interpretation to assist research along CART
Output 3	PNG Honours and M.Sc. students trained in biodiversity research
Output 4	New forest conservation areas established by local landowners along CART
Output 5	Financial situation of indigenous forest owners improved along CART

Measuring outputs

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

Output 1

Indicator 1	Specimen distribution records along CART collected and databased: on average 1,000 records per focal taxon; 6,000 records in total.
Indicator 2	Molecular information (COI sequences) obtained for 2,000 insect specimens, building molecular identification database for CART biota
Indicator 3	3 papers on CART biodiversity published in international research journals

Output 2

Indicator 1	16 local assistants recruited from CART communities each receive 10 days training per year (480 person-days of training by end of project)
Indicator 2	18 BRC para-ecologists each receive 10 days training per year in biodiversity survey field methods, and the analysis of ecological and molecular data, (540 person-days of training by end of project)
Indicator 3	6 BRC para-ecologists each receive 15 days training in UK in biodiversity survey and molecular barcoding methods, (90 person-days of training across 3 years of project)
Indicator 4	2 PNG researchers each receive 45 days training in biodiversity survey field methods, and the analysis of ecological and molecular data (90 person-days of training by end of project)

Output 3

Indicator 1	2 BSc Honours students trained and graduated by end of project
Indicator 2	2 MSc students trained and graduated by end of project

Output 4

Indicator 1	Two conservation areas within the CART established by local forest landowners, 10,000 ha total, spanning 200-2700 m asl
Indicator 2	Two Conservation Boards established for the Conservation Areas management

Output 5

Indicator 1	80 personnel from CART communities each employed part-time for 20 day-equivalents during lifetime of project, assisting research and tourism (1,600 person-days of employment in total)
Indicator 2	GBP 12,000 of sustainable annual income (GBP 36,000 total during the project) received by CART communities from research and tourism

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	Specimen database records (at www.entu.cas.cz/png/caterpillars/index_n.php?s=xbrc), specimen DNA sequence records (at http://www.boldsystems.org/), publications.
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Indicator 2	Staff records at BRC, staff CVs
Indicator 3	Dissertations and graduation records at the University of PNG
Indicator 4	Records at the PNG Department of Environment and Conservation
Indicator 5	Financial reports of the Conservation Boards

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	Biodiversity sampling yields sufficient numbers of specimens and records (if not, change protocols); DNA extraction and sequencing successful (if not, change specimen preservation methods); data analysis sufficiently interesting for research papers (if not, refocus the field research)
Assumption 2	Training adjusted to different levels (field assistants, para-ecologists, researchers) so that it is attractive, accessible to the target audience, and sufficiently advanced to be useful (if not, based on the trainees' feedback, modify the content)
Assumption 3	Student projects designed so that they are both scientifically novel and feasible, students systematically supervised and problems rapidly rectified based on their feedback.
Assumption 4	Landowners interested in declaring conservation areas as a way of securing research and tourist benefits (if not, either work more with the focal communities, or search for more interested communities in the CART area)
Assumption 5	Communities are sufficiently well organized to provide quality research and tourist assistance (if not, based on customers' feedback, work with Conservation Board to rectify), researchers and tourists are aware of opportunities at CART (if not, advertise more).

Activities

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

Output 1	
Activity 1.1	Establish 8 study sites spaced at 500m elevation intervals from 200 to 3700 m asl; design replicated study plots at each site.
Activity 1.2	Design and test sampling protocols for the six focal taxa (plants, ants, moths, butterflies, amphibians and birds); execute the sampling
Activity 1.3	Process the specimens, sort into species, using morphological and DNA evidence, and database the results
Activity 1.4	Analyse the data, write and publish in research journals

Output 2	
Activity 2.1	Select suitable candidates for training from local communities and BRC
Activity 2.2	Design training programme, then implement training with regular feedback from

	the trainees in PNG
Activity 2.3	Design training programme, then implement training with regular feedback from the trainees in UK
Activity 2.4	Review results of training using practical tests and questionnaires

Output 3

Activity 3.1	Select four candidate students, enrol them at University of PNG and select suitable dissertation topics
Activity 3.2	Continuous supervision during the field work and laboratory training, including weekly seminars
Activity 3.3	Data analysis, dissertation writing, submission and defence
Activity 3.4	Publication of results in research journals

Output 4

Activity 4.1	Conduct detailed consultations with communities interested in conservation; identify land ownership in the field
Activity 4.2	Form Conservation Boards; set rules for Conservation Areas,
Activity 4.3	Sign Conservation Deeds and declare Conservation Areas

Output 5

Activity 5.1	Prepare research and tourist infrastructure (trails, accommodation, research camps)
Activity 5.2	Develop community management for research and tourist activities, structure of fees, financial management, and visitor rules
Activity 5.3	Advertise new research and tourist opportunities
Activity 5.4	Host research and tourist visits and assist in their activities

26. Provide a project implementation timetable that shows the key milestones in project activities. Complete the following table as appropriate to describe the intended workplan for your project.

Activity	No of Months	Year 1				Year 2				Year 3			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Output 1	36	X	X	X	X	X	X	X	X	X	X	X	X
1.1 Establish 8 study sites spaced at 500m elevation intervals from 200 to 3700 m asl; design replicated study plots at each site.	6	X	X										
1.2 Design and test sampling protocols for the six focal taxa (plants, ants, moths, butterflies, amphibians and birds); execute the sampling	18		X	X	X	X	X	X					
1.3 Process the specimens, sort into species, using morphological and DNA evidence, and database the results	12							X	X	X	X		
1.4 Analyse the data, write and publish in research journals	9										X	X	X
Output 2	36	X	X	X	X	X	X	X	X	X	X	X	X
2.1 Select suitable candidates for training from local communities and BRC	6	X	X										
2.2 Design training programme, then implement training with regular feedback from the trainees in PNG	30		X	X	X	X	X	X	X	X	X	X	
2.3 Design training programme, then implement training with regular feedback from the trainees in UK	6			X				X				X	
2.4 Review results of training using practical tests and questionnaires	6											X	X
Output 3	36	X	X	X	X	X	X	X	X	X	X	X	X
3.1 Select four candidate students, enrol them at University of PNG and select suitable dissertation topics	6	X	X										
3.2 Continuous supervision during the field work and laboratory training, including weekly seminars	21		X	X	X	X	X	X	X				
3.3 Data analysis, dissertation writing, submission and defence	9									X	X	X	
3.4 Publication of results in research journals	6											X	X

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Output 4		33	X	X	X	X	X	X	X	X	X	X	X	X
4.1	Conduct detailed consultations with communities interested in conservation; identify land ownership in the field	15	X	X	X	X	X							
4.2	Form Conservation Boards; set rules for Conservation Areas,	15						X	X	X	X	X		
4.3	Sign Conservation Deeds and declare Conservation Areas	3											X	
Output 5		36	X	X	X	X	X	X	X	X	X	X	X	X
5.1	Prepare research and tourist infrastructure (trails, accommodation, research camps)	12	X	X	X	X								
5.2	Develop community management for research and tourist activities, structure of fees, financial management, and visitor rules	12			X	X	X	X						
5.3	Advertise new research and tourist opportunities	9					X	X	X					
5.4	Host research and tourist visits and assist in their activities	21						X	X	X	X	X	X	X

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

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

(Max 500 words)

The project monitoring and evaluation is hierarchical, with specific duties assigned to BRC Team Leaders (Auga, Molem), BRC Deputy Director (Toko), and the project PIs from UoS (Stewart; also Peck) and BRC (Novotny).

The project activities in the communities of forest owners will be monitored by BRC Team Leaders, including progress in conservation (Indicator 4) and community income generation (Indicator 5). The biodiversity research (Indicator 1) will be lead by specialists for each focal taxon (Toko: moths, Luke: butterflies, Moses: ants, Koane: birds, Dahl: frogs, Molem: plants), the data integration, analysis and publication by BRC researchers (Toko, Moses) and PIs (Stewart, Novotny). The training of field assistants will be monitored by BRC Team Leaders, the training of para-ecologists by BRC and UK researchers, and the training of BRC researchers by the project PIs (Indicator 2). Further, the Honours and MSc students will be supervised, and their progress monitored, by V. Novotny (Indicator 3). The financial management will be monitored by BRC's Deputy Director and the two PIs.

Project progress will be assessed quarterly, but informal monitoring will be continuous, as will be the project's activities. All BRC staff members in management positions have previous experience of this from 1 – 4 Darwin projects. BRC staff are empowered to report any problems or concerns directly to PIs. Further, the Team Leaders will be carefully monitoring the feedback from the partner village communities.

The quality of outputs will be monitored using well defined criteria, including the quantity and quality of biodiversity data (Indicator 1), questionnaires and practical tests for training (Indicator 2), the University of PNG scoring system for the progress of students (Indicator 3), progress through predefined stages in the organization of conservation areas (Indicator 4), and income generated by the communities (Indicator 5).

FUNDING AND BUDGET

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

NB: Please state all costs by financial year (1 April to 31 March) and in GBP. **Budgets submitted in other currencies will not be accepted.** Use current prices – and include anticipated inflation, as appropriate, up to 3% per annum. The Darwin Initiative cannot agree any increase in grants once awarded.

28. Cost Effectiveness

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

(max 300 words)

The budget maximizes the share of PNG partners (81% of DI support) while making sure that significant input, in terms of expertise and training, will be accomplished by the UK lead organization. This is achieved by the combination of UK- and PNG-based training by UK experts, as well as an hierarchical training structure in PNG where researchers train para-ecologists and students, who in turn train field assistants.

The project entirely depends on DI funds, but we successfully negotiated significant cost shares (40% of total budget) from the host institutions (UoS and BRC) as well as the existing and pending grants, particularly for salaries, field work costs and the use of existing facilities. The 'Other operating costs' in the UoS budget cover expenses incurred by PNG trainees whilst visiting the UK.

The salaries for PNG personnel and stipends for PNG students represent a significant part of the budget, ensuring wide participation in the project and thus more cost-effective training, addressing larger groups of trainees. The operation of BRC facilities, including accommodation, laboratories, and field stations, represents a significant part of the budget, but since the required facilities are owned by BRC and their use is charged at cost, it remains the most cost-efficient option.

We request the purchase of a Toyota Landcruiser 4WD vehicle for BRC, as its use will be the cheapest transport option between BRC and the CART project area. It will remain in operation after the duration of the project, thus contributing to the sustainability of its operations. Our earlier DI project (10-030) purchased a similar vehicle for BRC in 2001. It has become crucial for BRC operations, and supported all subsequent DI projects. After 15 years of accident-free service in difficult terrain, the vehicle is reaching the end of its lifespan and needs to be replaced.

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**

CERTIFICATION

On behalf of the trustees of The University of Sussex
 (*delete as appropriate)

I apply for a grant of £292,171 in respect of **all expenditure** to be incurred during the lifetime of this project based on the activities and dates specified in the above application.

I certify that, to the best of our knowledge and belief, the statements made by us in this application are true and the information provided is correct. I am aware that this application form will form the basis of the project schedule should this application be successful.

(This form should be signed by an individual authorised by the applicant institution to submit applications and sign contracts on their behalf.)

- I enclose CVs for project principals and letters of support.
- Our most recent signed audited/independently verified accounts and annual report can be found at: <http://www.sussex.ac.uk/finance/>

Name (block capitals)	MISS ROSS DOWSETT
Position in the organisation	Head of Research Development

Signed

Date:

Stage 2 Application - Checklist for submission

	Check
Have you read the Guidance Notes ?	✓
Have you provided actual start and end dates for your project?	✓
Have you indicated whether you are applying for DFID or Defra funding. NB: you cannot apply for both	✓
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 main partner(s) organisations identified at Question 10?	✓
Have you been in contact with the FCO in the project country/ies and have you included any evidence of this?	✓
Have you included a signed copy of the last 2 years annual report and accounts for the lead organisation? An electronic link to a website is acceptable.	✓
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 1 December 2014 to Darwin-Applications@ltsi.co.uk using the application number (from your Stage 1 feedback letter) and the first few words of the project title **as the subject of your email**. If you are e-mailing supporting documentation separately please include in the subject line an indication of the number of e-mails you are sending (eg whether the e-mail is 1 of 2, 2 of 3 etc). You are not required to send a hard copy.

DATA PROTECTION ACT 1998: Applicants for grant funding must agree to any disclosure or exchange of information supplied on the application form (including the content of a declaration or undertaking) which the Department considers necessary for the administration, evaluation, monitoring and publicising of the Darwin Initiative. Application form data will also be held by contractors dealing with Darwin Initiative monitoring and evaluation. It is the responsibility of applicants to ensure that personal data can be supplied to the Department for the uses described in this paragraph. A completed application form will be taken as an agreement by the applicant and the grant/award recipient also to the following:- putting certain details (ie name, contact details and location of project work) on the Darwin Initiative and Defra websites (details relating to financial awards will not be put on the websites if requested in writing by the grant/award recipient); using personal data for the Darwin Initiative postal circulation list; and sending data to Foreign and Commonwealth Office posts outside the United Kingdom, including posts outside the European Economic Area. Confidential information relating to the project or its results and any personal data may be released on request, including under the Environmental Information Regulations, the code of Practice on Access to Government Information and the Freedom of Information Act 2000.