



**IUGS E-BULLETIN NO. 80
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***** NOTES *****

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NEWS FROM THE IUGS OFFICE:

Effective 1 December 2012, the IUGS Permanent Secretariat will be moving to the Chinese Academy of Geological Sciences, within the Ministry of Land & Resources in Beijing. For all future correspondence with IUGS Secretariat please use the following:

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THE L'AQUILA CASE: NEWS AND VIEWS

1) The International Council for Science pledges support for scientists in the L'Aquila case:

Paris, France - 25 October 2012 (ICSU) (www.icsu.org). The International Council for Science (ICSU), as representative of the global scientific community, expresses its strong concern regarding the case of the six scientists who have been found guilty of manslaughter and sentenced to six year prison terms because of their role in providing scientific advice prior to the earthquake in L'Aquila, Italy, in 2009.

While ICSU is not privy to all the information that was available to the prosecutors, it appears that these scientists are being penalised essentially for using their experience and knowledge to provide evidence for decision-making. In the field of natural hazard risk, such scientific evidence has its limitations. The timing and strength of earthquakes cannot be accurately predicted. Nevertheless, science can, and does, make important contributions to hazard response strategies. In the case of L'Aquila, six scientists accepted their responsibility to society to try and support decision-making in a situation of inherent uncertainty. That these scientists should be condemned to prison for so doing is a gross injustice.

The L'Aquila earthquake was a tragic event in which more than 300 people died and ICSU endorses the need to determine whether these lives might have been saved if the public authorities had reacted differently before the event. The role of scientific advice in the decision-making processes prior to the earthquake is a legitimate area of enquiry. We all need to learn the lessons from the past to be better prepared for the future. In the meantime, blaming scientists and scientific advice for the deaths that occurred in L'Aquila is a grave error that will, unfortunately, make many scientists reluctant to accept public advisory roles.

We call on the responsible authorities to take urgent and decisive steps to correct this error and ensure due justice for Franco Barberi, Enzo Boschi, Giulio Selvaggi, Gian Michele Calvi, Mauro Dolce and Claudio Eva.

2) Euroscience on L'Aquila: Science to learn, not to be sentenced; public authorities to be centre stage

Euroscience strongly opposes the sentencing of seven Italian scientists, mostly seismologists, one being an Italian official, by an Italian judge for manslaughter for failure to warn and prepare the population of l'Aquila properly against the devastating earthquake in 2009. Euroscience believes that

this sentence completely misjudges the nature of science, the responsibility of the scientific community and the way they should engage with policy and society at large. It also misjudges the responsibility of the public authorities. The scientific community has to learn lessons; public authorities have to learn more.

Scientists cannot and should not go beyond what they can reasonably state on scientific grounds.

Scientists have a duty to inform society correctly and transparently be it in reports, public hearings or discussions with policymakers, and they should not withhold information. They need to refer to uncertainties and risks as well. But no scientist can forecast the timing of a specific earthquake. That there is a likelihood of a big earthquake not too far in the future can reasonably be known, which is what the Italian seismologists have told the public. The issue is about what justified or unjustified reassurance is instilled by such communications in the public, and that is certainly not an area for criminal prosecution.

To issue evacuation orders and to ensure that the public knows about and is trained in preventive and damage reducing measures, is the responsibility of the public authorities at national, regional or local level. It is not the role of scientists. When public hazards are at stake, the authorities take advice from scientists. Scientists all over the world accept the responsibility to scrutinise scientific evidence and to arrive at the best possible advice on risks and options for preventive or mitigating actions, which the authorities should consider. This happens in Italy as well as elsewhere; the Risk Commission of the Italian Department of Civil Protection Agency is a case in point. It was called to meet in L'Aquila, and a day after (just days short of the earthquake) in a press conference of which the key scientists were not aware, information was given that apparently created an unwarranted sense of 'nothing to worry'.

Lessons are to be learned by the scientific community. More frequent risk monitoring, integrated risk assessments that include structural strength of buildings, more thought-through ways of communicating with a public that acquires and shares information ever so rapidly, are some examples. Scientists must be aware that when the public knows about them meeting it expects them to emphasize elementary personal precautionary measures. But key is that the public authorities are responsible for preparing and instructing the public what to do. In no way was there a justifiable ground to turn this into a criminal case against scientists.

The judge seems to have given more weight to the justified feelings of horror, personal loss and grievance of the victims than to a careful assessment of the state of the art in science and the roles of scientists and public authorities. These authorities carry the principal responsibility for decisions made and actions taken. They have also done very little since the catastrophe, as everybody can see who visits the region. Rather than focusing on the scientists, it would be more appropriate for the judicial system to look into the way the public authorities have acted and not acted before, during and in the aftermath of the L'Aquila earthquake. That would provide more relief to the victims and the region than sentencing scientists to serve prison terms and pay considerable penalties.

Statement by: Lauritz Holm-Nielsen, president and Peter Tindemans, secretary-general (peter.tindemans@euroscience.org), Strasbourg, 26 October 2012.

Euroscience is the European grassroots organisation for scientists and science-minded people and organizations across disciplines, countries and public and private sector. www.euroscience.org.

MAJOR FUNDING BOOST FOR GEOSCIENCE AUSTRALIA

A Strategic Review of Geoscience Australia (GA) in 2011 highlighted the strong public good of GA's products and the economic value, which results from the agency's activities. The review recommended that, GA make a submission to Government seeking increased base funding to (i) enable a rolling pre-competitive (regional-scale) data acquisition program, (ii) invest in custodianship of Australia's exponentially increasing geoscientific and geospatial data, and (iii) enable continuation of fundamental capabilities in areas such as groundwater, natural hazards, and clean energy. This was a unique outcome for a review involving the Department of Finance.

It has just been announced that the Australian Government has augmented the base funding of GA by \$34 million in 2013-14 and \$40 million per annum thereafter. This result provides GA with a level of funding that will sustain it into the future. The Government's announcement is an outstanding outcome for science, geoscience and GA, particularly in the tight fiscal climate. CEO, Dr Chris Pigram, observed "This funding demonstrates that the work GA does is valued and that GA has the support and commitment of the Government to continue to provide first class geoscience information and services." Geoscience Australia is now a primary source of technical advice in support of policy development and major decisions on a wide range of issues, from mineral and energy resources to groundwater and disaster risk management.

This is an object lesson for other agencies struggling with difficult budgets and perceptions that their work is not important. It took a lot of effort, persistence, networking and strategic planning, initiated a decade ago by former GA CEO, Dr Neil Williams, to reshape Australia's national geosurvey organisation into a vibrant government agency with a strong public profile.

A SCOPE GENERAL ASSEMBLY

The Czech Academy of Sciences and the Czech Republic Committee of SCOPE will host the 14th SCOPE General Assembly in Prague on 24-27 April 2013. A SCOPE General Assembly combines business meetings, a re-evaluation of the current scientific programme, election of its Executive Committee, planning for future efforts, and scientific symposia. The Executive Committee plans also to propose changes to the current Constitution, in line with recommendations from participants of the 13th General Assembly (June 2009). General Assembly participants include delegations from adhering bodies and member international organisations, and representatives of the scientific organisations associated with SCOPE, as well as invited guests from our partners in international agencies, government and non-governmental bodies. The business and policy sessions will take place at Charles University Environment Center (CUEC, J. Martího 2/407, 162 00 Prague 6 – Veleslavín, Czech Republic) from Wednesday 24th April through Saturday 27th April. Accommodation will also be available at the CUEC. The Pre-Registration form for the 14th General Assembly is attached herewith. Specific items that you wish to see tabled for discussion at the General Assembly under the headings of the 14GA Agenda should be communicated to the Secretariat at your earliest convenience. These items will be incorporated in the Annotated Agenda, to be circulated in January 2013. Similarly, please note that your nominations for the election of the Executive Committee should be received by the Secretariat no later than 28 February 2013. More information about SCOPE can be obtained on the following website <http://www.scopenvironment.org> or by contacting the secretariat at: secretariat@scopenvironment.org

RECENT INFORMATION ON PUBLICATIONS:

1) Books:

- **Historical Agriculture and Soil Erosion in the Upper Mississippi Valley Hill Country.** By Stanley W. Trimble. 2012. CRC Press. ISBN: 978-1-46-655574-7. Hardcover, 290 pages. Price \$89.95.
- **Ecorestoration of the coalmine degraded lands.** By Maiti, Subodh Kumar. 2013, Springer. ISBN: 978-81-322-0850-1. Hardcover, 457 pages. Price \$179.00.

- **Developments in Soil Classification, Land Use Planning and Policy Implications. Innovative Thinking of Soil Inventory for Land Use Planning and Management of Land Resources.** Shahid, Shabbir A.; Taha, Faisal K.; Abdelfattah, Mahmoud A. (Eds.). 2013, Springer, ISBN: 978-94-007-5331-0. Hardcover, 766 pages. Price \$229.00.
- **Functions of Natural Organic Matter in Changing Environment.** Xu, Jianming; Wu, Jianjun; He, Yan (Eds.). 2013, Springer. Jointly published with Zhejiang University Press. ISBN: 978-94-007-5633-5. Hardcover, 853 pages. Price \$399.00.
- **Sustainable Development and Management of the shallow Subsurface** by the Geological Society of London on options for practical and sustainable use of the shallow subsurface from a geoscientific point of view. This book is published in the framework of an agreement signed by IUGS and the Geological Society of London in April 2003 concerning outsourcing of IUGS publications. One of the conditions in this agreement is that book royalties go to the IUGS. The book is dedicated to and in honour of Dr. Wissam Al-Hashimi, who served IUGS in many capacities including as a Vice-President from 1996-2002. Dr. Al-Hashimi was kidnapped and brutally murdered in Baghdad, Iraq in August 2005. As an Engineering geologist Dr. Al-Hashimi contributed to the book contents. This publication has been also a contribution to the International Year of Planet Earth. I trust publication of this book will be announced through the regular IUGS channels. Further information can be obtained by contacting Eduardo de Mulder at: e.demulder@planet.nl

2) Newsletters:

- The International Geographical Union E-newsletter can be accessed through the IGU website: <http://www.igu-online.org/site>
- The European Federation of Geologists Newsletter (GeoNews) can be accessed through the EFG website: <http://www.eurogeologists.de/>
- The International Union of Geodesy and Geophysics/Union Geodesique et Geophysique Internationale (IUGG/UGGI) Newsletters can be accessed through the IUGG/UGGI website: <http://www.iugg.org/publications/ejournals/>
- The Algerian Society of Geophysics/Société Algérienne de Géophysique newsletter can be downloaded from the SAG website: <http://www.sag.dz/LastNews.pdf>
- The International Geoscience Programme (IGCP): A World of Science Newsletter:
A summary of the main stories in the latest issue of A World of Science can be accessed from: <http://unesdoc.unesco.org/images/0021/002180/218053E.pdf>. The French edition has had to be interrupted for financial reasons but all past issues may still be consulted at: www.unesco.org/fr/a-world-of-science. The Spanish edition, is available at:

<http://www.unesco.org/new/es/natural-sciences/resources/periodical/a-world-of-science/>

Summary of some highlights published in the latest issue of “A World of Science”:

- **Ocean blues**

After assessing the implications for marine biodiversity of transgressing planetary boundaries related to climate change, pollution, ocean acidification and more direct threats like

overfishing and habitat destruction, this article written by UNESCO specialists outlines a strategy for protecting marine biodiversity from irreparable harm, through a combination of conservation, better planning and a 'greening' of marine industries.

- **'Science is a universal language'**

Dr Hayat Sindi was the first woman from the Middle East Gulf region to obtain a PhD in biotechnology. On 1 October, she became a UNESCO Goodwill Ambassador for science education. A scientist, inventor, philanthropist and entrepreneur, she has developed a low-cost diagnostic tool the size of a postage stamp for developing countries and founded an NGO to help young Arab inventors package their ideas. A role model for youth, she plans to encourage schoolchildren to follow their dream.

- **Bridging the digital divide**

Although digital libraries are spreading rapidly across the globe, many librarians and information technology specialists in Africa have not followed relevant training. To help remedy the situation and encourage the development of digital libraries, the European Organization for Nuclear Research (CERN) and UNESCO have organized a series of sub-regional training workshops since 2009 in Rwanda, Morocco and Senegal.

- **All for one and one for all: genetic solidarity in the making**

As human societies become increasingly mobile and multicultural, they are spreading genetic diseases to new parts of the world. Thanks to the Human Variome Project supported by UNESCO, a doctor seeking to diagnose an unfamiliar disorder in a patient will soon be able to consult all the relevant information and data available worldwide at the click of a mouse.

Further details can be obtained by contacting Susan Schneegans, Editor, Email: s.schneegans@unesco.org, Website: www.unesco.org/en/a-world-of-science

3) Websites

The U.K.'s History of Geology Group (HOGG) has launched its new website: www.historyofgeologygroup.co.uk. There you will find full details of meetings and field trips, as well as information about publications and general news from the history of geology. In particular, you can find details of the Inhigeo 2013 meeting under this link: <http://inhigeo2013.historyofgeologygroup.co.uk/>

In due course, there will be an archive page for the HOGG meetings, which will include abstracts and other information of relevance, as well as an on-line resources page, so if you have links to sites that you think should be included, feedback and any ideas you might have as to what else could be included please forward them on to Dr Cherry Lewis at: Cherry.lewis@bristol.ac.uk

FORTHCOMING EVENTS

NOTE the listings of forthcoming meetings shown below will normally be included in an IUGS E-Bulletin only once but will appear on the IUGS website until the event. The IUGS website (<http://www.iugs.org>) lists more "geo"-related events than any other website devoted to such information. Analysis of the IUGS 2010 website statistics indicates that the "IUGS Calendar" section is the most frequently visited element 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 posting requests directly to the IUGS Secretariat at IUGS@usgs.gov, or to the IUGS E-Bulletin Editor. 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>

2012:

- December 4-5, 2012. European Geothermal Energy Council (EGEC) 4th annual [GeoPower Europe](#) event Theme: International Opportunities for Geothermal Energy. Budapest, Hungary. Details at: www.greenpowerconferences.com/geoeurope2012 or Email: Samantha.coleman@greenpowerconferences.com
- December 11-15, 2012. Annual Meeting of The Organisation of African Geological Surveys (OAGS), Niamey, Niger. Further information available from: Amadou Hassane, Geological Survey Niger (hassanamadou@gmail.com) or Lhacene Bitam, Geological Survey of Algeria (lhacene.bitam@angcm.mem.gov.dz) or the OAGS Secretariat (oags@geoscience.org.za)

2013:

- April 07-12, 2013. Heritage Stone Task Group Conference, Vienna, Austria. Details at: <http://meetingorganizer.copernicus.org/EGU2013/session/12920>
- April 07-12, 2013. A session on the Seismotectonics and crustal deformation in Africa, sponsored by the UNESCO-SIDA IGCP 601 project, will be co-organized at the EGU Vienna, Austria. Further details can be obtained at: <http://meetingorganizer.copernicus.org/EGU2013/sessionprogramme/TS#TS8>
- April 29 - May 04, 2013. A session on "Seismic hazards and risks mitigation in Africa" sponsored by UNESCO-SIDA IGCP 601 project, will be organized at IPRED - UNESCO (International Platform for Reducing Earthquake Disaster) in Cairo. See <http://www.unesco.org/new/en/natural-sciences/special-themes/disaster-preparedness-and-mitigation/natural-hazards/earthquakes/ipred/>
- April 08-12, 2013. The 13th International Symposium on Soil and Plant Analysis, Queenstown, New Zealand. Theme: New Opportunities for Soil and Plant Testing. See: <http://www.isspa2013.com/>
- April 24-27, 2013. The 14th SCOPE General Assembly, Prague, Czechoslovakia. Hosted by The Czech Academy of Sciences and the Czech Republic Committee of the Scientific Committee on Problems of the Environment (SCOPE). For further details see website at: <http://www.scopenvironment.org> or contact the Secretariat at: secretariat@scopenvironment.org
- June 16-22, 2013. SGEM 2013 - The 13th International Multidisciplinary Scientific Geoconference and Expo. Albena, Bulgaria. Details at: <http://www.sgem.org>
- June 19-20, 2013. International Conference "Four Decades of Progress in Monitoring and Modeling of Processes in the Soil-Plant-Atmosphere (SPA) System: Applications and Challenges", Naples, Italy. Further information at: www.spa-conference-naples2013.org
- July 22-28, 2013. 24th International Congress of History of Science, Technology and Medicine (ICHSTM2013). Manchester, England. Theme: "Knowledge at Work". Early registration opens 15 February 2013. See: <http://www.ichstm2013.com/index.html>

- August 27-31, 2013. The 8th IAG/AIG International Conference on Geomorphology. Paris, France. Theme: "Geomorphology and Sustainability". Note the deadline for abstract submission has been extended to 12 January 2013. Details at the International Association of Geomorphologists/Association Internationale des Géomorphologues (IAG/AIG) websites: IAG2013@europa-organisation.com or www.geomorph.org
 - September 20-22, 2013. 22nd International symposium Soil Forming Factors and Processes from the Temperate Zone. Iasi, Romania. Theme "Terroirs, vineyards and wines". See: <http://factori.soilscience.ro/index.php/fspdzt/announcement/view/2>
 - September 26 - 29, 2013. World Gold 2013. Brisbane, Australia. World Gold abstracts due 26 November 2012. See details at: <http://www.ausimm.com.au/worldgold2013/index.asp>
 - September 30 - October 2, 2013. GeoMet 2013 - The Second Geometallurgy Conference 2013. Brisbane, Australia. Abstracts due 3 December 2012. See: <http://www.ausimm.com.au/geomet2013/>
- NOTE these 2 conferences World Gold 2013 and GeoMet 2013 will run back to back at the same venue in Brisbane Australia.*
- October 21-24, 2013. The 11th International Conference of the East and Southeast Asia Federation of Soil Science Societies (ESAFS). Bogor, West Java, Indonesia. Theme "Land for Sustaining Food and Energy Security". See: www.esafs11ina.org
 - November 4-8, 2013. The GSDI 14 and Africa GIS 2013 Joint Conference. Addis Ababa, Ethiopia. Organised by The Global Spatial Data Infrastructure Association (GSDI Association), EIS-Africa, the International Geospatial Society, and the United Nations Economic Commission for Africa (UNECA). The theme of the conference is "Spatially Enabling Africa in Support of Economic Development and Poverty Reduction". See: <http://www.gsdi.org/gsdiconf/gsd14/>

WORKSHOPS & SHORT COURSES:

- Workshop on “**Africa Practical Mineral Resource Estimation Master Class**” in Ghana, Africa, 11th – 14th March 2013. Further details can be obtained from the following website: www.neo-edge.com or by contacting Rueburn Liang, Email: rueburn@neo-edge.com
- IMWA 2013 "**Reliable Mine Water Technology**" is going to take place in Golden/Colorado (USA) from August 5th to 8th. All the necessary information is on our web page: www.IMWA2013.info
- IMWA and LUT Energy - Lappeenranta University of Technology (Mikkeli/Finland) are providing a Mine Water Workshop from January 8th to 11th 2013: Workshop on **Mine Water Management and Remediation** From Ground Water to Mine Water. Further information can be obtained on the following webpage www.wolkersdorfer.info/mikkeli2013 or download the flyer <http://imwa.info/component/weblinks/58/163.html>. You still can register as an IMWA member for the reduced rate of 16 EURO for the year 2012 including all printed journals for 2012 and full electronic access to ALL journals IMWA ever published. Next year the rate will be 50 EURO. Visit <http://imwa.info/imwa-membership.html> for more information.

NEED TO CONTACT A GEOSCIENCE ORGANIZATION SOMEWHERE AROUND THE WORLD?

The Directory of Geoscience Organizations of the World produced by The Johannes Gutenberg University in Mainz, Germany, includes web links to Geological Surveys, University Geoscience Departments, Geoscience Journals, Societies, and Oil & Gas Companies. Go to:

<http://www.uni-mainz.de/FB/Geo/Geologie/GeoSurv.html>

If you have comments, corrections, updates, or to add a link, please email: denbrok@erdw.ethz.ch

The Directory of Geoscience Organizations of the World produced by the Geological Survey of Japan and containing information on national geological surveys as well as state and provincial geological surveys is available 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>

THIS IS THE LAST E-BULLETIN OF THE YEAR 2012.

**THE IUGS EC MEMBERS WOULD LIKE TO THANK YOU FOR YOUR SUPPORT
DURING THE YEAR 2012 AND WISH YOU A VERY HAPPY FESTIVE SEASON.**

With best regards,

Prof Hassina MOURI

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