Annex A

Annex A1: Template for institutional three-year GCRF strategies (AY 2018-19 onwards)

Please complete this form and the excel table in **Annex A2.** Text boxes may be expanded to the required length, and are expected to be in proportion to the level of formula Global Challenges Research Fund (GCRF) allocations received in 2017-18. Please do not attach other documents or annexes. Guidance for completing the forms is at Annex B.

The completed form and table should be emailed to dbeards@sfc.ac.uk by **noon on Monday 26 March 2018**.

Name of institution	Robert Gordon University
Contact person for correspondence who is also responsible for ensuring that the head of institution has approved this strategy for submission to SFC.	
Name	Emma Gillibrand
Position	Research Strategy Manager
Address	Garthdee House, Garthdee Road, Aberdeen, AB10 7QB
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Note that we intend to contact this person in the event of queries regarding the institutional GCRF strategy. We will also contact this person annually as part of our GCRF monitoring process.	
Has this GCRF strategy been approved for submission to SFC by the head of institution? Yes Name: Ferdinand von Prondzynski Email address: F.Prondzynski@rgu.ac.uk Signature: 	

Section A: Official Development Assistance (ODA) and GCRF strategy

The strategy

1. Summarise the key aspects of your three year strategy for development-related and GCRF research activity, including:

    a. Your institution's strategy and priority objectives for all development-related research activity funded through all sources for three years from 2018-19.
    b. Summary of the key aspects of your three year strategic plan for formula GCRF in light of the criteria and objectives for the GCRF outlined in the guidance.
    c. How activity funded through GCRF fits into your broader strategy and priorities for all development related research activity.
    d. How activity funded through GCRF relates to the UK strategy for the GCRF.[1]
    e. How your development-related and GCRF strategies relate to your wider institutional strategy for using REG.
    f. Likely key barriers and enablers to implementing your strategy.
    g. The key activities by which you will realise your objectives, such as capacity and capability building; mono-disciplinary interdisciplinary and collaborative research; generating impact from research; meeting the full economic cost of GCRF activity funded through other sources; rapid response to emergencies with an urgent research need; and pump priming.
    h. The main Development Assistance Committee (DAC) list developing countries you intend to collaborate with.

Official Development Assistance (ODA) and GCRF strategy

Robert Gordon University's strategy and priorities for development related research

The RGU strategy for development related research activity is built around Transforming our world: the *2030 Agenda for Sustainable Development* adopted by the United Nations (UN) General Assembly on the 25th September 2015.

RGU's high-level development objectives are to:

- support excellent research;

[1] UK Strategy for the Global Challenges Research Fund, http://www.rcuk.ac.uk/funding/gcrf/challenges

- stimulate innovation;
- build capacity and capability; and
- promote the economic development and welfare of our partner developing countries.

Our strategy addresses the five inter-linked priority areas of:

People: Ending poverty and hunger and fulfilling potential.

Planet: Protecting the planet from degradation, including sustainable consumption and production, sustainably managing its natural resources and action on climate change.

Prosperity: ensuring prosperous and fulfilling lives with economic, social and technological progress in harmony with nature.

Peace: Foster peaceful, just and inclusive societies free from fear and violence.

Partnership: Building global solidarity, focused on the needs of the poorest and most vulnerable.

In delivering our strategy to address these five priorities over the next three years, RGU will direct our efforts on a subset of the seventeen Sustainable Development Goals but will review this list on an annual basis and modify the approach, incorporating additional Sustainable Development Goals and associated targets, if appropriate.

Sustainable Development Goals targeted by RGU

Recognising that the resources available to RGU through the Global Challenges Research Fund (GCRF) will need to be targeted to deliver any significant impact for our partner countries RGU will further focus our activities to address a specific subset of the targets set by the UN for each of these selected goals.

The RGU effort will be focused in areas where the university has an established track-record of excellent research and where it has nascent, or already established, cooperative partnerships with researchers and other stakeholders in the partner countries with which we propose to engage. Some of these areas have been past recipients of RGU's allocation of the GCRF in the past two years.

Our aim is to build mutually-beneficial long-term partnerships that can be sustained, at least in part by sources other than the GCRF.

Goal 3.	**Ensure healthy lives and promote well-being for all at all ages**
3.4	By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and wellbeing.
Goal 6.	**Ensure availability and sustainable management of water and sanitation for all.**
6.1	By 2030, achieve universal and equitable access to safe and affordable drinking water for all.
6.3	By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally.
Goal 7.	**Ensure access to affordable, reliable, sustainable and modern energy for all.**
7.a	By 2030, enhance international cooperation to facilitate access to clean energy research and technology, including renewable energy, energy efficiency and advanced and cleaner fossil-fuel technology, and promote investment in energy infrastructure and clean energy technology.
Goal 9.	**Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.**
9.5	Enhance scientific research, upgrade the technological capabilities of industrial sectors in all countries, in particular developing countries, including, by 2030, encouraging innovation and substantially increasing the number of research and development workers per 1 million people and public and private research and development spending.
Goal 11.	**Make cities and human settlements inclusive, safe, resilient and sustainable.**

11.3	By 2030, enhance inclusive and sustainable urbanization and for participatory, integrated and sustainable human settlement planning and management in all countries.
11.4	Strengthen efforts to protect and safeguard the world's cultural and natural heritage.
11.b	By 2020, substantially increase the number of cities and human settlements adopting and implementing integrated policies and plans towards inclusion, resource efficiency, mitigation and adaptation to climate change, resilience to disasters, and develop and implement, in line with the Sendai Framework for Disaster Risk Reduction 2015–2030, holistic disaster risk management at all levels.
Goal 12.	**Ensure sustainable consumption and production patterns.**
12.a	Support developing countries to strengthen their scientific and technological capacity to move towards more sustainable patterns of consumption and production.
Goal 13.	**Take urgent action to combat climate change and its impacts**
13.3	Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning.
Goal 14.	**Conserve and sustainably use the oceans, seas and marine resources for sustainable development.**
14.2	By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration in order to achieve healthy and productive oceans.
14.5	By 2020, conserve at least 10 per cent of coastal and marine areas, consistent with national and international law and based on the best available scientific information.
Goal 15.	**Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.**

15.9	By 2020, integrate ecosystem and biodiversity values into national and local planning, development processes, poverty reduction strategies and accounts.
Goal 16.	**Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels.**
16.6	Develop effective, accountable and transparent institutions at all levels.

The RGU strategy and development-related research

The revised RGU research strategy, outlined in our 2018-2021 Outcome Agreement with SFC, is well placed to address the UN Sustainable Development Goals and aligns extremely well with the UK Strategy for GCRF (2017). As highlighted below it can be applied readily to partnership project designs to provide solutions to the challenges presented by sustainable development while building capacity and capability in the countries on the Development Assistance Committee's main list.

RGU will:

- *Build critical mass, foster excellence, exploit new research and knowledge exchange opportunities* and increase funding by leveraging our existing strengths in key areas (see table);
- *Stimulate excellence in interdisciplinary research and knowledge exchange with societal and economic impact* through the appointment of leading or rising research leaders, supporting them with postdoctoral researchers and research students;
- *Support the development of researchers to be adaptable and flexible in an increasingly diverse and global research environment through provision of mentoring, researcher training* and open-access publication support;
- Build on the establishment of the pan-University Graduate School *to offer high quality, integrated training programmes for postgraduates and early career researchers to embed interdisciplinary working in our next generation of researchers;*
- *Develop further strategic collaborations through national and international academic and industrial research and knowledge exchange alliances.*

Capacity and capability strengthening in DAC countries

In addition to the research with DAC countries, RGU has been heavily involved with capacity and capability strengthening activities.

RGU's international research/consultancy services have, to date, focused on national skills required to support energy markets. For that reason, the university initially concentrated efforts on two countries undergoing significant change – India and Mexico and to minimise risks, partnered with the UK Foreign and Commonwealth Office (FCO) and national governments.

In India, RGU delivered a feasibility study for a training centre to accelerate the development of oil and gas skills, undertaken between July 16 and January 17 with £45k Prosperity Funding from the FCO. The focus for the study was to develop a subsea centre of excellence in Andhra Pradesh and had the support of the national oil companies and the Indian Institutes of Technology. Follow up to the study was held back due to the fall in oil price but the recommendations still hold value. Since January 17, RGU has delivered a subsea short course programme to ONGC, one of the Indian national oil companies, due to the credibility gained through the study.

A relationship was developed with the Ministry for Energy in Mexico, SENER, following a visit by the Mexican President and his cabinet to RGU and Aberdeen in May 2015 to learn from the sector in support of his Energy Reform. Mexico would change strategy from having one national oil company, Pemex through market deregulation to open up licences to international players. RGU secured support (£118k from FCO Prosperity Fund) for a project, *'Developing a skills development framework for the hydrocarbon sector in Mexico',* to ensure that the right skills would be available for international companies moving into Mexico and, most importantly, that Mexico retained value in country from the Reform. The project had a joint steering group of RGU, FCO Mexico and SENER. The resulting 12 recommendations were unanimously endorsed by the sector - government agencies including the Ministry of Energy and Education and all of the appointed oil agencies and the international operators' industry body. One recommendation was to improve sector leadership given the new international focus. RGU was successful in securing £98k from FCO Transition Funds to develop and deliver a pilot Sector Leadership short course programme and make recommendations for future roll out. The Project started in January 18 and will finish at the end of March 18.

All of these projects were delivered on time and to budget and, as well as meeting the consultancy goals, provided further opportunities for RGU and indeed, for the wider UK.

A key indicator of success is that RGU is now one of five universities in the UK to partner with SENER (along with University of Aberdeen, Imperial College, LSE and UCL). An announcement is imminent which will see the university partner with Mexican institutions to deliver on three capacity and capability development projects and one research project which will include the development of a Mexico: Scotland Centre of Excellence in a key energy area. The RGU projects will have a total value of greater than £10 million.

RGU is now following a similar approach to researching, understanding and developing critical energy skills at a national level in other key countries including Japan and Colombia.

The Research Excellence Grant (REG) and Sustainable Development related activities

The Research Excellence Grant, (REG) that RGU receives from SFC is used to support areas of strength within the university, many of which have direct or indirect relevance to the challenges of sustainable development.

As outlined in our 2018-2021 Outcome Agreement, RGU intends to supplement the REG with a major targeted investment in research with a strong emphasis on interdisciplinarity. This investment will support work in areas that will underpin the work we propose being supported by the GCRF. Some of this research would not routinely be considered to direct address the Sustainable Development Goals. In deciding on the projects to be supported by GCRF we have focused on the core criteria used in competitive funding calls for GCRF allocations.

The selected projects must

- be focused on problems and solutions.
- be underpinned by research excellence, and partners in developing countries should play a significant role in this where possible.
- have a high likelihood of positive impact on the economic development and welfare needs of developing countries.
- should promote strong, enduring and equitable partnerships between academic communities in the UK and in the global south.

In addition, in selecting projects for support by GCRF, RGU intends to deliver a mixed portfolio, rather than solely STEM-related research, that covers the subset of Sustainable Development Goals, Goals 3, 6, 7, 9, 11, 12, 13, 14, 15 and 16 that the university has identified for focus.

Barriers to the RGU strategy

The main enablers to the delivery of the RGU strategy are the researchers at RGU and in the partner institutions. Other enablers are the policy and decision makers in the partner countries and some of the projects that the GCRF will support at RGU will engage with those stakeholders.

The barriers are likely to be the capacity and capability within the partner countries and the extent to which the progress on the GCRF supported projects leads to improvements and solutions that are readily adopted within country. To mitigate the risks, and wherever possible, the GCRF-supported research projects will build on, and grow capacity and capability in country and attempt to engage policy makers at an early stage, although their participation cannot be guaranteed.

The longer-term sustainability of the work supported by the projects will be dependent, in part, on the success of the early stages of the research activity and the extent to which additional internal or external funding can be secured. RGU researchers supported by GCRF have been successful in securing competitive research funding from a range of national and international funding bodies so it is envisaged they will continue to do so as a means of continuing the partnerships beyond the period of direct GCRF support. To be successful, the long-term sustainability of the partnerships must be a shared responsibility. Our efforts will be geared towards building capacity and capability to discharge this responsibility with collaborators in each DAC country with which we are partnered being supported to make their own funding applications.

The key activities to realise the RGU objectives

All the projects approved for GCRF support at RGU have a strong element of capacity and capability building as a central feature.

All are either multi-disciplinary or interdisciplinary and all involve collaborative research within the university and with partner organisations in the DAC countries.

Each project will be monitored on a regular basis for outputs and impact across a set of metrics determined for each individual project.

Each of the projects is designed to 'pump-prime', in that there is an expectation that all investigators will be required to submit additional collaborative research and development grant applications as part of their programme of activities.

DAC list of partner countries

Our partner countries have a wide geographic spread and will include:

Former Yugoslavian Republic of Macedonia;

India;

Mexico;

St Lucia (potentially other eligible Caribbean countries);

Sri Lanka;

Vietnam.

2. Provide details of the main intended outcomes and impacts of your strategy.

For each of the supported projects the expectation is of the delivery of research excellence that will lead to appropriate outputs, outcomes and impacts. These should be focused on the targets set out in the *2030 Agenda for Sustainable Development* adopted by the United Nations (UN) General Assembly on the 25th September 2015, providing much-needed solutions to the problems of sustainable development identified within that agenda.

Outputs will include publications in leading international journals; contributions to postgraduate theses and presentations at local, national and international conferences or exhibitions. We anticipate there will be researcher exchanges, including exchanges of early career researchers as well as additional and larger joint collaborative research applications and awards.

We expect the outcomes and impacts to be around strengthened institutional partnerships leading to increased DAC country research capacity and capability and an increased profile of the DAC country partners on the global research stage.

Each study should generate an evidence base that can be used to inform and shape governmental policies in each of the focused areas.

Management of GCRF

3. How will your HEI monitor and evaluate its progress and compliance in ODA and GCRF activity, including assessing geographical distribution of activity, outputs, outcomes and economic and social impacts?

Please describe the policies, procedures and approach you have in place to measure progress, evaluate outcomes, identify lessons learned, and ensure ODA compliance.

All the GCRF projects supported by RGU will be monitored on a regular basis by the RGU Research Committee.

GCRF supported projects will be a standing item on the Research Committee's agenda. The Committee is chaired by the Vice Principal (Research) at RGU who has forty years of experience of working in, and with, developing countries. In the past he managed a programme of International Cooperation with Developing Countries at the European Commission, supported at the time by the Department for International Development. Currently he serves as an advisor to the World Health Organisation and to projects on sustainable development funded by the Bill and Melinda Gates Foundation.

Each project will submit regular light-touch monitoring reports against a defined template that will address, individually defined Objectives, Activities, Milestones, Outcomes (results, publications, grants applied for, grants secured) and Impacts (on strategy and policy in country).

A full report for each project will be submitted to the RGU Research Committee each year for onward transmission to SFC.

As in past years, RGU will hold an Annual Conference to allow the GCRF-supported researchers to report more fully on their work. In addition, researchers will be expected to report their findings within the partner countries and at international conferences.

Continued funding, beyond the first year of each project will be dependent upon satisfactory reporting. While the sums allocated to each project are relatively small it is expected that they will serve as a catalyst for leveraging additional larger scale resources.

Section B: Use of GCRF 2018-19 allocation and future formula GCRF priorities

4. Please complete the table in Annex A2 detailing the expected spending and activities for GCRF in the academic year 2018-19. This should show how all expected GCRF will be committed to ODA-compliant activities.

5. Please add here any explanatory notes on how you have completed the table in Annex A2 that will demonstrate ODA compliance.

Each project that will be supported is identified by a title and a brief description. The types of activities for each project relevant to GCRF are listed as a subset of those provided by SFC. The relevant Sustainable Development Goals (SDG) and SDG Targets for each project are identified for each project as are the participating DAC partner countries.

6. What are your priorities for GCRF activity in 2019-20? Please describe how the profile of activity will adjust to increases or decreases to expected GCRF funding.

We do not envisage any major change in the priorities but will review the portfolio of projects and opportunities on an annual basis. As each project will be subject to regular monitoring and a stringent annual review RGU will be in a position to make judgments on the funding flows in future years and decide on the need for any investment of its own strategic funds.

7. What are your priorities for GCRF activity in 2020-21? Please describe how the profile of activity will adjust to increases or decreases to expected GCRF funding.

We do not envisage any major change in the priorities but will review the portfolio of projects and opportunities on an annual basis. As each project will be subject to regular monitoring and a stringent annual review RGU will be in a position to make judgments on the funding flows in future years and decide on the need for any investment of its own strategic funds.

Annex A2: Global Challenges Research Fund: Three-year institutional GCRF strategies (academic year 2018-19 onwards)

Table A: Detailed proposals for spending of QR GCRF in academic year 2018-19
Note: 'GCRF' = 'Global Challenges Research Fund'; 'DAC' = 'Development Assistance Committee'.

Project	Type of activity	Formula GCRF (£)	Research Council or other (£)	DAC nations	Benefits to DAC nations	Outputs and impacts
Description of the activity or project title.	Capacity and capability building, Mono-disciplinary, interdisciplinary and collaborative research. Generating impact from research. Meeting full economic costs of research funded by other sources. Rapid response to emergencies with an urgent research need. Pump-priming.	Level of funding used from formula GCRF allocation.	Project funding from Research Councils or other sources (please indicate whether these are GCRF awards).	Nations involved or benefitting as listed by the DAC.	Description of primary benefits to economic and welfare development in partner DAC nations.	Description of intended outputs and impacts.
The Cultural Heritage of the Former Yugoslavian Republic of Macedonia. This project is designed to add value to a longer-term relationship RGU is developing with the Former Yugoslavian Republic of Macedonia focused on modernist heritage (Borko Lazeski) and the establishment of a possible institute based on his work in Skopje. The project is intended primarily to develop longer-term mentoring and support relationships between emerging curators and artists in the UK and the Former Yugoslavian Republic of Macedonia, providing international exposure for the cultural heritage of the Former Yugoslavian Republic of Macedonia cultural heritage.	Capacity and capability building. Collaborative research. Pump-priming. **SDG 11. 11.4 Strengthen efforts to protect and safeguard the world's cultural heritage**.	£6,000	£5000*	Former Yugoslavian Republic of Macedonia	International exposure for the cultural heritage of the Former Yugoslavian Republic of Macedonia cultural heritage. Increased awareness of the cultural heritage of the Former Yugoslavian Republic of Macedonia coupled with greater research capacity and capability is likely to help ensure improve the prospects of this important heritage being preserved and protected and celebrated as it should be, while providing a platform for the next generation of curators and artists to develop.	**Outputs** At least two publications and two exhibitions. International exposure of Former Yugoslavian Republic of Macedonia cultural heritage. Access to and sharing of differing cultural ecologies. Exchanges. Exchanges of early career researchers. Additional and larger joint collaborative research applications and awards. **Impacts** Strengthened institutional partnerships and an established and long-term mentoring and support relationship. International recognition of the value and contribution of cultural heritage from the Former Yugoslavian Republic of Macedonia. Increased DAC country research capacity and capability.
Smart Data Technologies for Industrial Growth and Efficiency in DAC Countries. Smart data applications are of interest in operational management, such as process control, logistics, workforce planning and predictive maintenance. Emerging nations often struggle with out of date infrastructure and there is both a need and an opportunity to adopt the most modern and efficient technologies in new plant. Sensor-based technologies are intrinsic to new modern systems and the increasing availability of operational data streams is transforming traditional industries, realising huge efficiencies and productivity gains. RGU is interested in building research connections in DAC countries where there is a strong common interest in research and application areas.	Capacity and capability building. Interdisciplinary and collaborative research. Generating impact from research. Pump-priming. **SDG 7. 7.a By 2030, enhance international cooperation to facilitate access to clean energy research and technology, including renewable energy, energy efficiency and advanced and cleaner fossil-fuel technology, and promote investment in energy infrastructure and clean energy technology. SDG 9. Target 9.5 Enhance scientific research, upgrade the technological capabilities of industrial sectors in all countries, in particular developing countries, including, by 2030, encouraging innovation and substantially increasing the number of research and development workers per 1 million people and public and private research and development spending.**	£8,000	£5000*	Mexico	This research will build capacity and capability and lead to significant economic impact across a range of industrial sectors including Oil and Gas,and renewables. It has the capacity to transform asset operations and maintenance.	**Outputs** Publications in leading international journals. Presentations at local, national and international conferences. Researcher exchanges, including exchanges of early career researchers. Additional and larger joint collaborative research applications and awards. **Impacts** Strengthened institutional partnerships. Increased DAC country research capacity and capability. Increased efficiency and effectiveness of equipment and facilities with associated economic benefits across a range of industrial sectors.
Sustainable construction and sustainable planning and overcoming barriers to societal and industrial adoption. The focus of the work will be on exploring the routes, policy, incentives, economic planning, industry and community engagement, which could foster and support the adoption of green practice (energy production and consumption, construction practice, building design, building use) for transitions to a green economy. The project will build an understanding of the challenges around sustainable construction and planning in island communities, benefitting from research RGU is engaged in on the Orkney Islands and building research capacity and capability.	Capacity and capability building. Interdisciplinary and collaborative research. Generating impact from research. Pump-priming. **SDG 9. 9.5 Enhance scientific research, upgrade the technological capabilities of industrial sectors in all countries, in particular developing countries, including, by 2030, encouraging innovation and substantially increasing the number of research and development workers per 1 million people and public and private research and development spending. SDG 12. 12.a Support developing countries to strengthen their scientific and technological capacity to move towards more sustainable patterns of consumption and production. SDG 11. 11.3 By 2030, enhance inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable human settlement planning and management in all countries. 11.b By 2020, substantially increase the number of cities and human settlements adopting and implementing integrated policies and plans towards inclusion, resource efficiency, mitigation and adaptation to climate change, resilience to disasters, and develop and implement, in line with the Sendai Framework for Disaster Risk Reduction 2015–2030, holistic disaster risk management at all levels.**	£6,000	£5000*	St Lucia (potentially other eligible Caribbean countries)	Improved economic planning, industry and community engagement. Increased research capacity and capability. An evidence base for policy decisions that will lead to economic and environmental benefits.	**Outputs** Publications in leading international journals. Presentations at local, national and international conferences. Researcher exchanges, including exchanges of early career researchers. Additional and larger joint collaborative research applications and awards. Policy documents. **Impacts** Strengthened institutional partnerships. Increased DAC country research capacity and capability. Increased efficiency and effectiveness of construction and planning equipment and facilities with associated economic benefits across a range of industrial sectors. Sustainable construction and sustainable planning and increased societal and industrial adoption of methodologies and policies. Improved energy production and consumption, construction practice, building design, building use.
Intelligent health interventions for self-management of chronic diseases. Sri Lanka has state funded healthcare with ongoing pressure to its budget due to the large population (16M) whilst the private sector is only accessible to a very small percentage of the population. According to the recent global burden of disease report low back pain, diabetes and depression are all among the top chronic diseases that lead to years lived with disability globally across Asia. Decision support in the form of digital self-management plans and educational content about conditions are natural strategies to reducing the need for frequent medical intervention. We want to deliver these interventions using natural language and machine generated speech. This is made possible now with the ubiquitous availability of advanced communications and computing technology through smartphones. Just as mobile phones transformed banking in Kenya, it is our view that similar rapid advances can be delivered by developing a new model of widely available self-managed healthcare that exploits large volumes of person-generated health data (wearables, passive sensors, social interaction activities) and that can be delivered through mobile technologies.	Capacity and capability building. Interdisciplinary and collaborative research. Generating impact from research. Pump-priming. **SDG 3. 3.4 By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well being.**	£6,000	£5000*	Sri Lanka	Just as mobile phones transformed banking in Kenya, it is our view that similar rapid advances can be delivered by developing a new model of widely available, accessible, self-managed healthcare that exploits large volumes of person-generated health data (wearables, passive sensors, social interaction activities) and that can be delivered through mobile technologies.	**Outputs** Publications in leading international journals. Presentations at local, national and international conferences. Researcher exchanges, including exchanges of early career researchers. Additional and larger joint collaborative research applications and awards. **Impacts** Strengthened institutional partnerships. Increased DAC country research capacity and capability in the application of digital technology in healthcare. Improvements in approaches to managing chronic healthcare problems.
Ensuring social wellbeing in climate change adaptation through ecosystem management. The proposed project will develop an existing collaboration between the School of Applied Studies at RGU and the Institute of Human Geography in the Vietnam Academy of Social Sciences for understanding the social dimensions of climate change in coastal communities. The coastal areas in northern Vietnam and northern Scotland share similarity in that both are (a) at significant risk from climate change due to proximity to the sea; (b) sites of fragile ecosystems which require careful management to ensure they can function as a crucial 'last line of defence' for coastal communities; and (c) home to citizens socially and economically marginalised within their own nations. There is therefore significant potential for mutual learning between Scotland and Vietnam in the area of environmental management and social policy for climate change adaptation, which will be refined through the planned research.	Capacity and capability building. Interdisciplinary and collaborative research. Generating impact from research. Pump-priming. **SDG 13. 13.3 Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning. SDG 14. 14.2 By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration in order to achieve healthy and productive oceans. 14.5 By 2020, conserve at least 10 per cent of coastal and marine areas, consistent with national and international law and based on the best available scientific information. SDG 15. 15.9 By 2020, integrate ecosystem and biodiversity values into national and local planning, development processes, poverty reduction strategies and accounts. SDG 16. 16.6 Develop effective, accountable and transparent institutions at all levels.**	£10,000	£5000*	Vietnam	There is significant potential for mutual learning between Scotland and Vietnam in the area of environmental management and social policy for climate change adaptation, which will be refined through the planned research. This research will build capacity and capability supporting collaboration among early career researchers in Vietnam and Scotland. The work is intended to provide the scientific evidence base to inform strategy and policy development.	**Outputs** Publications in leading international journals. Presentations at local, national and international conferences. Researcher exchanges, including exchanges of early career researchers. External support for capacity building in responding to climate change was explicitly requested in Vietnam's submission to the Paris Agreement. Additional and larger joint collaborative research applications and awards. Policy documents. **Impacts** Strengthened institutional partnerships. Increased DAC country research capacity and capability. Greater awareness of the requirement for, and value of community engagement in decision making on environmental policies.
Safe drinking water and health. The challenge of providing safe drinking water necessitates consideration of pathogens and toxic pollutants and an increased awareness of naturally occurring hazards. One such serious impact on human health and water utility is the formation of toxic cyanobacterial blooms in nutrient rich waters, a problem which is further exacerbated by climate change. The project will focus on monitoring and mitigation methods bringing cutting edge research to address the problems associated with cyanotoxin contamination in drinking water, leading improved treatment methods and health outcomes associated with current issues around kidney disease that are thought to be influenced by these toxins.	Capacity and capability building. Interdisciplinary and collaborative research. Generating impact from research. Rapid response to emergencies with an urgent research need. Pump-priming. **SDG 3. 3.4 By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and wellbeing SDG 6. 6.1 By 2030, achieve universal and equitable access to safe and affordable drinking water for all. 6.3 By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally. SDG 9. 9.5 Enhance scientific research, upgrade the technological capabilities of industrial sectors in all countries, in particular developing countries, including, by 2030, encouraging innovation and substantially increasing the number of research and development workers per 1 million people and public and private research and development spending. SDG 13. 13.3 Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning.**	£11,000	£5000^~	Sri Lanka, India.	The project will support the sharing of cutting-edge research and build capacity and capability. It will generate new approaches to water treatment and contribute to delivering safe water supplies with the associated health benefits stemming from that.	**Outputs** Publications in leading international journals. Presentations at local, national and international conferences. Researcher exchanges, including exchanges of early career researchers. Additional and larger joint collaborative research applications and awards. **Impacts** Strengthened institutional partnerships. Increased DAC country research capacity and capability. Modified governmental policies. Improved water treatment methods. Improved health outcomes.
		Total: £47,000**	**Total: £30,000**			

* Allocated from RGU's major targeted investment in research

** Remainder to support RGU's Annual Conference on GCRF funding

~ Research in this subject has recently been supported by a £1.2million EPSRC grant (EP/P029280/1) led by RGU to undertake research in Brazil (May 17-Apr 20)