



**Geology
for
Global
Development**

Annual Report and Review 2017



*Registered Charity
Number: 1165663*

-- Report and Financial Statements --

Geology for Global Development

Registered Charity: 1165663

Trustees (during reporting period):

Joel Gill PhD

Nicholas Bilham

Julia Hartigan

Cover Picture: 5th GfGD Annual Conference. This event gathered ~150 participants to explore “Cities and Sustainable Development”. The event was kindly hosted and supported by the Geological Society of London.

OVERVIEW

Geoscience is critical to eradicating poverty, reducing inequality, ensuring environmental sustainability and securing universal and fair access to natural resources (e.g., water), food, energy, education and healthcare. Geoscience underpins the work needed to ensure current and future generations are resilient to natural hazards, have access to sustainable and planned urban environments, and respond decisively to global environmental change. Many of these themes are captured within the UN Sustainable Development Goals (SDGs), aiming to transform societies globally, leaving no one behind.



Through *Geology for Global Development*, we are working to mobilise and reshape the geology community to help deliver sustainable and resilient communities, as expressed in the SDGs. In 2017, we launched a new strategy setting out our priority objectives to support this mission over the next five years. It encompasses interlinking strands of inspiration, education, action, and leadership, each of which we explore in this Annual Report.

The outworking of this strategy has resulted in a diverse range of activities in 2017. We published four articles demonstrating how sustainable development is at the heart of geoscience, and matured our network of University Groups around the UK. We trained 22 ambassadors, running 14 groups that collectively engage hundreds of geoscience students through talks, humanitarian and development mapathons, conference visits and fundraising activities. University Groups and others donated geoscience textbooks in 2017, helping us to equip geoscience institutions in India, Sierra Leone, Tanzania, and Zambia. We have raised more than £2000 to implement a programme of disaster risk reduction in Guatemala. Together these projects contribute to SDGs on poverty, education, sustainable cities, strong institutions and effective partnerships. We welcomed over 150 people to our 5th Annual Conference, exploring cities and sustainable development.

These activities were made possible through the hard work of a volunteer team, the generous support of donors, and valued collaborations with partner organisations. We have benefitted from the expertise and resources made available to us from our colleagues and friends at the *Geological Society of London*, hosting and subsidising our Annual Conference, one of our largest to date. The *European Geosciences Union* has continued to host our blog within their network, and we celebrated formalising relationships with the *International Association for Promoting Geoethics* and the *International Union of Geological Sciences*.

This is our second Annual Report as a registered charity, and the first since the launch of our new strategy. Here we set out our charitable objectives (**Section A**) and report on the strategy agreed in 2017 to help implement these (**Section B**). We proceed to give a report on activities through 2017 (**Section C**), our governance and management (**Section D**) and present an overview of our finances (**Section E**). We then look to the future, with details of events and opportunities in 2018 (**Section F**), and ways you can stay informed about our work (**Section G**).

Dr Joel C. Gill

Executive Director/Trustee, Geology for Global Development

A. CHARITABLE OBJECTIVES

Geology for Global Development, established in 2011, is a registered charity working to mobilise and equip the geology community to prevent and relieve poverty. As stated in our Governing Constitution, *Geology for Global Development* provides public benefit (nationally and internationally) through the following charitable objectives:

- i. **Educational advancement** of the public in general, and particularly amongst geologists, in subjects relating to geology and sustainable development (defined below), in any part of the world. This will be done (in particular, but not exclusively) by means of relevant communications, educational material, training courses, placement opportunities, and by promoting research in all aspects of that subject and publishing the useful results.
- ii. **Poverty prevention and relief**, in any part of the world, by providing grants, equipment and services (in particular but not exclusively education and training in geology) to individuals in need, other charitable organisations, and/or other organisations working to prevent or relieve poverty.

In this context, we note sustainable development to mean ‘*development which meets the needs of the present without compromising the ability of future generations to meet their own needs*’ as defined in the Brundtland Report (1987).

In meeting these objectives, we provide public benefit through advancing education, at all levels, of the role of geology in supporting sustainable development, as well as using geological science to prevent and relieve poverty. In setting our aims for the year and preparing this review, the trustees have had regard to the Charity Commission guidance on public benefit.

B. STRATEGY

In 2017, we set out a five year strategy to work towards the charitable objectives in **Section A**. The mission, vision and objectives below wholly align with our charitable purposes and ensure the public benefit we bring is well-focused. Embedded within this strategy are our core values of ethical engagement and respectful partnerships. These values are helpfully articulated within the Cape Town Statement on Geoethics, of which we are a signatory. In our 2017–2021 annual reports we will set out our activities and achievements relating to the objectives noted below.

Mission: We exist to champion the role of geology in sustainable development, mobilising and reshaping the geology community to help deliver the UN Sustainable Development Goals (2015–2030).

Long-Term Vision: We see a world where:

- (i) Every geologist is equipped with the skills and understanding required to make a positive contribution to sustainable development;
- (ii) The geology community is actively engaged in the design, implementation, monitoring, and evaluation of international development activities; and
- (iii) Organisations, governments and individuals have equal access to, and an understanding of, the geoscience required to ensure sustainable development.

We have agreed four **Strategic Objectives** to help realise our vision:

1. **INSPIRATION. Promote the value of geology in supporting sustainable development.** Many people are unaware of the role geology can play in supporting sustainable development. We will work towards greater recognition for, and understanding of, the role of geology in tackling global challenges (e.g., water security, food security, resilience to natural hazards, natural resource management, urbanisation, and climate change).
2. **EDUCATION. Equip geologists to engage positively in sustainable development.** The skills and knowledge required to make an effective and positive contribution to sustainable development are often missing from the traditional education and continued professional development of geologists. We will provide opportunities for geologists to develop these essential skills to best serve the communities that we engage with.
3. **ACTION. Enhance the application of geology to international development.** We will make a high-quality contribution to practical development projects. We will develop and support poverty-fighting programmes in collaboration with other UK-based and international organisations. By the end of 2021 we envisage our work having helped to address six of the UN Sustainable Development Goals, across five different countries.

- 4. LEADERSHIP. Exercise international leadership on matters relating to geology and sustainable development.** We seek to be a recognised and trusted voice on ‘geology and sustainable development’, helping to reshape the global geology community to better serve society. We will grow in our international influence, and reputation for excellence in all we do.

To support the delivery of these four strategic objectives, we recognise the need to develop the following aspects of our organisation:

- **Finance:** We will seek a consistent income stream from diverse sources to promote greater financial resilience.
- **Personnel:** We will grow our Board of Trustees to ensure access to relevant experience and professional skills. We will grow our Executive Team to ensure reliable, professional delivery of these strategic objectives. By 2021, we anticipate having transitioned to a paid staff team, working with a growing volunteer community.
- **Infrastructure:** We will explore the benefits and costs of operating out of a permanent headquarters, such as a host geological organisation.

C. ACTIVITIES

In seeking to fulfil our objectives and provide broad public benefit, we have undertaken the following charitable activities, expressed through four strategic objectives:

INSPIRATION. PROMOTE THE VALUE OF GEOLOGY IN SUPPORTING SUSTAINABLE DEVELOPMENT.

Highlights from 2017 include:

- **GfGD Blog.** Our blog (blogs.egu.eu/gfgd), hosted by the *European Geosciences Union*, provides a forum for exploring issues relating to geology and development. In 2017 we published 30+ articles, on themes including geoethics, sustainable fashion, soil erosion, microplastics, landslides in Rwanda, fluorosis in Tanzania, sinkholes, urbanisation, and earthquakes. In addition to multiple guest blogs, we welcomed four regular contributors to the GfGD Blog in September 2017 with diverse interests and backgrounds.
 - Robert Emberson, a science writer based in Canada.
 - Jesse Zondervan, a PhD student at the University of Plymouth (UK).
 - Bárbara Zambelli Azevedo, a Brazilian geoscientist and speleologist.
 - Heather Britton, a recent Earth science graduate of the University of Cambridge.

Their contributions to our blog are greatly appreciated and have enabled us to maintain a regular publication of articles to resource our community.

- **Publications.** In 2017, our open-access article on ‘*Geology and the SDGs*’ was published in the scientific journal *Episodes*, giving the first comprehensive overview of how geology can help to deliver the SDGs. This paper was complemented by contributions to two further peer-review articles, on ‘*social geology*’ and ‘*effective engagement in geoscience frameworks*’. These contributions to the geoscience literature help to demonstrate the role of geologists in development and provide thought leadership about the approach required for effective and positive engagement. A general interest article on geoscience and sustainable development was also published in the professional magazine *Geoscientist* in association with the *British Geological Survey*.

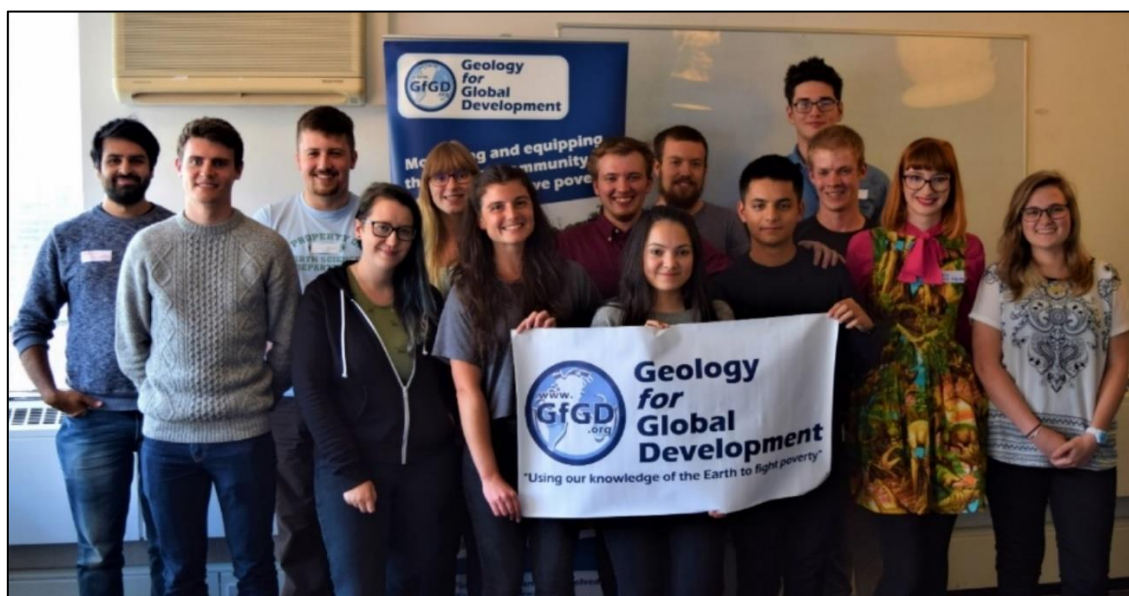
EDUCATION. EQUIP GEOLOGISTS TO ENGAGE POSITIVELY IN SUSTAINABLE DEVELOPMENT

Highlights from 2017 include:

- **University Groups.** These affiliated groups, run by student volunteers, engage students and academics with our charitable work through seminars, discussion groups and other activities. At the end of 2017, groups were active or being initiated in Birmingham, Bristol, Camborne School of Mines (University of Exeter), Cambridge, Cardiff, Durham, Edinburgh, Glasgow, Imperial College London, Leeds, Leicester, Liverpool, Oxford, Sheffield Hallam, Southampton, and University College London.

Examples of University Group activities in 2017 include:

- **Talks from Academics and Industry.** Groups organised talks from diverse speakers, such as Dr Edvard Glücksman of Wardell Armstrong on social licensing in mining and Dr Emily So of the Earthquakes Without Frontiers research project on living with earthquakes and integrating physical and social sciences.
 - **Ambassador Training Days.** We coordinated two training days for our University Group ambassadors, one in Bristol and one in Nottingham. These provided an opportunity for group leaders to meet each other and be equipped with the skills needed to run their groups. Interactive sessions explored how University Groups can help deliver our strategy and charitable objectives within their universities. The training days resulted in a significant increase in university group activity in the Autumn of 2017.
 - **Coastal Hydrogeological Aid Projects (CHAPS).** A crowd sourcing project investigating borehole failures in Rakhine State, Myanmar, in conjunction with the NGO Groundwater Relief and partly funded by the University of Bristol Cabot Institute. Students contributed to the development of a borehole log database, transferring data from paper logs.
 - **Raising Awareness.** Many groups have used opportunities such as Freshers' Fair and departmental careers events to raise the profile of how geological science can support sustainable development.
 - **Engaging Students.** Activities run by university groups such as Mapathons, the CHAPS project and trips to initiatives like 'The Crystal' (a sustainable cities initiative) have all helped to engage young geoscientists in our work, and demonstrated the skills that geology students can apply to sustainable development.
- **5th GfGD Annual Conference.** In November 2017, we welcomed over 150 people to our 5th Annual Conference, hosted and supported by the *Geological Society of London*, with additional sponsorship from *Crossfield Consulting*. This event examined the opportunities and challenges associated with cities, and projected future urban growth. Sessions examined the role of geoscience in urban development, the resources needed for future cities, and the importance of resilience to geological hazards (e.g., earthquakes, landslides, volcanic eruptions). Diverse case studies from Asia, Africa, Europe and the Americas were explored during the day



GfGD Ambassador Training Day (September 2017)

ACTION. ENHANCE THE APPLICATION OF GEOLOGY TO INTERNATIONAL DEVELOPMENT

Highlights from 2017 include:

- **Fundraising (Guatemala Volcanic Monitoring/Education).** We have raised over £2100 since 2014 to help strengthen resilience to volcanic hazards in Guatemala, with a large proportion of this money raised by our University Group network. We are grateful to all those who completed or supported sponsored runs, cake sales, charity quizzes and other events. We will be working through 2018/19 to ensure that this money has a tangible impact on the lives of vulnerable communities. This work supports the Sendai Framework for Disaster Risk Reduction, and SDGs 1 (end poverty), 11 (sustainable cities and communities) and 17 (effective partnerships).



- **Geoscience Textbooks.** We have encouraged our membership to collect unused geoscience textbooks for redistribution to geological institutions in low-income countries. By the end of 2017, we have distributed 25 textbooks to the National Minerals Agency in Sierra Leone (via the *British Geological Survey*), 4 textbooks to university lecturers and students in Zambia, 2 textbooks to the Association of Tanzanian Water Suppliers, and 5 textbooks to a college in Jammu and Kashmir, India. We will continue to collect and distribute books in 2018. This work supports SDGs 4 (quality education), 16 (strong institutions) and 17 (effective partnerships).
- **Hazards in the Himalaya.** In 2014, we delivered a programme of hazards education in Ladakh (India). In 2017, we met with partners from Jammu University (India) to reflect on good practice in geoeducation for development.

LEADERSHIP. EXERCISE INTERNATIONAL LEADERSHIP ON MATTERS RELATING TO GEOLOGY AND SUSTAINABLE DEVELOPMENT.

Highlights from 2017 include:

- **Partnerships.** In May 2017, we signed a Memorandum of Agreement with the International Association for Promoting Geoethics, and gave our support to the Cape Town Statement on Geoethics. We applied to become an affiliated organisation of the *International Union of Geological Sciences*, with notification of our success in early 2018. This provides an opportunity to strengthen links with, and influence, the global geoscience community.
- **Global Engagement.** We have joined with organisations around the world to convene a ‘geoscience and society summit’ scheduled for March 2019. This solution-focused event will gather diverse sectors to explore global challenges, and the interdisciplinary partnerships needed to address these.

SUMMARY

These activities demonstrate the positive impact of *Geology for Global Development*, with respect to our two primary charitable objectives.

- **Educational Advancement:** Activities have promoted the role of geology in sustainable development to diverse audiences both in the UK and overseas. Our engagement with the geological science community (through conferences, engagement in universities, and publication of resources) has helped to increase awareness of how

geoscientists can make a positive contribution to sustainable development. Our social media content, blogs and open-access publications also help to raise public awareness of why geological science matters when considering sustainable development. Our activities help to train geologists to better serve the public, by improving professional practices relating to the application of geology to sustainable development.

- **Poverty Prevention and Relief.** We have engaged in programmes aiming to enhance water provision, improve resilience to environmental shocks (earthquakes and volcanic eruptions), and improve education for sustainable development. Our activities help to train geologists to better serve the public and reduce poverty, by improving professional practices relating to the application of geology to sustainable development.

D. GOVERNANCE AND MANAGEMENT

BOARD OF TRUSTEES

A Board of Trustees has been appointed to oversee and guide our work, in accordance with our Governing Document (based on the Charity Commission's 'Foundation' model constitution for a Charitable Incorporated Organisation whose only voting members are its charity trustees). The current Board of Trustees consists of three founding trustees, with provision for the appointment of further trustees set out in our Governing Document. The Board of Trustees consists of:



JOEL GILL

(INTERNATIONAL DEVELOPMENT GEOSCIENTIST, BRITISH GEOLOGICAL SURVEY)

Joel has an interdisciplinary PhD in geography (natural hazards) from *King's College London*. In November 2016, he joined the *British Geological Survey*, contributing to their overseas development work. Joel founded *Geology for Global Development* in 2011 and continues to coordinate its work (see below).



JULIA HARTIGAN

(CLIENT MANAGER, RISK MANAGEMENT SOLUTIONS)

Julia is Client Manager at *RMS* where she advises on the use of catastrophe modelling techniques and solutions. Based in Zurich, she has worked with many global (re)insurance companies and public and academic partners on disaster risk management.



NIC BILHAM

(UNIVERSITY OF EXETER)

During the reporting year, Nic worked at the *Geological Society*, leading its delivery of policy, education, media and wider communications. Nic is European Continental Coordinator for the *International Association for Promoting Geoethics*, and will start a PhD in ethical mining in 2018.

EXECUTIVE TEAM

Day-to-day responsibility for the running of the charity is delegated to a volunteer Executive Director of *Geology for Global Development*, working alongside a wider leadership team. This team currently consists of:



JOEL GILL

(EXECUTIVE DIRECTOR)

Joel has overall responsibility for the leadership and management of *Geology for Global Development*, overseeing the implementation of our strategy and day-to-day operations. Core responsibilities include: external relations, internal team development, financial management, and project development.



LAURA ROBERTS-ARTAL

(ASSISTANT DIRECTOR – COMMUNICATIONS)

In 2017, we appointed Laura to take responsibility for developing and managing our portfolio of communications. Core responsibilities include: the GfGD blog, social media, brand management, website development, and advising on all aspects of our internal and external communications.



EMILY WHITE

(ASSISTANT DIRECTOR – UNIVERSITY GROUPS)

Emily has responsibility for the management and development of our University Groups, acting as the link between these groups and the *Geology for Global Development* leadership (Executive and Trustees). Core responsibilities include: external relations (universities), supporting *Geology for Global Development* Ambassadors, resourcing groups, and communicating their work to a wider audience.

In 2018, we will continue to expand both teams, ensuring we have the skills required to expand and enhance our work.

E. FINANCIAL OVERVIEW

The accounts below document financial activity (income and expenditure) that occurred in 2017 and 2016. For full details of activity in 2016, please refer to the GfGD Annual Report 2016 (www.gfgd.org/annual-reports).

Key observations include:

- **[Unrestricted Income]** £2232 is labelled unrestricted income. This was raised through *Geology for Global Development* conferences (an educational charitable activity), personal and corporate donations, and fundraising activities. This money can be used to support the full portfolio of our work.
- **[Restricted Income]** £1108 is labelled restricted income. This is money raised as part of our efforts to strengthen resilience to volcanic hazards in Guatemala. This money is set aside solely for this ongoing project. We ceased raising funds specifically for this project in 2017, and have transitioned to a project implementation phase.
- **[Expenditure]** £1609 is labelled as expenditure, using our unrestricted income. £194 (14%) of these funds were used to support charity governance (e.g., meeting attendance, bank account fees). £1415 (86%) of these funds were used to support our charitable activities. Activities include supporting our network of University Groups, delivering our 5th Annual Conference (Cities and Sustainable Development), and raising awareness of the role of geoscience in ensuring sustainable development through our new strategy.

Expenditure was below income, with a surplus of £1731. Most of this (£1108, 64%) is restricted funding for use in Guatemala, and will be used in 2018/19 as we transition to a project implementation phase. The remaining surplus (£623, 36%) will be used to supplement the financial reserve established in 2016 (£2093 carried forward). At the end of this reporting period, *Geology for Global Development* set an ambition to ensure reserves of six to nine months operational costs. A formal reserves policy will be agreed in 2018.

Additional engagement and charitable activity was made possible through (i) GfGD leadership attending in other professional capacities and (ii) support in kind from other organisations. For example, the Institute of Geologists of Ireland covered expenses allowing GfGD to deliver a guest lecture in Dublin, and University College London covered expenses allowing GfGD to engage in an event on ‘Sustainable Development in the Himalayas’ in London.

GfGD activities were delivered entirely through the dedication of a team of volunteers. We are very grateful to all those who have given their time in 2017 to help realise our charitable objectives.

STATEMENT OF FINANCIAL ACTIVITIES (AS AT 31 DECEMBER 2017)

	Unrestricted Funds (£)	Restricted Funds (£)	Total 2017 (£)	Total 2016 ¹ (£)
Income and endowments from:				
Donations and legacies	932	170	1102	3190
Activities for Generating Funds (Fundraising Events)	122	938	1060	935
Charitable activities	1178	--	1178	736.15
Other trading activities	--	--	--	--
Investment income	--	--	--	--
Total Income	2232	1108	3340	4861
Expenditure on:				
Costs of Generating Voluntary Receipts	--	--	--	--
Raising funds	--	--	--	--
Investment Management Costs	--	--	--	--
Charitable activities	(1415)	--	(1415)	(1483)
Governance Costs	(194)	--	(194)	(59)
Total Expenditure	(1609)	--	(1609)	(1542)
Surplus/(Deficit) of income over expenditure	623	1108	1731	3319
Net gains/(losses) on investments	--	--	--	--
Net income/(expenditure)	623	1108	1731	3319
Transfers between funds	--	--	--	--
Net movement in funds	623	1108	1731	3319
Reconciliation of funds				
Total funds brought forward	2293	1026	3319	--
Total funds carried forward	2916	2134	5050	3319

¹ These figures include some income and expenditure from activity in 2015, prior to formal registration of *Geology for Global Development* as a charity. Income was treated as a single donation received in 2016, as it was brought into the charity upon formal registration. Expenditure was treated as a liability, and paid in 2016. See our Annual Report 2016 for more information (www.gfgd.org/annual-reports).

BALANCE SHEET (AS AT 31 DECEMBER 2017)

	2017 (£)	2016 (£)
Fixed Assets		
Tangible Assets	--	--
Investments	--	--
Total Fixed Assets	--	--
Current Assets		
Debtors: Due in one year	--	--
Debtors: Due after one year	--	--
Cash at Bank and in hand	5050	3319
Total Current Assets	5050	3319
Current Liabilities		
Creditors due within one year	--	(200)
Net current assets	5050	3119
Total assets less current liabilities	5050	3119
Funds (CAF Bank)		
Unrestricted Funds	2916	2093
Restricted Funds	2134	1026
Total Funds	5050	3119

CASH FLOW STATEMENT (AS AT 31 DECEMBER 2017)

	2017 (£)	2016 (£)
Cash flows from operating activities:		
Net cash provided by operating activities	1731	3319
Cash flows from investing activities:		
Net cash provided by investing activities	--	--
Cash flows from financing activities:		
Net cash provided by financing activities	--	--
Change in cash and cash equivalents in the reporting period	1731	3319
Cash and cash equivalents at the beginning of the reporting period	3319	--
Change in cash and cash equivalents due to exchange rate movements	--	--
Cash and cash equivalents at the end of the reporting period	5050	3319

F. LOOKING TO THE FUTURE

In line with our strategy, we will be focusing on the following priorities in 2018.

- **6th GfGD Annual Conference (2nd November 2018).** Hosted and supported by the Geological Society of London, the theme of this event will be ‘*Water and Sustainable Development*’, aiming to incorporate work on the role of geoscience in ensuring access to clean water and sanitation, healthy oceans, and thriving ecosystems. Registration will open in summer 2018, with further details to be posted on our website and social media.
- **Strengthening Resilience to Volcanic Hazards in Guatemala.** We will focus on implementing this project in 2018. Our Executive Director will complete a pre-arranged visit to Guatemala in January, including meetings with key hazard and disaster groups. This will inform our implementation plan, working closely with expertise both in Guatemala and the UK to maximise impact.
- **Networks.** We will play a full role in the *Resources for Future Generations* conference in Vancouver (June 2018), using this major geoscience gathering to start building a global network of geoscience organisations committed to achieving the UN Sustainable Development Goals. We will continue to invest in partnerships with both geoscience and development organisations, across all sectors, and at local, national and international scales.
- **Engagement with Industry.** The private sector is critical to delivering the UN Sustainable Development Goals. We will recruit a member to our Executive Committee to lead on industry engagement, increasing the reach of our current activities to those based in the private sector. We will explore potential activities where *Geology for Global Development* can improve and learn from approaches in industry.

These will be reported on in our 2018 Annual Report (published in early 2019). Live updates will be made available on our website and social media.

G. FURTHER INFORMATION

Find the latest GfGD news, events, and opportunities to get involved on our website (www.gfgd.org), Facebook (www.facebook.com/gfgd.org), and Twitter (www.twitter.com/Geo_Dev).

Download this Annual Report and Review from our website (www.gfgd.org/annual-reports).