

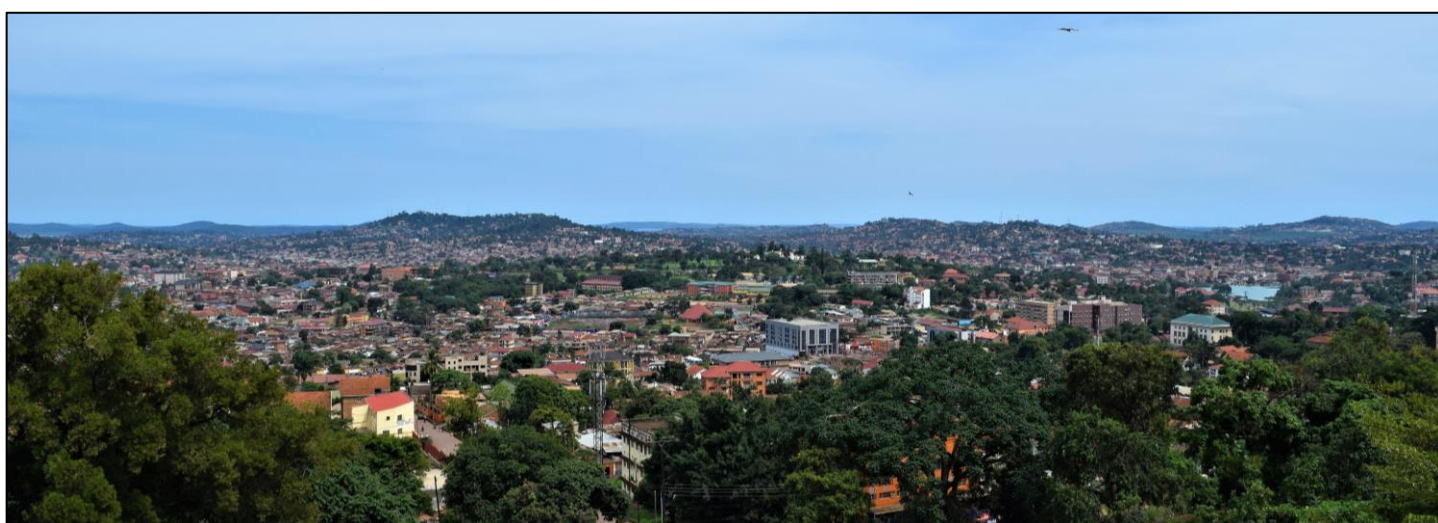
Cities: Opportunities and Challenges for Sustainable Development

Friday 3rd November 2017

Registration: 09:45 (for a prompt 10.20 start)

Ends: 17:30 (followed by posters and a drinks reception)

The Geological Society, Burlington House, London, UK



(Top) Kampala, Uganda; (Bottom) Hyderabad, India

Find out more about our work and register for our newsletter: www.gfgd.org.

Facebook (www.facebook.com/gfgd.org) and Twitter ([@Geo_Dev](https://twitter.com/Geo_Dev)).

CONTENTS

ACKNOWLEDGEMENTS	2
OUR SUPPORTERS	3
DIRECTOR'S CUT	5
CONFERENCE INFORMATION	6
CONFERENCE PROGRAMME	7
SPEAKER PROFILES	8
CONFERENCE VENUE & DIRECTIONS	10
ABOUT US: OUR STRATEGY 2017–21	11
SELECTED ACTIVITIES 2016–17	13
MEET THE TEAM.....	14

ACKNOWLEDGEMENTS

We are very grateful to the Geological Society for their support in hosting this conference, providing such a special venue, refreshments, practical support and advice.

Thank you to all our speakers and session chairs for taking the time out of their busy schedules to support this conference and share from their experiences.

Thank you also to all those who have made this conference possible through their hard-work behind the scenes. Special thanks to Faith Taylor (Co-Convenor) and Lucy Tyack (GfGD Conference Project Support Volunteer) for their contributions to the conference planning and delivery, and to Stephanie Bricker (British Geological Survey) for her guidance and support.

OUR SUPPORTERS



The
Geological
Society

We are grateful to the **Geological Society of London** for hosting and being the principal supporter of this conference:

The Geological Society of London is a not-for-profit organisation, and a registered charity (no. 210161). Its aims are to improve knowledge and understanding of the Earth, to promote Earth science education and awareness, and to promote professional excellence and ethical standards in the work of Earth scientists, for the public good.

Founded in 1807, it is the oldest geological society in the world. Today, it is a world-leading communicator of Earth science – through its scholarly publishing, library and information services, cutting-edge scientific conferences, education activities and outreach to the general public. It also provides impartial scientific information and evidence to support policy-making and public debate about the challenges facing humanity.

The Society is the UK's professional body for Earth science and has a worldwide membership of over 11,500. More than 2,000 of its members live overseas and over 2,500 are Chartered Geologists or Chartered Scientists – professionals who have demonstrated a high level of education, professional competence in their field and a commitment to professional ethics.

Read more: www.geolsoc.org.uk

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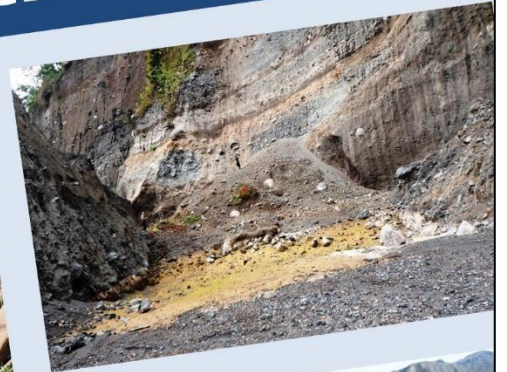
The Geo Apex™ was founded to promote and deliver a range of geological education, research and media services for a social purpose; by donating 10% of profits to their charitable partners, who fund education and development projects. For further information please visit their website www.thegeoapex.com, where you'll find a summary of the services they offer, as well as geological media, articles and travel pieces. You can also follow them on social media (Twitter, Instagram and LinkedIn), via [@thegeoapex](https://twitter.com/thegeoapex). For enquiries, please email: info@thegeoapex.com

Read more about how you can support our work: www.gfgd.org/donate



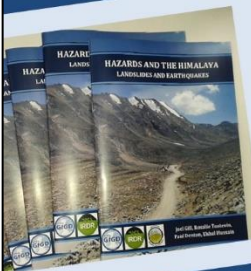
**Geology
for
Global
Development**

Mobilising and equipping the geology community to prevent and relieve poverty.



GEOLOGY AND DEVELOPMENT: Climate Change / Water and Sanitation / Disaster Risk Reduction / Infrastructure / Natural Resources / Geo-tourism / Agriculture / Environmental Management / Geo-education / Geo-diplomacy / Capacity Building

WHAT WE DO: Conferences / Workshops / University Group Activities / Publications and Resources / Education and Outreach / Placements / Knowledge Exchange / Technical Advice and Capacity Strengthening / Fundraising



GfGD is a not-for-profit organisation.
Registered Charity Number: 1165663.

Find out more and get involved:

Website: www.gfgd.org
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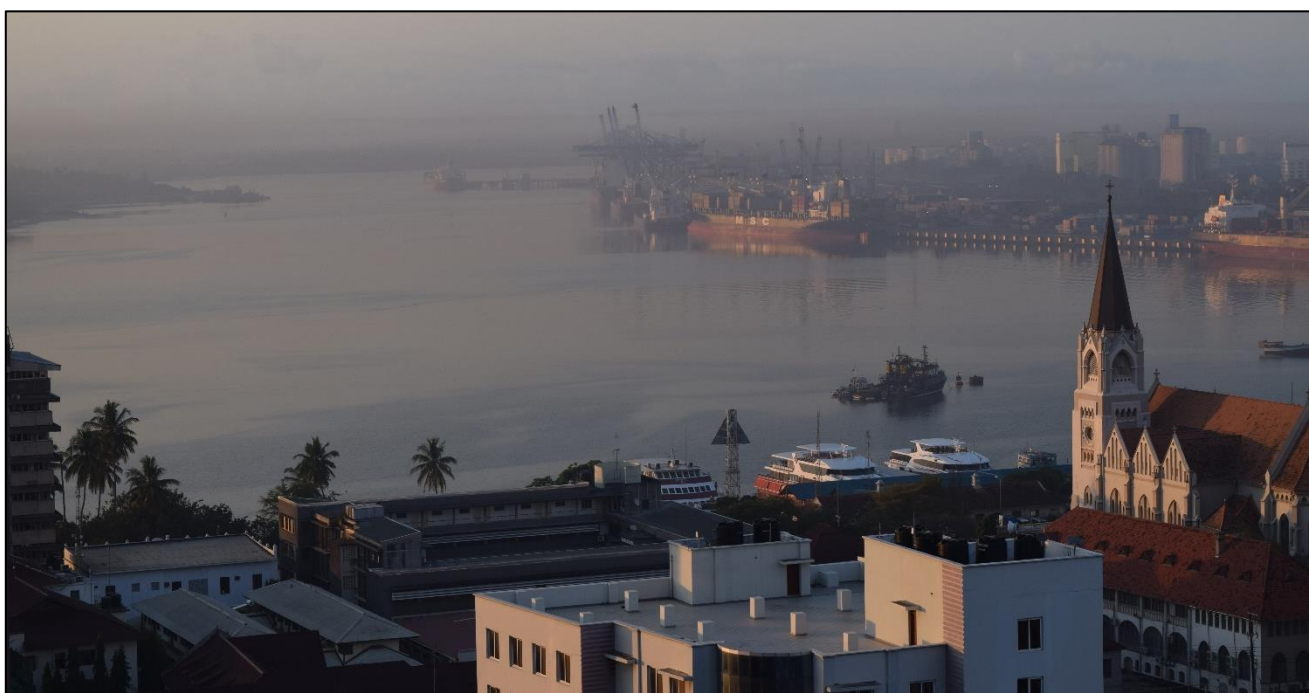
DIRECTOR'S CUT

Since the Sustainable Development Goals were agreed in 2015, *Geology for Global Development* has been at the forefront of mobilising and equipping the geoscience community to engage and make a positive contribution. In 2015 we organised the first major gathering of geologists/Earth scientists anywhere in the world to explore our role in delivering the UN Sustainable Development Goals (SDGs). Over 120 geologists came together to consider how our science and skills can help ensure the successful achievement of these 17 ambitious goals, aiming to end global poverty, fight injustice and inequality, and ensure environmental sustainability by 2030. Our 2016 conference had the themes of 'best practice' and 'personal engagement'. We explored the skills and topical understanding required to deliver high quality, high-impact development projects, and practical projects and opportunities to get involved and help achieve the SDGs.

Today we turn our attention to cities, and consider the role of geoscience in realising the SDGs in urban environments, making the most of the unique opportunities presented by cities while overcoming the challenges associated with urban development. Over the past 12 months I have had the opportunity to visit culturally and economically significant cities across three continents, with notable visits to cities in eastern and southern Africa - Nairobi, Kampala, Lusaka and Dar es Salaam. These cities are growing, rapidly. Dar es Salaam is the third fastest growing city in Africa, with some projections suggesting that it will be one of the 20 largest cities (by population) by the middle of this century. The United Nations note that

*"Cities are hubs for ideas, commerce, culture, science, productivity, social development and much more.
At their best, cities have enabled people to advance socially and economically."* [\[UN\]](#)

But what do cities 'at their best' look like? How does (or perhaps, how should) geoscience inform urban planning, development, and resilience? What are the primary successes and mistakes of past and current urban development that could support Dar es Salaam and other future megacities? These are some of the questions we'll be exploring today, with the aim of catalysing ideas for urban geoscience research, innovation and training tools.



Dar es Salaam, Tanzania (September 2017)

The geoscience community have a significant responsibility and exciting opportunity to work with other disciplines to promote sustainable cities and strong stewardship of the Earth. This meeting brings together ambassadors from multiple diverse disciplines and sectors, together with 140+ geoscientists, to explore these themes and better understand our role in urban development that strengthens society and best serves future generations.

Joel Gill
GfGD Founder/Director

CONFERENCE INFORMATION

Urbanisation is a development mega-trend, associated with both major challenges but also significant opportunities for delivering the 17 UN Sustainable Development Goals (e.g., SDG 11 – Sustainable Cities and Communities; SDG 6 – Universal Access to Water and Sanitation). Our 5th Annual Conference will draw on the expertise of diverse sectors to explore the resourcing of cities, integrated planning, and resilience to environmental shocks, with a focus on the Global South. We aim to develop understanding of how we can deliver the SDGs through sustainable cities. Participants will have the opportunity to:

- Consider the challenges and opportunities associated with cities and sustainable development.
- Interact with those from diverse sectors to develop a better understanding of different career paths engaging in urban development.
- Learn more about the vision and work of *Geology for Global Development*.

The conference is also a great opportunity to meet geology students, recent graduates, and professionals from across the UK that share an interest in international development.

RECOMMENDED READING: Many of the conference sessions include the opportunity for you to ask questions and share your opinions and ideas. We'd therefore encourage you to have a look at some of the background reading below:

[*Key Reading] United Nations, 2017, [The New Urban Agenda](#), UN, Geneva.

[*Key Reading] United Nations, 2015, [Sustainable Development Goals](#), UN, Geneva.

Gill & Bullough (2017), [Geoscience Engagement in Global Development Frameworks](#), *Annals of Geophysics*, 60.

Bricker *et al.*, (2015) [Future of cities: development underground](#), Government Office for Science Future of Cities Reports.

WHAT TO BRING?: We suggest you bring a notebook and a pen, as well as your lunch (see below). We do not require you to print out and bring your ticket. However, we may ask to see some form of ID (e.g., student card) if necessary. **We will have some copies of the conference programme, but will not have printed copies of this full booklet.** We suggest you download this to your phone/tablet/computer, or bring your own print-out.

ARRIVAL: Please enter The Geological Society via the main entrance (opposite Fortnum and Mason Department Store). Doors open and registration starts at 9.45am (please do not arrive before this time), with tea/coffee being served in the lower library. The conference sessions start at 10.20am. We would kindly request that you make every effort to arrive on time and take your seat by 10.15am so that we can start promptly. If arriving later in the day, please inform a conference steward upon arrival so that they can register you.

VENUE: Full directions and a map can be found on page 10.

POSTERS: We have three posters relating to three different conference sessions. Please do use the stickers provided to add your questions and ideas to these, and we will do our best to integrate them into the conference discussions.

SOCIAL MEDIA: Please use **#GfGDConf** if referring to this event on social media, such as Twitter and Facebook. You can also include **#GlobalGoals** or **#SDGs** We'd love to see and share your comments and photographs.

PHOTOGRAPHY: Official photographs will be taken throughout the conference and may be used on our website, blog and other publicity. If you do not wish to be photographed, please indicate this to our photographer on the day. If you take photographs during the day, we would love to see them - please do send them to us via email/social media after the event.

LUNCH: We will not be providing lunch, but there will be a space to eat a packed lunch if you wish to stay at the venue, giving more time for informal networking, looking at posters and talking with those speaking and organising the event. The venue is close to a range of shops and cafes.

FEEDBACK: Please take the time to complete a feedback form, this will help us to improve future events.

CONFERENCE STEWARDS: If you have any problems or questions on the day, please speak to one of the conference stewards who will do their best to assist you. Stewards can be identified by their conference badges.

DRINKS RECEPTION: The conference sessions will end at 5.30pm, with a drinks reception in the Geological Society Lower Library. This is a great networking opportunity, and we look forward to meeting many of you during this time.

CONFERENCE PROGRAMME

TIME	SESSION DETAILS
09.45–10.20	Arrival and Registration (<i>Tea/Coffee Available</i>) Please aim not to arrive before 09.45 to allow us time to prepare for registration.
10.20–10.50	Welcome and Conference Introduction - Joel Gill (<i>Executive Director, Geology for Global Development</i>)
10.50–11.15	Session 1: Cities and Sustainable Development – Why Geoscience Matters. <i>Stephanie Bricker</i> (<i>Team Leader, Urban Geoscience, British Geological Survey</i>)
11.15–11.30	Break
11.30–13.00	Session 2: Resourcing Future Cities (<i>Presentations and Discussion</i>) Sustainable cities will need to adopt innovative approaches to identifying and managing diverse resources. Cities require energy, water, minerals, infrastructure (e.g., waste management) and food. This session will start with a set of short talks exploring sustainability issues for critical resources, followed by discussion on the integrated approach required for effective urban planning. CHAIR: Carla-Leanne Washbourne (<i>Lecturer, Environmental Science and Policy, UCL</i>) <ul style="list-style-type: none"> • Elizabeth Reynolds (<i>Director, Urben</i>) • Arjen Naafs (<i>Technical Advisor for South Asia, WaterAid</i>) • Caroline Haynes (<i>Partner, Estates and Infrastructure Exchange</i>)
13.00–14.00	Lunch (<i>Bring your own!</i>)
14.00–15.00	Session 3: Resilience to Environmental Shocks in Cities (<i>Panel Discussion</i>) Sustainable cities need to integrate disaster risk reduction (DRR) into their development strategies, ensuring resilience to environmental shocks (e.g., earthquakes, landslides, volcanic eruptions). This session will draw on diverse expertise to explore the specific challenges of DRR in urban contexts, and the approaches, research gaps and careers that geoscientists can pursue to help address these challenges. CHAIR: Faith Taylor (<i>Lecturer, Department of Geography, University of Portsmouth</i>) <ul style="list-style-type: none"> • Matthew Free (<i>Director, Geohazards and Risk Management, Arup</i>) • Lucy Stanbrough (<i>Innovation Executive, Innovation Department, Lloyds</i>) • Ekbal Hussain (<i>Research Fellow, Seismic Cities, University of Leeds</i>)
15.00–15.30	Session 4: Lessons from Global Cities (<i>Micro-Presentations</i>) This session provides an opportunity to reflect on technologies and approaches from around the world, as well as learning from diverse research. CHAIR: Lucy Tyack (<i>Postdoctoral Student, University College London</i>) <ul style="list-style-type: none"> • Bárbara Zambelli Azevedo (<i>City of Interest: Ouro Preto, Brazil</i>) • Joshua Jones (<i>City of Interest: Tianshui City, Gansu Province, China</i>) • Wild Bottomley (<i>City of Interest: Los Angeles, USA</i>)
15.30–16.00	Break (<i>Tea/Coffee Available</i>)
16.00–17.00	Session 5: What will future cities look like and what is the role of geologists in their development? (<i>Visioning Exercise</i>) This session will use a ‘visioning’ technique to explore the characteristics of successful and sustainable cities. We will then work backwards to explore what this means for our subject, and how we could adapt to help realise this vision. This approach will result in a positive vision for our cities (reflecting our learning from the day) and a set of objectives for the geoscience community relating to our training, research priorities and practice. <ul style="list-style-type: none"> • Carla-Leanne Washbourne (<i>Lecturer, Environmental Science and Policy, UCL</i>) • Stephanie Bricker (<i>Team Leader, Urban Geoscience, British Geological Survey</i>) • Matthew Free (<i>Director, Geohazards and Risk Management, Arup</i>)
17.00–17.30	GfGD Annual Report: Expanding and Enhancing our Work to Deliver Sustainable Development
17.30–19.00	Drinks Reception

SPEAKER PROFILES



STEPHANIE BRICKER (TEAM LEADER FOR URBAN GEOSCIENCE, BRITISH GEOLOGICAL SURVEY)

Stephanie is a chartered hydrogeologist and team leader for Urban Geoscience research at the British Geological Survey. Her research portfolio covers groundwater systems in urban environments and the role of geology to support urban development and improvement. She is engaging city practitioners to promote the use of environmental data to address urban challenges. Stephanie is interested in the physical interactions between natural and human systems in cities and the sustainable use of underground space through planning and policy reform.



CARLA-LEANNE WASHBOURNE (LECTURER, ENVIRONMENTAL SCIENCE AND POLICY, UNIVERSITY COLLEGE LONDON)

Carla is a geoscientist working at the interface of science, engineering and public policy. She is interested in understanding and improving the use of science and engineering knowledge to address urban challenges. Her current areas of research and activity include urban ecosystem services, green space in cities and the function of 'urban observatories' in providing urban data relevant to global environmental challenges. She has an interdisciplinary approach to research and engages with a wide range of decision-makers, practitioners, academics and civil society actors. Carla has previously worked within the Scottish Parliament Information Centre and the (UK) Parliamentary Office of Science and Technology providing advice across their scope of physical science topics.



ELIZABETH REYNOLDS (DIRECTOR, URBEN)

Elizabeth is an Australian Urban Planner based in London where her company specialises in planning, design and problem solving for urban environments. In addition to working on infrastructure and large-scale regeneration projects, Elizabeth is a member of *Think Deep UK*, with a professional interest in planning, development and use of urban underground space. Elizabeth is interested in finding creative ways for cities to better manage natural resources and plan strategically for long-term change. She is writing a book called *Underground Urbanism*.



ARJEN NAAFS (TECHNICAL ADVISOR FOR SOUTH ASIA, WATERAID)

Arjen originates from the Netherlands, with an MSc in hydrogeology (Free University Amsterdam), and a passion for mapping, sharing WASH (water, sanitation and hygiene) knowledge, and facilitating learning. Arjen has worked across Africa and Asia. Prior to joining WaterAid, he was the coordinator and leading researcher of the WASHCost initiative in Mozambique, with responsibilities including national and international research publications on the costs for providing sustainable services for rural and peri-urban poor.



CAROLINE HAYNES (PARTNER, ESTATES AND INFRASTRUCTURE EXCHANGE)

Caroline Haynes is a Partner at the Investment and Infrastructure Exchange where she leads the funding of major infrastructure and regeneration projects in the UK and globally. Over the last 20 years she has worked on various sides of infrastructure development and finance, including as an economic advisor to the Prime Minister and Chancellor of the Exchequer, Director of KPMG's Cities Practice and advisor to global cities and infrastructure projects. She is an advisor on the University of Oxford's Masters in Sustainable Development, lectures and writes on the subject of sustainable cities.



FAITH TAYLOR (LECTURER, DEPARTMENT OF GEOGRAPHY, UNIVERSITY OF PORTSMOUTH)

Faith is a physical geographer with interests in GIS, spatial modelling, statistics and natural hazards. She recently joined the Portsmouth as a lecturer in GIS, and is a research associate, working on the ESRC-DfID funded project "Urban ARK" which looks at risk and vulnerability in urban Africa. Faith's research focuses around developing simple statistical and spatial models to visualise and understand the impact of natural hazards and how they can be applied to many locations across the world where detailed data may be unavailable or too expensive to obtain. Faith is a co-founder and creative director of Intrepid Explorers, which is a platform that aims to promote the importance of field research and travel in education.



EKBAL HUSSAIN (RESEARCH FELLOW, UNIVERSITY OF LEEDS)

Ekbal is a postdoctoral researcher working on the Seismic Cities project investigating earthquake risk and resilience in Santiago, Chile. During his PhD, Ekbal used satellite radar techniques (InSAR) to study the strain energy accumulation along the North Anatolian Fault in Turkey. Ekbal is passionate about the role of science in international development.



MATTHEW FREE (DIRECTOR, GEOHAZARDS AND RISK MANAGEMENT TEAM, ARUP)

Matthew is Director of the Geohazard and Risk Management team at Arup. He is a Chartered Geologist and Chartered Scientist with over 25 years of research and work experience on projects worldwide. His expertise is in the implementation of quantitative methods for geohazard and risk management at site specific scale through to city and country scales to inform risk reduction strategies and to enhance resilience. His current projects cover a broad range of natural hazards including earthquakes, floods, landslides and a broad climate change related impacts across a range of geographies from the United Kingdom to Central Asia and Sub-Saharan Africa. Matthew has considerable experience in management of large multidisciplinary teams and in the supervision and mentoring of young scientists and engineers.



LUCY STANBROUGH (INNOVATION EXECUTIVE, INNOVATION DEPARTMENT, LLOYDS)

Lucy is a geographer, interested in the integration of scientific knowledge to business applications, connecting knowledge to people, and people to knowledge. Lloyd's defines an emerging risk as an issue that is perceived to be potentially significant, but which may not be fully understood or allowed for in insurance terms and conditions, pricing, reserving or capital setting. The Lloyds Emerging Risks team is responsible for identifying and assessing these new and/or developing risks. They work with research partners to reduce the uncertainty surrounding these risks, and collaborate with practitioners at Lloyd's and in the wider insurance market to understand the challenges and opportunities for insurance.

MICRO-PRESENTATION PRESENTERS



BÁRBARA ZAMBELLI AZEVEDO (CITY OF INTEREST: OURO PRETO, BRAZIL). Bárbara studied Geological Engineering at the Federal University of Ouro Preto, Brazil, undertaking a 1-year academic exchange at the University College Cork, Ireland. Her graduate thesis, entitled *The role of geology in Ouro Preto's development*, tells the history of Ouro Preto, its occupation and its relationship with geology. It illustrates how problems faced by the city can be attributed, in part, to its chaotic urbanisation and historical economic dependence on the mining sector. It proposes actions that may be taken by geologists working at Ouro Preto's public administration to achieve some of the SDGs. Bárbara is a contributor to the *Geology for Global Development* blog.



WILD BOTTOMLEY (CITY OF INTEREST: LOS ANGELES, USA). Wild is an Earth Scientist and Outdoor Learning Practitioner. Undergraduate studies at the University of Durham led to a postgraduate masters degree in Geophysical Hazards at the University College London. During the undergraduate degree Wild spent a year studying at the University of California, Los Angeles, this formed the basis for the masters thesis which focused on public earthquake preparedness in Los Angeles. Inspired by the USGS-led ShakeOut public campaign in California, Wild became involved in the local community outreach for ShakeOut, and later became a research assistant in disaster risk reduction, focusing on best practice in community participatory approaches. Alongside this, Wild champions sustainability education in UK schools and universities, and works in Forest School learning settings in London.



JOSHUA JONES (CITY OF INTEREST: TIANSHUI CITY, GANSU PROVINCE, CHINA). Joshua graduated from Durham University with a BSc in Geophysics with Geology, and an MSc in Hazard, Risk and Resilience. His masters dissertation, investigating the control factors and area-frequency distributions of landslides in Tianshui City, northwest China, built upon his interest in better understanding natural and anthropogenic processes that control geohazards and the application of this knowledge to help improve disaster risk management strategies. Joshua is currently undertaking a NERC-funded PhD in collaboration with the University of East Anglia, Plymouth University and AECOM. It aims to investigate how earthquake preconditioning, monsoons, fluvial processes and road incision controls landslide behaviour across the Nepal Himalaya. It is hoped a better understanding of these controls will facilitate the development of improved landslide hazard assessments and disaster risk mitigation strategies, reducing poverty and increasing sustainable development.

CONFERENCE VENUE & DIRECTIONS

The conference will be hosted by The Geological Society, and held at their premises (Burlington House) in Central London. This venue is easily accessible by public transport, being a short walk away from both Piccadilly Circus and Green Park tube stations.

DIRECTIONS TO THE GEOLOGICAL SOCIETY, LONDON

Address: The Geological Society, Burlington House, Piccadilly, London W1J 0BG

Tel: +44 (0) 20 7434 9944

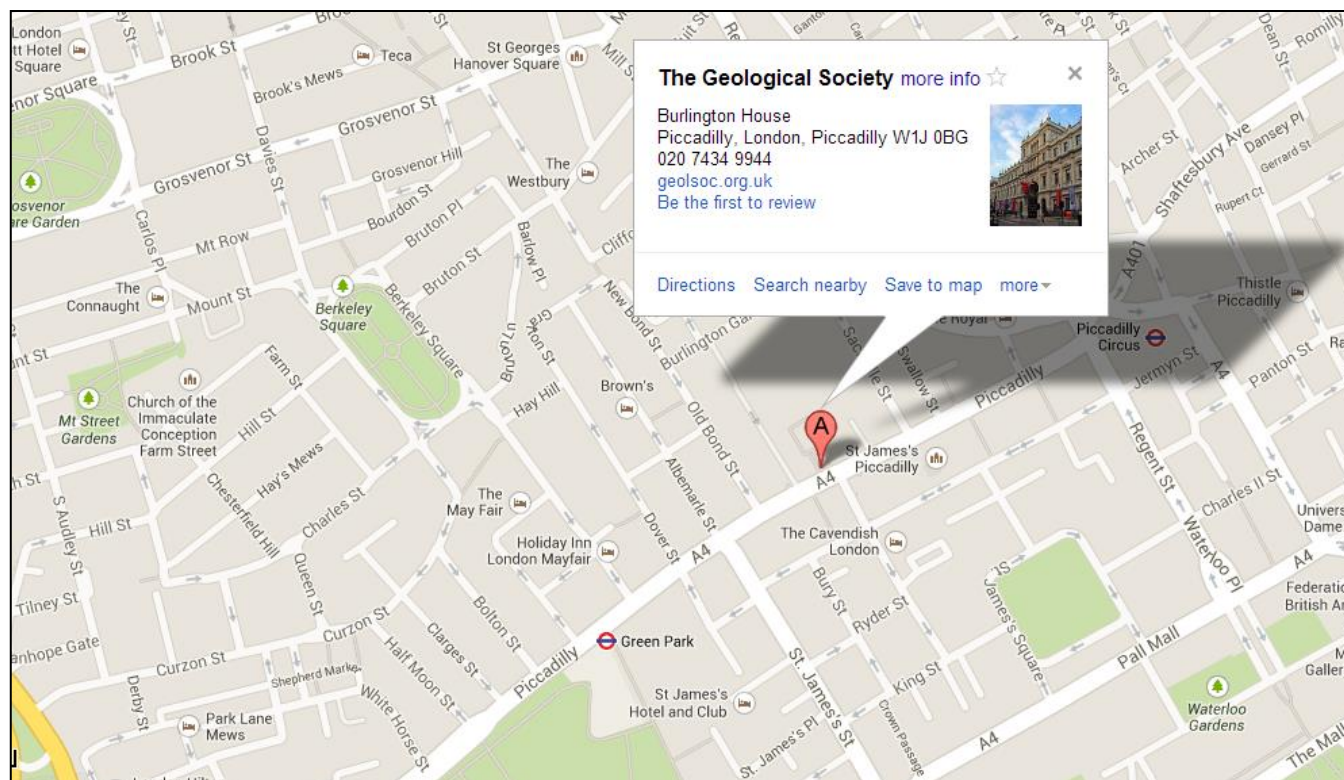
Website: www.geolsoc.org.uk/

How to get there from...

King's Cross Station: Take underground from King's Cross St. Pancras, Piccadilly Line towards Uxbridge alighting at Piccadilly Circus (5 stops, approximately 8 minutes). Take the exit from this station onto Piccadilly. The Geological Society is on the *north side of this road*, opposite Fortnum and Mason Department Store.

Euston Station: Take underground from Euston station, Victoria Line towards Brixton, alighting at Green Park (3 stops, approximately 5 minutes). Take the exit from this station onto Piccadilly. The Geological Society is on the north side of this road, opposite Fortnum and Mason Department Store.

Victoria Station: Take underground from Victoria station, Victoria Line towards Seven Sisters, alighting at Green Park (1 stop, approximately 1 minute). Take the exit from this station onto Piccadilly. The Geological Society is on the north side of this road, opposite Fortnum and Mason Department Store.



ABOUT US - OUR STRATEGY (2017–21)

Geology for Global Development is a registered charity (1165663), existing to champion the role of geology in sustainable development, and mobilise and reshape the geology community to help deliver the UN Sustainable Development Goals (2015-30).

In 2015, the international community agreed the UN Sustainable Development Goals (SDGs), aiming to eradicate global poverty, promote sustainable consumption patterns, and facilitate sustained and inclusive economic growth, social development and environmental protection. Geology can play a vital role in addressing these challenges, but that requires enhanced knowledge, new skills, and strengthened links across civil society, government, academia and industry. In this context, we have published a 5-year strategy (2017-2021), setting out our vision and four strategic objectives.



OUR VISION. WE SEE A WORLD WHERE:

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

STRATEGIC OBJECTIVES

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 significant 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 at least 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.

ORGANISATIONAL DEVELOPMENT

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

- **Finance:** We will seek a consistent income stream from multiple, 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 volunteer executive committee 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 organisation.

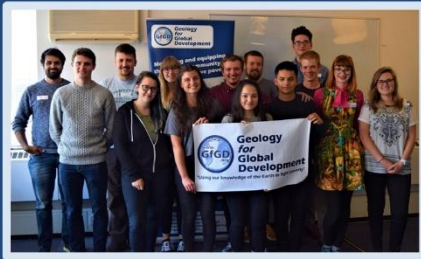
Read more: www.gfgd.org/strategy



**Geology
for
Global
Development**

Strategic Objective 2: #GfGDEducation

Our University Group Network



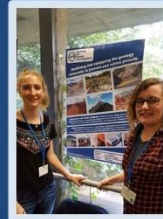
GfGD Ambassador Training events in Bristol and at the British Geological Survey (September 2017)



4th GfGD Annual Conference (November 2016) - Geology and the Sustainable Development Goals-



GfGD Leeds teach their members how to enter borehole data for CHAPs (March 2017)



GfGD Durham sign up new members at Fresher's Fair (October 2017)



GfGD Liverpool hold a quiz to raise awareness of GfGD and take part in a group sponsored run to raise money for the 'Resilience to Volcanic hazards in Guatemala' Project (Spring 2017)



GfGD Cambridge contribute to ParsQuake's earthquake education YouTube channel (November 2016)



GfGD Bristol lead the Coastal Hydrogeological Aid Project (CHAPs) to research borehole failures in Rakhine State, Myanmar; training ambassadors from Southampton, Leeds and Imperial to lead borehole data entry sessions in their own groups



GfGD Imperial go on a trip to 'The Crystal' and sign up new members at their Fresher's Fair



GfGD CSM sign up new members at Fresher's Fair (September 2017)

GfGD Southampton hold a quiz to raise money for GfGD (March 2017)



GfGD UCL raise awareness of GfGD at the IRDR Careers Fair (March 2017)



Find out more and get involved:

Website: www.gfgd.org
Blog: blogs.egu.eu/gfgd
Facebook: facebook.com/gfgd.org
Twitter: @Geo_Dev



Interested in starting a new University Group?

www.gfgd.org/contact-gfgd

SELECTED ACTIVITIES (2016–7)

INSPIRATION

- **Blog:** Hosted by the European Geosciences Union, our blog (blogs.egu.eu/gfgd) provides a forum for exploring issues relating to geology and development. It also gives students an opportunity to develop skills in science communication through writing guest blogs. We are delighted to have four new regular blog contributors: Heather Britton, Jesse Zondervan, Robert Emberson, and Bárbara Zambelli Azevedo.
- **Publications:** Peer-reviewed articles on the **Sustainable Development Goals** (Episodes), **Social Geology** (Proceedings of the Geologists' Association), and **Geoscience Engagement in Global Development Frameworks** (Annals of Geophysics) were published. A general interest article on '**Sustainable Futures**' was published in *Geoscientist*, the fellowship magazine of the Geological Society of London.

EDUCATION

- **University Groups:** These groups, run by student volunteers, work to engage students with our national work, arrange seminars and discussion groups, and promote the vital role of geology within development. A selection of activities is highlighted in the poster on page 12.
- **Sustainable Development in the Himalaya (University College London):** GfGD coordinated a simulation exercise, where participants planned a mini environmental education programme. We worked alongside colleagues from Jammu and Kashmir, our partners in a 2014 hazards education programme.
- **Africa, Groundwater and the Sustainable Development Goals (Geological Society of London):** We supported the attendance of two students, Charlotte Copley (Liverpool) and Laura Hunt (Cardiff) at a meeting on *Africa, Groundwater and the Sustainable Development Goals*. This meeting was convened by the British Chapter of the International Association of Hydrogeologists and the Hydrogeological Group of the Geological Society. The meeting included the 2017 Ineson Lecture presented by Dr Callist Tindimugaya (Ministry of Water and Environment, Uganda).

ACTION

- **Guatemala – Resilience to Volcanic Hazards:** We have continued our fundraising through the 2016-17 academic year, and will be working with partners in Guatemala through 2018 to ensure that these funds (now totalling ~£2100) are used to help improve monitoring of Guatemala's volcanoes and/or education in affected communities.
- **Geoscience Textbooks:** Thanks to your kind donations, we have collected more than 50 geoscience textbooks to help resource institutions overseas. We have so far sent (or will be delivering very soon) 36 of these to new homes in Sierra Leone, Zambia, Tanzania and India. We'll be working to distribute the remaining texts over the coming months. We're happy to receive donations of relevant textbooks at anytime of the year, to place in appropriate institutions. Get in touch (www.gfgd.org/contact-gfgd) if you're able to help.

LEADERSHIP

- **European Geosciences Union (EGU) General Assembly:** In April, we helped to coordinate a splinter meeting on the UN Sustainable Development Goals at the EGU General Assembly in Vienna, gathering early career researchers and senior professionals from diverse geoscience backgrounds.

FUNDRAISING:

- **Aidan Taylor** (Founder of *The Geo Apex™*) is currently fundraising for GfGD, by taking part in endurance challenges throughout 2017/18. Aidan writes: *"I am extremely proud to represent the brand, which is driving a generational change. I hope through fundraising to enable GfGD to further their cause, and generate a greater awareness of the charity in the geological community and the public."* Aidan has so far completed the National Three Peaks Challenge, the gruesome South Coast Challenge 55 km run (34 miles) and scaled Mount Etna. For the final challenge, he'll be competing in one of the world's toughest half-marathons – The Polar Night Half-Marathon. Immediately after New Year 2018, he'll make his way to the high arctic town of Tromsø in Norway, to experience the polar night and prepare to run 13.1 miles in temperatures typically lower than -10 degrees Celsius. See his fundraising page at <https://mydonate.bt.com/fundraisers/geologistaidan>, thank you to everyone who has donated so far!

MEET THE TEAM

The **BOARD OF TRUSTEES**, appointed to oversee and guide our work, consists of the following team:



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 HALL (ACCOUNT EXECUTIVE, RISK MANAGEMENT SOLUTIONS)

Julia is an Account Executive 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 (DIRECTOR OF POLICY AND COMMUNICATIONS, THE GEOLOGICAL SOCIETY)

Nic has worked at the *Geological Society* for 20 years, and now leads delivery of its policy, education, media and wider communications. He also works with the Society's Council/senior staff to coordinate strategic planning and reporting. Nic is the European Continental Coordinator for the *International Association for Promoting Geoethics*.

EXECUTIVE COMMITTEE

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.



EMILY WHITE (ASSISTANT DIRECTOR – UNIVERSITY GROUPS)

Emily has responsibility for the management and development of our network of 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.

GET INVOLVED

In 2017/18, we will be expanding both teams, ensuring we have the skills required to expand and enhance our work.

Join our Board of Trustees: To help deliver our strategy we're looking to expand our team of trustees. We are principally looking for someone with knowledge and experience of fundraising, particularly from grant-making bodies and commercial sponsorship. We are keen to develop appropriate partnerships with other organisations, including private sector companies wishing to support sustainable development efforts, while ensuring that our purpose, values and activities are not compromised. Marketing skills and experience would also be very welcome, as would knowledge of other aspects of income generation. Read more: <https://drive.google.com/file/d/0Bzuh3zrCojYWZGJZSkk2bUh2dTg/view>

Join our Executive Committee: We're looking to expand our team of volunteers, with a range of opportunities for people at all stages of their career. Read more: <https://drive.google.com/file/d/0Bzuh3zrCojYWUzk5cTjnNTlyZW8/view>

Join our Industry Engagement Working Group: Through 2018 we'll be exploring how to improve our engagement with industry. If you're interested in joining our working group, please leave a business card or your email marked **"Industry Group"** at the conference helpdesk.