

# Application to Scottish Government Climate Justice Innovation Fund Grants Programme Project Grant 2017 – 2020

Applicant Organisation Name

**Nature Guard + Aquatera + Rehub Africa Ltd**

Office

only

Application

ref:

Project ref:

I apply on behalf of the organisation AQUATERA LTD for a grant as proposed in this application in respect of expenditure to be incurred over the proposed funding period on the

activities described within the application form and supporting documentation.

I certify that, to the best of my knowledge and belief, the statements made by me in this

application are true and the information provided is correct.

This form should be signed by an individual authorised by the applicant organisation to

submit applications and sign contracts on their behalf.

Signature Print Name **REDACTED**

Position Date

MANAGING DIRECTOR 07/08/2017

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Main Contact person during application assessment process:

Name: **REDACTED**

Email: **REDACTED**

Phone: + **REDACTED**

## Your Application consisting of:

**Part 1 - the Application Form (this document plus the Excel budget spreadsheet)**

### Additional documents

#### Essential – Your application will be ineligible without these

The applicant organisation's most recent accounts, either audited or independently

examined **Please note:** a project cannot be funded if no audited/independently verified accounts are available.

A letter of support from your lead partner in-country, confirming the partnership and

including their perspective on the research, consultation and project planning process.

**Relevant** - The following documents should be sent if they exist

A copy of any MOU or contract with the partner organisation

A copy of your Equal Opportunities/Diversity policy - a hyperlink is acceptable.

Further details of budget.

**Optional** – These documents should be sent if they are of help to you in setting out your case

**Project planning models (such as Weavers Triangle) *The use of this tool is strongly recommended.***

**Scottish-based Project Manager's CV**

**In-country Project Manager's CV**

**Evaluation framework/outcomes grid**

All completed signed applications should be submitted by email to [international@ltsbfoundationforscotland.org.uk](mailto:international@ltsbfoundationforscotland.org.uk) or hard copy to arrive no later than **12.00**

**noon on Monday 7<sup>th</sup> August 2017.**

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Emails should show the applicant organisation's name as the subject of your email. **Only those documents (not the whole application) which are not available electronically**

**need to be sent in hard copy and must be received by 2.00 pm on 11<sup>th</sup> August 2017.**

Please send to:

Lloyds TSB Foundation for Scotland  
International Development Small Grants Programme  
Riverside House  
502 Gorgie Road  
Edinburgh EH11 3AF

**These deadlines are absolute and all documentation required must be submitted on time.**

Please provide a summary of the project, describing how it came about, what it aims to achieve, what will be done to achieve this aim, and who will do this. You should also outline how the project will support Climate Justice Innovation Fund objectives, and how the project is expected to innovate. **Max 500 words** .

The energy demands in developing countries continue to increase given the increased population and urbanisation. This trend is expected to continue as economic activities pick up in various sectors, and in Zambia especially due to their hope of achieving middle income status by 2030. It is with this notion in mind that our partnership has decided to come up with solutions to the energy crisis in form of sustainable energy as well as the management and recycling of waste to allow for a reduction of emissions.

On top of this, 80% of Zambians depend on charcoal for their energy needs with a high

percentage of these people being from the Kabwe district. Due to increased electricity tariffs, this has meant that there is a low amount of alternative sources. These are the problems that

this partnership will try to address through the following ways;

1. **Regeneration of waste**; This will be done through the introduction and implementation of a biogas system that will be used for cooking, heating as well as lighting. Domestic waste and perishable farm waste may be used as a sustainable source of energy that could easily replace wood fuels and cut off the dependence on electricity that has not been reliable in the past.
2. **Waste recycling awareness program** ; raising awareness about the importance of waste production, disposal and recycling will lead to a shift in the way households manage waste. By setting up a solid waste management system as well as encouraging households to ownership of their waste will results in minimal generation of waste.
3. **Waste to wealth**; recycling plastic waste material that is dumped in the city from neighbouring communities and ends up building up in particular areas because of heavy rainfall which then leads to floods.

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### APPLICANT INFORMATION

1 . Name and details of applicant organisation:

Name of Organisation: **Aquatera Ltd.**

Address of Organisation: **Old Academy,  
Back Road,**

**Stromness, Orkney, Scotland**

Postcode: KW16 3AW

Telephone: **REDACTED**

Main Email: office@aquatera.co.uk

Website: [www.aquatera.co.uk](http://www.aquatera.co.uk) ; <http://aqtr.nbcom.co.uk/>

2. Is your organisation a registered charity?

Yes  Charity No: SC0\_\_\_\_\_

No

3. What is the status of your organisation?

Company limited by guarantee

SCIO

Other (specify):

4. When was your organisation formally constituted?

19<sup>th</sup> April 2000

5. Which organisations are you a member of/ affiliated to?

*NIDOS (Network of International Development Organisations in Scotland)*

*SMP (Scotland Malawi Partnership)*

*Aquatera Ltd are members of the associations listed below:*

- *European Ocean Energy Association*
- *Scottish Renewables*
- *Society of Petroleum Engineers*
- *Energy North*
- *Orkney Renewable Energy Forum*
- *Stromness Community Business Forum*
- *Scottish Hydrogen Fuel Cell Association (SHFCA)*
- *Ocean Energy Association of Japan (OEAJ)*

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6. Is your organisation diaspora led?

Yes  No

Comments:

7. Please provide details of the number of people based in your organisation in Scotland.

Full time - 21

Part time - 0

Volunteers/interns – 0

Associates - 19

8. What are the general activities of your organisation? **Max 150 words**

Aquatera is an environmental consultancy which operates in local, UK and overseas markets,

providing a wide range of services to the renewable energy industry. Aquatera's core business

is to provide fully integrated renewables support inclusive of strategic planning, public and

stakeholder engagement and environmental assessment and surveying. Other projects have

covered reducing carbon footprints in a range of industries and activities, including oil and gas,

mineral extraction, fishing, fish farming, shipping, conservation, biological surveying and

education. Aquatera works closely with private organisations, governments, local authorities

and community organisations to provide strategic advice in development of renewable energy.

The company has been active in international development in particular within the last 5 years

and has built innovative markets for renewable energy communities within Chile, Philippines,

Indonesia, Japan, Peru, and Columbia. This has involved us introducing new service areas and

novel technology solutions within these markets. We have a global reputation for effective collaboration with most of the projects being delivered with local partners as well as a number of other supply chain companies. This work has built an extensive delivery partner network within the countries as well as within Scottish companies and other international partnerships. The company has a strong environmental background and ethos and are committed to ensuring the sensitivities within the environment and culture in each market are respected. We would apply our ISO9001 and management control system to the whole project. A growing emphasis of Aquatera involves exporting its expertise overseas. The company is currently operating in countries as far afield as the Phillipines, Indonesia, Chile, Japan, France, the USA, Canada and Kazakhstan to name a few. In order to deliver across the globe, Aquatera has a targeted approach to recruitment. It employs the best in their respective fields and boasts a multi-lingual international workforce. In recent years it has seen Kenyan, Spanish, French, Russian and Japanese staff boosting the excellent team in Orkney as well as Chilean and Kazakhs based in their country. The company currently works with a team of around 40 staff and associates in addition to a dedicated group of delivery partners that it regularly collaborate with.

9. Describe how the organisation is governed/managed; include the make-up of your Board, their skills and experience, how often they meet, and how decisions are made. **Max 200 words.**

Governance

A board of 3 company executive directors governs Aquatera and sets the business strategy.

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Aquatera has various levels of governance that operate at different stages in the workflow process. The key component of effective governance in Aquatera is to ensure the company is legally compliant in all its activities. All decisions are taken with due diligence, financial rigour and directors always act in the best interests of the company with due consideration of risk and reward. Over coming years, alternative structures/ options for the company will be explored in line with company succession planning to ensure that Aquatera remains fit for purpose and

achieves long term sustainability. The board will actively engage at a strategic and political level to influence policy development, in turn future proofing the company. In addition, the board meets approximately 10 times per year. The members of the board are as follows:

**REDACTED – Aquatera**

**REDACTED** has lead Aquatera from its inception to grow into a global operator providing environmental and sustainable energy expertise. Gareth has become a global leader in the renewables sector and has a prodigious international portfolio of oil & gas projects along with a uniquely broad portfolio of work experience in wind, grid infrastructure, port development, tourism, community development and innovations science. Specific relevant experience includes:

- Helping to establish the International Centre for Island Technology in Stromness in 1990

through till 1994 and returning as temporary Director in 2011/12.

- Managing ERT Orkney from 1993-1996 and then establishing and managing ERT Caspian 1996-1999.

- Establishing and running Aquatera 2000 to present

In terms of renewable energy development work, **REDACTED** career has included:

- Completing over 50 studies related to strategic planning, project and community development in Orkney
- Renewable energy resource studies for Orkney, Shetland, Isle of Man, Inner Hebrides
- Renewables roadmap studies for Chile, Indonesia
- Global tidal resource data base of 11,000 records
- Over 20 wind farm developments
- Port and harbour development projects
- Pioneering tidal energy deployments in West Papua, Indonesia and Sentosa Island, Singapore
- Test centre development in EMEC, Orkney; Belmullet, Ireland; Goto Islands, Japan
- Exploring pilot project prospects in Tierra del Fuego, Chiloe, Easter Island, Barbados, Nova Scotia, British Columbia, Japan, Taiwan, Philippines, Indonesia, Mauritius, Canary Islands, Maderia, Cape Verde, Faroes, Iceland, Norway, Shetland, Isle of Man, Orkney, Skye, Isle of Wight, Guernsey, Jersey, Alderney.

In terms of sector development **REDACTED** has:

- Been board member of OREF for 15 years and been Chair for 3 periods spanning 7 years
- Board member of SR for 6 years and co-chair of marine energy group
- Member of second SG marine energy group

- Been a leading participant in grid negotiations and working groups
- Actively participated in numerous briefings to government ministers, visiting dignitaries, business leaders
- Made presentations in many public meetings, information seminars and sector training initiatives

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- Participated in business development missions, conferences and exhibitions in 20 countries around the world
- Created a blueprint for Macro-regional Marine Energy Centres (MEC) which is now being applied in South America and South East Asia
- **REDACTED** therefore has a wealth, and indeed a lifetime, of renewable energy relevant experience and understanding that he can bring to this project.

#### **REDACTED Aquatera**

**REDACTED** has an overview of all operational projects within Aquatera and has specifically built projects in the UK, USA, Canada and most recently in the Philippines and wider South East Asia.

These cover a range of areas from environmental management, strategic planning and research

to project delivery. He leads the Company's input into a number of strategic initiatives

focussed on better understanding, managing risk and reducing uncertainty around the

potential impacts of ocean energy projects on the marine environment. This involves extensive

engagement with the energy sector supply chain involved in environmental planning, monitoring and research, focussing on unlocking the potential for sustainable development

and growth of the sector through targeted research and collaboration. This has included

recent work for and with the Scottish Government, NRW, NERC and The Crown Estate in the UK

as well as international bodies such as the EC Ocean Energy Forum and the US Department of

Energy's Pacific Northwest National Laboratory. **REDACTED** is the Project Director for the Secretariat

of the UK's Offshore Renewables Joint Industry Programme (ORJIP) for Ocean Energy, through

which he led the establishment of its current membership network of over 72 organisations

(including regulators, agencies, funding bodies, research organisations, developers and

industry suppliers) across 21 countries. He currently oversees all of the programme's activities

including extensive engagement with the established international Network.

#### **REDACTED Project Management Support Team**

**REDACTED** role involves

leadership and direction, implementation of Aquatera's growth strategy, workforce development (including HR lead, recruitment and staff supervision), good governance including

financial diligence, developing systems and infrastructure, project management and contribution to proposals as required. **REDACTED** key area for international development is

France. She has extensive travel experience as well as developing communities and experience

of work in the third sector largely working with communities, public and private partners, local

and national governments.

The directors' responsibilities are distributed as per the following organogram.

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#### 10. Financial Information

Please summarise the last two year's audited/examined accounts below:

For the financial year to: 2016 2015

#### **Income & Expenditure Account**

Total income £ 3,513,230 £ 2,164,987

Total expenditure £ 2,082,033 £ 838,205

#### **Balance Sheet**

Unrestricted/general reserves £ 507,773 £ 415,956

Cash in bank / on hand £ 456,380 £ 132,596

11. Is there anything you would like to explain about these figures?

12. How are equal opportunities/diversity promoted within your organisation? If you have one,

please provide a copy (or web link) of your Equal Opportunities/Diversity Policy.

**Max: 150**

**words**

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#### **Detailed equality policy attached.**

13. Scottish Project Manager details: this is the person who would be responsible for overseeing the project grant management and reporting if the grant was secured

Name: **Ian Johnstone**

Organisation:

(if different from Q1):

Position in organisation: Senior consultant & Head of Communities – Renewables:

#### **REDACTED Project Manager**

**REDACTED** has been extensively involved in

developing projects in Japan and Indonesia and has an

extensive knowledge of innovation for renewable energy for

remote and rural communities. **REDACTED** has 10 years' experience in a

variety of renewable energy projects, from supplying waste

wood for a district heating scheme to building a community

wind turbine in Indonesia. He was also a local politician for 9

years, elected in 2003; as chair of Orkney Island Council's

Development and Regeneration Committee, **REDACTED** was fully

committed as the lead politician supporting and developing

renewable energy in Orkney. He has been very closely involved

in the process of getting grid capacity to Orkney and other

Scottish islands chairing the Orkney grid group and taking the Islands case to three consecutive UK Energy Ministers. He has been heavily involved in OFGEMs Transmit process looking at transmission charging and grid securities. **REDACTED** has travelled extensively and in particular has responsibility for developing projects in South East Asia. He also managed Aquatera's work in the International Market Review for Scottish Enterprise.

**REDACTED** will be responsible for the day to day management of the project, working closely with the Assistant Project Manager and the team. He will be responsible for:

- Attending and recording all progress meetings with Project Leadership Team and Project Advisory Board
- Supervising maintenance of the project action log and risk register
- Holding internal progress meetings with the Project Management Team and reporting progress to Project Advisory Board
- Holding regular progress meetings with all sub-contractors and maintaining action logs and risk registers for each sub contract and reporting regularly to Project Advisory Board
- Ensuring that Aquatera's Quality Management System is implemented at all times

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- Ensuring that the project milestones are met and deliverables are issued in line with the schedule set out in this proposal

- All invoicing and budget reporting to Project Advisory Board

Address

(if different from Q1):

**REDACTED**

## **PARTNER ORGANISATION(S) INFORMATION**

14. Name and details of partner organisation: (please copy and paste this section again or add

as separate sheets if you have more than one partner organisation, with the lead partner appearing first)

Name of Organisation: **Rehub Africa Limited**

Address of Organisation: **4th Ngong Avenue Towers,  
P O Box 3883**

**Nairobi, Kenya**

ZIP/Postcode: **00506**

Country **Kenya**

Telephone: **REDACTED**

Email: **info@renewbleshubafrika.com**

Website: **www.rehub.co.ke**

Type of organisation ( e.g.

NGO, community

organisation etc)

**Private**

15. Is the organisation formally registered in country of operation?

Yes  No  Registration No: **PVT-DLURXV** \_\_\_

16. Describe how the organisation is governed/managed; Include the make-up of the management committee/board, their skills and experience, how often they meet, and how

decisions are made. **Max 200 words.**

**Rehub is a renewable energy organisation governed through the top down management**

**style. The executive decisions are made by the founders and CEO so as to ensure that**

**responsibilities and policies are clearly distinguished from each other.**

**Another advantage**

**that we as a company have noticed is that any failures are easily identified within the**

**organisation with the relevant office older providing solutions.**

**Rehub consists of technical specialists with their specific roles outlined in the next**

**section;**

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1. **REDACTED** is a qualified Mechanical Engineer with an MSc In Engineering Projects

& Systems Management. She has over 3 years experience in Projects and Project management, with her specific experience lying in the construction industry from tendering of projects to design, execution and eventual completion.

**Key Skills: Project Planning and Management, Construction, Compliance, Electronic**

**Systems, Non-Destructive Testing (NDT), Contract Management, Renewable Energy - Solar, Geothermal, Wind Turbine Design & Testing**

2. **REDACTED** is a qualified Electrical and Electric Power Engineer who is currently working as a Renewable Energy Consultant as well as completing his Msc in Renewable

Energy. He has extensive experience in the design of Solar PV systems, mini grid as well

as provision of energy management solutions.

**Key Skills: Energy Markets, Solar Energy, Project Management, Renewable Energy**

**Storage, OHS&A Safety Standards, Wind Turbine Design, Construction Management**

3. **REDACTED** is a qualified Electrical Engineer with over 5 years experience in project development and supervision. He is currently working as a renewable energy project developer with duties including preparation and evaluation of project feasibility

studies, preparation of contracts, project management etc. On top of this he is also completing an MSc in Renewable Energy Development.

**Key Skills: Project management and supervision, Project development, renewable**

**energy, contracts negotiation, construction and contractor work, electrical systems, engineering design, renewable energy systems, renewable energy policies and energy markets.**

4. **REDACTED** is a qualified Renewable Energy Development Management with extensive experience in development projects across the globe. She has been involved with the British Council Interaction Leadership Programme and as a team travelled to Jordan to interact with Jordan, Egyptian, Syrian and Palestinian colleagues. Has work experience with Third Sector Organisations, Scottish government and parliament in terms of policy implementation, championing equal pay rights, agriculture & food security, mental health awareness, education & child protection, and overall diversity & inclusion.

**Key Skills: Equality impact assessments, strategy & objectives, Policy drafting and implementation, Audits, Report Writing, humanitarianism, Mentoring, Community Building & Engagement, Project Management & Coordination, Administration.**

17. Please give some background on the organisation including its size, how many staff/ volunteers, how long it has existed and brief details of projects run. **Max 300 words.** **Rehub+ is an independent, renewable energy organisation, founded in Kenya in 2010. Our work involves Project Management and Engineering consultancy services and our vision is to make renewable energy in Africa a reality, particularly in marginalised communities who have no access to electricity. The company is made up of a few individuals as shown on the organisational structure below;**

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18. Please describe your partnership with this organisation, including details on: how long the partnership has existed, how it first started, and how it has developed. Give a brief description of the joint work you have done together. **Max 300 words.** **This is a newly formed partnership and will only exist for the purposes of the submission of this tender i.e. the Climate Justice and Innovation Fund. The three organisations Nature Guard, Aquatera and Renewables Hub Africa Limited (Rehub+) will work on the project as a collective to ensure that objectives are met in line with sustainability practices. The partnership will be for the period stipulated on the Memorandum of Understanding (MOU), with Aquatera being the lead partner, and both Aquatera and Rehub+ providing the**

**technical support + experience and Nature Guard implementing the project in the chosen location i.e. Kabwe.**

19. Do you have a Memorandum of Understanding (MOU) or contract with this partner?

Yes - signed x Yes - draft  No

If 'Yes' please submit it with your application

12

20. How are equal opportunities/diversity promoted within this organisation?

Maximum word limit: **150 words.**

**Rehub consists of a multicultural and multiethnic team of experts and is committed to encouraging equality and diversity among our workforce regardless of race, gender, ethnic origin, disability, age, sex. This is done through eliminating unlawful discrimination.**

**The aim is for our workforce to be truly representative of all sections of society and our**

**customers, and for each employee to feel respected and able to give their best.**

**The**

**organisation - in providing goods and/or services and/or facilities - is also committed**

**against unlawful discrimination of customers or the public.**

***Detailed equality/diversity policy attached!***

14a. Name and details of partner organisation: (please copy and paste this section again or add

as separate sheets if you have more than one partner organisation, with the lead partner

appearing first

Name of Organisation: **Nature Guard (NG)**

Address of Organisation: **Plot 7027**

**Mine Hospital Road,**

**New Kasanda Area**

ZIP/Postcode: **10101**

Country **Zambia**

Telephone: **REDACTED**

Email: [natureguard@ymail.com](mailto:natureguard@ymail.com)

Website:

Type of organisation ( e.g.

NGO, community

organisation etc)

**NGO**

15a. Is the organisation

formally registered in

country of operation?

Yes  No  Registration No: **ORS/102/33/574**

16a. Describe how the organisation is governed/managed; Include the make-up of the

management committee/board, their skills and experience, how often they meet, and how decisions are made. **Max 200 words.**

**NG is governed by a Board of Directors whose key purpose is to ensure the NGO's prosperity by collectively directing the organization's affairs, whilst meeting the appropriate interests of its stakeholders ..**

13

**The secretariat is responsible for running the day to day activities of the organization and ensuring effective project implementations.**

**Secretariat Position Skills/Experience**

**REDACTED**

17a. Please give some background on the organisation including its size, how many staff/

volunteers, how long it has existed and brief details of projects run. **Max 300 words.**

14

**Nature Guard (NG) is an environmental led organization that was established in 2009 and**

**formally registered as an environmental non-governmental organization on 5<sup>th</sup> October**

**2011 in accordance with the Societies Act Cap 119 of the laws of Zambia and regulation**

**(REG No. ORS/102/33/574). Since its inception in 2011 NG has worked towards achieving**

**its objectives and other pressing environmental issues in fulfilling its vision of “creating a**

**society of people who willingly and consciously work for the betterment of their**

**environment with a motive to have a clean and greener Zambia.”**

**NG has mainly, been involved in solid waste management, raising awareness using the**

**environmental management mantra of ‘Reduce, Reuse, Recycle’.**

**Title of Activity (Title): Duration Funder**

**1. Awareness on adaptable and sustainable environmental friendly waste management practices**

**20th February**

**2013 to 24th**

**May, 2013.**

**Finnish Government**

**(Civil Society**

**Environmental Fund.**

**CSEF)**

**2. Building knowledge levels of the general public in Mukonchi Community of Kapiri-Mposhi District on adaptable and sustainable environmentally friendly waste management practices**

(In collaboration with Restless Development)

13<sup>th</sup> March 2013

- 12<sup>th</sup> April 2013

Finnish Government

(CSEF)

**3. Commemoration of World Environment Day 2013**

3rd June, 2013

to 17th June, 2013.

Finnish Government

(CSEF)

**4. Solid Waste Collection, processing and recycling project (in partnership with a local recycling company)**

1<sup>st</sup> January, 2016

to 31<sup>st</sup>

December, 2018.

Millennium Challenge

Account - Zambia

**5. Plastic Waste Recycling initiative Project**

1<sup>st</sup> January, 2017

to 31<sup>st</sup>

December, 2018

Finnish Government

(CSEF phase 2)

**As alluded to earlier in question No. 16 , the organization has a small team of management**

**staff consisting of 5 members and 1 intern. The organization also works with 15**

**community volunteers (7 males and 8 females) who are responsible for implementing**

**activities at community level in the 15 wards that NG is currently operating from.**

18a. Please describe your partnership with this organisation, including details on: how long the

partnership has existed, how it first started, and how it has developed. Give a brief description

of the joint work you have done together. **Max 300 words.**

**This is a newly formed partnership and will only exist for the purposes of the submission**

**of this tender i.e. the Climate Justice and Innovation Fund. The three organisations Nature**

**Guard, Aquatera and Renewables Hub Africa Limited (Rehub+) will work on the project as a**

**collective to ensure that objectives are met in line with sustainability practices. The**

partnership will be for the period stipulated on the Memorandum of Understanding (MOU), with Aquatera being the lead partner, and both Aquatera and Rehub+ providing the technical support + experience and Nature Guard implementing the project in the chosen location i.e. Kabwe.

15

19a. Do you have a Memorandum of Understanding (MOU) or contract with this partner?

Yes - signed  Yes - draft  No

If 'Yes' please submit it with your application

20a. How are equal opportunities/diversity promoted within this organisation?

Maximum word limit: **150 words.**

Please see attached NG policy.

21a. Partner's Project Manager details: this is the person who will be responsible for overseeing the project management and reporting in-country. *If you have more than one partner organisation, complete the lead partner's details only.*

Manager's Name: **REDACTED**

Name of Organisation:

(if different from Q14):

**Nature Guard**

Position in organisation: **Executive Director**

Address (if different from Q14):

**Plot 7027 Mine Hospital Road, New Kasanda Area**

**REDACTED**

## **PROJECT INFORMATION**

22. Project Title to be used in all future correspondence.

**Waste To Wealth Project**

23. Please tick which Main country/area your project will be in

Malawi

Rwanda

Zambia

24 . If the project will work in additional countries/area which are these?

Malawi

Rwanda

Zambia

25. If the project will work in additional countries/area, please explain the rationale for this. **Max**

**200 words.**

**N/A**

16

26 . Please tick which thematic area(s) your project aims to address.

Food security

Water

Energy

27. Describe the problem you are trying to solve or situation you are trying to address including

which communities your project is going to work with. Tell us if you will be targeting any specific

excluded groups (for example those with disabilities, the homeless, or those affected by

conflict/violence). **Max 500 words.**

1. **Flooding and Land degradation:** One of the major challenges facing the predominantly

poor people that live in squatter 'compounds' of Kabwe is *flooding* especially during the

rainy season. This problem is compounded by the fact that there is generally poor or no

drainages for water in these areas at all. Available drainages cannot allow easy flow of

water due to *mountains of solid waste* that is dumped in these areas. In addition, indiscriminate disposal of Solid waste in undesignated areas chokes the available outlets

for rain water. With the already poor sanitation situation (such as shallow wells and pit

latrines), the problem can quickly degenerate into *water borne/diarrheal diseases* that

over the years, has led to many deaths.

2. **Air pollution:** Charcoal is the most common source of main cooking energy in urban

areas, followed by electricity, and lastly the other non-specific sources, such as gas, and

kerosene. Of the three main sources charcoal accounts for almost half (44%) of urban

households, followed by a mix of charcoal and electricity representing 38%, and lastly

electricity only accounting for 17% of urban households. It is therefore evident that charcoal is widely used in urban Zambia as a source of cooking, either on its own or in

combination with electricity. (Chidumayo et al. 2002). In addition, there is widespread air

pollution mainly from these sources of energy being used. It brings along issues such as

health risks especially for the women and children who use it for cooking.

3. **Deforestation:** Electricity has not been a reliable source of energy and where it fails to

meet the household energy demands, consumption of wood fuel is expected to increase,

and in turn, increase the pressure on forest resources. Since 2012, Zambia has experienced increased load shedding partly due to inadequate investments in generation

capacity but more due to poor rainfall and a resulting decrease in generation given its

heavy dependence on hydro-electric power (Samboko et. al, 2016). As such, households have experienced increased share of expenditure on wood fuel in their energy budgets.

The tremendous pressure experienced by forests mean that the overall ecosystem is under threat which thus affects the climate and water regulation.

**This initiative will greatly reduce the dependence of charcoal and improve livelihoods of**

**the 75 waste collection groups' members in the 15 Wards of Kabwe District of Zambia**

**where NG is implementing a "plastic Recycling Initiative Project." NG is working with**

**vulnerable community members; these include groups and individuals among the key**

**affected populations such as women, youths, people with disabilities etc.**

28. Explain how many people your project is planning to work with each year.

17

29. Describe in one sentence the overall aim of this project .

**NB: for successful projects this may be used for publicity purposes.**

**Developing The Capacities Of Vulnerable Communities To Promote Smokeless Fuel From**

**Waste Biomass To Reduce Carbon Emission Whilst Enhancing Better Livelihood Through**

**Conservation And Micro-Enterprises Development In Kabwe District, Central Province,**

**Zambia**

30. Project period (maximum 36 months). Projects must be complete by 31 October 2020.

Will the project start in November 2017 ? Yes  No

If no, what is the planned start date:

Planned end date: ( **must not be after 31 October 2020** ):

Therefore total length:     3     financial years     0     months

31. Purpose of this application

New project start up

Feasibility (Field Testing)

Innovations on their path to scale

32. What needs analysis have your partner(s) and your organisation done to decide what the

priorities and activities should be for this project? Tell us about consultation with community

groups, civil society organisations, and meetings with local government agencies.

How were

disadvantaged /excluded people able to put forward their needs? Tell us about other research/

statistical data. **Max 600 words.**

**NG is currently implementing a two year 100,000 euro "Plastic Waste Recycling Initiative**

**Project" supported by the Finnish government through its support to Civil Society**

**Organisations in Environment and Natural Resource Management in Zambia, Phase 2 (CSEF**

**2). Through the initiative, 75 plastic collection groups of 8 members each have been set up in**

**15 wards of Kabwe District, Central Province of Zambia mostly consisting vulnerable people**

**from disadvantaged communities. These are youths and women. Through the interaction**

**with these community members NG has gained a lot of knowledge on community needs**

**around Kabwe District. The involvement of stakeholders such as Civic Leaders (Ward**

**Councillors), Market Chairpersons, Ward Development Committees Chairpersons, Members**

**of Parliament, etc. in quarterly Stakeholder Meetings has been a hallmark of the initiative**

**and has also proved to be a very useful platform for consultation.**

**33. Tell us how the project fits into the development priorities of local government agencies. Max**

**250 words.**

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**Briquette making project will fit with the following outcomes and strategies of the Zambian**

**Seventh Development Plan 2017-2021:**

**● ENHANCING HUMAN AND DEVELOPMENT (DEVELOPMENT OUTCOME 3) : IMPROVED ACCESS TO WATER SUPPLY AND SANITATION**

**● ECONOMIC DIVERSIFICATION AND JOB CREATION (DEVELOPMENT OUTCOME**

**4): IMPROVED ENERGY PRODUCTION AND DISTRIBUTION FOR SUSTAINABLE DEVELOPMENT**

**Strategy 3: Promote renewable and alternative energy.**

**● REDUCING DEVELOPMENTAL INEQUALITIES(DEVELOPMENT OUTCOME 1):**

**REDUCED INEQUALITIES**

**Strategy 2: Promote urban and peri-urban economies**

**● POVERTY AND VULNERABILITY REDUCTION (DEVELOPMENT OUTCOME 1):**

**ENHANCED WELFARE AND LIVELIHOODS OF THE POOR AND VULNERABLE. (Anon, (2017). [online] Available at:**

**<https://www.lusakatimes.com/wp-content/uploads/2017/06/Final-7NDP-07-06-17.pdf> [Accessed 3 Aug. 2017.)**

**34. Who else is working in this area, and what are they doing? How will your project work with**

**them to ensure they are complimentary and to avoid duplication? Max 400 words.**

**Current applications of renewable energy training have been fragmented and without full**

**support of the local communities. This project will utilise a participatory approach in giving**

the members an opportunity to build their own systems from local materials. Additionally, Nature Guard will work/has been working with local communities and aim to expand to schools where they can build relationships with parents and children. By sparking an interest in the utilisation of waste for energy, they will encourage the rest of the community to take up their domestic waste and utilise it for their own profit. The reason *Waste for Wealth* has placed an emphasis into recycling and the use of biofuels is due to the boom and bust that occurred in the 2000's. A majority of sub-saharan African countries including Zambia, experienced a surge in interest for the biofuels, however in 2008, a majority of investors pulled away from projects leading to failure of these projects. It is therefore the aim of this proposal to empower local communities with opportunities that will lead to the generation of income. A report by REDACTED in 2013 detailed few companies that were still operational in terms of Jatropha, Palm oil and Sugar Cane. In central province specifically, the majority of smallholders have chosen to focus on Jatropha oil as not much land is required for the initial investment. Outgrower schemes used have allowed organised groups of farmers, as well as traditional leaders and local government to successfully implement these projects. By working with the specific stakeholders, this

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project will be able to target and utilise the efforts of women and youth within the Kabwe community.

35. Please confirm that a letter of support written by your lead partner organisation is included which describes your partner organisation's perspective on the research, consultation and project planning process.

Yes

**Please note: the application will not be eligible without this.**

36. How does this project fit with global development policy and the achievement of Sustainable

Development Goals? **Max: 250 words .**

**The global development policy outlines the fight against global poverty, inequality and injustice. It promotes sustainable development by way of the United Nations (UN) global**

goals. This application contributes to accomplishing the Scottish Government International Development Policy of assisting Sub-Saharan Africa predominantly focusing on UN

Sustainable Development Goal (SDG) 13: Climate action.

Furthermore our outcomes in “Question 38” below will also aid in the progressing of:

● SD Goal 1: Eradicate poverty in all forms

This project will give an opportunity to vulnerable people in the community to generate income, hence improve their lives.

● SD Goal 4: Quality education

● SD Goal 7: Affordable and clean energy

The introduction of this project enables access to affordable and reliable energy for many in

the community who cannot afford other forms of energy. The use of the briquetter is

sustainable and a modern source of clean energy.

● SD Goal 13: Take urgent action to combat climate change and its impacts

The briquetting method addresses climate change by using renewable energy in view of

reducing deforestation. It also gives the opportunity to future generations to benefit from

natural resources. Furthermore, the increase in population is a threat to climate change due

to increased human activity, and therefore modelling the use of resources will guarantee

sustainability.

● SD Goal 15: Life on land

This project is directly aligned with this strategy. By training Zambian locals in waste

management and production of sustainable energy, people are able to take advantage of the

opportunity to generate an income stream; and in turn directly address the fight against

poverty. It will also directly address the goal of sustainable development by promoting

green living through reducing, reusing and recycling waste.

The fight against inequality and injustice will also be directly addressed through this project

by ensuring enrolment of equal numbers of men and women as well as disadvantaged groups.

A targeted approach will be used to identify the needs and priorities of the end users in

order to develop a training course that addresses the same. Through education of

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disadvantaged groups, there will be increased knowledge, improved socio-economic status in

**addition to the development of job opportunities, equality and justice.**

37. How does this project support Scottish Government Climate Justice policy? **Max 250 words** <sup>1</sup>

**This proposal has the following specific aim; to enable women and youth to finding alternative sources of energy as well as train them to change their perspective on recycling of waste. This is in direct relation to Climate Justice policy of transitioning into a low carbon economy as well as providing a sustainable future for the vulnerable communities. Furthermore it supports the Scottish Government's Beyond Aid agenda as it tackles everyday decisions and behaviours around social, economic and environment of the vulnerable communities in Kabwe. In addition, training of the local community allows for the distribution of information and educating the locals, this in turn means that a trust is developed between Scotland and Zambia specifically.**

38. What changes and improvements in people's lives (outcomes) will the project achieve during its lifetime? Up to 3 outcomes is sufficient. **Max 150 words.**

**Outcome 1:** Increased awareness in use of sustainable waste management practices by direct beneficiaries.

**Outcome 2:** Increased short term employment opportunities for vulnerable people in the 15 participating wards

**Outcome 3:** Improved living conditions of vulnerable people in the affected communities.

### 39. **WORKPLAN**

What activities will your project carry out each year to achieve the Outcomes given in Q38? Which

organisation will do these? What numbers of people will be involved in the activity?

**Outcome 1: Large scale information dissemination on best practices**

**Activities in year 1**

**Conduct awareness meetings in targeted communities**

**Who will action**

**Aquatera and Nature Guard**

**Target numbers**

**15**

**Activities in year 2**

**Who will action**

**Target numbers**

<sup>1</sup> <http://www.gov.scot/Topics/International/int-dev/climatejustice>

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**Conduct awareness**

meetings in targeted  
communities  
Recruitment of 15  
volunteers  
Train volunteers in  
environmental awareness  
Print awareness materials  
Design and print 100 T/shirts  
and caps

community awareness  
outreach by volunteers

Nature Guard 100  
Activities in year 3

Conduct awareness  
meetings in targeted  
communities

Recruitment of 15  
volunteers

Train volunteers in  
environmental awareness  
Print awareness materials  
Design and print 100 T/shirts  
and caps

community awareness  
outreach by volunteers

Who will action  
Nature Guard

Target numbers  
100

Outcome 2: Formation of waste collection groups

Activities in year 1

Meeting with key  
stakeholders in the  
communities

Who will action

Aquatera, Nature Guard,  
REHUB

Target numbers  
250

Activities in year 2

Form plastic waste collection  
groups

Training of form plastic  
collection groups

Purchase of protective wear  
for groups

Purchase of 100

[500kg-1000kg] bins for the  
storage of waste by groups

Who will action

**Nature Guard**

**Target numbers**

**250**

**Activities in year 3 Who will action**

**Target numbers**

**22**

**Enlisting 5 environmental clubs for upcycling and recycling**

**Training of pupils in 5 clubs enlisted**

**Sensitisation field trips for clubs**

**Nature Guard and REHUB 200**

**Outcome 3: Waste to energy production**

**Activities in year 1**

**Secure site for placing demonstration machine**

**Training of operators and volunteers**

**Who will action**

**Nature Guard and REHUB**

**Target numbers**

**100**

**Activities in year 2**

**Demonstration of innovations**

**Conversion of waste**

**Who will action**

**Nature Guard**

**Target numbers**

**100**

**Activities in year 3**

**Training of environmental clubs for upcycling process**

**Who will action**

**Nature Guard**

**Target numbers**

**50**

40. Taking the outcomes and activities framework in the workplan, describe the project in more

detail, to include what will be done, with whom, how many, when, where, what resources will be

needed, role of staff posts and partners in delivering and managing the project. **Max 500 words.**

**Please see attached Project Plan & Risk Management document attached.**

41. What are the strengths, resources and existing activities in the community that the project

will build on? **Max 200 words.**

The initiative currently being implemented by NG, as alluded to above, addresses both the demand and supply side of Plastic waste. On the demand side, groups have been set up in 15 wards of Kabwe District, Central Province of Zambia. Each ward has a minimum of 5 groups with approximately 8 people in each group that are responsible for collecting plastic waste

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in designated areas of their wards. All the 75 groups (5 groups/ward x 15 wards) have been given weekly collection targets in order to ensure that there is focus in the work being done. The plastic waste is collected by NG from central places within the wards to minimise transport costs from both the organisation and the groups. The plastic waste collectors are paid K1.00 for each kilogramme of plastic waste delivered to the collection points.

The introduction of the Briquettes making project to the existing groups will go in line with the mantra of 'reducing, reusing recycle' which NG has been advocating for since its inception. This will also add on to the income generating activities that are being carried out by the target groups, thereby improving their livelihoods.

42. How will you make sure that the most disadvantaged people in the community/target group will be involved in and benefit from this project? **Max 200 words.**

**NG strives to work with vulnerable community members; these may include groups and individuals among the key affected populations such as women, youths, people with disabilities etc. All the direct beneficiaries of NG's past and current work are poor people**

**from disadvantaged communities. Under the on-going "Plastic Waste Recycling Initiative**

**Project" NG has reached out to about 603 individuals, 603 households and approximately**

**3,015 people who are benefiting by virtue of being members of the households supported.**

**The wider community benefits too.**

**NG will tap into this same community member resource that it has established thus far in**

**the Briquette making project.**

43. How can you demonstrate your and your partner's capacity to deliver this project? What past

experience do you have? What are the skills and experience of the project managers? How will the

responsibilities for management and coordination be split, and how often will contact be? **Max 300**

**words.**

**Please see attached Aquatera company profile**

44. Assuming success in the innovation aspect of the project, how will you build long term

sustainability into the plans for this project, to make sure that the benefits will last in the long term

and be sustainable when this funding comes to an end – what is your exit strategy?

**Max 300 words.**

**Please see Project & Risk Management Plan**

45. Tell us about any plans to scale up and/or replicate the project. **Max 200 words.**

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**This project affords itself to scale up, contingent upon results of the initial project, there could**

**be scope for investigating scale up:**

● **Providing new training to people (up-skilling) as new appropriate technologies develop**

● **Using this project as a test-case for developing projects in other provinces in Zambia**

**and/or Sub-Saharan African countries.**

46 . What might go wrong during the project? (i.e. what are the risks?) What will you do to try and

minimise these or deal with them if they occur? (Add rows as required).

**Risks Likelihood of happening**

(Low, Medium or High)

**How will you minimise the risk?**

(ensuring as a minimum no negative impact to the community)

**Recovery plan if problem occurs**

Some people may be sceptical in using charcoal made from Briquettes

low Sensitize communities on the social and economic benefits of using charcoal made from Briquettes

Demonstrate to community

members on

efficient the

Briquettes as a fuel

and make them

understand the  
significance of  
engaging them in  
the project  
Change in  
government policies  
towards renewable  
energy  
Low Engage law-makers  
and Civic Leaders  
through stakeholder  
meetings and  
participate in forums  
of policy formulation  
Bring on board  
other key players  
in the  
environmental  
sector such as the  
for CSOs directly  
involved in  
environmental  
issues and direct  
beneficiaries  
affected to engage  
with Law-Makers  
and Civic Leaders  
to come with the  
common goal.

The stigma associated  
with collection and  
separation of solid  
waste as this may  
demoralize some  
group members.

Medium Sensitize communities  
on the social and  
economic benefits of  
using charcoal made  
from Briquettes  
Launch vigorous  
community  
sensitization  
campaigns on the  
benefits.

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47. How will this project build the capacity of the applicant and partner organisations in the field of climate justice? **Max 500 words**

Currently NG is only dealing with one stream of waste which is plastic waste in its current project “Plastic waste Recycling Initiative”. The making of Briquettes will see the applicant gaining experience in biomass and other sustainable methods of recycling other streams of waste.

Technical support that will be rendered by Aquatera and REHUB+ will further NG scope of work to the benefit of the local community. This project will also help NG in building the capacity of staffs.

48. What is the role of the Scottish organisation in this project? What is the added value that the

Scottish organisation brings beyond the funding? **Max 200 words**

Aquatera through its vast network of renewable technology experience will assist the local

project developers to scale their technology and continue to harness the power of community.

#### **MONITORING, EVALUATION AND LEARNING (MEL)**

This section should detail your monitoring and evaluation plans in relation to the outcomes and activities described earlier.

**Monitoring and evaluation plans will function simultaneously and procedures will be**

**initiated at the outset. A monitoring and evaluation plan will be organised, specifying**

**indicators, data collection and analysis responsibilities and timescales.**

**For further clarity is please see the “Project & Risk Management Plan”.**

#### **MONITORING:**

**We will establish a Project Piloting Group with members from all the partner organisations (Aquatera, NG and REHUB+). The Pilot Group will have quarterly meetings to monitor progress, provide guidance, trouble-shooting on decision support and arising issues.**

**The Project Managers in Zambla and UK will be responsible for operational developments, implementation and coordination of the project locally; liaising with**

**stakeholders and communicating with the Project Piloting Group. Project Managers**

**will meet formally (virtually as necessary) on a monthly basis and will provide updates**

**of discussions at official Piloting Group meetings. One official face-to-face monitoring visit to Kabwe/year envisioned.**

#### **EVALUATION:**

**Evaluation will be central and ongoing throughout the project. Plans and responsibilities will be outlined at the beginning.**

**Figure 1: Evaluation Cycle**

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- 1. PROPOSAL – Deciding what we want to find out**
- 2. DESIGN – Planning how to go about the whole process**
- 3. COLLECTING INFORMATION – Both qualitative and quantitative (using**

questionnaires, focus groups, interviews, gathering stories, making banners, videos, etc)

4. ANALYSIS – Making sense of the information gathered

5. LEARNING – Reflect, learn, and if necessary, change

6. PRESENTATION OF FINDINGS – For example, a written report, a talk, video, collection of stories, etc.

REF: <https://www.nidos.org.uk/sites/default/files/Steps%20in%20planning%20evaluation.pdf>

REF: <https://www.nidos.org.uk/monitoring-and-evaluation>

Data will be collated using a range of qualitative and quantitative methods.

Questionnaire survey, interviews (individual and/or group; by telephone and/or direct).

The Project Piloting Group will offer guidance, commenting on and contributing to

data analysis and reporting, shaping of recommendations and dissemination as

reports, publications, podcasts etc.

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49. What monitoring information will you gather about the activities? Please describe how

you will know whether your outcomes are achieved, and whether your innovation is successful? What evaluation activities will you carry out? What tools and indicators will be

used? **Max 600 words.**

There are several ways in which the success of a project may be measured and these can

either be subjective or objective measures. In project management, the most useful indicators are below;

1. **Schedule** : monitoring the project from start to finish allows us to guarantee that the project is completed within the stipulated time as well as ensuring that the objectives are met accordingly.

2. **Scope** : was the project finished within the timeframe? It is important to answer these questions as it entails completion of objectives.

3. **Team satisfaction** : it is very rare to question the satisfaction of the team members

as it is always perceived as a default. We will ensure that the team is treated well throughout the entirety of the project, as this affects their performance and quality of the project. Keeping the team happy results in an overall positive environment.

4. **Customer satisfaction** : the end user, who in this case will be the vulnerable women

and youth will play the biggest role in identifying the success of this project.

Surveys will be carried out, as well as daily communication with the client to analyze whether they are happy with the product that we are trying to give them.

5. **Budget** : ensuring that the budget is kept to strictly, and in the case of an overspend, it has to be justified and properly accounted for.

All stakeholders will be consulted throughout the duration of the project and questions

regarding the long and short term goal will constantly be assessed. We shall endeavour to

assess whether there has been a change in terms of mindset and behaviour especially with

the women who are being trained to change the way they view recycling and alternative sources of fuel. Most importantly we will assess whether the client has personally seen the project as a success.

50. How will you use and disseminate the learning from this project both successes and failures, to shape future work? **Max 400 words.**

**We will develop a strategy for disseminating the project learning extensively. There is copious breadth for project dissemination through the websites of Aquatera, NG and REHUB+ as well as via newsletters.**

**Local: Through community meetings and dialogue**

**National: Make presentations at Zambian conferences or workshops;**

**International: Make presentations at International Development Conferences**

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51. Please use the table below to give an overview of the monitoring, evaluation and learning plans

In addition to the table below, please find attached the detailed Monitoring & Evaluation

(M&E) Framework by Nature Guard+ Rehub+ Africa Ltd +Aquatera Ltd

Role What will be done, when and who will do it? Which organisation

Monitoring of

project

progress

● **Draft M & E plan**

● **Collect M & E data**

● **Process and analysis M & E data**

● **Report M & E data**

**Aquatera;**

**Nature Guard;**

**REHUB+**

Evaluation of

the project

Detailed in the M&E framework attached **Aquatera;**

**Nature Guard;**

**REHUB+**

Learning from

this project to

improve

future

projects

● **Dissemination plan organised**

● **Local project dissemination at Kabwe (Central Province)**

● **In UK Conference presentations, such as at Scottish International Development Alliance; at Heriot Watt University;**

**Additional ways of raising awareness of project:,  
using LinkedIn Groups such as:**

● **Africa Infrastructure & (Sustainable) Energy  
Platform (17,630 members)**

● **Africa Energy (1,132 members)**

● **Partnership International - Renewable  
Energy & Sustainable Development (449  
members)**

● **Sustainable International Development &  
Sustainability (44,119 members)**

**All partner  
organisations**

**Nature Guard/**

**REHUB+**

**Aquatera**

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### PROJECT BUDGET

Applicants are requested to complete the Excel budget spreadsheet with details of the project

budget. The section below is for the additional information that is required to support your budget as presented.

52. Total funds requested from Scottish Government:

Year 1: Nov 2017 - Mar 2018 (5 months)

£ 18115

Year 2: Apr 2018 - Mar 2019

£ 34820

Year 3: Apr 2019 - Mar 2020

£ 29020

Year 4: Apr 2020 - Oct 2020 (7 months)

£ 16995

**GRAND TOTAL**

**£**

53. Please provide justification for any capital expenditure over £250 in your budget. An

explanation of what constitutes capital expenditure has been provided in the guidance notes.

All capital items are for renewable energy demonstration activities outlined in section 8.

54. Please detail in the table below the international airfares in your budget; detail who the airfares

are for, the dates, duration and reasons for travel. This applies to visits both to and from country.

Please insert more rows if necessary.

Airfare (as

detailed in

budget)

750

Person

travelling

**REDACTED** To/From

Scotland to

Zambia

Dates

2 times a year

Planned

duration

of

visit

Purpose of visit

4 days

each

Quality assurance

and M&E

55 . Please tell us about any matched funding sources for this project. None

**Matched Funding Source**

**and Status**

**Matched Funding Amount**

Funding

source

Are these funds

secured?

**2017/18 2018/19 2019/20 2020/21 Total**

Yes

No

£

£ £ £ £

Yes

No

£

£ £ £ £

**30**

**TOTAL MATCHED**

**FUNDING £ £ £ £ £**

56a. Will there be any other non-financial support for this project, i.e. in-kind contributions?

Yes

No

56b. If yes, please give details of what these might be.

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All completed applications should be submitted by email to:

[international@ltsbfoundationforscotland.org.uk](mailto:international@ltsbfoundationforscotland.org.uk) to arrive no later than **12.00 noon on Monday 7<sup>th</sup> August 2017.**

Lloyds TSB Foundation for Scotland

Riverside House, 502 Gorgie Road, Edinburgh EH11 3AF

Registered in Scotland Number SC096068

Scottish Charity Number SC009481

[international@itsbfoundationforscotland.org.uk](mailto:international@itsbfoundationforscotland.org.uk)

May 2017

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