

IUGS E-BULLETIN (NO. 78, SEPTEMBER 2012)

CRITICAL NEEDS FOR THE TWENTY-FIRST CENTURY: THE ROLE OF GEOSCIENCES

The American Geosciences Institute (AGI) (<http://www.agiweb.org/>) recently released a report "*Critical Needs for the Twenty-first Century: The Role of Geosciences*" - Geoscience to Meet the Needs of the Twenty-first Century: Natural Resources, Environmental Quality and Resiliency. The 8 critical needs discussed are:

1. Ensure reliable energy supplies in an increasingly carbon-constrained world
2. Provide sufficient supplies of water
3. Sustain ocean, atmosphere, and space resources
4. Manage waste to maintain a healthy environment
5. Mitigate risk and build resilience from natural and human-made hazards
6. Improve and build needed infrastructure that couples with and uses Earth resources while integrating new technologies
7. Ensure reliable supplies of raw materials
8. Inform the public and train the geosciences workforce to understand Earth processes and address these critical needs.

This important report is very relevant to all countries. Download the full 24 page report from: <http://www.agiweb.org/gap/CriticalNeeds2012.pdf>.

NGWA COMMENTS ON NATIONAL GROUND WATER MONITORING NETWORKS

In relation to critical need 2 of the AGI report item (above) the National Ground Water Association (NGWA) has commented specifically on the need for a US National Ground Water Monitoring Network, as show below (For details see the NGWA website at: <http://www.ngwa.org/Pages/default.aspx>).

The National Ground Water Association applauds a new report that urges building the National Ground Water Monitoring Network to help ensure America's critical need for sufficient water supplies. Providing sufficient supplies of water is one of eight critical needs identified in the report. Within that need the report specifically recommends, "Monitoring of surface and subsurface water quantity and quality with a focus on enhancing the National Streamflow Information Program and building the National Groundwater [sic] Monitoring Network."

NGWA has been a long-time advocate of the National Ground Water Monitoring Network. In the United States, 78 percent of community water systems, nearly all of rural America's private household water wells, and 42 percent of agricultural irrigation water are supplied by groundwater (<http://www.ngwa.org/Fundamentals/use/Documents/usfactsheet.pdf>). While the nation's people, food supply, economy, and ecosystems depend on groundwater, no systematic nationwide monitoring network is in place to measure what is currently available and how groundwater levels and quality may be changing over time.

"As with any valuable natural resource, our groundwater reserves must be monitored to assist in planning and minimizing potential impacts from shortages or supply disruptions," said NGWA Government Affairs Director Christine Reimer. "Just as one cannot effectively oversee the nation's economy without key data, one cannot adequately address the nation's food, energy, economic, and drinking water security without understanding the extent, availability, and sustainability of the critical commodity - groundwater."

Congress has authorized a national groundwater monitoring network, and proponents are seeking federal funding to build it. "In the face of current and anticipated water supply shortages, public and private sector water professionals have put out the call over the years for increased groundwater monitoring and the dissemination of the resulting data to the nation - and the need to take action continues to this day," Reimer said.

(NGWA is a non-profit organization composed of U.S. and international groundwater professionals - contractors, equipment manufacturers, suppliers, scientists, and engineers - is dedicated to advancing groundwater knowledge. NGWA's vision is to be the leading groundwater association that advocates the responsible development, management, and use of water).

NEW NATIONAL PUBLICATION *SHAPING A NATION: A GEOLOGY OF AUSTRALIA*

Shaping a Nation: A Geology of Australia is the story of a continent's geological evolution as seen through the lens of human impacts. Exploring the geology, resources and landscapes of Australia, the book reveals how these have helped to shape this nation's society, environment and wealth. Presented in a refreshingly non-linear format, the book summarises much of what we know about Australia's geological history, discussing the fossil record and evolution of life across the continent, describing its mineral and energy reserves, and revealing the significance of its coastal and groundwater systems. The book also explores some of the challenges and opportunities presented by Australia's rich geological heritage, and outlines the issues they present in Australian society today. Based on much of the latest science, the book reveals Australia's expertise in the geosciences and reinforces the vital role they play in informing its present and future development. In presenting the latest geoscientific knowledge, *Shaping a Nation* is vividly illustrated by technical drawings and figures and accompanied by stunning photography that reveals the extraordinary beauty of Australia's geology and landscapes. Produced by Geoscience Australia (the national geological survey) in collaboration with the Australian National University, this up-to-date overview was published to coincide with the recent 2012 International Geological Congress (IGC) held in Brisbane. Copies of *Shaping a Nation* were available at the IGC, and were presented to guest speakers and IGC co-ordinators. More information is available at: <http://www.ga.gov.au/products-services/publications/shaping-a-nation.html> and the digital version is available free online at: <http://epress.anu.edu.au/titles/shaping-a-nation>

CALL FOR APPLICATIONS FOR THE ICSU GRANTS PROGRAMME 2013

The call for applications for the ICSU Grants Programme 2013 has been released by the ICSU Committee on Scientific Planning and Review (CSPR). The Statement and Schedule, as well as the Grant Application form, are on the ICSU web site (under Member Zone) at:

<http://www.icsu.org/member-zone/documents-for-members/grants-programme-2011/2013-grants-programme>

The Grants Programme is strictly reserved for ICSU members and the information and application form should not be passed to individuals or institutions outside the ICSU family. Proposals should target the ICSU priority areas. ICSU Scientific Unions or Interdisciplinary Bodies must be the Lead Applicants and the ICSU National Members may be supporting applicants. Partnership with the ICSU Regional Offices is strongly encouraged, and the roles of respective partners in preparing and carrying out the proposed work must be made clear in the application. All applications, duly completed, must be sent to Ms Rohini RAO email (Rohini@icsu.org) by the 1 December 2012 deadline for receipt of applications.

INTERNATIONAL SCIENCE & ENGINEERING VISUALIZATION CHALLENGE

The US National Science Foundation (NSF) and the journal "Science" have created the "International Science & Engineering Visualization Challenge" to celebrate the grand tradition of science visualization and to encourage its continued growth. The spirit of this competition is to communicate science, engineering, and technology, for education and journalistic purposes. Visit the website at http://www.nsf.gov/news/special_reports/scivis/index.jsp for details on this visualisation experience.

6TH INTERNATIONAL SYMPOSIUM ON GULLY EROSION IN A CHANGING WORLD

The International Association of Geomorphologists/Association Internationale des Géomorphologues (IAG/AIG) is the co-organizer of the 6th International Symposium on Gully Erosion in a Changing World, to be held in Iasi, Romania, on 6-12 May 2013. This symposium targets all scientists undertaking research on gully erosion and embraces national and international studies and established newly initiated investigations. The objectives of the Symposium are to communicate exciting scientific developments, to identify current gaps in knowledge and to discuss ways in which soils and land can be better managed to meet the challenge of protecting environment against the impacts of climate change and increased human induced pressure. The symposium 2013 continues the sequence of successful meetings held in Leuven (Belgium, 2000), Chengdu (China, 2002), Oxford (USA, 2004), Pamplona (Spain, 2007) and Lublin (Poland, 2010). Circular No. 2 can be uploaded on the IAG/AIG Website: <http://www.geomorph.org> and more details about the symposium and registration can be found at: <http://www.gullyerosion2013.com>

NEW E-BULLETIN EDITOR

The new Editor for the IUGS E-Bulletins is IUGS Councillor Prof. Hassina MOURI of South Africa. If you require articles, notices, etc. to be considered for inclusion in forthcoming IUGS E-Bulletins please send them by email to Hassina at: iugsmouri@uj.ac.za

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 on additions, corrections, updates, or to add a link 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.htm>.

RECENT INFORMATION ON PUBLICATIONS, JOURNALS AND NEWSLETTERS

AGI - The American Geosciences Institute (AGI) Outreach & News. See: <http://www.agiweb.org/outreach/index.html>

CCOP E-News - The Coordinating Committee for Geoscience Programmes in East and Southeast Asia (CCOP) produces the CCOP E-News. See their website at: http://www.ccop.or.th/download/e-news/CCOP_e-news

CPCEMR - The Circum-Pacific Council for Energy and Mineral Resources (CPCEMR) website is at: <http://www.circumpacificcouncil.org>

EFG - The European Federation of Geologists (EFG) magazine "European Geologist", and the EFG monthly newsletter "GeoNews" can both be downloaded from the website at: <http://www.eurogeologists.eu/>.

EGS - EuroGeoSurveys (EGS) a consortium of 32 European Geological Surveys which aims to address European geoscience for society. See their EuroGeoSurveys Newsletters at: <http://eurogeosurveys.org/newsletters.html>. To automatically receive the issues of the Newsletter, you can register online at: <http://www.eurogeosurveys.org/newsletterssubscription.html>

Future Earth Initiative - news and activities at: <http://www.icsu.org/future-earth/>

GEO - The Group on Earth Observations (GEO) is coordinating efforts to build a Global Earth Observation System of Systems (GEOSS). For details and newsletters see: <http://www.earthobservations.org/index.shtml>

GEOETHICS - The latest copies of the "Geoethics News" newsletter can be downloading from the Geoethics website at: http://tierra.rediris.es/Geoethics_Planetary_Protection/

GIS - Maps of the World see: <http://gis.mapsofworld.com/government/government-agencies/>

GSAf - The Geological Society of Africa (GSAf) Newsletters can be downloaded from the Home page of the Society at: <http://www.geologicalsocietyofafrica.org>

GS - The Geochemical Society (GS) (<http://www.geochemsoc.org/>) has partnered with MultiView Inc. to launch an official email news resource, "Geochemical News". See: <http://multibriefs.com/briefs/gs/sample.htm>.

GSL - The Geological Society of London (GSL) web home page, and online bookshop, has their latest geoscience publications information. See: <http://www.geolsoc.org.uk>; and <http://www.geolsoc.org.uk/bookshop>.

GWP - For the Global Water Partnership (GWP) Monthly Newsletter "NewsFlow" go to: <http://www.gwp.org/en/Get-involved/Subscribe-to-NewsFlow/>

IAG - The International Association of Geomorphologists (IAG/AIG) publishes its newsletter at 3 month intervals. The Newsletters can be downloaded at: <http://www.geomorph.org/pb/pbnew.html>

IAH - The International Association of Hydrogeologists (IAH) publishes "Groundwater eNews" every 2 months. See their website at: http://www.iah.org/news_eneews.asp.

ICSU - The International Council for Science (ICSU) newsletter "ICSU Insight" has updates on ICSU global and regional activities, latest publications, and events. View the newsletters at: <http://www.icsu.org/news-centre/insight>. Visit the ICSU website at: <http://www.icsu.org/>

IFA - The International Fertilizer Industry Association (IFA) has produced a Fertilizer Glossary that is now available on-line in five languages: English, French, German, Spanish and Chinese.

There are more than 150 terms and expressions related to fertilizer use, soil science, fertilizer manufacture and analysis, and application machinery and methods. See it at:
<http://www.fertilizer.org/ifa/HomePage/LIBRARY/Glossary-of-fertilizer-terms>

IGBP - The International Geosphere-Biosphere Programme (IGBP) see their website at:
<http://www.igbp.net> and their News archive at:
<http://www.igbp.net/4.d8b4c3c12bf3be638a8000369.html>

IMGA - The International Medical Geology Association (IMGA) newsletter can be downloaded from their website at:
http://www.medicalgeology.org/pages/public/publications/page_Publications.htm

IUCr - The International Union of Crystallography newsletter site:
<http://www.iucr.org/news/newsletter>

IUGG - The International Union of Geodesy and Geophysics (IUGG) latest electronic E-Journal is at: <http://www.iugg.org/publications/ejournals/> . (NOTE the 18 July edition lists the IUGG Bureau members and Association Presidents and Secretaries General for 2011-2015)

IUGS - International Union of Geological Sciences (IUGS). To download back issues of the IUGS "Episodes" magazine see: <http://www.episodes.co.in/www/backissues.htm>. Also IUGS E-Bulletins issued since October 2002 are at: <http://iugs.org/index.php?page=e-bulletins>.

IUSS - The International Union of Soil Sciences (IUSS) Bulletin can be downloaded (PDF format) from <http://www.iuss.org> . The monthly IUSS Alert newsletter is available via the same page

OneGeology - an international initiative of the geological surveys of the world with a target of creating dynamic geological map data of the world, available to everyone via the web see:
<http://www.onegeology.org/>

ProGEO News - the newsletter of the European Association for the Conservation of the Geological Heritage can be downloaded from: <http://www.progeo.se/>

RCMNS - Bulletin of the Regional Committee on Mediterranean Neogene Stratigraphy (RCMNS) downloadable from: <http://www.geomare.na.cnr.it/>

SCAR - The Scientific Committee on Antarctic Research (SCAR) is a committee of the International Council for Science (ICSU) charged with the initiation, promotion, and co-ordination, of scientific research in Antarctica. SCAR also provides international, independent scientific advice to the Antarctic Treaty system and other bodies. To download recent SCAR Newsletters go to: <http://www.scar.org/news/newsletters/issues2011/>. For their "Antarctic Science and Policy Advice in a Changing World: SCAR Strategic Plan 2011-2016" see:
<http://www.scar.org/strategicplan2011/>

SCOPE - The Scientific Committee on Problems of the Environment (SCOPE) quarterly transdisciplinary journal "Environmental development". See:
<http://www.sciencedirect.com/science/journal/22114645>

SEPM - The Society for Sedimentary Geology (SEPM) quarterly publication The Sedimentary Record. See: <http://www.sepm.org/pages.aspx?pageid=37>

SGA - The Society for Geology Applied to Mineral Deposits (SGA) newsletters. See:
<http://www.e-sga.org>

UNESCO - The United Nations Educational, Scientific and Cultural Organization open access journal "A World of Science". See: <http://www.unesco.org/new/en/natural-sciences/resources/periodical/a-world-of-science/>

YES -The Young Earth-Scientists YES Network Newsletters :
<http://www.networkyes.org/index.php/news/>

To find information on websites and newsletters of IUGS Commissions, Task Groups, Initiatives, and Joint Programs see the IUGS website at <http://iugs.org/> or <http://iugs.org/index.php?page=directory>

FORTHCOMING MEETINGS

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 Peter Bobrowsky (at pbobrows@nrcan.gc.ca) or 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 web: <http://iugs.org/index.php?page=calendar>

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November 25-28, 2012. Geosciences 2012. The Geoscience Society of New Zealand Annual Conference. University of Waikato campus, Hamilton, New Zealand, Details at:
<http://www.gsnz.org.nz/information/conference-i-6.html>

December 4-7, 2012. National Ground Water Association (NGWA) Groundwater Expo and Annual Meeting. Las Vegas, California, USA. Theme: "Discover - Connect - Grow!" See:
<http://groundwaterexpo.com/>

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April 1-5, 2013. V Cuban Earth Science Convention and exhibition of new services, products and Technologies. Convention Palace, Havana Cuba. The convention includes topics relating to: Geological, Geophysical, Mining, Oil and Gas, and Geoinformatics. See:
<http://www.cubacienciasdelatierra.com>.
For additional information email: geociencias@mnhnc.inf.cu

May 6-12, 2013. 6th International Symposium on Gully Erosion in a Changing World. Iasi, Romania. Co-organised by IAG/AIG. Symposium website: <http://www.gullyerosion2013.com>. Circular No. 2 can be uploaded on the IAG/AIG Website: <http://www.geomorph.org>.

September 2-6, 2013. IAMG 2013 – 15th Annual Conference of the International Association for Mathematical Geosciences. Madrid, Spain. Theme: "Frontiers of Mathematical Geosciences: New approaches to understand the natural World". Details at: <http://www.igme.es/internet/iamg2013/>

September 26-29, 2013. World Gold 2013. Brisbane, Queensland, Australia. A joint biannual venture between The Australasian Institute of Mining and Metallurgy (The AusIMM), the Southern African Institute of Mining and Metallurgy (SAIMM) and the Canadian Institute of Mining, Metallurgy and Petroleum (CIM). Submission of Abstracts now open until 26 November 2012. The conference will be followed back to back by the Second AusIMM International Geometallurgy Conference 2013 (GeoMet 2013) at the same venue. Details at the website: <http://www.ausimm.com.au/worldgold2013/index.asp>

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September 15-18, 2014. IAEG X11 Congress. Torino, Italy. Theme: "Engineering Geology for Society and Territory". See: See the website at: <http://www.iaeg2014.com/>

With best regards, Hassina MOURI IUGS Councillor
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