1. Institutional research context

The University of St Andrews’ Global Challenges Forum was formed in 2018 and builds on the University’s commitment to the Global Challenges agenda. The Forum supports the University’s extensive GCRF challenge-led research base, funded by the Scottish Funding Council (SFC) Global Challenges Research Fund (GCRF) QR Grant, and contributes to the United Nations Sustainable Development Goals.

Supporting the SFC’s objective ‘to invest in excellent research and innovation that adds to current knowledge, delivers economic and societal value, enhances Scotland’s international reputation and attractiveness, and makes the world around us prosperous, healthier and more sustainable’, the University of St Andrews in 2018 committed its support to the St Andrews Global Challenges Forum’s 3-year strategy ‘to improve the economic activity and strength of ODA countries by strengthening capability for research and innovation in developing countries and the UK, as well as building structures which will enable agile responses to emergencies and opportunities’. Endeavouring to consolidate and deepen on the Forum’s first two years of the strategy, the Forum’s focus in 2021 went from supporting 49 projects in 48 countries with average awards of £16.5k in 2018-19, to 24 projects in 20 countries with an average award of £36.9k per project in 2019-20, to 19 projects within four streams in 16 countries with average awards of £52k per project in 2020-21. This last year’s average award increase was mainly the result of the Forum’s introduction of two interdisciplinary Consolidator Hubs (see more below).

The four funding streams and distribution breakdown for 2020-21 are shown in table 1.

Table 1. 2020-21 Forum funding stream distributions

<table>
<thead>
<tr>
<th>Funding stream</th>
<th>Limit</th>
<th># Funded projects</th>
<th>Amount funded</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main call</td>
<td>£80k</td>
<td>7</td>
<td>£391,731.80</td>
<td>£55,961.69</td>
</tr>
<tr>
<td>PhD Catalyst</td>
<td>£40k</td>
<td>5</td>
<td>£151,798.00</td>
<td>£30,359.60</td>
</tr>
<tr>
<td>Consolidator hubs</td>
<td>£200k &amp; £160k</td>
<td>2</td>
<td>£353,051.00</td>
<td>£176,525.50</td>
</tr>
<tr>
<td>Rapid Response</td>
<td>£30k</td>
<td>5</td>
<td>£99,161.00</td>
<td>£19,832.20</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>£995,741.80</td>
<td></td>
</tr>
</tbody>
</table>

Interdisciplinary legacy themes

A strategic aim for 2020-21 was to support core GCRF strengths at St Andrews by consolidating two interdisciplinary GCRF themes, (i) AMR/TB at the School of Medicine/Social Science interface and (ii) Cultural Heritage (tangible and intangible), both of which became prominent under the previous two years of SFC GCRF funding. The Forum also sought to deepen thematic expertise with five invited PhD Catalyst funds to support ODA ECR collaborations. These two funding streams contribute to a cross-faculty research collaboration legacy via online knowledge and results sharing on an international scale.

The St Andrews Africa Health Research network (StAAHR): The StAAHR network is a consortium of interdisciplinary teams in St Andrews and across eight East African institutions in Malawi, Ghana, Nigeria and Ethiopia. The StAAHR website has welcomed online visitors from 41 countries, utilising it as a

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platform for encouraging networking and research dissemination. The network has also established the Tuberculosis Molecular Bacterial Load Assay (TB-MBLA) – a St Andrews TB test, which can be used to diagnose a patient’s bacillary load of Mycobacterium Tuberculosis (MTB) in real-time, quantifying live TB in hours rather than weeks - at three new sites: Kibongoto Infectious Diseases Hospital Tanzania, Infectious Disease Institute Uganda and Kenya Medical Research Institute (KEMRI). KEMRI became the first institution in Kenya to implement TB-MBLA. An online TB-MBLA training video was produced by the network and has been evaluated for effectiveness at Kilimanjaro Clinical Research Institute. Over 20 researchers were trained in qualitative research, while three early career researchers were trained in the application of Geographic Information Systems (GIS) data to map diseases, medicine access and other health characteristics. Through this network, the team were awarded a Ghana Bio-enterprise Innovation Partnership grant funded by the British Council to spearhead entrepreneurship and youth employability.

The GCRF Cultural Heritage Hub: The Cultural Heritage Hub was established to bring together the University’s various SFC-funded GCRF cultural projects in Tanzania, Peru, Costa Rica and Ukraine. This project created an online [web portal](#) for researchers, students, communities and the public to share research, media, resources and outcomes from the Hub’s sub-projects. The web portal features interactive Google-based maps to demonstrate partners’ locations, a database of intangible and tangible heritage, detailed descriptions of sub-projects, event listings, and the GCRF Hub facilitated Global Conversation series archive. The web portal’s main pages are available in English and Spanish, with future collaboration support from ODA partners to offer local indigenous and Ukrainian translation. The online Global Conversation series facilitated by the Cultural Heritage Hub sought to create a platform and space for ODA partners to share cultural heritage research, methodologies and outcomes from the University’s portfolio of SFC GCRF projects. Crucially, it supported self-led conversations between ODA partners to foster and develop collaborations and to promote shared experiences and expertise. Each Global Conversation online session highlighted one of the Hub’s country-specific sub-projects with commentary presentations from the University’s SFC GCRF projects. Each session was recorded and archived for future use via the [Cultural Hub’s website](#).

GCRF ‘Sustainable Futures’ Symposia Series: In October 2021, the GC Forum organised and delivered a highly successful, all-project inclusive, online GCRF ‘Sustainable Futures’ series of four Symposia, which featured 30 speakers, including St Andrews researchers and their ODA global partners, 11 external panellists (including former politicians, NGOs and international experts) to form the basis for substantive interdisciplinary discussions. Panellists included: Dr Rebekah Widdowfield, Chief Executive of the Royal Society of Edinburgh (RSE); Chrissie Hirst, International Specialist at the Corra Foundation; Professor Gibson Kibiki, East African Health Research Commission (EAHRC); and former MP for North-East Fife, Stephen Gethins. Chaired by the Forum’s new Director since January 2021, Professor Thomas Meagher, each session welcomed the speakers followed by presentations from panellists selected for their relevant expertise, over 228 participants from 19 countries joined the series. See Figure 1 for map of participants.

Each session focusing on one of the cross-cutting impact topics:

- Equality Matters
- Sustainable Livelihoods
- Social Justice
- Evidence-based Policy

Held weekly throughout the month, the Symposia Series included 14 presentations on the cross-cutting impact topics and generated 10 hours of publicly available [legacy material](#), which has been promoted as an educational resource for both the University and ODA partners by students, researchers and the public.
Global Forum and University priority themes

The four priority themes of the Forum are:

- Energy and Innovation
- Global Health and Inequality
- Sustainability and Environmental Change
- Cultural Heritage (tangible and intangible)

Underlying themes, embedded within these main priorities, include (a) sustainable livelihoods, (b) promoting justice and humanitarian action, (c) secure and sustainable food systems, (d) gender equity and (e) rapid urbanisation.

The 19 projects supported in 2020-21 align with the University’s six priority areas for collaborative working across disciplines (see the University of St Andrews Strategy 2018-2023), as shown in Figure 2.

Figure 1. Map of countries participating in the series

Figure 2. 2020-21 Project breakdown by the University of St Andrews' priority areas

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2 https://www.st-andrews.ac.uk/about/governance/university-strategy/world-leading/
The Forum’s strategy for the SFC GCRF also aligns with the University Strategy pillars\(^3\) of Diverse (11 projects), Entrepreneurial (6 projects), and World-leading (7 projects), whilst all funded projects engage in different ways with the strategy’s Global pillar. Most importantly, our SFC GCRF strategy and processes align with the University strategy’s social responsibility principle to ‘act ethically, transparently, sustainably, and for the wider public benefit at all times’.\(^4\) Finally, our SFC GCRF activities fulfil a key University objective to ‘promote areas of world-leading research that provide international leadership, engage with big societal questions, have the highest level of integrity, and the potential to resonate externally’.\(^5\)

**Continuity, building on success and establishing agendas:**

The 2020-21 funding of £1,030,991 continued to progress and deepen projects funded in previous years. Some projects from previous years ceased being funded through the 2020-21 SFC GCRF allocation due to the completion of objectives or progression to larger follow-on grants (approximately £1.13M for year 3 projects). In this third year of our strategy, the primary objective was to support maturing projects by consolidating research themes and deepening successful projects to increase ODA benefit, value for money, and to ensure a long-lasting legacy. Our secondary objective was to make a concerted effort to support worthwhile new projects and rapid response needs. As the block grant (based on Research Excellence Grant allocations) funding had grown, St Andrews’ Global Challenge research strengths by topics (fishing and coastal communities; global health, particularly TB, HIV and antimicrobial resistance; cultural heritage preservation and sustainable livelihoods; and energy security) and by region (East and sub-Saharan Africa, Amazonia and Southeast Asia) have naturally evolved as key foci.

To date, the SFC 2020-21 funding has leveraged over £1.13M in additional funding. The effects of both COVID-19 and the cuts to overseas aid have been noticeable as shown by the decline in successful follow-on funding for GCRF-remit projects, which require that projects are of direct benefit to ODA countries – not a requirement for most other funding streams. In 2018-19, that year’s project PIs leveraged four times as much money as was invested; in 2029-20, they leveraged double the investment; but in 2020-21, they leveraged only the same again. The reported number of follow-on applications for this year’s projects has also fallen dramatically. Of course, there could be additional circumstances at play, besides COVID-19 and the ODA cuts.

### 2. Progress with our GCRF strategy

We are aware that the poorest countries require longer lead-in time for effective change. We, therefore, developed and monitored a strategy for stimulating ODA links through grants for networking and dissemination, including developing regional activities and opportunities for greater self-led dialogue between ODA partners. Our 2020-21 projects supported 16 UN Global Goals for Sustainable Development (SDG) in some capacity – most projects addressed more than one goal. The full breakdown, self-reports by the PIs, is depicted in Figure 3.

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3. [https://www.st-andrews.ac.uk/about/governance/university-strategy/](https://www.st-andrews.ac.uk/about/governance/university-strategy/)

4. [https://www.st-andrews.ac.uk/about/governance/university-strategy/university-social-responsibility/](https://www.st-andrews.ac.uk/about/governance/university-strategy/university-social-responsibility/)

5. [https://www.st-andrews.ac.uk/about/governance/university-strategy/world-leading/](https://www.st-andrews.ac.uk/about/governance/university-strategy/world-leading/)
Figure 3. SDGs covered by 2020-21 projects

The aims set out in the 2020-21 University of St Andrews GCRF strategy, along with progress, are:

**Immediate and/or potential economic benefit to DAC-listed partners:**
All funded projects were selected on their potential to realistically enhance economic and health & well-being benefits in the partner countries. Fourteen (70%) of the funded projects are delivering routes for economic growth for local communities: by providing the means for self-sufficiency achieved through creative industries, increased health, trade or tourism; by helping communities struggling with the devastation to their livelihoods as a result of the COVID-19 pandemic; and by up-skilling local and/or indigenous groups. Health and well-being accounted for nine (45%) of the funded projects, which delivered: better eye health, more tax funds to support healthcare in ODA countries and better treatment of COVID-19 patients who may also have Tuberculosis or other ailments affecting the lungs. What is clear is the level of commitment of the PIs to, and the strength of the relationships they have built within, the local communities.

We are proud that, in this reporting year, support continued to shift from UMIC to LDC, with more than half of all projects now contributing to the development of LDC countries, see Table 2. This is a shift on last year of an additional 7% of LDCs benefitting from the funding and an overall increase of 19% over the 3 years of funding.

**Table 2. Project support by the level of development**

<table>
<thead>
<tr>
<th></th>
<th>2018-19</th>
<th>2019-20</th>
<th>2020-21</th>
</tr>
</thead>
<tbody>
<tr>
<td>Least Developed Countries (LDC)</td>
<td>36%</td>
<td>48%</td>
<td>55%</td>
</tr>
<tr>
<td>Lower-Middle Income Countries (LMIC)</td>
<td>32%</td>
<td>32%</td>
<td>31%</td>
</tr>
<tr>
<td>Upper-Middle Income Countries (UMIC)</td>
<td>32%</td>
<td>20%</td>
<td>14%</td>
</tr>
</tbody>
</table>

**Establishment and strengthening of formal links with scientists, commercial companies and end users in DAC-listed countries:**
All funded projects worked closely with 48 in-country partners and with the beneficiaries of many
projects. Project beneficiaries are very dependent on the work they support, so they can fall into more than one category. In 2020-21, academic/educational organisations (30%) were the primary beneficiaries of the project work, followed by medical organisations/professionals (22%), museums (20%) and government organisations (11%) (Figure 4). The split, which has changed from government organisations being primary recipients, in 2019-20, suggests the impact of restricted travel due to COVID-19 on this type of activity, with governmental impact more dependent on face-to-face interactions. Capacity building in the communities with which our researchers work and in the field of medicine reflects the Forum’s commitment to the consolidate themes, which bring together existing projects strategically and which focus on projects that can deliver the most immediate and demonstrable changes.

2020-21 projects that have made substantial impacts in this area:

- Government Revenue and Development Estimations (GRADE) provided evidence to amend fiscal policies which negatively impact government revenue in DAC-listed countries and, therefore, funding of health, education, water and sanitation. GRADE was used by the Global Legal Action Network, Action Aid and others to make a submission to the United Nations Committee on the Rights of the Child (UNCRC) with regards to Ireland’s responsibility for cross-border tax abuse. This resulted in much online and press coverage. In addition, the GRADE team made a submission to the UN Independent Expert on foreign debt, other international financial obligations, and human rights in November 2021.

- Our TB-MBLA test was implemented as the first study to evaluate the application of TB-MBLA in a routine healthcare setting in Tukuyu hospital in Tanzania. The team’s NIMR-Mbeya Medical Research partners developed and optimized a method for inactivating Mycobacterium Tuberculosis and rendering the samples safe to manipulate in a non-containment laboratory. An abstract detailing this was presented at the 52nd Union World Conference on Lung Health, Virtual Event, in October 2021.

- The creation in Samoa of a ‘logo’ (large drum) and ‘fale’ (meeting house) has featured in four TV broadcasts in Samoa by the National University of Samoa (NUS) TV, which is nationally accessible. This national TV network has scheduled further dissemination among Pacific diasporas across the Pacific, the USA and the UK. The impact to Samoan village communities whose members have shared cultural knowledge about instruments (24 villages have participated with 62 individuals interviewed and/or filmed) and on the project partners at NUS has been considerable, with the latter attesting that the project has raised their institutional profile of female academics and the Faculty of Education (responsible for music teaching).

- For the three community museums, the process has provided vital resources for the transmission of their intangible culture, implementing an integrated approach with children, young people, parents and the local community, providing confidence and a positive projection on the part of community museums. Activities constructing community vegetable and medicinal gardens in the area around the local school and community museum involved training with the Ministry of Agriculture and Livestock on sustainable growing and trade in-community, ensuring sustainability longer term. In Boruca, a new small restaurant will provide traditional food to museum visitors. In San Vicente, the new kitchen provides the exchange of ancestral knowledge through traditional cooking workshops as well as pre-Columbian ceramic workshops for children.

- Research conducted in Tanzania formed the basis for producing a new song and video by musician and heritage campaigner Chemical (Claudia Lubao). The song, released on YouTube on 30th July 2021, was themed around the experiences of coastal communities in Tanzania and climate impact on their heritage and received over 5,000 views within the first week and over 58,000 times to date. The success of this project led to new funding from the British Council Arts to produce a similar song on heritage and climate that would represent other East African countries.

- In Ukraine, a book stand presenting the ‘Reference volume and creative writing manual’ (Creative Women Space, Kyiv, 2021) has been attended by over 8,500 individuals at national and regional book fairs: approx. 5,000 visitors in Kyiv, 2,500 in Dnipro, and 1,000 in Mariupol.
Establishment of ‘communication-based’ and fact-finding networks in ODA countries:
This is a longer-term objective of the Global Challenges Forum as we continue to support PIs to connect and expand connections within and between ODA countries.

- In Kenya: application of the Pro-conservation Livelihoods and Community Capabilities for Marine Protected Area (MPA) project’s governance baseline approach led to the formation of a new committee for the implementation of the Watamu National Marine Park management plan, involving Kenya Wildlife Service, four NGOs and other partners. Implementation of the group’s ‘Farming Gods Way’ alternative livelihoods scheme, new capabilities by local communities in fishing villages have started which generate alternative livelihoods, and it is hoped will reduce pressure from illegal fishing. In Ghana, the application of the project governance baseline approach at the Muni-Pomadze Ramsar site led to the closure of a Chinese paper factory that was illegally discharging waste into the Pratu River leading into a lagoon. It engendered high-level political engagement with the MPA from the paramount community chief and government agencies, and the identification of alternative livelihood opportunities related to livestock rearing and organic vegetable and fruit tree farming. Despite the effects of the pandemic in Madagascar, a range of conservation education interventions were undertaken with local schools. In addition, outputs produced included reports on eco-certification, carbon credits, south-south knowledge exchange meetings, educational posters, and video storylines on key conservation issues.
- In Ukraine: through an online open-access archive of digitised photographs and films from vulnerable private and institutional collections, researchers have broadened public understanding of the historic phenomenon of industrialisation and its contemporary impact which fosters new creativity and thinking.
In Liberia: through the spread of best-practice peacebuilding activities by local groups, the work has focused on preventing the spread of disease, sustaining economic activity for survival, preventing and reporting gender-based violence and sexual harassment, promoting safe border crossing, and fostering free movement in border communities.

In Somaliland: The Aamusnaan Maya Initiative, meaning 'Silent No More' in Somali, surveyed and analysed the needs and challenges faced by residents of Internally Displaced Persons (IDP) camps around the city of Hargeisa. The survey showed that little infrastructure is in place to provide basic socio-economic necessities, such as children’s education, public health facilities, particularly those tailored for women, and reliable streams of food and fresh water into the camp. The study found that the situation facing IDP camps has only been exacerbated during the pandemic. The project report recommends a better coordinated effort between government, international NGOs, and civil society actors to address what is a major humanitarian crisis. The report has been translated into Somali and published on the Transparency Solutions website for public dissemination. It has been shared directly with the Somaliland Non-State Actors Forum, the National Disaster Preparedness and Food Reserve Authority, the National Displacement and Refugee Agency, and Oxfam Country Office in Hargeisa.

In Ghana: Two films are being produced to showcase in UK/Europe and Africa and highlight the development of sustainable guinea fowl farming in Africa. One film provides details of research findings, and one highlights the importance of guinea fowl to African agriculture, with the aim of educating and informing farmers and to raise the profile of guinea fowl as a sustainable food source across Africa.

Establishment of ‘communication-based’ and fact-finding networks in the UK, with the aim of producing benefit to DAC-listed countries:
The Forum continues to adjust to the new working landscape that the COVID-19 pandemic has presented.

- The Cultural Consolidator Hub and the Symposia Series sought to create a platform and space for ODA partners to share research, methodologies, and outcomes from the University’s portfolio of SFC GCRF projects. The Cultural Hub engaged in ODA partner led conversations to foster and develop collaboration and to promote shared experiences and expertise. All the sessions of both groups were open to Scottish GCRF research networks. The online sessions were well attended and attracted varied audiences.

- Colleagues in the School of Medicine have developed the tools for diagnostic tests, the binocular indirect ophthalmoscope and the simulation eyes, to teach diagnosing and treating diabetic retinopathy. These are ready to test in ODA settings when safe travel can resume and further funding can be obtained.

Links with Scottish HEIS:
The Forum’s SFC GCRF portfolio of projects has continued to build and deepen Scotland-wide collaborations across all our priority themes. Our work has benefitted from increased networking between academics.

- The Liberian youth project has led directly to building partnerships with academics at Glasgow and Edinburgh under the umbrella of the new Scottish Council on Global Affairs, which will launch in spring of 2022. Specifically, the project led directly to collaboration with researchers at the University of Glasgow to explore funding related to youth, peace and security in Scotland. The group are also collaborating, with researchers at the University of Edinburgh, to deliver in spring 2022 a roundtable launch event, 'Youth Peacebuilding in Scotland and the World', in connection with the Scottish Council on Global Affairs. This event will bring together interested members of academia, government, civil society (including NGOs and religious groups) as well as youth activists engaged in peacebuilding work in Scotland and further afield. The event will explore the UN Global Agenda on
Youth, Peace and Security, and will engage with UN staff who have played a role in shaping this agenda.

- A senior member of our University Research and Innovation Services (RIS) team (Laura Bates) has continued to play an active role in the Scottish SFC GCRF research mangers group.

**Students and local personnel in DAC-listed countries trained by researchers from the University of St Andrews – noting the areas where there are gaps in knowledge or skills shortages in the DAC-listed country concerned:**

Building capacity through training in DAC-listed countries is a longer-term objective of this Forum, we actively encourage researchers to build capacity and provide training wherever and whenever this is applicable. Seventeen of the 20 funded projects had training elements. In total these opportunities resulted in a total of 848 people from DAC-listed countries receiving training.

Projects where this was a primary objective:

- PhD Catalyst funding stream: due to many very qualified and deserving applications to the University’s accompanying PhD 2020 round, five applicants were invited to re-work their PhD applications as one-year research projects as ODA ECR collaborators. This not only led to five highly successful projects but provided research experience to the candidates, two of whom were successful in obtaining PhD studentships in the University’s 2021 GCRF PhD round.
- In Samoa: research work helped to preserve heritage via the creation of a Samoan customary musical instrument (a ‘logo’ or large drum carved from a single log) to be housed at the National University of Samoa. The drum will be of importance to national cultural and for teaching students about Samoan culture.
- In Kenya: providing inexpensive solar powered tools and training for detecting eye damage due to diabetes to prevent blindness.
- In Kenya: working with a local NGO to launch an initiative to engage local cultural values to provide new skills and an alternative livelihood for fishers, to thereby reduce pressure of illegal speargun fishing.

Additional value to the academic community and research areas as per the number of academic publications and presentations/conference proceedings:

- 33 publications
- 29 academic presentations / conference proceedings
- More than 76,500 online visitors, including members of the public:
  - The [Climate and Heritage music video](https://www.youtube.com/watch?v=example) by Chemical (Claudia Lubao) as part of a PhD catalyst project on coastal community heritage in Tanzania and climate impact was viewed over 58,000 times by the time of reporting.
  - The online database ‘Pioneering Women in Ukraine’ available online in Russian and English’ has been accessed more than 10,000 times (public in Ukraine).
  - A network and public engagement tool was launched in May 2021 ‘Website [https://med.st-andrews.ac.uk/staahr/](https://med.st-andrews.ac.uk/staahr/)’, has had over 1,000 unique visitors spanning 41 different countries around the world.

**Leveraged follow-on funding:**

To date, the SFC 2020-21 funding has leveraged approximately £1.13M in additional funding from different funding bodies, including the British Council, Leverhulme, Wellcome Trust and AHRC and other agencies, including the Government of Sweden. It is worth noting that this number was lower than had been anticipated with many applications adversely affected by COVID-19 and the aid budget cuts with very few follow-on applications currently in process. One such application was an urgency grant for which the funding call was withdrawn.
**PhD Global Challenges studentship co-funding:**
The RIS GCRF team successfully ran three annual competitions for GCRF PhD studentships with each cohort consisting of three PhDs. The third and final cohort started in September 2021. The PhDs are centrally co-funded by the University to support the GCRF Strategy. The University’s total financial commitment to the studentships is in the region of £1.1m. Each GCRF PhD is linked to past or existing St Andrews SFC-funded GCRF work. The nine students selected are a true representation of the term “Global”, as the students come from Amazonia, Eastern Europe, the Middle East, sub-Saharan Africa, and the Pacific Rim (see Figure 5).

The GCRF PhD programme was set up to encourage interdisciplinarity, allowing Schools/Departments who may not collaborate regularly to come together. Examples of joint school supervision include Computer Science, Medicine and Geography & Sustainable Development; Modern Languages & Department of Social Anthropology; and Music Centre, Geography & Sustainable Development and Earth & Environmental Sciences. We are excited to learn how these projects will progress over the coming years and what the knowledge & experience gained in St Andrews will achieve on their return home. In November 2021, we held a virtual welcome event for all nine PhD students.

**Figure 5. Map of GCRF PhDs funded 2018-2021**

![Map of GCRF PhDs funded 2018-2021](image)

**Changes to the 3-year GCRF strategy:**
The St Andrews Global Challenge Forum continued to realise the overall aims of the 3-year strategy. One important aim from the start has been to leave a research legacy by ensuring a small number of ‘big ideas’, which coalesce the strengths of St Andrews GCRF challenge-led research, to take hold and flourish. We feel that this has been accomplished in the many ways presented in this report and including the Global Challenges Forum web pages with the interactive catalogue of project which can be searched by year, school, Global Challenge theme and UN Sustainable Development Goal. The descriptions include maps, links and additional information about the researchers and projects.

**Strategy for the distribution of SFC ODA GCRF funds:**
As a result of our continued objective to support projects with the strongest demonstrable expertise to deliver maximum benefits to the global poor, this has been done with increased support to the most in need (see Table 2). Our expectation in 2018 had been that this would be done by equal measure across themes; however, we also committed that projects would be evaluated on their ability to deliver the most change in the most cost-effective ways by the most impactful means. These criteria have meant that funds by theme were not spent evenly, see Table 3.
Table 3. 2020-21 split of funds (by value and percentage)

<table>
<thead>
<tr>
<th>Theme</th>
<th>Open Call</th>
<th>Consolidator</th>
<th>PhD Catalyst</th>
<th>Rapid Response*</th>
<th>Total £ and % by theme</th>
</tr>
</thead>
<tbody>
<tr>
<td>Culture heritage and development</td>
<td>£21.7k / 2%</td>
<td>£153.1k / 15%</td>
<td>£53.1k / 5%</td>
<td>£36.3k / 4%</td>
<td>£264.2k / 27%</td>
</tr>
<tr>
<td>Sustainability and environmental change</td>
<td>£77.2k / 8%</td>
<td></td>
<td>£35.8k / 4%</td>
<td></td>
<td>£113.0k / 11%</td>
</tr>
<tr>
<td>Global health and inequality</td>
<td>£292.7k / 29%</td>
<td>£200.0k / 20%</td>
<td>£62.9k / 6%</td>
<td>£62.9k / 6%</td>
<td>£618.5k / 62%</td>
</tr>
<tr>
<td>Total</td>
<td>£391.7k / 39%</td>
<td>£353.1k / 35%</td>
<td>£151.8k / 15%</td>
<td>£99.2k / 10%</td>
<td>£995.7k</td>
</tr>
</tbody>
</table>

*includes unanticipated and contingency projects

To consolidate identified themes with the intention of deepening benefit and legacy, our strategy aim was to allocate funding as follows:

- 50% - Consolidating stream, included Hub and PhD Catalyst (by invitation) – to deepen thematic expertise (see below)
- 30% - Open Call
- 15% - Rapid Response and dissemination/knowledge/experience sharing
- 5% - Part-time consolidator and coordinator posts, and other costs.

However, due to the reduced funding we received in Autumn 2020, and the fact that the application process was complete for 80% of our previously anticipated funds when we learned this, it was necessary to downscale in areas where funding had not yet been allocated. As such, our ambitions for dissemination/knowledge/experience sharing, leaving the knowledge and best practice sharing for the Hubs and concentrating our efforts on the online international conference centred around GCRF projects; please refer to “GCRF ‘Sustainable Futures’ Symposia Series” on page 2.

Consolidating streams – to deepen thematic expertise

- Interdisciplinary work on AMR and TB at the Medical School/Social Science interface (HUB)
- Interdisciplinary work on Heritage Culture (HUB)
- Catalyst funding: Six PIs were invited to re-work Spring 2020 PhD proposals as 1-year research projects with named PhD candidates as ODA ECR collaborators – five were awarded

As noted in this report, as an institution, we continue to optimise our due diligence and other processes to ensure the completion of projects within the timescales for spend. We also included safeguarding and gender equality as separate application questions to ensure that they are considered at the project planning stage in line with UKRI (UK Research and Innovation) guidance.

3. Impact of COVID-19

The time extension to projects was very welcome and proved the difference to project completion for many. The COVID-19 pandemic lockdown directly affected the performance and productivity of 19 of our 20 GCRF projects supported in 2020-21. Although due to the previous year’s experiences, many difficulties were anticipated and could be factored into projects from the outset, there were still many disruptions due to closure of facilities, travel restrictions in different ODA countries and the UK. Combined, these resulted in interruptions to planned partner visits, field visits, workshops and training.
programmes. Many activities which could do so were designed (or moved) to online formats, with some, such as an Artist Residency, being postponed to the summer and autumn 2021. Staff illness and caring responsibilities, supply-chain delays for consumables, difficulties conducting focus groups and recruiting participants also led to delays for projects and teams. In some cases, the project partners were in clinical service provision roles and experienced higher caseloads which necessarily took priority. There were also some benefits as online working became more commonplace worldwide, with greater readiness to meet and share online, which led to more inclusive, environmentally aware and economical international meetings and conferences. Despite the challenges, all projects have made strides with many expecting more outputs and impacts in the coming months, due to unanticipated delays to plans. Still, during this second year of the pandemic, teams were better prepared to cope with the challenges. PIs commented particularly credited successes on the ingenuity of in-country partners, the revising of strategies to focus on local-level engagement and the timely no-cost extension from SFC.

COVID-19 wasn’t the only obstacle for projects which relied on face-to-face interaction, one project in Guinea needed to overcome the unrest associated with a military coup.

The impact of the pandemic was not all negative: many projects benefited from the growing use and expertise in online working by all partners and participants and their readiness to use online means to progress objectives.

4. Gender equality

**How the University is progressing gender equality through its research:**

The University’s Vice-Principal (Governance), who holds a research budget (the Equality, Diversity and Inclusion Fund), and supports the University’s commitment to put equality, diversity and inclusion at the heart of the St Andrews experience. The Principal lead the University’s commitment to the Diverse St Andrews strategic agenda through a variety of existing and new initiatives. For example, a portfolio of courses, Dignity & Inclusion at Work, is offered by the University. The course portfolio covers a range of awareness, support and training sessions related to equality, diversity, inclusion and well-being issues in the workplace. The courses, designed for all staff, can be taken in stand-alone form or as part of a portfolio, which secures a certificate of recognition once all courses are completed. There are specific courses for those in management and leadership positions, including those related to research. The central Equality, Diversity & Inclusion earn more generally work with Schools and Units to ensure that staff from diverse backgrounds have access to research time and resources, and to equal and fair treatment through workload model mechanisms, research and impact (paid) leave and research leadership opportunities. The University also co-ordinates several mentoring schemes for staff, including mentoring in relation to research roles and activity.

**How the University is embedding gender equality specifically within its ODA/GCRF activities:**

For our underlying theme of ‘issues of gender equity’ we monitor the gender split of all funded projects. This year, nine projects, funded to the total value of £410k (41% of the overall budget) self-declared to be addressing, to a degree, SDG 5: Achieve gender equality and empower all women and girls. In addition, 48% of projects had a female PI. We are pleased to report that both figures are an increase, 3% and 5% respectively, on last year.

Through the SFC GCRF, we throughout the funding period encouraged early career Postdoctoral Research Associates (PDRA)s on fixed-term contracts to apply as PIs.

**Information about gender equality in the context of specific GCRF projects:**

Our application process specifically asks about, and in part awarded on, the gender equality of proposed work. We are therefore pleased to say that all our projects are based on their consideration of gender equity. Some which have specifically contributed to gender equality are:
(1) Recovering Ukrainian women’s history to promote gender equality and build capacity for the preservation of marginalised cultural heritage (XFC113)

The project has created a new knowledge and research exchange network in Ukraine for sharing accessible resources and empowering public discourse in Ukrainian for women's history. With a focus on building capacity for the use of women’s history in education and creative industries, the gathered recommendations led to developing a toolkit promoting women's history in education, addressing gender inequality, and preserving marginalised cultural heritage. The Ukrainian National Committee of Teachers and the National Committee for Anti-Discriminatory Educational Audit now utilise the project outputs for gender equality capacity building, enduring a partnership between network members and major policy stakeholders.

Furthermore, an online database and reference volume ’Pioneering Women in Ukraine’ has been produced and accessed by over 260 community organisations, resulting in 10,000 online visits, contributing to a more inclusive and equitable society. The database diversifies the existing representation of 'great women' by including figures from Ukrainian ethnic minority diasporas, faiths and sexual identities, and decolonisites it by separating them from the bigger narratives of Soviet history of gender emancipation.

The ODA partner has published two commercially successful books based on the database materials, realising the capacity for commercialisations of direct outputs of the project, promoting inclusive economic growth by building capacity for female scholars, community activists, museum workers and creative professionals.

(2) Developing a sustainable future for guinea fowl farming in Ghana: tackling juvenile mortality using a multidisciplinary approach (XFC114)

Guinea fowl farming represents a way for low-income farmers, often led by women, to generate a modest income from a small-scale enterprise alongside beneficial nutrition. The project highlighted gender imbalances and opportunities to empower female farmers on nutrition inequality and food sustainability within families across sub-Saharan Africa. Typically, Guinea fowls are easier to manage by resource-poor farmers with limited access to adequate veterinary care as they are resistant to most poultry diseases.

The project’s network encompasses many female farmers, with the researchers committed to gender equality and to redressing the gender inequalities in this area. They have engaged with the relevant stakeholders and policymakers in Ghana, such as the Research Extension and Farmer Linkage Committee, the Ministry of Food and Agriculture, and the Council for Scientific and Industrial Research for disseminating project research and findings. Research dissemination activity focused on recruiting framers who shared an interest in addressing gender inequalities within their communities and could contribute to promoting secure and resilient food systems.

Through University support, a female Early Career Researcher was recruited as a project Research Assistant, providing an opportunity for her to build her capacity through the project, leading to her progressing to an academic role with the ODA partner institution and who is now registered as a PhD student in St Andrews. It is anticipated that she will continue the project’s legacy and aspire to engage other farming communities and to empower women to enter the guinea fowl industry.

(3) Addressing health and development drivers through cross-border youth engagement: social cohesion, sustainability, and well-being in the Mano River Basin (XFC112)

Focusing on discussing joint-security initiatives with the group’s four ODA partner countries (Liberia, Sierra Leone, Guinea and the Côte d’Ivoire), the project’s aims were to reduce gender-based violence and sexual harassment of women at border crossings and to expand understanding of how to build gender-sensitive and gender-inclusive approaches in cross-border areas and across multi-disciplinary issues (disease prevention, conflict fragility, and sustainable livelihood). Pre-project consultations had identified the aspiration for young men
and women to learn from each other based on a shared but differentiated struggle to achieve sustainable livelihoods. The project sought a collective move towards a negotiated agreement for the best way to advance gender equality for safe cross-border movement and pursuit of sustainable livelihood activities, supported by equal gender access to information about security, public health, and personal and community safety, access to equal public health care and education in border communities. Thus, gender-sensitively was intrinsically linked to achieving inter-disciplinarity. The COVID-19 pandemic not only highlighted health inequalities, but it led to increased gender-based violence.

The University and ODA partners ensured equal gender representation and composition across project scoping, implementation, and evaluative dimensions of the project. Researchers departed from the premise that gender-segregated and cross-gender dialogue would be necessary to collect relevant experience and testimony; the project trained all ODA collaborators to ensure gender-equal participation in proposed cross-border dialogue groups comprising research participants, key community stakeholders, and the relevant ODA partner identified representatives. Notably, a Gender Advisor was identified and budgeted to ensure not just gender inclusion but also the incorporation of gender sensitivity and gender analysis in all project phases.

(4) GCRF Cultural Heritage Hub Consolidator (XFC121)

The Cultural Heritage Hub has brought together the University's various interdisciplinary SFC-funded GCRF cultural projects in Tanzania, Peru, Costa Rica and Ukraine. Gender inequality remains a key challenge across all sub-projects in low-middle income countries. Particularly within indigenous and marginalised communities, gender plays a vital role in the movement to urban areas in the search for work and well-equipped services. In Peru, specifically in indigenous communities such as the Urarina and Ticuna communities, people moving to urban communities for employment disrupts intergenerational knowledge flows that are key to sustainable management. The Hub supported the indigenous women knowledge holders of traditional artisanal weaving skills, increasing their skills and capacities through workshops to articulate the skills and complex meanings associated with their textiles and the wider sense of pride in the weaving tradition.

In Tanzania, the Hub's research team is well-balanced in gender and career levels, involving both senior and early career researchers with women equally represented. It should be noted that the Hub has supported musician and heritage campaigner Chemical (Claudia Lubao) to progress her academic career and successfully be awarded a PhD post at the University. Through the Hub, a musical message has been promoted on the impacts of climate change on coastal cultural heritage to all communities.

In Costa Rica, gender inequality remains a key challenge and regionally in Central America. However, all communities involved with the Hub have strong matriarchal history and culture. The Boruca Museum was conceived from the local woman's association La Flor 30 years ago, and the Hub sought to respect this particular circumstance, notably by consulting the local indigenous authorities and stakeholders at all stages of research, with a specific focus on the role women artisans and leaders play within their community. In collaboration with the ODA partner, the Hub has produced an extensive documentary about their history and traditional weaving materials and techniques, creating an opportunity for the intergenerational transmission of knowledge and heritage to the community's young people. The documentary and associated well-being workshops have created a platform to utilise this skill set in innovative and enterprising ways in the community and museum.

In Ukraine, special attention was given to uncovering the reasons for gender divides within workforces at industrial enterprises, gendered visual representations, and aspects of gender in the history of media and technology. The Hub contributed to critical research of gender roles in the past and today in collaboration with the ODA partner and local stakeholders. Through public outreach and cooperation activities, the Hub collaborated with diverse gender and intergenerational people (many of the film and photography amateurs were male, while associates
of cultural and heritage institutions, such as museums, were predominantly female). Gender imbalances were recognised and addressed critically throughout the project. Crucially, via the Hub’s online webinar conversation series, gender-specific issues were raised by invited speakers and ODA partners presenting shared expertise and best practices to empower and support women across various contexts.

Gender equity has had a prominent place in our strategy as part of our broader commitment to issues of intersectionality, highlighted powerfully in 2020 by the Black Lives Matter (BLM) movement. We continue to include the following headline statement on our web pages:

“As academics working in ODA countries on Global Challenges projects, we stand in solidarity with Black Lives Matter, and with disadvantaged communities across the globe. We recognise that universities, and the research and teaching that takes place there, have been part of a wider systemic framework that has seen minority voices silenced, and that has seen racism go unaddressed. In all our projects, with all our partners globally, we are actively working to promote academic practice that is centred upon equity and that acknowledges injustices with current structural privilege. We commit to continue to prioritise projects that support equitable attitudes and recognise that we still have more to learn together through our collaborations.”

It is the University’s ambition that equality, diversity, and inclusion is at the heart of the St Andrews experience aiming for the University to embrace itself as a beacon of inclusivity. The University’s Race, Ethnicity, Religion and Belief Group (RERBG) has been established to identify and implement best practices regarding race, ethnicity, and religious groups (including non-belief). Specifically, the group is responsible for identifying actions the University should take to address and improve any issues which mean that Black, Asian, and Minority Ethnic (BAME) or religiously/affiliated belief members of our community experience disadvantage. Through RERBG, the University aspires to achieve Advance HE’s Race Equality Charter status to identify and self-reflect on institutional and cultural barriers. This builds on the University becoming the first UK university signatory of the Prince’s Responsible Business Network and Business in the Community Race at Work Charter, in which St Andrews has continued to promote the accreditation to other universities to embrace.