Geology for Global Development

Strategy 2022 – 2031

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Cover Image: Earth systems, dynamics, and resources shape sustainable development challenges and opportunities Ladakh

Executive Summary

In 2015, global leaders came together at the United Nations to agree an agenda for change. Driven by an ambitious vision of a '*world free of poverty, hunger, disease and want, where all life can thrive*', the 2030 Agenda for Sustainable Development set outs 17 Sustainable Development Goals (SDGs), with 169 targets.

At Geology for Global Development, we share this vision. Our purpose is to help build a sustainable future for all by transforming understanding of, access to, and capacity to use the geoscience required to implement the SDGs.

The SDGs are science intensive - requiring research, innovation, capacity strengthening, and technology transfer. They also make clear the need to understand, monitor, protect, manage, and restore the natural environment. Geoscientists are therefore essential to their successful delivery. This role, however, is often insufficiently recognised by the geoscience community itself and many others contributing to sustainable development initiatives. Barriers prevent access to geoscience data and expertise that could support decision making. Inequalities within the geoscience community hold us back from making a full and rich contribution in sustainability contexts.

Recognising the need to address these challenges, and with a focus on '*leaving no one behind*', four interlinked strategic priorities will shape our activities over the next 10 years:

1. **Shape and advance the geoscience research and communication agenda for sustainable development**: Generating, and catalysing others to generate, knowledge, tools, and techniques that address global challenges in an ethical, pro-poor, and integrated manner.
2. **Understand and address the barriers that prevent geoscience being used effectively in sustainable development**: Identifying and bridging gaps between knowledge, policy, and practice to improve the planning and implementation of sustainable development initiatives.
3. **Empower the global geoscience community to contribute to sustainable development**: Building an equitable and connected global geoscience community, that is inspired and equipped to serve society.
4. **Create an organisation that models the values embedded in the Sustainable Development Goals**: Investing in people and processes to ensure a culture where all members of our team can thrive, our work can be appropriately scrutinised, and financial and environmental sustainability can be realised.

We will achieve the above priorities by delivering high quality research and analysis, actively engaging in policy processes, and strengthening capacity through education and training.

Working on these four interlinked priorities, we embrace the 'leave no one behind' ethos running through the 2030 Agenda. With an emphasis on respectful partnerships, we will use our resources, expertise, networks, and influence to address development priorities of those countries who are furthest behind. We define these countries using the internationally recognised standard of eligibility to receive Official Development Assistance (according to the OECD Development Assistance Committee list of ODA recipients[1]).

[1] https://www.oecd.org/dac/financing-sustainable-development/development-finance-standards/daclist.htm

The World We Want

We support the vision of the 2030 Agenda for Sustainable Development, a 'world free of poverty, hunger, disease and want, where all life can thrive'. It offers a blueprint for a better and more sustainable world, described by 17 Sustainable Development Goals (SDGs) and 169 targets.

In coming together and agreeing on a framework that is both comprehensive and ambitious, and globally applicable but with a special emphasis placed on reaching the furthest behind first, world leaders achieved something special. Its priorities are shared by billions of people around the globe – ending poverty, tackling inequalities, improving education and work, protecting the environment, and increasing resilience to threats of all types.

This is a vision and plan of action worth devoting ourselves to realising.

We take seriously the responsibility of all to consider how they can contribute. The SDGs are science intensive, requiring research, innovation, capacity building, and technology transfer. A critical aspect of this is geoscience - understanding of Earth systems, Earth dynamics, and natural resources. Over the last 5 years, the significant role of geoscientists in helping deliver the SDGs has been convincingly demonstrated.

We recognise, however, that 'business as usual' will not be sufficient to achieve the bold ambitions of the SDGs. We need to generate greater understanding, build new bridges to allow the bidirectional flow of knowledge, and reform structures and institutions if we are to have any hope of creating the world we want. For example, we need to address the barriers that prevent access to geoscience data and expertise that could support more effective decision making, and tackle the inequalities that prevent the geoscience community from making a full and rich contribution in sustainability contexts.

The transformational vision of the SDGs shaped our work over the last strategy period and will guide our actions over the next decade. The SDGs are framing sustainable global development activities to 2030, but they will anchor decision making beyond this date. We will need an ongoing commitment to adhere to frameworks that enable humankind to live sustainably and equitably well into the future, anticipating and responding to both emerging opportunities and new challenges that threaten to reverse progress. The geoscience community should be present and active in the global conversations leading up to and shaping the post-2030 development agenda.

The strategic priorities we set out in this document are our response to this vision and context. They have emerged from an in-depth look at our work to date, the changing global landscape, and our best understanding of how change happens.


1 NO POVERTY
2 ZERO HUNGER
3 GOOD HEALTH AND WELL-BEING
4 QUALITY EDUCATION
5 GENDER EQUALITY
6 CLEAN WATER AND SANITATION
7 AFFORDABLE AND CLEAN ENERGY
8 DECENT WORK AND ECONOMIC GROWTH
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
10 REDUCED INEQUALITIES
11 SUSTAINABLE CITIES AND COMMUNITIES
12 RESPONSIBLE CONSUMPTION AND PRODUCTION
13 CLIMATE ACTION
14 LIFE BELOW WATER
15 LIFE ON LAND
16 PEACE, JUSTICE AND STRONG INSTITUTIONS
17 PARTNERSHIPS FOR THE GOALS

Our Strategy 2022 – 2031

Our Purpose

We exist to build a sustainable future for all by transforming understanding of, access to, and capacity to use the geoscience required to implement the SDGs.

Our Priorities

With a focus on 'leaving no one behind', over the next 10 years, four interlinked priorities will shape our activities:

1. **Shape and advance the geoscience research and communication agenda for sustainable development:** Generating, and catalysing others to generate, knowledge, tools, and techniques that address global challenges in an ethical[2], pro-poor[3], and integrated[4] manner.

   Examples of work towards this priority includes…

   - Exploring research themes relating to Earth resources, dynamics, and systems.
   - Establishing an Institute of Geoscience for Sustainable Global Development, designing, leading, and collaborating on impact-led research projects.
   - Publishing analysis of sustainable development strategies, frameworks, and reports from international and intergovernmental agencies; offering thought leadership that inspires others to act.

2. **Understand and address the barriers that prevent geoscience being used effectively in sustainable development:** Identifying and bridging gaps between knowledge, policy, and practice to improve the planning and implementation of sustainable development initiatives.

   Examples of work towards this priority includes…

   - Exploring research themes relating to knowledge creation, ownership and sharing, and its implications for decision making.
   - Functioning as a knowledge intermediary, bringing together relevant groups to strengthen the science-policy-practice interface.

[2] Adhering to well-established principles regarding ethical conduct in research (as described in the UKRI ESRC Framework for Research Ethics), in the practice of geoscience (as described in the Cape Town Statement on Geoethics), and in international development (as described in the Global Code of Conduct for Research In Resource-Poor Settings).

[3] A commitment to the 'leave no one behind' ethos of the SDGs, aiming to reduce poverty and support knowledge creation and impacts that are of particular, although not exclusive, benefit to those who are furthest behind.

[4] Working with other disciplines, as appropriate, and ensuring sufficient regard is given to any potential unintended consequences of our work.

- Engaging in policy processes, particularly at the global level, including those reviewing progress in implementing the SDGs and planning the post-2030 sustainability agenda.
- Development of training and hosting of events that widen access to geoscience knowledge and skills.

3. **Empower the global geoscience community to contribute to sustainable development:** Building an equitable and connected global geoscience community, that is inspired and equipped to serve society.

   Examples of work towards this priority includes…

   - Exploring research themes relating to geoscience education and inequalities in the geoscience community.
   - Launching the GfGD Global Student Network, connecting student geoscientists committed to using their knowledge to help deliver the SDGs.
   - Supporting geoscience institutions and networks in the Global South.

4. **Create an organisation that models the values embedded in the Sustainable Development Goals:** Investing in people and processes to ensure a culture where all members of our team can thrive, our work can be appropriately scrutinised, and financial and environmental sustainability can be realised.

   Examples of work towards this priority includes…

   - Building a diverse team with the skills needed to deliver this strategy, and the support structures needed to thrive while contributing.
   - Deploying effective monitoring, evaluation, accountability, and learning processes.
   - Securing reliable income streams from multiple, diverse sources.
   - Delivering our work with minimal environmental impact.

Our Geographical Focus

Working on these four interlinked priorities, we embrace the 'leave no one behind' ethos running through the 2030 Agenda. With an emphasis on respectful partnerships (as characterised in the next section), we will use our resources, expertise, networks, and influence to address development priorities of those countries who are furthest behind. We define this by the internationally recognised standard of eligibility to receive Official Development Assistance (according to the OECD Development Assistance Committee list of ODA recipients).

We recognise that the actions of individuals, organisations, and nations outside of these countries can affect their ability to achieve a sustainable future. Our work will therefore involve some activities with a broader geography, with these focusing on securing positive impact in countries eligible to receive Official Development Assistance.

Our Values and Commitments

The values below define our approach to all aspects of our work:

Integrity: We will align our conduct with what we know to be excellent.

Respect: We will ensure the defining characteristic of our communications (internal and external) is compassion.

Boldness: We are driven by an ambitious vision and will innovate to realise it.

Collaboration: We will cultivate relationships to deliver impact that leaves no one behind.

Humility: We have much to learn and will take steps to listen and grow.

As an organisation headquartered in the Global North, we recognise our responsibility to ensure that our activities do not propagate existing injustices or create new ones. We commit to:

- Building safe, respectful, and inclusive partnerships.
- Involving diverse stakeholders at all stages of a project lifecycle.
- Listening to stakeholders, to understand their challenges and development priorities.
- Understanding context and using this to inform project design and means of implementation.
- Monitoring our work, identifying any problems, taking mitigative steps where possible, and capturing learning to inform our work and that of others.
- Amplifying the voices of those living in and from the regions we seek to serve, providing a platform by which their perspectives, ideas and expertise can be shared, celebrated, and used.

Our History and Track Record

In 2009–10, our founder and current Chief Executive visited Tanzania to support a water programme evaluation. Walking through the towns and villages of Kagera, it was clear that (1) geoscience matters and can improve the future of some of the world's poorest, most marginalised communities, but that (2) business-as-usual is not enough. To have long-lasting impact, geoscientists need strengthened understanding of development, stakeholders, and context (political, economic, social, technological…), and to be present and active in sustainability dialogues.

'*Geology for Global Development*' was born soon after, and in 2021 we celebrated 10 years of activity as an organisation, championing geoscience's role in delivering a better, more sustainable future for all. Over this time, our team and trustee group have grown, bringing into the organisation expertise from a range of disciplines and sectors.

Our work from 2017 until recently was guided by four strategic objectives summarised by the words 'inspiration, education, action, and leadership'. To address these, we delivered high-quality activities with valued, international partners. Examples of our primary achievements include:

Being at the forefront of efforts to grow understanding of the role of geoscience in the UN Sustainable Development Goals.

Through a suite of publications, presentations, our online presence, and engagement at conferences we contributed to a much broader understanding of the value of geoscience in supporting sustainable development. To date, more than 17,500 people accessed our article on 'Geology and the SDGs' (published in 2017). This was quoted at the open session of the UNESCO International Geoscience Programme Council meeting in 2019 as informing the refocusing of their activities. More recently, our book on *'Geosciences and the Sustainable Development Goals'* was published, involving 42 authors from six continents. This is the most comprehensive analysis of the role of geoscientists in delivering the 2030 Agenda with more than 11,000 accesses in its first 18 months.

Equipping thousands of geoscience students with the content- and skills-based knowledge required to contribute to implementation of the SDGs.

We organised conferences each year from 2013 to 2019, on themes including tackling poverty (SDG 1), improving water management (SDG 6), sustainable cities (SDG 11), and good health and wellbeing (SDG 3). Each gathered more than 100 people and generated overwhelmingly positive feedback. Our engagement with students in other contexts - most notably through our network of University Groups - means students across dozens of institutes have had an opportunity to reflect on how they can contribute to sustainable development and do so in an ethical and effective way.

To further support this, we published a fully open-access educational module on 'Geoscience and Sustainable Development' in 2020. The module includes eight classes, collectively helping learners to develop skills-for-sustainability and was supported by the International Union of Geological Sciences (IUGS) and the UNESCO/IUGS International Geoscience Programme Project 685.

Advancing research to support implementation of the Sustainable Development Goals.

A project focusing on 'geoscience education for sustainable development' in Kenya' supports efforts to address SDG 4 (targets 4.4 and 4.7) by building understanding of the skills required for future employment to deliver sustainable development objectives.

Research on barriers preventing NGOs in eastern Africa (including Tanzania and Uganda) from accessing geoscience knowledge to inform clean water programmes supports efforts to address SDG 6 (target 6.1), access to safe and affordable drinking water for all.

Strengthening the geoscience-policy interface, improving geoscience representation in international policy processes and mechanisms.

Until recently there was a significant gap in terms of engagement by the geoscience community in international conversations around science and sustainable development. Working with relevant UN Major Groups to amplify our messages, we contributed to three *UN Forums on Science, Technology, and Innovation for the SDGs* (convening the first Earth science focused side event), the *High-Level Political Forum on Sustainable Development*, and the *26th Conference of the Parties to the UN Framework Convention on Climate Change* (UNFCCC). In 2021, the UNFCCC formally accepted our application to become an observer organisation, and the UN Economic and Social Council (ECOSOC) recently granted us special consultative status. Through engaging at this level, we ensured text around the value of geodiversity was included in the Scientific and Technological Major Group position paper for the 2021 High Level Political Forum, and key messages about environmental education were embedded into the formal report of the *UN Forum on Science, Technology, and Innovation for the SDGs*.

Our approach to projects contributes to a strengthened national scientific capacity in many contexts, an ambition of SDG 9 (target 9.5). This has been done by funding postgraduate-level research and networking opportunities for early-career geoscientists from Malawi, Uganda, and Kenya, supporting scientific conferences in Guatemala, and providing resources to institutions in Bangladesh, Kenya, Zambia, Sierra Leone, Tanzania, and India. Our approach has also contributed to North-South and South-South cooperation on and access to science, described in SDG 17 (target 17.6).

You can find more about our activities and achievements from 2017 to 2021 in our annual reports[5] over this period. The 2021 report includes a broader look back at this strategy period, and the extent to which we delivered against the strategic objectives we set in 2017.

We are confident that, because of our work, there is greater recognition and understanding of the role of geoscience in tackling significant global challenges both within and beyond the geoscience community. This change in knowledge, together with new skills, supports the wider geoscience community to make their own contribution to practical development projects (through diverse professional roles), tackling the scourge of poverty and multiple inequalities. The impact on implementation of the SDGs of a mobilised and equipped community will always exceed what we - as one organisation - can do.

Through our approach, expertise, and presence in global forums and networks we have become a recognised and trusted voice on 'geoscience and sustainable development', with a demonstrated commitment to reshaping the global geoscience community to better serve society. We increased representation of geosciences in spaces that previously lacked a voice for geoscience. We recognise, however, that there is still much to do to leverage maximum impact from the work we have initiated, and that there remain many barriers to the effective use of geoscience information in delivery of the SDGs. Through all we have achieved to date, we are uniquely positioned to ensure the geoscience community is engaged in the SDGs and to work with the UN on the development of any subsequent frameworks.

We look forward to continuing our work to address these issues through this new strategy period and hope many of those reading this document, within and beyond the geoscience community, will partner with us to achieve this.

[5] https://www.gfgd.org/annual-reports

Refreshed Identities

As we build on the successes of the last decade over the next, we will be making several changes to our identify. Each is designed to strengthen understanding or more accurately describe the scope of our work as it is today, and to aid us to expand our reach and influence.

Action 1: Amending our name and refreshing our logo. Our name is changing from Geology for Global Development to Geoscience for Global Development, to describe more accurately the science we engage in and the community we are part of. We have been, and will continue to be, an organisation working with a diverse range of Earth and environmental scientists. Changing 'geology' to 'geoscience' in our name will reflect this. The acronym 'GfGD' will remain the same. We are also refreshing our logo, to be released later in 2022.

Action 2: Launching an 'Institute of Geoscience for Sustainable Global Development'. Our new strategy is defined by a major push towards impact-driven research and engagement in policy processes. To bring together our diverse research activities, help articulate the importance of this strand of our work, and clearly describe 'what we do' to external stakeholders, we are launching an *Institute of Geoscience for Sustainable Global Development*. The institute will both have a distinct identity and be fully integrated into our wider work and brand. The institute will be supported by the creation of a 'thematic advisory group' bringing together expertise from around the world to inform our work.

Action 3: Launching a 'GfGD Global Student Network'. Through all aspects of our work, we seek to address the isolation of geoscientists in the Global South and support effective North-South and South-South partnerships. We are launching a *GfGD Global Student Network*, a global community of student geoscientists committed to using their knowledge to help deliver the SDGs, and investing in building the skills, understanding and networks required to do so. This will replace our (largely UK-based) University Group network.

These changes will be rolled out in full over the coming months. A updated edition of this strategy document will also be published, incorporating our new brand identities.

Recognising Success

In anchoring our strategy to a bold and ambitious vision, we recognise that our work alone cannot achieve it. We need to build partnerships with diverse organisations, work in coalition with other disciplines, and be generous with our expertise and resources. Aligning our vision with that of many other organisations contributing to Agenda 2030 will support this. Much will remain outside of our sphere of control or influence, but we believe our activities can result in positive outcomes that give the global community a greater chance of delivering a 'world free of poverty, hunger, disease and want, where all life can thrive'.

High-level outcomes of our anticipated work programme are set out below:

- New geoscience knowledge available with the potential to improve implementation of the SDGs.
- Greater appreciation of the role of geoscientists in sustainable development by other organisations* involved in related activities.
- Decision making by organisations implementing sustainable development activities draws on geoscience knowledge and expertise[6].
- Geoscientists are actively contributing to global sustainability forums.
- Geoscience considerations are included and accurately represented in major intergovernmental (including UN) reports.
- Geoscientists around the world are connected, inspired, and empowered to contribute to sustainable development activities.
- Geoscientists in the Global South have equitable access to the global institutions shaping their science.

[6] In this context, typical 'organisations' may include local and international NGOs, local and national governments and their agencies, think tanks, and intergovernmental agencies.

Geology for Global Development

Registered Charity: 1165663 (England and Wales)

We are an affiliated organisation of the *International Union of Geological Sciences*, hold special consultative status with the *UN Economic and Social Council* (from 2022), and are an observer organisation to the *UN Framework Convention on Climate Change* (from 2021).

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