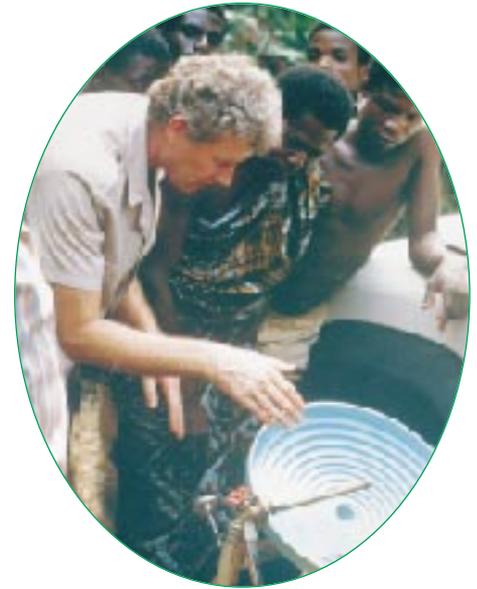


Sustaining sustainability

National geological survey organisations worldwide

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Technical assistance in Ghana.

Every nation is the guardian of a unique sector of the Earth's crust, the source of its indigenous mineral and energy resources, its groundwater and, indirectly, its soils. A detailed knowledge of the physical and chemical character of the nation's geological heritage is therefore vital to a sustainable national economy and social planning. This explains why almost every one of the world's nations has a national geological survey organisation (GSO).

A recent survey carried out by the BGS on behalf of the Department for International Development (DFID) compared the size of the task facing some 55 GSOs in surveying their country's crustal sector, the resources they had available and progress achieved to date. This survey indicated that many of the GSOs from the less developed countries currently faced a daunting task of data gathering in order to offer an acceptable national service to their governments, industry and the public, as compared to the richer countries. For example, 10 African GSOs had, in 1995, a total of 995 graduates available and a land area of 6.25 million km², 54 per cent of which remained to be geologically mapped but in contrast the 15 GSOs of the European Union had 3782 graduates available for 3.6 million km², only 15 per cent of which remained to be surveyed. The ratio for the African and European Union GSOs are one graduate per 6294 km² and one graduate per 995 km² respectively, though the remaining surveying task in Africa is six times larger than in Europe. For systematic geochemical surveys the contrast is even greater.

What can be done to correct such imbalances? There has been a considerable amount of technical assistance to developing country GSOs, delivered through both bilateral and multilateral aid programmes, during the last few decades. In 1996, for example, the GSOs of the European Union were implementing programmes worth a total of almost £50 million with the GSOs of some 48 less developed countries. In spite of this, and in spite of the fact that many GSOs have benefited, many still remain under-resourced and even virtually moribund.

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Concurrent and successive aid projects may continue for many years. Sooner or later, however, technical assistance for a particular GSO activity will cease and the national government may not be able to provide the resources to sustain the activity. Unfortunately this seems to be the fate of many donor initiated activities, particularly in developing countries whose economies have shown little or no growth over long periods. By comparison, those developing countries whose economies have shown strong growth over the last few decades have, with the help of technical assistance, developed GSOs with strong sustainable core programmes. Particularly good examples are seen in south-east Asia (eg. Republic of Korea, Malaysia, Thailand, Philippines and Indonesia).

Technical assistance programmes involving 'institutional twinning' or 'professional linkages' over a protracted period have often proved effective in fostering the sustainability of core activities. A good example is seen in the long-term development of geological mapping teams in Egypt in a professional linkage between the Egyptian Geological Survey and Mining Authority and the BGS which during its course has not only established a fully trained mapping capacity but has produced published geological maps covering 135 000 km² of the country.

Developing country GSOs will be funded by their governments at levels that guarantee a degree of sustainability to their highest priority core programme activities only if they can convince their governments of the relevance of those activities to either wealth creation or the quality of their citizen's lives. Currently however, even governments of countries who either rely heavily on mineral exports as major foreign currency earners, or who are especially vulnerable to geohazards or rely almost entirely on groundwater to sustain their populations, often fail to provide funding for a viable national core programme within their GSOs. Unless GSOs can persuade their governments to guarantee their viability, the flow of information so vital to many aspects of sustainable development planning will not itself be sustainable.