



Notes:

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NEWS FROM THE IUGS OFFICE

President meets Head of UNESCO Earth Sciences Section

On 23 July, IUGS President Oberhaensli had open and fruitful discussions with the Head of the Earth Science Section, Patrick McKeever. These focused on the future of Earth Sciences in UNESCO, particularly with regard to the joint International Geoscience Program (IGCP). The meeting, which was held at ETH in Zürich, was kindly facilitated by Prof. H. Weissert, President of the Swiss Geological Commission.

A communication from the President urging support for UNESCO Earth Science Section and IGCP

Dear Colleagues,

The UNESCO home page (www.unesco.org) features the report of the UNESCO Executive Board from July 2013, which contains some extremely concerning facts and statements that should interest every geoscientist! Some examples follow:

- “...set priorities due to an impaired cash flow stemming from the non-payment of a significant sum of assessed contributions...”
- “.....to designate in each Major Programme the following order of priorities amongst the expected results taking into consideration the priorities identified....”
- “.. budget priority C: 0 – 40% of the amount foreseen...”

The most dramatic statement is that Geosciences are summarized as “*global cooperation in the ecological and geological sciences expanded*”, but have been allocated the lowest possible rank, C! Geophysics is summarized under “*risk reduction improvement, early warning of natural hazards strengthened and disaster preparedness and resilience*”

enhanced”, and is rated B. [The Geosciences are in good company, with “human rights....” also ranked C !]

This endangers the Earth Science Section at UNESCO, given that it is stated that *“Where the available resources make it impossible to maintain a critical mass of programme activity, the Director General shall make proposals as appropriate to: reallocate the resources to a higher budgetary priority”*

Collectively, these statements sound like the announcement of an end to the Earth sciences at UNESCO, which is currently **the only** non-governmental world organization including the geosciences. The need for Earth sciences representation in the world educational organization should be obvious.

As President of IUGS, I encourage all of you to take a personal look at the document 191 EX/Decisions (5 X/EX/DECISIONS) at the link:

<http://www.unesco.org/new/en/executive-board/documentation/documents-and-decisions/>.

Please think about any steps you can take with the members of your national committee, UNESCO Ambassador or any member of the UNESCO Executive Board. If there is a chance to help the Earth Science Section to survive the next two years, it is imperative that we take action now to show that our science is still active, alive and, most importantly, needed in the future for providing natural resources for future generations in a socio-economic balance with humanity.

Attentive observers would have noted UNESCO’s progressive reduction of funding of IGCP, which has been a very successful joint IUGS-UNESCO program for over 40 years. Although IGCP was evaluated positively early this year it is endangered within UNESCO. IUGS alone is not able to fund and administer IGCP. It is my conviction that it is very important to continue this international, bottom-up science programme, which enables major collaborative research projects. It brings together scientists from industrialized and emerging countries, provides excellent international networking for young scientists and is instrumental in attracting additional research funds.

Several countries are intending to financially support the IGCP programme with dedicated funding through UNESCO. If such action is taken more widely, this would be of considerable assistance to the UNESCO Earth Science Section and the IGCP programme.

Sincerely,

Roland Oberhänsli
President, IUGS

IUGS and social media:

In order to increase its visibility and communication with the society and other unions, IUGS

recently joined Facebook (<https://www.facebook.com/iugspage>) as well as LinkedIn (<http://www.linkedin.com/groups/International-Union-Geological-Sciences-IUGS-4906283>).

IUGS New Affiliated Organisations

On June 25th, IUGS Council agreed to the IUGS Executive Committee's decision to grant the status of Affiliated Organizations to the **INTERNATIONAL ASSOCIATION FOR GEOETHICS (IAGETH)** and the **INTERNATIONAL ASSOCIATION FOR PROMOTING GEOETHICS (IAPG)**. Detailed information on these new organisations can be obtained from their official websites at: <http://tierra.rediris.es/IAGETH/> and <http://www.iapg.geoethics.org> respectively.

IUGS new initiative - Resourcing Future Generations (RFG): Update

IUGS intends that RFG will be a very serious attempt to identify and address key challenges involved in providing mineral, energy and water resources for future generations (post 2030). The scale will be regional (pre-competitive), the geographic coverage global and the duration about ten years. Its success requires broad acceptance that this is an important international collaborative initiative. Several groups have already expressed interest in principle in working with IUGS in implementing elements of RFG, which will develop new programs and provide a broader framework for relevant current and planned activities.

It is planned that relevant groups from governments, universities, and companies around the world will collaborate in addressing the challenges through a range of integrated activities, with the main research activities being undertaken through Earth system programs. It is hoped that relevant parts of RFG will be integrated into “Future Earth”, a major new international program designed to provide well-based views on the future Earth - being implemented by a consortium comprising the International Council for Science (ICSU; <http://www.icsu.org/future-earth>), the International Social Science Council (ISSC), the Belmont Forum of funding agencies, UNESCO, UNEP and the UN University.

Minerals activities are being developed first, with energy and water activities to be phased in progressively. The proposed minerals priorities for RFG, which are to be presented in a Pardee Keynote Symposium at the GSA Annual Meeting in Denver in late October, are under active development:

1. Comprehensive evaluation of future global mineral resources, demand and supply for selected commodities, to provide enhanced information on which commodities are of concern post 2030.

Collation and analyses of all available resources data by commodity to provide better indicators of future availability and relate this with reasonable scenarios for demand. This will build on available data and research by the Institute for Sustainable Futures, the USGS’ annual summaries of identified resources, the USGS’ collaborative assessments of undiscovered mineral resources; the International Resource Panel’s estimation of long-run geological stocks of metals; and the Steel stewardship forum. The Chinese government is considering funding for this research.

2. Enhanced information on the geology of the uppermost crust, for more effective delineation of new mineral, energy and water resources, managing wastes and assessing environmental condition.

This will involve collation, acquisition and analyses of large regional-scale geological, geophysical and geochemical datasets; modern digital geological/thematic maps/GIS;

influencing/promoting development of new sensor systems for enhanced surface and subsurface geological/geophysical information, better digital terrain models and environmental monitoring. IUGS will draw on its links to global observation programmes and expertise in integrating, analysing and modelling of 'big data' systems, including geologically constrained geophysical inversions.

3. Improved evaluations of resource potential as a basis for future exploration in areas that have not been comprehensively explored.

This will involve systematic evaluations into whether there are likely to be significant mineral deposits in regions of interest; innovative approaches to understanding how and why mineral deposits occur where they do; and any technological, geological and environmental issues that may need to be taken into account. Central Asia, much of Africa and remnants of Tethys belt will be priorities. In addition, innovative thinking will be promoted on new mineral exploration frontiers for key minerals (including sea floor, etc.), and for non-conventional mining and processing.

4. Building capacity, institutions and infrastructure for more effective exploration and development in developing world, as well as training in good governance and socio-economic considerations to enable countries to reap social and economic benefits from mining, without long term environmental impacts.

This will include drawing on IUGS' member countries, World Bank and others to forge meaningful resources-related partnerships between the first world and interested countries in the developing world. In part this will be through providing a focus, framework and emphasis for funding and training initiatives, many of which are currently ad hoc rather than integrated. It will draw (and build) on good examples of facilitating establishment of world class mining industries to boost overall economic development and mitigate social and environmental concerns.

An article outlining the RFG initial concept has just appeared in the June issue of IUGS' journal *Episodes*: <http://www.episodes.co.in/contents/2013/june/pp.81.pdf>.

NEWS FROM THE REST OF THE WORLD

- **News about Africa: what use are geo-data? The African Mineral Geoscience Initiative ('AMGI') is born**

During the last 20 years or so, the World Bank, European Union and others have funded all or part of ambitious projects aimed at upgrading a country's publicly available geological data with the intention of stimulating greater inward investment and hence contributing to economic development and the quality of life of its people. It is estimated that over US\$500m has been invested in Africa alone since 2000 on such projects.

Typically, they take the form of appointing, through competitive international tendering, an expatriate organisation of experts who work with counterparts in the local geological survey to carry out new geological, geochemical and airborne geophysical surveys, and associated capacity building. Some years later, the new geo-data are released and, in theory, the extractive industries (EI) make inward investments based on the new and improved information.

Does it work? What are the returns on the project spend? How much investment would happen anyway? Why not just leave it to the industry? Are there more effective ways of using the money?

In an attempt to answer some of these questions, the World Bank, through the University of Dundee in Scotland, commissioned IGS (International Geosciences Services) Ltd., which is the specialist spin out company partly owned by the British Geological Survey, to look into the types and forms of geo-data that have the greatest beneficial impact on EI growth. The results are interesting and disturbing.

Much of the EI sector reported that too much geo-data are designed by geological surveys for geological surveys and are not necessarily what the industry requires. Colourful, 1m scale geological maps may look nice on the walls of geological surveys and universities, but are not particularly helpful when raising finance on international stock markets for new mineral exploration projects. Indeed, much of the industry was fairly damning about the benefit to them from these publicly funded development programmes, citing the difficulties of obtaining data, the inappropriate types and scales and the “wrong” priorities set by national institutions and academic priorities. The report from this work, published at:

<http://www.eisourcebook.org/cms/files/Geodata%20for%20Development,%20A%20Practical%20Approach.pdf> has led to a re-think on how future geo-data gathering and dissemination for Africa should be handled. Following very positive discussions in Addis Ababa (October 2012) and during the Mining Indaba, Cape Town (February 2013), IGS Ltd was further commissioned to produce design documents for what is currently called the African Mineral Geoscience Initiative (‘AMGI’). These are under consideration by the World Bank, the African Union and other potential sponsors, and will be published in due course. The AMGI, for those African countries which elect to participate, will include the repatriation of Africa’s geological data from various European archives, the modernisation of existing geo-data held in their institutions, selected new surveys recognising the significance of geological and economic corridors, and web enabled dissemination of information from cloud based storage.

The aim is to maximise economic development in the EI sector for Africa through improved access to appropriate geo-data. This will be challenging and will take time, but the purpose is worthy. Comments on this initiative are welcome and further information can be obtained from David Ovadia, Managing Director of IGS Ltd, www.bgsinternational.co.uk, email: dovadia@bgsinternational.co.uk

This initiative is very relevant to the Resourcing Future Generations initiative, above.

RECENT INFORMATION ON PUBLICATIONS

1) Newsletters & E-Journals:

- The International Council for Science (ICSU) Newsletter can be accessed through: <http://www.icsu.org/news-centre/insight>
- The International Union of Geodesy and Geophysics (IUGG) E-Journal can be accessed through: <http://www.iugg.org/publications/ejournals/>
- The Société Algérienne de Géophysique (SAGA) Newsletter can be accessed through: www.sag.dz
- The International Geosphere-Biosphere Programme (IGBP) E-bulletin can be accessed through: <http://www.igbp.net/>
- The Mineral Research & Exploration Bulletin (Turkey) can be accessed through: <http://www.mta.gov.tr/v2.0/eng/all-bulletins.php?id=145> - down
- The UN SPIDER e-bulletin since January 2013 can be accessed through: <http://www.un-spider.org/about/updates/un-spider-updates-january-2013>

- The European Federation of Geologists GeoNews can be accessed through <http://www.eurogeologists.de/>
- The European Association for the Conservation of the Geological Heritage (ProGeo) Newsletter can be accessed through <http://www.progeo.se/>

2) Magazines

- EARTH magazine online can be accessed through: <http://www.earthmagazine.org/>

FORTHCOMING EVENTS

All forthcoming events are listed on the IUGS website (<http://www.iugs.org>) and will remain published until the event concludes. To see the IUGS listing of forthcoming geoscience meetings, conferences and workshops, go to the Calendar section of the IUGS website at:

<http://iugs.org/index.php?page=calendar&phpMyAdmin=2c9f06db78f0953a55b10dcfdc5907f6>

The IUGS website lists more "geo" related events than any other website devoted to such information. Analysis of the IUGS website statistics indicates that the "IUGS Calendar" section is one of the most frequently visited elements of our website with regular hits from over 160 countries. The IUGS is pleased to continue this service to help promote all "geo" related events.

Please email your meeting/conferences posting requests/information directly to the IUGS Secretariat at iugs.beijing@gmail.com, or to the IUGS Webmaster at: pbobrows@NRCan.gc.ca to be listed on the website of the IUGS.

NEED TO CONTACT A GEOSCIENCE ORGANIZATION AROUND THE WORLD?

The Directory of Geoscience Organizations of the World produced by the Geological Survey of Japan includes web links to national geological surveys as well as state and provincial geological surveys at: <http://www.gsj.jp/information/gsj-link/dir/index.html>

The geology.com website with news and information about geology and earth science also lists geological organizations and agencies: <http://geology.com/groups.html>

With best regards and good wishes to all in the northern hemisphere for you summer holidays,
Prof Hassina MOURI

IUGS Councillor 2012 – 2016 I www.iugs.org

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