of a variety of challenges faced in the Earth Sciences by leading scientists, figures from industry and politicians.

As well as the global launch, national launch events were held around the world. In the UK, the national launch took place on 10 January 2007, and coincided with the opening of a year of events commemorating the bicentennial of the Geological Society of London. Celebrating both its own 200th birthday, and the 4567 millionth birthday of Planet Earth, 4567 biodegradable balloons were released to mark the occasion. In Africa, the official launch took place on 8 and 9 May 2008 in Tanzania, in the city of Arusha at the foothills of Mount Kilimanjaro. Hosted by the President of Tanzania, Jakaya M. Kikwete, the launch featured talks by scientists of many African nations, and was witnessed by an audience of 300 from 20 different nations, among whom were many invited students from African countries.

The IYPE was organised with both scientific and outreach activities in mind. The flagship science project was OneGeology – an international initiative of the geological surveys of the world, spearheaded by the British Geological Survey. The aim of the project is to develop a geological equivalent of Google Earth, by making dynamic geological map data available on the internet. Earth and computer scientists from 79 are working together to deliver the project, with the hope that it will enable all nations, regardless of their economic status, to have access to information which is crucial to the development of engineering projects, waste management and many other vital initiatives.

The success of OneGeology was not always matched by other scientific projects. There was disappointment when fundraising did not quite meet expectations, which limited the extent of scientific research which could be carried out. More successful was the science programme's development of a series of brochures based around the themes of the IYPE. These have attracted great interest, and have already been translated into several languages, with plans to produce a similar series of books which will serve as a legacy to IYPE already underway.

The real success of the IYPE has been its outreach activities, which have produced a number of unanticipated results. Of particular note has been the establishment of a large number of National Committees, set up around the world to administer outreach activities and apply the IYPE's global ambitions on a regional scale. The organization of National Committees was undertaken by many more nations than had been expected, with numbers growing all the time. By the end of 2008, geoscience communities had established committees in 76 countries and regions across the world.

One of the most positive outcomes of the year has been the emphasis on young people in the Earth sciences. This engagement began with the attendance of invited students at the launch events, which provided a wonderful opportunity for students from all over the world to meet and discuss their ideas and concerns. Since then, young people's engagement with the aims of the IYPE has continued, precipitating the formation of Young Earth Scientists for Society, which will hold its first conference in October 2009 in Beijing. Formed as a direct result of the IYPE, the YES network is composed primarily of scientists under 35 years of age, to provide links between those who will provide the future generation of Earth scientists.

With the future of the Earth becoming increasingly uncertain, the engagement of young people in the earth sciences was always one of the IYPE's primary aims. It is hugely encouraging that it is in this area that the IYPE has been most successful, suggesting there are many reasons to be optimistic about the future of Earth sciences, and of the planet.

Sarah Day, Geological Society of London

News from NGO Geólogos del Mundo (World Geologists)

Activities in 2008

- Publication of the Annual Report 2006-2007 (Fig. 1)
- Co-organization of the concert of the International Year of Planet Earth, jointly with the Spanish Official Association of Professional Geologists (ICOG) and the Geological Survey of Spain. The event was held in the Symphonic Hall of the National Musical Auditorium (Fig. 2), and played by the Chamartin Symphonic Orchestra and the Talia Chorus, directed by Silvia Sanz as in previous years. The novelty was the premier of the Water Cantata written by A.Vivas Puig. Three other compositions related to Planet Earth were also played
- WG received the "Excellence Woody Cone" awarded by the municipality of Siguatepeque (Honduras) in recognition of the underground water supply projects carried out in four communities and the collaboration of WG staff in the emergency resulting from the October 2008 floods
- New web page currently being translated to English
- Creation of the Delegations in Castile-La Mancha and the Basque Country.

Projects finished in 2008

- "Strengthening the environmental management of the municipalities of the Fonseca Gulf. El Salvador". Financed by the Spanish Agency of International Cooperation. Budget: 199.999 euros
- "Public supply of drinking water to the Colony Noé Cruz Villena in the municipality of Siguatepeque. Dpt of Comayagua. Honduras". Financed by the Oviedo Municipality. Budget: 45.000 euros
- "Socioeconomic study for the Sustainable Development of the Back-up Lake. Nicaragua". Financed by the Biodiversity Foundation. Budget: 79.969 euros
- "Implementation of EHIS (Environmental and Hazards Information System). El Salvador" Financed by the Spanish Agency of International Cooperation. Budget: 226.011 euros
- "Borehole drilling and supply of equipment for an underground water well to supply the San José de Tapi quarters. Riobamba Municipality. Chimborazo Province. Ecuador." Financed by the Provincial Government of Saragossa, the Provincial Government of Huesca and the Municipality of Saragossa. Budget: 90.049 euros
- "Recovery and maintenance of wells as a tool to strengthen sustainable management

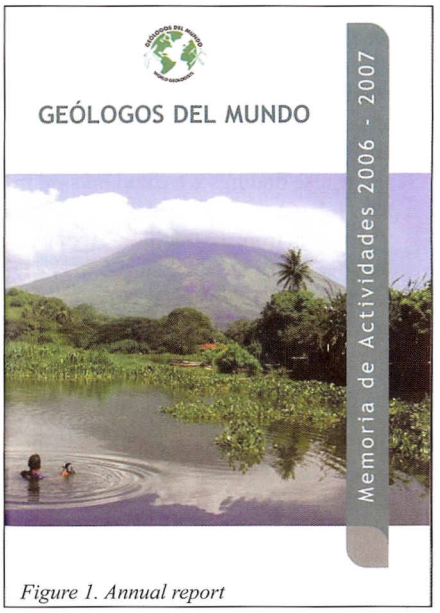

Figure 1. Annual report

of water resources. Phase I. Burkina Faso". Financed by the Agency of International Cooperation of Cataluña. Budget: 110.000 euros

- "Borehole drilling and supply of equipment for an underground water well to supply the Monseñor Sthele quarters. La Concordia village, Esmeraldas Canton. Ecuador." Financed by the County Community of Calatayud (Saragossa) and the village of La Concordia. Budget: 18.545 euros
- "Installation of a sucking pump in the borehole La Lolita de Riobamba. Chimborazo province. Ecuador." Financed by the Provincial Government of Saragossa and the Riobamba municipality. Budget: 19.762 euros.

Other activities

Several conferences throughout the country, diffusing geology and the NGO. Appearances in the media (TV, radio and newspapers) both in Spain and in El Salvador. WG has carried out so far more than 70 projects, mainly in Central America and Western Africa, with the collaboration of more than 60 expatriate geologists and a huge number of local technicians, and has given special attention to the signing of agreements with our local counterparts.

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A rock star, inspired in Wales

An abridged feature from the Countryside Council for Wales to celebrate the bicentenary of Charles Darwin's birth on 12 February 1809

It's one of those common pub-quiz questions! Who "discovered" evolution? Your mind goes blank! But when you hear the answer, you recall that name. Charles Darwin. An old man with a long white beard; something about a Beagle and a voyage around the world an age ago.

Darwin was trained as a geologist and, as a fit young man in his early twenties, he learnt an awful lot of his skills observing what was in the natural world around him while he tramped over the hills and mountains of North Wales.

But there's more. This was the mid 19th century when many geologists thought that the Biblical Flood - the one that Noah made the ark to survive - had shaped much of the landscape they saw around them, the deep valleys, huge boulders scattered across the land and much else. This was also a time when divine creation explained the huge diversity of life on Earth.

Spending time in Cwm Idwal (today a National Nature Reserve) beneath the towering Glyderau peaks in Snowdonia, Darwin became convinced that massive glaciers had carved out the cwm and left their evidence for all to see. He was to be proved right.

About 20,000 years ago, a glacier flowed out of the cwm and into Nant Ffrancon, smoothing and abrading the rocks in its path. The glacier formed part of a huge ice sheet that covered most of Wales. Even more recently, between about 13,000 and 11,500 years ago, a smaller glacier re-occupied the cwm, bulldozing rock debris in its path leaving the spectacular ridges or 'moraines' seen around the lake today.

Charles Robert Darwin was born on the 12th of February, 1809 at The Mount, a grand house in Shrewsbury where he grew up amongst wealth, comfort and country sports. He toyed with becoming a physician like his father, or a clergyman. But it was the natural world that fascinated the young Darwin, the colours and shapes of rocks and the variety of plants and insects he collected.

After losing interest in a medical course at Edinburgh, he studied theology at Cambridge, graduating early in 1831. Restless throughout his university years to learn more about nature, he volunteered in August 1831 to assist Adam Sedgwick on a geological tour of North Wales.

Sedgwick was one of the most famous geologists of his day and Darwin, with time on his hands - and no need to work because he had private means - was more than eager to learn. "I am now mad about geology", he wrote at the time in one of his many notebooks.

Sedgwick was looking for evidence of older rocks underneath the limestone that crops out across several parts of North Wales. They visited the ruins of Castell Dinas Bran and the limestone cliffs of Mynydd Eglwyseg near Llangollen; the Vale of Clwyd; and St Asaph where in the nearby Cefn Caves they found a fossilized rhinoceros tooth.

From there they travelled by horse-drawn gig to Conwy and the west side of the Conwy valley where they examined igneous rocks. After a visit to the quarries at Bethesda to see slate, they travelled on to Anglesey.

Returning to Bangor several days later, Darwin visited the impressive giant bowl-shape of Cwm Idwal while Sedgwick went elsewhere. Still on a huge learning curve, it's rather reassuring for today's young students to know that the evolution pioneer didn't recognise any of the glacier-carved features which he did eleven years later on a return visit. And he mis-identified several rock types too!

"His trip with Sedgwick scarcely advanced geology but it was vital for developing his craft", comments Rev. Michael Roberts, Vicar of Cockerham in Lancashire, a geologist and an expert on Darwin. "Sedgwick introduced him to careful note-taking in Wales and he learnt the basics of geology. It would be hard to devise a better three week trip for any trainee geologist. It was his apprenticeship".

"This field experience in North Wales helped him understand how volcanic islands like the Cape Verde Islands off West Africa were formed when he went