Submit by Tuesday 1 December 2015

DARWIN INITIATIVE APPLICATION FOR GRANT FOR ROUND 22: STAGE 2

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

Information to be extracted to the database is highlighted blue. Blank cells may render your application ineligible

ELIGIBILITY

1. Name and address of organisation

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

Applicant Organisation Name:	Centre for Middle Eastern Plants, Royal Botanic Garden Edinburgh
Address:	20A Inverleith Row
City and Postcode:	Edinburgh EH3 5LR
Country:	UK
Email:	
Phone:	

2. Stage 1 reference and Project title

Stage 1 Ref: **3189**	**Title (max 10 words)** **Reducing environmental degradation through sustainable fuel interventions in Afghanistan**

3. Project description (not exceeding 50 words)

Engaging with rural communities in Afghanistan to prevent environmental degradation by reducing fuelwood collection through more efficient and sustainable fuel interventions, which benefit health (especially women) through reducing indoor smoke. Reduction in fuel required will reduce fuelwood removal and lessen pressure on biodiversity, securing ecosystem services.

4. Country(ies)

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

Country 1: **Afghanistan**

5. Project dates, and budget summary

Start date: 1 April 2016		**End date: 31 March 2019**		**Duration: 3 years**
Darwin request	**2016/17** **£132,004**	**2017/18** **£82,470**	**2018/19** **£89,911**	**Total request** **£304,386**
Proposed (confirmed & unconfirmed) matched funding as % of total Project cost				**45**
Are you applying for DFID or Defra funding? (Note you **cannot** apply for both)		**DFID**		

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

Details	**Project Leader**	**Project Partner 1**
Surname	Miller	Amiri
Forename (s)	Anthony	Habiba
Post held	Director	Country Director
Organisation (if different to above)		COAM
Department	Centre for Middle Eastern Plants	na
Telephone		
Email		

Details	**Project Partner 2**	**Project Partner 3**
Surname	Scanlon	Safi
Forename (s)	Andrew	Farid
Post held	Country Director	BioGas Programme Manager
Organisation (if different to above)	UNEP	BORDA
Department	Post Conflict and Disaster Management	na
Telephone		
Email		

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

Reference No	**Project Leader**	**Title**
EIDPS041	Tony Miller	Darwin Fellowship: Ahmad Jamshed Khoshbeen
EIDPS040	Tony Miller	Darwin Fellowship: Awara Muhammad Hamakhan
EIDPS035	Mark Watson	Darwin Fellowship: Sangeeta Rajbhandary
EIDPS033	Mark Newman	Darwin Fellowship: Mrs Phetlasy Souladeth
EIDPS032	David Harris	Darwin Fellowship: Sydney Ndolo Ebika
EIDPR159	Tony Miller	Darwin Initiative Scoping Award: Building environmental planning capacity, training and data access in Afghanistan

8a. If you answered 'NO' to Question 7 please complete Question 8a, b and c.
If you answered 'YES', please go to Question 9 (and delete the boxes for Q8a, 8b and 8c)

8b. DO NOT COMPLETE IF YOU ANSWERED 'YES' TO QUESTION 7.

Provide detail of 3 contracts/awards held by your organisation that demonstrate your credibility as an organisation and provide track record relevant to the project proposed. These contracts/awards should have been held in the last 5 years and be of a similar size to the grant requested in your Darwin application.

8c. DO NOT COMPLETE IF YOU ANSWERED 'YES' TO QUESTION 7.

Describe briefly the aims, activities and achievements of your organisation. (Large organisations please note that this should describe your unit or department)

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

Lead institution and website:	**Details (including roles and responsibilities and capacity to lead the project): (max 200 words)**
Centre for Middle Eastern Plants (CMEP) **Royal Botanic Garden Edinburgh** **www.cmep.org.uk**	RBGE mission: "explore, conserve and explain plants for a better future" Established in 2009, CMEP's purpose is to expand the Royal Botanic Garden Edinburgh (RGBE) scope of work across the Middle East and SW Asia based upon decades of research and conservation programmes in the region. CMEP works with local partners to tackle contemporary environmental challenges including sustainable development and biodiversity conservation. CMEP has world leading plant conservation, sustainability and capacity development experience regionally, and has successfully completed Darwin Initiative projects in several countries, including Yemen (Socotra) and Iraq. Projects in Afghanistan include botanical and field training with students from Kabul University, conservation assessments, and a formal working relationship with UNEP to develop young Afghan environmentalists, including hosting an Afghan Darwin Fellow. This proposal was initiated by CMEP after assessing baseline botanical data gaps and identifying environmental degradation problems arising from unsustainable collection of woody species in rangelands. The project was developed with COAM and UNEP based upon their in-country implementation and engagement knowledge from community development projects. CMEP will input skills in survey design, plant identification, field training, conservation assessment, and capacity development on conservation and sustainable use, alongside project direction and administration and leading on monitoring and evaluation.
Have you included a Letter of Support from this institution?	Yes

Partner Name and website where available:	Details (including roles and responsibilities and capacity to engage with the project): (max 200 words)
United Nations Environment Programme (UNEP) **www.unep.org/afghanistan/**	UNEP mission: to provide leadership and encourage partnership in caring for the environment by inspiring, informing, and enabling nations and peoples to improve their quality of life without compromising that of future generations. UNEP Afghanistan is the contact point for all major environmental actors in Afghanistan. It is their remit to ensure environmental concerns are considered across all sectors of government and society. Since 2002, UNEP have conducted post-conflict environmental surveys, assisting the Government of Afghanistan to establish the National Environmental Protection Agency (NEPA). Currently, UNEP are coordinating ecological disaster risk reduction, working with communities in the Bamyan area (https://www.youtube.com/watch?v=nLzDdoS0fmQ), addressing climate change adaptation, and have partnered and developed several programmes with COAM and CMEP and have a strong track record on project delivery. UNEP have considerable project management and M&E experience and will oversee in-country logistics, supporting project staff in facilitating working partnerships with government staff ministries. They will develop this project as a case study of building sustainable use practices into business and livelihood improvement. Their experience in providing pragmatic and effective programmes is extensive, and will be valuable in ensuring objectives are met.
Have you included a Letter of Support from this institution?	Yes

Partner Name and website where available:	Details (including roles and responsibilities and capacity to engage with the project): (max 200 words)
Conservation Organisation for Afghan Mountains (COAM) **www.myafghanmountains.org**	COAM mission: to stop degradation of Afghanistan's environment, and ensure a sustainable future for the communities that live in it by: conserving biological diversity, ensuring the sustainable use of renewable natural resources, reducing pollution and wasteful consumption and securing sustainable livelihoods. Founded in 2009 as an Afghan managed local non-profit organisation, COAM work with a range of organisations and government departments to develop and implement projects focussed on improving livelihoods and reducing poverty for rural communities in the Central Highlands of Afghanistan, whilst securing environmental benefits and ecosystem services. COAM have considerable expertise in community engagement and delivering community-level interventions in Bamyan where this project is based, and have pioneered projects developing alternate fuel options –work that resulted in the UNCCD Land for Life 2014 award. (http://www.unccd.int/en/programmes/Event-and-campaigns/LandForLife/Pages/Winners-Land-for-Life-2014.aspx) A Project Coordinator based with COAM will oversee all logistics, M&E, line manage staff, and will be the primary communication point with project managers in both Afghanistan and UK. Two project officers will work under the Project Coordinator; each project officer will deal exclusively with two communities, and be responsible for engagement, local logistics, planning and implementing all monitoring and data collection activities.
Have you included a Letter of Support from this institution?	Yes

Partner Name and website where available:	Details (including roles and responsibilities and capacity to engage with the project): (max 200 words)
Bremen Overseas Research and Development Association (BORDA) **www.borda-mca.org**	BORDA mission is to improve the living conditions of disadvantaged communities and to keep the environment intact through the expansion of Basic Needs Services in the areas of decentralised sanitation, water and energy supply as well as wastewater and solid waste disposal. BORDA expertise includes capacity development, research and demonstration of sustainable biomass energy: https://www.youtube.com/watch?v=k6cisH_rpeU. They are a key member of the Biogas Consortium of Afghanistan, and are responsible for the installation and maintenance of the first biogas facility in Bamyan Province. They will oversee the construction, installation and logistics surrounding biogas interventions, including training local communities and providing logistical support *in situ*. They will also supply maintenance and support during the project. BORDA were brought into the programme to provide significant expertise in biogas and sanitation to complement other partners skills in alternate and efficient fuelwood consumption, and have contributed logistical and theoretical impacts of biogas installation in cold climate scenarios.
Have you included a Letter of Support from this institution?	Yes

10. Key Project personnel

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

Name (First name, surname)	Role	Organisation	% time on project	1 page CV or job description attached?
Tony Miller	**Project Leader**	**CMEP**	**10**	**Yes**
Andrew Scanlon	**Project Leader**	**UNEP**	**10**	**Yes**
Habiba Amiri	**Project Leader**	**COAM**	**10**	**Yes**
Tbc	**UK Project Coordinator**	**CMEP**	**50**	**Yes**
Tbc	**UNEP Project Coordinator**	**UNEP**	**100**	**Yes**
tbc	**COAM Project Coordinator**	**COAM**	**100**	**Yes**
tbc	**COAM Project Officer 1**	**COAM**	**100**	**Yes**
tbc	**COAM Project Officer 2**	**COAM**	**100**	**Yes**
Kelly Franklin	**Socio-economic expert**	**UNEP**	**10**	**Yes**
Farid Safi	**BioGas Engineer**	**BORDA**	**15**	**Yes**

11. Problem the project is trying to address

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

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

(Max 300 words)

Afghanistan has endured decades of conflict, and is one of the poorest countries on Earth. Its environment is under extreme pressure: a growing population and environmental disasters compound high levels of poverty and inequality, increasing pressures on natural resources. This has led to severe environmental degradation, reducing environmental resilience to landslides, floods and climate change in a country already at high risk of desertification.

Afghanistan is rich in biological diversity, with a flora comprising ~5000 native taxa of which ~24% are endemic. A major threat to biodiversity identified in Afghanistan's Fifth National Report to the CBD (2014) is unsustainable collection of woody plants for fuelwood. These are uprooted, preventing regeneration, and affecting the structure of the plant community and the biodiversity that depends upon it. A severe lack of capacity means the scale of extractions, exactly which species are removed, and the effects on ecosystem services are poorly known. Woody taxa at risk likely include *Acantholimon*, *Astragalus* and *Artemisia*: 68 of 110 species in these genera present in Bamyan are national endemics with 17 endemic to Bamyan province itself. Unsustainable collection increases extinction risk, threatens ecosystem services and diminishes future fuel-stocks for communities.

"30 years ago we walked outside our home for fuel, 20 years ago we had to go over there, now we have to buy fuel or spend half a day gathering enough to cook the evening meal." – quote from COAM community interview.

Additionally, current heating and cooking facilities do not use fuelwood efficiently, and cause indoor pollution that has been estimated by WHO to kill ~54,000 women and children annually in Afghanistan, plus the concomitant negative effects on household labour and finance. There is thus a clear link between environmental degradation, health and livelihoods in rural communities that can be addressed through simple interventions and monitoring.

12. Biodiversity Conventions, Treaties and Agreements

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

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

12b. Biodiversity Conventions

Please detail how your project will contribute to the objectives of the convention(s), treaties and agreements your project is targeting. You may wish to refer to Articles or Programmes of Work here. Note: No additional significance will be ascribed for projects that report contributions to more than one convention

(Max 200 words)

This project will help Afghanistan meet international obligations under CBD Articles 8 and 10, Global Strategy for Plant Conservation (GPSC) Objectives III and IV, contribute to Aichi Targets, Millennium Development Goals (MDGs), and Preliminary Targets/Strategies outlined in Afghanistan's Fifth CBD report.

Reducing unsustainable use of woody plant species through efficient cookstoves and biogas installations, capacity development, and promoting sustainable rangeland/woodland management contributes towards Aichi targets 5 and 14, and GSPC target 12. This fulfils all subparagraphs of CBD Article 10: sustainable use of components of biological diversity, b, c, d, e, f, I, j, m of Article 8: In-situ Conservation and contributes to articles 7, 13 and 17.

Degradation of ecological resources and restricted access to fuelwood particularly affects women, who are often responsible for collection of fuel, while their health is disproportionately harmed by indoor smoke. The project will install efficient stoves with chimneys and work with women, contributing to MDG goal 3, and governmental National Priority Programmes.

Due to their reliance on natural resources, poorer rural communities are most affected by environmental degradation. This project will raise awareness of sustainable use and management of natural resources as outlined in MDG 7 and almost all Sustainable Development Goals[1].

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

Yes

If yes, please give details:

The National Environmental Protection Agency (NEPA) is the focal point of the CBD in Afghanistan, and responsible for the development of Afghanistan's National Biodiversity Strategy & Action Plan. It is also part of the Afghanistan Biogas Consortium.

All project partners are working directly with NEPA on various environmental projects. The project will establish a project steering committee that will guide and provide oversight to the project. NEPA will be a member of the project steering committee. Further, NEPA staff will be involved directly in workshops and training, and will form part of the Afghanistan M&E team.

This project will address targets in Afghanistan's National Biodiversity Strategy and Action Plan, as well as National Priority Programmes. A supporting letter from the CBD NBSAP Coordinator is included in this application.

[1] **Footnote**: Sustainable Development Goals this project works towards are:

1.5 - reducing fuel expenditure, supporting local markets through building capacity amongst metalworkers and training biogas engineers; **2.4** – use of bio-slurry (a valuable by-product of biogas installations) should promote sustainable agriculture, reducing need for expensive chemical fertilisers; **3.9** - installing efficient stoves with chimneys will reduce indoor smoke in over 300 households; indoor air pollution is a major cause of death amongst Afghans; **4.4** – provide training opportunities for adults in field survey, sustainable technology and sustainability concepts, basic environmental awareness; **5.5** – culturally sensitive training opportunities for women, led by women. Indoor smoke disproportionately affects women and girls; **6.2, 6.3, 6.6, 6b** – biogas installations improve sanitation for participating households through connecting toilets to biogas digester systems. Bio-slurry use by participating communities means chemical fertiliser use should fall, securing cleaner water; **7.1** – sustainable and efficient sources of energy for heating and cooking will be provided for over 300 households across four rural communities; **8.4** – buying stoves from local businesses, building capacity of local metalworkers and biogas engineers and increasing demand amongst non-participating communities and households for efficient cook stoves and biogas installations should help provide a sustainable market for these technologies which is able to meet demand. Knowledge of sustainability concepts should also benefit other aspects of the economy as people can apply these important concepts elsewhere in their lives; **10.2** – working with rural communities relying heavily on natural resources through necessity. Within the project, vulnerable groups within the community will be included and encouraged to participate; **11.5** – reducing extraction of woody species for fuelwood ensures improved fuel security for future, as well as retaining the vital ecosystem services in flood prevention and landslide prevention provided by these plants; **12.2** – sustainable consumption of woody species for fuel is the key focus of this project through provision of more efficient stoves or biogas installations which reduce fuel requirements; **13.1, 13.2** – reduced CO2 from the stoves installed by this project help limit greenhouse gas emissions by these communities, whilst decreased removal of woody plant species will bolster CO2 absorption; communicating environmental and biodiversity importance of sustainability will touch on climate change issues; **15.1**, **15.3, 15.4, 15.5, 15.9, 15a** - reducing loss of biodiversity and promoting sustainable management of resources from rangeland ecosystems achieved through reducing fuelwood requirements of four rural communities. Reduction of woody species extraction assists in combating desertification by maintaining soil structure; **17.9, 17.16** – developing connections between the UK project staff, and communities, NGOs and environmental agencies in Afghanistan by focussing on assisting biodiversity conservation through sustainable development

13. Methodology

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

(Max 500 words – this may be a repeat from Stage 1, but you may update or refine as necessary. Tracked changes are **not** required.)

Working with rural communities in Bamyan Province[2], this project will focus on gathering baseline data on fuelwood extraction, provide more efficient fuel options, then measure the biodiversity impacts of reduced fuelwood collection and demonstrate clear improvements in livelihoods, health and gender equality for communities. This will be achieved by adding explicit biodiversity and environmental metrics to existing, proven and supported energy intervention programmes.

Alternative and efficient fuel sources will be delivered by two intervention methods:

1) Clean cookstoves with chimneys that reduce the amount of fuel required, and reduce indoor pollution.
2) Biogas installations which remove fuelwood requirement (input is animal and human waste) and deliver additional benefits through provision of warm passive solar space, improved sanitation, and marketable by-products (bio-slurry).

The communities selected are: Jawkar, Khushkak-e-Bala, Sar-e-Somara and Chapdara. Together, these villages comprise more than 300 households and >3000 individuals, in which ~45% of adults are women. UNEP and COAM have been working with these villages for several years with an established community leadership and engagement programme.

Following collection of baseline data in year one, data collection will be repeated in years two and three to assess impacts on health, livelihoods and biodiversity. The latter will be measured through a reduction in woody plant extraction, and long term monitoring plots set up to demonstrate effects not captured within the short time frame of the project. These plots will be captured via panoramic photography alongside simple survey methods. The effects will be modelled (for example to expected positive effects on ecosystem services and vegetation re-generation) based upon data gathered and existing information.

Baseline data will be gathered during the summer of 2016, while alternate fuel sources are manufactured, with installation in spring 2017 and monitoring effects in summer 2017 and 2018. Fuelwood stocks will be monitored throughout the project.

Data collected pre- and post-intervention will include:

- Time and distance associated with fuelwood collection
- Collection quantity and species collected
- Expenses from buying/collecting fuelwood
- Evidence of regeneration of woody species or change in floristic composition due to reduction in extraction
- Measurements of indoor air quality, time spent outdoors by community members, behavioural changes, health expenditure.
- Quantification of bio-slurry produced, and % used or sold (including profits), reduction in fertiliser purchased (with additional effects in reducing pollution).

A project inception meeting and field training will be held at Kulob Botanic Garden (Tajikistan Academy of Sciences) with whom RBGE has signed an MOU. This will include:

- Project work of programme and M&E planning
- Basic vegetation survey and monitoring
- Use of plant identification and data gathering tools developed
- Specimen collection and photographic profiling to aid identification
- Training the trainer courses to enable community workshops and training

Through working with Shuras (Community Development Committees) we will build engagement through participatory mapping, inclusive workshops, carrying out baseline household surveys and interviews. Female community leaders will be identified at an early stage to facilitate womens' participation and engagement.

[2] **Footnote:** The communities selected are in Bamyan Province. This mountain region features some of Afghanistan's best developed Protected Areas. COAM, BORDA and UNEP are all active in communities in Bamyan, with a well-developed network of logistical and technical support for fuel interventions.

14. Change Expected

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

- If you are applying for Defra funding this should specifically focus on the changes expected for biodiversity conservation and its sustainable use.
- If you are applying for DFID funding you should in addition refer to how the project will contribute to reducing poverty. Q15 provides more space for elaboration on this.

(Max 300 words)

This project will reduce environmental degradation through reducing the fuelwood requirements of at least 300 households, hence reducing current unsustainable extraction of woody species.

The reduction in fuelwood extraction will reduce threats to plant diversity by retaining vegetation structure, avoiding soil loss, sheltering other plants and non-plant diversity. Short-term behaviour changes in fuelwood collection through efficient fuel technologies and capacity building work will also contribute to longer term benefits.

Longer term biodiversity benefits include greater diversity of woody plant species present, regenerating naturally, giving ecosystem benefits such as soil stability, local water catchment management, and natural disaster amelioration especially in steeply sloping mountain communities. Reduced CO^2 emissions through efficient/alternative energy sources and CO^2 absorption by woody vegetation cover will be projected from monitoring data gathered. Bio-slurry reduces chemical fertiliser requirements, protecting water and biodiversity.

This project will result in long term livelihood and health implications:

(a) Reduction in frequency and time required to collect firewood for basic needs such as cooking & heating, reduction in fuel expenditure for households buying fuelwood;

(b) Immediate reduction in interior smoke through more efficient and clean fuel usage, giving health benefits particularly to women and children;

(c) Improvement to health and hygiene after biogas installation due to provision of passive solar covered warm area to sit in, wash and dry clothing, and bathe children;

(d) Short-term boost with longer term market creation benefits to local economies through production and installation of alternative energy sources using local expertise, whilst bio-slurry provides a highly saleable by-product of biogas installation for use in crop production;

(e) Greater community level awareness of sustainable practices linked to biodiversity conservation and livelihood benefits through targeted community capacity development, which can be expanded to other uses such as medicinal plants, fodder, and overgrazing.

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

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

(Max 300 words)

Over 300 households (ca.3000 beneficiaries[4]) provided with a combination of efficient stoves and/or biogas. Efficient stoves use up to 60% less fuelwood while producing the same amount of heat, reducing fuel expenses for households which buy fuel, whilst those households which collect fuel themselves will need to make less frequent trips. Biogas installations completely remove fuelwood requirement and will produce gas for heating from animal and human waste as well as producing usable and saleable bio-slurry – a valued fertiliser which allows reduction in use of expensive and often environmentally harmful chemical fertilisers.

Health benefits due to reduced indoor smoke improving respiratory health and reducing associated medical costs. This will directly improve the health and wellbeing of women particularly (approximately 44% of adults in communities), as they are responsible for cooking and heating in the home. Biogas installations will provide additional health and wellbeing benefits through creation of an outdoor passive solar covered space available for washing children, drying clothes or a warm space for women and the elderly to sit in, whilst provision of sanitation facilities (a toilet connected to the digester) will improve hygiene and contribute toward safer water supplies.

Women and vulnerable groups in the community will be included in the project's workshops, leading to perceived benefits through learned skills, improved knowledge and empowerment as a result of inclusion.

The manufacture of efficient stoves and biogas installations will lead to economic benefits for

the local communities, with 5 young metalworkers trained in efficient stove design and manufacture, 16 local craftsmen trained in biogas construction, and benefits throughout the community through purchase of materials, transport and labour. This project will help provide a sustainable market for these technologies.

Reducing unsustainable harvesting will secure ecosystem services and increase resilience to natural disasters.

16. Exit strategy

State whether or not the project will reach a stable and sustainable end point. If the project is not discrete, but is part of a progressive approach, give details of the exit strategy and show how relevant activities will be continued to secure the benefits from the project. Where individuals receive advanced training, for example, what will happen should that individual leave?

(Max 200 words)

Building upon knowledge from existing alternative fuel interventions, this project adds measurable indicators of biodiversity and livelihood benefits and capacity building to influence sustainable behavioural changes. This allows it to reach a successful end point with opportunities to continue monitoring longer-term biodiversity effects.

Risk from losing key individuals is ameliorated through training numerous project and community members to carry out vegetation survey/monitoring, train others and implement community workshops, with regular meetings amongst project staff and partners to allow potential issues to be flagged.

After baseline data acquisition in year one, fuel interventions will allow measurement of immediate effects and changes in years two and three. Immediate effects will include: reduced fuelwood use and hence reduced fuelwood collection, reduced indoor smoke, and measurable changes in sustainable use behaviours and awareness. Key partners and stakeholders (CMEP, UNEP, NEPA) have agreed to implement straightforward and robust long-term monitoring of vegetation regeneration and composition, population changes in key plant species, ongoing assessment of threats and extraction levels.

Stoves will come with a warrantee, with free support and repairs provided during the project[5]. Biogas installation owners will be connected with local biogas experts and national Biogas Consortium of Afghanistan if any additional support[6] is needed.

[5] **Footnote:** a COAM design lab welder will carry out routine maintenance and repairs in each community at the end of years 2 and 3

[6] **Footnote:** Male biogas owners will be trained in the construction of biogas installations and trained in routine maintenance. Women owners will be trained in operation and given a clear pictorial guide along with a troubleshooting poster.

17a. Harmonisation

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

Since 2011, COAM has developed three different stove prototypes in their design lab, all undergoing basic testing in the lab and within communities. This project will implement the best performing stove[7], and incorporate lessons learnt in implementation including improving initial buy-in, community training and engagement gained by COAM through their previous project.

Biogas is a new technology to the central highlands. In 2013, BORDA started a project specialising biogas for cold climates. The concept of biogas coupled with a passive solar house for retaining the heat and improving digester efficiency is now a proven concept for Bamyan. This project will strengthen and expand existing biogas capacity[8].

Previous work has not measured biodiversity effects, and cannot contribute scientific data towards their benefits. This project combines known best practices and locally-proven methods with robust data-gathering and monitoring to determine immediate changes in behaviour, biodiversity effects and community awareness and attitudes, establishing a monitoring scheme with straightforward, easily replicable botanical data collection techniques. This creates

opportunities which partners are keen to follow up with long-term monitoring, such as yearly photographic panoramas to monitor vegetation change and allow assessment of harvesting or other threats.

[7] **Footnote:** The overall best COAM stove designed during the "The Koh-e-Baba Partnership for Women and Natural Resources: The Clean Cookstoves Initiative" combined user friendliness (including ease of use, size of wood pieces which could fit in the stove, whether handles were too hot to touch, features such as a bread oven and water boiler), cost efficiency compared to unimproved stoves (around 60% fuel savings) and indoor air pollution (chimneys remove all indoor smoke completely). The benefits found were improved indoor air quality, increased fuel efficiency leading to reduced time collecting fuel or reduced costs purchasing it, and improved quality of life through time and labour-saving design features. Development of improved fuel briquettes also improved fuel efficiency further.

[8] **Footnote:** There is now a team in Bamyan of 10 local biogas experts, including four women, with the capacity to build and train local communities in biogas technology. BORDA's study also resulted in information on how communities prefer to utilise the passive solar houses – using them for washing or bathing children, drying clothes or for women and the elderly to sit in.

17b. Are you aware of any other individuals/organisations/projects carrying out or applying for funding for similar work? Yes

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

Clean and efficient cookstoves are a recognised intervention to achieve health, livelihood and environmental benefits globally, and their use has been implemented in many projects worldwide. The Global Alliance for Clean Cookstoves brings together major international and corporate donors to develop, test and implement cookstove projects in over 50 countries globally (http://cleancookstoves.org/home/index.html). While the health and livelihood benefits are routinely monitored in many of these programmes, environmental benefits are currently dealt with at a broad scale – for example, projecting losses of trees and carbon sequestration and the positive benefits that cookstoves could have globally.

However, most projects do not measure or model these environmental impacts at a local or provincial scale and include them in local benefits. Further, few if any programmes directly address biodiversity conservation and the ecosystem services provided by woody vegetation at the community level. Finally, by not addressing environmental and biodiversity concerns directly, an opportunity to raise awareness of the links between environmental resilience and livelihoods and to change community behaviour through education and empowerment is being missed.

18. Ethics

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

(Max 300 words)

RBGE's scope of work in Afghanistan interacts directly with UNEP, in order to ensure that all environmental programmes of work are consolidated through a single advisory body. During the past decade, CMEP has been involved directly with UNEP and COAM and these relationships have been based upon sound ethics. An Ethical Code of Conduct will be detailed and implemented at inception meetings including training in principles of PIC.

UNEP is part of the UN Secretariat and as such follows all UN Ethics Policies and Procedures. This project will therefore automatically follow these ethics policies and procedures also:

http://www.un.org/en/ethics/policies.shtml

RBGE is a major international institute that routinely implements good practice in all partnerships with other organisations. This explicitly includes implementing procedures on the Nagoya Protocol and CITES, for example, ensuring that all partners are treated equitably. The collection of plant material will follow all Afghan regulations implemented by NEPA, and any material collected during the programme will be through prior written agreement with NEPA. Duplicate specimens will be deposited in Afghan institutes.

Afghan community liaison through Community Development Councils has been designed and implemented specifically to engage and empower local communities in decision making. This project will develop a specific partnership whereby significant funds are provided through alternative fuel sources, with the communities engaged to be trained and contribute to elements of the program that will measure impacts on their community livelihoods. This will explicitly address current and past traditional resilient systems that will be positively impacted through the proposal.

RBGE staff conducting training and fieldwork in Tajikistan will follow standard Risk Assessments and Absence on Official Duty protocols, including provision of insurance and first aid/H&S briefings. All staff will be expected to undertake UN Safety in the Field accreditation.

19. Raising awareness of the potential worth of biodiversity

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

(Max 300 words)

As this project is primarily targeting rural communities, we will seek to raise awareness in two ways:

(a) Training and raising awareness of local staff and communities in simple sustainable use practices, highlighting how people can change their own behaviour to improve their own livelihoods and environment, so that workshops can be delivered long term to a wider range of communities;

(b) Arrange to disseminate regular updates about project progress and the positive benefits of the interventions and their knock on benefits.

Two main methods of contact will be used. First, COAM and UNEP project staff in Bamyan will establish project-based relationships with the communities, and hold a variety of inception, update and training workshops and discussions encompassing sustainable use of biodiversity as well as collection of data to demonstrate project benefits. The engagement and success of these workshops in terms of behavioural change will be recorded, and a plan formulated to engage wider communities. In addition, the most common vehicle that communities use to access information is radio (more than 50% of households report that they regularly listen to the radio to gain such information). We will work with local radio providers to regularly disseminate local information and raise awareness beyond the immediate project communities.

The explicit involvement of staff from NEPA, MAIL and MRRD will mean that sustainability and biodiversity issues impacting positively on communities will be communicated to key line ministries. UNEP and COAM project staff will be tasked with the production of knowledge products for ministries, using the project as a case study in biodiversity benefits leading to livelihoods improvements.

Workshops in Tajikistan will deliver technical expertise to project and stakeholder staff, which will be passed to local communities and beyond.

20. Capacity building

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

(Max 300 words)

Staff from NEPA, MAIL, MRRD, COAM and UNEP will be trained in M&E, project planning, plant collection and photography, field survey and identification, systematic data collection and management protocols. They will also receive “train-the-trainer” instructions to deliver sustainable use workshops and awareness campaigns, thus increasing the number of aware and trained people ameliorating future staff and expertise losses. This will also ensure key ministries are aware of sustainable use issues and their implementation in field programs,

which can be used beyond the project lifetime.

5 young metal smiths will be trained in the basics of stove construction

16 local craftsmen (4 per biogas installation) will be trained in biogas construction and 3 government engineers will be trained in biogas technology. 6 women will be trained in the operation of biogas systems.

All households (~300) will receive training in cookstove use and maintenance (including at least 50% women and likely more than that). These individuals will retain these skills and can implement them in expanded cookstove programmes in Bamyan and farther afield.

21. Access to project information

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

(Max 250 words)

All project outputs – reports, knowledge products, applications and raw data – will be made available through a project website, and on the websites of all major partners. For appropriate formats, a Creative Commons license will apply allowing reuse with attribution.

All Plant Profile data will be made freely available in digital format on the project website and via a smartphone app. The technical specifications for these applications already exist and are at no cost to Darwin.

It is intended that scientific publications would be co-authored by all participating individuals, and submitted for publication in open access journals. The costs for this will be sought externally once the articles and journals involved are selected. We anticipate articles on tools for working in challenging environments, direct biodiversity benefits from efficient and alternative fuel sources, and health and livelihood benefits coupled to biodiversity benefits.

22. Match funding (co-finance)

a) Secured

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

Confirmed:

RBGE salaries & overheads £XXX

UNEP salaries & overheads £XXX

COAM salaries & overheads £XXX

BORDA salary and overheads £XXX

UNEP Community Projects £XXX

COAM Cookstove development £XXX

22b) Unsecured

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

Date applied for	Donor organisation	Amount	Comments

22c) None

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

(max 100 words)

PROJECT MONITORING AND EVALUATION

MEASURING IMPACT

23. LOGICAL FRAMEWORK

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

Project summary	Measurable Indicators	Means of verification	Important Assumptions
Impact: (Max 30 words) **Environmental degradation reduced in upland rangelands, with livelihoods, health and fuel security improved in rural mountain communities.**			
Outcome: (Max 30 words) Environmental degradation reduced via sustainable fuel interventions in four communities (300 households, 3000 individuals) leading to a reduction in woody plant extraction and improved livelihoods, health and gender equality.	1 Baseline data gathered on woody plant extraction (species, amount, distance, frequency) by end of Year 1 and reduction in extraction after alternative/efficient fuel intervention (end of Year 2 & end of Year 3). 2 Awareness and capacity increased at community level (reaching at least 1000 individuals in participating communities) and at a more detailed level for at least 25 individuals attending gender-separated training courses and workshops, relating to sustainable use, links to livelihoods, and technical capacity in survey and monitoring by end of project. 3 Livelihoods of 300 participating households improved through: (a) alternative and diversified fuel sources, (b) reduction in labour required in fuel collection, (c) reduction in health costs due to decreased indoor smoke,	0.1 Peer reviewed article, basic yearly summary statistics released on project website, project report 0.2 Training and workshop materials, lists of attendees, radio programming materials, photographs of workshops, summarised awareness survey results, project report 0.3 Community interviews and record keeping presented in project reports: (a) proportion and amount of fuel sources (before/after installation); (b) time/distance spent gathering fuel wood (before/after installation); (c) financial outlay on medical services quantified;	Working partnership between communities and project staff established and maintained, in which COAM has extensive local experience. Reduction in woody species extraction leads to biodiversity status improvement and associated ecosystem services benefits (good scientific evidence for this, monitoring started with long term plan in place). Potential issue that new cookstoves will encourage increase in stove usage for cooking and heating, leading to increase in fuel wood collection balanced against reduction through increased stove efficiency. Data will be collected on levels of cookstove use alongside fuelwood collection (outputs 1.1 and 3.2) before/after installation in subset of households spanning socio-economic conditions, in order to monitor feedback. Data presented and evaluated in first/second year report to enable adaptive management as necessary in

Project summary	Measurable Indicators	Means of verification	Important Assumptions
	(d) increase in marketable products (for households involved in biogas interventions), (e) support of local business involved in manufacture and installation of stoves and construction of biogas. 4 Improvement in health and wellbeing for women in participating households as a result of measured decrease in indoor smoke (plus improved sanitation and access to covered passive solar area in households with biogas installations) by end of project compared with pre-intervention baseline (end of year 1)	(d) sales figures for bioslurry (through sale or reduction in external costs due to community use); (e) number of people trained/employed in construction, installation and training. Baseline currently not quantified, hence year one baseline data gathered, with changes post installation monitored in years two and three. 0.4 Data gathered through community interviews and average medical cost survey results presented in project report.	year three. Security and political situation is stable enough for in-country partners to undertake work. This has had less effect in Bamyan than in any other province to date, where project workers have worked safely and successfully for several years. Communication methods are appropriate & take account of gender – workshops are gender-separated and appropriately led to allow women to participate fully, interview questions are sensitively worded and asked by appropriate team members. COAM and UNEP have extensive experience of this. Workshops and training materials can be accurately translated in a timely fashion; UNEP have access to high-quality translators with specialities in environmental and sustainability material. Stoves & biogas installations are safe, sturdy, easy to maintain and appropriate to household; local experts will install the interventions & contact points will be established. Suppliers of stoves and biogas installations continue to stay in business and capable of fulfilling the orders; biogas installations made largely of easily sourced materials & local biogas expert team is growing along with

Project summary	Measurable Indicators	Means of verification	Important Assumptions
			membership to the national Afghanistan Biogas Consortium, of which several specialists who will be involved with the project. The stoves are made from easily sourced metal and will be supplied by a local enterprise to a design developed and tested by Bamyan artisans through several iterations. 'Stove stacking' (using the efficient stove in addition to traditional methods instead of as a replacement) will not occur – this could lead to no reduction in fuelwood usage or an increase; the local design & testing of stoves should prevent the need for this.
Outputs: **1. Biodiversity** Baseline and measurable reduction in extraction of woody species for fuelwood	1.1 Data collected on species, quantity and location of fuelwood extraction for four communities before (end of Year 1 baseline) and after alternative fuel source intervention (end of Year 2, End of Year 3) with intervention resulting in 50% decrease in average fuelwood extraction in Kg/month by end of project 1.2 IUCN Red List assessments of 20 woody species used by the communities involved for fuelwood produced and submitted to IUCN by end of project 1.3 Replicated vegetation surveys before and after alternative fuel source interventions to determine potential species, vegetation and diversity changes, with plans implemented for long term monitoring	1.1 Peer reviewed article, identification tools available, project report 1.2 IUCN Red List Assessments submitted 1.3 Project report, community interviews	Identification and survey tools must be accessible and usable for local staff and communities; these will be tested by project staff & necessary translations done Fieldwork in Bamyan possible due to political and environmental stability. Current situation is stable & NGOs are able to carry out work with local communities with no problems. UNEP partnering will give access to high quality security information and logistical assistance as necessary. Changes in vegetation can be detected within project time-frame – this would be recorded in a follow-up survey outside project lifetime to assess lasting change and long-term project impact.

Project summary	Measurable Indicators	Means of verification	Important Assumptions
	1.4 Model projections for the effects of reduced woody extractions on ecosystem services and vegetation changes.	1.4 Peer reviewed article, project report	Community engagement with project should ensure data gathered is representative & accurate; COAM local community expertise & UNEP assistance in developing data collection methods will assist this. Communities and local landscapes will not be affected by ecological disasters such as flooding, landslides or fires.
2. Awareness & capacity development Basic awareness of concept of sustainable use of natural resources increased amongst participating communities Capacity of local Afghans increased in surveying and monitoring plant species as a measure of environmental degradation and improvement Capacity developed in implementing cleaner and efficient fuel technologies (efficient stoves and biogas).	2.1 Ten project staff and community leaders trained and successfully delivering sustainable use workshops in local communities by end of project 2.2 At least 1000 individuals more aware of sustainability through sustainable use workshops and other awareness raising activities such as participatory mapping, by end of project 2.3 Fifteen people trained in field identification and vegetation survey at field courses delivered in Tajikistan. These attendees will also be instructed and supported in how to deliver this training course to others. 2.4 Twenty-five people trained locally in-country by those project staff who attended field training course in Tajikistan. These locally trained people will be trained to carry out vegetation survey and data collection in participating communities.	2.1 Project report, list of attendees at community workshops, workshop photographs. 2.2 Project report, list of attendees of field training and community workshops, workshop photographs, participatory mapping exercise attendee list, household questionnaire responses 2.3 List of Tajikistan field course attendees, field course training outcomes, field survey course materials, project report. 2.4 List of in-country field course attendees, field course training outcomes, project report	Fieldwork in Tajikistan possible due to political and environmental stability. For UK partners, CMEP will follow institutional guidelines drawing on FCO advice and information from colleagues in Tajikistan. For in-country partners, advice will be sought from governmental sources and UN sources. Afghan staff are able to obtain visas to visit Tajikistan Possible to have field equipment and materials sent to Tajikistan for workshop. Communities and staff are engaged with project and will attend workshops; COAM will work with community leaders and members of the CDCs (Community Development Councils) to inform them of the project as soon as it is confirmed, developing a partnership with each community, identifying enthusiastic and influential members who can build networks as well as assisting project

Project summary	Measurable Indicators	Means of verification	Important Assumptions
	2.5 30 people trained in installing efficient stoves and biogas, with 16 local craftsmen (4 per biogas installation) trained in biogas construction and 3 government engineers trained in biogas technology. 6 women will be trained in the operation of biogas systems. 5 young metal smiths will be trained in the basics of stove construction. 2.6 Capacity in government departments increased (NEPA, MAIL, MRRD) in the role of sustainable technology of promoting community resilience through participation in training workshops in Tajikistan and participation in monitoring and evaluation exercises (6 staff)	2.5 List of attendees from stove and biogas installation training workshops project report 2.6 Workshop attendees list, workshop outline, project report.	staff in workshop design and logistics to allow greatest participation such as selecting times where many community members are not required to graze livestock or harvest crops, or encouraging vulnerable members to contribute. Presumes women will be culturally comfortable attending field training workshops. If this does not prove to be the case, women could be trained in theoretical survey methods and data collection, with training on how to collate, curate and analyse survey data instead of collecting it. Project staff and associates will feel engaged, supported and confident enough to deliver high-quality training locally in-country; project partners will provide additional support as necessary, with time spent at Tajikistan course covering how to deliver training. Remote assistance in difficult vegetation identifications and data quality control will be given by CMEP. Recruiting staff and associates to the project will be possible and not create delays in project operations. Hired and trained staff will remain with project throughout project lifetime; encouragement and support will be given to project staff remotely and via face-to-face project meetings where feasible, encouraging retention of knowledge and skills for project duration.

Project summary	Measurable Indicators	Means of verification	Important Assumptions
3. Livelihoods & Health Community livelihoods improved through fuel accessibility and diversification and health benefits	3.1 At least 300 households (~3000 individuals) in four communities provided with a combination of efficient stoves and biogas installations, with logistical support & training in use provided to users, particularly women 3.2 At least 30% reduction in average time spent and distance travelled to collect fuel wood by end of project compared to historical and pre-installation 2016 baseline, recorded through fuelwood data collection and participatory community mapping 3.3 10% reduction in average health expenditure per person by end of project compared to historical and pre-intervention baseline at end of year 1 in participating communities 3.4 50% reduction in indoor smoke in community households after installation of efficient stoves compared with pre-installation baseline data 3.5 Increase in bio-slurry availability from baseline (0 Kg/year pre-intervention) and income from bio-slurry sales, decrease in expenditure on fertilisers by end of project	3.1 Project report 3.2 Project report, community maps, recorded data, community interviews with fuelwood collectors 3.3 Community interviews, survey of health service providers, project report 3.4 Indoor air quality monitoring report, community interviews, project report, peer reviewed article on indoor air quality improvement 3.5 Post-installation survey results in project report, price and availability of bio-slurry at market reported in project report	Assumes no barriers to installation and primary use of efficient stoves in each household or community, ameliorated by COAM expertise in community engagement. Assumes wood will not be cut for fuel and sold to other communities instead, data collected to verify this. Stove stacking (use of efficient stoves additional to, not instead of original stoves) may increase fuel use, however it is expected that occurrence of this will be minimal as a result of local design and community testing of various models to ensure their features are appropriate for a wide range of home uses such as cooking, baking, heating water and heating the home. Due to the linkage of toilets and digestion of human and animal waste, biogas may be seen as culturally inappropriate or undesirable, particularly for cooking with. BORDA has not found this to be the case in the majority of communities. Fuelwood collectors who earn their livelihood through sale of collected wood may be disadvantaged through reduction of income caused by reduced fuel requirements due to more efficient stoves; assessments should be made of risk of potential loss of livelihood. Assessment & community discussion of

Project summary	Measurable Indicators	Means of verification	Important Assumptions
			how to include fuelwood collectors in workshops & training where possible to diversify their skills and potentially lead to other sources of income should be carried out.
4. Gender Equality & Equity Improved livelihood and health benefits for women, empowerment and engagement through inclusion in training and	4.1 >500 women benefitting from reduced indoor smoke, increased time spent outdoors, and reduced time spent collecting firewood. 4.2 Women participating in project training sessions perceive benefit through learning skills and improving knowledge, and increased feelings of empowerment through inclusion, compared to before involvement measured through survey of participants.	4.1 Community interviews, project report 4.2 Case studies, community interviews, workshop/training feedback and evaluation survey	Within Afghanistan, cultural practices (particularly in rural areas) mean that inclusion of women in project design needs to be sensitive and appropriately handled. Female staff at COAM and UNEP will take responsibility for gender equity and for ensuring all data collection methods, training and engagement are sensitively designed to allow full, active and appropriate participation of women with the project. Women will feel culturally comfortable spending time in passive solar space and the space is not used for growing vegetables instead. It was found in previous biogas installations in nearby areas that women, the elderly and children were found to prefer using the passive solar space for sitting in, washing children and drying clothes in winter compared to the expected use as a greenhouse. They reported benefits from spending time in the light space and out of the smoke from the fire indoors.
Activities (each activity is numbered according to the output that it will contribute towards, for example 1.1, 1.2 and 1.3 are contributing to Output 1) 1.1 Data collection on frequency and amount of woody taxa collected for fuelwood (including identification of species and relative quantity of each species collected) 1.2 Vegetation survey conducted at sample fuelwood collection locations (and control sites) before and after alternative fuel interventions 1.3 IUCN Red List Assessments for endemic species used for fuel extraction 1.4 Identification tool for fuelwood species developed, and used to collect detailed information on species distribution			

Project summary	Measurable Indicators	Means of verification	Important Assumptions
1.5 Predictive modelling of ecosystem service replacement due to natural regeneration of woody taxa			
2.1 Inception and training workshops in Tajikistan: planning, design and training in sustainable use concepts for delivery to communities, planning M&E, field survey and plant collection and identification			
2.2 Delivery of awareness raising sustainable use workshops in communities, delivery of training in field survey techniques and data collection			
2.3 Delivery of training in cookstove and biogas installation, use and monitoring to communities			
2.4 Project and stakeholder staff trained in M&E and applied quarterly			
3.1 300 households in four communities provided with cookstoves and biogas installations			
3.2 Data collection on household fuel extraction time and distance			
3.3 Community interviews and surveys to establish health and economic benefits			
3.4 Data collection on indoor air quality			
4.1 Community interviews targeting data collection on health benefits for women and children			

24. Provide a project implementation timetable that shows the key milestones in project activities. Complete the following table as appropriate to describe the intended workplan for your project (Q1 starting April 2016)

	Activity	No of months	Year 1				Year 2				Year 3			
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Output 1	**Biodiversity**													
1.1	Monitor extraction of woody species			■	■	■	■	■	■	■	■	■	■	
1.2	Replicate vegetation surveys			■	■							■	■	
1.3	Red List Assessments for endemic species						■	■				■	■	■
1.4	Identification tool developed for endemic species			■	■	■								
1.5	Modelling ecosystem improvements due to reduction in extraction										■	■	■	
Output 2	**Awareness and capacity development**													
2.1	Inception and training workshop in Tajikistan		■	■										
2.2	Awareness raising on sustainable use				■			■	■					
2.3	Training on alternate fuel source installation and use			■	■			■	■			■	■	
2.4	Training and application of M&E			■	■	■	■	■	■	■	■	■	■	■
Output 3	**Livelihoods and health**													
3.1	Alternate fuel source manufacture and installation		■	■	■									
3.2	Data collection on community fuel extraction time and distance		■	■	■	■	■	■	■	■	■	■	■	
3.3	Community interviews and surveys		■	■				■	■			■	■	
3.4	Data collection on indoor air quality			■	■	■	■	■	■	■	■	■	■	
Output 4	**Gender equality and equity**													
4.1	Community interviews targeting women/children'shealth benefits		■	■				■	■			■	■	

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

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

(Max 500 words)

All project partners routinely receive funding from international donors and research funding mechanisms, and as such are experienced in reporting and M&E protocols.

All staff from major partners will be expected to participate in planning and implementing M&E. This will be led and overseen by the UK partner, and implemented in the field by UNEP and COAM who will in turn be responsible for coordinating M&E input from NEPA (National Environment Protection Agency), MAIL (Ministry of Agriculture, Irrigation and Livestock) and MRRD (Ministry of Rural Rehabilitation and Development).

Project specific training in M&E will be given at the inception workshop in Tajikistan, with an M&E plan and timeline developed.

10% of the 50% position at RBGE will be devoted to M&E management. 20% of each of the UNEP and COAM Project Coordinators will be devoted to M&E with 10% of the time of both COAM Project Officers also devoted to M&E.

M&E will be undertaken by relevant governmental agencies and ministries to ensure externally funded programmes meet objectives and targets both defined in the project and that are aligned with the National Priority Plan of the Government of Afghanistan. Each staff member will undertake, in partnership with responsible project staff, three monitoring surveys of duration two days in each focal community, in each of the three project years. The M&E plan will identify reporting mechanisms between ministry and project staff.

At the inception of the project, each indicator and means of verification will be explicitly timetabled to provide a basis for inception training for all those responsible for M&E and to enable a detailed timeframe to be established and routinely monitored. This timeframe will be aligned with in-country M&E to allow % completion data to be gathered to assess progress against indicators. M&E will also include monitoring procedures and policies with regard to ethics, access and benefit sharing and data availability, undertaken with input from socio-economic expertise in both the UK and Afghanistan.

This will include the following:

- Inception workshop and training report
- Planning and reporting on all awareness and training workshops in communities
- Manufacture and installation of fuel interventions
- Field data collections (household, biodiversity)
- Quarterly reporting by Afghanistan staff, and associated
- Community interviews and participatory community mapping attendees recorded and photographed

Regular skype meetings between UK project staff and in-country partners will occur to ensure project is progressing as planned, with input on ongoing monitoring and evaluation by project coordinators. The project steering committee, including members from all project partners and NEPA, MAIL and MRRD, will regularly review M&E protocols and receive reports on project progress.

Total budget for M&E	£27,545
Percentage of total budget set aside for M&E	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. You should also ensure you have read the 'Finance for Darwin' document and considered the implications of payment points for cashflow purposes.

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

26. Value for Money

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

(max 300 words)

This programme fulfils basic Darwin Initiative goals, where UK expertise is used to create specific tools and trainings that are implemented both by project and associated staff, then by communities to not only raise awareness but also to achieve specific deliverables. The staffing levels included in the budget match these requirements, and will leave considerably increased expertise in Afghanistan at different organisations and different levels.

The objective of this programme is to positively impact on livelihoods through alternative fuel interventions that are sustainable, and will have a long term plan for continuation beyond the life of the project. Based upon a cost to Darwin of £300k directly affect ca. 3000 people, this will be achieved at a cost of £100 per person. We consider this to be excellent value for money, and expect to be able to make a case for additional funding to implement similar programmes across Afghanistan based upon the good practices and successes of this proposal. Future programmes will benefit significantly from this programme of work, and at a reduced cost as methodology and monitoring systems will already be in place and can be scaled appropriately to be more efficient.

We have requested enough funds to fully purchase cookstoves and biogas installations for each household in each community. However, previous experience of the project partners and the wider research community suggests engagement and uptake of cookstoves is more successful if households input some finance of their own. We have conservatively assumed that this figure will be ~25%, thus saving £5000 pounds. However, the total cookstove budget has been retained so as to ensure the project goes ahead without relying on community and household finance.

27. Capital items

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

(max 150 words)

A significant amount of money has been requested to purchase cookstoves and biogas installations during the first year of this project. These interventions form the basis of the cause and effect monitoring on biodiversity and livelihood impacts. The cookstoves and biogas installations will remain in the communities post-project.

Some audio-visual and computing equipment has been requested. This will also remain with the organisations post-project, and for audio-visual equipment this will allow long term monitoring and data collection on a variety of programmes in the future.

The cost of the alternative fuel interventions takes the total request for capital items over 10% of the funds requested from Darwin. We believe this is justified due to the critical nature of these interventions.

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 from DFID Afghanistan attached**

CERTIFICATION

On behalf of the trustees/company* of

(*delete as appropriate)

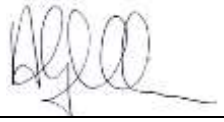
I apply for a grant of £ in respect of **all expenditure** to be incurred during the lifetime of this project based on the activities and dates specified in the above application.

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

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

- I enclose CVs for key project personnel and letters of support.
- I enclose our most recent signed audited/independently verified accounts and annual reports (if appropriate)

Name (block capitals)	Tony Miller
Position in the organisation	Director, Centre for Middle Eastern Plants, RBGE

Signed**		**Date:**	1 December 2015

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

Stage 2 Application – Checklist for submission

	Check
Have you **read the Guidance Notes**?	**YES**
Have you provided **actual start and end dates** for your project?	**YES**
Have you indicated whether you are applying for DFID or Defra funding? **NB: you cannot apply for both**	**YES**
Have you provided your **budget based on UK government financial years** i.e. 1 April – 31 March and in GBP?	**YES**
Have you checked that your **budget is complete**, correctly adds up and that you have included the correct final total on the top page of the application?	**YES**
Has your application been **signed by a suitably authorised individual**? (clear electronic or scanned signatures are acceptable)	**YES**
Have you included a **1 page CV for all the key project personnel** identified at Question 10?	**YES**
Have you included a **letter of support from the main partner organisations** identified at Question 9?	**YES**
Have you **been in contact with the FCO** in the project country/ies and have you included any evidence of this?	**Contact with DFID**
Have you included a **signed copy of the last 2 years annual report and accounts** for the lead organisation?	**YES**
Have you **checked the Darwin website** immediately prior to submission to ensure there are no late updates?	**YES**

Once you have answered the questions above, please submit the application, not later than 2359 GMT on Tuesday 1 December 2015 to Darwin-Applications@ltsi.co.uk using the application number (from your Stage 1 feedback letter) and the first few words of the project title **as the subject of your email**. If you are e-mailing supporting documentation separately please include in the subject line an indication of the number of e-mails you are sending (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.