

UK international development white paper: call for evidence

1.

How do partnerships need to change to restore the credibility of international development and the multilateral system and regain the trust of Global South?

What role should the UK play in this and what specifically should we do differently?

What should we do to ensure we are listening better to those most in need?

At the British Geological Survey (BGS), we develop international partnerships for research and capacity development globally. Partnerships should be co-developed to ensure they build on each partner's interests and strengths to deliver a shared goal and value to all involved. Co-development requires long-term engagement, often in-person, to build trusted relationships. This should be sufficiently resourced to allow secondment of technical specialists either directly to partners, or to appropriate in-country institutions. This approach has been successful and used by other countries as a mechanism to enable co-development of projects to ensure lasting impact.

Unfortunately, there are many examples of inappropriate project-based purchase of technical equipment for institutes in lower-income countries, with inadequate consideration of how to develop staff skills and resource their long-term operation. However, in-country technical specialists can help coordinate and target UK resources where they can be most effective, with facilitation to multiple projects to ensure a resulting system works as an integrated whole rather than a set of incompatible elements and they should be empowered to take this role.

The BGS has worked with governmental, academic and NGO partners in many countries around the world, particularly in the fields of hazards and disaster risk reduction, clean energy, critical minerals, water and soil resources. Our international partnerships have been funded by international bodies such as the World Bank and other development banks, UK and overseas governments, multilateral organisations (e.g. Gates Foundation, United Nations). In many cases, we are aware of key issues in our sector in countries of interest and can work with in-country partners to develop ideas for thriving, equitable partnerships. The new Centres of Expertise appear to offer a way to achieve this, and we would urge the government to make a commitment to long-term support for these Centres. The DFID/FCDO Partnerships for Development programme underpinned partnerships, but its unexpected closure in 2021 meant that many hoped for outcomes were not achieved.

In many lower-to-middle-income countries, gaps in development funding (particularly past two years) are being filled by China which is committed to funding basic infrastructure development (including energy, communications and transport). For example, when partners say that a fundamental barrier for them is the lack of an internet connection in their offices, we ideally need mechanisms by which we can enable this investment. The

lack of such infrastructure in many countries creates challenges for many western partnerships, but this type of support has typically not been included in UK development funding and could benefit from the transparent approach to the delivery of development programmes. Development from development banks often competes or overshadows existing structures and institutions. Typically, when development projects end, results are lost, data atomised with reduced potential for ongoing benefit.

All too frequently donor organisations do not coordinate investments and recipients understandably take what they are given without necessarily understanding the implications for ongoing costs or usability – donors may have their own agendas on what they want to support but could better consider an holistic approach to ensure long-term sustainability through multi-lateral coordination.

2.

What are the specific innovative proposals that can accelerate progress in international development?

What initiatives, policies, partnerships, or technologies could result in accelerated progress?

Are there big ideas on which the UK is particularly well placed to play a role?

The geosciences, whether targeted at resource development, managing natural hazards or environmental issues, have always been about collecting and managing the observations required for building a coherent understanding of the earth beneath our feet. Geological Surveys or Ministries of Natural Resources, are important impartial custodians of national geological databases (whether analogue or digital). They use data to develop conceptual models of the geology of their country and communicate their understanding to the stakeholders in government or civil society whose decision-making needs geological data. **Geological data is at the nexus of developing conceptual understanding of groundwater, agri-mineral and green-tech resources, disaster risk management or planning for increasing urbanisation.** Good governance through impartial management of data, with transparent processes are critical to de-risking investment in mineral exploration to the benefit of a broad range of economic sectors whilst balancing trade-offs with environmental and societal protection.

Advances in Information Technology (e.g. machine learning/artificial intelligence) in recent years have developed the capability to better forecast the occurrence of natural hazards (e.g. earthquakes and landslides) the extent and potential of critical raw minerals essential for the net zero transition, **planning for increasing urbanisation** improve water and food security. A reinvigorated approach to the delivery of geological information in developing countries could be transformational through use of new technologies, for instance to visualise and exploit geological data. This would enable better management of natural resources, improve government's capacity to respond to geological hazards and can attract private sector investment to allow the development of mineral resources. This type of investment can provide an excellent return on investment. It does, however, need to be delivered alongside long-term programmes for institutional strengthening. Geoscience data collection and management is rarely well resourced, and no computing technology can provide reliable predictions or enable actionable decisions without adequate observational data, and the routine financial, operational technical skills needed for basic geological survey.

Alongside this, greater emphasis should be given to increasing the capacity of geoscientists to operate at the interface between geoscience and decision-making to maximise the possibility of decisions being informed by geoscience evidence. Resolving issues around data ownership and sharing could result in accelerated progress because all too often the data exists but is often inaccessible to those who could use them for decision making. Although these issues are complex, the UK is well-placed to advocate for change in this area.

3.

What new ideas for development cooperation would make the biggest impact in, or for, low income countries?

What are the best ideas to accelerate progress for middle income countries which still have large numbers of poor people?

Development cooperation will succeed where economic development can be promoted to support critical needs in reducing poverty, improving access to healthcare, education and equal rights. The development of the geological sector in many of the middle income countries without well-established mineral sectors will enable countries to make use of their local resources, attract private sector investment and provide frameworks to support

sustainable economic development. National Geological Surveys are often the critical point of provision for impartial geological information at local, national or even regional scale. In both low and middle income countries there is often a legacy of former overseas investments, but a lack of long-term support restricts their potential, with capital investments not fully utilised and the potential to promote geological resources being limited. The urgency of the latter point is largely driven by the need for resources (particularly critical minerals) for the transition to net zero carbon emissions via the electrification of transport, heating and renewable energy production. There is potential for many low and middle income countries to grow their economies on the basis of their natural resources, but it is vital that such development is well-governed and regulated to bring maximum benefit to the country as a whole. Assistance to geological surveys in the middle income countries to better understand the potential of their natural resources can therefore play a key role in their national development, alongside relieving key restrictions on international trade and transition to net zero.

Examples of where this is already working has come from the strong interest from the UK government and many other stakeholders on critical minerals. Recently, the British Embassy in Brazil facilitated several stakeholders including the British and Brazilian Geological Surveys to develop proposals for collaborative work on the development of lithium resources. Additionally, through the British High Commission in-year funding was recently made available to support Zambian ambitions to better understand their wider critical mineral resources. The British Geological Survey collaborated to put together a proposal to support the Geological Survey in Zambia on this topic and were able to secure £300k from the FCDO for the work. Improved coordination of information around funding frameworks from UK government would be helpful to help stakeholders access already available funds, but importantly, forward guidance and longer-term viewpoints rather than within-FY horizons will result in greater opportunities to realise UK investments and foster bilateral collaboration.

4.

How can Official Development Assistance (ODA) be most effectively targeted and built upon?

How can non-ODA financing be mobilised to ensure ambitious, innovative, and transformational international development?

In BGS' experience relatively modest amounts of ODA financing have made large and long-lasting changes where they have been focussed on identifying and supporting appropriate national institutions. As alluded to in our response to Q3 investments in geological data collection, curation and dissemination can be key enablers of private sector investment in the mineral resource sector, and equally valuable in training and supporting national governments in understanding and managing natural resources. Direct technical support to government departments or academia can be disproportionately influential, both strengthening institutional capacity and as a catalyst for resources and priority to be assigned to an institution.

The assumption that there is no market alternative to concessional ODA financing is often made with respect to issues around environmental degradation and geohazard avoidance. However there have been a number of promising initiatives around development of community and social entrepreneurship for managing geological risk and managing climate critical natural resources. For instance, Groundwater is often a key resource for public water supply and agricultural/industrial development. Its effective management is a challenge, and abundant international examples of management failure exist, e.g. over exploitation of groundwater in the Indo-Gangetic basin). The scarcity and value of water resources mean that innovative approaches to valuing water and creating financial incentive for communities or individuals to manage their local resource can be productive. Examples include industry paying farmers to conserve water to offset their abstractions or as part of corporate social responsibility and global water accounting programmes. The widespread introduction of solar energy for pumping water gives an opportunity to create market-based controls on groundwater abstraction by setting appropriate feed-in tariffs for farmers, effectively encouraging appropriate valuation of the resource. The challenge with this type of intervention is that it requires, de-facto, community involvement and significant extension work to scale up beyond pilot projects, hence the importance of supporting the capacity of the Geological Surveys.

5.
How should scientific and technological expertise, private finance and the private sector, trade and investment, civil society networks and diplomacy be engaged to support global development action and accelerate progress towards the SDGs?

As discussed in our answer to Q3, data is fundamental to making progress on many key environmental challenges that connect to achieving the SDGs. For instance, within the geosciences, issues such as access to critical raw materials for economic development and the global net zero transition, food and water security, building resilience to natural hazards and the impacts of climate change. The more open and accessible the data are, the greater their value is to all users be they other geoscientists or decision makers. Focussing scientific and technical expertise, as well as diplomacy, on creating and supporting networks for managing and sharing data and information, and its harmonisation and dissemination is likely to support global development action. This should involve the coordination of data/information through multi-lateral agencies (e.g. regional development banks, United Nations – FAO/WHO, AMCOW, CCOP) or, where appropriate, newly developed information sharing networks, to promote development, mitigation to climate change and resource security.

6.
How can progress on tackling ending poverty, economic growth, and the challenges of climate change be best brought together, in the context of Agenda 2030 (including building resilience, adaptation, and sustainable growth)?

How can the opportunities be maximised? How can the limits and trade-offs be managed?

Geological Surveys around the world have a long-term presence and so are well positioned through their remit to have a longer-term views of national and international geological resources compared to the academic or private sectors. Additionally, they can facilitate the coordination of information for policy decision makers, communities and industry with applied research to better understand the potential for economic development from geological resources and the potential trade-offs associated with their exploitation.

An example of the trade-off of economic development and green energy transition can be given by one of many BGS activities around the world. For example, BGS currently has a collection of 'Lithium Triangle' research projects with established contacts in Argentina, Bolivia and Chile with the assistance of the UK embassies. The BGS presence in the region helped to secure Science Innovation Network (SIN) funding to develop a road map for sustainable and responsible development of Salars in the region. Success for this research would see the removal of obstacles to decarbonisation, increased understanding Salar systems (Salt Lake), how people relate to them socio-economically and to enable responsible evidence-based decisions – essentially understanding the trade-off in developing a geological resource that is essential to the green energy transition. Similar undertakings using modern information technology have the capacity to better frame such trade-offs in wider settings, particularly in the mineral resource sector for wider green-tech development or for disaster risk management, security of food and water supplies and urbanisation – all requiring comprehensive geological data that can benefit from developments in machine learning data processing at national and international scales.

7.

What are the top priorities for strengthening multilateral effectiveness in international development?

What are the issues and challenges most suited to bilateral cooperation (considering all levers)?

Top priorities should cluster around specific problems, for example, access to critical raw materials for economic development and the global net zero transition, alongside food and water security and preparedness for a changing climate to improve resilience. All depend on high quality geological information available via modern information systems that facilitate the coordination and sharing of data to harmonised international standards. Harmonisation and coordination of data/information via bilateral/multilateral cooperation can be informed through multi-lateral agencies (e.g. regional development banks, United Nations – FAO/WHO, AMCOW, CCOP) to promote development, mitigation to climate change and resource security.

Greater coordination to minimise duplication of effort and ensure that a suite of disconnected projects that undertake development focussed geoscience work in a specific would help greatly to maximise value for money. Where institutional strengthening occurs, the wider capacity of industry, academic and research institutions should be considered to avoid dilution of effort/funds and promote efficiency gains in technical capacity. In addition, coordination could better realise longer term support and benefits. An example of this occurred for the Afghanistan Geological Survey supported by the British Geological Survey and funded by DFID over four years with purposeful facilitation through to follow-on funding from the World Bank for an additional four years.

A key barrier is in the generation of reliable scientific data to support policy decision makers and frameworks to ensure trade-offs to development inform all stakeholders. Often, scientific data is not harmonised or of insufficient quality or coverage in the case of geological data and therefore not in a format for sharing beyond national boundaries. Copyright ownership of data may also inhibit scientific data for wider use and benefits at a regional scale. UK ODA could be used to unlock research data, particularly in the geological sciences by raising technical capacity at geological surveys, but through also providing regional support through multilateral funded development projects (e.g. previous Royal Society-DFID funded Africa research capacity grants) to realise wider gains and synergies. Partnership with multilateral agencies such as through the United Nations (e.g. FAO, WHO) who have greater perceived impartiality and for whom resources and expertise are already spread thinly could realise wider public good in the geological sector through transnational collaboration.

Gains could be made in the disaster risk management sector through better coordination and visualisation of monitoring-forecasting-communication of data to guide best practice in scenario planning in a form that the UK government and the EU's Emergency Response Coordination Centre can utilise for disaster response.

8.

Are there any other points that you would like to highlight for this White Paper?

In preparing this response we have found common themes that have dominated our thinking. These are:

- a)** the importance of long-term partnerships, preferably with in-country technical specialists, in ensuring that projects and resources are properly co-developed with the global south and reflect local needs while also coordinating and avoiding duplication with other bilateral or multilateral donors
- b)** the importance of geological surveys (or equivalent institutions) in managing the data that are key to so many challenges around economic development and climate change adaptation/resilience
- c)** technical cooperation and capacity development focussed on geological surveys can, at relatively modest cost, have disproportionate benefits in terms of economic development and the effective management of natural resources.